ENGINE PERFORMANCE

Self Diagnosis - Diagnostic Trouble Codes - N55

DIAGNOSTIC TROUBLE CODES (DTC)

DIAGNOSTIC TROUBLE CODE INDEX

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DTC	Description
DTC P1638; BMW DTC 100001	Throttle valve, function: jammed briefly
DTC P1639; BMW DTC 100101	Throttle valve, function: jammed permanently
DTC P11AA; BMW DTC 100201	Throttle valve, function: sluggish, too slow
DTC P1637; BMW DTC 100210	Throttle-valve actuator, position monitoring: positional variation
DTC P110D; BMW DTC 100A02	Throttle valve, throttle potentiometer 1 and 2: Double fault
DTC P1141; BMW DTC 100C08	Throttle valve, throttle potentiometer 1: Signal implausible for air mass
DTC P1162; BMW DTC 100E08	Throttle valve, throttle potentiometer 2: Signal implausible for air mass
DTC P0123; BMW DTC 101001	Throttle valve, throttle-valve potentiometer 1, electric: short circuit to positive or open circuit
DTC P0122; BMW DTC 101002	Throttle valve, throttle-valve potentiometer 1, electric: short circuit to ground
DTC P0223; BMW DTC 101201	Throttle valve, throttle potentiometer 2, electrical: Short circuit to B+
DTC P0222; BMW DTC 101202	Throttle valve, throttle potentiometer 2, electrical: Short circuit to earth or line disconnection
DTC P1632; BMW DTC 101401	Throttle valve, adaptation: Marginal conditions not met
DTC P1633; BMW DTC 101402	Throttle valve, adaptation: emergency running position not adapted
DTC P16BC; BMW DTC 101408	Throttle valve, adaptation: Initial adaptation, lower limit position not taught in
DTC P16E6; BMW DTC 101410	Throttle valve, adaptation: Marginal conditions not met; battery voltage too low
DTC P115F; BMW DTC 101C08	Throttle valve, throttle potentiometer: plausibility Timing fault between potentiometer 1 and potentiometer 2
DTC P112F; BMW DTC 101F01	Throttle-valve angle - intake-manifold pressure, correlation: limit value exceeded
DTC P112E; BMW DTC 101F02	Throttle-valve angle - intake-manifold pressure, correlation: limit value undershot

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DTC P00BD; BMW DTC 102001	none
DTC P115D; BMW DTC 102001	none
DTC P00BC; BMW DTC 102002	none
DTC P115C; BMW DTC 102002	none
DTC P115D; BMW DTC 102010	Air-mass sensor, plausibility: air mass too high in relation to model
DTC P115C; BMW DTC 102011	Air-mass sensor, plausibility: air mass too low in relation to model
DTC P0103; BMW DTC 102610	Air-mass sensor, signal: implausible period duration, loose contact at low frequency
DTC P0102; BMW DTC 102611	Air-mass sensor, signal: implausible period duration, loose contact at high frequency
DTC P0100; BMW DTC 102612	Air-mass sensor, signal: short circuit or open circuit
DTC P00BC; BMW DTC 102801	none
DTC P0102; BMW DTC 102801	none
DTC P0100; BMW DTC 102A01	none
DTC P00BD; BMW DTC 102A02	none
DTC P0103; BMW DTC 102A02	none
DTC P2123; BMW DTC 103001	Accelerator-pedal module, pedal-travel sensor 1, electric: short circuit to positive
DTC P2122; BMW DTC 103002	Accelerator-pedal module, pedal-travel sensor 1, electric: short circuit to ground or open circuit
DTC P2128; BMW DTC 103101	Accelerator-pedal module, pedal-travel sensor 2, electric: short circuit to positive
DTC P2127; BMW DTC 103102	Accelerator-pedal module, pedal-travel sensor 2, electric: short circuit to ground or open circuit
DTC P2138; BMW DTC 103308	Accelerator-pedal module, pedal-travel sensor, plausibility: synchronism fault between signal 1 and signal 2
DTC P11C8; BMW DTC 10351C	Accelerator-pedal module, pedal-travel sensor Multiple fault
DTC P1250; BMW DTC 104301	none
DTC P12A5; BMW DTC 104301	none
DTC P1255; BMW DTC 104302	none
DTC P12A4; BMW DTC 104302	none
DTC P0108; BMW DTC 104401	none
DTC P119A; BMW DTC 104401	none
DTC P0107; BMW DTC 104402	Absolute pressure sensor, intake pipe, electrical: Short circuit to earth
DTC P119B; BMW DTC 104402	Absolute pressure sensor, intake pipe, electrical: Short circuit to earth
DTC P1250; BMW DTC 104610	Absolute-pressure sensor, intake manifold, plausibility: intake-manifold pressure too high

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DTC P1255; BMW DTC 104611	Absolute-pressure sensor, intake manifold, plausibility: intake-manifold pressure too low
DTC P119A; BMW DTC 104A40	Absolute-pressure sensor, intake manifold, electric: short circuit to positive
DTC P2229; BMW DTC 105001	Ambient-pressure sensor, electric: short circuit to positive or open circuit
DTC P2228; BMW DTC 105002	Ambient-pressure sensor, electric: short circuit to ground
DTC P11CB; BMW DTC 105101	none
DTC P0129; BMW DTC 105102	none
DTC P12B9; BMW DTC 105201	Ambient pressure sensor, overrun: Pressure too high
DTC P12B8; BMW DTC 105202	Ambient-pressure sensor, run-on: pressure too low
DTC P2227; BMW DTC 105A30	Ambient-pressure sensor: collective error: electrical and plausibility
DTC P11CB; BMW DTC 105A40	Ambient-pressure sensor, plausibility: pressure too high
DTC P0129; BMW DTC 105A41	Ambient-pressure sensor, plausibility: pressure too low
DTC P1247; BMW DTC 105A42	Ambient pressure sensor, plausibility: Pressure implausible
DTC P323C; BMW DTC 105A42	Ambient pressure sensor, plausibility: Pressure implausible
DTC P1247; BMW DTC 105A43	Ambient pressure sensor, plausibility: Pressure implausible
DTC P323C; BMW DTC 105A43	Ambient pressure sensor, plausibility: Pressure implausible
DTC P0121; BMW DTC 107A22	Throttle valve, throttle potentiometer 1: Signal implausible in relation to substitute value from filling
DTC P0223; BMW DTC 107A30	Throttle valve, throttle-valve potentiometer 2, electric: short circuit to positive or open circuit
DTC P0222; BMW DTC 107A31	Throttle valve, throttle-valve potentiometer 2, electric: short circuit to ground
DTC P0221; BMW DTC 107A32	Throttle valve, throttle-valve potentiometer 2: signal implausible in rel. to substitute value from charge
DTC P110D; BMW DTC 107A40	Throttle-valve potentiometer: throttle-valve potentiometer 1 or 2, function
DTC P169F; BMW DTC 107A50	Throttle valve: Limp-home operating mode active
DTC P2103; BMW DTC 107A70	DME, internal fault, activation of throttle valve: Short circuit
DTC P2118; BMW DTC 107A71	DME, internal fault, activation of throttle valve: Excess temperature or current too high
DTC P061F; BMW DTC 107A72	DME, internal fault, activation of throttle valve: Internal communication fault

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DTC P2100; BMW DTC 107A73	DME, internal fault, activation of throttle valve: Line disconnection
DTC P1634; BMW DTC 107A80	Throttle-valve actuator, closing spring check: abort check, spring does not close
DTC P1631; BMW DTC 107A81	Throttle-valve actuator, closing spring check: error during spring check
DTC P1629; BMW DTC 107A90	Throttle-valve actuator, opening spring check: abort check, spring does not open
DTC P1628; BMW DTC 107A91	Throttle-valve actuator, opening spring check: error during spring check
DTC P1644; BMW DTC 107AE0	Throttle valve, adaptation: Re-teach, lower limit position not taught in
DTC P1643; BMW DTC 107AF0	Throttle valve actuator, amplifier adjustment: malfunction
DTC P0113; BMW DTC 108001	Intake air temperature sensor, electrical: Short circuit to B+
DTC P0112; BMW DTC 108002	Intake-air temperature sensor, electric: short circuit to ground
DTC P0111; BMW DTC 108010	Intake-air temperature sensor, electrical: signal not plausible
DTC P007D; BMW DTC 108A01	Charge-air temperature sensor, electrical: Short circuit to B+
DTC P007C; BMW DTC 108A02	Charge-air temperature sensor, electric: short circuit to ground
DTC P007B; BMW DTC 108A10	Charge-air temperature sensor, electrical: Signal not plausible
DTC P10B0; BMW DTC 108C01	none
DTC P10B8; BMW DTC 108C08	Charge-air temperature sensor, plausibility: Signal hangs
DTC P0118; BMW DTC 109001	Coolant-temperature sensor, electric: short circuit to positive or open circuit
DTC P0117; BMW DTC 109002	Coolant-temperature sensor, electric: short circuit to ground
DTC P112B; BMW DTC 109208	none
DTC P316B; BMW DTC 109208	none
DTC P0116; BMW DTC 109308	Coolant-temperature sensor, plausibility: signal change too fast
DTC P3198; BMW DTC 109308	Coolant-temperature sensor, plausibility: signal change too fast
DTC P10D5; BMW DTC 10AA20	Coolant temperature sensor, cold start: Coolant temperature too high
DTC P10D4; BMW DTC 10AA21	Coolant temperature sensor, cold start: Coolant temperature too low
DTC P0115; BMW DTC 10AA40	Coolant-temperature sensor, electrical: no signal

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DTC P112A; BMW DTC 10AA50	Coolant-temperature sensor, plausibility: engine temperature in rel. to model implausibly too high
DTC P112B; BMW DTC 10AA51	Coolant-temperature sensor, plausibility: engine temperature in rel. to model implausibly too low
DTC P0116; BMW DTC 10AA52	Coolant-temperature sensor, plausibility: engine temperature implausible
DTC P3199; BMW DTC 10AA52	Coolant-temperature sensor, plausibility: engine temperature implausible
DTC P0073; BMW DTC 10B101	none
DTC P0072; BMW DTC 10B102	none
DTC P110F; BMW DTC 10B104	none
DTC P0073; BMW DTC 10BA20	Outside temperature sensor, signal: Upper threshold value exceeded
DTC P0072; BMW DTC 10BA21	Outside temperature sensor, signal: Lower threshold value undershot
DTC P110F; BMW DTC 10BA22	Ambient-temperature sensor, signal: CAN message incorrect
DTC P0071; BMW DTC 10BA40	Outside temperature sensor, plausibility: Ambient temperature higher than model temperature
DTC P10EA; BMW DTC 10BA40	Outside temperature sensor, plausibility: Ambient temperature higher than model temperature
DTC P0071; BMW DTC 10BA41	Outside temperature sensor, plausibility: Ambient temperature less than model temperature
DTC P10EB; BMW DTC 10BA41	Outside temperature sensor, plausibility: Ambient temperature less than model temperature
DTC P10C9; BMW DTC 10BA42	Intake-air temperature sensor, cold start: intake-air temperature too high
DTC P105D; BMW DTC 10BA43	Intake-air temperature sensor, cold start: intake-air temperature too low
DTC P0127; BMW DTC 10BA48	Intake air temperature sensor, plausibility: Intake air temperature too high
DTC P11C9; BMW DTC 10BA49	Intake air temperature sensor, plausibility: Intake air temperature too low
DTC P10D0; BMW DTC 10BA4A	Charge-air temperature sensor, cold start: charge-air temperature too high
DTC P10D1; BMW DTC 10BA4B	Charge-air temperature sensor, cold start: charge-air temperature too low
DTC P10B0; BMW DTC 10BA4F	Charge-air temperature sensor, plausibility: Charge air temperature too high
DTC P10D2; BMW DTC 10BA4F	Charge-air temperature sensor, plausibility: Charge air temperature too high
DTC P007B; BMW DTC 10C001	none
DTC P10B4; BMW DTC 10C001	none

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DTC P10D0; BMW DTC 10C004	none
DTC P10B4; BMW DTC 10C005	Charge-air temperature sensor, gradient: Rise too high
DTC P142E; BMW DTC 110001	none
DTC P306F; BMW DTC 110001	none
DTC P3149; BMW DTC 110101	Injector, cylinder 1, activation: high-voltage side; short circuit to ground
DTC P3102; BMW DTC 110102	Injector, cylinder 1, activation: low-voltage side; short circuit to positive
DTC P3150; BMW DTC 110104	Injector, cylinder 1, activation: high-voltage side; short circuit to positive
DTC P3101; BMW DTC 110108	Injector, cylinder 1, activation: low-voltage side; short circuit to ground
DTC P3152; BMW DTC 110201	Injector, cylinder 2, activation: high-voltage side; short circuit to ground
DTC P3106; BMW DTC 110202	Injector, cylinder 2, activation: low-voltage side; short circuit to positive
DTC P3153; BMW DTC 110204	Injector, cylinder 2, activation: high-voltage side; short circuit to positive
DTC P3105; BMW DTC 110208	Injector, cylinder 2, activation: low-voltage side; short circuit to ground
DTC P3155; BMW DTC 110301	Injector, cylinder 3, activation: high-voltage side; short circuit to ground
DTC P3110; BMW DTC 110302	Injector, cylinder 3, activation: low-voltage side; short circuit to positive
DTC P3156; BMW DTC 110304	Injector, cylinder 3, activation: high-voltage side; short circuit to positive
DTC P3109; BMW DTC 110308	Injector, cylinder 3, activation: low-voltage side; short circuit to ground
DTC P3158; BMW DTC 110401	Injector, cylinder 4, activation: high-voltage side; short circuit to ground
DTC P3114; BMW DTC 110402	Injector, cylinder 4, activation: low-voltage side; short circuit to positive
DTC P3159; BMW DTC 110404	Injector, cylinder 4, activation: high-voltage side; short circuit to positive
DTC P3113; BMW DTC 110408	Injector, cylinder 4, activation: low-voltage side; short circuit to ground
DTC P3161; BMW DTC 110501	Injector, cylinder 5, activation: high-voltage side; short circuit to ground
DTC P3118; BMW DTC 110502	Injector, cylinder 5, activation: low-voltage side; short circuit to positive
DTC P3162; BMW DTC 110504	Injector, cylinder 5, activation: high-voltage side; short circuit to positive
DTC P3117; BMW DTC 110508	Injector, cylinder 5, activation: low-voltage side;

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	short circuit to ground
DTC P3164; BMW DTC 110601	Injector, cylinder 6, activation: high-voltage side; short circuit to ground
DTC P3122; BMW DTC 110602	Injector, cylinder 6, activation: low-voltage side; short circuit to positive
DTC P3165; BMW DTC 110604	Injector, cylinder 6, activation: high-voltage side; short circuit to positive
DTC P3121; BMW DTC 110608	Injector, cylinder 6, activation: low-voltage side; short circuit to ground
DTC P3148; BMW DTC 111020	Injector, cylinder 1, high-voltage side, activation: coil-winding short circuit
DTC P3151; BMW DTC 111021	Injector, cylinder 2, high-voltage side, activation: coil-winding short circuit
DTC P3154; BMW DTC 111022	Injector, cylinder 3, high-voltage side, activation: coil-winding short circuit
DTC P3157; BMW DTC 111023	Injector, cylinder 4, high-voltage side, activation: coil-winding short circuit
DTC P3160; BMW DTC 111024	Injector, cylinder 5, high-voltage side, activation: coil-winding short circuit
DTC P3163; BMW DTC 111025	Injector, cylinder 6, high-voltage side, activation: coil-winding short circuit
DTC P3103; BMW DTC 111030	Injector, cylinder 1, low-voltage side, activation: booster time window
DTC P3107; BMW DTC 111031	Injector, cylinder 2, low-voltage side, activation: booster time window
DTC P3111; BMW DTC 111032	Injector, cylinder 3, low-voltage side, activation: booster time window
DTC P3115; BMW DTC 111033	Injector, cylinder 4, low-voltage side, activation: booster time window
DTC P3119; BMW DTC 111034	Injector, cylinder 5, low-voltage side, activation: booster time window
DTC P3123; BMW DTC 111035	Injector, cylinder 6, low-voltage side, activation: booster time window
DTC P3100; BMW DTC 111040	Injector, cylinder 1, low-voltage side, activation: open circuit
DTC P3104; BMW DTC 111041	Injector, cylinder 2, low-voltage side, activation: open circuit
DTC P3108; BMW DTC 111042	Injector, cylinder 3, low-voltage side, activation: open circuit
DTC P3112; BMW DTC 111043	Injector, cylinder 4, low-voltage side, activation: open circuit
DTC P3116; BMW DTC 111044	Injector, cylinder 5, low-voltage side, activation: open circuit
DTC P3120; BMW DTC 111045	Injector, cylinder 6, low-voltage side, activation:

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	open circuit
DTC P16A5; BMW DTC 111110	DME, internal fault, HDEV output-stage module 1: SPI communication faulty
DTC P16A5; BMW DTC 111111	DME, internal fault, HDEV output-stage module 2: SPI communication faulty
DTC P16A5; BMW DTC 111112	DME, internal fault, HDEV output-stage module 1: SPI communication implausible
DTC P16A5; BMW DTC 111113	DME, internal fault, HDEV output-stage module 2: SPI communication implausible
DTC P16A5; BMW DTC 111114	DME, internal fault, HDEV output-stage module 1: SPI communication, signal error
DTC P16A5; BMW DTC 111115	DME, internal fault, HDEV output-stage module 2: SPI communication, signal error
DTC P0171; BMW DTC 118001	none
DTC P2177; BMW DTC 118001	none
DTC P0172; BMW DTC 118002	none
DTC P2178; BMW DTC 118002	none
DTC P0171; BMW DTC 118401	none
DTC P306D; BMW DTC 118401	none
DTC P0172; BMW DTC 118402	none
DTC P306E; BMW DTC 118402	none
DTC P2097; BMW DTC 118601	Oxygen sensor before catalytic converter, fine mixture control: exhaust gas after catalytic converter too rich
DTC P2096; BMW DTC 118602	Oxygen sensor before catalytic converter, fine mixture control: exhaust gas after catalytic converter too lean
DTC P119D; BMW DTC 118C02	Mixture adaptation, injector ageing: cylinder bank 1: long-term adaptation too high
DTC P2187; BMW DTC 118E01	Mixture adaptation, idle: mixture too lean
DTC P2188; BMW DTC 118E02	Mixture adaptation, idle: mixture too rich
DTC P2177; BMW DTC 118F20	Mixture adaptation, lower speed range: mixture at part load too lean
DTC P2178; BMW DTC 118F21	Mixture adaptation, lower speed range: mixture at part load too rich
DTC P0193; BMW DTC 119001	Rail pressure sensor, electrical: Short circuit to B+
DTC P0192; BMW DTC 119002	Rail-pressure sensor, electric: short circuit to ground
DTC P2542; BMW DTC 119201	Fuel low-pressure sensor, electric: short circuit to positive
DTC P2541; BMW DTC 119202	Fuel low-pressure sensor, electrical: Short to earth
DTC P10CE; BMW DTC 119301	Rail-pressure sensor, voltage test: upper threshold exceeded
DTC P10CF; BMW DTC 119302	Rail-pressure sensor, voltage test: lower threshold

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	undershot
DTC P0088; BMW DTC 119304	Rail pressure sensor, plausibility: Maximum pressure exceeded
DTC P0087; BMW DTC 119308	Rail pressure sensor, plausibility: Minimum pressure undershot
DTC P10D9; BMW DTC 119404	Rail pressure sensor, plausibility: Signal frozen
DTC P0088; BMW DTC 11A001	Fuel high-pressure system, fuel pressure: maximum pressure exceeded
DTC P302A; BMW DTC 11A001	Fuel high-pressure system, fuel pressure: maximum pressure exceeded
DTC P0087; BMW DTC 11A002	Fuel high-pressure system, fuel pressure: minimum pressure undershot
DTC P302C; BMW DTC 11A002	Fuel high-pressure system, fuel pressure: minimum pressure undershot
DTC P008B; BMW DTC 11A201	none
DTC P008A; BMW DTC 11A204	none
DTC P10A2; BMW DTC 11A701	none
DTC P10A3; BMW DTC 11A702	none
DTC P306A; BMW DTC 11AA01	Fuel supply system: Pressure too high, emergency operation with low pressure
DTC P306B; BMW DTC 11AA02	Fuel supply system: Pressure too high, emergency operation with injection deactivation
DTC P306C; BMW DTC 11AA04	Fuel supply system: Pressure too high for a short time, engine speed and load are restricted
DTC P15DE; BMW DTC 11AC01	Fuel high-pressure system, cold start: pressure too high
DTC P15DF; BMW DTC 11AC02	Fuel high-pressure system, cold start: pressure too low
DTC P306F; BMW DTC 11AD10	Fuel pressure: Pressure below minimum pressure; injection deactivation for catalytic converter protection
DTC P306D; BMW DTC 11AE01	Fuel supply system, oxygen sensor emissions control: upper limit exceeded
DTC P306E; BMW DTC 11AE02	Fuel supply system, oxygen sensor emissions control: lower limit undershot
DTC P0004; BMW DTC 11C401	Fuel-supply control valve, activation: short circuit to positive
DTC P0003; BMW DTC 11C402	Fuel-supply control valve, activation: short circuit to ground
DTC P0001; BMW DTC 11C404	Fuel-supply control valve, activation: open circuit
DTC P0234; BMW DTC 120208	Charge-air pressure control, upper value: charge-air pressure too high
DTC P0299; BMW DTC 120308	Charge-air pressure control, lower value: charge-air

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	pressure too low
DTC P1260; BMW DTC 120408	Charge-air pressure control, deactivation: charge-air pressure buildup disabled
DTC P0238; BMW DTC 121001	Charge-air pressure sensor, electric: short circuit to positive
DTC P0237; BMW DTC 121002	Charge-air pressure sensor, electric: short circuit to ground
DTC P12A9; BMW DTC 121201	none
DTC P12A8; BMW DTC 121202	none
DTC P0236; BMW DTC 121521	Charging pressure sensor, multiple fault: electrical and plausibility
DTC P0234; BMW DTC 121530	Charge-air pressure sensor, plausibility: pressure before throttle valve too high
DTC P12A0; BMW DTC 121530	Charge-air pressure sensor, plausibility: pressure before throttle valve too high
DTC P0299; BMW DTC 121531	Charge-air pressure sensor, plausibility: pressure before throttle valve too low
DTC P12A1; BMW DTC 121531	Charge-air pressure sensor, plausibility: pressure before throttle valve too low
DTC P10F2; BMW DTC 121532	Boost pressure sensor, plausibility: Pressure before throttle valve too high when engine not running
DTC P12DA; BMW DTC 121532	Boost pressure sensor, plausibility: Pressure before throttle valve too high when engine not running
DTC P10F3; BMW DTC 121533	Boost pressure sensor, plausibility: Pressure before throttle valve too low when engine not running
DTC P12DB; BMW DTC 121533	Boost pressure sensor, plausibility: Pressure before throttle valve too low when engine not running
DTC P0234; BMW DTC 121601	Charge-air pressure sensor: pressure too high
DTC P12A9; BMW DTC 121601	Charge-air pressure sensor: pressure too high
DTC P0299; BMW DTC 121602	Charge-air pressure sensor: pressure too low
DTC P12A8; BMW DTC 121602	Charge-air pressure sensor: pressure too low
DTC P0035; BMW DTC 122001	Bypass blow-off valve, activation: short circuit to positive
DTC P0034; BMW DTC 122002	Bypass blow-off valve, activation: short circuit to ground
DTC P0033; BMW DTC 122004	Bypass blow-off valve, activation: open circuit
DTC P0246; BMW DTC 123001	Wastegate, activation: short circuit to positive
DTC P0245; BMW DTC 123002	Wastegate, activation: short circuit to ground
DTC P0243; BMW DTC 123004	Wastegate, activation: open circuit
DTC P2195; BMW DTC 128101	Oxygen sensor before catalytic converter, system check: Signal fixed at lean
DTC P2196; BMW DTC 128301	Oxygen sensor before catalytic converter, system check: Signal fixed at grease

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DTC P2297; BMW DTC 128501	Oxygen sensor before catalytic converter, in coasting/overrun mode: Signal outside limit value
DTC P0133; BMW DTC 128901	Oxygen sensor before catalytic converter, dynamic response: slow response
DTC P2414; BMW DTC 128B01	Oxygen sensor before catalytic converter, installation: sensor not connected
DTC P2243; BMW DTC 128E01	Oxygen sensor before catalytic converter, line fault: open circuit, nearest line
DTC P2626; BMW DTC 128E08	Oxygen sensor before catalytic converter, line fault: open circuit, compensation line
DTC P0132; BMW DTC 129001	Oxygen sensor before catalytic converter, signal lines: Short circuit to B+
DTC P0131; BMW DTC 129002	Oxygen sensor before catalytic converter, signal lines: Short circuit to earth
DTC P3024; BMW DTC 129201	DME, internal fault, oxygen sensor before catalytic converter: initialization fault
DTC P3022; BMW DTC 129202	DME, internal fault, oxygen sensor before catalytic converter: communication fault
DTC P3012; BMW DTC 129A20	DME, internal fault, oxygen sensor before catalytic converter: oxygen-sensor module, signal-circuit adaptation values too high
DTC P3014; BMW DTC 129A21	DME, internal fault, oxygen sensor before catalytic converter: oxygen-sensor module, undervoltage
DTC P2271; BMW DTC 12A101	Oxygen sensor after catalytic converter, system check: signal fixed at rich
DTC P2270; BMW DTC 12A102	Oxygen sensor after catalytic converter, system check: signal fixed at lean
DTC P013A; BMW DTC 12A308	Oxygen sensor after catalytic converter, dynamic response, from rich to lean: slow response
DTC P0138; BMW DTC 12A701	Oxygen sensor after catalytic converter, electrical: Short circuit to B+
DTC P0137; BMW DTC 12A902	Oxygen sensor after catalytic converter, electrical: Short circuit to earth
DTC P0136; BMW DTC 12AB04	Oxygen sensor after catalytic converter, electrical: Line disconnection
DTC P013E; BMW DTC 12AF08	Oxygen sensor after catalytic converter, trailing throttle, from rich to lean: delayed response
DTC P0032; BMW DTC 12B101	Oxygen-sensor heater before catalytic converter, activation: short circuit to positive
DTC P0031; BMW DTC 12B102	Oxygen-sensor heater before catalytic converter, activation: short circuit to ground
DTC P0030; BMW DTC 12B104	Oxygen-sensor heater before catalytic converter, activation: open circuit
DTC P0038; BMW DTC 12B301	Oxygen-sensor heater after catalytic converter,

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	activation: short circuit to positive
DTC P0037; BMW DTC 12B302	Oxygen-sensor heater after catalytic converter, activation: short circuit to ground
DTC P0036; BMW DTC 12B304	Oxygen-sensor heater after catalytic converter, activation: open circuit
DTC P102A; BMW DTC 12B505	Oxygen sensor heating before catalytic converter, function: Heater fault
DTC P0141; BMW DTC 12B701	Oxygen-sensor heater after catalytic converter, function: internal resistance too high
DTC P3026; BMW DTC 12BD20	Oxygen-sensor heater before catalytic converter, function: operating temperature not reached
DTC P0135; BMW DTC 12BD21	Oxygen-sensor heater before catalytic converter, function: lack of signal readiness
DTC P3016; BMW DTC 12BD22	Oxygen-sensor heater before catalytic converter, function: internal resistance of signal circuit too highly resistant
DTC P0139; BMW DTC 12BD33	Oxygen sensor after catalytic converter, ageing: voltage threshold not reached
DTC P0138; BMW DTC 12BD40	Oxygen sensor after catalytic converter, electrical: short circuit to positive
DTC P0137; BMW DTC 12BD41	Oxygen sensor after catalytic converter, electrical: intercore short circuit or oxygen sensor contaminated
DTC P0136; BMW DTC 12BD43	Oxygen sensor after catalytic converter, electrical: open circuit
DTC P3018; BMW DTC 12BD50	Oxygen sensor before catalytic converter, pump current line: lambda control value above threshold due to open pump current line
DTC P3020; BMW DTC 12BD51	Oxygen sensor before catalytic converter, pump current line: signal voltage in overrun mode too low due to open pump current line
DTC P2237; BMW DTC 12BD52	Oxygen sensor before catalytic converter, line fault: Open circuit, pump current lead
DTC P2251; BMW DTC 12BD60	Oxygen sensor before catalytic converter, line fault: Open circuit, virtual ground
DTC P0130; BMW DTC 12BD70	Oxygen sensor before catalytic converter, electrical: Nernst-cell resistance or ceramic temperature implausible, line or heater fault
DTC P2097; BMW DTC 12BD90	Oxygen sensor before catalytic converter, plausibility: mixture after catalytic converter too rich
DTC P2096; BMW DTC 12BD91	Oxygen sensor before catalytic converter, plausibility: mixture after catalytic converter too lean

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DTC P2195; BMW DTC 12BD92	Oxygen sensor before catalytic converter, plausibility: fixed at lean
DTC P2196; BMW DTC 12BD93	Oxygen sensor before catalytic converter, plausibility: fixed at rich
DTC P2089; BMW DTC 130001	VANOS solenoid valve, inlet, activation: short circuit to positive
DTC P2088; BMW DTC 130002	VANOS solenoid valve, inlet, activation: short circuit to ground
DTC P0010; BMW DTC 130004	VANOS solenoid valve, inlet, activation: open circuit
DTC P13C0; BMW DTC 130104	VANOS, inlet: control fault, camshaft jammed
DTC P0012; BMW DTC 130108	VANOS, inlet: control fault, position not reached
DTC P2091; BMW DTC 130201	VANOS solenoid valve, exhaust, activation: short circuit to positive
DTC P2090; BMW DTC 130202	VANOS solenoid valve, exhaust, activation: short circuit to ground
DTC P0013; BMW DTC 130204	VANOS solenoid valve, exhaust, activation: open circuit
DTC P13C9; BMW DTC 130304	VANOS, exhaust: control fault, camshaft jammed
DTC P0015; BMW DTC 130308	VANOS, exhaust: control fault, position not reached
DTC P0341; BMW DTC 130E11	Inlet-camshaft sensor: signal implausible
DTC P1338; BMW DTC 130E20	Inlet camshaft: offset angle to crankshaft outside tolerance
DTC P0366; BMW DTC 130F11	Exhaust-camshaft sensor: signal implausible
DTC P1339; BMW DTC 130F20	Exhaust camshaft: offset angle to crankshaft outside tolerance
DTC P054B; BMW DTC 131401	VANOS, exhaust, cold start: not controllable
DTC P052B; BMW DTC 131501	VANOS, inlet, cold start: not controllable
DTC P1325; BMW DTC 132408	VANOS, exhaust: camshaft not at locking position at start
DTC P1323; BMW DTC 132508	VANOS, inlet: camshaft not at locking position at start
DTC P10D8; BMW DTC 133101	Valvetronic relay, activation: short circuit to positive
DTC P10D7; BMW DTC 133102	Valvetronic relay, activation: short circuit to ground
DTC P10D6; BMW DTC 133104	Valvetronic relay, activation: open circuit
DTC P1047; BMW DTC 133201	Valvetronic servomotor, activation: short circuit to positive
DTC P1048; BMW DTC 133202	Valvetronic servomotor, activation: short circuit to ground
DTC P1050; BMW DTC 133208	Valvetronic servomotor, activation: open circuit
DTC P10DF; BMW DTC 133304	none
DTC P1030; BMW DTC 133B04	none

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DTC P10E8; BMW DTC 134A02	none
DTC P101A; BMW DTC 134F02	Valvetronic, adjustment range: stop not learned
DTC P1023; BMW DTC 134F04	Valvetronic, adjustment range: error, range check
DTC P1023; BMW DTC 134F08	Valvetronic, adjustment range: range check, deviation from original learning
DTC P10DF; BMW DTC 135301	Valvetronic, component protection, output stage: deactivation, system
DTC P10E0; BMW DTC 135302	Valvetronic, component protection, servomotor: deactivation, system
DTC P10E7; BMW DTC 135401	Valvetronic, overload protection: output stage overloaded
DTC P10E8; BMW DTC 135402	Valvetronic, overload protection: servomotor overloaded
DTC P1030; BMW DTC 135604	Valvetronic system: control deviation too great
DTC P10E1; BMW DTC 135608	Valvetronic system: no movement detected
DTC P10E2; BMW DTC 135808	Valvetronic servomotor, position sensors: Short-circuit or line break (open circuit)
DTC P10E6; BMW DTC 135908	Valvetronic servomotor, position sensors: Supply voltage faulty
DTC P1017; BMW DTC 135A08	Valvetronic servomotor, position sensors: Signal implausible
DTC P10F4; BMW DTC 135B10	Valvetronic servomotor, activation, voltage phase: Line disconnection
DTC P10F5; BMW DTC 135B11	Valvetronic servomotor, activation, volt phase: Line disconnection
DTC P10F6; BMW DTC 135B12	Valvetronic servomotor, activation, watt phase: Line disconnection
DTC P0478; BMW DTC 138101	Exhaust flap, activation: short circuit to positive
DTC P0477; BMW DTC 138102	Exhaust flap, activation: short circuit to ground
DTC P0475; BMW DTC 138104	Exhaust flap, activation: open circuit
DTC P303E; BMW DTC 138201	Radiator shutter, top, supply voltage, actuator: voltage fault
DTC P303F; BMW DTC 138301	Radiator shutter, top, overtemperature, actuator: limit value exceeded
DTC P304A; BMW DTC 138401	Radiator shutter, top, actuator internal: electrical fault
DTC P304B; BMW DTC 138501	Radiator shutter, top, lower stop: not detected
DTC P304C; BMW DTC 138601	Radiator shutter, top, upper stop: not detected
DTC P304D; BMW DTC 138701	Radiator shutter, top, upper stop: detected too early
DTC P300D; BMW DTC 138901	Radiator shutter, bottom, electrical: Short circuit to B+
DTC P300E; BMW DTC 138902	Radiator shutter, bottom, electrical: Short circuit to earth

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DTC P300F; BMW DTC 138904	Radiator shutter, bottom, electrical: Line disconnection
DTC P0300; BMW DTC 140001	Misfire, several cylinders: injection is cut out
DTC P0300; BMW DTC 140002	Misfire, several cylinders: damaging exhaust gas after starting
DTC P0300; BMW DTC 140004	Misfire, several cylinders: damaging exhaust gas
DTC P0301; BMW DTC 140101	Combustion misfiring, cylinder 1: Injection is switched off
DTC P0301; BMW DTC 140102	Combustion misfiring, cylinder 1: damaging exhaust gas after start sequence
DTC P0301; BMW DTC 140104	Combustion misfiring, cylinder 1: damaging exhaust gas
DTC P0302; BMW DTC 140201	Misfire, cylinder 2: injection is cut out
DTC P0302; BMW DTC 140202	Misfire, cylinder 2: damaging exhaust gas after starting
DTC P0302; BMW DTC 140204	Misfire, cylinder 2: damaging exhaust gas
DTC P0303; BMW DTC 140301	Misfire, cylinder 3: injection is cut out
DTC P0303; BMW DTC 140302	Misfire, cylinder 3: damaging exhaust gas after starting
DTC P0303; BMW DTC 140304	Misfire, cylinder 3: damaging exhaust gas
DTC P0304; BMW DTC 140401	Misfire, cylinder 4: injection is cut out
DTC P0304; BMW DTC 140402	Misfire, cylinder 4: damaging exhaust gas after starting
DTC P0304; BMW DTC 140404	Misfire, cylinder 4: damaging exhaust gas
DTC P0305; BMW DTC 140501	Misfire, cylinder 5: injection is cut out
DTC P0305; BMW DTC 140502	Misfire, cylinder 5: damaging exhaust gas after starting
DTC P0305; BMW DTC 140504	Misfire, cylinder 5: damaging exhaust gas
DTC P0306; BMW DTC 140601	Misfire, cylinder 6: injection is cut out
DTC P0306; BMW DTC 140602	Misfire, cylinder 6: damaging exhaust gas after starting
DTC P0306; BMW DTC 140604	Misfire, cylinder 6: damaging exhaust gas
DTC P1301; BMW DTC 150102	Ignition, cylinder 1: combustion duration too short
DTC P1302; BMW DTC 150202	Ignition, cylinder 2: combustion duration too short
DTC P1303; BMW DTC 150302	Ignition, cylinder 3: combustion duration too short
DTC P1304; BMW DTC 150402	Ignition, cylinder 4: combustion duration too short
DTC P1305; BMW DTC 150502	Ignition, cylinder 5: combustion duration too short
DTC P1306; BMW DTC 150602	Ignition, cylinder 6: combustion duration too short
DTC P050B; BMW DTC 151001	Ignition timing adjustment in idle, cold start Ignition timing too early
DTC P13EA; BMW DTC 151101	Ignition timing adjustment at partial load, cold start Ignition timing too early

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DTC P13A0; BMW DTC 152108	Super-knocking, cylinder 1: Injection switch-off
DTC P13A1; BMW DTC 152208	Super-knocking, cylinder 2: Injection switch-off
DTC P13A2; BMW DTC 152308	Super-knocking, cylinder 3: Injection switch-off
DTC P13A3; BMW DTC 152408	Super-knocking, cylinder 4: Injection switch-off
DTC P13A4; BMW DTC 152508	Super-knocking, cylinder 5: Injection switch-off
DTC P13A5; BMW DTC 152608	Super-knocking, cylinder 6: Injection switch-off
DTC P137F; BMW DTC 152D08	Super-knocking: Injection switch-off
DTC P0335; BMW DTC 160001	Crankshaft sensor, signal: no signal
DTC P0336; BMW DTC 160020	Crankshaft sensor: disturbed crankshaft signal
DTC P13CE; BMW DTC 160510	Crankshaft sensor, parked position: Not plausible
DTC P0343; BMW DTC 164020	Inlet-camshaft sensor: signal high
DTC P0342; BMW DTC 164021	Inlet-camshaft sensor: signal low
DTC P0368; BMW DTC 164030	Exhaust-camshaft sensor: signal high
DTC P0367; BMW DTC 164031	Exhaust-camshaft sensor: signal low
DTC P13CA; BMW DTC 164040	Inlet camshaft, mechanism: installation faulty
DTC P13CB; BMW DTC 164041	Exhaust camshaft, mechanism: installation faulty
DTC P0324; BMW DTC 168A20	Knock control, fault check: malfunction, system fault
DTC P13AF; BMW DTC 168A30	Knock sensor, electrical: signal input A, short circuit to positive
DTC P13AE; BMW DTC 168A31	Knock sensor, electrical: signal input A, short circuit to ground
DTC P13B9; BMW DTC 168A40	Knock sensor, electrical: signal input B, short circuit to positive
DTC P13B8; BMW DTC 168A41	Knock sensor, electrical: signal input B, short circuit to ground
DTC P13BF; BMW DTC 168A50	Knock sensor 2, electrical: signal input A, short circuit to positive
DTC P13BE; BMW DTC 168A51	Knock sensor 2, electrical: signal input A, short circuit to ground
DTC P13C8; BMW DTC 168A60	Knock sensor 2, electrical: signal input B, short circuit to positive
DTC P13C7; BMW DTC 168A61	Knock sensor 2, electrical: signal input B, short circuit to ground
DTC P0328; BMW DTC 168A70	Knock sensor, signal: engine mechanically too loud or KS outside tolerance (sensitivity)
DTC P0327; BMW DTC 168A71	Knock sensor, signal: electrical fault KS (loose contact) or KS loose
DTC P1328; BMW DTC 168A80	Knock sensor 2, signal: engine mechanically too loud or KS outside tolerance (sensitivity)
DTC P1327; BMW DTC 168A81	Knock sensor 2, signal: electrical fault KS (loose contact) or KS loose

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DTC P0420; BMW DTC 180001	Catalytic converter: efficiency below limit value
DTC P2420; BMW DTC 190001	DMTL solenoid valve, activation: short circuit to positive
DTC P2419; BMW DTC 190002	DMTL solenoid valve, activation: short circuit to ground
DTC P2418; BMW DTC 190004	DMTL solenoid valve, activation: open circuit
DTC P0442; BMW DTC 190201	Fuel tank ventilation system and purge air system, minor leak: Leak greater than 1.0 mm
DTC P0456; BMW DTC 190302	Fuel tank ventilation system and purge air system, micro-leak: Leak greater than 0.5 mm
DTC P1449; BMW DTC 190401	DMTL, system fault: pump current too high during reference measurement
DTC P1448; BMW DTC 190402	DMTL, system fault: pump current too low during reference measurement
DTC P1434; BMW DTC 190404	DMTL, system fault: abort due to current fluctuations during reference measurement
DTC P1447; BMW DTC 190408	DMTL, system fault: pump current reaches limit value during valve test
DTC P240C; BMW DTC 190501	DMTL, heating, activation: short circuit to positive
DTC P240B; BMW DTC 190502	DMTL, heating, activation: short circuit to ground
DTC P240A; BMW DTC 190504	DMTL, heating, activation: open circuit
DTC P2402; BMW DTC 190601	DMTL leak diagnosis pump, activation: Short circuit to B+
DTC P2401; BMW DTC 190702	DMTL leak diagnosis pump, activation: Short to earth
DTC P2400; BMW DTC 190704	DMTL leak diagnosis pump, activation: Open circuit
DTC P0459; BMW DTC 191001	Tank-venting valve, activation: short circuit to positive
DTC P0458; BMW DTC 191002	Tank-venting valve, activation: short circuit to ground
DTC P0444; BMW DTC 191004	Tank-venting valve, activation: open circuit
DTC P2421; BMW DTC 191A21	Tank-venting valve: jammed open
DTC P149C; BMW DTC 191B01	Tank safety valve shut-off valve, activation: Short circuit to B+
DTC P149B; BMW DTC 191B02	Tank safety valve shut-off valve, activation: Short circuit to earth
DTC P149A; BMW DTC 191B04	Tank safety valve shut-off valve, activation: Line disconnection
DTC P149D; 191C01	Tank safety valve shut-off valve: jammed open
DTC P0440; BMW DTC 191C02	Tank safety valve: malfunction
DTC P143F; BMW DTC 191C03	Tank safety valve, after-run: malfunction
DTC P0440; BMW DTC 191D01	Tank safety valve: malfunction

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DTC P0462; BMW DTC 193002	Fuel level sensor, left, signal: Short to earth
DTC P1407; BMW DTC 193008	Fuel level sensor, left, signal: CAN value implausible
DTC P2068; BMW DTC 193011	Fuel level sensor, right, signal: Short circuit to B+
DTC P2067; BMW DTC 193102	Fuel level sensor, right, signal: Short to earth
DTC P1408; BMW DTC 193108	Fuel level sensor, right, signal: CAN value implausible
DTC P0463; BMW DTC 193111	Fuel level sensor, left, signal: Short circuit to B+
DTC P144B; BMW DTC 193221	Fuel level sensor: Deviation between consumption and fill-level change
DTC P0692; BMW DTC 1A2001	Electric fan, activation: short circuit to positive
DTC P0691; BMW DTC 1A2002	Electric fan, activation: short circuit to ground
DTC P0480; BMW DTC 1A2004	Electric fan, activation: open circuit
DTC P14C0; BMW DTC 1A2108	Electric fan, self-diagnosis, stage 1: minor fan fault
DTC P14C0; BMW DTC 1A2308	Electric fan, self-diagnosis, stage 2: fan fault with potential danger to fan
DTC P14C0; BMW DTC 1A2408	Electric fan, self-diagnosis, stage 3: fan fault with restricted motor function
DTC P14C0; BMW DTC 1A2508	Electric fan, self-diagnosis, stage 4: serious fan fault
DTC P144E; BMW DTC 1A2601	Fuse relay, electric fan, activation: short circuit to positive
DTC P144D; BMW DTC 1A2602	Fuse relay, electric fan, activation: short circuit to ground
DTC P144C; BMW DTC 1A2604	Fuse relay, electric fan, activation: open circuit
DTC P1518; BMW DTC 1B0A20	Poor-road-surface detection: wheel speed too high
DTC P1517; BMW DTC 1B0A21	Poor-road-surface detection: no wheel-speed signal received
DTC P0503; BMW DTC 1B0A40	Vehicle speed: signal too high
DTC P152A; BMW DTC 1B0A60	Vehicle speed, plausibility: minimum speed under load not reached
DTC P152B; BMW DTC 1B0A61	Vehicle speed, plausibility: minimum speed in overrun mode not reached
DTC P0501; BMW DTC 1B0A62	Vehicle speed, plausibility: implausible speed signal
DTC P15DC; BMW DTC 1B0A64	Vehicle speed, wheel sensor rear/left, plausibility: signal implausible
DTC P15DA; BMW DTC 1B0A65	Vehicle speed, wheel sensor front/left, plausibility: signal implausible
DTC P15DD; BMW DTC 1B0A66	Vehicle speed, wheel sensor rear/right, plausibility: signal implausible
DTC P15DB; BMW DTC 1B0A67	Vehicle speed, wheel sensor front/right, plausibility: signal implausible
DTC P1667; BMW DTC 1B2002	EWS anti-tampering protection: no starting value programmed

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DTC P16CF; BMW DTC 1B2008	EWS anti-tampering protection: expected response implausible
DTC P165A; BMW DTC 1B2101	Interface EWS-DME: hardware fault
DTC P1660; BMW DTC 1B2102	Interface EWS-DME: frame fault
DTC P1661; BMW DTC 1B2104	Interface EWS-DME: timeout
DTC P165C; BMW DTC 1B2201	DME, internal fault, EWS data: no available memory possibility
DTC P165D; BMW DTC 1B2202	DME, internal fault, EWS data: fault-activation-code storage
DTC P165E; BMW DTC 1B2208	DME, internal fault, EWS data: checksum fault
DTC U1166; BMW DTC 1B2302	Message, EWS-DME, incorrect: frame fault
DTC U0167; BMW DTC 1B2304	Message, EWS-DME, incorrect: timeout
DTC P15B0; BMW DTC 1B5101	Terminal 15_3, line from CAS, electrical: short circuit to positive
DTC P15B1; BMW DTC 1B5102	Terminal 15_3, line from CAS, electrical: short circuit to ground or open circuit
DTC P15D9; BMW DTC 1B5202	Terminal 15N_1, power supply switched by CAS, electrical: Short to earth or open circuit
DTC P15ED; BMW DTC 1B5302	Terminal 15N_2, power supply switched by CAS, electrical: Short to earth or open circuit
DTC P15F8; BMW DTC 1B5402	Terminal 15N_3, power supply switched by CAS, electrical: Short to earth or open circuit
DTC P0571; BMW DTC 1B6008	Brake-light switch, plausibility: signal implausible
DTC P15E8; BMW DTC 1B9508	Engine switch-off time, plausibility: time too short in correlation to engine-coolant cooling
DTC P15E9; BMW DTC 1B9608	Engine switch-off time, plausibility: time too long in correlation to engine-coolant cooling
DTC P15FA; BMW DTC 1B9701	Engine switch-off time: too fast during engine operation
DTC P15FB; BMW DTC 1B9702	Engine switch-off time: too slow during engine operation
DTC P15FE; BMW DTC 1B9804	Engine switch-off time, signal: no signal
DTC P15FC; BMW DTC 1B9A01	Engine switch-off time: too fast during run-on
DTC P15FD; BMW DTC 1B9A02	Engine switch-off time: too slow during run-on
DTC P159E; BMW DTC 1C0001	Engine-oil pressure control, dynamic: pressure fluctuations
DTC P159F; BMW DTC 1C0101	Engine-oil pressure control, static: engine-oil pressure too high, limp-home operation
DTC P15A0; BMW DTC 1C0102	Engine-oil pressure control, static: engine-oil pressure too low, limp-home operation
DTC P15EC; BMW DTC 1C0201	Oil-pressure regulating valve, activation: short circuit to positive
DTC P15EB; BMW DTC 1C0202	Oil-pressure regulating valve, activation: short

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	circuit to ground
DTC P15EA; BMW DTC 1C0204	Oil-pressure regulating valve, activation: open circuit
DTC P15A1; BMW DTC 1C0301	Oil-pressure regulating valve, mechanical: sticks in fully energized position (minimum oil pressure)
DTC P15A2; BMW DTC 1C0302	Oil-pressure regulating valve, mechanical: sticks in non-energized position (maximum oil pressure)
DTC P15A3; BMW DTC 1C2001	Oil pump, mechanical: oil pressure too high
DTC P0524; BMW DTC 1C2002	Oil pump, mechanical: oil pressure too low
DTC P0523; BMW DTC 1C3001	Engine-oil pressure sensor, electric: short circuit to positive
DTC P0522; BMW DTC 1C3002	Engine oil pressure sensor, electrical: Short to earth
DTC P0521; BMW DTC 1C3108	Engine-oil pressure sensor, plausibility: signal hangs
DTC P250F; BMW DTC 1C4002	Engine-oil level: too low
DTC P252A; BMW DTC 1C4110	Oil-condition sensor, electrical: malfunction
DTC P1587; BMW DTC 1C4111	Oil-condition sensor, plausibility: level implausible
DTC P1586; BMW DTC 1C4112	Oil-condition sensor, plausibility: temperature implausible
DTC P1587; BMW DTC 1C4113	Oil-condition sensor, plausibility: level implausible
DTC P1586; BMW DTC 1C4115	Oil-condition sensor, plausibility: temperature implausible
DTC P1587; BMW DTC 1C4116	Oil-condition sensor, electrical: level, malfunction
DTC P1588; BMW DTC 1C4117	Oil-condition sensor, electrical: permittivity, malfunction
DTC P1586; BMW DTC 1C4118	Oil-condition sensor, electrical: temperature, malfunction
DTC P0195; BMW DTC 1C4119	Engine-oil temperature sensor, electrical: malfunction
DTC P0196; BMW DTC 1C4120	Engine-oil temperature sensor, plausibility: temperature implausible
DTC P1521; BMW DTC 1C5A20	BSD message from oil-condition sensor: no message
DTC P0128; BMW DTC 1D2008	Map thermostat, mechanical: jammed open
DTC P0599; BMW DTC 1D2401	Map thermostat, activation: short circuit to positive
DTC P0598; BMW DTC 1D2402	Map thermostat, activation: short circuit to ground
DTC P0597; BMW DTC 1D2404	Map thermostat, activation: open circuit
DTC P0507; BMW DTC 1E0001	Idle-speed control: speed too high
DTC P0506; BMW DTC 1E0002	Idle-speed control: speed too low
DTC P1562; BMW DTC 1E0101	Idle-speed control, cold start: engine speed too high
DTC P1561; BMW DTC 1E0102	Idle-speed control, cold start: engine speed too low
DTC P10E3; BMW DTC 1F0514	Valvetronic relay, supply voltage: Short to earth

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DTC P10E4; BMW DTC 1F0515	Valvetronic relay, supply voltage: Open circuit
DTC P326A; BMW DTC 1F0516	DME, internal fault, electric accelerator pedal monitoring: A/D converter idling test pulse check
DTC P326A; BMW DTC 1F0517	DME, internal fault, electric accelerator pedal monitoring: AD converter, test voltage check
DTC P326B; BMW DTC 1F0518	DME, internal fault, electric accelerator pedal monitoring: Air quantity adjustment
DTC P060D; BMW DTC 1F0519	DME, internal fault: monitoring, signal plausibilization, accelerator-pedal module or pedal-travel sensor
DTC P325C; BMW DTC 1F0520	DME, internal fault, electric accelerator pedal monitoring: Speed sensor
DTC P3237; BMW DTC 1F0521	DME, internal fault: monitoring, plausibilization of mixture-correction factors
DTC P325D; BMW DTC 1F0522	DME, internal fault: monitoring, injection-rate limitation, level 1
DTC P325D; BMW DTC 1F0523	DME, internal fault: monitoring, injection-rate limitation, level 2
DTC P3337; BMW DTC 1F0524	DME, internal fault: Monitoring of the nominal oxygen sensor value
DTC P325F; BMW DTC 1F0525	DME, internal fault: monitoring, plausibilization of relative fuel mass
DTC P061B; BMW DTC 1F0526	DME, internal fault: monitoring, torque comparison
DTC P326C; BMW DTC 1F0527	DME, internal fault, electric accelerator pedal monitoring: Drive train transmission ratio implausible
DTC P3235; BMW DTC 1F0528	DME, internal fault: monitoring, variant coding
DTC P325E; BMW DTC 1F0529	DME, internal fault, electric accelerator pedal monitoring: Ignition-timing monitoring
DTC P326D; BMW DTC 1F0530	DME, internal fault: Switch-off path test by monitoring module
DTC P325F; BMW DTC 1F0531	DME, internal fault: Plausibility monitoring, fuel mass
DTC P1646; BMW DTC 1F0532	DME, internal fault, monitoring MSC communication Malfunction in module R2S2/1
DTC P1646; BMW DTC 1F0533	DME, internal fault, monitoring MSC communication Malfunction in module R2S2/2
DTC P10E5; BMW DTC 1F0904	DME, internal fault, activation Valvetronic: malfunction
DTC P062F; BMW DTC 1F1A50	DME, internal fault: erase EEPROM faulty
DTC P062F; BMW DTC 1F1A52	DME, internal fault: write EEPROM faulty
DTC P060A; BMW DTC 1F1A60	DME, internal fault: monitoring-module fault
DTC P16EA; BMW DTC 1F1A80	DME, internal fault, watchdog output: malfunction

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DTC P16EB; BMW DTC 1F1A81	DME, internal fault, watchdog output: faulty question/answer communication
DTC P16EC; BMW DTC 1F1A82	DME, internal fault, watchdog output: overvoltage detection
DTC P16E7; BMW DTC 1F1A90	DME, internal fault, monitoring 5V sensor supply: voltage outside valid range
DTC P16E8; BMW DTC 1F1A91	DME, internal fault, monitoring 5V sensor supply 2: voltage outside valid range
DTC P16E9; BMW DTC 1F1A92	DME, internal fault, monitoring 5V sensor supply 3: voltage outside valid range
DTC P0617; BMW DTC 1F1B40	Starter, activation: short circuit to positive
DTC P0616; BMW DTC 1F1B41	Starter, activation: short circuit to ground
DTC P0615; BMW DTC 1F1B42	Starter, activation: open circuit
DTC P0687; BMW DTC 1F1B50	System voltage, DME master relay: voltage too high
DTC P3288; BMW DTC 1F2104	Incorrect data record: CAN timeout
DTC P3289; BMW DTC 1F2108	Incorrect data record: Variant monitoring
DTC P0634; BMW DTC 1F5020	DME, internal fault, interior-temperature sensor: value too high
DTC P163A; BMW DTC 1F5021	DME, internal fault, interior-temperature sensor: value too low
DTC P0634; BMW DTC 1F5101	DME temperature: Overtemperature
DTC P10DC; BMW DTC 201010	CAN hardware: Faulty
DTC P10DD; BMW DTC 201020	FlexRay hardware: Faulty
DTC P15D0; BMW DTC 20A701	Coolant pump, speed deviation: outside tolerance
DTC P15D1; BMW DTC 20A801	Coolant pump, deactivation: internal temperature too high
DTC P15D2; BMW DTC 20A802	Coolant pump, shutdown: Overvoltage detected
DTC P15D3; BMW DTC 20A804	Coolant pump, shutdown: Pump blocked
DTC P15D4; BMW DTC 20A901	Coolant pump, operation with reduced output: Dry running detected
DTC P15D5; BMW DTC 20A902	Coolant pump, operation with reduced output: Undervoltage detected
DTC P15D6; BMW DTC 20A904	Coolant pump, power-reduced operation: temperature limit 1 exceeded
DTC P15D7; BMW DTC 20A908	Coolant pump, power-reduced operation: temperature limit 2 exceeded
DTC U1170; BMW DTC 20AA04	Coolant pump, communication: malfunction
DTC P0620; BMW DTC 210201	Alternator, electric: malfunction
DTC P325A; BMW DTC 210301	Alternator, plausibility, electric: calculated
DTC P0A3B; BMW DTC 210401	Alternator, temperature: overtemperature
DTC P324C; BMW DTC 210501	Alternator, plausibility, temperature: overtemperature calculated

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DTC P3223; BMW DTC 210601	Alternator, mechanical: malfunction
DTC P324E; BMW DTC 210701	Alternator, regulator: model incorrect
DTC P324A; BMW DTC 210801	Alternator, model incorrect
DTC P160C; BMW DTC 213301	Power management: Overvoltage
DTC P160D; BMW DTC 213401	Power management: Undervoltage
DTC P160A; BMW DTC 213501	Power management: Exhaustive battery charge
DTC P160F; BMW DTC 213604	Power management: Closed-circuit current fault
DTC P160E; BMW DTC 213701	Power management: Ripple in system voltage too high
DTC P0563; BMW DTC 213A20	System voltage: voltage too high
DTC P0562; BMW DTC 213A21	System voltage: voltage too low
DTC P0560; BMW DTC 213A22	System voltage: analogue-digital converter faulty
DTC P150A; BMW DTC 215001	Intelligent battery sensor, signal: bus fault
DTC P150D; BMW DTC 215101	Intelligent battery sensor (IBS): Internal temperature measurement implausible
DTC P150E; BMW DTC 215104	Intelligent battery sensor (IBS): Internal voltage measurement implausible
DTC P150F; BMW DTC 215108	Intelligent battery sensor (IBS): Internal current measurement implausible
DTC P15CE; BMW DTC 215801	Intelligent battery sensor (IBS): Wake-up line, short circuit to B+ or earth
DTC P15CF; BMW DTC 215901	Intelligent battery sensor (IBS): Incorrect version
DTC P15C3; BMW DTC 215A01	Intelligent battery sensor (IBS): Wake-up line, line disconnection
DTC P0A16; BMW DTC 219001	Active engine mount, electric: short circuit to positive
DTC P0A15; BMW DTC 219002	Active engine mount, electric: short circuit to ground
DTC P0A14; BMW DTC 219004	Active engine mount, electric: open circuit
DTC U1190; BMW DTC 231F04	Electronic transmission control (EGS), PT-CAN, PT-CAN2: Communication fault
DTC U1169; BMW DTC 233004	No message (OBD sensor, diagnosis, status, 0x5E0, 0x8C), receiver DME, IHKA, transmitter KOMBI
DTC U1185; BMW DTC CD840A	DME/DDE PT-CAN: Communication fault
DTC U119E; BMW DTC CD8420	DME/DDE FlexRay bus: Communication fault
DTC U1184; BMW DTC CD8486	DME/DDE PT-CAN2: Communication fault
DTC U1117; BMW DTC CD9902	Message (vehicle speed, 55.3.4) not current, receiver DME/DDE, transmitter ICM
DTC U1118; BMW DTC CD9904	No message (vehicle speed, 55.3.4), receiver DME/DDE, transmitter IC
DTC U1119; BMW DTC CD9908	Message (vehicle speed, 55.3.4) checksum error, receiver DME/DDE, transmitter ICM

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DTC U11C6; BMW DTC CD9932	Message (yaw rate, vehicle, 38.0.2) alive check
DTC U0123; BMW DTC CD9933	No message (yaw rate, vehicle, 38.0.2)
DTC U11C7; BMW DTC CD9934	Message (yaw rate, vehicle, 38.0.2) checksum error
DTC U0122; BMW DTC CD9935	No message (data, driving dynamics sensor, extended, 38.0.2)
DTC U1197; BMW DTC CD9A02	Message (actual braking torque, sum, 43.3.4) not current, receiver DME/DDE, transmitter DSC
DTC U1198; BMW DTC CD9A04	No message (actual braking torque, sum, 43.3.4), receiver DME/DDE, transmitter DSC
DTC U1199; BMW DTC CD9A08	Message (actual braking torque, sum, 43.3.4) checksum error, receiver DME/DDE, transmitter DSC
DTC U1195; BMW DTC CD9B02	Message (actual wheel speed, 46.0.1) not current, receiver DME/DDE, transmitter DSC
DTC U116D; BMW DTC CD9B04	No message (actual wheel speed, 46.0.1), receiver DME/DDE, transmitter DSC
DTC U1196; BMW DTC CD9B08	Message (actual wheel speed, 46.0.1) checksum error, receiver DME/DDE, transmitter DSC
DTC U1125; BMW DTC CD9F02	Message (Dynamic Stability Control stabilization, 47.1.2) not current, receiver DME/DDE, transmitter DSC
DTC U1126; BMW DTC CD9F04	No message (Dynamic Stability Control stabilization, 47.1.2), receiver DME/DDE, transmitter DSC
DTC U1127; BMW DTC CD9F08	Message (Dynamic Stability Control stabilization, 47.1.2) checksum error, receiver DME/DDE, transmitter DSC
DTC U1101; BMW DTC CDA804	No message (relative time, 0x328), receiver DME/DDE, transmitter KOMBI
DTC U0137; BMW DTC CDA904	No message (status, trailer, 0x2E4), receiver DME/DDE, transmitter AH
DTC U1129; BMW DTC CDAB04	No message (reverse gear, 0x3B0), receiver DME/DDE, transmitter FRM, FEM
DTC U11A5; BMW DTC CDAC04	No message (status, transmission control unit, 0x39A), receiver DME/DDE, transmitter EGS
DTC U112D; BMW DTC CDAD04	No message (control, crash shutdown, electric fuel pump, 0x135), receiver DME/DDE, transmitter ACSM
DTC U113C; BMW DTC CDAE04	No message (time display, 0x2F8), receiver DME/DDE, transmitter KOMB
DTC U113A; BMW DTC CDAF04	No message (central locking and lid status, 0x2FC), receiver DME/DDE, transmitter CAS, FEM
DTC U119B; BMW DTC CDB204	No message (ambient temperature, 0x2CA), receiver DME/DDE, transmitter KOMBI

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DTC U111C; BMW DTC CDB504	No message (kilometer reading / range, 0x330), receiver DME/DDE, transmitter KOMBI
DTC U111D; BMW DTC CDB602	Message (terminals, 0x12F) not current, receiver DME/DDE, transmitter CAS
DTC U111E; BMW DTC CDB604	No message (terminals, 0x12F), receiver DME/DDE, transmitter CAS, FEM
DTC U111F; BMW DTC CDB608	Message (terminals, 0x12F) checksum error, receiver DME/DDE, transmitter CAS
DTC U11A7; BMW DTC CDB904	No message (diagnosis, OBD gearbox, 0x396), receiver DME/DDE, transmitter DKG, EGS
DTC U11B3; BMW DTC CDBB02	Message (request, torque, crankshaft, gearbox 2, 0xA0) not current, receiver DME/DDE, transmitter DKG, EGS
DTC U11B4; BMW DTC CDBB04	No message (request, torque, crankshaft, gearbox 2, 0xA0), receiver DME/DDE, transmitter DKG, EGS
DTC U11B5; BMW DTC CDBB08	Message (request, torque, crankshaft, gearbox 2, 0xA0) checksum error, receiver DME/DDE, transmitter DKG, EGS
DTC U11A6; BMW DTC CDBF04	No message (status, transmission control unit, 0x39A), receiver DME/DDE, transmitter DKG, EGS
DTC U11A4; BMW DTC CDC004	No message (diagnosis, OBD gearbox, 0x396), receiver DME/DDE, transmitter DKG, EGS
DTC U11A1; BMW DTC CDC102	Message (data, transmission line, 0x1AF) not current, receiver DME/DDE, transmitter DKG, EGS
DTC U11A2; BMW DTC CDC104	No message (data, transmission line, 0x1AF), receiver DME/DDE, transmitter DKG, EGS
DTC U11A3; BMW DTC CDC108	Message (data, transmission line, 0x1AF) checksum error, receiver DME/DDE, transmitter DKG, EGS
DTC U11AD; BMW DTC CDC202	Message (request, torque, crankshaft, EGS, 0x0B0) not current, receiver DME/DDE, transmitter DKG, EGS
DTC U11AE; BMW DTC CDC204	No message (request, torque, crankshaft, EGS, 0x0B0), receiver DME/DDE, transmitter DKG, EGS
DTC U11AF; BMW DTC CDC208	Message (request, torque, crankshaft, EGS, 0x0B0) checksum error, receiver DME/DDE, transmitter DKG, EGS
DTC U1128; BMW DTC CDC304	No message (status, electric fuel pump, 335), receiver DME/DDE, transmitter EKP

DTC P1638; BMW DTC 100001: THROTTLE VALVE, FUNCTION: JAMMED BRIEFLY

Information saved in

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DME

Fault code

100001 - P1638

Fault description

The diagnostic function monitors the throttle valve control signal for excessively high figures that would indicate that the throttle valve is sticking or seizing.

Condition for fault identification

Test condition:

This fault is logged and the throttle valve is deactivated when the PWM signal used to control the throttle valve remains above 80% for longer than 5 sec.

Potential problem source(s):

- Throttle valve moves stiffly, sticking, contaminated
- Defect in wiring harness between throttle-valve actuator motor and DME
- Defective throttle-valve actuator motor

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Active control signal to throttle valve

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

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- Use tester to activate throttle valve and observe repositioning speed
- Check wiring harness between DME and throttle valve
- Visual inspection of throttle valve and air-induction system for contamination
- Move the throttle valve manually to determine whether it progresses throughout its entire travel range freely without excess resistance
- Replace throttle valve

Fault effect and breakdown warning

Breakdown notice:

Ability to continue driving is restricted because engine speed is limited to roughly 1300 RPM.

Possible apparent symptoms:

- Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

none

DTC P1639; BMW DTC 100101: THROTTLE VALVE, FUNCTION: JAMMED PERMANENTLY

Information saved in

DME

Fault code

100101 - P1639

Fault description

The diagnostic function checks the throttle valve's control signal for excessively high figures that would

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indicate that the throttle valve is seizing.

Condition for fault identification

Test condition:

This fault is entered when the PWM signal used to control the throttle valve remains above 80% for longer than 0.6 sec.

Potential problem source(s):

- Throttle valve moves stiffly, sticking, contaminated
- Defect in wiring harness between throttle-valve actuator motor and DME
- Defective throttle-valve actuator motor

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Active control signal to throttle valve

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Use tester to activate throttle valve and observe repositioning speed
- Check wiring harness between DME and throttle valve
- Visual inspection of throttle valve and air-induction system for contamination
- Move the throttle valve manually to determine whether it progresses throughout its entire travel range freely without excess resistance
- Replace throttle-valve actuator motor

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Fault effect and breakdown warning

Breakdown notice:

Ability to continue driving is restricted because engine speed is limited to roughly 1300 RPM.

Possible apparent symptoms:

- Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

none

DTC P11AA; BMW DTC 100201: THROTTLE VALVE, FUNCTION: SLUGGISH, TOO SLOW

Information saved in

DME

Fault code

100201 - P11AA

Fault description

The diagnostic function monitors the difference between specified and actual throttle-valve values. If this figure remains too high for a specified period, a fault is recognized and the throttle valve is deactivated.

Condition for fault identification

Test condition:

The diagnostic fault code is logged when the difference between the specified and the actual value is greater than the characteristic curve over throttle-valve gradient (4% - 50%).

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Potential problem source(s):

- Friction in throttle valve
- Defect in wiring harness between throttle-valve actuator motor and DME
- Defective throttle-valve actuator motor

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Active control signal to throttle valve

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and throttle valve
- Use tester to activate throttle valve and observe its reaction
- Check throttle valve for contamination and foreign objects
- Move throttle valve by hand, checking for resistance to motion and noting how quickly it closes when released
- Replace throttle-valve actuator motor

Fault effect and breakdown warning

Breakdown notice:

Ability to continue driving is restricted because engine speed is limited to roughly 1300 RPM.

Possible apparent symptoms:

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- Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

none

DTC P1637; BMW DTC 100210: THROTTLE-VALVE ACTUATOR, POSITION MONITORING: POSITIONAL VARIATION

Information saved in

DME

Fault code

100210 - P1637

Fault description

The diagnostic function monitors the difference between specified and actual throttle-valve values. If this figure remains too high for a specified period, a fault is recognized and the throttle valve is deactivated.

Condition for fault identification

Test condition:

The diagnostic fault code is logged when the difference between the specified and the actual value is greater than the characteristic curve over throttle-valve gradient (4% - 50%).

Potential problem source(s):

- Friction in throttle valve
- Defect in wiring harness between throttle-valve actuator motor and DME
- Defective throttle-valve actuator motor

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Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Active control signal to throttle valve

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and throttle valve
- Use tester to activate throttle valve and observe its reaction
- Check throttle valve for contamination and foreign objects
- Move throttle valve by hand, checking for resistance to motion and noting how quickly it closes when released
- Replace throttle-valve actuator motor

Fault effect and breakdown warning

Breakdown notice:

Ability to continue driving is restricted because engine speed is limited to roughly 1300 RPM.

Possible apparent symptoms:

- Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: on

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- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

none

DTC P110D; BMW DTC 100A02: THROTTLE VALVE, THROTTLE POTENTIOMETER 1 AND 2: DOUBLE FAULT

Information saved in

DME

Fault code

100A02 - P110D

Fault description

Collective fault: Throttle valve.

Condition for fault identification

Test condition:

The fault is recognized when another fault related to the throttle valve (L4: 10404, 10405, 10406, 10408, 10409, 10410, 10432, 10433, 10004, 10000, 10001; L6: 0x101001, 0x101002, 0x107A22, 0x107A30, 0x107A31, 0x107A32, 0x107A80, 0x107A81, 0x107A90, 0x107A91, 0x100210) is present.

Potential problem source(s):

- Additional throttle valve error path at one or both throttle-valve potentiometers
- The diagnostic fault code is entered together with faults for the throttle-valve potentiometer 1 and/or 2, position controller faults, or faults detected during the spring test

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

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- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

Depends on original fault source (min. 0.14 sec., max. 0.6 sec.

Action in service

- Composite fault
- Seek original source fault for throttle valve in ECU fault memory (L4: 10404, 10405, 10406, 10408, 10409, 10410, 10432, 10433, 10004, 10000, 10001; L6: 0x101001, 0x101002, 0x107A22, 0x107A30, 0x107A31, 0x107A32, 0x107A80, 0x107A81, 0x107A90, 0x107A91, 0x100210) and repair it using test plan

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to the reduction in engine output.

Possible apparent symptoms:

- Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

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none

DTC P1141; BMW DTC 100C08: THROTTLE VALVE, THROTTLE POTENTIOMETER 1: SIGNAL IMPLAUSIBLE FOR AIR MASS

Information saved in

DME

Fault code

100C08 - P1141

Fault description

When a single fault occurs at the throttle valve, the diagnostic function monitors the operation of the remaining sensor. The deviation in the sensor signal is plausibilized against the default value from air mass.

Condition for fault identification

Test condition:

The fault is recognized when a defect at sensor 2 or a clocking error [deviation between sensor 1 and sensor 2 > 6.3% throttle valve] is detected and comparison between sensor 1 and default value is greater than 14.9%.

Potential problem source(s):

- Defect in wiring harness between throttle-valve actuator motor and DME
- Throttle-valve sensor defective
- AD converter input on DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

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- none

Condition for fault memory entry

This fault is logged in the ECU fault memory immediately.

0.28 sec.

Action in service

- Check wiring harness between DME and throttle valve
- Replace throttle valve
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to the reduction in engine output.

Possible apparent symptoms:

- Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

none

DTC P1162; BMW DTC 100E08: THROTTLE VALVE, THROTTLE POTENTIOMETER 2: SIGNAL IMPLAUSIBLE FOR AIR MASS

Information saved in

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DME

Fault code

100E08 - P1162

Fault description

When a single fault occurs at the throttle valve, the diagnostic function monitors the operation of the remaining sensor. The deviation in the sensor signal is plausibilized against the default value from air mass.

Condition for fault identification

Test condition:

The fault is recognized when a defect at sensor 1 or a clocking error [deviation between sensor 1 and sensor 2 > 6.3% throttle valve] is detected and comparison between sensor 2 and default value is greater than 14.9%.

Potential problem source(s):

- Defect in wiring harness between throttle-valve actuator motor and DME
- Throttle-valve sensor defective
- AD converter input in DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

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- Check wiring harness between DME and throttle valve
- Replace throttle valve
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to the reduction in engine output.

Possible apparent symptoms:

- Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

none

DTC P0123; BMW DTC 101001: THROTTLE VALVE, THROTTLE-VALVE POTENTIOMETER 1, ELECTRIC: SHORT CIRCUIT TO POSITIVE OR OPEN CIRCUIT

Information saved in

DME

Fault code

101001 - P0123

Fault description

The diagnostic function checks the signal from throttle valve actuator 1 for electrical faults.

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Condition for fault identification

Test condition:

The fault is recognized when the signal from throttle valve sensor 1 rises above the fault threshold of 4.75 V.

Potential problem source(s):

- Defect in wiring harness between throttle-valve actuator motor and DME
- Throttle-valve sensor defective
- AD converter input in DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and throttle valve
- Replace throttle valve
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to the reduction in engine output.

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Possible apparent symptoms:

- Reduced power

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on

MY10 US 01/10:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

MY10 US 03/10:

- US emissions warning lamp: off
- US electronic engine power reduction: on
- CC message: on

Service instruction

none

DTC P0122; BMW DTC 101002: THROTTLE VALVE, THROTTLE-VALVE POTENTIOMETER 1, ELECTRIC: SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

101002 - P0122

Fault description

The diagnostic function checks the signal from throttle valve actuator 1 for electrical faults.

Condition for fault identification

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Test condition:

The fault is recognized when the signal from throttle valve sensor 1 falls below the fault threshold of 0.22 V.

Potential problem source(s):

- Defect in wiring harness between throttle-valve actuator motor and DME
- Throttle-valve sensor defective
- AD converter input in DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and throttle valve
- Replace throttle valve
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to the reduction in engine output.

Possible apparent symptoms:

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- Reduced power

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on

MY10 US 01/10:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

MY10 US 03/10:

- US emissions warning lamp: off
- US electronic engine power reduction: on
- CC message: on

Service instruction

none

DTC P0223; BMW DTC 101201: THROTTLE VALVE, THROTTLE POTENTIOMETER 2, ELECTRICAL: SHORT CIRCUIT TO B+

Information saved in

DME

Fault code

101201 - P0223

Fault description

The diagnostic function checks the voltage of throttle valve sensor 2 for electrical faults.

Condition for fault identification

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Test condition:

The fault is recognized when the signal from throttle valve sensor 2 rises above the fault threshold of 4.77 V.

Potential problem source(s):

- Defect in wiring harness between throttle-valve actuator motor and DME
- Throttle-valve sensor defective
- AD converter input in DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and throttle valve
- Replace throttle valve
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to the reduction in engine output.

Possible apparent symptoms:

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- Reduced power

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on

MY10 US 01/10:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

MY10 US 03/10:

- US emissions warning lamp: off
- US electronic engine power reduction: on
- CC message: on

Service instruction

none

DTC P0222; BMW DTC 101202: THROTTLE VALVE, THROTTLE POTENTIOMETER 2, ELECTRICAL: SHORT CIRCUIT TO EARTH OR LINE DISCONNECTION

Information saved in

DME

Fault code

101202 - P0222

Fault description

The diagnostic function checks the voltage of throttle valve sensor 2 for electrical faults.

Condition for fault identification

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Test condition:

The fault is recognized when the signal from throttle valve sensor 2 falls below the fault threshold of 0.22 V.

Potential problem source(s):

- Defect in wiring harness between throttle-valve actuator motor and DME
- Throttle-valve sensor defective
- AD converter input in DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and throttle valve
- Replace throttle valve
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to the reduction in engine output.

Possible apparent symptoms:

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- Reduced power

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on

MY10 US 01/10:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

MY10 US 03/10:

- US emissions warning lamp: off
- US electronic engine power reduction: on
- CC message: on

Service instruction

none

DTC P1632; BMW DTC 101401: THROTTLE VALVE, ADAPTATION: MARGINAL CONDITIONS NOT MET

Information saved in

DME

Fault code

101401 - P1632

Fault description

During the throttle valve adaptation the diagnostic function monitors compliance with the prescribed process conditions.

Condition for fault identification

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Test condition:

Learning routine for lower mechanical travel stop aborted owing to low battery voltage (< 10 V).

Potential problem source(s):

- Fault code entry is for information only
- Throttle-valve adaptation aborted in response to low onboard electrical system voltage

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- 30 sec. after Terminal 15 on

Other conditions:

- Engine on
- Vehicle velocity = 0 km/h

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check battery voltage (> 10 V), Terminal 15 off -> Terminal 15 on -> Wait 1 min
- Provided that the voltage condition has been met the fault should not occur again
- Component replacement based on this fault is not necessary!

Fault effect and breakdown warning

Breakdown notice:

Ability to continue driving is restricted because engine speed is limited to roughly 1300 RPM.

Possible apparent symptoms:

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- Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

none

DTC P1633; BMW DTC 101402: THROTTLE VALVE, ADAPTATION: EMERGENCY RUNNING POSITION NOT ADAPTED

Information saved in

DME

Fault code

101402 - P1633

Fault description

The diagnostic function monitors the throttle valve to determine whether it is at the emergency air position (open at angle of roughly 7.6°) when no voltage is applied.

Condition for fault identification

Test condition:

The fault is recognized when the values for the emergency air point are determined to be less than 1.8% or larger than 16% during the adaptation process.

Potential problem source(s):

- Defect in wiring harness between throttle-valve actuator motor and DME
- Dirt/contamination on throttle valve
- Throttle valve seized in open or fully-closed position

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- Defective throttle-valve actuator motor

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- 30 sec. after Terminal 15 on

Other conditions:

- Engine on
- Vehicle velocity = 0 km/h

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Determine whether throttle valve is open to an aperture of roughly 8° (almost closed) when no voltage is applied, check measured data in tester (sensor 1 and 2 voltage, throttle-valve angle)
- Visual inspection of throttle valve and air-induction system for contamination
- Check wiring harness between DME and throttle valve
- Replace throttle-valve actuator motor

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to the reduction in engine output.

Possible apparent symptoms:

- Reduced power

Driver information

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Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

none

DTC P16BC; BMW DTC 101408: THROTTLE VALVE, ADAPTATION: INITIAL ADAPTATION, LOWER LIMIT POSITION NOT TAUGHT IN

Information saved in

DME

Fault code

101408 - P16BC

Fault description

The diagnostic function monitors the throttle valve to determine whether it reaches the lower mechanical travel stop (UMA) during a repeat throttle-valve adaptation routine (after roughly 30 sec. Terminal 15 without engine start).

Condition for fault identification

Test condition:

The fault is recognized when the limits specified for the signal voltages (sensor 1 signal voltage < 0.27 V, sensor 2 > 4.73 V) are violated during the repeat adaptation routine (roughly 30 sec. at Terminal 15 without engine start) or the mutual deviation between the sum voltages for sensors 1 and 2 of 5 V is more than X V.

Potential problem source(s):

- Fault during repeat initialization attempt; lower mechanical travel limit range violation:;

  1.a. Travel stop dirty,
  1.b. Foreign object/matter
  1.c. Sporadic contact resistance

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1.d. Defective throttle valve

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- 30 sec. after Terminal 15 on

Other conditions:

- Engine on
- Vehicle velocity = 0 km/h

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

1. Clear ECU fault memory? Ignition off? Ignition on for at least 1 minute
2. If fault remains:
   2.a. Check wiring harness DME - throttle valve (sum of throttle-valve voltages must equal 5 V)
   2.b. Check to determine whether foreign objects/matter in the intake manifold or at the throttle valve are preventing the throttle valve from closing
   2.c. Completely close the throttle valve by hand and measures the voltages on the two sensors (S1: 0.5 V +/- tolerance, S2: 4.5 V +/- tolerance)
3. Replace throttle valve

Fault effect and breakdown warning

Breakdown notice:

Ability to continue driving is restricted because engine speed is limited to roughly 1300 RPM.

Possible apparent symptoms:

- Reduced power

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Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

none

DTC P16E6; BMW DTC 101410: THROTTLE VALVE, ADAPTATION: MARGINAL CONDITIONS NOT MET; BATTERY VOLTAGE TOO LOW

Information saved in

DME

Fault code

101410 - P16E6

Fault description

The diagnostic function monitors the throttle valve to determine whether it reaches the lower mechanical travel stop (UMA) during the initial adaptation.

Condition for fault identification

Test condition:

The fault is recognized when the limits for the approved signal voltages (signal voltage sensor 1 < 0.27 V, sensor 2 > 4.73 V) are violated during the initial adaptation, or when the deviation of the sum voltage of sensor 1 and sensor 2 of 5 V exceeds X V.

Potential problem source(s):

- Fault during initial initialization attempt; lower mechanical travel stop range violation:
- Dirt/contamination on travel stop
- Foreign matter/object(s)
- Sporadic contact resistance

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- Defective throttle valve

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- 30 sec. after Terminal 15 on

Other conditions:

- Engine on
- Vehicle velocity = 0 km/h

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Clear ECU fault memory? Ignition off? Ignition on for at least 1 minute
- If fault is still present:
- Check wiring harness DME - throttle valve (sum of throttle valve voltages must equal 5 V)
- Inspect to determine whether any objects are present in the intake manifold or within the throttle valve's travel range
- Completely close the throttle valve by hand and measures the voltages on the two sensors (S1: 0.5 V +/- tolerance, S2: 4.5 V +/- tolerance)
- Replace throttle valve

Fault effect and breakdown warning

Breakdown notice:

Ability to continue driving is restricted because engine speed is limited to roughly 1300 RPM.

Possible apparent symptoms:

- Reduced power

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Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

none

DTC P115F; BMW DTC 101C08: THROTTLE VALVE, THROTTLE POTENTIOMETER: PLAUSIBILITY TIMING FAULT BETWEEN POTENTIOMETER 1 AND POTENTIOMETER 2

Information saved in

DME

Fault code

101C08 - P115F

Fault description

The diagnostic function monitors the mutual deviation between the two sensor voltages.

Condition for fault identification

Test condition:

If the deviation in the two voltages from sensors 1 and 2 exceeds a value defined in the application (characteristic curve) the fault is recognized.

Potential problem source(s):

- Defect in wiring harness between throttle valve potentiometer and DME
- Throttle valve potentiometer defective

Terminal condition: Terminal 15

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between throttle valve potentiometer and DME
- Replace throttle valve potentiometer

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to the reduction in engine output.

Possible apparent symptoms:

- Limit on pedal value variation and on maximum absolute value (34.5% pedal)
- In combination with fault in accelerator pedal sensor 1 and/or 2, increased idle speed and no processing of accelerator pedal data

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: on
- US electronic engine power reduction: on

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- CC message: on

Service instruction

None

DTC P112F; BMW DTC 101F01: THROTTLE-VALVE ANGLE - INTAKE-MANIFOLD PRESSURE, CORRELATION: LIMIT VALUE EXCEEDED

Information saved in

DME

Fault code

101F01 - P112F

Fault description

The diagnostic function monitors the throttle valve aperture and the current intake manifold pressure reading to determine whether they are mutually plausible.

Condition for fault identification

Test condition:

The fault is recognized when the relationship between the indicated intake manifold pressure and the mass airflow calculated based on throttle-valve angle is not correct.

Potential problem source(s):

- Measured value for intake manifold pressure (absolute) too high
- Vacuum leak within induction tract/crankcase
- Incorrect throttle-valve angle
- Pressure sensor defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- 30°C < intake-air temperature < 120°C
- -30°C < coolant temperature

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Time condition:

- None

Other conditions:

- Engine on
- Pressure drop at throttle valve exceeds 18 hPa
- 745hPa < barometric pressure
- 500 RPM < engine speed < 7000 RPM
- 133 RPM < dynamic RPM response (RPM window)
- 7.7% < dynamic load response (load window)

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check intake system and crankcase for leakage
- Check throttle valve (contamination, carbon deposits, icing)
- Check plug and wiring harness between intake-manifold pressure sensor and DME
- Check plug, wiring harness at electric throttle-valve actuator
- Replace pressure sensor
- Replace throttle valve

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- none

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off

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- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P112E; BMW DTC 101F02: THROTTLE-VALVE ANGLE - INTAKE-MANIFOLD PRESSURE, CORRELATION: LIMIT VALUE UNDERSHOT

Information saved in

DME

Fault code

101F02 - P112E

Fault description

The diagnostic function monitors the throttle valve aperture and the current intake manifold pressure reading to determine whether they are mutually plausible.

Condition for fault identification

Test condition:

The fault is recognized when the relationship between the indicated intake manifold pressure and the mass airflow calculated based on throttle-valve angle is not correct.

Potential problem source(s):

- Measured value for intake manifold pressure (absolute) is too low
- Defective plug or wiring harness
- Vacuum leak within induction tract/crankcase
- Incorrect throttle-valve angle
- Pressure sensor defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

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- None

Time condition:

- None

Other conditions:

- Engine on
- Pressure drop at throttle valve exceeds 18 hPa

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check intake system and crankcase for leakage
- Check throttle valve (contamination, carbon deposits, icing)
- Check wiring harness between intake-manifold pressure sensor and DME
- Check plug, wiring harness at electric throttle-valve actuator
- Replace pressure sensor
- Replace throttle valve

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- none

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

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Service instruction

None

DTC P00BD; BMW DTC 102001: NONE

Information saved in

DME

Fault code

102001 - P00BD

Fault description

Mass or Volume Air Flow 'A' Circuit Range/Performance - Air Flow Too High

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P115D; BMW DTC 102001: NONE

Information saved in

DME

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Fault code

102001 - P115D

Fault description

Mass or Volume Air Flow 'A' Air Mass Too High Compared to Model

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P00BC; BMW DTC 102002: NONE

Information saved in

DME

Fault code

102002 - P00BC

Fault description

Mass or Volume Air Flow 'A' Circuit Range/Performance - Air Flow Too Low

Condition for fault identification

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none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P115C; BMW DTC 102002: NONE

Information saved in

DME

Fault code

102002 - P115C

Fault description

Mass or Volume Air Flow 'A' Air Mass Too Low Compared to Model

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

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Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P115D; BMW DTC 102010: AIR-MASS SENSOR, PLAUSIBILITY: AIR MASS TOO HIGH IN RELATION TO MODEL

Information saved in

DME

Fault code

102010 - P115D

Fault description

The diagnostic function compares the calculated air mass with the measured air mass.

Condition for fault identification

Test condition:

The fault is recognized when the calculated air mass deviates too starkly from the measured air mass.

Potential problem source(s):

- Collateral fault caused by other components in the intake system, Valvetronic, turbocharger
- Intake system leaking
- HFM defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

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- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- If other diagnostic fault codes related to components in the induction tract, Valvetronic or turbocharger have been logged, then process these first (collateral faults)
- Check intake system for leaks
- Replace HFM

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- none

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

- none

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DTC P115C; BMW DTC 102011: AIR-MASS SENSOR, PLAUSIBILITY: AIR MASS TOO LOW IN RELATION TO MODEL

Information saved in

DME

Fault code

102011 - P115C

Fault description

The diagnostic function compares the air mass calculated from the model with the measured air mass.

Condition for fault identification

Test condition:

The fault is recognized when the indicated air mass does not correlate with the calculated mass airflow rate.

Potential problem source(s):

- Defective HFM, problem with airflow to HFM, clean air tube fallen off intake air noise attenuator
- Leak within induction tract on engine-side of throttle valve (leaks in vicinity of intake air plenum chamber, open oil filler cap)
- Malfunction in components affecting airflow (valve lift monitoring, position of VANOS, throttle valve, pressure sensors....)
- Compressor bypass valve stuck in open position (accompanied by low boost pressure malfunction)
- Severely contaminated air filter

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- 30°C < intake-air temperature < 120°C
- -30°C < coolant temperature

Time condition:

- None

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Other conditions:

- Engine on
- Pressure drop at throttle valve exceeds 18 hPa
- 745hPa < barometric pressure
- 500 RPM < engine speed < 7000 RPM
- 133 RPM < dynamic RPM response (RPM window)
- 7.7% < dynamic load response (load window)

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness on HFM
- Check intake system for leaks on engine side of throttle valve
- Seal on oil filler cap is defective
- Problem with airflow to HFM (air filter insert is defective or installed incorrectly)
- Replace HFM

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

If the HFM is recognized as defective it is deactivated, following jerk during deactivation owing to lambda error no limitations

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

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none

DTC P0103; BMW DTC 102610: AIR-MASS SENSOR, SIGNAL: IMPLAUSIBLE PERIOD DURATION, LOOSE CONTACT AT LOW FREQUENCY

Information saved in

DME

Fault code

102610 - P0103

Fault description

The diagnostic function monitors the upper limit of the digital HFM signal's period duration.

Condition for fault identification

Test condition:

This fault is recognized when the period duration of the HFM signal exceeds 640 µs.

Potential problem source(s):

- Defect in wiring harness between HFM and DME
- Mass-airflow sensor defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

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Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and mass-airflow sensor
- Replace mass-airflow sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Engine runs roughly

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0102; BMW DTC 102611: AIR-MASS SENSOR, SIGNAL: IMPLAUSIBLE PERIOD DURATION, LOOSE CONTACT AT HIGH FREQUENCY

Information saved in

DME

Fault code

102611 - P0102

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Air-mass sensor, signal: implausible period duration, loose contact at high frequency

Fault description

The diagnostic function monitors the lower limit of the digital HFM signal's period duration.

Condition for fault identification

Test condition:

This fault is recognized when the period duration of the HFM signal is less than 84 µs.

Potential problem source(s):

- Defect in wiring harness between HFM and DME
- Mass-airflow sensor defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and mass-airflow sensor
- Replace mass-airflow sensor
- Replace DME

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Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Engine runs roughly

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0100; BMW DTC 102612: AIR-MASS SENSOR, SIGNAL: SHORT CIRCUIT OR OPEN CIRCUIT

Information saved in

DME

Fault code

102612 - P0100

Fault description

The diagnostic function determines whether a digital signal from the HFM is present.

Condition for fault identification

Test condition:

This fault is recognized when the period duration of the HFM signal is zero.

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Potential problem source(s):

- Defect in wiring harness between HFM and DME
- Mass-airflow sensor defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and mass-airflow sensor
- Replace mass-airflow sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Engine runs roughly

Driver information

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Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P00BC; BMW DTC 102801: NONE

Information saved in

DME

Fault code

102801 - P00BC

Fault description

Mass or Volume Air Flow 'A' Circuit Range/Performance - Air Flow Too Low

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

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Service instruction

none

DTC P0102; BMW DTC 102801: NONE

Information saved in

DME

Fault code

102801 - P0102

Fault description

Mass or Volume Air Flow Sensor 'A' Circuit Low

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P0100; BMW DTC 102A01: NONE

Information saved in

DME

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Fault code

102A01 - P0100

Fault description

Mass or Volume Air Flow Sensor 'A' Circuit

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P00BD; BMW DTC 102A02: NONE

Information saved in

DME

Fault code

102A02 - P00BD

Fault description

Mass or Volume Air Flow 'A' Circuit Range/Performance - Air Flow Too High

Condition for fault identification

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none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P0103; BMW DTC 102A02: NONE

Information saved in

DME

Fault code

102A02 - P0103

Fault description

Mass or Volume Air Flow Sensor 'A' Circuit High

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

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Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P2123; BMW DTC 103001: ACCELERATOR-PEDAL MODULE, PEDAL-TRAVEL SENSOR 1, ELECTRIC: SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

103001 - P2123

Fault description

The diagnostic function monitors the voltage of sensor 1.

Condition for fault identification

Test condition:

The fault is recognized when the voltage at sensor 1 rises above 4.085 V.

Potential problem source(s):

- Defect in wiring harness between DME and accelerator pedal module sensor 1
- Accelerator pedal module defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

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Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and accelerator pedal
- Replace accelerator pedal

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to the reduction in engine output.

Possible apparent symptoms:

- Limit on pedal value variation and on maximum absolute value (34.5% pedal)
- In combination with fault in accelerator pedal sensor 2 or clocking error, increased idle speed and no processing of accelerator pedal

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

none

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DTC P2122; BMW DTC 103002: ACCELERATOR-PEDAL MODULE, PEDAL-TRAVEL SENSOR 1, ELECTRIC: SHORT CIRCUIT TO GROUND OR OPEN CIRCUIT

Information saved in

DME

Fault code

103002 - P2122

Fault description

The diagnostic function monitors the voltage of sensor 1.

Condition for fault identification

Test condition:

The fault is recognized when the voltage at sensor 1 is less than 0.566 V.

Potential problem source(s):

- Defect in wiring harness between DME and accelerator pedal module sensor 1
- Voltage supply for accelerator pedal module in the DME is defective
- Accelerator pedal module defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

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This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and accelerator pedal
- Check voltage supply at accelerator pedal module sensor 1 for 5 V
- Replace accelerator pedal
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to the reduction in engine output.

Possible apparent symptoms:

- Limit on pedal value variation and on maximum absolute value (34.5% pedal)
- In combination with fault in accelerator pedal sensor 2 or clocking error, increased idle speed and no processing of accelerator pedal

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

none

DTC P2128; BMW DTC 103101: ACCELERATOR-PEDAL MODULE, PEDAL-TRAVEL SENSOR 2, ELECTRIC: SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

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103101 - P2128

Fault description

The diagnostic function monitors the voltage of sensor 2.

Condition for fault identification

Test condition:

The fault is recognized when the voltage at sensor 2 rises above 2.043 V.

Potential problem source(s):

- Defect in wiring harness between DME and accelerator pedal module sensor 2
- Accelerator pedal module defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and accelerator pedal
- Check voltage supply at accelerator pedal module sensor 2 for 5 V
- Replace accelerator pedal

Fault effect and breakdown warning

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Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to the reduction in engine output.

Possible apparent symptoms:

- Limit on pedal value variation and on maximum absolute value (34.5% pedal)
- In combination with fault in accelerator pedal sensor 1 or clocking error, increased idle speed and no processing of accelerator pedal data

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

none

DTC P2127; BMW DTC 103102: ACCELERATOR-PEDAL MODULE, PEDAL-TRAVEL SENSOR 2, ELECTRIC: SHORT CIRCUIT TO GROUND OR OPEN CIRCUIT

Information saved in

DME

Fault code

103102 - P2127

Fault description

The diagnostic function monitors the voltage of sensor 2.

Condition for fault identification

Test condition:

The fault is recognized when the voltage at sensor 2 is less than 0.430 V.

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Potential problem source(s):

- Defect in wiring harness between DME and accelerator pedal module sensor 2
- Accelerator pedal module defective
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and accelerator pedal
- Check voltage supply at accelerator pedal module sensor 2 for 5 V
- Replace accelerator pedal

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to the reduction in engine output.

Possible apparent symptoms:

- Limit on pedal value variation and on maximum absolute value (34.5% pedal)
- In combination with fault in accelerator pedal sensor 1 or clocking error, increased idle speed and no processing of accelerator pedal data

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Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

none

DTC P2138; BMW DTC 103308: ACCELERATOR-PEDAL MODULE, PEDAL-TRAVEL SENSOR, PLAUSIBILITY: SYNCHRONISM FAULT BETWEEN SIGNAL 1 AND SIGNAL 2

Information saved in

DME

Fault code

103308 - P2138

Fault description

The diagnostic function monitors the mutual deviation between the two sensor voltages.

Condition for fault identification

Test condition:

This fault is detected when the voltage differential between sensor 1 and sensor 2 exceeds a specific defined value.

Potential problem source(s):

- Defective wiring harness
- Accelerator pedal module defective

Terminal condition: Terminal 15

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring and plug connections
- Check voltage supply to accelerator pedal for 5 V
- Replace accelerator pedal module

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to the reduction in engine output.

Possible apparent symptoms:

- Limit on pedal value variation and on maximum absolute value (34.5% pedal)
- In combination with fault in accelerator pedal sensor 1 and/or 2, increased idle speed and no processing of accelerator pedal data

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: on

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- US electronic engine power reduction: on
- CC message: on

Service instruction

none

DTC P11C8; BMW DTC 10351C: ACCELERATOR-PEDAL MODULE, PEDAL-TRAVEL SENSOR MULTIPLE FAULT

Information saved in

DME

Fault code

10351C - P11C8

Fault description

Collective fault: Accelerator pedal module's pedal-travel sensor.

Condition for fault identification

Test condition:

The response to the fault is specified for a different fault entry.

Potential problem source(s):

- None

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

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- none

Condition for fault memory entry

immediately

Action in service

- None

Fault effect and breakdown warning

Breakdown notice:

Depending on fault source (L4: 10201, 10202, 10203, 10204, 10216; L6: 0x103001, 0x103002, 0x103101, 0x103102, 0x103308)

Possible apparent symptoms:

Depending on fault source (L4: 10201, 10202, 10203, 10204, 10216; L6: 0x103001, 0x103002, 0x103101, 0x103102, 0x103308)

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

none

DTC P1250; BMW DTC 104301: NONE

Information saved in

DME

Fault code

104301 - P1250

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Fault description

Manifold Absolute Pressure Too High

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P12A5; BMW DTC 104301: NONE

Information saved in

DME

Fault code

104301 - P12A5

Fault description

Manifold Absolute Pressure Sensor 'A' Afterrunning Diagnosis Pressure Too High

Condition for fault identification

none

Condition for fault memory entry

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none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P1255; BMW DTC 104302: NONE

Information saved in

DME

Fault code

104302 - P1255

Fault description

Manifold Absolute Pressure Too Low

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

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Driver information

none

Service instruction

none

DTC P12A4; BMW DTC 104302: NONE

Information saved in

DME

Fault code

104302 - P12A4

Fault description

Manifold Absolute Pressure Sensor 'A' Afterrunning Diagnosis Pressure Too Low

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P0108; BMW DTC 104401: NONE

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Information saved in

DME

Fault code

104401 - P0108

Fault description

Manifold Absolute Pressure/Barometric Pressure Sensor Circuit High

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P119A; BMW DTC 104401: NONE

Information saved in

DME

Fault code

104401 - P119A

Fault description

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Manifold Absolute Pressure Sensor Circuit High (Bank 1)

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P0107; BMW DTC 104402: ABSOLUTE PRESSURE SENSOR, INTAKE PIPE, ELECTRICAL: SHORT CIRCUIT TO EARTH

Information saved in

DME

Fault code

104402 - P0107

Fault description

The diagnostic function monitors the intake-manifold pressure sensor's lower voltage limit.

Condition for fault identification

Test condition:

The fault is recognized when the voltage of the intake-manifold pressure sensor is less than 0.2 V.

Potential problem source(s):

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- Defect in wiring harness between DME and Intake-manifold pressure sensor
- Intake-manifold pressure sensor defective
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between intake-manifold pressure sensor and DME
- Replace intake-manifold pressure sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Engine runs roughly

Driver information

Warning light:

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- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P119B; BMW DTC 104402: ABSOLUTE PRESSURE SENSOR, INTAKE PIPE, ELECTRICAL: SHORT CIRCUIT TO EARTH

Information saved in

DME

Fault code

104402 - P119B

Fault description

The diagnostic function monitors the intake-manifold pressure sensor's lower voltage limit.

Condition for fault identification

Test condition:

The fault is recognized when the voltage of the intake-manifold pressure sensor is less than 0.2 V.

Potential problem source(s):

- Defect in wiring harness between DME and Intake-manifold pressure sensor
- Intake-manifold pressure sensor defective
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

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- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between intake-manifold pressure sensor and DME
- Replace intake-manifold pressure sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Engine runs roughly

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

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DTC P1250; BMW DTC 104610: ABSOLUTE-PRESSURE SENSOR, INTAKE MANIFOLD, PLAUSIBILITY: INTAKE-MANIFOLD PRESSURE TOO HIGH

Information saved in

DME

Fault code

104610 - P1250

Fault description

During the shutdown phase the diagnosis function monitors the DME to determine whether the ambient-air, intake-manifold and boost-pressure sensors are measuring the same pressure.

Condition for fault identification

Test condition:

The fault is recognized when the intake-manifold pressure sensor deviates from the average for the pressure sensors (barometric pressure, boost pressure, intake-manifold pressure) by more than 70 mbar.

Potential problem source(s):

- Defective wiring harness
- Sensor has been tampered with
- Sensor defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- 5 sec. after engine off

Other conditions:

- Shutdown phase

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Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness at sensor
- Replace sensor

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

Best case scenario: None

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

none

DTC P1255; BMW DTC 104611: ABSOLUTE-PRESSURE SENSOR, INTAKE MANIFOLD, PLAUSIBILITY: INTAKE-MANIFOLD PRESSURE TOO LOW

Information saved in

DME

Fault code

104611 - P1255

Fault description

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The diagnostic function monitors the DME's barometric pressure sensor.

Condition for fault identification

Test condition:

The fault is recognized when the voltage of the barometric-pressure sensor > 4.5 V.

Potential problem source(s):

- Internal DME fault, because barometric-pressure sensor is located in the DME ECU; sensor voltage above threshold;

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- 5 sec. after engine off

Other conditions:

- Shutdown phase

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check air-induction system (wastegate, etc.)
- Check air-induction tract between turbocharger and intake-air plenum
- Check wiring harness between DME and boost-pressure sensor
- Boost-pressure sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

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- none

Possible apparent symptoms:

Best case scenario: None

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

none

DTC P119A; BMW DTC 104A40: ABSOLUTE-PRESSURE SENSOR, INTAKE MANIFOLD, ELECTRIC: SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

104A40 - P119A

Fault description

The diagnostic function monitors the intake-manifold pressure sensor's upper voltage limit.

Condition for fault identification

Test condition:

The fault is recognized when the voltage of the intake-manifold pressure sensor exceeds 4.8 V.

Potential problem source(s):

- Defect in wiring harness between DME and intake-manifold pressure sensor

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- Intake-manifold pressure sensor defective
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between intake-manifold pressure sensor and DME
- Replace intake-manifold pressure sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Engine runs roughly

Driver information

Warning light:

- ECE emissions warning lamp: on

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- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P2229; BMW DTC 105001: AMBIENT-PRESSURE SENSOR, ELECTRIC: SHORT CIRCUIT TO POSITIVE OR OPEN CIRCUIT

Information saved in

DME

Fault code

105001 - P2229

Fault description

The diagnostic function monitors the DME's barometric pressure sensor.

Condition for fault identification

Test condition:

The fault is recognized when the barometric pressure sensor's signal voltage falls below 4.5 V.

Potential problem source(s):

- DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

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- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Clear the ECU fault memory, if the diagnostic fault code is logged again, replace the DME.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

MIL on, customer proceeds to service facility

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P2228; BMW DTC 105002: AMBIENT-PRESSURE SENSOR, ELECTRIC: SHORT CIRCUIT TO GROUND

Information saved in

DME

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Fault code

105002 - P2228

Fault description

The diagnostic function monitors the DME's barometric pressure sensor.

Condition for fault identification

Test condition:

The fault is detected by the internal calculation algorithms.

Potential problem source(s):

- DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- If the diagnostic fault code has been logged more than 3 times replace the DME.

Fault effect and breakdown warning

Breakdown notice:

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None

Possible apparent symptoms:

MIL on, customer proceeds to service facility

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P11CB; BMW DTC 105101: NONE

Information saved in

DME

Fault code

105101 - P11CB

Fault description

Barometric Pressure Too High

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

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Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P0129; BMW DTC 105102: NONE

Information saved in

DME

Fault code

105102 - P0129

Fault description

Barometric Pressure Too Low

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

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none

DTC P12B9; BMW DTC 105201: AMBIENT PRESSURE SENSOR, OVERRUN: PRESSURE TOO HIGH

Information saved in

DME

Fault code

105201 - P12B9

Fault description

During the control module's shutdown phase the diagnostic function monitors the barometric-pressure sensor, intake-manifold pressure sensor and boost-pressure sensor to determine whether they are all measuring the same pressure.

Condition for fault identification

Test condition:

The fault is recognized when the barometric-pressure sensor deviates from the average for the pressure sensors (barometric pressure, boost pressure, intake-manifold pressure) by more than 70 mbar.

Potential problem source(s):

- Error in sensor measurement
- Sensor defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- 5 sec. after engine off

Other conditions:

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- Shutdown phase

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- If the diagnostic fault code has been logged more than 3 times replace the DME.

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

None

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

Service instruction

None

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DTC P12B8; BMW DTC 105202: AMBIENT-PRESSURE SENSOR, RUN-ON: PRESSURE TOO LOW

Information saved in

DME

Fault code

105202 - P12B8

Fault description

The diagnostic function monitors the voltage at the boost pressure sensor.

Condition for fault identification

Test condition:

The fault is recognized when the boost-pressure sensor's voltage is < 0.2 V.

Potential problem source(s):

- Defect in wiring harness between DME and boost-pressure sensor
- Boost-pressure sensor defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- 5 sec. after engine off

Other conditions:

- Shutdown phase

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

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Action in service

- Replace the DME if the fault code is currently present or has been logged more than three times

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

Service instruction

None

DTC P2227; BMW DTC 105A30: AMBIENT-PRESSURE SENSOR: COLLECTIVE ERROR: ELECTRICAL AND PLAUSIBILITY

Information saved in

DME

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Fault code

105A30 - P2227

Fault description

The diagnostic function monitors the DME's barometric pressure sensor.

Condition for fault identification

Test condition:

The fault is recognized when the signal from the barometric-pressure sensor is less than 0.5 V.

Potential problem source(s):

- DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- If the fault is logged again, replace the DME.

Fault effect and breakdown warning

Breakdown notice:

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None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

A terminal status switch must be conducted before this fault can be deleted.

DTC P11CB; BMW DTC 105A40: AMBIENT-PRESSURE SENSOR, PLAUSIBILITY: PRESSURE TOO HIGH

Information saved in

DME

Fault code

105A40 - P11CB

Fault description

The diagnostic function monitors the barometric-pressure sensor.

Condition for fault identification

Test condition:

No electrical fault in barometric pressure sensor (PUEmax, PUEmin)

Potential problem source(s):

- Barometric pressure sensor installed in DME ECU; sensor voltage above threshold
- DME defective owing to internal fault

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Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Replace the DME if the fault code is currently present or has been logged more than three times

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

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MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

Service instruction

A terminal status switch must be conducted before this fault can be deleted.

DTC P0129; BMW DTC 105A41: AMBIENT-PRESSURE SENSOR, PLAUSIBILITY: PRESSURE TOO LOW

Information saved in

DME

Fault code

105A41 - P0129

Fault description

The diagnostic function monitors the barometric-pressure sensor.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit is present.

Potential problem source(s):

- Defective wiring harness
- Cutoff relay for electric fan defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

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Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between electric fan cutoff relay and DME
- Check cutoff relay (when Terminal 15 is off then 0 V should be present at both screw connections (M6). When activated the relay should click loudly, while virtually no resistance (0 ohms) should be measured between the screw connections
- Replace cutoff relay

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

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Service instruction

A terminal status switch must be conducted before this fault can be deleted.

DTC P1247; BMW DTC 105A42: AMBIENT PRESSURE SENSOR, PLAUSIBILITY: PRESSURE IMPLAUSIBLE

Information saved in

DME

Fault code

105A42 - P1247

Fault description

The diagnostic function monitors the plausibility of the barometric pressure relative to that measured in the previous driving cycle.

Condition for fault identification

Test condition:

The fault is recognized in response to excessive variations in the value.

Potential problem source(s):

- DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

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Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Replace the DME if the fault code is currently present or has been logged more than three times

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

Service instruction

A terminal status switch must be conducted before this fault can be deleted.

DTC P323C; BMW DTC 105A42: AMBIENT PRESSURE SENSOR, PLAUSIBILITY: PRESSURE IMPLAUSIBLE

Information saved in

DME

Fault code

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105A42 - P323C

Fault description

The diagnostic function monitors the plausibility of the barometric pressure relative to that measured in the previous driving cycle.

Condition for fault identification

Test condition:

The fault is recognized in response to excessive variations in the value.

Potential problem source(s):

- DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Replace the DME if the fault code is currently present or has been logged more than three times

Fault effect and breakdown warning

Breakdown notice:

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None

Possible apparent symptoms:

None

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

Service instruction

A terminal status switch must be conducted before this fault can be deleted.

DTC P1247; BMW DTC 105A43: AMBIENT PRESSURE SENSOR, PLAUSIBILITY: PRESSURE IMPLAUSIBLE

Information saved in

DME

Fault code

105A43 - P1247

Fault description

The diagnostic function monitors variations in the barometric pressure reading for plausibility.

Condition for fault identification

Test condition:

The fault is recognized when the value remains constant.

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Potential problem source(s):

- DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Replace the DME if the fault code is currently present or has been logged more than three times

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off

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- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

Service instruction

A terminal status switch must be conducted before this fault can be deleted.

DTC P323C; BMW DTC 105A43: AMBIENT PRESSURE SENSOR, PLAUSIBILITY: PRESSURE IMPLAUSIBLE

Information saved in

DME

Fault code

105A43 - P323C

Fault description

The diagnostic function monitors variations in the barometric pressure reading for plausibility.

Condition for fault identification

Test condition:

The fault is recognized when the value remains constant.

Potential problem source(s):

- DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

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- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Replace the DME if the fault code is currently present or has been logged more than three times

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

Service instruction

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A terminal status switch must be conducted before this fault can be deleted.

DTC P0121; BMW DTC 107A22: THROTTLE VALVE, THROTTLE POTENTIOMETER 1: SIGNAL IMPLAUSIBLE IN RELATION TO SUBSTITUTE VALUE FROM FILLING

Information saved in

DME

Fault code

107A22 - P0121

Fault description

When a single fault occurs at the throttle valve, the diagnostic function monitors the operation of the remaining sensor. The deviation in the sensor signal is plausibilized against the default value from air mass.

Condition for fault identification

Test condition:

The fault is recognized when a defect at sensor 2 or a clocking error [deviation between sensor 1 and sensor 2 > 6.3% throttle valve] is detected and comparison between sensor 1 and default value is greater than 14.9%.

Potential problem source(s):

- Defect in wiring harness between throttle-valve actuator motor and DME
- Throttle-valve sensor defective
- AD converter input on DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

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- none

Condition for fault memory entry

This fault is logged in the ECU fault memory immediately.

0.28 sec.

Action in service

- Check wiring harness between DME and throttle valve
- Replace throttle valve
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to the reduction in engine output.

Possible apparent symptoms:

- Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

none

DTC P0223; BMW DTC 107A30: THROTTLE VALVE, THROTTLE-VALVE POTENTIOMETER 2, ELECTRIC: SHORT CIRCUIT TO POSITIVE OR OPEN CIRCUIT

Information saved in

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DME

Fault code

107A30 - P0223

Fault description

The diagnostic function checks the voltage of throttle valve sensor 2 for electrical faults.

Condition for fault identification

Test condition:

The fault is recognized when the signal from throttle valve sensor 2 rises above the fault threshold of 4.77 V.

Potential problem source(s):

- Defect in wiring harness between throttle-valve actuator motor and DME
- Throttle-valve sensor defective
- AD converter input in DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and throttle valve

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- Replace throttle valve
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to the reduction in engine output.

Possible apparent symptoms:

- Reduced power

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on

MY10 US 01/10:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

MY10 US 03/10:

- US emissions warning lamp: off
- US electronic engine power reduction: on
- CC message: on

Service instruction

none

DTC P0222; BMW DTC 107A31: THROTTLE VALVE, THROTTLE-VALVE POTENTIOMETER 2, ELECTRIC: SHORT CIRCUIT TO GROUND

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DME

Fault code

107A31 - P0222

Fault description

The diagnostic function checks the voltage of throttle valve sensor 2 for electrical faults.

Condition for fault identification

Test condition:

The fault is recognized when the signal from throttle valve sensor 2 falls below the fault threshold of 0.22 V.

Potential problem source(s):

- Defect in wiring harness between throttle-valve actuator motor and DME
- Throttle-valve sensor defective
- AD converter input in DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and throttle valve

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- Replace throttle valve
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to the reduction in engine output.

Possible apparent symptoms:

- Reduced power

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on

MY10 US 01/10:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

MY10 US 03/10:

- US emissions warning lamp: off
- US electronic engine power reduction: on
- CC message: on

Service instruction

none

DTC P0221; BMW DTC 107A32: THROTTLE VALVE, THROTTLE-VALVE POTENTIOMETER 2: SIGNAL IMPLAUSIBLE IN REL. TO SUBSTITUTE VALUE FROM CHARGE

Information saved in

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DME

Fault code

107A32 - P0221

Fault description

When a single fault occurs at the throttle valve, the diagnostic function monitors the operation of the remaining sensor. The deviation in the sensor signal is plausibilized against the default value from air mass.

Condition for fault identification

Test condition:

The fault is recognized when a defect at sensor 1 or a clocking error [deviation between sensor 1 and sensor 2 > 6.3% throttle valve] is detected and comparison between sensor 2 and default value is greater than 14.9%.

Potential problem source(s):

- Defect in wiring harness between throttle-valve actuator motor and DME
- Throttle-valve sensor defective
- AD converter input in DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

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- Check wiring harness between DME and throttle valve
- Replace throttle valve
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to the reduction in engine output.

Possible apparent symptoms:

- Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

none

DTC P110D; BMW DTC 107A40: THROTTLE-VALVE POTENTIOMETER: THROTTLE-VALVE POTENTIOMETER 1 OR 2, FUNCTION

Information saved in

DME

Fault code

107A40 - P110D

Fault description

Collective fault: Throttle valve.

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Condition for fault identification

Test condition:

The fault is recognized when another fault related to the throttle valve (L4: 10404, 10405, 10406, 10408, 10409, 10410, 10432, 10433, 10004, 10000, 10001; L6: 0x101001, 0x101002, 0x107A22, 0x107A30, 0x107A31, 0x107A32, 0x107A80, 0x107A81, 0x107A90, 0x107A91, 0x100210) is present.

Potential problem source(s):

- Additional throttle valve error path at one or both throttle-valve potentiometers
- The diagnostic fault code is entered together with faults for the throttle-valve potentiometer 1 and/or 2, position controller faults, or faults detected during the spring test

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

Depends on original fault source (min. 0.14 sec., max. 0.6 sec.

Action in service

- Composite fault
- Seek original source fault for throttle valve in ECU fault memory (L4: 10404, 10405, 10406, 10408, 10409, 10410, 10432, 10433, 10004, 10000, 10001; L6: 0x101001, 0x101002, 0x107A22, 0x107A30, 0x107A31, 0x107A32, 0x107A80, 0x107A81, 0x107A90, 0x107A91, 0x100210) and repair it using test plan

Fault effect and breakdown warning

Breakdown notice:

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- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to the reduction in engine output.

Possible apparent symptoms:

- Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

none

DTC P169F; BMW DTC 107A50: THROTTLE VALVE: LIMP-HOME OPERATING MODE ACTIVE

Information saved in

DME

Fault code

107A50 - P169F

Fault description

Throttle Valve Limp Home Mode Active

Condition for fault identification

Test condition:

Potential problem source(s):

0

Voltage condition:

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Temperature condition:

Time condition:

Other conditions:

Condition for fault memory entry

none

Action in service

0

Fault effect and breakdown warning

Breakdown notice:

Possible apparent symptoms:

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

none

DTC P2103; BMW DTC 107A70: DME, INTERNAL FAULT, ACTIVATION OF THROTTLE VALVE: SHORT CIRCUIT

Information saved in

DME

Fault code

107A70 - P2103

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Fault description

The diagnostic function monitors the driver circuit controlling operation of the throttle valve.

Condition for fault identification

Test condition:

The fault is detected by the internal calculation algorithms.

Potential problem source(s):

- Defective wiring harness between DME and throttle valve
- Defective throttle valve
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and throttle valve
- Replace throttle valve
- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

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Breakdown notice:

- Ability to continue driving is restricted because engine speed is limited to roughly 1300 RPM.

Possible apparent symptoms:

- Loss of power
- Speed limitation

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

- none

DTC P2118; BMW DTC 107A71: DME, INTERNAL FAULT, ACTIVATION OF THROTTLE VALVE: EXCESS TEMPERATURE OR CURRENT TOO HIGH

Information saved in

DME

Fault code

107A71 - P2118

Fault description

The diagnostic function monitors the driver circuit controlling operation of the throttle valve.

Condition for fault identification

Test condition:

The fault is detected by the internal calculation algorithms.

Potential problem source(s):

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- Defective wiring harness between DME and throttle valve
- Defective throttle valve
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and throttle valve
- Replace throttle valve
- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- Ability to continue driving is restricted because engine speed is limited to roughly 1300 RPM.

Possible apparent symptoms:

- Loss of power
- Speed limitation

Driver information

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Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

- none

DTC P061F; BMW DTC 107A72: DME, INTERNAL FAULT, ACTIVATION OF THROTTLE VALVE: INTERNAL COMMUNICATION FAULT

Information saved in

DME

Fault code

107A72 - P061F

Fault description

The diagnostic function monitors the driver circuit controlling operation of the throttle valve.

Condition for fault identification

Test condition:

The fault is detected by the internal calculation algorithms.

Potential problem source(s):

- DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

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- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- Ability to continue driving is restricted because engine speed is limited to roughly 1300 RPM.

Possible apparent symptoms:

- Loss of power
- Speed limitation

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

- none

DTC P2100; BMW DTC 107A73: DME, INTERNAL FAULT, ACTIVATION OF THROTTLE VALVE:

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LINE DISCONNECTION

Information saved in

DME

Fault code

107A73 - P2100

Fault description

The diagnostic function monitors the driver circuit controlling operation of the throttle valve.

Condition for fault identification

Test condition:

The fault is detected by the internal calculation algorithms.

Potential problem source(s):

- Defective wiring harness between DME and throttle valve
- Defective throttle valve
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

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Action in service

- Check wiring harness between DME and throttle valve
- Replace throttle valve
- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- Ability to continue driving is restricted because engine speed is limited to roughly 1300 RPM.

Possible apparent symptoms:

- Loss of power
- Speed limitation

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

- none

DTC P1634; BMW DTC 107A80: THROTTLE-VALVE ACTUATOR, CLOSING SPRING CHECK: ABORT CHECK, SPRING DOES NOT CLOSE

Information saved in

DME

Fault code

107A80 - P1634

Fault description

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During the spring test the diagnostic function monitors the throttle valve to determine whether it returns to the emergency air position within the specified period when no voltage is being applied.

Condition for fault identification

Test condition:

The fault is recognized when the throttle valve does not return to an aperture of less than roughly 19% within 560 ms when voltage is not being applied to the unit.

Potential problem source(s):

- Friction in valve
- Return spring defective
- Defect in wiring harness between throttle-valve actuator motor and DME
- Defective throttle-valve actuator motor

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- Vehicle velocity = 0 km/h

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and throttle valve
- Use tester to activate throttle valve and observe its reaction
- Check throttle valve for contamination and foreign objects

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- Move throttle valve by hand, checking for resistance to motion and noting how quickly it closes when released
- Replace throttle-valve actuator motor

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to the reduction in engine output.

Possible apparent symptoms:

- Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

none

DTC P1631; BMW DTC 107A81: THROTTLE-VALVE ACTUATOR, CLOSING SPRING CHECK: ERROR DURING SPRING CHECK

Information saved in

DME

Fault code

107A81 - P1631

Fault description

During the spring test the diagnostic function monitors the throttle valve to determine whether it reaches the specified position within the specified period.

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Condition for fault identification

Test condition:

The fault is recognized when the throttle valve fails to achieve an effective aperture of roughly 30% within 140 ms.

Potential problem source(s):

- Friction in throttle valve
- Return spring defective
- Defect in wiring harness between throttle-valve actuator motor and DME
- Defective throttle-valve actuator motor

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- Vehicle velocity = 0 km/h

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and throttle valve
- Use tester to activate throttle valve and observe its reaction
- Check throttle valve for contamination and foreign objects
- Move throttle valve by hand, checking for resistance to motion and noting how quickly it closes when released
- Replace throttle-valve actuator motor

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Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to the reduction in engine output.

Possible apparent symptoms:

- Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

none

DTC P1629; BMW DTC 107A90: THROTTLE-VALVE ACTUATOR, OPENING SPRING CHECK: ABORT CHECK, SPRING DOES NOT OPEN

Information saved in

DME

Fault code

107A90 - P1629

Fault description

During the spring test the diagnostic function monitors the throttle valve to determine whether it returns to the emergency-air position within the specified period when no voltage is being applied.

Condition for fault identification

Test condition:

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The fault is recognized when the throttle valve does not return to an aperture of more than 7.4% within 560 ms when voltage is not being applied to the unit.

Potential problem source(s):

- Friction in throttle valve
- Return spring defective
- Defect in wiring harness between throttle-valve actuator motor and DME
- Defective throttle-valve actuator motor

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- Vehicle velocity = 0 km/h

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and throttle valve
- Use tester to activate throttle valve and observe its reaction
- Check throttle valve for contamination and foreign objects
- Move throttle valve by hand, checking for resistance to motion and noting how quickly it closes when released
- Replace throttle-valve actuator motor

Fault effect and breakdown warning

Breakdown notice:

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- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to the reduction in engine output.

Possible apparent symptoms:

- Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

none

DTC P1628; BMW DTC 107A91: THROTTLE-VALVE ACTUATOR, OPENING SPRING CHECK: ERROR DURING SPRING CHECK

Information saved in

DME

Fault code

107A91 - P1628

Fault description

During the spring test the diagnostic function monitors the throttle valve to determine whether it reaches the specified position below the emergency-air point within the specified time.

Condition for fault identification

Test condition:

The diagnostic fault code is logged when the throttle valve fails to reach a position of less than 2.5 % and more than 0.4 % opening within 300 ms.

Potential problem source(s):

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- Friction in throttle valve
- Return spring defective
- Defect in wiring harness between throttle-valve actuator motor and DME
- Defective throttle-valve actuator motor

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- Vehicle velocity = 0 km/h

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and throttle valve
- Use tester to activate throttle valve and observe its reaction
- Check throttle valve for contamination and foreign objects
- Move throttle valve by hand, checking for resistance to motion and noting how quickly it closes when released
- Replace throttle-valve actuator motor

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to the reduction in engine output.

Possible apparent symptoms:

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- Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

none

DTC P1644; BMW DTC 107AE0: THROTTLE VALVE, ADAPTATION: RE-TEACH, LOWER LIMIT POSITION NOT TAUGHT IN

Information saved in

DME

Fault code

107AE0 - P1644

Fault description

During the throttle valve adaptation routine the diagnostic function monitors the offset and amplification of throttle valve potentiometer 1 in the amplified range.

Condition for fault identification

Test condition:

This fault is recognized when the amplifier's offset exceeds 0.1 V or drops below -0.1 V. This fault is also registered when the amplification factor is greater than 4.15 or less than 3.85.

Potential problem source(s):

- Defect in wiring harness between throttle-valve actuator motor and DME
- Throttle-valve sensor defective
- AD converter input in DME defective

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Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- 30 sec. after Terminal 15 on

Other conditions:

- Engine on
- Vehicle velocity = 0 km/h

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and throttle valve
- Replace throttle valve
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on

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- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

none

DTC P1643; BMW DTC 107AF0: THROTTLE VALVE ACTUATOR, AMPLIFIER ADJUSTMENT: MALFUNCTION

Information saved in

DME

Fault code

107AF0 - P1643

Fault description

During the throttle valve adaptation routine the diagnostic function monitors the offset and amplification of throttle valve potentiometer 1 in the amplified range.

Condition for fault identification

Test condition:

This fault is recognized when the amplifier's offset exceeds 0.1 V or drops below -0.1 V. This fault is also registered when the amplification factor is greater than 4.15 or less than 3.85.

Potential problem source(s):

- Defect in wiring harness between throttle-valve actuator motor and DME
- Throttle-valve sensor defective
- AD converter input in DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

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Time condition:

- 30 sec. after Terminal 15 on

Other conditions:

- Engine on
- Vehicle velocity = 0 km/h

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and throttle valve
- Replace throttle valve
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

none

DTC P0113; BMW DTC 108001: INTAKE AIR TEMPERATURE SENSOR, ELECTRICAL: SHORT

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CIRCUIT TO B+

Information saved in

DME

Fault code

108001 - P0113

Fault description

The diagnostic function monitors the upper voltage limit of the intake-air temperature sensor on the engine-side of the air filter.

Condition for fault identification

Test condition:

The fault is recognized when the voltage of the intake-air temperature sensor exceeds 4.85 V.

Potential problem source(s):

- Defective wiring harness between DME and intake-air temperature sensor
- Intake-air temperature sensor defective
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

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This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and intake-air temperature sensor
- Replace intake-air temperature sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Engine runs roughly

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0112; BMW DTC 108002: INTAKE-AIR TEMPERATURE SENSOR, ELECTRIC: SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

108002 - P0112

Fault description

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The diagnostic function monitors the lower voltage limit of the intake-air temperature sensor on the engine-side of the air filter.

Condition for fault identification

Test condition:

The fault is recognized when the voltage of the intake-air temperature sensor is less than 0.17 V.

Potential problem source(s):

- Defective wiring harness between DME and intake-air temperature sensor
- Intake-air temperature sensor defective
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and intake-air temperature sensor
- Replace intake-air temperature sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

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None

Possible apparent symptoms:

Engine runs roughly

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0111; BMW DTC 108010: INTAKE-AIR TEMPERATURE SENSOR, ELECTRICAL: SIGNAL NOT PLAUSIBLE

Information saved in

DME

Fault code

108010 - P0111

Fault description

The diagnostic function monitors the voltage of the intake-air temperature sensor on the engine-side of the air filter to detect jumps that violate the specified level.

Condition for fault identification

Test condition:

The fault is recognized when the difference between the raw voltage value and the low-pass-filtered voltage is greater than 0.6 V.

Potential problem source(s):

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- Defective wiring harness between DME and intake-air temperature sensor
- Intake-air temperature sensor defective
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and intake-air temperature sensor
- Replace intake-air temperature sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Engine runs roughly

Driver information

Warning light:

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- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P007D; BMW DTC 108A01: CHARGE-AIR TEMPERATURE SENSOR, ELECTRICAL: SHORT CIRCUIT TO B+

Information saved in

DME

Fault code

108A01 - P007D

Fault description

The diagnostic function monitors the upper voltage limit of the intake-air temperature sensor on the engine-side of the air filter.

Condition for fault identification

Test condition:

The fault is recognized when the voltage of the intake-air temperature sensor exceeds 4.85 V.

Potential problem source(s):

- Defect in wiring harness between DME and charge-air temperature sensor
- Charge-air temperature sensor defective
- Charge-air temperature sensor has been tampered with
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

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Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and charge-air temperature sensor
- Replace charge-air temperature sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Standard EML Text

Possible apparent symptoms:

Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

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None

DTC P007C; BMW DTC 108A02: CHARGE-AIR TEMPERATURE SENSOR, ELECTRIC: SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

108A02 - P007C

Fault description

The diagnostic function monitors the lower voltage limit of the intake-air temperature sensor on the engine-side of the air filter.

Condition for fault identification

Test condition:

The fault is recognized when the voltage of the intake-air temperature sensor is less than 0.17 V.

Potential problem source(s):

- Defect in wiring harness between DME and charge-air temperature sensor
- Charge-air temperature sensor defective
- Charge-air temperature sensor has been tampered with
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

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- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and charge-air temperature sensor
- Replace charge-air temperature sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Standard EML Text

Possible apparent symptoms:

Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P007B; BMW DTC 108A10: CHARGE-AIR TEMPERATURE SENSOR, ELECTRICAL: SIGNAL NOT PLAUSIBLE

Information saved in

DME

Fault code

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108A10 - P007B

Fault description

The diagnostic function monitors the voltage of the intake-air temperature sensor on the engine-side of the air filter to detect jumps that violate the specified level.

Condition for fault identification

Test condition:

The fault is recognized when the difference between the raw voltage value and the low-pass-filtered voltage > 0.6 V.

Potential problem source(s):

- Defect in wiring harness between DME and charge-air temperature sensor
- Charge-air temperature sensor defective
- Charge-air temperature sensor has been tampered with
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and charge-air temperature sensor

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- Replace charge-air temperature sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Standard EML Text

Possible apparent symptoms:

Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P10B0; BMW DTC 108C01: NONE

Information saved in

DME

Fault code

108C01 - P10B0

Fault description

Charge Air Cooler Temperature Too High (Bank 1)

Condition for fault identification

none

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Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P10B8; BMW DTC 108C08: CHARGE-AIR TEMPERATURE SENSOR, PLAUSIBILITY: SIGNAL HANGS

Information saved in

DME

Fault code

108C08 - P10B8

Fault description

The diagnostic function monitors the charge-air temperature sensor for an invariable signal.

Condition for fault identification

Test condition:

The fault is recognized when the voltage of the charge-air temperature sensor does not change by at least 0.005 V.

Potential problem source(s):

- Defect in wiring harness between DME and charge-air temperature sensor
- Charge-air temperature sensor defective
- Charge-air temperature sensor has been tampered with

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- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- 27 sec. after reaching engine temperature of 80 °C

Other conditions:

Drive vehicle at a speed above 40 km/h for at least 2 minutes to reduce the charge-air temperature, then allow the engine to idle for at least 2 minutes to allow the charge-air temperature to rise again. This sequence must be repeated 3x.

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and charge-air temperature sensor
- Replace charge-air temperature sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Standard EML Text

Possible apparent symptoms:

Reduced power

Driver information

Warning light:

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- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P0118; BMW DTC 109001: COOLANT-TEMPERATURE SENSOR, ELECTRIC: SHORT CIRCUIT TO POSITIVE OR OPEN CIRCUIT

Information saved in

DME

Fault code

109001 - P0118

Fault description

The diagnostic function monitors the coolant temperature sensor's wires.

Condition for fault identification

Test condition:

The fault is recognized when the sensor voltage is above 4.95 V.

Potential problem source(s):

- The coolant temperature sensor's wiring harness is shorted to positive or has an open wire
- Temperature is outside measurement range
- Coolant temperature sensor defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

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- None

Time condition:

- 21 sec. after engine start

Other conditions:

- Cold engine start

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check coolant temperature sensor wiring harness
- Replace coolant temperature sensor

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Possible power reduction

Fan at maximum rotation speed

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

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DTC P0117; BMW DTC 109002: COOLANT-TEMPERATURE SENSOR, ELECTRIC: SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

109002 - P0117

Fault description

The diagnostic function monitors the coolant temperature sensor's wires.

Condition for fault identification

Test condition:

The fault is recognized when the sensor voltage lies below 0.1 V.

Potential problem source(s):

- Coolant temperature sensor wiring harness has short circuit to ground
- Temperature is outside measurement range
- Coolant temperature sensor defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

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This fault is logged in the control module's fault memory immediately.

Action in service

- Check coolant temperature sensor wiring harness
- Replace coolant temperature sensor

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Possible power reduction

Fan at maximum rotation speed

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P112B; BMW DTC 109208: NONE

Information saved in

DME

Fault code

109208 - P112B

Fault description

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Engine Coolant Temperature Too Low

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P316B; BMW DTC 109208: NONE

Information saved in

DME

Fault code

109208 - P316B

Fault description

Engine Coolant Temperature Signal Stuck Low

Condition for fault identification

none

Condition for fault memory entry

none

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Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P0116; BMW DTC 109308: COOLANT-TEMPERATURE SENSOR, PLAUSIBILITY: SIGNAL CHANGE TOO FAST

Information saved in

DME

Fault code

109308 - P0116

Fault description

The diagnostic function monitors the coolant temperature sensor's voltage signal for plausibility.

Condition for fault identification

Test condition:

The fault is recognized when temperature jumps of 30°C occur.

Potential problem source(s):

- Defect in wiring harness to coolant temperature sensor
- Coolant temperature sensor installed incorrectly
- Coolant temperature sensor defective

Terminal condition: Terminal 15

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check coolant temperature sensor wiring harness
- Replace coolant temperature sensor

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Possible power reduction

Fan at maximum rotation speed

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

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Service instruction

None

DTC P3198; BMW DTC 109308: COOLANT-TEMPERATURE SENSOR, PLAUSIBILITY: SIGNAL CHANGE TOO FAST

Information saved in

DME

Fault code

109308 - P3198

Fault description

The diagnostic function monitors the coolant temperature sensor's voltage signal for plausibility.

Condition for fault identification

Test condition:

The fault is recognized when temperature jumps of 30°C occur.

Potential problem source(s):

- Defect in wiring harness to coolant temperature sensor
- Coolant temperature sensor installed incorrectly
- Coolant temperature sensor defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

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- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check coolant temperature sensor wiring harness
- Replace coolant temperature sensor

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Possible power reduction

Fan at maximum rotation speed

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P10D5; BMW DTC 10AA20: COOLANT TEMPERATURE SENSOR, COLD START: COOLANT TEMPERATURE TOO HIGH

Information saved in

DME

Fault code

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10AA20 - P10D5

Fault description

The diagnostic function monitors the coolant temperature to detect excessively high values during cold starts.

Condition for fault identification

Test condition:

The fault is recognized when the coolant temperature is 18°C above the average of several temperatures at cold start.

Potential problem source(s):

- Engine block heater or auxiliary heater may be installed
- Defect in wiring harness between DME and sensor
- Sensor defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- 21 sec. after engine start

Other conditions:

- None

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Determine whether an engine block heater or auxiliary heater is installed
- Check wiring harness between DME and sensor

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- Replace sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Rough engine, possibly followed by power reduction caused by thermal management

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

Service instruction

None

DTC P10D4; BMW DTC 10AA21: COOLANT TEMPERATURE SENSOR, COLD START: COOLANT TEMPERATURE TOO LOW

Information saved in

DME

Fault code

10AA21 - P10D4

Fault description

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The diagnostic function monitors the coolant temperature to detect excessively low values during cold starts.

Condition for fault identification

Test condition:

The fault is recognized when the coolant temperature is 18°C below the average of several temperatures at cold start.

Potential problem source(s):

- Defect in wiring harness between DME and sensor
- Sensor defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- 21 sec. after engine start

Other conditions:

- Cold engine start

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and sensor
- Replace sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

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None

Possible apparent symptoms:

Rough engine, possibly followed by power reduction caused by thermal management

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

Service instruction

None

DTC P0115; BMW DTC 10AA40: COOLANT-TEMPERATURE SENSOR, ELECTRICAL: NO SIGNAL

Information saved in

DME

Fault code

10AA40 - P0115

Fault description

The diagnostic function monitors the CAN transmission.

Condition for fault identification

Test condition:

The fault is recognized when no signal is available.

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Potential problem source(s):

- Defect in wiring harness between DME and coolant temperature sensor
- Coolant temperature sensor defective
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and coolant temperature sensor
- Replace coolant temperature sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Possible power reduction

Fan at maximum rotation speed

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Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P112A; BMW DTC 10AA50: COOLANT-TEMPERATURE SENSOR, PLAUSIBILITY: ENGINE TEMPERATURE IN REL. TO MODEL IMPLAUSIBLY TOO HIGH

Information saved in

DME

Fault code

10AA50 - P112A

Fault description

The diagnostic function monitors the coolant temperature sensor.

Condition for fault identification

Test condition:

The fault is recognized when the coolant temperature sensor transmits implausible temperature data.

Potential problem source(s):

- Defect in wiring harness between DME and coolant temperature sensor
- Coolant temperature sensor defective
- Defective DME

Terminal condition: none

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON
- Minimum engine speed 2000 RPM
- Minimum air mass 1.46 kg

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and coolant temperature sensor
- Replace coolant temperature sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Possible power reduction

Fan at maximum rotation speed

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

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- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P112B; BMW DTC 10AA51: COOLANT-TEMPERATURE SENSOR, PLAUSIBILITY: ENGINE TEMPERATURE IN REL. TO MODEL IMPLAUSIBLY TOO LOW

Information saved in

DME

Fault code

10AA51 - P112B

Fault description

The diagnostic function monitors the coolant temperature sensor.

Condition for fault identification

Test condition:

The fault is recognized when the coolant temperature sensor transmits implausible temperature data.

Potential problem source(s):

- Defect in wiring harness between DME and coolant temperature sensor
- Coolant temperature sensor defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

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- 1 min. after engine start

Other conditions:

- Engine on
- No block heater active

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and coolant temperature sensor
- Replace coolant temperature sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Possible power reduction

Fan at maximum rotation speed

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

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Service instruction

None

DTC P0116; BMW DTC 10AA52: COOLANT-TEMPERATURE SENSOR, PLAUSIBILITY: ENGINE TEMPERATURE IMPLAUSIBLE

Information saved in

DME

Fault code

10AA52 - P0116

Fault description

The diagnostic function monitors the coolant temperature sensor.

Condition for fault identification

Test condition:

The fault is recognized when the coolant temperature sensor transmits implausible temperature data.

Potential problem source(s):

- Defect in wiring harness between DME and coolant temperature sensor
- Coolant temperature sensor defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

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- Engine on
- Engine temperature between 15°C and 60°C

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and coolant temperature sensor
- Replace coolant temperature sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Possible power reduction

Fan at maximum rotation speed

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

Service instruction

None

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DTC P3199; BMW DTC 10AA52: COOLANT-TEMPERATURE SENSOR, PLAUSIBILITY: ENGINE TEMPERATURE IMPLAUSIBLE

Information saved in

DME

Fault code

10AA52 - P3199

Fault description

The diagnostic function monitors the coolant temperature sensor.

Condition for fault identification

Test condition:

The fault is recognized when the coolant temperature sensor transmits implausible temperature data.

Potential problem source(s):

- Defect in wiring harness between DME and coolant temperature sensor
- Coolant temperature sensor defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- Engine temperature between 15°C and 60°C

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Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and coolant temperature sensor
- Replace coolant temperature sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Possible power reduction

Fan at maximum rotation speed

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

Service instruction

None

DTC P0073; BMW DTC 10B101: NONE

Information saved in

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DME

Fault code

10B101 - P0073

Fault description

Ambient Air Temperature Sensor Circuit 'A' High

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P0072; BMW DTC 10B102: NONE

Information saved in

DME

Fault code

10B102 - P0072

Fault description

Ambient Air Temperature Sensor Circuit 'A' Low

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Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P110F; BMW DTC 10B104: NONE

Information saved in

DME

Fault code

10B104 - P110F

Fault description

Ambient Air Temperature Sensor Faulty CAN Signal

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

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none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P0073; BMW DTC 10BA20: OUTSIDE TEMPERATURE SENSOR, SIGNAL: UPPER THRESHOLD VALUE EXCEEDED

Information saved in

DME

Fault code

10BA20 - P0073

Fault description

The diagnostic function monitors the outside temperature sensor for excessively high temperature figures.

Condition for fault identification

Test condition:

This is monitored in the instrument cluster.

Potential problem source(s):

- Wiring harness to outside temperature sensor defective
- Outside temperature sensor defective
- Instrument cluster faulty

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

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Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Continue fault diagnosis at the instrument cluster

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0072; BMW DTC 10BA21: OUTSIDE TEMPERATURE SENSOR, SIGNAL: LOWER

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THRESHOLD VALUE UNDERSHOT

Information saved in

DME

Fault code

10BA21 - P0072

Fault description

The diagnostic function monitors the outside temperature sensor for excessively low temperature figures.

Condition for fault identification

Test condition:

This is monitored in the instrument cluster.

Potential problem source(s):

- Wiring harness to outside temperature sensor defective
- Outside temperature sensor defective
- Instrument cluster faulty

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

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Action in service

- Continue fault diagnosis at the instrument cluster

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P110F; BMW DTC 10BA22: AMBIENT-TEMPERATURE SENSOR, SIGNAL: CAN MESSAGE INCORRECT

Information saved in

DME

Fault code

10BA22 - P110F

Fault description

The diagnostic function monitors the outside temperature sensor's CAN data.

Condition for fault identification

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Test condition:

This is monitored in the instrument cluster.

Potential problem source(s):

- Wiring harness to outside temperature sensor defective
- Outside temperature sensor defective
- Instrument cluster faulty

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Continue fault diagnosis at the instrument cluster

Fault effect and breakdown warning

Breakdown notice:

Clarification in progress

Possible apparent symptoms:

None

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Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0071; BMW DTC 10BA40: OUTSIDE TEMPERATURE SENSOR, PLAUSIBILITY: AMBIENT TEMPERATURE HIGHER THAN MODEL TEMPERATURE

Information saved in

DME

Fault code

10BA40 - P0071

Fault description

The diagnostic function checks the plausibility of the outside temperature.

Condition for fault identification

Test condition:

The fault is recognized when the outside temperature remains more than 20°C above the model value for longer than 14 sec.

Potential problem source(s):

- Defective wiring harness
- Outside temperature sensor defective

Terminal condition: none

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine on
- Vehicle speed in excess of 45 km/h
- Mass-airflow rate less than 200 kg/h
- Intake-air temperature is less than 60°C, above -10°C

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Check outside temperature
- Check outside temperature sensor
- Check wiring harness between the instrument cluster and the outside temperature sensor

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off

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- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

Service instruction

- The following conditions can lead to an incorrect diagnosis:
- Battery change or defective battery
- Engine heated by secondary source, such as auxiliary heater
- Sensor frozen

DTC P10EA; BMW DTC 10BA40: OUTSIDE TEMPERATURE SENSOR, PLAUSIBILITY: AMBIENT TEMPERATURE HIGHER THAN MODEL TEMPERATURE

Information saved in

DME

Fault code

10BA40 - P10EA

Fault description

The diagnostic function checks the plausibility of the outside temperature.

Condition for fault identification

Test condition:

The fault is recognized when the outside temperature remains more than 20°C above the model value for longer than 14 sec.

Potential problem source(s):

- Defective wiring harness
- Outside temperature sensor defective

Terminal condition: none

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine on
- Vehicle speed in excess of 45 km/h
- Mass-airflow rate less than 200 kg/h
- Intake-air temperature is less than 60°C, above -10°C

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Check outside temperature
- Check outside temperature sensor
- Check wiring harness between the instrument cluster and the outside temperature sensor

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off

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- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

Service instruction

- The following conditions can lead to an incorrect diagnosis:
- Battery change or defective battery
- Engine heated by secondary source, such as auxiliary heater
- Sensor frozen

DTC P0071; BMW DTC 10BA41: OUTSIDE TEMPERATURE SENSOR, PLAUSIBILITY: AMBIENT TEMPERATURE LESS THAN MODEL TEMPERATURE

Information saved in

DME

Fault code

10BA41 - P0071

Fault description

The diagnostic function checks the plausibility of the outside temperature.

Condition for fault identification

Test condition:

The fault is recognized when the outside temperature remains more than 20°C below the model value for longer than 14 sec.

Potential problem source(s):

- Defective wiring harness
- Outside temperature sensor defective

Terminal condition: none

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine on
- Vehicle speed in excess of 45 km/h
- Mass-airflow rate less than 200 kg/h
- Intake-air temperature is less than 60°C, above -10°C

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check outside temperature
- Check outside temperature sensor
- Check wiring harness between the instrument cluster and the outside temperature sensor

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off

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- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

Service instruction

- The following conditions can lead to an incorrect diagnosis:
- Battery change or defective battery
- Engine heated by secondary source, such as auxiliary heater
- Sensor frozen

DTC P10EB; BMW DTC 10BA41: OUTSIDE TEMPERATURE SENSOR, PLAUSIBILITY: AMBIENT TEMPERATURE LESS THAN MODEL TEMPERATURE

Information saved in

DME

Fault code

10BA41 - P10EB

Fault description

The diagnostic function checks the plausibility of the outside temperature.

Condition for fault identification

Test condition:

The fault is recognized when the outside temperature remains more than 20°C below the model value for longer than 14 sec.

Potential problem source(s):

- Defective wiring harness
- Outside temperature sensor defective

Terminal condition: none

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine on
- Vehicle speed in excess of 45 km/h
- Mass-airflow rate less than 200 kg/h
- Intake-air temperature is less than 60°C, above -10°C

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check outside temperature
- Check outside temperature sensor
- Check wiring harness between the instrument cluster and the outside temperature sensor

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off

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- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

Service instruction

- The following conditions can lead to an incorrect diagnosis:
- Battery change or defective battery
- Engine heated by secondary source, such as auxiliary heater
- Sensor frozen

DTC P10C9; BMW DTC 10BA42: INTAKE-AIR TEMPERATURE SENSOR, COLD START: INTAKE-AIR TEMPERATURE TOO HIGH

Information saved in

DME

Fault code

10BA42 - P10C9

Fault description

The diagnostic function monitors the intake-air temperature to detect excessively high values during cold starts.

Condition for fault identification

Test condition:

The fault is recognized when the intake-air temperature exceeds an average figure from several temperatures during cold starts.

Potential problem source(s):

- Defective wiring harness between DME and intake-air temperature sensor
- Intake-air temperature sensor defective
- Defective DME

Terminal condition: none

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Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- 21 sec. after engine start

Other conditions:

- Cold engine start

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and intake-air temperature sensor
- Replace intake-air temperature sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Rough engine, possibly followed by power reduction caused by thermal management

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

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MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

Service instruction

None

DTC P105D; BMW DTC 10BA43: INTAKE-AIR TEMPERATURE SENSOR, COLD START: INTAKE-AIR TEMPERATURE TOO LOW

Information saved in

DME

Fault code

10BA43 - P105D

Fault description

The diagnostic function monitors the intake-air temperature to detect excessively low values during cold starts.

Condition for fault identification

Test condition:

The fault is recognized when the intake-air temperature is below an average figure from several temperatures during cold starts.

Potential problem source(s):

- Defective wiring harness between DME and intake-air temperature sensor
- Intake-air temperature sensor defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

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- None

Time condition:

- 21 sec. after engine start

Other conditions:

- Cold engine start

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and intake-air temperature sensor
- Replace intake-air temperature sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Engine runs roughly

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

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Service instruction

None

DTC P0127; BMW DTC 10BA48: INTAKE AIR TEMPERATURE SENSOR, PLAUSIBILITY: INTAKE AIR TEMPERATURE TOO HIGH

Information saved in

DME

Fault code

10BA48 - P0127

Fault description

The diagnostic function monitors the intake-air temperature to detect implausibly high figures.

Condition for fault identification

Test condition:

The fault is recognized when the intake-air temperature on the engine-side of the air filter is more than 24°C above the intake-air temperature before the throttle valve.

Potential problem source(s):

- Defective wiring harness between DME and intake-air temperature sensor
- Intake-air temperature sensor defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

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- Engine on
- Vehicle speed in excess of 40 km/h

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and intake-air temperature sensor
- Replace intake-air temperature sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Engine runs roughly

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P11C9; BMW DTC 10BA49: INTAKE AIR TEMPERATURE SENSOR, PLAUSIBILITY: INTAKE AIR TEMPERATURE TOO LOW

Information saved in

DME

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Fault code

10BA49 - P11C9

Fault description

The diagnostic function monitors the intake-air temperature to detect implausibly low figures.

Condition for fault identification

Test condition:

The fault is recognized when the intake-air temperature on the engine-side of the air filter is more than 39°C below the intake-air temperature before the throttle valve.

Potential problem source(s):

- Defective wiring harness between DME and intake-air temperature sensor
- Intake-air temperature sensor defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- Vehicle speed exceeds 40 km/h for at least 2 minutes

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

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- Check wiring harness between DME and intake-air temperature sensor
- Replace intake-air temperature sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Engine runs roughly

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P10D0; BMW DTC 10BA4A: CHARGE-AIR TEMPERATURE SENSOR, COLD START: CHARGE-AIR TEMPERATURE TOO HIGH

Information saved in

DME

Fault code

10BA4A - P10D0

Fault description

The diagnostic function monitors the charge-air temperature to detect excessively high values during cold starts.

Condition for fault identification

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Test condition:

The fault is recognized when the charge-air temperature exceeds an average figure from several temperatures during cold starts.

Potential problem source(s):

- Defect in wiring harness between DME and charge-air temperature sensor
- Charge-air temperature sensor defective
- Charge-air temperature sensor has been tampered with
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- 21 sec. after engine start

Other conditions:

- Cold engine start

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and charge-air temperature sensor
- Replace charge-air temperature sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Standard EML Text

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Possible apparent symptoms:

Reduced power

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P10D1; BMW DTC 10BA4B: CHARGE-AIR TEMPERATURE SENSOR, COLD START: CHARGE-AIR TEMPERATURE TOO LOW

Information saved in

DME

Fault code

10BA4B - P10D1

Fault description

The diagnostic function monitors the charge-air temperature to detect excessively low values during cold starts.

Condition for fault identification

Test condition:

The fault is recognized when the charge-air temperature is below an average figure from several temperatures during cold starts.

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Potential problem source(s):

- Defect in wiring harness between DME and charge-air temperature sensor
- Charge-air temperature sensor defective
- Charge-air temperature sensor has been tampered with
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- 21 sec. after engine start

Other conditions:

- Cold engine start

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and charge-air temperature sensor
- Replace charge-air temperature sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Standard EML Text

Possible apparent symptoms:

Reduced power

Driver information

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Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P10B0; BMW DTC 10BA4F: CHARGE-AIR TEMPERATURE SENSOR, PLAUSIBILITY: CHARGE AIR TEMPERATURE TOO HIGH

Information saved in

DME

Fault code

10BA4F - P10B0

Fault description

The diagnostic function monitors the charge-air temperature to detect implausibly high figures.

Condition for fault identification

Test condition:

The fault is recognized when the boost-air temperature is more than 24°C above the intake-air temperature.

Potential problem source(s):

- Defect in wiring harness between DME and charge-air temperature sensor
- Charge-air temperature sensor defective
- Charge-air temperature sensor has been tampered with
- Defective DME

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Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

Drive vehicle at a speed above 40 km/h for at least 2 minutes to reduce the charge-air temperature, then allow the engine to idle for at least 2 minutes to allow the charge-air temperature to rise again. This sequence must be repeated 3x.

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and charge-air temperature sensor
- Replace charge-air temperature sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Standard EML Text

Possible apparent symptoms:

Reduced power

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off

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- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P10D2; BMW DTC 10BA4F: CHARGE-AIR TEMPERATURE SENSOR, PLAUSIBILITY: CHARGE AIR TEMPERATURE TOO HIGH

Information saved in

DME

Fault code

10BA4F - P10D2

Fault description

The diagnostic function monitors the charge-air temperature to detect implausibly high figures.

Condition for fault identification

Test condition:

The fault is recognized when the boost-air temperature is more than 24°C above the intake-air temperature.

Potential problem source(s):

- Defect in wiring harness between DME and charge-air temperature sensor
- Charge-air temperature sensor defective
- Charge-air temperature sensor has been tampered with
- Defective DME

Terminal condition: none

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

Drive vehicle at a speed above 40 km/h for at least 2 minutes to reduce the charge-air temperature, then allow the engine to idle for at least 2 minutes to allow the charge-air temperature to rise again. This sequence must be repeated 3x.

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and charge-air temperature sensor
- Replace charge-air temperature sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Standard EML Text

Possible apparent symptoms:

Reduced power

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

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MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P007B; BMW DTC 10C001: NONE

Information saved in

DME

Fault code

10C001 - P007B

Fault description

Charge Air Cooler Temperature Sensor Circuit Range/Performance (Bank 1)

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

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DTC P10B4; BMW DTC 10C001: NONE

Information saved in

DME

Fault code

10C001 - P10B4

Fault description

Charge Air Cooler Temperature Sensor Gradient Too High (Bank 1)

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P10D0; BMW DTC 10C004: NONE

Information saved in

DME

Fault code

10C004 - P10D0

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Fault description

Cold Start Charge Air Temperature Too High (Bank 1)

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P10B4; BMW DTC 10C005: CHARGE-AIR TEMPERATURE SENSOR, GRADIENT: RISE TOO HIGH

Information saved in

DME

Fault code

10C005 - P10B4

Fault description

The diagnostic function monitors the charge-air temperature for excessively rapid rises.

Condition for fault identification

Test condition:

The fault is recognized when the boost-air temperature rises by at least 39 °C within 10 sec.

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Potential problem source(s):

- Defect in wiring harness between DME and charge-air temperature sensor
- Charge-air temperature sensor defective
- Charge-air temperature sensor has been tampered with
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

Drive vehicle at a speed above 40 km/h for at least 2 minutes to reduce the charge-air temperature, then allow the engine to idle for at least 2 minutes to allow the charge-air temperature to rise again. This sequence must be repeated 3x.

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and charge-air temperature sensor
- Replace charge-air temperature sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Standard EML Text

Possible apparent symptoms:

Reduced power

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Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P142E; BMW DTC 110001: NONE

Information saved in

DME

Fault code

110001 - P142E

Fault description

Cylinder Injection Cut-Off, Pressure Too Low in High-Pressure System

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

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-

Driver information

none

Service instruction

none

DTC P306F; BMW DTC 110001: NONE

Information saved in

DME

Fault code

110001 - P306F

Fault description

Fuel Rail Pressure, Minimum Pressure Fallen Below, Injection Cut-Off

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

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DTC P3149; BMW DTC 110101: INJECTOR, CYLINDER 1, ACTIVATION: HIGH-VOLTAGE SIDE; SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

110101 - P3149

Fault description

The diagnostic function monitors control-activation of the injector's high-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit to ground is present.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

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The diagnostic fault code is entered when the fault occurs 3 times in sequence with no interruption on a single cylinder.

Action in service

- Check wiring harness between DME and injectors 1 and 2, replace injector 1, if fault remains switch the new injector to cylinder 2.
- Replace the DME control module only if the fault is still present continuously.

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

Injectors 1 and 2, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective.

DTC P3102; BMW DTC 110102: INJECTOR, CYLINDER 1, ACTIVATION: LOW-VOLTAGE SIDE; SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

110102 - P3102

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Fault description

The diagnostic function monitors control-activation of the injector's low-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when the outside temperature remains more than 20°C above the model value for longer than 14 sec.

Potential problem source(s):

- Defective wiring harness
- Outside temperature sensor defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Read out outside temperature with tester and assess plausibility
- Visual inspection of outside temperature sensor
- Check wiring harness between the instrument cluster and the outside temperature sensor

Fault effect and breakdown warning

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Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

- The following conditions can lead to an incorrect diagnosis:
- Battery change or defective battery
- Engine heated by secondary source, such as auxiliary heater
- Sensor frozen

DTC P3150; BMW DTC 110104: INJECTOR, CYLINDER 1, ACTIVATION: HIGH-VOLTAGE SIDE; SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

110104 - P3150

Fault description

The diagnostic function monitors control-activation of the injector's high-voltage side.

Condition for fault identification

Test condition:

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The fault is recognized when a short circuit to positive is present.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is entered when the fault occurs 3 times in sequence with no interruption on a single cylinder.

Action in service

- Check wiring harness between DME and injectors 1 and 2, replace injector 1, if fault remains switch the new injector to cylinder 2
- Replace DME only if the fault remains present continuously

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

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Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

Injectors 1 and 2, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective.

DTC P3101; BMW DTC 110108: INJECTOR, CYLINDER 1, ACTIVATION: LOW-VOLTAGE SIDE; SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

110108 - P3101

Fault description

The diagnostic function monitors control-activation of the injector's low-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit to ground is present.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: none

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is entered when the fault occurs 3 times in sequence with no interruption on a single cylinder.

Action in service

- Check wiring harness between DME and injectors 1 and 2
- Replace injector 1, if the defect remains present respond by switching the new injector to cylinder 2.
- Replace the DME control module only if the fault is still present continuously.

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

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Service instruction

Injectors 1 and 2, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective.

DTC P3152; BMW DTC 110201: INJECTOR, CYLINDER 2, ACTIVATION: HIGH-VOLTAGE SIDE; SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

110201 - P3152

Fault description

The diagnostic function monitors control-activation of the injector's high-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit to ground is present.

Potential problem source(s):

- Defective plug or wiring harness
- Defective injector
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

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- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Inspect plugs/wiring harness between DME and injector 2, replace injector 2.
- Replace DME only if the fault remains continuously

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

Injectors 1 and 6, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective. When interchanging positions use injectors operated by a DME driver circuit that only activates one injector!

DTC P3106; BMW DTC 110202: INJECTOR, CYLINDER 2, ACTIVATION: LOW-VOLTAGE SIDE; SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

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110202 - P3106

Fault description

The diagnostic function monitors control-activation of the injector's low-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit to positive is present.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is entered when the fault occurs 3 times in sequence with no interruption on a single cylinder.

Action in service

- Inspect wiring harness between DME and injector 2, replace injector 2.
- Replace DME only if the fault remains continuously

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Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

Injectors 1 and 2, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective.

DTC P3153; BMW DTC 110204: INJECTOR, CYLINDER 2, ACTIVATION: HIGH-VOLTAGE SIDE; SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

110204 - P3153

Fault description

The diagnostic function monitors control-activation of the injector's high-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit to positive is present.

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Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is entered when the fault occurs 3 times in sequence with no interruption on a single cylinder.

Action in service

- Inspect wiring harness between DME and injector 2, replace injector 2.
- Replace DME only if the fault remains continuously

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

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Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

Injectors 1 and 6, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective. When interchanging positions use injectors operated by a DME driver circuit that only activates one injector.

DTC P3105; BMW DTC 110208: INJECTOR, CYLINDER 2, ACTIVATION: LOW-VOLTAGE SIDE; SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

110208 - P3105

Fault description

The diagnostic function monitors control-activation of the injector's low-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit to ground is present.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: none

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is entered when the fault occurs 3 times in sequence with no interruption on a single cylinder.

Action in service

- Inspect wiring harness between DME and injector 2, replace injector 2.
- Replace DME only if the fault remains continuously

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

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Service instruction

Injectors 1 and 6, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective. When interchanging positions use injectors operated by a DME driver circuit that only activates one injector!

DTC P3155; BMW DTC 110301: INJECTOR, CYLINDER 3, ACTIVATION: HIGH-VOLTAGE SIDE; SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

110301 - P3155

Fault description

The diagnostic function monitors control-activation of the injector's high-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit to ground is present.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

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Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is entered when the fault occurs 3 times in sequence with no interruption on a single cylinder.

Action in service

- Check wiring harness between DME and injectors 3 and 4
- Replace injector 4, if the defect remains present respond by switching the new injector to cylinder 3.
- Replace DME only if the fault remains present continuously

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

Injectors 1 and 2, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective.

DTC P3110; BMW DTC 110302: INJECTOR, CYLINDER 3, ACTIVATION: LOW-VOLTAGE SIDE; SHORT CIRCUIT TO POSITIVE

Information saved in

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DME

Fault code

110302 - P3110

Fault description

The diagnostic function monitors control-activation of the injector's low-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit to positive is present.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the ECU fault memory if it remains present for longer than 3 sec.

Action in service

- Read out and work through diagnostic fault codes in instrument cluster and in junction box

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Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

Injectors 1 and 2, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective.

DTC P3156; BMW DTC 110304: INJECTOR, CYLINDER 3, ACTIVATION: HIGH-VOLTAGE SIDE; SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

110304 - P3156

Fault description

The diagnostic function monitors control-activation of the injector's high-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit to positive is present.

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Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is entered when the fault occurs 3 times in sequence with no interruption on a single cylinder.

Action in service

- Check wiring harness between DME and injectors 3 and 4
- Replace injector 4, if the defect remains present respond by switching the new injector to cylinder 3.
- Replace DME only if the fault remains present continuously

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

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Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

Injectors 1 and 2, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective.

DTC P3109; BMW DTC 110308: INJECTOR, CYLINDER 3, ACTIVATION: LOW-VOLTAGE SIDE; SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

110308 - P3109

Fault description

The diagnostic function monitors control-activation of the injector's low-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit to ground is present.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: none

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is entered when the fault occurs 3 times in sequence with no interruption on a single cylinder.

Action in service

- Check wiring harness between DME and injectors 3 and 4
- Replace injector 4, if the defect remains present respond by switching the new injector to cylinder 3.
- Replace DME only if the fault remains present continuously

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

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Service instruction

Injectors 1 and 2, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective.

DTC P3158; BMW DTC 110401: INJECTOR, CYLINDER 4, ACTIVATION: HIGH-VOLTAGE SIDE; SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

110401 - P3158

Fault description

The diagnostic function monitors control-activation of the injector's high-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit to ground is present.

Potential problem source(s):

- Defective plug or wiring harness
- Defective injector
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

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- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and injectors 3 and 4
- Replace injector 4, if the defect remains present respond by switching the new injector to cylinder 3.
- Replace DME only if the fault remains present continuously

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

Injectors 1 and 6, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective. When interchanging positions use injectors operated by a DME driver circuit that only activates one injector!

DTC P3114; BMW DTC 110402: INJECTOR, CYLINDER 4, ACTIVATION: LOW-VOLTAGE SIDE; SHORT CIRCUIT TO POSITIVE

Information saved in

DME

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Fault code

110402 - P3114

Fault description

The diagnostic function monitors control-activation of the injector's low-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit to positive is present.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is entered when the fault occurs 3 times in sequence with no interruption on a single cylinder.

Action in service

- Check wiring harness between DME and injectors 4 and 3, replace injector 4, if fault remains switch the new injector to cylinder 3

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- Replace DME only if the fault remains continuously

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

Injectors 1 and 6, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective. When interchanging positions use injectors operated by a DME driver circuit that only activates one injector!

DTC P3159; BMW DTC 110404: INJECTOR, CYLINDER 4, ACTIVATION: HIGH-VOLTAGE SIDE; SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

110404 - P3159

Fault description

The diagnostic function monitors control-activation of the injector's high-voltage side.

Condition for fault identification

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Test condition:

The fault is recognized when a short circuit to positive is present.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is entered when the fault occurs 3 times in sequence with no interruption on a single cylinder.

Action in service

- Check wiring harness between DME and injectors 4 and 3, replace injector 4, if fault remains switch the new injector to cylinder 3
- Replace DME only if the fault remains continuously

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

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Engine runs roughly and can stall in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

Injectors 1 and 6, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective. When interchanging positions use injectors operated by a DME driver circuit that only activates one injector.

DTC P3113; BMW DTC 110408: INJECTOR, CYLINDER 4, ACTIVATION: LOW-VOLTAGE SIDE; SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

110408 - P3113

Fault description

The diagnostic function monitors control-activation of the injector's low-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit to ground is present.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

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Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is entered when the fault occurs 3 times in sequence with no interruption on a single cylinder.

Action in service

- Check wiring harness between DME and injectors 4 and 3, replace injector 4, if fault remains switch the new injector to cylinder 3
- Replace DME only if the fault remains continuously

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on

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- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

Injectors 1 and 6, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective. When interchanging positions use injectors operated by a DME driver circuit that only activates one injector!

DTC P3161; BMW DTC 110501: INJECTOR, CYLINDER 5, ACTIVATION: HIGH-VOLTAGE SIDE; SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

110501 - P3161

Fault description

The diagnostic function monitors control-activation of the injector's high-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit to ground is present.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

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Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is entered immediately when the fault occurs 3 times in sequence with no interruption on a single cylinder.

Action in service

- Check wiring harness between DME and injectors 3 and 4, replace injector 3, if fault remains switch the new injector to cylinder 4

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

Injectors 1 and 2, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective.

DTC P3118; BMW DTC 110502: INJECTOR, CYLINDER 5, ACTIVATION: LOW-VOLTAGE SIDE; SHORT CIRCUIT TO POSITIVE

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Information saved in

DME

Fault code

110502 - P3118

Fault description

The diagnostic function monitors control-activation of the injector's low-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit to positive is present.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is entered when the fault occurs 3 times in sequence with no interruption on a single cylinder.

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Action in service

- Check wiring harness between DME and injectors 3 and 4, replace injector 3, if fault remains switch the new injector to cylinder 4
- Replace DME only if the fault remains continuously

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

N20: Injectors 1 and 2, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective.

N55: Injectors 1 and 6, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective. When interchanging positions use injectors operated by a DME driver circuit that only activates one injector!

DTC P3162; BMW DTC 110504: INJECTOR, CYLINDER 5, ACTIVATION: HIGH-VOLTAGE SIDE; SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

110504 - P3162

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Fault description

The diagnostic function monitors control-activation of the injector's high-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit to positive is present.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is entered immediately when the fault occurs 3 times in sequence with no interruption on a single cylinder.

Action in service

- Check wiring harness between DME and injectors 3 and 4, replace injector 3, if fault remains switch the new injector to cylinder 4
- Replace DME only if the fault remains continuously

Fault effect and breakdown warning

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Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

Injectors 1 and 2, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective.

DTC P3117; BMW DTC 110508: INJECTOR, CYLINDER 5, ACTIVATION: LOW-VOLTAGE SIDE; SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

110508 - P3117

Fault description

The diagnostic function monitors control-activation of the injector's low-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit to ground is present.

Potential problem source(s):

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- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is entered when the fault occurs 3 times in sequence with no interruption on a single cylinder.

Action in service

- Inspect wiring harness between DME and injector 5, replace injector 5.
- Replace DME only if the fault remains continuously

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

Warning light:

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- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

Injectors 1 and 6, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective. When interchanging positions use injectors operated by a DME driver circuit that only activates one injector!

DTC P3164; BMW DTC 110601: INJECTOR, CYLINDER 6, ACTIVATION: HIGH-VOLTAGE SIDE; SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

110601 - P3164

Fault description

The diagnostic function monitors control-activation of the injector's high-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit to ground is present.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

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Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is entered when the fault occurs 3 times in sequence with no interruption on a single cylinder.

Action in service

- Check wiring harness between DME and injectors 1 and 2, replace injector 2, if fault remains switch the new injector to cylinder 1
- Replace DME only if the fault remains continuously

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

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Injectors 1 and 2, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective.

DTC P3122; BMW DTC 110602: INJECTOR, CYLINDER 6, ACTIVATION: LOW-VOLTAGE SIDE; SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

110602 - P3122

Fault description

The diagnostic function monitors control-activation of the injector's low-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit to positive is present.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

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Condition for fault memory entry

The diagnostic fault code is entered when the fault occurs 3 times in sequence with no interruption on a single cylinder.

Action in service

- Check wiring harness between DME and injectors 1 and 2, replace injector 2, if fault remains switch the new injector to cylinder 1.
- Replace DME only if the fault remains continuously

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

Injectors 1 and 2, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective.

DTC P3165; BMW DTC 110604: INJECTOR, CYLINDER 6, ACTIVATION: HIGH-VOLTAGE SIDE; SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

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110604 - P3165

Fault description

The diagnostic function monitors control-activation of the injector's high-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit to positive is present.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is entered when the fault occurs 3 times in sequence with no interruption on a single cylinder.

Action in service

- Check wiring harness between DME and injectors 1 and 2, replace injector 2, if fault remains switch the new injector to cylinder 1
- Replace DME only if the fault remains continuously

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Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

Injectors 1 and 2, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective.

DTC P3121; BMW DTC 110608: INJECTOR, CYLINDER 6, ACTIVATION: LOW-VOLTAGE SIDE; SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

110608 - P3121

Fault description

The diagnostic function monitors control-activation of the injector's low-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit to ground is present.

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Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is entered when the fault occurs 3 times in sequence with no interruption on a single cylinder.

Action in service

- Check wiring harness between DME and injectors 1 and 6
- Replace injector 6, if the defect remains present respond by switching the new injector to cylinder 1
- Replace DME only if the fault remains continuously

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

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Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

Injectors 1 and 6, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective. When interchanging positions use injectors operated by a DME driver circuit that only activates one injector!

DTC P3148; BMW DTC 111020: INJECTOR, CYLINDER 1, HIGH-VOLTAGE SIDE, ACTIVATION: COIL-WINDING SHORT CIRCUIT

Information saved in

DME

Fault code

111020 - P3148

Fault description

The diagnostic function monitors control-activation of the injector's high-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit between the high and low-voltage sides is present.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: none

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is entered when the fault occurs 3 times in sequence with no interruption on a single cylinder.

Action in service

- Check wiring harness between DME and injectors 1 and 2, replace injector 1, if fault remains switch the new injector to cylinder 2
- Replace the DME control module only if the fault is still present continuously.

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

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Service instruction

Injectors 1 and 2, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective.

DTC P3151; BMW DTC 111021: INJECTOR, CYLINDER 2, HIGH-VOLTAGE SIDE, ACTIVATION: COIL-WINDING SHORT CIRCUIT

Information saved in

DME

Fault code

111021 - P3151

Fault description

The diagnostic function monitors control-activation of the injector's high-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit between the high and low-voltage sides is present.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

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- Engine ON

Condition for fault memory entry

The diagnostic fault code is entered when the fault occurs 3 times in sequence with no interruption on a single cylinder.

Action in service

- Inspect wiring harness between DME and injector 2, replace injector 2.
- Replace DME only if the fault remains continuously

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

Injectors 1 and 6, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective. When interchanging positions use injectors operated by a DME driver circuit that only activates one injector!

DTC P3154; BMW DTC 111022: INJECTOR, CYLINDER 3, HIGH-VOLTAGE SIDE, ACTIVATION: COIL-WINDING SHORT CIRCUIT

Information saved in

DME

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Fault code

111022 - P3154

Fault description

The diagnostic function monitors control-activation of the injector's high-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit between the high and low-voltage sides is present.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is entered when the fault occurs 3 times in sequence with no interruption on a single cylinder.

Action in service

- Check wiring harness between DME and injectors 3 and 4

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- Replace injector 4, if the defect remains present respond by switching the new injector to cylinder 3.
- Replace DME only if the fault remains present continuously

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

Injectors 1 and 2, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective.

DTC P3157; BMW DTC 111023: INJECTOR, CYLINDER 4, HIGH-VOLTAGE SIDE, ACTIVATION: COIL-WINDING SHORT CIRCUIT

Information saved in

DME

Fault code

111023 - P3157

Fault description

The diagnostic function monitors control-activation of the injector's high-voltage side.

Condition for fault identification

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Test condition:

The fault is recognized when a short circuit between the high and low-voltage sides is present.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is entered when the fault occurs 3 times in sequence with no interruption on a single cylinder.

Action in service

- Check wiring harness between DME and injectors 4 and 3, replace injector 4, if fault remains switch the new injector to cylinder 3
- Replace DME only if the fault remains continuously

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

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Engine runs roughly and can stall in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

Injectors 1 and 6, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective. When interchanging positions use injectors operated by a DME driver circuit that only activates one injector!

DTC P3160; BMW DTC 111024: INJECTOR, CYLINDER 5, HIGH-VOLTAGE SIDE, ACTIVATION: COIL-WINDING SHORT CIRCUIT

Information saved in

DME

Fault code

111024 - P3160

Fault description

The diagnostic function monitors control-activation of the injector's high-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit between the high and low-voltage sides is present.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

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Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is entered when the fault occurs 3 times in sequence with no interruption on a single cylinder.

Action in service

- Check wiring harness between DME and injectors 3 and 4, replace injector 3, if fault remains switch the new injector to cylinder 4
- Replace DME only if the fault remains continuously

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on

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- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

Injectors 1 and 2, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective.

DTC P3163; BMW DTC 111025: INJECTOR, CYLINDER 6, HIGH-VOLTAGE SIDE, ACTIVATION: COIL-WINDING SHORT CIRCUIT

Information saved in

DME

Fault code

111025 - P3163

Fault description

The diagnostic function monitors control-activation of the injector's high-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit between the high and low-voltage sides is present.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

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Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is entered when the fault occurs 3 times in sequence with no interruption on a single cylinder.

Action in service

- Check wiring harness between DME and injectors 1 and 2, replace injector 2, if fault remains switch the new injector to cylinder 1.
- Replace DME only if the fault remains continuously

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

Injectors 1 and 2, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective.

DTC P3103; BMW DTC 111030: INJECTOR, CYLINDER 1, LOW-VOLTAGE SIDE, ACTIVATION:

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BOOSTER TIME WINDOW

Information saved in

DME

Fault code

111030 - P3103

Fault description

The diagnostic function monitors control-activation of the injector's low-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when the current rises too slowly.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

If the fault occurs on the same cylinder 3 times in an uninterrupted sequence, plus the debounce time of 0.5 sec.,

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the diagnostic fault code is logged.

Action in service

- Check wiring harness between DME and injectors 1 and 2, replace injector 1, if fault remains switch the new injector to cylinder 2
- Replace the DME control module only if the fault is still present continuously.

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

Service instruction

Injectors 1 and 2, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective.

DTC P3107; BMW DTC 111031: INJECTOR, CYLINDER 2, LOW-VOLTAGE SIDE, ACTIVATION: BOOSTER TIME WINDOW

Information saved in

DME

Fault code

111031 - P3107

Fault description

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The diagnostic function monitors control-activation of the injector's low-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when the current rises too slowly.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

If the fault occurs on the same cylinder 3 times in an uninterrupted sequence, plus the debounce time of 0.5 sec., the diagnostic fault code is logged.

Action in service

- Check wiring harness between DME and injectors 1 and 6, replace injector 6, if fault remains switch the new injector to cylinder 1
- Replace DME only if the fault remains continuously

Fault effect and breakdown warning

Breakdown notice:

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Engine fault

Possible apparent symptoms:

Engine runs roughly

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

Service instruction

Injectors 1 and 6, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective. When interchanging positions use injectors operated by a DME driver circuit that only activates one injector!

DTC P3111; BMW DTC 111032: INJECTOR, CYLINDER 3, LOW-VOLTAGE SIDE, ACTIVATION: BOOSTER TIME WINDOW

Information saved in

DME

Fault code

111032 - P3111

Fault description

The diagnostic function monitors control-activation of the injector's low-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when the current rises too slowly.

Potential problem source(s):

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- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

If the fault occurs on the same cylinder 3 times in an uninterrupted sequence, plus the debounce time of 0.5 sec., the diagnostic fault code is logged.

Action in service

- Check wiring harness between DME and injectors 3 and 4
- Replace injector 4, if the defect remains present respond by switching the new injector to cylinder 3.
- Replace DME only if the fault remains present continuously

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly

Driver information

Warning light:

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- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

Service instruction

Injectors 1 and 2, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective.

DTC P3115; BMW DTC 111033: INJECTOR, CYLINDER 4, LOW-VOLTAGE SIDE, ACTIVATION: BOOSTER TIME WINDOW

Information saved in

DME

Fault code

111033 - P3115

Fault description

The diagnostic function monitors control-activation of the injector's low-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when the current rises too slowly.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

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Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

If the fault occurs on the same cylinder 3 times in an uninterrupted sequence, plus the debounce time of 0.5 sec., the diagnostic fault code is logged.

Action in service

- Check wiring harness between DME and injectors 3 and 4
- Replace injector 4, if the defect remains present respond by switching the new injector to cylinder 3.
- Replace DME only if the fault remains present continuously

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

Service instruction

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Injectors 1 and 2, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective.

DTC P3119; BMW DTC 111034: INJECTOR, CYLINDER 5, LOW-VOLTAGE SIDE, ACTIVATION: BOOSTER TIME WINDOW

Information saved in

DME

Fault code

111034 - P3119

Fault description

The diagnostic function monitors control-activation of the injector's low-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when the current rises too slowly.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

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Condition for fault memory entry

If the fault occurs on the same cylinder 3 times in an uninterrupted sequence, plus the debounce time of 0.5 sec., the diagnostic fault code is logged.

Action in service

- Check wiring harness between DME and injectors 3 and 4, replace injector 3, if fault remains switch the new injector to cylinder 4
- Replace DME only if the fault remains continuously

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

Service instruction

Injectors 1 and 2, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective.

DTC P3123; BMW DTC 111035: INJECTOR, CYLINDER 6, LOW-VOLTAGE SIDE, ACTIVATION: BOOSTER TIME WINDOW

Information saved in

DME

Fault code

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111035 - P3123

Fault description

The diagnostic function monitors control-activation of the injector's low-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when the current rises too slowly.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

If the fault occurs on the same cylinder 3 times in an uninterrupted sequence, plus the debounce time of 0.5 sec., the diagnostic fault code is logged.

Action in service

- Check wiring harness between DME and injectors 1 and 2, replace injector 2, if fault remains switch the new injector to cylinder 1
- Replace DME only if the fault remains continuously

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Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

Service instruction

Injectors 1 and 2, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective.

DTC P3100; BMW DTC 111040: INJECTOR, CYLINDER 1, LOW-VOLTAGE SIDE, ACTIVATION: OPEN CIRCUIT

Information saved in

DME

Fault code

111040 - P3100

Fault description

The diagnostic function monitors control-activation of the injector's low-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when an open wire is present.

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Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is entered when the fault occurs 3 times in sequence with no interruption on a single cylinder.

Action in service

- Check wiring harness between DME and injectors 1 and 2, replace injector 1, if fault remains switch the new injector to cylinder 2
- Replace the DME control module only if the fault is still present continuously.

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

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Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

Injectors 1 and 2, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective.

DTC P3104; BMW DTC 111041: INJECTOR, CYLINDER 2, LOW-VOLTAGE SIDE, ACTIVATION: OPEN CIRCUIT

Information saved in

DME

Fault code

111041 - P3104

Fault description

The diagnostic function monitors control-activation of the injector's low-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when an open wire is present.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is entered when the fault occurs 3 times in sequence with no interruption on a single cylinder.

Action in service

- Inspect wiring harness between DME and injector 2, replace injector 2.
- Replace DME only if the fault remains continuously

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

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Service instruction

Injectors 1 and 6, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective. When interchanging positions use injectors operated by a DME driver circuit that only activates one injector!

DTC P3108; BMW DTC 111042: INJECTOR, CYLINDER 3, LOW-VOLTAGE SIDE, ACTIVATION: OPEN CIRCUIT

Information saved in

DME

Fault code

111042 - P3108

Fault description

The diagnostic function monitors control-activation of the injector's low-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when an open wire is present.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

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Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is entered when the fault occurs 3 times in sequence with no interruption on a single cylinder.

Action in service

- Check wiring harness between DME and injectors 3 and 4
- Replace injector 4, if the defect remains present respond by switching the new injector to cylinder 3.
- Replace DME only if the fault remains present continuously

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

Injectors 1 and 2, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective.

DTC P3112; BMW DTC 111043: INJECTOR, CYLINDER 4, LOW-VOLTAGE SIDE, ACTIVATION: OPEN CIRCUIT

Information saved in

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DME

Fault code

111043 - P3112

Fault description

The diagnostic function monitors control-activation of the injector's low-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when an open wire is present.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is entered when the fault occurs 3 times in sequence with no interruption on a single cylinder.

Action in service

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- Check wiring harness between DME and injectors 4 and 3, replace injector 4, if fault remains switch the new injector to cylinder 3
- Replace DME only if the fault remains continuously

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

Injectors 1 and 6, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective. When interchanging positions use injectors operated by a DME driver circuit that only activates one injector!

DTC P3116; BMW DTC 111044: INJECTOR, CYLINDER 5, LOW-VOLTAGE SIDE, ACTIVATION: OPEN CIRCUIT

Information saved in

DME

Fault code

111044 - P3116

Fault description

The diagnostic function monitors control-activation of the injector's low-voltage side.

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Condition for fault identification

Test condition:

The fault is recognized when an open wire is present.

Potential problem source(s):

- Defective wiring harness
- Defective injector
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is entered when the fault occurs 3 times in sequence with no interruption on a single cylinder.

Action in service

- Inspect wiring harness between DME and injector 5, replace injector 5.
- Replace DME only if the fault remains continuously

Fault effect and breakdown warning

Breakdown notice:

Engine fault

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Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

Injectors 1 and 6, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective. When interchanging positions use injectors operated by a DME driver circuit that only activates one injector!

DTC P3120; BMW DTC 111045: INJECTOR, CYLINDER 6, LOW-VOLTAGE SIDE, ACTIVATION: OPEN CIRCUIT

Information saved in

DME

Fault code

111045 - P3120

Fault description

The diagnostic function monitors control-activation of the injector's low-voltage side.

Condition for fault identification

Test condition:

The fault is recognized when an open wire is present.

Potential problem source(s):

- Defective wiring harness
- Defective injector

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- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is entered when the fault occurs 3 times in sequence with no interruption on a single cylinder.

Action in service

- Check wiring harness between DME and injectors 1 and 6, replace injector 6, if fault remains switch the new injector to cylinder 1.
- Replace DME only if the fault remains continuously

Fault effect and breakdown warning

Breakdown notice:

Engine fault

Possible apparent symptoms:

Engine runs roughly and can stall in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on

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- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

Injectors 1 and 6, and 3 and 4, are connected to shared DME driver circuits. This means that diagnostic fault codes are always logged for both injectors, although usually only one is defective. When interchanging positions use injectors operated by a DME driver circuit that only activates one injector!

DTC P16A5; BMW DTC 111110: DME, INTERNAL FAULT, HDEV OUTPUT-STAGE MODULE 1: SPI COMMUNICATION FAULTY

Information saved in

DME

Fault code

111110 - P16A5

Fault description

The diagnostic function monitors the driver circuit responsible for activating the injector.

Condition for fault identification

Test condition:

The fault is recognized when communications with the driver circuit that activates the injector break down.

Potential problem source(s):

- DME defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

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Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- Engine runs poorly with power loss
- Breakdown in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

- none

DTC P16A5; BMW DTC 111111: DME, INTERNAL FAULT, HDEV OUTPUT-STAGE MODULE 2: SPI COMMUNICATION FAULTY

Information saved in

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DME

Fault code

111111 - P16A5

Fault description

The diagnostic function monitors the driver circuit responsible for activating the injector.

Condition for fault identification

Test condition:

The fault is recognized when communications with the driver circuit that activates the injector break down.

Potential problem source(s):

- DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

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Breakdown notice:

- none

Possible apparent symptoms:

- Engine runs poorly with power loss
- Breakdown in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

- none

DTC P16A5; BMW DTC 111112: DME, INTERNAL FAULT, HDEV OUTPUT-STAGE MODULE 1: SPI COMMUNICATION IMPLAUSIBLE

Information saved in

DME

Fault code

111112 - P16A5

Fault description

The diagnostic function monitors the driver circuit responsible for activating the injector.

Condition for fault identification

Test condition:

The fault is recognized when communications with the driver circuit that activates the injector break down.

Potential problem source(s):

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- DME defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- Engine runs poorly with power loss
- Breakdown in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on

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- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

- none

DTC P16A5; BMW DTC 111113: DME, INTERNAL FAULT, HDEV OUTPUT-STAGE MODULE 2: SPI COMMUNICATION IMPLAUSIBLE

Information saved in

DME

Fault code

111113 - P16A5

Fault description

The diagnostic function monitors the driver circuit responsible for activating the injector.

Condition for fault identification

Test condition:

The fault is recognized when communications with the driver circuit that activates the injector break down.

Potential problem source(s):

- DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

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Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- Engine runs poorly with power loss
- Breakdown in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

- none

DTC P16A5; BMW DTC 111114: DME, INTERNAL FAULT, HDEV OUTPUT-STAGE MODULE 1: SPI COMMUNICATION, SIGNAL ERROR

Information saved in

DME

Fault code

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111114 - P16A5

Fault description

The diagnostic function monitors the driver circuit responsible for activating the injector.

Condition for fault identification

Test condition:

The fault is recognized when communications with the driver circuit that activates the injector break down.

Potential problem source(s):

- DME defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- none

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Possible apparent symptoms:

- Engine runs poorly with power loss
- Breakdown in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

- none

DTC P16A5; BMW DTC 111115: DME, INTERNAL FAULT, HDEV OUTPUT-STAGE MODULE 2: SPI COMMUNICATION, SIGNAL ERROR

Information saved in

DME

Fault code

111115 - P16A5

Fault description

The diagnostic function monitors the driver circuit responsible for activating the injector.

Condition for fault identification

Test condition:

The fault is recognized when communications with the driver circuit that activates the injector break down.

Potential problem source(s):

- DME defective

Terminal condition: Terminal 15

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Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- Engine runs poorly with power loss
- Breakdown in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

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Service instruction

- none

DTC P0171; BMW DTC 118001: NONE

Information saved in

DME

Fault code

118001 - P0171

Fault description

System Too Lean (Bank 1)

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P2177; BMW DTC 118001: NONE

Information saved in

DME

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Fault code

118001 - P2177

Fault description

System Too Lean Off Idle (Bank 1)

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P0172; BMW DTC 118002: NONE

Information saved in

DME

Fault code

118002 - P0172

Fault description

System Too Rich (Bank 1)

Condition for fault identification

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none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P2178; BMW DTC 118002: NONE

Information saved in

DME

Fault code

118002 - P2178

Fault description

System Too Rich Off Idle (Bank 1)

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

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Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P0171; BMW DTC 118401: NONE

Information saved in

DME

Fault code

118401 - P0171

Fault description

System Too Lean (Bank 1)

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

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none

DTC P306D; BMW DTC 118401: NONE

Information saved in

DME

Fault code

118401 - P306D

Fault description

Fuel Supply Closed Loop Fuel Control, Upper Limit Exceeded

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P0172; BMW DTC 118402: NONE

Information saved in

DME

Fault code

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118402 - P0172

Fault description

System Too Rich (Bank 1)

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P306E; BMW DTC 118402: NONE

Information saved in

DME

Fault code

118402 - P306E

Fault description

Fuel Supply Closed Loop Fuel Control, Lower Limit Fallen Below

Condition for fault identification

none

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Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P2097; BMW DTC 118601: OXYGEN SENSOR BEFORE CATALYTIC CONVERTER, FINE MIXTURE CONTROL: EXHAUST GAS AFTER CATALYTIC CONVERTER TOO RICH

Information saved in

DME

Fault code

118601 - P2097

Fault description

The diagnostic function monitors the oxygen sensor behind the catalytic converter to determine whether it displays a consistent deviation.

Condition for fault identification

Test condition:

The fault is recognized when the trim control on the oxygen sensor behind catalytic converter exceeds a level of negative 4%.

Potential problem source(s):

- Defective wiring harness
- Leak in exhaust system on engine-side of catalytic converter

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- Oxygen sensor before catalytic converter defective
- Oxygen sensor behind catalytic converter defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine on
- Drive at a constant speed between 50 and 80 km/h at moderate RPM (1400 to 3240 RPM).
- No faults that would cause mixture faults are registered.

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 10 min.

Action in service

- If faults related to mixture control are present repair these first
- Conduct system test for oxygen sensors in wrong mutual positions
- Check muffler unit before oxygen sensor behind catalytic converter for leaks
- Check wiring harness between oxygen sensor and DME
- Replace pre-catalyst oxygen sensor
- Replace oxygen sensor behind catalytic converter
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

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Possible apparent symptoms:

- MIL lamp lights up after 2nd driving cycle
- Higher exhaust emissions
- Higher fuel consumption
- Surge

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P2096; BMW DTC 118602: OXYGEN SENSOR BEFORE CATALYTIC CONVERTER, FINE MIXTURE CONTROL: EXHAUST GAS AFTER CATALYTIC CONVERTER TOO LEAN

Information saved in

DME

Fault code

118602 - P2096

Fault description

The diagnostic function monitors the oxygen sensor behind the catalytic converter to determine whether it displays a consistent deviation.

Condition for fault identification

Test condition:

The fault is recognized when the trim control on the oxygen sensor behind the catalytic converter exceeds a level of positive 4%.

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Potential problem source(s):

- Defective wiring harness
- Leak in exhaust system on engine-side of catalytic converter
- Oxygen sensor before catalytic converter defective
- Oxygen sensor behind catalytic converter defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine on
- Drive at a constant speed between 50 and 80 km/h at moderate RPM (1400 to 3240 RPM).
- No faults that would cause mixture faults are registered.

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 10 min.

Action in service

- If faults related to mixture control are present repair these first
- Conduct system test for oxygen sensors in wrong mutual positions
- Check muffler unit before oxygen sensor behind catalytic converter for leaks
- Check wiring harness between oxygen sensor and DME
- Replace pre-catalyst oxygen sensor
- Replace oxygen sensor behind catalytic converter
- Replace DME

Fault effect and breakdown warning

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Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

- MIL lamp lights up after 2nd driving cycle
- Higher exhaust emissions
- Higher fuel consumption
- Surge

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P119D; BMW DTC 118C02: MIXTURE ADAPTATION, INJECTOR AGEING: CYLINDER BANK 1: LONG-TERM ADAPTATION TOO HIGH

Information saved in

DME

Fault code

118C02 - P119D

Fault description

The diagnostic function monitors the mixture correction required to dial in the specified lambda excess-air factor.

Condition for fault identification

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Test condition:

The fault is recognized when the mixture correction rises above or falls below a fault threshold owing to the long-term adaptation value.

Potential problem source(s):

- Collateral fault caused by malfunction in mixture adaptation

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

None, adaptation is updated every 500 km, if the fault threshold is exceeded following the update the diagnostic fault code is logged immediately.

Action in service

- Work through faults related to mixture adaptation

Fault effect and breakdown warning

Breakdown notice:

None, engine continues running without negative effects

Possible apparent symptoms:

None

Driver information

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Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

none

DTC P2187; BMW DTC 118E01: MIXTURE ADAPTATION, IDLE: MIXTURE TOO LEAN

Information saved in

DME

Fault code

118E01 - P2187

Fault description

The diagnostic function monitors the air-fuel mixture at idle.

Condition for fault identification

Test condition:

Data adoption/matching with Summary Table; as indicated PP -> ST

Mass-airflow rate > 20 kg/h

Engine speed > 1600 RPM

Potential problem source(s):

- Diagnostic fault code logged owing to defective:
- Oxygen sensor (pre-catalyst)
- HFM
- Injection nozzle
- Intake-manifold pressure sensor
- Leaks in and around induction system (positive crankcase ventilation, oil cap, oil dipstick, tank EVAP

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vent line, brake booster)
- Leak in exhaust system (exhaust-side cylinder head to post-catalyst oxygen sensor) Fuel presupply pump
- Rail-pressure sensor
- Camshaft position sensor
- Intake-air temperature
- Poor-quality gasoline

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Because this is a secondary fault, start by repairing the primary faults

Fault effect and breakdown warning

Breakdown notice:

It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to the possible low engine output.

Possible apparent symptoms:

Engine runs poorly with power loss

Driver information

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Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

Always delete the mixture adaptation after repairing the problem source!

DTC P2188; BMW DTC 118E02: MIXTURE ADAPTATION, IDLE: MIXTURE TOO RICH

Information saved in

DME

Fault code

118E02 - P2188

Fault description

The diagnostic function monitors the air-fuel mixture at idle.

Condition for fault identification

Test condition:

Data adoption/matching with Summary Table; as indicated PP -> ST

Mass-airflow rate > 20 kg/h

Engine speed > 1600 RPM

Potential problem source(s):

- Diagnostic fault code logged owing to defective:
- Oxygen sensor (pre-catalyst)
- HFM
- Injection nozzle
- Intake-manifold pressure sensor
- Leaks in and around induction system (positive crankcase ventilation, oil cap, oil dipstick, tank EVAP

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vent line, brake booster)
- Leak in exhaust system (exhaust-side cylinder head to post-catalyst oxygen sensor) Fuel presupply pump
- Rail-pressure sensor
- Camshaft position sensor
- Intake-air temperature
- Poor-quality gasoline

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Because this is a secondary fault, start by repairing the primary faults

Fault effect and breakdown warning

Breakdown notice:

It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to the possible low engine output.

Possible apparent symptoms:

Engine runs poorly with power loss

Driver information

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Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

Always delete the mixture adaptation after repairing the problem source!

DTC P2177; BMW DTC 118F20: MIXTURE ADAPTATION, LOWER SPEED RANGE: MIXTURE AT PART LOAD TOO LEAN

Information saved in

DME

Fault code

118F20 - P2177

Fault description

The diagnostic function monitors the mixture adaptation.

Condition for fault identification

Test condition:

The fault is recognized when the mixture is too lean and must be enriched by more than 25-30%, depending on load factor.

Potential problem source(s):

- Oxygen sensor before catalytic converter defective
- Mass-airflow sensor defective
- Defective injectors
- Intake-manifold pressure sensor defective
- Intake-air temperature sensor defective
- Camshaft position sensor defective
- Defect in high-pressure fuel system

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- Defect in low-pressure fuel system
- Intake system leaking
- Oil cap not sealing
- Leak in exhaust system before oxygen sensor behind catalytic converter
- Poor-quality gasoline

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- EVAP not active

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- If additional faults related to the following components are present, process these first: Pre-catalyst oxygen sensor, mass-airflow sensor, intake-manifold pressure sensor, intake-air temperature sensor, camshaft position sensor, high-pressure fuel system, low-pressure fuel system Check air-induction system for leaks (also checking the following components: Positive crankcase ventilation, oil cap, tank evaporative emissions system)
- Check exhaust system for leaks
- Replace injectors

Fault effect and breakdown warning

Breakdown notice:

- Loss of power

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Possible apparent symptoms:

- Engine runs poorly

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

- Delete mixture adaptations following repair

DTC P2178; BMW DTC 118F21: MIXTURE ADAPTATION, LOWER SPEED RANGE: MIXTURE AT PART LOAD TOO RICH

Information saved in

DME

Fault code

118F21 - P2178

Fault description

The diagnostic function monitors the mixture adaptation.

Condition for fault identification

Test condition:

The fault is recognized when the mixture is too rich and must be leaned out by more than 25-30%, depending on load factor.

Potential problem source(s):

- Oxygen sensor before catalytic converter defective
- Mass-airflow sensor defective
- Defective injectors

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- Intake-manifold pressure sensor defective
- Intake-air temperature sensor defective
- Camshaft position sensor defective
- Defect in high-pressure fuel system
- Defect in low-pressure fuel system
- Leak in exhaust system before oxygen sensor behind catalytic converter
- Poor-quality gasoline

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- EVAP not active

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- If additional faults related to the following components are present, process these first: Pre-catalyst oxygen sensor, mass-airflow sensor, intake-manifold pressure sensor, intake-air temperature sensor, camshaft position sensor, high-pressure fuel system, low-pressure fuel system Check exhaust system for leaks
- Replace injectors

Fault effect and breakdown warning

Breakdown notice:

- none

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Possible apparent symptoms:

- none

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

- Delete mixture adaptations following repair

DTC P0193; BMW DTC 119001: RAIL PRESSURE SENSOR, ELECTRICAL: SHORT CIRCUIT TO B+

Information saved in

DME

Fault code

119001 - P0193

Fault description

The diagnosis function monitors the upper voltage limit of the rail-pressure sensor.

Condition for fault identification

Test condition:

The fault is recognized when the voltage of the rail-pressure sensor exceeds 4.6 V.

Potential problem source(s):

- Defect in wiring harness between DME and rail-pressure sensor
- Defective rail-pressure sensor
- Defective DME

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Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and rail-pressure sensor
- Replace rail-pressure sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Standard EML Text

Possible apparent symptoms:

Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on

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- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P0192; BMW DTC 119002: RAIL-PRESSURE SENSOR, ELECTRIC: SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

119002 - P0192

Fault description

The diagnostic function monitors the rail-pressure sensor's lower voltage limit.

Condition for fault identification

Test condition:

The fault is recognized when the voltage of the rail-pressure sensor is less than 0.2 V.

Potential problem source(s):

- Defect in wiring harness between DME and rail-pressure sensor
- Defective rail-pressure sensor
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

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- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and rail-pressure sensor
- Replace rail-pressure sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Standard EML Text

Possible apparent symptoms:

Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P2542; BMW DTC 119201: FUEL LOW-PRESSURE SENSOR, ELECTRIC: SHORT CIRCUIT TO POSITIVE

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DME

Fault code

119201 - P2542

Fault description

The diagnostic function monitors the upper voltage limit of the low-pressure sensor.

Condition for fault identification

Test condition:

The fault is recognized when the voltage of the low-pressure sensor is > 3.6 V.

Potential problem source(s):

- Wiring harness between DME and low-pressure sensor
- Defect in low-pressure sensor
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and low-pressure sensor

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- Replace low-pressure sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P2541; BMW DTC 119202: FUEL LOW-PRESSURE SENSOR, ELECTRICAL: SHORT TO EARTH

Information saved in

DME

Fault code

119202 - P2541

Fault description

The diagnostic function monitors the lower voltage limit of the low-pressure sensor.

Condition for fault identification

Test condition:

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The fault is recognized when the voltage of the low-pressure sensor is < 0.3 V.

Potential problem source(s):

- Wiring harness between DME and low-pressure sensor
- Defect in low-pressure sensor
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and low-pressure sensor
- Replace low-pressure sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

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Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P10CE; BMW DTC 119301: RAIL-PRESSURE SENSOR, VOLTAGE TEST: UPPER THRESHOLD EXCEEDED

Information saved in

DME

Fault code

119301 - P10CE

Fault description

The diagnostic function monitors the voltage of the rail-pressure sensor.

Condition for fault identification

Test condition:

The fault is recognized when the voltage of the rail-pressure sensor is between 4.1 V and 4.8 V.

Potential problem source(s):

- Defect in wiring harness between DME and rail-pressure sensor
- Defective rail-pressure sensor
- Defect in high-pressure system
- Defective DME

Terminal condition: none

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Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and rail-pressure sensor
- Replace rail-pressure sensor
- Repair problem in high-pressure fuel system
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Standard EML Text

Possible apparent symptoms:

Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on

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- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P10CF; BMW DTC 119302: RAIL-PRESSURE SENSOR, VOLTAGE TEST: LOWER THRESHOLD UNDERSHOT

Information saved in

DME

Fault code

119302 - P10CF

Fault description

The diagnostic function monitors the voltage of the rail-pressure sensor.

Condition for fault identification

Test condition:

The fault is recognized when the voltage of the rail-pressure sensor is between 0.2 V and 0.52 V.

Potential problem source(s):

- Defect in wiring harness between DME and rail-pressure sensor
- Defective rail-pressure sensor
- Defect in high-pressure system
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

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- None

Other conditions:

- DME not in shutdown phase

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Check wiring harness between DME and rail-pressure sensor
- Replace rail-pressure sensor
- Repair problem in high-pressure fuel system
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Standard EML Text

Possible apparent symptoms:

Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P0088; BMW DTC 119304: RAIL PRESSURE SENSOR, PLAUSIBILITY: MAXIMUM PRESSURE EXCEEDED

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Information saved in

DME

Fault code

119304 - P0088

Fault description

The diagnostic function monitors the fuel rail for excessive pressure levels prior to the engine start.

Condition for fault identification

Test condition:

The fault is recognized when the relative rail pressure prior to engine start is >10 bar, and a mixture fault or fuel high-pressure circuit fault appears following the engine start.

Potential problem source(s):

- Defect in wiring harness between DME and rail-pressure sensor
- Defective rail-pressure sensor
- Defect in high-pressure system
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- 10 sec. after engine start

Other conditions:

- Engine ON

Condition for fault memory entry

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The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Check wiring harness between DME and rail-pressure sensor
- Replace rail-pressure sensor
- Repair problem in high-pressure fuel system
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Standard EML Text

Possible apparent symptoms:

Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P0087; BMW DTC 119308: RAIL PRESSURE SENSOR, PLAUSIBILITY: MINIMUM PRESSURE UNDERSHOT

Information saved in

DME

Fault code

119308 - P0087

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Fault description

The diagnostic function monitors the rail pressure to determine whether it drops too low during engine operation.

Condition for fault identification

Test condition:

The fault is recognized when the relative rail pressure during engine operation is > 40 bar and a mixture fault or a fuel high-pressure fault is present at the same time.

Potential problem source(s):

- Defect in wiring harness between DME and rail-pressure sensor
- Defective rail-pressure sensor
- Defect in high-pressure system
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and rail-pressure sensor
- Replace rail-pressure sensor
- Repair problem in high-pressure fuel system

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- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Standard EML Text

Possible apparent symptoms:

Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P10D9; BMW DTC 119404: RAIL PRESSURE SENSOR, PLAUSIBILITY: SIGNAL FROZEN

Information saved in

DME

Fault code

119404 - P10D9

Fault description

The diagnostic function monitors the variations in the signal from the rail-pressure sensor.

Condition for fault identification

Test condition:

The fault is recognized when the voltage of the rail-pressure sensor varies by less than 5 mV.

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Potential problem source(s):

- Defect in wiring harness between DME and rail-pressure sensor
- Defective rail-pressure sensor
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- Rail pressure exceeds 4 MPa

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and rail-pressure sensor
- Replace rail-pressure sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- Loss of power

Driver information

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Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

- none

DTC P0088; BMW DTC 11A001: FUEL HIGH-PRESSURE SYSTEM, FUEL PRESSURE: MAXIMUM PRESSURE EXCEEDED

Information saved in

DME

Fault code

11A001 - P0088

Fault description

The diagnostic function monitors the high-pressure fuel system to determine whether the pressure levels remain at the specified levels.

Condition for fault identification

Test condition:

The fault is recognized when the rail pressure rises beyond the specified level.

Potential problem source(s):

- Defect in low-pressure system
- Defective rail-pressure sensor
- High-pressure pump defective

Terminal condition: none

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check low-pressure system (filter, pump pressure and flow rate, sensor, plugs/wiring harness), replace as indicated
- Low-pressure ECU (EKP electric fuel pump), read out diagnostic fault codes
- Delete adaptation data for fuel low-pressure control
- Check rail pressure sensor incl. plugs/wiring harness, replace as indicated
- Replace high-pressure pump

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its limp-home program, continued vehicle operation is possible but driveability is restricted, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

- Loss of power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on

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- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P302A; BMW DTC 11A001: FUEL HIGH-PRESSURE SYSTEM, FUEL PRESSURE: MAXIMUM PRESSURE EXCEEDED

Information saved in

DME

Fault code

11A001 - P302A

Fault description

The diagnostic function monitors the high-pressure fuel system to determine whether the pressure levels remain at the specified levels.

Condition for fault identification

Test condition:

The fault is recognized when the rail pressure rises beyond the specified level.

Potential problem source(s):

- Defect in low-pressure system
- Defective rail-pressure sensor
- High-pressure pump defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

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Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check low-pressure system (filter, pump pressure and flow rate, sensor, plugs/wiring harness), replace as indicated
- Low-pressure ECU (EKP electric fuel pump), read out diagnostic fault codes
- Delete adaptation data for fuel low-pressure control
- Check rail pressure sensor incl. plugs/wiring harness, replace as indicated
- Replace high-pressure pump

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its limp-home program, continued vehicle operation is possible but driveability is restricted, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

- Loss of power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

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None

DTC P0087; BMW DTC 11A002: FUEL HIGH-PRESSURE SYSTEM, FUEL PRESSURE: MINIMUM PRESSURE UNDERSHOT

Information saved in

DME

Fault code

11A002 - P0087

Fault description

The diagnostic function monitors the high-pressure fuel system to determine whether the pressure levels remain at the specified levels.

Condition for fault identification

Test condition:

The fault is recognized when the rail pressure is below the specified level.

Potential problem source(s):

- Fuel tank empty
- Obstruction in fuel filter
- Fuel pump defective
- Defective rail-pressure sensor
- High-pressure pump defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

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Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check fuel level
- Check low-pressure system (filter, pump pressure and flow rate, sensor, plugs/wiring harness), replace as indicated
- Low-pressure ECU (EKP electric fuel pump), read out diagnostic fault codes
- Delete adaptation data for fuel low-pressure control
- Check rail pressure sensor incl. plugs/wiring harness, replace as indicated
- Replace high-pressure pump

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its limp-home program, continued vehicle operation is possible but driveability is restricted, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

- Loss of power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P302C; BMW DTC 11A002: FUEL HIGH-PRESSURE SYSTEM, FUEL PRESSURE: MINIMUM

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PRESSURE UNDERSHOT

Information saved in

DME

Fault code

11A002 - P302C

Fault description

The diagnostic function monitors the high-pressure fuel system to determine whether the pressure levels remain at the specified levels.

Condition for fault identification

Test condition:

The fault is recognized when the rail pressure is below the specified level.

Potential problem source(s):

- Fuel tank empty
- Obstruction in fuel filter
- Fuel pump defective
- Defective rail-pressure sensor
- High-pressure pump defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

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Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check fuel level
- Check low-pressure system (filter, pump pressure and flow rate, sensor, plugs/wiring harness), replace as indicated
- Low-pressure ECU (EKP electric fuel pump), read out diagnostic fault codes
- Delete adaptation data for fuel low-pressure control
- Check rail pressure sensor incl. plugs/wiring harness, replace as indicated
- Replace high-pressure pump

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its limp-home program, continued vehicle operation is possible but driveability is restricted, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

- Loss of power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P008B; BMW DTC 11A201: NONE

Information saved in

DME

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Fault code

11A201 - P008B

Fault description

Low Pressure Fuel System Pressure - Too High

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P008A; BMW DTC 11A204: NONE

Information saved in

DME

Fault code

11A204 - P008A

Fault description

Low Pressure Fuel System Pressure - Too Low

Condition for fault identification

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none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P10A2; BMW DTC 11A701: NONE

Information saved in

DME

Fault code

11A701 - P10A2

Fault description

Fuel Volume Regulator System Deviation Too High

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

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Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P10A3; BMW DTC 11A702: NONE

Information saved in

DME

Fault code

11A702 - P10A3

Fault description

Fuel Volume Regulator System Deviation Too Low

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

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none

DTC P306A; BMW DTC 11AA01: FUEL SUPPLY SYSTEM: PRESSURE TOO HIGH, EMERGENCY OPERATION WITH LOW PRESSURE

Information saved in

DME

Fault code

11AA01 - P306A

Fault description

The diagnostic function monitors fuel high-pressure system to detect whether it rises above a defined maximum value.

Condition for fault identification

Test condition:

The fault is recognized when the rail pressure rises above 22 bar.

Potential problem source(s):

- Defect in wiring harness between DME and rail-pressure sensor
- Defective rail-pressure sensor
- Defect in low-pressure system
- High-pressure pump defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

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- none

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Check wiring harness between rail-pressure sensor and DME
- Replace rail-pressure sensor
- Check low-pressure sensor
- Check operation of fuel pump
- Replace high-pressure pump

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its limp-home program, continued vehicle operation is possible but driveability is restricted, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

- Loss of power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P306B; BMW DTC 11AA02: FUEL SUPPLY SYSTEM: PRESSURE TOO HIGH, EMERGENCY OPERATION WITH INJECTION DEACTIVATION

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DME

Fault code

11AA02 - P306B

Fault description

The diagnostic function monitors fuel high-pressure system to detect whether it rises above a defined maximum value.

Condition for fault identification

Test condition:

The fault is recognized when the rail pressure rises above 25 bar.

Potential problem source(s):

- Defect in wiring harness between DME and rail-pressure sensor
- Defective rail-pressure sensor
- Defect in low-pressure system
- High-pressure pump defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

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Action in service

- Check wiring harness between rail-pressure sensor and DME
- Replace rail-pressure sensor
- Check operation of fuel pump
- Replace high-pressure pump

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its limp-home program, continued vehicle operation is possible but driveability is restricted, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

- Loss of power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P306C; BMW DTC 11AA04: FUEL SUPPLY SYSTEM: PRESSURE TOO HIGH FOR A SHORT TIME, ENGINE SPEED AND LOAD ARE RESTRICTED

Information saved in

DME

Fault code

11AA04 - P306C

Fault description

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The diagnostic function monitors the fuel pressure.

Condition for fault identification

Test condition:

The fault is recognized when the rail pressure rises above maximum limit of 22 bar.

Potential problem source(s):

- Collateral fault caused by extreme pressure spikes in high-pressure fuel system

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Work through any other diagnostic fault codes related to fuel pressure system.

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its limp-home program, continued vehicle operation is possible but driveability is restricted, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

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- Loss of power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P15DE; BMW DTC 11AC01: FUEL HIGH-PRESSURE SYSTEM, COLD START: PRESSURE TOO HIGH

Information saved in

DME

Fault code

11AC01 - P15DE

Fault description

The diagnostic function monitors the high-pressure fuel system to determine whether the pressure levels remain as specified during the catalyst preheating phase.

Condition for fault identification

Test condition:

The fault is recognized when the pressure level in the high-pressure fuel system exceeds the specified value.

Potential problem source(s):

- Defective rail-pressure sensor
- Defect in low-pressure system
- High-pressure pump defective

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Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check rail-pressure sensor
- Replace rail-pressure sensor
- Check low-pressure sensor
- Check operation of fuel pump
- Replace high-pressure pump

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its limp-home program, continued vehicle operation is possible but driveability is restricted, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

- Loss of power

Driver information

Warning light:

- ECE emissions warning lamp: on

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- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

Service instruction

None

DTC P15DF; BMW DTC 11AC02: FUEL HIGH-PRESSURE SYSTEM, COLD START: PRESSURE TOO LOW

Information saved in

DME

Fault code

11AC02 - P15DF

Fault description

The diagnostic function monitors pressure levels in the high-pressure fuel system to determine whether they conform to specified levels during the catalyst preheating phase.

Condition for fault identification

Test condition:

The fault is recognized when the pressure level in the high-pressure system is 3.5 bar lower than the specified value.

Potential problem source(s):

- Fuel tank empty
- Defective rail-pressure sensor
- Defect in low-pressure system
- High-pressure pump defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

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Temperature condition:

None

Time condition:

- None

Other conditions:

- None

Condition for fault memory entry

This fault is logged in the ECU fault memory if it remains present for longer than 45 sec.

Action in service

- Check rail-pressure sensor
- Replace rail-pressure sensor
- Check low-pressure sensor
- Check operation of fuel pump
- Replace high-pressure pump

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its limp-home program, continued vehicle operation is possible but driveability is restricted, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

- Loss of power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

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Service instruction

None

DTC P306F; BMW DTC 11AD10: FUEL PRESSURE: PRESSURE BELOW MINIMUM PRESSURE; INJECTION DEACTIVATION FOR CATALYTIC CONVERTER PROTECTION

Information saved in

DME

Fault code

11AD10 - P306F

Fault description

The diagnostic function monitors the high-pressure system for pressure deviations.

Condition for fault identification

Test condition:

The fault is recognized when the fuel pressure in the high or low-pressure system falls below a value based on the program map.

Potential problem source(s):

- Tank fuel level too low
- Collateral malfunction stemming from defective fuel system

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

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- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check fuel level
- Repair the source of the problem (if present) in the fuel system

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P306D; BMW DTC 11AE01: FUEL SUPPLY SYSTEM, OXYGEN SENSOR EMISSIONS CONTROL: UPPER LIMIT EXCEEDED

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DME

Fault code

11AE01 - P306D

Fault description

The diagnostic function monitors the lambda closed-loop mixture control. The mixture is too lean and the lambda control enriches it.

Condition for fault identification

Test condition:

The fault is recognized when an enrichment of more than 30 % is required for longer than 30 seconds.

Potential problem source(s):

- Oxygen sensor before catalytic converter defective
- Mass-airflow sensor defective
- Defective injectors
- Intake-manifold pressure sensor defective
- Intake-air temperature sensor defective
- Camshaft position sensor defective
- Defect in high-pressure fuel system
- Defect in low-pressure fuel system
- Leak in exhaust system before oxygen sensor behind catalytic converter
- Poor-quality gasoline

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

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- Engine on
- EVAP not active

Condition for fault memory entry

This fault is logged in the control module's fault memory if it remains present for longer than 30 sec.

Action in service

- If additional faults related to the following components are present, process these first: Pre-catalyst oxygen sensor, mass-airflow sensor, intake-manifold pressure sensor, intake-air temperature sensor, camshaft position sensor, high-pressure fuel system, low-pressure fuel system Check exhaust system for leaks
- Replace injectors

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- none

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

- none

DTC P306E; BMW DTC 11AE02: FUEL SUPPLY SYSTEM, OXYGEN SENSOR EMISSIONS CONTROL: LOWER LIMIT UNDERSHOT

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DME

Fault code

11AE02 - P306E

Fault description

The diagnostic function monitors the lambda closed-loop mixture control. The mixture is too rich and the lambda control dials in a leaner mixture.

Condition for fault identification

Test condition:

The fault is recognized when the mixture requires a lean correction of more than 30 % for longer than 30 seconds.

Potential problem source(s):

- Oxygen sensor before catalytic converter defective
- Mass-airflow sensor defective
- Defective injectors
- Intake-manifold pressure sensor defective
- Intake-air temperature sensor defective
- Camshaft position sensor defective
- Defect in high-pressure fuel system
- Defect in low-pressure fuel system
- Intake system leaking
- Oil cap not sealing
- Leak in exhaust system before oxygen sensor behind catalytic converter
- Poor-quality gasoline

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

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- None

Other conditions:

- Engine on
- EVAP not active

Condition for fault memory entry

This fault is logged in the control module's fault memory if it remains present for longer than 30 sec.

Action in service

- If additional faults related to the following components are present, process these first: Pre-catalyst oxygen sensor, mass-airflow sensor, intake-manifold pressure sensor, intake-air temperature sensor, camshaft position sensor, high-pressure fuel system, low-pressure fuel system Check air-induction system for leaks (also checking the following components: Positive crankcase ventilation, oil cap, tank evaporative emissions system)
- Check exhaust system for leaks
- Replace injectors

Fault effect and breakdown warning

Breakdown notice:

- Loss of power

Possible apparent symptoms:

- Engine runs poorly

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

- none

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DTC P0004; BMW DTC 11C401: FUEL-SUPPLY CONTROL VALVE, ACTIVATION: SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

11C401 - P0004

Fault description

The diagnostic function monitors the flow-control valve's control-activation wire for shorts to positive.

Condition for fault identification

Test condition:

The fault is recognized by the driver circuit diagnostic function.

Potential problem source(s):

- Defect in plug or wiring harness between DME and flow-control valve
- Defective flow-control valve
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

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This fault is logged in the control module's fault memory immediately.

Action in service

- Check plug and wiring harness between flow-control valve and DME
- Replace flow-control valve
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P0003; BMW DTC 11C402: FUEL-SUPPLY CONTROL VALVE, ACTIVATION: SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

11C402 - P0003

Fault description

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The diagnostic function monitors the flow-control valve's control-activation wire for shorts to ground.

Condition for fault identification

Test condition:

The fault is recognized by the driver circuit diagnostic function.

Potential problem source(s):

- Defect in plug or wiring harness between DME and flow-control valve
- Defective flow-control valve
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check plug and wiring harness between flow-control valve and DME
- Replace flow-control valve
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

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None

Possible apparent symptoms:

Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P0001; BMW DTC 11C404: FUEL-SUPPLY CONTROL VALVE, ACTIVATION: OPEN CIRCUIT

Information saved in

DME

Fault code

11C404 - P0001

Fault description

The diagnostic function monitors the flow-control valve's control-activation wire for an open circuit.

Condition for fault identification

Test condition:

The fault is recognized by the driver circuit diagnostic function.

Potential problem source(s):

- Defect in plug or wiring harness between DME and flow-control valve
- Defective flow-control valve

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- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check plug and wiring harness between flow-control valve and DME
- Replace flow-control valve
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on

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- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P0234; BMW DTC 120208: CHARGE-AIR PRESSURE CONTROL, UPPER VALUE: CHARGE-AIR PRESSURE TOO HIGH

Information saved in

DME

Fault code

120208 - P0234

Fault description

The diagnostic function monitors the pressure measured by the boost-pressure sensor.

Condition for fault identification

Test condition:

The fault is recognized when the monitored pressure exceeds the specified pressure.

Potential problem source(s):

- Boost-pressure sensor is defective or has been tampered with
- Electropneumatic pressure converter in wastegate valve is defective
- Wastegate valve is defective (seized in closed position)
- Vacuum line defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

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- None

Time condition:

- None

Other conditions:

- Engine speed above 1900 RPM
- Engine load
- Turbocharger boost in control range

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Check wiring harness
- Boost-pressure sensor
- Check electropneumatic pressure converter
- Check vacuum line and vacuum

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its limp-home program, continued vehicle operation is possible but driveability is restricted, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

- Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

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Service instruction

None

DTC P0299; BMW DTC 120308: CHARGE-AIR PRESSURE CONTROL, LOWER VALUE: CHARGE-AIR PRESSURE TOO LOW

Information saved in

DME

Fault code

120308 - P0299

Fault description

The diagnostic function monitors the pressure measured by the boost-pressure sensor.

Condition for fault identification

Test condition:

The fault is recognized when the monitored pressure is less than the specified pressure.

Potential problem source(s):

- Boost-pressure sensor defective
- Defective electropneumatic pressure converter in wastegate valve
- Wastegate valve is defective (seized in open position)
- Air-induction tract between turbocharger and intake-air plenum has leak
- Vacuum line for controlling wastegate valve is defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

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Other conditions:

- Engine speed above 1900 RPM
- Engine load
- Turbocharger boost in control range

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Check wiring harness
- Boost-pressure sensor
- Check electropneumatic pressure converter
- Check vacuum line and vacuum
- Check air-induction tract between turbocharger and intake-air plenum for vacuum leaks

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its limp-home program, continued vehicle operation is possible but driveability is restricted, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

- Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

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DTC P1260; BMW DTC 120408: CHARGE-AIR PRESSURE CONTROL, DEACTIVATION: CHARGE-AIR PRESSURE BUILDUP DISABLED

Information saved in

DME

Fault code

120408 - P1260

Fault description

The diagnostic function monitors the DME's deactivation of active boost.

Condition for fault identification

Test condition:

Collective fault, only serves to trigger the emissions warning lamp, and can also trigger a CC message. The response to the fault is specified for a different fault entry.

Potential problem source(s):

- None

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

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Action in service

- None

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its limp-home program, continued vehicle operation is possible but driveability is restricted, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

- Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

- Boost-pressure control is deactivated to protect the engine.

DTC P0238; BMW DTC 121001: CHARGE-AIR PRESSURE SENSOR, ELECTRIC: SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

121001 - P0238

Fault description

The diagnostic function monitors the wire to the boost-pressure sensor.

Condition for fault identification

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Test condition:

The fault is recognized when the boost-pressure sensor's voltage exceeds 4.9 V.

Potential problem source(s):

- Defect in wiring harness between DME and boost-pressure sensor
- Boost-pressure sensor defective
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and boost-pressure sensor
- Boost-pressure sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Standard EML Text

Possible apparent symptoms:

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Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P0237; BMW DTC 121002: CHARGE-AIR PRESSURE SENSOR, ELECTRIC: SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

121002 - P0237

Fault description

The diagnostic function monitors the wire to the boost-pressure sensor.

Condition for fault identification

Test condition:

The fault is recognized when the boost-pressure sensor's voltage is less than 4.9 V.

Potential problem source(s):

- Defect in wiring harness between DME and boost-pressure sensor
- Boost-pressure sensor defective
- Defective DME

Terminal condition: Terminal 15

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Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and boost-pressure sensor
- Boost-pressure sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Standard EML Text

Possible apparent symptoms:

Reduced power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on

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- CC message: on

Service instruction

None

DTC P12A9; BMW DTC 121201: NONE

Information saved in

DME

Fault code

121201 - P12A9

Fault description

Boost Sensor 'A' Afterrunning Diagnosis Pressure Too High

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P12A8; BMW DTC 121202: NONE

Information saved in

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DME

Fault code

121202 - P12A8

Fault description

Boost Sensor 'A' Afterrunning Diagnosis Pressure Too Low

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P0236; BMW DTC 121521: CHARGING PRESSURE SENSOR, MULTIPLE FAULT: ELECTRICAL AND PLAUSIBILITY

Information saved in

DME

Fault code

121521 - P0236

Fault description

Collective fault: Boost-pressure sensor.

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Condition for fault identification

Test condition:

The response to the fault is specified for a different fault entry.

Potential problem source(s):

- None

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- None

Fault effect and breakdown warning

Breakdown notice:

see Individual fault

Possible apparent symptoms:

see Individual fault

Driver information

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Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

see Individual fault

DTC P0234; BMW DTC 121530: CHARGE-AIR PRESSURE SENSOR, PLAUSIBILITY: PRESSURE BEFORE THROTTLE VALVE TOO HIGH

Information saved in

DME

Fault code

121530 - P0234

Fault description

The diagnostic function monitors the boost pressure.

Condition for fault identification

Test condition:

The fault is recognized when, prior to engine start, the absolute boost pressure is greater than 3.0 bar, or the absolute boost pressure is greater than 1.4 bar.

Potential problem source(s):

- Defect in boost-pressure system
- Defect in wiring harness between boost-pressure sensor and DME
- Boost-pressure sensor defective
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check air-induction system operation (wastegate, etc....)
- Inspect wiring harness between DME and boost-pressure sensor
- Boost-pressure sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Standard EML Text

Possible apparent symptoms:

Reduced power

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

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MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P12A0; BMW DTC 121530: CHARGE-AIR PRESSURE SENSOR, PLAUSIBILITY: PRESSURE BEFORE THROTTLE VALVE TOO HIGH

Information saved in

DME

Fault code

121530 - P12A0

Fault description

The diagnostic function monitors the boost pressure.

Condition for fault identification

Test condition:

The fault is recognized when, prior to engine start, the absolute boost pressure is greater than 3.0 bar, or the absolute boost pressure is greater than 1.4 bar.

Potential problem source(s):

- Defect in boost-pressure system
- Defect in wiring harness between boost-pressure sensor and DME
- Boost-pressure sensor defective
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

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- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check air-induction system operation (wastegate, etc....)
- Inspect wiring harness between DME and boost-pressure sensor
- Boost-pressure sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Standard EML Text

Possible apparent symptoms:

Reduced power

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on

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- CC message: on

Service instruction

None

DTC P0299; BMW DTC 121531: CHARGE-AIR PRESSURE SENSOR, PLAUSIBILITY: PRESSURE BEFORE THROTTLE VALVE TOO LOW

Information saved in

DME

Fault code

121531 - P0299

Fault description

The diagnostic function monitors the boost-pressure sensor.

Condition for fault identification

Test condition:

Collective fault, only serves to trigger the emissions warning lamp, and can also trigger a CC message. The response to the fault is specified for a different fault entry.

Potential problem source(s):

- None

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

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- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- None

Fault effect and breakdown warning

Breakdown notice:

Standard EML Text

Possible apparent symptoms:

Reduced power

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P12A1; BMW DTC 121531: CHARGE-AIR PRESSURE SENSOR, PLAUSIBILITY: PRESSURE BEFORE THROTTLE VALVE TOO LOW

Information saved in

DME

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Fault code

121531 - P12A1

Fault description

The diagnostic function monitors the boost-pressure sensor.

Condition for fault identification

Test condition:

Collective fault, only serves to trigger the emissions warning lamp, and can also trigger a CC message. The response to the fault is specified for a different fault entry.

Potential problem source(s):

- None

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- None

Fault effect and breakdown warning

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Breakdown notice:

Standard EML Text

Possible apparent symptoms:

Reduced power

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P10F2; BMW DTC 121532: BOOST PRESSURE SENSOR, PLAUSIBILITY: PRESSURE BEFORE THROTTLE VALVE TOO HIGH WHEN ENGINE NOT RUNNING

Information saved in

DME

Fault code

121532 - P10F2

Fault description

The diagnostic function monitors the boost pressure.

Condition for fault identification

Test condition:

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The fault is recognized when the boost pressure is higher than the ambient barometric pressure while the engine is not running.

Potential problem source(s):

- Defect in boost-pressure system
- Defect in wiring harness between boost-pressure sensor and DME
- Boost-pressure sensor defective
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine OFF

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check operation of air system (wastegate, etc.)
- Check wiring harness between DME and boost-pressure sensor
- Boost-pressure sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Standard EML Text

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Possible apparent symptoms:

Reduced power

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P12DA; BMW DTC 121532: BOOST PRESSURE SENSOR, PLAUSIBILITY: PRESSURE BEFORE THROTTLE VALVE TOO HIGH WHEN ENGINE NOT RUNNING

Information saved in

DME

Fault code

121532 - P12DA

Fault description

The diagnostic function monitors the boost pressure.

Condition for fault identification

Test condition:

The fault is recognized when the boost pressure is higher than the ambient barometric pressure while the engine is not running.

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Potential problem source(s):

- Defect in boost-pressure system
- Defect in wiring harness between boost-pressure sensor and DME
- Boost-pressure sensor defective
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine OFF

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check operation of air system (wastegate, etc.)
- Check wiring harness between DME and boost-pressure sensor
- Boost-pressure sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Standard EML Text

Possible apparent symptoms:

Reduced power

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Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P10F3; BMW DTC 121533: BOOST PRESSURE SENSOR, PLAUSIBILITY: PRESSURE BEFORE THROTTLE VALVE TOO LOW WHEN ENGINE NOT RUNNING

Information saved in

DME

Fault code

121533 - P10F3

Fault description

The diagnostic function monitors the boost pressure.

Condition for fault identification

Test condition:

The fault is recognized when the boost pressure is lower than the ambient barometric pressure while the engine is not running.

Potential problem source(s):

- Defect in boost-pressure system
- Defect in wiring harness between boost-pressure sensor and DME

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- Boost-pressure sensor defective
- DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine OFF

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check operation of air system (wastegate, etc.)
- Check wiring harness between DME and boost-pressure sensor
- Boost-pressure sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Standard EML Text

Possible apparent symptoms:

Reduced power

Driver information

Warning light:

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ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P12DB; BMW DTC 121533: BOOST PRESSURE SENSOR, PLAUSIBILITY: PRESSURE BEFORE THROTTLE VALVE TOO LOW WHEN ENGINE NOT RUNNING

Information saved in

DME

Fault code

121533 - P12DB

Fault description

The diagnostic function monitors the boost pressure.

Condition for fault identification

Test condition:

The fault is recognized when the boost pressure is lower than the ambient barometric pressure while the engine is not running.

Potential problem source(s):

- Defect in boost-pressure system
- Defect in wiring harness between boost-pressure sensor and DME
- Boost-pressure sensor defective
- DME defective

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Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine OFF

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check operation of air system (wastegate, etc.)
- Check wiring harness between DME and boost-pressure sensor
- Boost-pressure sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Standard EML Text

Possible apparent symptoms:

Reduced power

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off

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- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P0234; BMW DTC 121601: CHARGE-AIR PRESSURE SENSOR: PRESSURE TOO HIGH

Information saved in

DME

Fault code

121601 - P0234

Fault description

During the control module's shutdown phase the diagnostic function monitors the barometric-pressure sensor, intake-manifold pressure sensor and boost-pressure sensor to determine whether they are all measuring the same pressure.

Condition for fault identification

Test condition:

The fault is recognized when the boost-pressure sensor deviates from the average for the pressure sensors (barometric pressure, boost pressure, intake-manifold pressure) by more than 70 mbar.

Potential problem source(s):

- Defective wiring harness
- Sensor has been tampered with
- Sensor defective

Terminal condition: none

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- 5 sec. after engine off

Other conditions:

- Shutdown phase

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness
- Replace sensor

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on

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- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P12A9; BMW DTC 121601: CHARGE-AIR PRESSURE SENSOR: PRESSURE TOO HIGH

Information saved in

DME

Fault code

121601 - P12A9

Fault description

During the control module's shutdown phase the diagnostic function monitors the barometric-pressure sensor, intake-manifold pressure sensor and boost-pressure sensor to determine whether they are all measuring the same pressure.

Condition for fault identification

Test condition:

The fault is recognized when the boost-pressure sensor deviates from the average for the pressure sensors (barometric pressure, boost pressure, intake-manifold pressure) by more than 70 mbar.

Potential problem source(s):

- Defective wiring harness
- Sensor has been tampered with
- Sensor defective

Terminal condition: none

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- 5 sec. after engine off

Other conditions:

- Shutdown phase

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness
- Replace sensor

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on

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- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P0299; BMW DTC 121602: CHARGE-AIR PRESSURE SENSOR: PRESSURE TOO LOW

Information saved in

DME

Fault code

121602 - P0299

Fault description

During the control module's shutdown phase the diagnostic function monitors the barometric pressure sensor, intake-manifold sensor and the pressure sensor on the air-intake side of the throttle valve to determine whether they are all measuring the same pressure.

Condition for fault identification

Test condition:

The fault is recognized when the boost-pressure sensor deviates from the average for the pressure sensors (barometric pressure, boost pressure, intake-manifold pressure) by less than 70 mbar.

Potential problem source(s):

- Wiring harness defective
- Error in sensor measurement
- Sensor has been tampered with

Terminal condition: none

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- 5 sec. after engine off

Other conditions:

- Engine on
- Rail pressure > 4 MPa

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness
- Replace sensor

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

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- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P12A8; BMW DTC 121602: CHARGE-AIR PRESSURE SENSOR: PRESSURE TOO LOW

Information saved in

DME

Fault code

121602 - P12A8

Fault description

During the control module's shutdown phase the diagnostic function monitors the barometric pressure sensor, intake-manifold sensor and the pressure sensor on the air-intake side of the throttle valve to determine whether they are all measuring the same pressure.

Condition for fault identification

Test condition:

The fault is recognized when the boost-pressure sensor deviates from the average for the pressure sensors (barometric pressure, boost pressure, intake-manifold pressure) by less than 70 mbar.

Potential problem source(s):

- Wiring harness defective
- Error in sensor measurement
- Sensor has been tampered with

Terminal condition: none

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Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- 5 sec. after engine off

Other conditions:

- Engine on
- Rail pressure > 4 MPa

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness
- Replace sensor

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

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MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P0035; BMW DTC 122001: BYPASS BLOW-OFF VALVE, ACTIVATION: SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

122001 - P0035

Fault description

The diagnostic function monitors the wire to the compressor bypass valve.

Condition for fault identification

Test condition:

The fault is recognized by the driver circuit's diagnostic function.

Potential problem source(s):

- Defect in wiring harness between compressor bypass valve and DME
- Compressor bypass valve defective
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Control signal being transmitted to compressor bypass valve

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between compressor bypass valve and DME
- Replace compressor bypass valve
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Power reduction, CC message for engine malfunction

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

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Service instruction

None

DTC P0034; BMW DTC 122002: BYPASS BLOW-OFF VALVE, ACTIVATION: SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

122002 - P0034

Fault description

The diagnostic function monitors the wire to the compressor bypass valve.

Condition for fault identification

Test condition:

The fault is recognized by the driver circuit's diagnostic function.

Potential problem source(s):

- Defect in wiring harness between compressor bypass valve and DME
- Compressor bypass valve defective
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

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- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between compressor bypass valve and DME
- Replace compressor bypass valve
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Power reduction, CC message for engine malfunction

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

Service instruction

None

DTC P0033; BMW DTC 122004: BYPASS BLOW-OFF VALVE, ACTIVATION: OPEN CIRCUIT

Information saved in

DME

Fault code

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122004 - P0033

Fault description

The diagnostic function monitors the wire to the compressor bypass valve.

Condition for fault identification

Test condition:

The fault is recognized by the driver circuit's diagnostic function.

Potential problem source(s):

- Defect in wiring harness between compressor bypass valve and DME
- Compressor bypass valve defective
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Control signal being transmitted to compressor bypass valve

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between compressor bypass valve and DME
- Replace compressor bypass valve
- Replace DME

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Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Power reduction, CC message for engine malfunction

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

Service instruction

None

DTC P0246; BMW DTC 123001: WASTEGATE, ACTIVATION: SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

123001 - P0246

Fault description

The diagnostic function monitors the electrical wire from the DME to the electropneumatic pressure converter.

Condition for fault identification

Test condition:

The fault is recognized by the driver circuit's diagnostic function.

Potential problem source(s):

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- Defective wiring harness
- Electropneumatic pressure converter is defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- Activation signal applied to wastegate

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness
- Replace electropneumatic pressure converter
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

CC message, customer proceeds to service facility, loss of power

Driver information

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Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P0245; BMW DTC 123002: WASTEGATE, ACTIVATION: SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

123002 - P0245

Fault description

The diagnostic function monitors the electrical wire from the DME to the electropneumatic pressure converter.

Condition for fault identification

Test condition:

The fault is recognized by the driver circuit's diagnostic function.

Potential problem source(s):

- Defective wiring harness
- Electropneumatic pressure converter is defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

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Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- Activation signal applied to wastegate

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness
- Replace electropneumatic pressure converter
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

CC message, customer proceeds to service facility, clarification pending

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

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None

DTC P0243; BMW DTC 123004: WASTEGATE, ACTIVATION: OPEN CIRCUIT

Information saved in

DME

Fault code

123004 - P0243

Fault description

The diagnostic function monitors the electrical wire from the DME to the electropneumatic pressure converter.

Condition for fault identification

Test condition:

The fault is recognized by the driver circuit's diagnostic function.

Potential problem source(s):

- Defective wiring harness
- Electropneumatic pressure converter is defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- Activation signal applied to wastegate

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Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness
- Replace electropneumatic pressure converter
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

CC message, customer proceeds to service facility, loss of power

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P2195; BMW DTC 128101: OXYGEN SENSOR BEFORE CATALYTIC CONVERTER, SYSTEM CHECK: SIGNAL FIXED AT LEAN

Information saved in

DME

Fault code

128101 - P2195

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Fault description

The diagnostic function monitors the voltage of the precatalyst oxygen sensor and compares it with the voltage of the oxygen sensor behind the catalytic converter (at lambda = 1).

Condition for fault identification

Test condition:

The fault is recognized when the lambda signal from the pre-catalyst oxygen sensor deviates too much from the lambda signal from the oxygen sensor behind the catalytic converter.

Potential problem source(s):

- Defective wiring harness
- Defective oxygen sensors

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine on
- No diagnostic fault codes logged indicating a mixture fault

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Inspect wiring harness between oxygen sensors before/behind catalytic converter and DME
- Replace oxygen sensors before and behind catalytic converter

Fault effect and breakdown warning

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Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

MIL lights up when fault is detected in two consecutive driving cycles

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P2196; BMW DTC 128301: OXYGEN SENSOR BEFORE CATALYTIC CONVERTER, SYSTEM CHECK: SIGNAL FIXED AT GREASE

Information saved in

DME

Fault code

128301 - P2196

Fault description

The diagnostic function monitors the voltage of the precatalyst oxygen sensor and compares it with the voltage of the oxygen sensor behind the catalytic converter (at lambda = 1).

Condition for fault identification

Test condition:

The fault is recognized when the lambda signal from the pre-catalyst oxygen sensor deviates too much from the lambda signal from the oxygen sensor behind the catalytic converter.

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Potential problem source(s):

- Leak in exhaust system before oxygen sensors
- Defective wiring harness
- Oxygen sensor before catalytic converter defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine on
- No diagnostic fault codes logged indicating a mixture fault

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Conduct catalytic converter diagnosis
- Check wiring harness between pre-catalyst oxygen sensor and DME
- Replace pre-catalyst oxygen sensor

Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

MIL lights up when fault is detected in two consecutive driving cycles

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Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P2297; BMW DTC 128501: OXYGEN SENSOR BEFORE CATALYTIC CONVERTER, IN COASTING/OVERRUN MODE: SIGNAL OUTSIDE LIMIT VALUE

Information saved in

DME

Fault code

128501 - P2297

Fault description

The diagnostic function monitors the voltage of the oxygen sensor before the catalytic converter.

Condition for fault identification

Test condition:

The fault is recognized when an electrical malfunction is present in the oxygen sensor before the catalytic converter.

Potential problem source(s):

- Defective wiring harness
- Oxygen sensor before catalytic converter defective
- Defective DME

Terminal condition: none

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- Overrun operation must be present for at least 3 seconds and the EGR valve must be closed.

Other conditions:

- Engine on
- Vehicle underway
- Pre-catalyst oxygen sensor heated to adequate temperature
- Overrun mode

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between pre-catalyst oxygen sensor and DME
- Replace pre-catalyst oxygen sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

- MIL lamp lights up after 2nd driving cycle
- Higher exhaust emissions
- Higher fuel consumption
- Surge

Driver information

Warning light:

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- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0133; BMW DTC 128901: OXYGEN SENSOR BEFORE CATALYTIC CONVERTER, DYNAMIC RESPONSE: SLOW RESPONSE

Information saved in

DME

Fault code

128901 - P0133

Fault description

The diagnostic function monitors the dynamic response of the oxygen sensor before the catalytic converter.

Condition for fault identification

Test condition:

The fault is recognized when closed-loop sensor reacts too slowly to changes in the oxygen concentration within the exhaust gas.

Potential problem source(s):

- Oxygen sensor before catalytic converter defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

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Time condition:

- None

Other conditions:

- Engine on
- Drive at a constant speed between 50 and 80 km/h at moderate RPM (1400 to 3240 RPM).
- No faults that would cause mixture faults are registered.

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Replace oxygen sensor before catalytic converter if fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

- MIL lamp lights up after 2nd driving cycle
- Higher exhaust emissions
- Higher fuel consumption
- Surge

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

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Determine whether cylinder balancing is plausible; if not plausible, perform cylinder balancing following repair

DTC P2414; BMW DTC 128B01: OXYGEN SENSOR BEFORE CATALYTIC CONVERTER, INSTALLATION: SENSOR NOT CONNECTED

Information saved in

DME

Fault code

128B01 - P2414

Fault description

The diagnostic function monitors correct installation of the oxygen sensor before the catalytic converter.

Condition for fault identification

Test condition:

The fault is recognized when the oxygen sensor on the engine-side of the catalytic converter is not screwed firmly into place and/or the threaded connection is not sealed.

Potential problem source(s):

- Pre-catalyst oxygen sensor not screwed in tightly or hanging in the air

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

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The diagnostic fault code is logged when the fault remains present for longer than 2 min.

Action in service

- Determine whether the pre-catalyst oxygen sensor is installed at the correct position
- Determine whether the pre-catalyst oxygen sensor is screwed in tightly
- Inspect the pre-catalyst oxygen sensor for damage
- Replace pre-catalyst oxygen sensor

Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

- MIL lamp lights up after 2nd driving cycle
- Higher exhaust emissions
- Higher fuel consumption
- Surge

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P2243; BMW DTC 128E01: OXYGEN SENSOR BEFORE CATALYTIC CONVERTER, LINE FAULT: OPEN CIRCUIT, NEAREST LINE

Information saved in

DME

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Fault code

128E01 - P2243

Fault description

The diagnostic function monitors the internal resistance and the output voltage of the oxygen sensor before the catalytic converter.

Condition for fault identification

Test condition:

The fault is recognized when an electrical malfunction is present in the oxygen sensor before the catalytic converter.

Potential problem source(s):

- Defective wiring harness
- Oxygen sensor before catalytic converter defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between pre-catalyst oxygen sensor and DME

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- Replace pre-catalyst oxygen sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

- MIL lamp lights up after 2nd driving cycle
- Higher exhaust emissions
- Higher fuel consumption
- Surge

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P2626; BMW DTC 128E08: OXYGEN SENSOR BEFORE CATALYTIC CONVERTER, LINE FAULT: OPEN CIRCUIT, COMPENSATION LINE

Information saved in

DME

Fault code

128E08 - P2626

Fault description

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The diagnostic function monitors the pre-catalyst oxygen sensor.

Condition for fault identification

Test condition:

The fault is recognized when the oxygen sensor before the catalytic converter fails to transmit a signal.

Potential problem source(s):

- Defective wiring harness
- Oxygen sensor before catalytic converter defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine on
- Vehicle underway
- Pre-catalyst oxygen sensor heated to adequate temperature
- Overrun mode

Condition for fault memory entry

600 sec. if the tank is not confirmed full

Action in service

- Check wiring harness between pre-catalyst oxygen sensor and DME
- Replace pre-catalyst oxygen sensor
- Replace DME

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Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

- MIL lamp lights up after 2nd driving cycle
- Higher exhaust emissions
- Higher fuel consumption
- Surge

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0132; BMW DTC 129001: OXYGEN SENSOR BEFORE CATALYTIC CONVERTER, SIGNAL LINES: SHORT CIRCUIT TO B+

Information saved in

DME

Fault code

129001 - P0132

Fault description

The diagnostic function monitors the controller in the DME.

Condition for fault identification

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Test condition:

The fault is recognized when an electrical malfunction is present in the oxygen sensor before the catalytic converter.

Potential problem source(s):

- Defective wiring harness
- Oxygen sensor before catalytic converter defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between pre-catalyst oxygen sensor and DME
- Replace pre-catalyst oxygen sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

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Possible apparent symptoms:

- MIL lamp lights up after 2nd driving cycle
- Higher exhaust emissions
- Higher fuel consumption
- Surge

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0131; BMW DTC 129002: OXYGEN SENSOR BEFORE CATALYTIC CONVERTER, SIGNAL LINES: SHORT CIRCUIT TO EARTH

Information saved in

DME

Fault code

129002 - P0131

Fault description

The diagnostic function monitors the controller in the DME.

Condition for fault identification

Test condition:

The fault is recognized when an electrical malfunction is present in the oxygen sensor before the catalytic converter.

Potential problem source(s):

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- Defective wiring harness
- Oxygen sensor before catalytic converter defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between pre-catalyst oxygen sensor and DME
- Replace pre-catalyst oxygen sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

- MIL lamp lights up after 2nd driving cycle
- Higher exhaust emissions
- Higher fuel consumption
- Surge

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Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P3024; BMW DTC 129201: DME, INTERNAL FAULT, OXYGEN SENSOR BEFORE CATALYTIC CONVERTER: INITIALIZATION FAULT

Information saved in

DME

Fault code

129201 - P3024

Fault description

The diagnostic function monitors the controller in the DME.

Condition for fault identification

Test condition:

The fault is recognized when the oxygen sensor chip in the DME detects a fault.

Potential problem source(s):

- DME defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

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Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- Engine runs poorly
- Breakdown in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

- none

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DTC P3022; BMW DTC 129202: DME, INTERNAL FAULT, OXYGEN SENSOR BEFORE CATALYTIC CONVERTER: COMMUNICATION FAULT

Information saved in

DME

Fault code

129202 - P3022

Fault description

The diagnostic function monitors the controller in the DME.

Condition for fault identification

Test condition:

The fault is recognized when the oxygen sensor chip in the DME detects a fault.

Potential problem source(s):

- DME defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

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Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- Engine runs poorly
- Breakdown in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

- none

DTC P3012; BMW DTC 129A20: DME, INTERNAL FAULT, OXYGEN SENSOR BEFORE CATALYTIC CONVERTER: OXYGEN-SENSOR MODULE, SIGNAL-CIRCUIT ADAPTATION VALUES TOO HIGH

Information saved in

DME

Fault code

129A20 - P3012

Fault description

The diagnostic function monitors the controller in the DME.

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Condition for fault identification

Test condition:

The fault is recognized when the oxygen sensor chip in the DME detects a fault.

Potential problem source(s):

- DME defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- Engine runs poorly
- Breakdown in extreme cases

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Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

- none

DTC P3014; BMW DTC 129A21: DME, INTERNAL FAULT, OXYGEN SENSOR BEFORE CATALYTIC CONVERTER: OXYGEN-SENSOR MODULE, UNDERVOLTAGE

Information saved in

DME

Fault code

129A21 - P3014

Fault description

The diagnostic function monitors the controller in the DME.

Condition for fault identification

Test condition:

The fault is recognized when the oxygen sensor chip in the DME detects a fault.

Potential problem source(s):

- DME defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

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Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- Engine runs poorly
- Breakdown in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

- none

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DTC P2271; BMW DTC 12A101: OXYGEN SENSOR AFTER CATALYTIC CONVERTER, SYSTEM CHECK: SIGNAL FIXED AT RICH

Information saved in

DME

Fault code

12A101 - P2271

Fault description

The diagnostic function monitors whether the voltage of the oxygen sensor behind catalytic converter remains stuck at a high value.

Condition for fault identification

Test condition:

The fault is recognized when the voltage of the oxygen sensor behind the catalytic converter remains consistently too high.

Potential problem source(s):

- Mixture too rich
- Defective wiring harness
- Oxygen sensor behind catalytic converter defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

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- Engine on
- Steady-state at low to medium partial load

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 10 min.

Action in service

- Inspect wiring harness between oxygen sensor behind catalytic converter and DME
- Replace oxygen sensor behind catalytic converter
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

MIL lights up when fault is detected in two consecutive driving cycles

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P2270; BMW DTC 12A102: OXYGEN SENSOR AFTER CATALYTIC CONVERTER, SYSTEM CHECK: SIGNAL FIXED AT LEAN

Information saved in

DME

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Fault code

12A102 - P2270

Fault description

The diagnostic function monitors whether the voltage of the oxygen sensor behind catalytic converter remains stuck at a low value.

Condition for fault identification

Test condition:

The fault is recognized when the voltage of the oxygen sensor behind the catalytic converter remains consistently too low.

Potential problem source(s):

- Mixture too lean
- Leak in exhaust system on engine-side of catalytic converter
- Defective wiring harness
- Oxygen sensor behind catalytic converter defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine on
- Steady-state at low to medium partial load

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 10 min.

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Action in service

- Check the connection between the DME and the oxygen sensor behind catalytic converter
- Determine whether the oxygen sensors are in the wrong mutual locations
- Check the exhaust system upstream from the oxygen sensor for leaks
- Replace oxygen sensor behind catalytic converter
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

MIL lights up when fault is detected in two consecutive driving cycles

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P013A; BMW DTC 12A308: OXYGEN SENSOR AFTER CATALYTIC CONVERTER, DYNAMIC RESPONSE, FROM RICH TO LEAN: SLOW RESPONSE

Information saved in

DME

Fault code

12A308 - P013A

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Fault description

O2 Sensor Slow Response - Rich to Lean (Bank 1 Sensor 2)

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P0138; BMW DTC 12A701: OXYGEN SENSOR AFTER CATALYTIC CONVERTER, ELECTRICAL: SHORT CIRCUIT TO B+

Information saved in

DME

Fault code

12A701 - P0138

Fault description

The diagnostic function monitors electrical status of the oxygen sensor behind catalytic converter.

Condition for fault identification

Test condition:

The fault is recognized when an electrical malfunction is present in the oxygen sensor behind the catalytic

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converter.

Potential problem source(s):

- Defective wiring harness
- Oxygen sensor behind catalytic converter defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temperature, more than 80°C
- Exhaust-gas temperature at post-catalyst oxygen sensor not higher than 800 °C

Time condition:

- Active heating activation more than 1 min.

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check the connection between the DME and the oxygen sensor behind catalytic converter
- Replace oxygen sensor behind catalytic converter
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

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MIL lamp on after second driving cycle

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0137; BMW DTC 12A902: OXYGEN SENSOR AFTER CATALYTIC CONVERTER, ELECTRICAL: SHORT CIRCUIT TO EARTH

Information saved in

DME

Fault code

12A902 - P0137

Fault description

The diagnostic function monitors electrical status of the oxygen sensor behind catalytic converter.

Condition for fault identification

Test condition:

The fault is recognized when an electrical malfunction is present in the oxygen sensor behind the catalytic converter.

Potential problem source(s):

- Defective wiring harness
- Oxygen sensor behind catalytic converter defective
- Defective DME

Terminal condition: none

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Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine switched off at temperature higher than 60 °C
- Engine starting temperature less than 40 °C, then engine warmed to normal temperature
- Exhaust-gas temperature at post-catalyst oxygen sensor not higher than 800 °C

Time condition:

- Active heating activation more than 1 min.

Other conditions:

- Engine ON

Condition for fault memory entry

600 sec., if tank is not verifiability full

Action in service

- Inspect wiring harness between oxygen sensor behind catalytic converter and DME
- Replace oxygen sensor behind catalytic converter
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

MIL lamp on after second driving cycle

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on

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- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0136; BMW DTC 12AB04: OXYGEN SENSOR AFTER CATALYTIC CONVERTER, ELECTRICAL: LINE DISCONNECTION

Information saved in

DME

Fault code

12AB04 - P0136

Fault description

The diagnostic function monitors the oxygen sensor behind catalytic converter.

Condition for fault identification

Test condition:

The fault is recognized when an electrical malfunction is present in the oxygen sensor behind the catalytic converter.

Potential problem source(s):

- Defective wiring harness
- Oxygen sensor behind catalytic converter defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temperature, more than 80°C
- Exhaust-gas temperature at post-catalyst oxygen sensor for detection of signal interruption: 600..800 °C

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Time condition:

- Active heating activation more than 1 min.

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 6 min.

Action in service

- Inspect wiring harness between oxygen sensor behind catalytic converter and DME
- Check heating of oxygen sensor behind catalytic converter
- Replace oxygen sensor behind catalytic converter
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

MIL lamp on after second driving cycle

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

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DTC P013E; BMW DTC 12AF08: OXYGEN SENSOR AFTER CATALYTIC CONVERTER, TRAILING THROTTLE, FROM RICH TO LEAN: DELAYED RESPONSE

Information saved in

DME

Fault code

12AF08 - P013E

Fault description

The diagnostic function monitors response lag/aging in the oxygen sensor behind catalytic converter.

Condition for fault identification

Test condition:

The fault is recognized when the dynamic signal from the post-catalyst oxygen sensor displays excessive lag.

Potential problem source(s):

- Defective wiring harness
- Oxygen sensor behind catalytic converter defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine in overrun phase 5 times

Condition for fault memory entry

The diagnostic fault code is logged once the fault appears five times.

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Action in service

- Inspect wiring harness between oxygen sensor behind catalytic converter and DME
- Replace oxygen sensor behind catalytic converter

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- none

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0032; BMW DTC 12B101: OXYGEN-SENSOR HEATER BEFORE CATALYTIC CONVERTER, ACTIVATION: SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

12B101 - P0032

Fault description

The diagnostic function monitors activation of the heater for the oxygen sensor before the catalytic converter.

Condition for fault identification

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Test condition:

The fault is recognized when an activation signal is transmitted to the oxygen sensor before the catalytic converter and an electrical defect is present.

Potential problem source(s):

- Defective wiring harness
- Oxygen sensor before catalytic converter defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- 10 sec. after engine start

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between pre-catalyst oxygen sensor and DME
- Replace pre-catalyst oxygen sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

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Possible apparent symptoms:

- MIL lamp lights up after 2nd driving cycle
- Higher exhaust emissions
- Higher fuel consumption
- Surge

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0031; BMW DTC 12B102: OXYGEN-SENSOR HEATER BEFORE CATALYTIC CONVERTER, ACTIVATION: SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

12B102 - P0031

Fault description

The diagnostic function monitors activation of the heater for the oxygen sensor before the catalytic converter.

Condition for fault identification

Test condition:

The fault is recognized when an activation signal is transmitted to the oxygen sensor before the catalytic converter and an electrical defect is present.

Potential problem source(s):

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- Defective wiring harness
- Oxygen sensor before catalytic converter defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- 10 sec. after engine start

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between pre-catalyst oxygen sensor and DME
- Replace pre-catalyst oxygen sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

- MIL lamp lights up after 2nd driving cycle
- Higher exhaust emissions
- Higher fuel consumption
- Surge

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Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0030; BMW DTC 12B104: OXYGEN-SENSOR HEATER BEFORE CATALYTIC CONVERTER, ACTIVATION: OPEN CIRCUIT

Information saved in

DME

Fault code

12B104 - P0030

Fault description

The diagnostic function monitors activation of the heater for the oxygen sensor before the catalytic converter.

Condition for fault identification

Test condition:

The fault is recognized when an activation signal is transmitted to the oxygen sensor before the catalytic converter and an electrical defect is present.

Potential problem source(s):

- Defective wiring harness
- Oxygen sensor before catalytic converter defective
- Defective DME

Terminal condition: none

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- 10 sec. after engine start

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between pre-catalyst oxygen sensor and DME
- Replace pre-catalyst oxygen sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

- MIL lamp lights up after 2nd driving cycle
- Higher exhaust emissions
- Higher fuel consumption
- Surge

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on

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- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0038; BMW DTC 12B301: OXYGEN-SENSOR HEATER AFTER CATALYTIC CONVERTER, ACTIVATION: SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

12B301 - P0038

Fault description

The diagnostic function monitors activation of the heater for the oxygen sensor behind the catalytic converter.

Condition for fault identification

Test condition:

The fault is recognized when an activation signal is transmitted to the heater for the oxygen sensor behind the catalytic converter and an electrical defect is present.

Potential problem source(s):

- Defective wiring harness
- Oxygen sensor behind catalytic converter defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

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Time condition:

- 10 sec. after engine start

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Inspect wiring harness between oxygen sensor behind catalytic converter and DME
- Replace oxygen sensor behind catalytic converter
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

- MIL lamp lights up after 2nd driving cycle

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0037; BMW DTC 12B302: OXYGEN-SENSOR HEATER AFTER CATALYTIC CONVERTER,

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ACTIVATION: SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

12B302 - P0037

Fault description

The diagnostic function monitors activation of the heater for the oxygen sensor behind the catalytic converter.

Condition for fault identification

Test condition:

The fault is recognized when an activation signal is transmitted to the heater for the oxygen sensor behind the catalytic converter and an electrical defect is present.

Potential problem source(s):

- Defective wiring harness
- Oxygen sensor behind catalytic converter defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- 10 sec. after engine start

Other conditions:

- Engine ON

Condition for fault memory entry

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This fault is logged in the control module's fault memory immediately.

Action in service

- Inspect wiring harness between oxygen sensor behind catalytic converter and DME
- Replace oxygen sensor behind catalytic converter
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

- MIL lamp lights up after 2nd driving cycle

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0036; BMW DTC 12B304: OXYGEN-SENSOR HEATER AFTER CATALYTIC CONVERTER, ACTIVATION: OPEN CIRCUIT

Information saved in

DME

Fault code

12B304 - P0036

Fault description

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The diagnostic function monitors activation of the heater for the oxygen sensor behind the catalytic converter.

Condition for fault identification

Test condition:

The fault is recognized when an activation signal is transmitted to the heater for the oxygen sensor behind the catalytic converter and an electrical defect is present.

Potential problem source(s):

- Defective wiring harness
- Oxygen sensor behind catalytic converter defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- 10 sec. after engine start

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Inspect wiring harness between oxygen sensor behind catalytic converter and DME
- Replace oxygen sensor behind catalytic converter
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

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Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

- MIL lamp lights up after 2nd driving cycle

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P102A; BMW DTC 12B505: OXYGEN SENSOR HEATING BEFORE CATALYTIC CONVERTER, FUNCTION: HEATER FAULT

Information saved in

DME

Fault code

12B505 - P102A

Fault description

O2 Sensor Heating, Heater Error (Bank 1 Sensor 1)

Condition for fault identification

Test condition:

Potential problem source(s):

0

Voltage condition:

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Temperature condition:

Time condition:

Other conditions:

Condition for fault memory entry

none

Action in service

0

Fault effect and breakdown warning

Breakdown notice:

Possible apparent symptoms:

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

none

DTC P0141; BMW DTC 12B701: OXYGEN-SENSOR HEATER AFTER CATALYTIC CONVERTER, FUNCTION: INTERNAL RESISTANCE TOO HIGH

Information saved in

DME

Fault code

12B701 - P0141

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Fault description

The diagnostic function monitors the difference between the expected and the actual internal resistance in the heater for the oxygen sensor behind the catalytic converter.

Condition for fault identification

Test condition:

The fault is recognized when the actual internal resistance of the heater for the oxygen sensor behind the catalytic converter remains higher than expected for a specified period of time.

Potential problem source(s):

- Defective wiring harness
- Oxygen sensor behind catalytic converter defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- Engine off for longer than 13 min.

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Check wiring harness between oxygen sensor behind catalytic converter and DME (contact resistance)
- Replace oxygen sensor behind catalytic converter

Fault effect and breakdown warning

Breakdown notice:

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None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

Because diagnosis relies on assessment of the post-catalyst oxygen sensor,

following logging of a diagnostic fault code the exhaust system must be inspected for leaks

and sealed if any leakage is found (without additional repair)

DTC P3026; BMW DTC 12BD20: OXYGEN-SENSOR HEATER BEFORE CATALYTIC CONVERTER, FUNCTION: OPERATING TEMPERATURE NOT REACHED

Information saved in

DME

Fault code

12BD20 - P3026

Fault description

The diagnostic function monitors the temperature of the oxygen sensor before the catalytic converter.

Condition for fault identification

Test condition:

The fault is recognized when the oxygen sensor before the catalytic converter fails to achieve the specified operating temperature although the heater is operating.

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Potential problem source(s):

- Defective wiring harness
- Oxygen sensor before catalytic converter defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- 2 min. after engine start

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between pre-catalyst oxygen sensor and DME
- Replace pre-catalyst oxygen sensor

Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

- MIL lamp lights up after 2nd driving cycle
- Higher exhaust emissions
- Higher fuel consumption
- Surge

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Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0135; BMW DTC 12BD21: OXYGEN-SENSOR HEATER BEFORE CATALYTIC CONVERTER, FUNCTION: LACK OF SIGNAL READINESS

Information saved in

DME

Fault code

12BD21 - P0135

Fault description

The diagnostic function monitors heating of the oxygen sensor before the catalytic converter.

Condition for fault identification

Test condition:

The fault is recognized when the oxygen sensor before the catalytic converter fails to achieve the specified operating temperature although the heater is operating.

Potential problem source(s):

- Defective wiring harness
- Oxygen sensor before catalytic converter defective

Terminal condition: none

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between pre-catalyst oxygen sensor and DME
- Replace pre-catalyst oxygen sensor

Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

- MIL lamp lights up after 2nd driving cycle
- Higher exhaust emissions
- Higher fuel consumption
- Surge

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off

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- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P3016; BMW DTC 12BD22: OXYGEN-SENSOR HEATER BEFORE CATALYTIC CONVERTER, FUNCTION: INTERNAL RESISTANCE OF SIGNAL CIRCUIT TOO HIGHLY RESISTANT

Information saved in

DME

Fault code

12BD22 - P3016

Fault description

The diagnostic function monitors the calibrated resistance of the heater for the oxygen sensor before the catalytic converter in the DME.

Condition for fault identification

Test condition:

The fault is recognized when the calibrated resistance of the heater for the oxygen sensor before the catalytic converter in the DME control module is outside the tolerance range.

Potential problem source(s):

- DME defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

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- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Replace DME if fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

- MIL lamp lights up after 2nd driving cycle
- Higher exhaust emissions
- Higher fuel consumption
- Surge

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0139; BMW DTC 12BD33: OXYGEN SENSOR AFTER CATALYTIC CONVERTER, AGEING: VOLTAGE THRESHOLD NOT REACHED

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Information saved in

DME

Fault code

12BD33 - P0139

Fault description

The diagnostic function monitors the voltage of the oxygen sensor behind the catalytic converter on overrun.

Condition for fault identification

Test condition:

The fault is recognized when the voltage of the oxygen sensor behind the catalytic converter falls too slowly during trailing throttle/overrun operation.

Potential problem source(s):

- Defect in wiring harness between DME and oxygen sensor behind catalytic converter
- Oxygen sensor behind catalytic converter defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- At least 10 sec. in overrun phase

Other conditions:

- Engine in overrun mode

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

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- Inspect wiring harness between oxygen sensor behind catalytic converter and DME
- Replace oxygen sensor behind catalytic converter

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- none

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

- none

DTC P0138; BMW DTC 12BD40: OXYGEN SENSOR AFTER CATALYTIC CONVERTER, ELECTRICAL: SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

12BD40 - P0138

Fault description

The diagnostic function monitors electrical status of the oxygen sensor behind catalytic converter.

Condition for fault identification

Test condition:

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The fault is recognized when an electrical malfunction is present in the oxygen sensor behind the catalytic converter.

Potential problem source(s):

- Defective wiring harness
- Oxygen sensor behind catalytic converter defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temperature, more than 80°C
- Exhaust-gas temperature at post-catalyst oxygen sensor not higher than 800 °C

Time condition:

- Active heating activation more than 1 min.

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check the connection between the DME and the oxygen sensor behind catalytic converter
- Replace oxygen sensor behind catalytic converter
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

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MIL lamp on after second driving cycle

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0137; BMW DTC 12BD41: OXYGEN SENSOR AFTER CATALYTIC CONVERTER, ELECTRICAL: INTERCORE SHORT CIRCUIT OR OXYGEN SENSOR CONTAMINATED

Information saved in

DME

Fault code

12BD41 - P0137

Fault description

The diagnostic function monitors electrical status of the oxygen sensor behind catalytic converter.

Condition for fault identification

Test condition:

The fault is recognized when an electrical malfunction is present in the oxygen sensor behind the catalytic converter.

Potential problem source(s):

- Defective wiring harness
- Oxygen sensor behind catalytic converter defective
- Defective DME

Terminal condition: none

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Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine switched off at temperature higher than 60 °C
- Engine starting temperature less than 40 °C, then engine warmed to normal temperature
- Exhaust-gas temperature at post-catalyst oxygen sensor not higher than 800 °C

Time condition:

- Active heating activation more than 1 min.

Other conditions:

- Engine ON

Condition for fault memory entry

600 sec., if tank is not verifiability full

Action in service

- Inspect wiring harness between oxygen sensor behind catalytic converter and DME
- Replace oxygen sensor behind catalytic converter
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

MIL lamp on after second driving cycle

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on

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- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0136; BMW DTC 12BD43: OXYGEN SENSOR AFTER CATALYTIC CONVERTER, ELECTRICAL: OPEN CIRCUIT

Information saved in

DME

Fault code

12BD43 - P0136

Fault description

The diagnostic function monitors the oxygen sensor behind catalytic converter.

Condition for fault identification

Test condition:

The fault is recognized when an electrical malfunction is present in the oxygen sensor behind the catalytic converter.

Potential problem source(s):

- Defective wiring harness
- Oxygen sensor behind catalytic converter defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temperature, more than 80°C
- Exhaust-gas temperature at post-catalyst oxygen sensor for detection of signal interruption: 600..800 °C

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Time condition:

- Active heating activation more than 1 min.

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 6 min.

Action in service

- Inspect wiring harness between oxygen sensor behind catalytic converter and DME
- Check heating of oxygen sensor behind catalytic converter
- Replace oxygen sensor behind catalytic converter
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

MIL lamp on after second driving cycle

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

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DTC P3018; BMW DTC 12BD50: OXYGEN SENSOR BEFORE CATALYTIC CONVERTER, PUMP CURRENT LINE: LAMBDA CONTROL VALUE ABOVE THRESHOLD DUE TO OPEN PUMP CURRENT LINE

Information saved in

DME

Fault code

12BD50 - P3018

Fault description

The diagnostic function monitors the voltage of the oxygen sensor before the catalytic converter.

Condition for fault identification

Test condition:

The fault is recognized when an electrical malfunction is present in the oxygen sensor before the catalytic converter.

Potential problem source(s):

- Defective wiring harness
- Oxygen sensor before catalytic converter defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine ON

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Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between pre-catalyst oxygen sensor and DME
- Replace pre-catalyst oxygen sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

- MIL lamp lights up after 2nd driving cycle
- Higher exhaust emissions
- Higher fuel consumption
- Surge

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P3020; BMW DTC 12BD51: OXYGEN SENSOR BEFORE CATALYTIC CONVERTER, PUMP CURRENT LINE: SIGNAL VOLTAGE IN OVERRUN MODE TOO LOW DUE TO OPEN PUMP CURRENT LINE

Information saved in

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DME

Fault code

12BD51 - P3020

Fault description

The diagnostic function monitors the voltage of the oxygen sensor before the catalytic converter.

Condition for fault identification

Test condition:

The fault is recognized when an electrical malfunction is present in the oxygen sensor before the catalytic converter.

Potential problem source(s):

- Defective wiring harness
- Oxygen sensor before catalytic converter defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- Overrun operation must be present for at least 3 seconds and the EGR valve must be closed.

Other conditions:

- Engine on
- Vehicle underway
- Pre-catalyst oxygen sensor heated to adequate temperature
- Overrun mode

Condition for fault memory entry

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This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between pre-catalyst oxygen sensor and DME
- Replace pre-catalyst oxygen sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

- MIL lamp lights up after 2nd driving cycle
- Higher exhaust emissions
- Higher fuel consumption
- Surge

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P2237; BMW DTC 12BD52: OXYGEN SENSOR BEFORE CATALYTIC CONVERTER, LINE FAULT: OPEN CIRCUIT, PUMP CURRENT LEAD

Information saved in

DME

Fault code

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12BD52 - P2237

Fault description

The diagnostic function monitors the voltage of the oxygen sensor before the catalytic converter.

Condition for fault identification

Test condition:

The fault is recognized when an electrical malfunction is present in the oxygen sensor before the catalytic converter.

Potential problem source(s):

- Defective wiring harness
- Oxygen sensor before catalytic converter defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between pre-catalyst oxygen sensor and DME
- Replace pre-catalyst oxygen sensor
- Replace DME

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Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

- MIL lamp lights up after 2nd driving cycle
- Higher exhaust emissions
- Higher fuel consumption
- Surge

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P2251; BMW DTC 12BD60: OXYGEN SENSOR BEFORE CATALYTIC CONVERTER, LINE FAULT: OPEN CIRCUIT, VIRTUAL GROUND

Information saved in

DME

Fault code

12BD60 - P2251

Fault description

The diagnostic function monitors the internal resistance and the output voltage of the oxygen sensor before the catalytic converter.

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Condition for fault identification

Test condition:

Engine running

Battery voltage: 10.7 V to 16 V

No deactivation of voltage to pre-catalyst oxygen sensor

Potential problem source(s):

- Defective wiring harness
- Oxygen sensor before catalytic converter defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between pre-catalyst oxygen sensor and DME
- Replace pre-catalyst oxygen sensor
- Replace DME

Fault effect and breakdown warning

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Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

- MIL lamp lights up after 2nd driving cycle
- Higher exhaust emissions
- Higher fuel consumption
- Surge

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0130; BMW DTC 12BD70: OXYGEN SENSOR BEFORE CATALYTIC CONVERTER, ELECTRICAL: NERNST-CELL RESISTANCE OR CERAMIC TEMPERATURE IMPLAUSIBLE, LINE OR HEATER FAULT

Information saved in

DME

Fault code

12BD70 - P0130

Fault description

The diagnostic function monitors the temperature of the oxygen sensor before the catalytic converter.

Condition for fault identification

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Test condition:

The fault is recognized when the oxygen sensor before the catalytic converter fails to achieve the specified operating temperature although the heater is operating.

Potential problem source(s):

- Defective wiring harness
- Oxygen sensor before catalytic converter defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between pre-catalyst oxygen sensor and DME
- Replace pre-catalyst oxygen sensor

Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

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- MIL lamp lights up after 2nd driving cycle
- Higher exhaust emissions
- Higher fuel consumption
- Surge

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P2097; BMW DTC 12BD90: OXYGEN SENSOR BEFORE CATALYTIC CONVERTER, PLAUSIBILITY: MIXTURE AFTER CATALYTIC CONVERTER TOO RICH

Information saved in

DME

Fault code

12BD90 - P2097

Fault description

The diagnostic function monitors the voltage of the precatalyst oxygen sensor and compares it with the voltage of the oxygen sensor behind the catalytic converter (at lambda = 1).

Condition for fault identification

Test condition:

The fault is recognized when the lambda signal from the pre-catalyst oxygen sensor deviates too much from the lambda signal from the oxygen sensor behind the catalytic converter.

Potential problem source(s):

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- Defective wiring harness
- Defective oxygen sensors

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine on
- No diagnostic fault codes logged indicating a mixture fault

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Inspect wiring harness between oxygen sensors before/behind catalytic converter and DME
- Replace oxygen sensors before and behind catalytic converter

Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

MIL lights up when fault is detected in two consecutive driving cycles

Driver information

Warning light:

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- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P2096; BMW DTC 12BD91: OXYGEN SENSOR BEFORE CATALYTIC CONVERTER, PLAUSIBILITY: MIXTURE AFTER CATALYTIC CONVERTER TOO LEAN

Information saved in

DME

Fault code

12BD91 - P2096

Fault description

The diagnostic function monitors the voltage of the precatalyst oxygen sensor and compares it with the voltage of the oxygen sensor behind the catalytic converter (at lambda = 1).

Condition for fault identification

Test condition:

The fault is recognized when the lambda signal from the pre-catalyst oxygen sensor deviates too much from the lambda signal from the oxygen sensor behind the catalytic converter.

Potential problem source(s):

- Leak in exhaust system before oxygen sensors
- Defective wiring harness
- Oxygen sensor before catalytic converter defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

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Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine on
- No diagnostic fault codes logged indicating a mixture fault

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Conduct catalytic converter diagnosis
- Check wiring harness between pre-catalyst oxygen sensor and DME
- Replace pre-catalyst oxygen sensor

Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

MIL lights up when fault is detected in two consecutive driving cycles

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

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Service instruction

None

DTC P2195; BMW DTC 12BD92: OXYGEN SENSOR BEFORE CATALYTIC CONVERTER, PLAUSIBILITY: FIXED AT LEAN

Information saved in

DME

Fault code

12BD92 - P2195

Fault description

The diagnostic function monitors whether the voltage of the pre-catalyst oxygen sensor is within a plausible range.

Condition for fault identification

Test condition:

The fault is recognized when the voltage of the pre-catalyst oxygen sensor remains consistently too high.

Potential problem source(s):

- Defective wiring harness
- Oxygen sensor before catalytic converter defective
- Leak in exhaust system on engine-side of catalytic converter

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

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- Engine on
- No diagnostic fault codes logged indicating a mixture fault

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 2 min.

Action in service

- If faults related to mixture control are present, repair these first
- Check exhaust system for leaks
- Check wiring harness between pre-catalyst oxygen sensor and DME
- Replace pre-catalyst oxygen sensor

Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

MIL lights up when fault is detected in two consecutive driving cycles

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P2196; BMW DTC 12BD93: OXYGEN SENSOR BEFORE CATALYTIC CONVERTER, PLAUSIBILITY: FIXED AT RICH

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DME

Fault code

12BD93 - P2196

Fault description

The diagnostic function monitors whether the voltage of the pre-catalyst oxygen sensor is within a plausible range.

Condition for fault identification

Test condition:

The fault is recognized when the voltage of the pre-catalyst oxygen sensor remains consistently too low.

Potential problem source(s):

- Defective wiring harness
- Oxygen sensor before catalytic converter defective
- Leak in exhaust system on engine-side of catalytic converter

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine on
- No diagnostic fault codes logged indicating a mixture fault

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 2 min.

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Action in service

- If faults related to mixture control are present, repair these first
- Check exhaust system for leaks
- Check wiring harness between pre-catalyst oxygen sensor and DME
- Replace pre-catalyst oxygen sensor

Fault effect and breakdown warning

Breakdown notice:

Continued driving is possible, but because the oxygen sensor is not ready for closed-loop control, conversion of exhaust gases in the catalytic converter will be seriously impaired.

Possible apparent symptoms:

MIL lights up when fault is detected in two consecutive driving cycles

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P2089; BMW DTC 130001: VANOS SOLENOID VALVE, INLET, ACTIVATION: SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

130001 - P2089

Fault description

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The diagnostic function monitors the wire to the VANOS solenoid valve.

Condition for fault identification

Test condition:

The fault is recognized by the driver circuit's diagnostic function.

Potential problem source(s):

- Defect in wiring harness between DME and VANOS solenoid valve
- VANOS solenoid valve defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and VANOS solenoid valve
- Replace VANOS solenoid valve
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

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None

Possible apparent symptoms:

CC message, performance reduction, turbo deactivation

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: on'
- Electronic engine output reduction, ECE: on
- CC message: on

Service instruction

None

DTC P2088; BMW DTC 130002: VANOS SOLENOID VALVE, INLET, ACTIVATION: SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

130002 - P2088

Fault description

The diagnostic function monitors the wire to the VANOS solenoid valve.

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Condition for fault identification

Test condition:

The fault is recognized by the driver circuit's diagnostic function.

Potential problem source(s):

- Defect in wiring harness between DME and VANOS solenoid valve
- VANOS solenoid valve defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and VANOS solenoid valve
- Replace VANOS solenoid valve
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

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Possible apparent symptoms:

CC message, performance reduction, turbo deactivation

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: on'
- Electronic engine output reduction, ECE: on
- CC message: on

Service instruction

None

DTC P0010; BMW DTC 130004: VANOS SOLENOID VALVE, INLET, ACTIVATION: OPEN CIRCUIT

Information saved in

DME

Fault code

130004 - P0010

Fault description

The diagnostic function monitors the wire to the VANOS solenoid valve.

Condition for fault identification

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Test condition:

The fault is recognized by the driver circuit's diagnostic function.

Potential problem source(s):

- Defect in wiring harness between DME and VANOS solenoid valve
- VANOS solenoid valve defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and VANOS solenoid valve
- Replace VANOS solenoid valve
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

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CC message, performance reduction, turbo deactivation

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: on'
- Electronic engine output reduction, ECE: on
- CC message: on

Service instruction

None

DTC P13C0; BMW DTC 130104: VANOS, INLET: CONTROL FAULT, CAMSHAFT JAMMED

Information saved in

DME

Fault code

130104 - P13C0

Fault description

The diagnostic function monitors the camshaft timing adjustment.

Condition for fault identification

Test condition:

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The fault is recognized when the actual angle fails to conform to the specified angle while the engine is running.

Potential problem source(s):

- Contaminated oil passage at VANOS solenoid valve
- Oil pressure too low
- Defect in wiring harness to VANOS solenoid valve
- VANOS solenoid valve seized
- VANOS solenoid valve defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine on
- Specified/actual angle difference exceeds 15° crankshaft

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Check oil level, change engine oil and filter as indicated
- If faults related to the camshaft position sensor have been logged, repair these first
- Check wiring harness between VANOS solenoid valve and DME
- Perform system test
- Check camshaft and VANOS unit for freedom of movement and mechanical damage
- Clean VANOS solenoid valve, replace as required

Fault effect and breakdown warning

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Breakdown notice:

The engine reverts to its emergency limp-home program, continued vehicle operation is possible, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

- Engine runs poorly

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: on'
- Electronic engine output reduction, ECE: on
- CC message: on

Service instruction

None

DTC P0012; BMW DTC 130108: VANOS, INLET: CONTROL FAULT, POSITION NOT REACHED

Information saved in

DME

Fault code

130108 - P0012

Fault description

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The diagnostic function monitors the camshaft timing adjustment.

Condition for fault identification

Test condition:

The fault is recognized when the actual angle assumes the specified angle too slowly while the engine is running.

Potential problem source(s):

- Contaminated oil passage at VANOS solenoid valve
- Oil pressure too low
- Defective wires or plug terminals on VANOS solenoid valve
- VANOS solenoid valve seized
- VANOS solenoid valve defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine on
- Specified/actual angle difference exceeds 15° crankshaft

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Check oil level, change engine oil and filter as indicated
- If faults related to the camshaft position sensor have been logged, repair these first
- Check wiring harness between VANOS solenoid valve and DME

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- Perform system test
- Check camshaft and VANOS unit for freedom of movement and mechanical damage
- Clean VANOS solenoid valve, replace as required

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its emergency limp-home program, continued vehicle operation is possible, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

- Engine runs poorly

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: on'
- Electronic engine output reduction, ECE: on
- CC message: on

Service instruction

None

DTC P2091; BMW DTC 130201: VANOS SOLENOID VALVE, EXHAUST, ACTIVATION: SHORT CIRCUIT TO POSITIVE

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DME

Fault code

130201 - P2091

Fault description

The diagnostic function monitors the wire to the VANOS solenoid valve.

Condition for fault identification

Test condition:

The fault is recognized by the driver circuit's diagnostic function.

Potential problem source(s):

- Defect in wiring harness between DME and VANOS solenoid valve
- VANOS solenoid valve defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and VANOS solenoid valve

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- Replace VANOS solenoid valve
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

CC message, performance reduction, turbo deactivation

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: on'
- Electronic engine output reduction, ECE: on
- CC message: on

Service instruction

None

DTC P2090; BMW DTC 130202: VANOS SOLENOID VALVE, EXHAUST, ACTIVATION: SHORT CIRCUIT TO GROUND

Information saved in

DME

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Fault code

130202 - P2090

Fault description

The diagnostic function monitors the wire to the VANOS solenoid valve.

Condition for fault identification

Test condition:

The fault is recognized by the driver circuit's diagnostic function.

Potential problem source(s):

- Defect in wiring harness between DME and VANOS solenoid valve
- VANOS solenoid valve defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and VANOS solenoid valve
- Replace VANOS solenoid valve

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- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

CC message, performance reduction, turbo deactivation

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: on'
- Electronic engine output reduction, ECE: on
- CC message: on

Service instruction

None

DTC P0013; BMW DTC 130204: VANOS SOLENOID VALVE, EXHAUST, ACTIVATION: OPEN CIRCUIT

Information saved in

DME

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Fault code

130204 - P0013

Fault description

The diagnostic function monitors the wire to the VANOS solenoid valve.

Condition for fault identification

Test condition:

The fault is recognized by the driver circuit's diagnostic function.

Potential problem source(s):

- Defect in wiring harness between DME and VANOS solenoid valve
- VANOS solenoid valve defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and VANOS solenoid valve
- Replace VANOS solenoid valve

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- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

CC message, performance reduction, turbo deactivation

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: on'
- Electronic engine output reduction, ECE: on
- CC message: on

Service instruction

None

DTC P13C9; BMW DTC 130304: VANOS, EXHAUST: CONTROL FAULT, CAMSHAFT JAMMED

Information saved in

DME

Fault code

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130304 - P13C9

Fault description

The diagnostic function monitors the camshaft timing adjustment.

Condition for fault identification

Test condition:

The fault is recognized when the actual angle fails to conform to the specified angle while the engine is running.

Potential problem source(s):

- Contaminated oil passage at VANOS solenoid valve
- Oil pressure too low
- Defect in wiring harness to VANOS solenoid valve
- VANOS solenoid valve seized
- VANOS solenoid valve defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine on
- Specified/actual angle difference exceeds 15° crankshaft

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Check oil level, change engine oil and filter as indicated

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- If faults related to the camshaft position sensor have been logged, repair these first
- Check wiring harness between VANOS solenoid valve and DME
- Perform system test
- Check camshaft and VANOS unit for freedom of movement and mechanical damage
- Clean VANOS solenoid valve, replace as required

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its emergency limp-home program, continued vehicle operation is possible, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

- Engine runs poorly

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: on'
- Electronic engine output reduction, ECE: on
- CC message: on

Service instruction

None

DTC P0015; BMW DTC 130308: VANOS, EXHAUST: CONTROL FAULT, POSITION NOT

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REACHED

Information saved in

DME

Fault code

130308 - P0015

Fault description

The diagnostic function monitors the camshaft timing adjustment.

Condition for fault identification

Test condition:

The fault is recognized when the actual angle assumes the specified angle too slowly while the engine is running.

Potential problem source(s):

- Contaminated oil passage at VANOS solenoid valve
- Oil pressure too low
- Defective wires or plug terminals on VANOS solenoid valve
- VANOS solenoid valve seized
- VANOS solenoid valve defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine on

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- Specified/actual angle difference exceeds 15° crankshaft

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Check oil level, change engine oil and filter as indicated
- If faults related to the camshaft position sensor have been logged, repair these first
- Check wiring harness between VANOS solenoid valve and DME
- Perform system test
- Check camshaft and VANOS unit for freedom of movement and mechanical damage
- Clean VANOS solenoid valve, replace as required

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its emergency limp-home program, continued vehicle operation is possible, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

- Engine runs poorly

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

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- ECE emissions warning lamp: on'
- Electronic engine output reduction, ECE: on
- CC message: on

Service instruction

None

DTC P0341; BMW DTC 130E11: INLET-CAMSHAFT SENSOR: SIGNAL IMPLAUSIBLE

Information saved in

DME

Fault code

130E11 - P0341

Fault description

The diagnostic function monitors the intake camshaft position sensor.

Condition for fault identification

Test condition:

The fault is recognized when the engine is turning over and camshaft signals have been present.

Potential problem source(s):

- Defect in wiring harness between DME and camshaft position sensor
- Incorrect gap between camshaft position sensor and camshaft sensor reluctor ring
- Sensor contaminated or defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

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- None

Other conditions:

- Engine ON

Condition for fault memory entry

If the 'crankshaft revolutions' fault is present.

Action in service

- Check wiring harness between DME and camshaft position sensor
- Check installation of camshaft position sensor and camshaft position sensor reluctor ring
- Replace sensor

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its emergency limp-home program, continued vehicle operation is possible, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

Extended starting time, power loss, and no restart possible in combination with an exhaust sensor fault

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

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- ECE emissions warning lamp: on'
- Electronic engine output reduction, ECE: on
- CC message: on

Service instruction

None

DTC P1338; BMW DTC 130E20: INLET CAMSHAFT: OFFSET ANGLE TO CRANKSHAFT OUTSIDE TOLERANCE

Information saved in

DME

Fault code

130E20 - P1338

Fault description

The diagnostic function monitors the offset angle between crankshaft and camshaft.

Condition for fault identification

Test condition:

The fault is recognized when the camshaft's reference position does not align with the specified position.

Potential problem source(s):

- Loose center bolt
- Camshaft position sensor reluctor ring out of adjustment
- Timing chain has jumped time
- Defective timing chain (stretched)

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

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Time condition:

- None

Other conditions:

- Engine on
- After execution of camshaft position sensor adaptation

Condition for fault memory entry

Camshaft reference position has shifted by more than or and the camshaft has executed rotations.

Action in service

- When intake and exhaust camshafts display simultaneous angular offset errors relative to crankshaft: Check center bolt
- Check camshaft position sensor reluctor ring
- Check timing chain
- Check valve timing

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its emergency limp-home program, continued vehicle operation is possible, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

MIL comes on

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

MY10 US:

- US emissions warning lamp: on

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- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: on'
- Electronic engine output reduction, ECE: on
- CC message: on

Service instruction

None

DTC P0366; BMW DTC 130F11: EXHAUST-CAMSHAFT SENSOR: SIGNAL IMPLAUSIBLE

Information saved in

DME

Fault code

130F11 - P0366

Fault description

The diagnostic function monitors the exhaust camshaft position sensor.

Condition for fault identification

Test condition:

The fault is recognized when the engine is turning over and camshaft signals have been present.

Potential problem source(s):

- Defect in wiring harness between DME and camshaft position sensor
- Incorrect gap between camshaft position sensor and camshaft sensor reluctor ring
- Sensor contaminated or defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

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- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

If the 'crankshaft revolutions' fault is present.

Action in service

- Check wiring harness between DME and camshaft position sensor
- Check installation of camshaft position sensor and camshaft position sensor reluctor ring
- Replace sensor

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its emergency limp-home program, continued vehicle operation is possible, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

Extended starting time, power loss, and no restart possible in combination with an exhaust sensor fault

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on

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- CC message: on

MY11 ECE:

- ECE emissions warning lamp: on'
- Electronic engine output reduction, ECE: on
- CC message: on

Service instruction

None

DTC P1339; BMW DTC 130F20: EXHAUST CAMSHAFT: OFFSET ANGLE TO CRANKSHAFT OUTSIDE TOLERANCE

Information saved in

DME

Fault code

130F20 - P1339

Fault description

The diagnostic function monitors the offset angle between crankshaft and camshaft.

Condition for fault identification

Test condition:

The fault is recognized when the camshaft's reference position does not align with the specified position.

Potential problem source(s):

- Loose center bolt
- Camshaft position sensor reluctor ring out of adjustment
- Timing chain has jumped time
- Defective timing chain (stretched)

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

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Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- After execution of camshaft position sensor adaptation

Condition for fault memory entry

Camshaft reference position has shifted by more than or and the camshaft has executed rotations.

Action in service

- When intake and exhaust camshafts display simultaneous angular offset errors relative to crankshaft: Check center bolt
- Check camshaft position sensor reluctor ring
- Check timing chain
- Check valve timing

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its emergency limp-home program, continued vehicle operation is possible, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

MIL comes on

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

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MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: on'
- Electronic engine output reduction, ECE: on
- CC message: on

Service instruction

None

DTC P054B; BMW DTC 131401: VANOS, EXHAUST, COLD START: NOT CONTROLLABLE

Information saved in

DME

Fault code

131401 - P054B

Fault description

The diagnostic function monitors adjustment of the exhaust camshaft during the catalytic converter's warm-up phase.

Condition for fault identification

Test condition:

The fault is recognized when the camshaft cannot be adjusted to the specified position.

Potential problem source(s):

- Contaminated oil passage at VANOS solenoid valve
- Oil pressure too low
- Defective wires or plug terminals on VANOS solenoid valve
- VANOS solenoid valve seized
- VANOS solenoid valve defective

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Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine cold start to ensure that catalyst heater is active.

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Check oil level, change engine oil and filter as indicated
- If faults related to the camshaft position sensor have been logged, repair these first
- Check wiring harness between VANOS solenoid valve and DME
- Perform system test
- Check camshaft and VANOS unit for freedom of movement and mechanical damage
- Clean VANOS solenoid valve, replace as required

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its emergency limp-home program, continued vehicle operation is possible, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

- Engine runs poorly

Driver information

Warning light:

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MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P052B; BMW DTC 131501: VANOS, INLET, COLD START: NOT CONTROLLABLE

Information saved in

DME

Fault code

131501 - P052B

Fault description

The diagnostic function monitors adjustment of the intake-side camshaft during the catalytic converter's warm-up phase.

Condition for fault identification

Test condition:

The fault is recognized when the camshaft cannot be adjusted to the specified position.

Potential problem source(s):

- Contaminated oil passage at VANOS solenoid valve
- Oil pressure too low
- Defective wires or plug terminals on VANOS solenoid valve
- VANOS solenoid valve seized
- VANOS solenoid valve defective

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Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine cold start to ensure that catalyst heater is active.

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Check oil level, change engine oil and filter as indicated
- If faults related to the camshaft position sensor have been logged, repair these first
- Check wiring harness between VANOS solenoid valve and DME
- Perform system test
- Check camshaft and VANOS unit for freedom of movement and mechanical damage
- Clean VANOS solenoid valve, replace as required

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its emergency limp-home program, continued vehicle operation is possible, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

- Engine runs poorly

Driver information

Warning light:

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MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P1325; BMW DTC 132408: VANOS, EXHAUST: CAMSHAFT NOT AT LOCKING POSITION AT START

Information saved in

DME

Fault code

132408 - P1325

Fault description

The diagnostic function monitors camshaft position locking.

Condition for fault identification

Test condition:

The fault is recognized when the camshaft is not locked during starting.

Potential problem source(s):

- Engine oil dirty, old or not to specification
- VANOS adjustment unit dirty
- VANOS adjustment unit defective

Terminal condition: none

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The fault is logged immediately when it occurs during an engine start.

Action in service

- Check engine oil, replace engine oil and filter as required
- Perform system test on VANOS solenoid valves
- Replace VANOS adjustment unit

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- Non-starter in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

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Service instruction

none

DTC P1323; BMW DTC 132508: VANOS, INLET: CAMSHAFT NOT AT LOCKING POSITION AT START

Information saved in

DME

Fault code

132508 - P1323

Fault description

The diagnostic function monitors camshaft position locking.

Condition for fault identification

Test condition:

The fault is recognized when the camshaft is not locked during starting.

Potential problem source(s):

- Engine oil dirty, old or not to specification
- VANOS adjustment unit dirty
- VANOS adjustment unit defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

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- Engine ON

Condition for fault memory entry

The fault is logged immediately when it occurs during an engine start.

Action in service

- Check engine oil, replace engine oil and filter as required
- Perform system test on VANOS solenoid valves
- Replace VANOS adjustment unit

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- Non-starter in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

none

DTC P10D8; BMW DTC 133101: VALVETRONIC RELAY, ACTIVATION: SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

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133101 - P10D8

Fault description

The diagnostic function monitors electrical control-activation of the Valvetronic relay for a short circuit to positive.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit to positive is detected when activation voltage is transmitted to the Valvetronic relay.

Potential problem source(s):

- Defective wiring harness
- Valvetronic relay defective
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Inspect wiring harness between DME and Valvetronic relay
- Replace Valvetronic relay

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- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

If the malfunction occurs while the VVT system is at maximum stroke extension (full load, vehicle parked), only limited or no effects will be apparent to the customer. (Switching process may be felt after GD, starting response).

Otherwise breakdown vehicle, as power is no longer transmitted to the VVT system, which thus closes.

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P10D7; BMW DTC 133102: VALVETRONIC RELAY, ACTIVATION: SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

133102 - P10D7

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Fault description

The diagnostic function monitors electrical activation of the Valvetronic relay for short circuits to ground.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit to ground is detected when activation voltage is transmitted to the Valvetronic relay.

Potential problem source(s):

- Defective wiring harness
- Valvetronic relay defective
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Inspect wiring harness between DME and Valvetronic relay
- Replace Valvetronic relay
- Replace DME

Fault effect and breakdown warning

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Breakdown notice:

None

Possible apparent symptoms:

If the malfunction occurs while the VVT system is at maximum stroke extension (full load, vehicle parked), only limited or no effects will be apparent to the customer. (Switching process may be felt after GD, starting response).

Otherwise breakdown vehicle, as power is no longer transmitted to the VVT system, which thus closes.

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P10D6; BMW DTC 133104: VALVETRONIC RELAY, ACTIVATION: OPEN CIRCUIT

Information saved in

DME

Fault code

133104 - P10D6

Fault description

The diagnostic function monitors electrical activation of the Valvetronic relay for open circuits.

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Condition for fault identification

Test condition:

The fault is recognized if an open circuit is detected when activation voltage is transmitted to the Valvetronic relay.

Potential problem source(s):

- Defective wiring harness
- Valvetronic relay defective
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Inspect wiring harness between DME and Valvetronic relay
- Replace Valvetronic relay
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

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Possible apparent symptoms:

If the malfunction occurs while the VVT system is at maximum stroke extension (full load, vehicle parked), only limited or no effects will be apparent to the customer. (Switching process may be felt after GD, starting response).

Otherwise breakdown vehicle, as power is no longer transmitted to the VVT system, which thus closes.

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P1047; BMW DTC 133201: VALVETRONIC SERVOMOTOR, ACTIVATION: SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

133201 - P1047

Fault description

The diagnostic function monitors the Valvetronic actuator motor's three phases for a short circuit to positive.

Condition for fault identification

Test condition:

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The driver circuit is deactivated when a fault is suspected. The fault is logged when the measured diagnosis voltage is greater than 1.2 V? 2.3 V and the voltage behind the Valvetronic relay exceeds 10 V.

Potential problem source(s):

- Defective wiring harness
- Valvetronic actuator defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Voltage behind motor relay > 5V

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between Valvetronic actuator motor and DME
- Replace Valvetronic actuator motor

Fault effect and breakdown warning

Breakdown notice:

No continued driving possible.

Possible apparent symptoms:

If the malfunction occurs while the VVT system is not at its maximum stroke position, the engine stalls/vehicle breaks down. Engine will not restart, as the VVT driver circuit is deactivated and the VVT system reverts to minimum stroke. If the fault occurs at maximum stroke, unrestricted throttled operation is possible.

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Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P1048; BMW DTC 133202: VALVETRONIC SERVOMOTOR, ACTIVATION: SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

133202 - P1048

Fault description

The diagnostic function monitors the Valvetronic actuator motor's three phases for a short circuit to ground.

Condition for fault identification

Test condition:

The driver circuit is deactivated when a fault is suspected. The diagnostic fault code is logged when the voltage measured during diagnosis is less than 0.2 V and the voltage behind the Valvetronic relay is greater than 6 V.

Potential problem source(s):

- Defective wiring harness
- Valvetronic actuator defective

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Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Voltage behind motor relay > 5V

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between Valvetronic actuator motor and DME
- Replace Valvetronic actuator motor

Fault effect and breakdown warning

Breakdown notice:

Continued driving is usually not possible.

Possible apparent symptoms:

If the malfunction occurs while the VVT system is not at its maximum stroke position, the engine stalls/vehicle breaks down. Engine will not restart, as the VVT driver circuit is deactivated and the VVT system reverts to minimum stroke. If the fault occurs at maximum stroke, unrestricted throttled operation is possible.

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on

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- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P1050; BMW DTC 133208: VALVETRONIC SERVOMOTOR, ACTIVATION: OPEN CIRCUIT

Information saved in

DME

Fault code

133208 - P1050

Fault description

The diagnostic function monitors the Valvetronic actuator motor's three phases for an open circuit in one of the wires.

Condition for fault identification

Test condition:

The driver circuit is deactivated when a fault is suspected. The fault is logged when the measured diagnosis voltage is less than 0.35 V? 0.61 V.

Potential problem source(s):

- Defective wiring harness
- Valvetronic actuator defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

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- None

Time condition:

- None

Other conditions:

- Voltage behind motor relay > 5V

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between Valvetronic actuator motor and DME
- Replace Valvetronic actuator motor

Fault effect and breakdown warning

Breakdown notice:

Continued driving is usually not possible.

Possible apparent symptoms:

If the malfunction occurs while the VVT system is not at its maximum stroke position, the engine stalls/vehicle breaks down. Engine will not restart, as the VVT driver circuit is deactivated and the VVT system reverts to minimum stroke. If the fault occurs at maximum stroke, unrestricted throttled operation is possible.

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

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Service instruction

None

DTC P10DF; BMW DTC 133304: NONE

Information saved in

DME

Fault code

133304 - P10DF

Fault description

VVT-Overload Protection Output Stage System Shutdown

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P1030; BMW DTC 133B04: NONE

Information saved in

DME

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Fault code

133B04 - P1030

Fault description

VVT-Actuator Monitoring Position Control; Tight, no Adjustment possible (Bank 1)

Condition for fault identification

none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P10E8; BMW DTC 134A02: NONE

Information saved in

DME

Fault code

134A02 - P10E8

Fault description

VVT-Overload Protection Control Motor Overload

Condition for fault identification

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none

Condition for fault memory entry

none

Action in service

none

Fault effect and breakdown warning

-

Driver information

none

Service instruction

none

DTC P101A; BMW DTC 134F02: VALVETRONIC, ADJUSTMENT RANGE: STOP NOT LEARNED

Information saved in

DME

Fault code

134F02 - P101A

Fault description

The diagnostic function determines whether a valid travel limit is reached during initialization of the Valvetronic system.

Condition for fault identification

Test condition:

In order to initialize the Valvetronic system, each time the DME control module wakes up, and each time terminals are changed on the DME, the upper travel stop is relearned. This fault is logged when the system fails to recognize the travel stop correctly.

Potential problem source(s):

- Valvetronic system travel stops damaged

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- Friction in the Valvetronic system

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Initialization of Valvetronic systems

Condition for fault memory entry

none

Action in service

- Check travel stops in cylinder head and on the eccentric shaft
- Inspect Valvetronic system to verify correct installation and freedom of movement

Fault effect and breakdown warning

Breakdown notice:

Continued driving is usually not possible.

Possible apparent symptoms:

Once the VVT has reached its emergency running position, unlimited throttled operation is possible.

If it fails to reach the emergency running position, results ranging from a power loss to breakdown vehicle can occur depending on the VVT position that the system does reach.

Driver information

Warning light:

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MY10 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

MY10 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P1023; BMW DTC 134F04: VALVETRONIC, ADJUSTMENT RANGE: ERROR, RANGE CHECK

Information saved in

DME

Fault code

134F04 - P1023

Fault description

The diagnostic function monitors whether the adjustment range has varied from the base learning data during the course of the vehicle's service life.

Condition for fault identification

Test condition:

The fault is recognized when the adjustment range deviates from the base adjustment range by more than 2°.

Potential problem source(s):

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- Wear at the travel stops
- Wear in the Valvetronic mechanism

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- Adjustment range check every 1800 min. of operating time

Other conditions:

- Shutdown phase

Condition for fault memory entry

none

Action in service

- Repeat Valvetronic travel stop learning routine, refer to service functions
- Inspect Valvetronic for mechanical wear and resistance to motion
- Replace components with mechanical wear

Fault effect and breakdown warning

Breakdown notice:

The engine runs in throttled mode, full driveability/power

Possible apparent symptoms:

VVT reverts to limp-home mode, minor effects can be felt

Driver information

Warning light:

- ECE emissions warning lamp: off

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- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P1023; BMW DTC 134F08: VALVETRONIC, ADJUSTMENT RANGE: RANGE CHECK, DEVIATION FROM ORIGINAL LEARNING

Information saved in

DME

Fault code

134F08 - P1023

Fault description

The diagnostic function monitors the adjustment range during the check of the Valvetronic's range.

Condition for fault identification

Test condition:

The fault is recognized when the adjustment range deviates from the base adjustment range by more than 1°.

Potential problem source(s):

- Wear at the travel stops
- Wear in the Valvetronic mechanism

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

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Time condition:

- Adjustment range check every 18000 min. of operating time

Other conditions:

- Shutdown phase

Condition for fault memory entry

none

Action in service

- Repeat Valvetronic travel stop learning routine, refer to service functions
- Inspect Valvetronic for mechanical wear and resistance to motion
- Replace components with mechanical wear

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P10DF; BMW DTC 135301: VALVETRONIC, COMPONENT PROTECTION, OUTPUT STAGE: DEACTIVATION, SYSTEM

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Information saved in

DME

Fault code

135301 - P10DF

Fault description

The diagnostic function monitors the temperature of the driver circuit.

Condition for fault identification

Test condition:

The fault is recognized when the calculated driver circuit temperature rises above 130°C.

Potential problem source(s):

- Valvetronic system consumes excessive energy owing to:
- Friction and high resistance in the Valvetronic system
- Abuse ("blipping" the accelerator pedal, etc.)
- Frequent open-loop operation (limp-home mode/learning routines)

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

none

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Action in service

- Check electrical system voltage
- If other diagnostic fault codes related to Valvetronic are logged, work through these first
- Check Valvetronic mechanism for freedom of movement, wear and friction (with external voltage source connected as required)
- Replace components with mechanical wear

Fault effect and breakdown warning

Breakdown notice:

VVT driver circuit component protection

Possible apparent symptoms:

Range from no effects to power reduction/breakdown

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P10E0; BMW DTC 135302: VALVETRONIC, COMPONENT PROTECTION, SERVOMOTOR: DEACTIVATION, SYSTEM

Information saved in

DME

Fault code

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135302 - P10E0

Fault description

The diagnostic function monitors the temperature of the Valvetronic actuator motor.

Condition for fault identification

Test condition:

The fault is recognized when the calculated temperature of the Valvetronic actuator motor rises above 200°C / 65535 (temperature in the windings of the Valvetronic servo motor).

Potential problem source(s):

- Valvetronic system consumes excessive energy owing to:
- Friction and high resistance in the Valvetronic system
- Abuse ("blipping" the accelerator pedal, etc.)
- Frequent open-loop operation (limp-home mode/learning routines)

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

none

Action in service

- Check electrical system voltage
- If other diagnostic fault codes related to Valvetronic are logged, work through these first

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- Check Valvetronic mechanism for freedom of movement, wear and friction (with external voltage source connected as required)
- Replace components with mechanical wear

Fault effect and breakdown warning

Breakdown notice:

VVT system component protection

Possible apparent symptoms:

Range from no effects to power reduction/breakdown

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P10E7; BMW DTC 135401: VALVETRONIC, OVERLOAD PROTECTION: OUTPUT STAGE OVERLOADED

Information saved in

DME

Fault code

135401 - P10E7

Fault description

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The diagnostic function monitors the temperature of the driver circuit.

Condition for fault identification

Test condition:

The fault is recognized when the calculated driver circuit temperature rises above 120°C.

Potential problem source(s):

- Valvetronic system consumes excessive energy owing to:
- Friction and high resistance in the Valvetronic system
- Abuse ("blipping" the accelerator pedal, etc.)
- Frequent open-loop operation (limp-home mode/learning routines)

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

none

Action in service

- Check electrical system voltage
- If other diagnostic fault codes related to Valvetronic are logged, work through these first
- Check Valvetronic mechanism for freedom of movement, wear and friction (with external voltage source connected as required)
- Replace components with mechanical wear

Fault effect and breakdown warning

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Breakdown notice:

The engine runs in throttled mode, full driveability/power

Possible apparent symptoms:

VVT reverts to limp-home mode, minor effects can be felt

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P10E8; BMW DTC 135402: VALVETRONIC, OVERLOAD PROTECTION: SERVOMOTOR OVERLOADED

Information saved in

DME

Fault code

135402 - P10E8

Fault description

The diagnostic function monitors the temperature of the Valvetronic actuator motor.

Condition for fault identification

Test condition:

The fault is recognized when the calculated temperature of the Valvetronic actuator motor rises above 190°C / (temperature in the windings of the Valvetronic actuator motor).

Potential problem source(s):

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- Valvetronic system consumes excessive energy owing to:
- Friction and high resistance in the Valvetronic system
- Abuse ("blipping" the accelerator pedal, etc.)
- Frequent open-loop operation (limp-home mode/learning routines)

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

none

Action in service

- Check electrical system voltage
- If other diagnostic fault codes related to Valvetronic are logged, work through these first
- Check Valvetronic mechanism for freedom of movement, wear and friction (with external voltage source connected as required)
- Replace components with mechanical wear

Fault effect and breakdown warning

Breakdown notice:

The engine runs in throttled mode, full driveability/power

Possible apparent symptoms:

VVT reverts to limp-home mode, minor effects can be felt

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Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P1030; BMW DTC 135604: VALVETRONIC SYSTEM: CONTROL DEVIATION TOO GREAT

Information saved in

DME

Fault code

135604 - P1030

Fault description

The diagnostic function monitors the Valvetronic system's control precision.

Condition for fault identification

Test condition:

The fault is recognized when a counter rises above the fault threshold of 10 000. The counter is incrementalized when the closed-loop control difference exceeds a specified threshold while the Valvetronic actuator motor is stationary.

Potential problem source(s):

- Defective wiring harness
- Valvetronic actuator defective
- Valvetronic system sticking
- Defective DME

Terminal condition: Terminal 15

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Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

none

Action in service

- Check wiring harness and plug connectors for electrical faults
- If other diagnostic fault codes related to Valvetronic are logged, work through these first
- Check Valvetronic mechanism for freedom of movement, wear and friction (with external voltage source connected as required)
- Replace Valvetronic actuator motor
- Replace components with mechanical wear
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Unrestricted, throttled operation remains available if the VVT system's stroke is at maximum extension.

If maximum stroke is not achieved, results ranging from a power loss to breakdown can occur depending on the VVT position that the system does reach.

Driver information

Warning light:

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ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P10E1; BMW DTC 135608: VALVETRONIC SYSTEM: NO MOVEMENT DETECTED

Information saved in

DME

Fault code

135608 - P10E1

Fault description

The diagnostic function determines whether the Valvetronic system moves freely and without resistance during the initialization routine.

Condition for fault identification

Test condition:

The fault is recognized when neither upward nor downward motion of 6° is possible during initialization of the Valvetronic system.

Potential problem source(s):

- Defective wiring harness
- Valvetronic actuator defective
- Valvetronic system sticking
- Defective DME

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Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- When the Valvetronic system is initialized (Terminal 15/Wake-up)

Condition for fault memory entry

none

Action in service

- Check wiring harness and plug connectors for electrical faults
- If other diagnostic fault codes related to Valvetronic are logged, work through these first
- Check Valvetronic mechanism for freedom of movement, wear and friction (with external voltage source connected as required)
- Replace Valvetronic actuator motor
- Replace components with mechanical wear
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Once the VVT has reached its emergency running position, unlimited throttled operation is possible.

If it fails to reach the emergency running position, results ranging from a power loss to breakdown vehicle can occur depending on the VVT position that the system does reach.

Driver information

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Warning light:

MY10 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

MY10 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P10E2; BMW DTC 135808: VALVETRONIC SERVOMOTOR, POSITION SENSORS: SHORT-CIRCUIT OR LINE BREAK (OPEN CIRCUIT)

Information saved in

DME

Fault code

135808 - P10E2

Fault description

The diagnostic function monitors the wires to the five position sensors.

Condition for fault identification

Test condition:

The fault is recognized when all three position sensors have the same level.

Potential problem source(s):

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- No power-supply voltage to sensors
- One or several wires to the position sensors is/are shorted to positive or ground
- One or several position-sensor wires is open
- One or more position sensors in the Valvetronic actuator motor is defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Check wiring harness between Valvetronic actuator motor and DME
- Replace Valvetronic actuator motor

Fault effect and breakdown warning

Breakdown notice:

The engine runs in throttled mode, full driveability/power

Possible apparent symptoms:

VVT reverts to limp-home mode, minor effects can be felt

Driver information

Warning light:

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- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P10E6; BMW DTC 135908: VALVETRONIC SERVOMOTOR, POSITION SENSORS: SUPPLY VOLTAGE FAULTY

Information saved in

DME

Fault code

135908 - P10E6

Fault description

The diagnostic function monitors the power-supply wires to the position sensors.

Condition for fault identification

Test condition:

The fault is recognized when the DME hardware detects a fault in the voltage supply to the Hall-effect sensors.

Potential problem source(s):

- Defective wiring harness
- Valvetronic actuator defective
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

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- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

none

Action in service

- Check wiring harness between Valvetronic actuator motor and DME
- Check Valvetronic actuator motor

Check Valvetronic actuator motor with multimeter, specified results:

Pin 11 to Pin 10: roughly 1 mOhm

Pin 11 to cylinder head: Infinite resistance

Pin 10 to cylinder head: Infinite resistance

- Replace Valvetronic actuator motor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

The engine runs in throttled mode, full driveability/power

Possible apparent symptoms:

VVT reverts to limp-home mode, minor effects can be felt

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off

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- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P1017; BMW DTC 135A08: VALVETRONIC SERVOMOTOR, POSITION SENSORS: SIGNAL IMPLAUSIBLE

Information saved in

DME

Fault code

135A08 - P1017

Fault description

The diagnostic function monitors the switching sequence of the position sensors.

Condition for fault identification

Test condition:

The fault is recognized when the position sensors indicate an incorrect switching sequence.

Potential problem source(s):

- Defective wiring harness
- Valvetronic actuator defective
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

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Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Check wiring harness between Valvetronic actuator motor and DME
- Replace Valvetronic actuator motor

Fault effect and breakdown warning

Breakdown notice:

The engine runs in throttled mode, full driveability/power

Possible apparent symptoms:

VVT reverts to limp-home mode, minor effects can be felt

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P10F4; BMW DTC 135B10: VALVETRONIC SERVOMOTOR, ACTIVATION, VOLTAGE PHASE: LINE DISCONNECTION

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Fault code

135B10 - P10F4

Fault description

The diagnostic function monitors activation of Phase U in the Valvetronic actuator motor for open circuits.

Condition for fault identification

Test condition:

The fault is recognized when the current falls below 0.3 amps despite application of voltage to Phase U.

Potential problem source(s):

- Defective wiring harness
- Valvetronic actuator defective
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

Diagnostic fault code is logged when condition is present for at least 8 ms.

Action in service

- Check wiring harness between Valvetronic actuator motor and DME

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- Replace Valvetronic actuator motor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Engine runs in throttled operation. Normally no limitations will be noticed. However continued driving is impossible in worst-case scenario

Possible apparent symptoms:

Range from no effects to power reduction/breakdown

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P10F5; BMW DTC 135B11: VALVETRONIC SERVOMOTOR, ACTIVATION, VOLT PHASE: LINE DISCONNECTION

Information saved in

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Fault code

135B11 - P10F5

Fault description

The diagnostic function monitors activation of Phase V in the Valvetronic actuator motor for open circuits.

Condition for fault identification

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Test condition:

The fault is recognized when the current falls below 0.3 amps despite application of voltage to Phase V.

Potential problem source(s):

- Defective wiring harness
- Valvetronic actuator defective
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is logged when the condition is present for at least 8 ms.

Action in service

- Check wiring harness between Valvetronic actuator motor and DME
- Replace Valvetronic actuator motor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Engine runs in throttled operation. Normally no limitations will be noticed. However continued driving is impossible in worst-case scenario

Possible apparent symptoms:

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Range from no effects to power reduction/breakdown

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P10F6; BMW DTC 135B12: VALVETRONIC SERVOMOTOR, ACTIVATION, WATT PHASE: LINE DISCONNECTION

Information saved in

DME

Fault code

135B12 - P10F6

Fault description

The diagnostic function monitors activation of Phase W in the Valvetronic actuator motor for indication of an open circuit.

Condition for fault identification

Test condition:

The fault is recognized when the current falls below 0.3 amps despite application of voltage to Phase W.

Potential problem source(s):

- Defective wiring harness
- Valvetronic actuator defective
- Defective DME

Terminal condition: Terminal 15

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Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

Diagnostic fault code is logged when condition is present for at least 8 ms.

Action in service

- Check wiring harness between Valvetronic actuator motor and DME
- Replace Valvetronic actuator motor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Engine runs in throttled operation. Normally no limitations will be noticed. However continued driving is impossible in worst-case scenario

Possible apparent symptoms:

Range from no effects to power reduction/breakdown

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off

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- CC message: none

Service instruction

None

DTC P0478; BMW DTC 138101: EXHAUST FLAP, ACTIVATION: SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

138101 - P0478

Fault description

The diagnostic function monitors the activation wire to the exhaust-gas flap.

Condition for fault identification

Test condition:

The fault is recognized by the driver circuit's diagnostic function.

Potential problem source(s):

- Defect in wire between DME and exhaust flap
- Exhaust-gas flap's valve defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

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Other conditions:

- Engine on
- Exhaust-gas flap recognized

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and exhaust-gas flap
- Replace valve
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Vehicle quieter during driving

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0477; BMW DTC 138102: EXHAUST FLAP, ACTIVATION: SHORT CIRCUIT TO GROUND

Information saved in

DME

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Fault code

138102 - P0477

Fault description

The diagnostic function monitors the activation wire to the exhaust-gas flap.

Condition for fault identification

Test condition:

The fault is recognized by the driver circuit's diagnostic function.

Potential problem source(s):

- Defect in wire between DME and exhaust flap
- Exhaust-gas flap's valve defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- Exhaust-gas flap recognized

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and exhaust-gas flap

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- Replace valve
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Vehicle louder when stationary

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0475; BMW DTC 138104: EXHAUST FLAP, ACTIVATION: OPEN CIRCUIT

Information saved in

DME

Fault code

138104 - P0475

Fault description

The diagnostic function monitors the activation wire to the exhaust-gas flap.

Condition for fault identification

Test condition:

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The fault is recognized by the driver circuit's diagnostic function.

Potential problem source(s):

- Defect in wire between DME and exhaust flap
- Exhaust-gas flap's valve defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- Exhaust-gas flap recognized

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and exhaust-gas flap
- Replace valve
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Vehicle louder when stationary

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Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P303E; BMW DTC 138201: RADIATOR SHUTTER, TOP, SUPPLY VOLTAGE, ACTUATOR: VOLTAGE FAULT

Information saved in

DME

Fault code

138201 - P303E

Fault description

The diagnostic function monitors the power-supply voltage to the radiator vent slat actuator.

Condition for fault identification

Test condition:

The fault is recognized when then the power-supply voltage to the radiator vent slat actuator is too low.

Potential problem source(s):

- Voltage at radiator vent slat actuator is less than 10 V
- Defective wiring harness
- Radiator vent slat actuator is defective

Terminal condition: Terminal 15

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness
- Replace radiator vent slat assembly

Fault effect and breakdown warning

Breakdown notice:

Continued driving possible, avoid subjecting engine to major loads. (mountain driving, full throttle, etc.)

Possible apparent symptoms:

Engine could overheat if the vent slats remain closed while demand for engine power is high.

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

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None

DTC P303F; BMW DTC 138301: RADIATOR SHUTTER, TOP, OVERTEMPERATURE, ACTUATOR: LIMIT VALUE EXCEEDED

Information saved in

DME

Fault code

138301 - P303F

Fault description

The diagnostic function monitors the radiator vent slat actuator's internal temperature.

Condition for fault identification

Test condition:

The fault is recognized when the maximum temperature is exceeded in the radiator vent slat actuator.

Potential problem source(s):

- Outside temperature too high
- Radiator vent slat actuator defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

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This fault is logged in the control module's fault memory immediately.

Action in service

- If the fault has occurred one time only, clear the ECU fault memory. No further action necessary.
- If the fault appears repeatedly, replace the radiator vent slat assembly.

Fault effect and breakdown warning

Breakdown notice:

Continued driving possible, avoid subjecting engine to major loads. (mountain driving, full throttle, etc.)

Possible apparent symptoms:

Engine could overheat if the vent slats remain closed while demand for engine power is high.

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P304A; BMW DTC 138401: RADIATOR SHUTTER, TOP, ACTUATOR INTERNAL: ELECTRICAL FAULT

Information saved in

DME

Fault code

138401 - P304A

Fault description

The diagnostic function monitors the radiator vent slat actuator for internal electrical faults.

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Condition for fault identification

Test condition:

The fault is recognized when the actuator for the radiator vent slats reports an internal electrical fault via the LIN bus.

Potential problem source(s):

- Defect in radiator vent slat assembly

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Replace radiator vent slat assembly

Fault effect and breakdown warning

Breakdown notice:

Continued driving possible, avoid subjecting engine to major loads. (mountain driving, full throttle, etc.)

Possible apparent symptoms:

Engine could overheat if the vent slats remain closed while demand for engine power is high.

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Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P304B; BMW DTC 138501: RADIATOR SHUTTER, TOP, LOWER STOP: NOT DETECTED

Information saved in

DME

Fault code

138501 - P304B

Fault description

The diagnostic function monitors whether the radiator vent slat assembly closes within a specified angle of rotation.

Condition for fault identification

Test condition:

The fault is recognized when the radiator vent slat actuator is not able to close the radiator slat assembly within a specified angle.

Potential problem source(s):

- Mechanical defect in radiator vent slat mechanism (for instance: broken control linkage...)

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

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Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Check radiator vent slat assembly for freedom of movement (perform system test), repair mechanical components as required
- Replace radiator vent slat assembly

Fault effect and breakdown warning

Breakdown notice:

Radiator vent slats can be opened by hand

Possible apparent symptoms:

- The engine may overheat.

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

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DTC P304C; BMW DTC 138601: RADIATOR SHUTTER, TOP, UPPER STOP: NOT DETECTED

Information saved in

DME

Fault code

138601 - P304C

Fault description

The diagnostic function monitors whether the travel-range limits are reached during the self-test.

Condition for fault identification

Test condition:

The fault is recognized when the system fails to reach the upper limit of its travel range (radiator vent slat assembly open).

Potential problem source(s):

- Mechanical defect in radiator vent slat mechanism (for instance: broken control linkage...)

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- 6 sec. over 30 km/h

Other conditions:

- None

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

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Action in service

- Check radiator vent slat assembly for freedom of movement (perform system test), repair mechanical components as required
- Replace radiator vent slat assembly

Fault effect and breakdown warning

Breakdown notice:

Radiator vent slats can be opened by hand

Possible apparent symptoms:

- The engine may overheat.

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P304D; BMW DTC 138701: RADIATOR SHUTTER, TOP, UPPER STOP: DETECTED TOO EARLY

Information saved in

DME

Fault code

138701 - P304D

Fault description

The diagnostic function monitors the radiator vent slats to confirm freedom of motion.

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Condition for fault identification

Test condition:

The fault is recognized when it is not possible to progress through a specific rotational angle.

Potential problem source(s):

- Radiator vent slats physically seized (dirt, ice, snow, etc.)

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- 6 sec. over 30 km/h

Other conditions:

- None

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check radiator vent slat assembly for travel resistance (perform system test)
- Examine the diagnostic fault code: If the temperature was less than 0°C when the fault was logged, ice may have been present: Examine the diagnostic fault code: If the vehicle speed was > 150 km/h, wind resistance may be the problem source

Fault effect and breakdown warning

Breakdown notice:

Radiator vent slats can be opened by hand

Possible apparent symptoms:

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- The engine may overheat.

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P300D; BMW DTC 138901: RADIATOR SHUTTER, BOTTOM, ELECTRICAL: SHORT CIRCUIT TO B+

Information saved in

DME

Fault code

138901 - P300D

Fault description

The diagnostic function monitors the wiring harness to the radiator vent slats.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit is present in the wire to the radiator vent slats.

Potential problem source(s):

- Defect in wiring harness between radiator vent slats and DME
- Radiator vent slat assembly is defective

Terminal condition: Terminal 15

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Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Check wiring harness between radiator vent slats and DME
- Replace radiator vent slat assembly

Fault effect and breakdown warning

Breakdown notice:

Radiator vent slats should open automatically.

Possible apparent symptoms:

Engine overheating is possible

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

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Service instruction

None

DTC P300E; BMW DTC 138902: RADIATOR SHUTTER, BOTTOM, ELECTRICAL: SHORT CIRCUIT TO EARTH

Information saved in

DME

Fault code

138902 - P300E

Fault description

The diagnostic function monitors the wiring harness to the radiator vent slats.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit is present in the wire to the radiator vent slats.

Potential problem source(s):

- Defect in wiring harness between radiator vent slats and DME
- Radiator vent slat assembly is defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

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Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Check wiring harness between radiator vent slats and DME
- Replace radiator vent slat assembly

Fault effect and breakdown warning

Breakdown notice:

Radiator vent slats should open automatically.

Possible apparent symptoms:

Engine overheating is possible

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P300F; BMW DTC 138904: RADIATOR SHUTTER, BOTTOM, ELECTRICAL: LINE DISCONNECTION

Information saved in

DME

Fault code

138904 - P300F

Fault description

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The diagnostic function monitors the wiring harness to the radiator vent slats.

Condition for fault identification

Test condition:

The fault is recognized when an open circuit is present in the wiring harness to the radiator vent slats.

Potential problem source(s):

- Defect in wiring harness between radiator vent slats and DME
- Radiator vent slat assembly defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Check wiring harness between radiator vent slats and DME
- Replace radiator vent slat assembly

Fault effect and breakdown warning

Breakdown notice:

Radiator vent slats should open automatically.

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Possible apparent symptoms:

Engine overheating is possible

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0300; BMW DTC 140001: MISFIRE, SEVERAL CYLINDERS: INJECTION IS CUT OUT

Information saved in

DME

Fault code

140001 - P0300

Fault description

The diagnostic function monitors whether multiple "combustion miss" malfunctions are logged in the course of a single driving cycle.

Condition for fault identification

Test condition:

The fault is recognized when combustion miss is present on at least two cylinders.

Potential problem source(s):

- see Individual fault

Terminal condition: none

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Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

see Individual fault

Action in service

- see Individual fault

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

see Individual fault

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

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none

DTC P0300; BMW DTC 140002: MISFIRE, SEVERAL CYLINDERS: DAMAGING EXHAUST GAS AFTER STARTING

Information saved in

DME

Fault code

140002 - P0300

Fault description

The diagnostic function monitors whether multiple "combustion miss" malfunctions are logged in the course of a single driving cycle.

Condition for fault identification

Test condition:

The fault is recognized when combustion miss is present on at least two cylinders.

Potential problem source(s):

- see Individual fault

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

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see Individual fault

Action in service

- see Individual fault

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

see Individual fault

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

none

DTC P0300; BMW DTC 140004: MISFIRE, SEVERAL CYLINDERS: DAMAGING EXHAUST GAS

Information saved in

DME

Fault code

140004 - P0300

Fault description

The diagnostic function monitors whether multiple "combustion miss" malfunctions are logged in the course of a single driving cycle.

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Condition for fault identification

Test condition:

The fault is recognized when combustion miss is present on at least two cylinders.

Potential problem source(s):

- see Individual fault

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

see Individual fault

Action in service

- see Individual fault

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

see Individual fault

Driver information

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Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

none

DTC P0301; BMW DTC 140101: COMBUSTION MISFIRING, CYLINDER 1: INJECTION IS SWITCHED OFF

Information saved in

DME

Fault code

140101 - P0301

Fault description

The diagnostic function monitors the duration of the combustion strokes and compares them with the remaining cylinders by assessing the RPM signals (segment periods).

Condition for fault identification

Test condition:

The fault is recognized when the combustion stroke in a particular cylinder is slower than the combustion strokes on the other cylinders.

Potential problem source(s):

- Defect in mixture formation
- Defect in ignition system
- Mechanical defect
- Defective DME

Terminal condition: none

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Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when within 200: (KFKSWF) crankshaft revolutions a specified number of ignition miss events is detected.

Action in service

- Because this is a secondary fault, start by repairing the primary faults

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its limp-home program, continued vehicle operation is possible but driveability is restricted, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

- Reduced engine power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

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Service instruction

None

DTC P0301; BMW DTC 140102: COMBUSTION MISFIRING, CYLINDER 1: DAMAGING EXHAUST GAS AFTER START SEQUENCE

Information saved in

DME

Fault code

140102 - P0301

Fault description

The diagnostic function monitors the duration of the combustion strokes and compares them with the remaining cylinders by assessing the RPM signals (segment periods).

Condition for fault identification

Test condition:

The fault is recognized when the combustion stroke in a particular cylinder is slower than the combustion strokes on the other cylinders.

Potential problem source(s):

- Defect in mixture formation
- Defect in ignition system
- Mechanical defect
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

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- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when a specific number of combustion miss events, with their negative effects on exhaust emissions, are recognized during the first 1000 crankshaft revolutions following the start.

Action in service

- Because this is a secondary fault, start by repairing the primary faults

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Combustion miss may be noticed.

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0301; BMW DTC 140104: COMBUSTION MISFIRING, CYLINDER 1: DAMAGING EXHAUST GAS

Information saved in

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Fault code

140104 - P0301

Fault description

The diagnostic function monitors the duration of the combustion strokes and compares them with the remaining cylinders by assessing the RPM signals (segment periods).

Condition for fault identification

Test condition:

The fault is recognized when the combustion stroke in a particular cylinder is slower than the combustion strokes on the other cylinders.

Potential problem source(s):

- Defect in mixture formation
- Defect in ignition system
- Mechanical defect
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when a specific number of combustion miss events, with their negative effects on exhaust emissions, are recognized within 1000 crankshaft revolutions.

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Action in service

- Because this is a secondary fault, start by repairing the primary faults

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Combustion miss may be noticed.

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0302; BMW DTC 140201: MISFIRE, CYLINDER 2: INJECTION IS CUT OUT

Information saved in

DME

Fault code

140201 - P0302

Fault description

The diagnostic function monitors the duration of the combustion strokes and compares them with the remaining cylinders by assessing the RPM signals (segment periods).

Condition for fault identification

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Test condition:

The fault is recognized when the combustion stroke in a particular cylinder is slower than the combustion strokes on the other cylinders.

Potential problem source(s):

- Collateral fault logged, from problem with mixture formation, ignition system or mechanism.

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when a specific number of combustion miss events are recognized within 200 crankshaft revolutions. The number depends on RPM and load factor.

Action in service

- Because this is a secondary fault, start by repairing the primary faults

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its limp-home program, continued vehicle operation is possible but driveability is restricted, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

- Reduced engine power

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Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P0302; BMW DTC 140202: MISFIRE, CYLINDER 2: DAMAGING EXHAUST GAS AFTER STARTING

Information saved in

DME

Fault code

140202 - P0302

Fault description

The diagnostic function monitors the duration of the combustion strokes and compares them with the remaining cylinders by assessing the RPM signals (segment periods).

Condition for fault identification

Test condition:

The fault is recognized when the combustion stroke in a particular cylinder is slower than the combustion strokes on the other cylinders.

Potential problem source(s):

- Collateral fault logged, from problem with mixture formation, ignition system or mechanical components

Terminal condition: none

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when a specific number of combustion miss events, with their negative effects on exhaust emissions, are recognized during the first 1000 crankshaft revolutions following the start.

Action in service

- Because this is a secondary fault, start by repairing the primary faults

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Combustion miss may be noticed.

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

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None

DTC P0302; BMW DTC 140204: MISFIRE, CYLINDER 2: DAMAGING EXHAUST GAS

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Fault code

140204 - P0302

Fault description

The diagnostic function monitors the duration of the combustion strokes and compares them with the remaining cylinders by assessing the RPM signals (segment periods).

Condition for fault identification

Test condition:

The fault is recognized when the combustion stroke in a particular cylinder is slower than the combustion strokes on the other cylinders.

Potential problem source(s):

- Collateral fault logged, from problem with mixture formation, ignition system or mechanical components

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

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The diagnostic fault code is logged when a specific number of combustion miss events, with their negative effects on exhaust emissions, are recognized within 1000 crankshaft revolutions. This must proceed in 4 intervals.

Action in service

- Because this is a secondary fault, start by repairing the primary faults

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Combustion miss may be noticed.

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0303; BMW DTC 140301: MISFIRE, CYLINDER 3: INJECTION IS CUT OUT

Information saved in

DME

Fault code

140301 - P0303

Fault description

The diagnostic function monitors the duration of the combustion strokes and compares them with the remaining

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cylinders by assessing the RPM signals (segment periods).

Condition for fault identification

Test condition:

The fault is recognized when the combustion stroke in a particular cylinder is slower than the combustion strokes on the other cylinders.

Potential problem source(s):

- Defect in mixture formation
- Defect in ignition system
- Mechanical defect
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when a specific number of combustion miss events are recognized within 200 crankshaft revolutions.

Action in service

- Because this is a secondary fault, start by repairing the primary faults

Fault effect and breakdown warning

Breakdown notice:

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The engine reverts to its limp-home program, continued vehicle operation is possible but driveability is restricted, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

- Reduced engine power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P0303; BMW DTC 140302: MISFIRE, CYLINDER 3: DAMAGING EXHAUST GAS AFTER STARTING

Information saved in

DME

Fault code

140302 - P0303

Fault description

The diagnostic function monitors the duration of the combustion strokes and compares them with the remaining cylinders by assessing the RPM signals (segment periods).

Condition for fault identification

Test condition:

The fault is recognized when the combustion stroke in a particular cylinder is slower than the combustion strokes on the other cylinders.

Potential problem source(s):

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- Defect in mixture formation
- Defect in ignition system
- Mechanical defect
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when a specific number of combustion miss events, with their negative effects on exhaust emissions, are recognized during the first 1000 crankshaft revolutions following the start.

Action in service

- Because this is a secondary fault, start by repairing the primary faults

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Combustion miss may be noticed.

Driver information

Warning light:

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- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0303; BMW DTC 140304: MISFIRE, CYLINDER 3: DAMAGING EXHAUST GAS

Information saved in

DME

Fault code

140304 - P0303

Fault description

The diagnostic function monitors the duration of the combustion strokes and compares them with the remaining cylinders by assessing the RPM signals (segment periods).

Condition for fault identification

Test condition:

The fault is recognized when the combustion stroke in a particular cylinder is slower than the combustion strokes on the other cylinders.

Potential problem source(s):

- Defect in mixture formation
- Defect in ignition system
- Mechanical defect
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

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Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when a specific number of combustion miss events, with their negative effects on exhaust emissions, are recognized within 1000 crankshaft revolutions.

Action in service

- Because this is a secondary fault, start by repairing the primary faults

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Combustion miss may be noticed.

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

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DTC P0304; BMW DTC 140401: MISFIRE, CYLINDER 4: INJECTION IS CUT OUT

Information saved in

DME

Fault code

140401 - P0304

Fault description

The diagnostic function monitors the duration of the combustion strokes and compares them with the remaining cylinders by assessing the RPM signals (segment periods).

Condition for fault identification

Test condition:

The fault is recognized when the combustion stroke in a particular cylinder is slower than the combustion strokes on the other cylinders.

Potential problem source(s):

- Collateral fault logged, from problem with mixture formation, ignition system or mechanism.

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when a specific number of combustion miss events are recognized within

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200 crankshaft revolutions. The number depends on RPM and load factor.

Action in service

- Because this is a secondary fault, start by repairing the primary faults

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its limp-home program, continued vehicle operation is possible but driveability is restricted, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

- Reduced engine power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P0304; BMW DTC 140402: MISFIRE, CYLINDER 4: DAMAGING EXHAUST GAS AFTER STARTING

Information saved in

DME

Fault code

140402 - P0304

Fault description

The diagnostic function monitors the duration of the combustion strokes and compares them with the remaining

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cylinders by assessing the RPM signals (segment periods).

Condition for fault identification

Test condition:

The fault is recognized when the combustion stroke in a particular cylinder is slower than the combustion strokes on the other cylinders.

Potential problem source(s):

- Collateral fault logged, from problem with mixture formation, ignition system or mechanism.

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when a specific number of combustion miss events, with their negative effects on exhaust emissions, are recognized during the first 1000 crankshaft revolutions following the start.

Action in service

- Because this is a secondary fault, start by repairing the primary faults

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

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Combustion miss may be noticed.

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0304; BMW DTC 140404: MISFIRE, CYLINDER 4: DAMAGING EXHAUST GAS

Information saved in

DME

Fault code

140404 - P0304

Fault description

The diagnostic function monitors the duration of the combustion strokes and compares them with the remaining cylinders by assessing the RPM signals (segment periods).

Condition for fault identification

Test condition:

The fault is recognized when the combustion stroke in a particular cylinder is slower than the combustion strokes on the other cylinders.

Potential problem source(s):

- Collateral fault logged, from problem with mixture formation, ignition system or mechanical components

Terminal condition: none

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when a specific number of combustion miss events, with their negative effects on exhaust emissions, are recognized within 1000 crankshaft revolutions. This must proceed in 4 intervals.

Action in service

- Because this is a secondary fault, start by repairing the primary faults

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Combustion miss may be noticed.

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

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None

DTC P0305; BMW DTC 140501: MISFIRE, CYLINDER 5: INJECTION IS CUT OUT

Information saved in

DME

Fault code

140501 - P0305

Fault description

The diagnostic function monitors the duration of the combustion strokes and compares them with the remaining cylinders by assessing the RPM signals (segment periods).

Condition for fault identification

Test condition:

The fault is recognized when the combustion stroke in a particular cylinder is slower than the combustion strokes on the other cylinders.

Potential problem source(s):

- Defect in mixture formation
- Defect in ignition system
- Mechanical defect
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

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- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when a specific number of combustion miss events are recognized within 200 crankshaft revolutions.

Action in service

- Because this is a secondary fault, start by repairing the primary faults

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its limp-home program, continued vehicle operation is possible but driveability is restricted, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

- Reduced engine power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P0305; BMW DTC 140502: MISFIRE, CYLINDER 5: DAMAGING EXHAUST GAS AFTER STARTING

Information saved in

DME

Fault code

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140502 - P0305

Fault description

The diagnostic function monitors the duration of the combustion strokes and compares them with the remaining cylinders by assessing the RPM signals (segment periods).

Condition for fault identification

Test condition:

The fault is recognized when the combustion stroke in a particular cylinder is slower than the combustion strokes on the other cylinders.

Potential problem source(s):

- Defect in mixture formation
- Defect in ignition system
- Mechanical defect
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when a specific number of combustion miss events, with their negative effects on exhaust emissions, are recognized during the first 1000 crankshaft revolutions following the start.

Action in service

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- Because this is a secondary fault, start by repairing the primary faults

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Combustion miss may be noticed.

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0305; BMW DTC 140504: MISFIRE, CYLINDER 5: DAMAGING EXHAUST GAS

Information saved in

DME

Fault code

140504 - P0305

Fault description

The diagnostic function monitors the duration of the combustion strokes and compares them with the remaining cylinders by assessing the RPM signals (segment periods).

Condition for fault identification

Test condition:

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The fault is recognized when the combustion stroke in a particular cylinder is slower than the combustion strokes on the other cylinders.

Potential problem source(s):

- Defect in mixture formation
- Defect in ignition system
- Mechanical defect
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when a specific number of combustion miss events, with their negative effects on exhaust emissions, are recognized within 1000 crankshaft revolutions.

Action in service

- Because this is a secondary fault, start by repairing the primary faults

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Combustion miss may be noticed.

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Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0306; BMW DTC 140601: MISFIRE, CYLINDER 6: INJECTION IS CUT OUT

Information saved in

DME

Fault code

140601 - P0306

Fault description

The diagnostic function monitors the duration of the combustion strokes and compares them with the remaining cylinders by assessing the RPM signals (segment periods).

Condition for fault identification

Test condition:

The fault is recognized when the combustion stroke in a particular cylinder is slower than the combustion strokes on the other cylinders.

Potential problem source(s):

- Defect in mixture formation
- Defect in ignition system
- Mechanical defect
- Defective DME

Terminal condition: none

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Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when a specific number of combustion miss events are recognized within 200 crankshaft revolutions.

Action in service

- Because this is a secondary fault, start by repairing the primary faults

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its limp-home program, continued vehicle operation is possible but driveability is restricted, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

- Reduced engine power

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

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Service instruction

None

DTC P0306; BMW DTC 140602: MISFIRE, CYLINDER 6: DAMAGING EXHAUST GAS AFTER STARTING

Information saved in

DME

Fault code

140602 - P0306

Fault description

The diagnostic function monitors the duration of the combustion strokes and compares them with the remaining cylinders by assessing the RPM signals (segment periods).

Condition for fault identification

Test condition:

The fault is recognized when the combustion stroke in a particular cylinder is slower than the combustion strokes on the other cylinders.

Potential problem source(s):

- Defect in mixture formation
- Defect in ignition system
- Mechanical defect
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

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- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when a specific number of combustion miss events, with their negative effects on exhaust emissions, are recognized during the first 1000 crankshaft revolutions following the start.

Action in service

- Because this is a secondary fault, start by repairing the primary faults

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Combustion miss may be noticed.

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0306; BMW DTC 140604: MISFIRE, CYLINDER 6: DAMAGING EXHAUST GAS

Information saved in

DME

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Fault code

140604 - P0306

Fault description

The diagnostic function monitors the duration of the combustion strokes and compares them with the remaining cylinders by assessing the RPM signals (segment periods).

Condition for fault identification

Test condition:

The fault is recognized when the combustion stroke in a particular cylinder is slower than the combustion strokes on the other cylinders.

Potential problem source(s):

- Defect in mixture formation
- Defect in ignition system
- Mechanical defect
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when a specific number of combustion miss events, with their negative effects on exhaust emissions, are recognized within 1000 crankshaft revolutions.

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Action in service

- Because this is a secondary fault, start by repairing the primary faults

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Combustion miss may be noticed.

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P1301; BMW DTC 150102: IGNITION, CYLINDER 1: COMBUSTION DURATION TOO SHORT

Information saved in

DME

Fault code

150102 - P1301

Fault description

The diagnostic function monitors the spark duration.

Condition for fault identification

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Test condition:

The fault is recognized when the spark duration is below a value stored in the program map.

Potential problem source(s):

- Defective spark plug
- Defect in wiring harness between ignition coil and DME
- Defective ignition coil
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when the fault counter total is above 320.

Action in service

- Replace spark plug
- Check wiring harness between ignition coil and DME
- Check ignition coil
- Replace DME if the fault code remains logged continuously

Fault effect and breakdown warning

Breakdown notice:

Continued driving possible if only the one cylinder is affected. The ignition miss detection should recognize the

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affected cylinder and deactivate the injection to protect the catalytic converter.

Possible apparent symptoms:

Ignition miss and hard starting can occur.

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: off
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P1302; BMW DTC 150202: IGNITION, CYLINDER 2: COMBUSTION DURATION TOO SHORT

Information saved in

DME

Fault code

150202 - P1302

Fault description

The diagnostic function monitors the spark duration.

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Condition for fault identification

Test condition:

The fault is recognized when the spark duration is below a value stored in the program map.

Potential problem source(s):

- Defective spark plug
- Defect in wiring harness between ignition coil and DME
- Defective ignition coil
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when the fault counter total is above 320.

Action in service

- Replace spark plug
- Check wiring harness between ignition coil and DME
- Check ignition coil
- Replace DME if the fault code remains logged continuously

Fault effect and breakdown warning

Breakdown notice:

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Continued driving possible if only the one cylinder is affected. The ignition miss detection should recognize the affected cylinder and deactivate the injection to protect the catalytic converter.

Possible apparent symptoms:

Ignition miss and hard starting can occur.

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: off
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P1303; BMW DTC 150302: IGNITION, CYLINDER 3: COMBUSTION DURATION TOO SHORT

Information saved in

DME

Fault code

150302 - P1303

Fault description

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The diagnostic function monitors the spark duration.

Condition for fault identification

Test condition:

The fault is recognized when the spark duration is below a value stored in the program map.

Potential problem source(s):

- Defective spark plug
- Defect in wiring harness between ignition coil and DME
- Defective ignition coil
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when the fault counter total is above 320.

Action in service

- Replace spark plug
- Check wiring harness between ignition coil and DME
- Check ignition coil
- Replace DME if the fault code remains logged continuously

Fault effect and breakdown warning

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Breakdown notice:

Continued driving possible if only the one cylinder is affected. The ignition miss detection should recognize the affected cylinder and deactivate the injection to protect the catalytic converter.

Possible apparent symptoms:

Ignition miss and hard starting can occur.

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: off
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P1304; BMW DTC 150402: IGNITION, CYLINDER 4: COMBUSTION DURATION TOO SHORT

Information saved in

DME

Fault code

150402 - P1304

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Fault description

The diagnostic function monitors the spark duration.

Condition for fault identification

Test condition:

The fault is recognized when the spark duration is below a value stored in the program map.

Potential problem source(s):

- Defective spark plug
- Defect in wiring harness between ignition coil and DME
- Defective ignition coil
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when the fault counter total is above 320.

Action in service

- Replace spark plug
- Check wiring harness between ignition coil and DME
- Check ignition coil
- Replace DME if the fault code remains logged continuously

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Fault effect and breakdown warning

Breakdown notice:

Continued driving possible if only the one cylinder is affected. The ignition miss detection should recognize the affected cylinder and deactivate the injection to protect the catalytic converter.

Possible apparent symptoms:

Ignition miss and hard starting can occur.

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: off
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P1305; BMW DTC 150502: IGNITION, CYLINDER 5: COMBUSTION DURATION TOO SHORT

Information saved in

DME

Fault code

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150502 - P1305

Fault description

The diagnostic function monitors the spark duration.

Condition for fault identification

Test condition:

The fault is recognized when the spark duration is below a value stored in the program map.

Potential problem source(s):

- Defective spark plug
- Defect in wiring harness between ignition coil and DME
- Defective ignition coil
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when the fault counter total is above 320.

Action in service

- Replace spark plug
- Check wiring harness between ignition coil and DME
- Check ignition coil

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- Replace DME if the fault code remains logged continuously

Fault effect and breakdown warning

Breakdown notice:

Continued driving possible if only the one cylinder is affected. The ignition miss detection should recognize the affected cylinder and deactivate the injection to protect the catalytic converter.

Possible apparent symptoms:

Ignition miss and hard starting can occur.

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: off
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P1306; BMW DTC 150602: IGNITION, CYLINDER 6: COMBUSTION DURATION TOO SHORT

Information saved in

DME

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Fault code

150602 - P1306

Fault description

The diagnostic function monitors the spark duration.

Condition for fault identification

Test condition:

The fault is recognized when the spark duration is below a value stored in the program map.

Potential problem source(s):

- Defective spark plug
- Defect in wiring harness between ignition coil and DME
- Defective ignition coil
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when the fault counter total is above 320.

Action in service

- Replace spark plug

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- Check wiring harness between ignition coil and DME
- Check ignition coil
- Replace DME if the fault code remains logged continuously

Fault effect and breakdown warning

Breakdown notice:

Continued driving possible if only the one cylinder is affected. The ignition miss detection should recognize the affected cylinder and deactivate the injection to protect the catalytic converter.

Possible apparent symptoms:

Ignition miss and hard starting can occur.

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: off
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P050B; BMW DTC 151001: IGNITION TIMING ADJUSTMENT IN IDLE, COLD START IGNITION TIMING TOO EARLY

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Fault code

151001 - P050B

Fault description

The diagnostic function monitors the ignition angle while the catalytic converter is being heated.

Condition for fault identification

Test condition:

The fault is recognized when the ignition-angle adjustment is outside the tolerance range.

Potential problem source(s):

- Poor fuel quality

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- 5 sec. after engine on

Other conditions:

- Engine on and running at idle
- Catalyst heating (always takes place for at least 45 sec. following engine start)

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 2 min.

Action in service

- Replace fuel

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Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- none

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

- none

DTC P13EA; BMW DTC 151101: IGNITION TIMING ADJUSTMENT AT PARTIAL LOAD, COLD START IGNITION TIMING TOO EARLY

Information saved in

DME

Fault code

151101 - P13EA

Fault description

The diagnostic function monitors the ignition angle while the catalytic converter is being heated.

Condition for fault identification

Test condition:

The fault is recognized when the ignition-angle adjustment is outside the tolerance range.

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Potential problem source(s):

- Poor fuel quality

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- 5 sec. after engine on

Other conditions:

- Engine on and running at idle
- Catalyst heating (always takes place for at least 45 sec. following engine start)

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 2 min.

Action in service

- Replace fuel

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- none

Driver information

Warning light:

- ECE emissions warning lamp: off

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- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

- none

DTC P13A0; BMW DTC 152108: SUPER-KNOCKING, CYLINDER 1: INJECTION SWITCH-OFF

Information saved in

DME

Fault code

152108 - P13A0

Fault description

The diagnostic function responds to extreme combustion knock by deactivating the injection at the 1st cylinder.

Condition for fault identification

Test condition:

The fault is recognized when a high number of intense knock events is detected during engine operation in the upper end of the load range.

Potential problem source(s):

- Misuse, terminal status switch during vehicle operation
- Temporary contamination in combustion chamber or intake passages

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

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Time condition:

- None

Other conditions:

- Engine on, in upper load range

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- If the diagnostic fault code has been logged once, clear the ECU fault memory
- If the fault has been logged multiple times, check the spark plug, injector and ignition coil on the cylinder

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Engine runs poorly with power loss

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P13A1; BMW DTC 152208: SUPER-KNOCKING, CYLINDER 2: INJECTION SWITCH-OFF

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DME

Fault code

152208 - P13A1

Fault description

The diagnostic function responds to extreme combustion knock by deactivating the injection at the 2nd cylinder.

Condition for fault identification

Test condition:

The fault is recognized when a high number of intense knock events is detected during engine operation in the upper end of the load range.

Potential problem source(s):

- Misuse, terminal status switch during vehicle operation
- Temporary contamination in combustion chamber or intake passages

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine on, in upper load range

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- If the diagnostic fault code has been logged once, clear the ECU fault memory

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- If the diagnostic fault code has been logged multiple times, check the injector and ignition coil at cylinder 2

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Engine runs poorly with power loss

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P13A2; BMW DTC 152308: SUPER-KNOCKING, CYLINDER 3: INJECTION SWITCH-OFF

Information saved in

DME

Fault code

152308 - P13A2

Fault description

The diagnostic function responds to extreme combustion knock by deactivating the injection at the 3rd cylinder.

Condition for fault identification

Test condition:

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The fault is recognized when a high number of intense knock events is detected during engine operation in the upper end of the load range.

Potential problem source(s):

- Misuse, terminal status switch during vehicle operation
- Temporary contamination in combustion chamber or intake passages

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine on, in upper load range

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- If the diagnostic fault code has been logged once, clear the ECU fault memory
- If the fault has been logged multiple times, check the spark plug, injector and ignition coil on the cylinder

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Engine runs poorly with power loss

Driver information

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Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P13A3; BMW DTC 152408: SUPER-KNOCKING, CYLINDER 4: INJECTION SWITCH-OFF

Information saved in

DME

Fault code

152408 - P13A3

Fault description

The diagnostic function responds to extreme combustion knock by deactivating the injection at the 4th cylinder.

Condition for fault identification

Test condition:

The fault is recognized when a high number of intense knock events is detected during engine operation in the upper end of the load range.

Potential problem source(s):

- Misuse, terminal status switch during vehicle operation
- Temporary contamination in combustion chamber or intake passages

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

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- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine on, in upper load range

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- If the diagnostic fault code has been logged once, clear the ECU fault memory
- If the diagnostic fault code has been logged multiple times, check the injector and ignition coil at cylinder 4

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Engine runs poorly with power loss

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

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DTC P13A4; BMW DTC 152508: SUPER-KNOCKING, CYLINDER 5: INJECTION SWITCH-OFF

Information saved in

DME

Fault code

152508 - P13A4

Fault description

The diagnostic function responds to extreme combustion knock by deactivating the injection at the 5th cylinder.

Condition for fault identification

Test condition:

The fault is recognized when a high number of intense knock events is detected during engine operation in the upper end of the load range.

Potential problem source(s):

- Misuse, terminal status switch during vehicle operation
- Temporary contamination in combustion chamber or intake passages

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine on, in upper load range

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

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Action in service

- If the diagnostic fault code has been logged once, clear the ECU fault memory
- If the fault has been logged multiple times, check the spark plug, injector and ignition coil on the cylinder

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Engine runs poorly with power loss

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P13A5; BMW DTC 152608: SUPER-KNOCKING, CYLINDER 6: INJECTION SWITCH-OFF

Information saved in

DME

Fault code

152608 - P13A5

Fault description

The diagnostic function responds to extreme combustion knock by deactivating the injection at the 6th cylinder.

Condition for fault identification

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Test condition:

The fault is recognized when a high number of intense knock events is detected during engine operation in the upper end of the load range.

Potential problem source(s):

- Misuse, terminal status switch during vehicle operation
- Temporary contamination in combustion chamber or intake passages

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine on, in upper load range

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- If the diagnostic fault code has been logged once, clear the ECU fault memory
- If the fault has been logged multiple times, check the spark plug, injector and ignition coil on the cylinder

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Engine runs poorly with power loss

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Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P137F; BMW DTC 152D08: SUPER-KNOCKING: INJECTION SWITCH-OFF

Information saved in

DME

Fault code

152D08 - P137F

Fault description

The diagnostic function responds to extreme combustion knock by deactivating the injection.

Condition for fault identification

Test condition:

The fault is recognized when a high number of intense knock events is detected during engine operation in the upper end of the load range.

Potential problem source(s):

- Misuse, terminal status switch during vehicle operation
- Temporary contamination in combustion chamber or intake passages

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

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Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine on, in upper load range

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- If the diagnostic fault code has been logged once, clear the ECU fault memory
- If the fault has been logged multiple times, check the spark plug, injector and ignition coil on the cylinder

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Engine runs poorly with power loss

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

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DTC P0335; BMW DTC 160001: CRANKSHAFT SENSOR, SIGNAL: NO SIGNAL

Information saved in

DME

Fault code

160001 - P0335

Fault description

The diagnostic function monitors the crankshaft sensor.

Condition for fault identification

Test condition:

The fault is recognized when no crankshaft position sensor signal is detected, although a signal from the camshaft position sensor is present.

Potential problem source(s):

- Defect in wiring harness between DME and crankshaft sensor
- Crankshaft sensor defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Terminal 50 (starter) or,
- engine on, with engine speed > 500 RPM

Condition for fault memory entry

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No signal for camshaft revolutions

Action in service

- Check wiring harness between DME and crankshaft sensor
- Replace crankshaft sensor

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its emergency limp-home program, continued vehicle operation is possible, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

When the fault is logged the engine stalls at idle, at higher engine speeds a brief drop in RPM can be felt / It is possible to restart engine when the fault is present (starting takes longer), engine runs in limp-home mode

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: on'
- Electronic engine output reduction, ECE: on
- CC message: on

Service instruction

A terminal status switch must be conducted before this fault can be deleted.

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DTC P0336; BMW DTC 160020: CRANKSHAFT SENSOR: DISTURBED CRANKSHAFT SIGNAL

Information saved in

DME

Fault code

160020 - P0336

Fault description

The diagnostic function monitors the crankshaft sensor.

Condition for fault identification

Test condition:

The fault is recognized when an interference factor affecting the crankshaft sensor signal is detected.

Potential problem source(s):

- Defect in wiring harness between DME and crankshaft sensor
- Oscillation in reluctor ring (for instance, when starter engages)
- Reluctor ring contaminated or defective
- Crankshaft sensor defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Terminal 50 (starter) or,
- engine on, with engine speed > 500 RPM

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Condition for fault memory entry

Malfunctions

Action in service

- Check wiring harness between DME and crankshaft sensor
- Inspect installation of crankshaft sensor
- Clean or replace reluctor ring
- Replace crankshaft sensor

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its emergency limp-home program, continued vehicle operation is possible, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

When the fault is logged the engine stalls at idle, at higher engine speeds a brief drop in RPM can be felt / It is possible to restart engine when the fault is present (starting takes longer), engine runs in limp-home mode

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: on'
- Electronic engine output reduction, ECE: on
- CC message: on

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Service instruction

A terminal status switch must be conducted before this fault can be deleted.

DTC P13CE; BMW DTC 160510: CRANKSHAFT SENSOR, PARKED POSITION: NOT PLAUSIBLE

Information saved in

DME

Fault code

160510 - P13CE

Fault description

The diagnostic function monitors the crankshaft sensor.

Condition for fault identification

Test condition:

The fault is recognized when the engine is synchronized using a secure initial position during starting (supply to sensor was permanent - MSA)

Potential problem source(s):

- Defect in wiring harness between DME and crankshaft sensor
- Oscillation in reluctor ring (for instance, when starter engages)
- Defective reluctor ring
- Crankshaft sensor defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

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Other conditions:

- Engine on with MSA start

Condition for fault memory entry

If the reference mark was incorrect by during the MSA automatic engine start/stop.

Action in service

- Check wiring harness between DME and crankshaft sensor
- Inspect installation of crankshaft sensor
- Replace crankshaft sensor

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Extended starting times

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

MY10 US:

- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

MY10 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

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Service instruction

None

DTC P0343; BMW DTC 164020: INLET-CAMSHAFT SENSOR: SIGNAL HIGH

Information saved in

DME

Fault code

164020 - P0343

Fault description

The diagnostic function monitors the intake camshaft position sensor.

Condition for fault identification

Test condition:

The fault is recognized when the engine is turning over and no fault related to the crankshaft sensor is present.

Potential problem source(s):

- Defect in wiring harness between DME and camshaft position sensor or crankshaft sensor.

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

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1. Camshaft rotates but no signal from camshaft reluctor

Action in service

- Check wiring harness between DME and camshaft position sensor
- Camshaft sensor defective

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its emergency limp-home program, continued vehicle operation is possible, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

Extended starting times and power loss, if it appears in combination with an exhaust camshaft sensor fault then no restart is possible

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: on'
- Electronic engine output reduction, ECE: on
- CC message: on

Service instruction

None

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DTC P0342; BMW DTC 164021: INLET-CAMSHAFT SENSOR: SIGNAL LOW

Information saved in

DME

Fault code

164021 - P0342

Fault description

The diagnostic function monitors the intake camshaft position sensor.

Condition for fault identification

Test condition:

The fault is recognized when the engine is turning over and no fault related to the crankshaft sensor is present.

Potential problem source(s):

- Defect in wiring harness between DME and camshaft position sensor or crankshaft sensor.

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

1. Camshaft rotates but no signal from camshaft reluctor

Action in service

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- Check wiring harness between DME and camshaft position sensor
- Camshaft sensor defective

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its emergency limp-home program, continued vehicle operation is possible, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

Extended starting times and power loss, if it appears in combination with an exhaust camshaft sensor fault then no restart is possible

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: on'
- Electronic engine output reduction, ECE: on
- CC message: on

Service instruction

None

DTC P0368; BMW DTC 164030: EXHAUST-CAMSHAFT SENSOR: SIGNAL HIGH

Information saved in

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DME

Fault code

164030 - P0368

Fault description

The diagnostic function monitors the exhaust camshaft position sensor.

Condition for fault identification

Test condition:

The fault is recognized when the engine is turning over and no fault related to the crankshaft sensor is present.

Potential problem source(s):

- Defect in wiring harness between DME and camshaft position sensor or crankshaft sensor.

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

1. Camshaft rotates but no signal from camshaft reluctor

Action in service

- Check wiring harness between DME and camshaft position sensor
- Camshaft sensor defective

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Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its emergency limp-home program, continued vehicle operation is possible, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

Extended starting times and power loss, if it appears in combination with an intake camshaft sensor fault then no restart is possible

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: on'
- Electronic engine output reduction, ECE: on
- CC message: on

Service instruction

None

DTC P0367; BMW DTC 164031: EXHAUST-CAMSHAFT SENSOR: SIGNAL LOW

Information saved in

DME

Fault code

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164031 - P0367

Fault description

The diagnostic function monitors the exhaust camshaft position sensor.

Condition for fault identification

Test condition:

The fault is recognized when the engine is turning over and no fault related to the crankshaft sensor is present.

Potential problem source(s):

- Defect in wiring harness between DME and camshaft position sensor or crankshaft sensor.

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

1. Camshaft rotates but no signal from camshaft reluctor

Action in service

- Check wiring harness between DME and camshaft position sensor
- Camshaft sensor defective

Fault effect and breakdown warning

Breakdown notice:

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The engine reverts to its emergency limp-home program, continued vehicle operation is possible, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

Extended starting times and power loss, if it appears in combination with an intake camshaft sensor fault then no restart is possible

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: on'
- Electronic engine output reduction, ECE: on
- CC message: on

Service instruction

None

DTC P13CA; BMW DTC 164040: INLET CAMSHAFT, MECHANISM: INSTALLATION FAULTY

Information saved in

DME

Fault code

164040 - P13CA

Fault description

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The diagnostic function monitors the installation position of the intake camshaft.

Condition for fault identification

Test condition:

The fault is recognized when the camshaft sensor reluctor rings run through the adaptation routine during initial start or following programming.

Potential problem source(s):

- Incorrect installation of intake camshaft

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

When assembly test is performed.

Action in service

- Install intake camshaft correctly
- Adjust valve timing

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its emergency limp-home program, continued vehicle operation is possible, because power is reduced the driver should refrain from passing maneuvers.

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Possible apparent symptoms:

None

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

MY10 US:

- US emissions warning lamp: off
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P13CB; BMW DTC 164041: EXHAUST CAMSHAFT, MECHANISM: INSTALLATION FAULTY

Information saved in

DME

Fault code

164041 - P13CB

Fault description

The diagnostic function monitors the installation position of the exhaust camshaft.

Condition for fault identification

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Test condition:

The fault is recognized when the camshaft sensor reluctor rings run through the adaptation routine during initial start or following programming.

Potential problem source(s):

- Incorrect installation of exhaust camshaft

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

When assembly test is performed.

Action in service

- Install exhaust camshaft correctly
- Adjust valve timing

Fault effect and breakdown warning

Breakdown notice:

The engine reverts to its emergency limp-home program, continued vehicle operation is possible, because power is reduced the driver should refrain from passing maneuvers.

Possible apparent symptoms:

None

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Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

MY10 US:

- US emissions warning lamp: off
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P0324; BMW DTC 168A20: KNOCK CONTROL, FAULT CHECK: MALFUNCTION, SYSTEM FAULT

Information saved in

DME

Fault code

168A20 - P0324

Fault description

The diagnostic function monitors the quality of the signals from the knock sensors.

Condition for fault identification

Test condition:

The fault is recognized when the signal from the knock sensors is outside the measurement range.

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Potential problem source(s):

- Signal-processing error, incorrect measurement range
- Defective wiring harness
- Knock sensor defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- If faults related to the knock sensors have been logged, repair these first
- Check wiring harness between knock sensor and DME
- Replace knock sensor

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Engine runs poorly with power loss

Driver information

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Warning light:

MY10 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: off
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P13AF; BMW DTC 168A30: KNOCK SENSOR, ELECTRICAL: SIGNAL INPUT A, SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

168A30 - P13AF

Fault description

The diagnostic function monitors the sensor wire for short circuits.

Condition for fault identification

Test condition:

The fault is logged in the ECU fault memory when the knock sensor's signal voltage is above 1 V.

Potential problem source(s):

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- Defective wiring harness
- Knock sensor defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between knock sensor and DME
- Replace knock sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Possible reduction in power

Driver information

Warning light:

ECE:

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- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P13AE; BMW DTC 168A31: KNOCK SENSOR, ELECTRICAL: SIGNAL INPUT A, SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

168A31 - P13AE

Fault description

The diagnostic function monitors the sensor wire for short circuits.

Condition for fault identification

Test condition:

The fault is logged in the ECU fault memory when the knock sensor's signal voltage is below -0.7 V.

Potential problem source(s):

- Defective wiring harness
- Knock sensor defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

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Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between knock sensor and DME
- Replace knock sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Possible reduction in power

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on

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- CC message: on

Service instruction

None

DTC P13B9; BMW DTC 168A40: KNOCK SENSOR, ELECTRICAL: SIGNAL INPUT B, SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

168A40 - P13B9

Fault description

The diagnostic function monitors the sensor wire for short circuits.

Condition for fault identification

Test condition:

The fault is logged in the ECU fault memory when the knock sensor's signal voltage is above 1 V.

Potential problem source(s):

- Defective wiring harness
- Knock sensor defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

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- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between knock sensor and DME
- Replace knock sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Possible reduction in power

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P13B8; BMW DTC 168A41: KNOCK SENSOR, ELECTRICAL: SIGNAL INPUT B, SHORT CIRCUIT TO GROUND

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Information saved in

DME

Fault code

168A41 - P13B8

Fault description

The diagnostic function monitors the sensor wire for short circuits.

Condition for fault identification

Test condition:

The fault is logged in the ECU fault memory when the knock sensor's signal voltage is below -0.7 V.

Potential problem source(s):

- Defective wiring harness
- Knock sensor defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

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- Check wiring harness between knock sensor and DME
- Replace knock sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Possible reduction in power

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P13BF; BMW DTC 168A50: KNOCK SENSOR 2, ELECTRICAL: SIGNAL INPUT A, SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

168A50 - P13BF

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Fault description

The diagnostic function monitors the sensor wire for short circuits.

Condition for fault identification

Test condition:

The fault is logged in the ECU fault memory when the knock sensor's signal voltage is above 1 V.

Potential problem source(s):

- Defective wiring harness
- Knock sensor defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between knock sensor and DME
- Replace knock sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

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None

Possible apparent symptoms:

Possible reduction in power

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P13BE; BMW DTC 168A51: KNOCK SENSOR 2, ELECTRICAL: SIGNAL INPUT A, SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

168A51 - P13BE

Fault description

The diagnostic function monitors the sensor wire for short circuits.

Condition for fault identification

Test condition:

The fault is logged in the ECU fault memory when the knock sensor's signal voltage is below -0.7 V.

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Potential problem source(s):

- Defective wiring harness
- Knock sensor defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between knock sensor and DME
- Replace knock sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Possible reduction in power

Driver information

Warning light:

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ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P13C8; BMW DTC 168A60: KNOCK SENSOR 2, ELECTRICAL: SIGNAL INPUT B, SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

168A60 - P13C8

Fault description

The diagnostic function monitors the sensor wire for short circuits.

Condition for fault identification

Test condition:

The fault is logged in the ECU fault memory when the knock sensor's signal voltage is above 1 V.

Potential problem source(s):

- Defective wiring harness
- Knock sensor defective

Terminal condition: none

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between knock sensor and DME
- Replace knock sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Possible reduction in power

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

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- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P13C7; BMW DTC 168A61: KNOCK SENSOR 2, ELECTRICAL: SIGNAL INPUT B, SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

168A61 - P13C7

Fault description

The diagnostic function monitors the sensor wire for short circuits.

Condition for fault identification

Test condition:

The fault is logged in the ECU fault memory when the knock sensor's signal voltage is below -0.7 V.

Potential problem source(s):

- Defective wiring harness
- Knock sensor defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

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- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between knock sensor and DME
- Replace knock sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Possible reduction in power

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

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DTC P0328; BMW DTC 168A70: KNOCK SENSOR, SIGNAL: ENGINE MECHANICALLY TOO LOUD OR KS OUTSIDE TOLERANCE (SENSITIVITY)

Information saved in

DME

Fault code

168A70 - P0328

Fault description

The diagnostic function monitors the engine's noise level.

Condition for fault identification

Test condition:

The fault is logged in the ECU fault memory when the reference level is too high relative to the program map.

Potential problem source(s):

- Knock sensor is defective or installed incorrectly
- Engine too loud owing to mechanical defect
- Low-quality fuel < RON 91

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine on
- Engine speed above 1600 RPM
- Relative charge factor above 30%

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- No load and no dynamic engine RPM change

Condition for fault memory entry

Debounce via event counter

Action in service

- Check installation torque and installation position of sensor
- Check wiring harness
- Check engine for mechanical defects (chain, crankshaft assembly)
- Refuel with RON 95 or higher
- Replace knock sensor

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Possible reduction in power

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P0327; BMW DTC 168A71: KNOCK SENSOR, SIGNAL: ELECTRICAL FAULT KS (LOOSE

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CONTACT) OR KS LOOSE

Information saved in

DME

Fault code

168A71 - P0327

Fault description

The diagnostic function monitors the knock sensor's electrical signal.

Condition for fault identification

Test condition:

The fault is logged in the ECU fault memory when the reference level is too low relative to the program map.

Potential problem source(s):

- Knock sensor is defective or installed incorrectly
- Wiring harness defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine on
- Engine speed above 2000 RPM
- Relative charge factor: > 30%
- No load, no dynamic changes in engine speed

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Condition for fault memory entry

Debounce via event counter

Action in service

- Check installation torque and installation position of sensor
- Check wiring harness
- Check engine for mechanical defects (chain, crankshaft assembly)
- Refuel with RON 95 or higher
- Replace knock sensor

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Possible reduction in power

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P1328; BMW DTC 168A80: KNOCK SENSOR 2, SIGNAL: ENGINE MECHANICALLY TOO LOUD OR KS OUTSIDE TOLERANCE (SENSITIVITY)

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Information saved in

DME

Fault code

168A80 - P1328

Fault description

The diagnostic function monitors the engine's noise level.

Condition for fault identification

Test condition:

The fault is logged in the ECU fault memory when the reference level is too high relative to the program map.

Potential problem source(s):

- Knock sensor is defective or installed incorrectly
- Engine too loud owing to mechanical defect
- Low-quality fuel < RON 91

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine on
- Engine speed above 1600 RPM
- Relative charge factor above 30%
- No load and no dynamic engine RPM change

Condition for fault memory entry

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Debounce via event counter

Action in service

- Check installation torque and installation position of sensor
- Check wiring harness
- Check engine for mechanical defects (chain, crankshaft assembly)
- Refuel with RON 95 or higher
- Replace knock sensor

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Possible reduction in power

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P1327; BMW DTC 168A81: KNOCK SENSOR 2, SIGNAL: ELECTRICAL FAULT KS (LOOSE CONTACT) OR KS LOOSE

Information saved in

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DME

Fault code

168A81 - P1327

Fault description

The diagnostic function monitors the knock sensor's electrical signal.

Condition for fault identification

Test condition:

The fault is logged in the ECU fault memory when the reference level is too low relative to the program map.

Potential problem source(s):

- Knock sensor is defective or installed incorrectly
- Wiring harness defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine on
- Engine speed above 2000 RPM
- Relative charge factor: > 30%
- No load, no dynamic changes in engine speed

Condition for fault memory entry

Debounce via event counter

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Action in service

- Check installation torque and installation position of sensor
- Check wiring harness
- Check engine for mechanical defects (chain, crankshaft assembly)
- Refuel with RON 95 or higher
- Replace knock sensor

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Possible reduction in power

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P0420; BMW DTC 180001: CATALYTIC CONVERTER: EFFICIENCY BELOW LIMIT VALUE

Information saved in

DME

Fault code

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180001 - P0420

Fault description

The diagnostic function monitors the ability of the catalytic converter to store oxygen.

Condition for fault identification

Test condition:

The fault is recognized when the catalytic converter loses the ability to store sufficient levels of oxygen.

Potential problem source(s):

- Collateral fault stemming from defective oxygen sensor or mixture adaptation fault
- Leak in exhaust system
- Catalytic converter defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- If faults related to the oxygen sensor or mixture adaptation have been logged, repair these first (collateral fault)
- Check exhaust system for leaks
- If the fault is continuously present or has multiple log entries respond by replacing the catalytic converter

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Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- none

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

- none

DTC P2420; BMW DTC 190001: DMTL SOLENOID VALVE, ACTIVATION: SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

190001 - P2420

Fault description

The diagnostic function monitors electrical activation of the DMTL solenoid valve.

Condition for fault identification

Test condition:

The fault is recognized when a control signal is transmitted to the DMTL solenoid valve and a short circuit is present.

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Potential problem source(s):

- Defective wiring harness
- DMTL defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Ambient temperature between 4 °C and 35 °C

Time condition:

- 10 min. in shutdown phase

Other conditions:

1. Cold start (engine temperature max. 6 °C above ambient temperature)
2. Then drive at least 600 sec.
3. Remain stationary for at least 30 sec. at idle
4. Drive over 45 km/h for at least 300 sec. (total)
5. Fuel level between 15% and 85% of maximum tank capacity
6. Then switch off engine, Terminal 15 off
7. Wait roughly 10 min. until diagnostic routine is completed

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and DMTL
- Replace DMTL

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

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MIL on, customer proceeds to service facility.

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

Function testing on the DMTL (Diagnostic Module Tank Leakage) can only be carried out provided that no faults related to the DMTL have been logged. The conditions for fault detection apply to the function test, but not to diagnosis in the course of normal operation.

DTC P2419; BMW DTC 190002: DMTL SOLENOID VALVE, ACTIVATION: SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

190002 - P2419

Fault description

The diagnostic function monitors electrical activation of the leakage diagnosis pump.

Condition for fault identification

Test condition:

The fault is recognized when an activation signal is transmitted to the leakage diagnosis pump and a short circuit is present.

Potential problem source(s):

- Defective wiring harness
- DMTL defective

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Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Ambient temperature between 4 °C and 35 °C

Time condition:

- 10 min. in shutdown phase

Other conditions:

1. Cold start (engine temperature max. 6 °C above ambient temperature)
2. Then drive at least 600 sec.
3. Remain stationary for at least 30 sec. at idle
4. Drive over 45 km/h for at least 300 sec. (total)
5. Fuel level between 15% and 85% of maximum tank capacity
6. Then switch off engine, Terminal 15 off
7. Wait roughly 10 min. until diagnostic routine is completed

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and DMTL
- Replace DMTL

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

MIL on, customer proceeds to service facility.

Driver information

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Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

Function testing on the DMTL (Diagnostic Module Tank Leakage) can only be carried out provided that no faults related to the DMTL have been logged. The conditions for fault detection apply to the function test, but not to diagnosis in the course of normal operation.

DTC P2418; BMW DTC 190004: DMTL SOLENOID VALVE, ACTIVATION: OPEN CIRCUIT

Information saved in

DME

Fault code

190004 - P2418

Fault description

The diagnostic function monitors electrical activation of the DMTL solenoid valve.

Condition for fault identification

Test condition:

The fault is recognized when a control signal is transmitted to the DMTL solenoid valve and an open wire is present.

Potential problem source(s):

- Defective wiring harness
- DMTL defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

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Temperature condition:

- Ambient temperature between 4 °C and 35 °C

Time condition:

- 10 min. in shutdown phase

Other conditions:

1. Cold start (engine temperature max. 6 °C above ambient temperature)
2. Then drive at least 600 sec.
3. Remain stationary for at least 30 sec. at idle
4. Drive over 45 km/h for at least 300 sec. (total)
5. Fuel level between 15% and 85% of maximum tank capacity
6. Then switch off engine, Terminal 15 off
7. Wait roughly 10 min. until diagnostic routine is completed

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and DMTL
- Replace DMTL

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

MIL on, customer proceeds to service facility.

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on

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- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

Function testing on the DMTL (Diagnostic Module Tank Leakage) can only be carried out provided that no faults related to the DMTL have been logged. The conditions for fault detection apply to the function test, but not to diagnosis in the course of normal operation.

DTC P0442; BMW DTC 190201: FUEL TANK VENTILATION SYSTEM AND PURGE AIR SYSTEM, MINOR LEAK: LEAK GREATER THAN 1.0 MM

Information saved in

DME

Fault code

190201 - P0442

Fault description

The diagnostic function monitors the leakage diagnosis pump's current draw within a time window.

Condition for fault identification

Test condition:

The fault is recognized when the leak diagnosis pump's current fails to reach a specified limit within a time window defined in the program map.

Potential problem source(s):

- Leakage > 1 mm in tank evaporative emissions and purge air system
- DMTL defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Ambient temperature between 3.8 °C and 35.3 °C

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Time condition:

- None

Other conditions:

1. Cold start (engine temperature max. 6 °C above ambient temperature)
2. Then drive at least 600 sec.
3. Remain stationary for at least 30 sec. at idle
4. Drive over 45 km/h for at least 300 sec. (total)
5. Fuel level between 15% and 85% of maximum tank capacity
6. Then switch off engine, Terminal 15 off
7. Wait roughly 10 min. until diagnostic routine is completed

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- If diagnostic fault codes for the DMTL are logged, then clear the ECU fault memory. Should it prove impossible to reproduce the fault using the DMTL function test then terminate the repair session.
- Check fuel tank for leaks
- Replace DMTL

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off

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- CC message: none

Service instruction

Function testing on the DMTL (Diagnostic Module Tank Leakage) can only be carried out provided that no faults related to the DMTL have been logged. The conditions for fault detection apply to the function test, but not to diagnosis in the course of normal operation.

DTC P0456; BMW DTC 190302: FUEL TANK VENTILATION SYSTEM AND PURGE AIR SYSTEM, MICRO-LEAK: LEAK GREATER THAN 0.5 MM

Information saved in

DME

Fault code

190302 - P0456

Fault description

The diagnostic function monitors the leakage diagnosis pump's test current.

Condition for fault identification

Test condition:

The fault is recognized when the leak diagnosis pump's current fails to reach a specified limit within a time window defined in the program map.

Potential problem source(s):

- Defective wiring harness
- DMTL defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Ambient temperature between 1.5 °C and 38 °C

Time condition:

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- 10 min. in shutdown phase

Other conditions:

1. Cold start (engine temperature max. 6 °C above ambient temperature)
2. Then drive at least 600 sec.
3. Remain stationary for at least 30 sec. at idle
4. Drive over 45 km/h for at least 300 sec. (total)
5. Fuel level between 15% and 85% of maximum tank capacity
6. Then switch off engine, Terminal 15 off
7. Wait roughly 10 min. until diagnostic routine is completed

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and DMTL
- Replace DMTL

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

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Function testing on the DMTL (Diagnostic Module Tank Leakage) can only be carried out provided that no faults related to the DMTL have been logged. The conditions for fault detection apply to the function test, but not to diagnosis in the course of normal operation.

DTC P1449; BMW DTC 190401: DMTL, SYSTEM FAULT: PUMP CURRENT TOO HIGH DURING REFERENCE MEASUREMENT

Information saved in

DME

Fault code

190401 - P1449

Fault description

The diagnostic function monitors the leakage diagnosis pump's current draw during the DMTL solenoid valve's switching process.

Condition for fault identification

Test condition:

The fault is recognized when the leak diagnosis pump's current fails to reach a specified limit within a time window defined in the program map.

Potential problem source(s):

- Defective wiring harness
- DMTL defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Ambient temperature between 3.8 °C and 35.3 °C

Time condition:

- 10 min. in shutdown phase

Other conditions:

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1. Cold start (engine temperature max. 6 °C above ambient temperature)
2. Then drive at least 600 sec.
3. Remain stationary for at least 30 sec. at idle
4. Drive over 45 km/h for at least 300 sec. (total)
5. Fuel level between 15% and 85% of maximum tank capacity
6. Then switch off engine, Terminal 15 off
7. Wait roughly 10 min. until diagnostic routine is completed

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- If diagnostic fault codes for the DMTL are logged, then clear the ECU fault memory. Should it prove impossible to reproduce the fault using the DMTL function test then terminate the repair session.
- Check wiring harness between DME and DMTL
- Replace DMTL

Fault effect and breakdown warning

Breakdown notice:

To be submitted by end of week 44

Possible apparent symptoms:

MIL on, customer proceeds to service facility.

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

Function testing on the DMTL (Diagnostic Module Tank Leakage) can only be carried out provided that no faults related to the DMTL have been logged. The conditions for fault detection apply to the function test, but

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not to diagnosis in the course of normal operation.

DTC P1448; BMW DTC 190402: DMTL, SYSTEM FAULT: PUMP CURRENT TOO LOW DURING REFERENCE MEASUREMENT

Information saved in

DME

Fault code

190402 - P1448

Fault description

The diagnostic function monitors the leakage diagnosis pump's current draw during the reference current measurement.

Condition for fault identification

Test condition:

The fault is recognized when the leak diagnosis pump's current fails to reach a specified limit within a time window defined in the program map.

Potential problem source(s):

- Defective wiring harness
- DMTL defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Ambient temperature between 3.8 °C and 35.3 °C

Time condition:

- 10 min. in shutdown phase

Other conditions:

1. Cold start (engine temperature max. 6 °C above ambient temperature)

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2. Then drive at least 600 sec.
3. Remain stationary for at least 30 sec. at idle
4. Drive over 45 km/h for at least 300 sec. (total)
5. Fuel level between 15% and 85% of maximum tank capacity
6. Then switch off engine, Terminal 15 off
7. Wait roughly 10 min. until diagnostic routine is completed

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- If diagnostic fault codes for the DMTL are logged, then clear the ECU fault memory. Should it prove impossible to reproduce the fault using the DMTL function test then terminate the repair session.
- Check wiring harness between DME and DMTL
- Replace DMTL

Fault effect and breakdown warning

Breakdown notice:

To be submitted by end of week 44

Possible apparent symptoms:

MIL on, customer proceeds to service facility.

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

Function testing on the DMTL (Diagnostic Module Tank Leakage) can only be carried out provided that no faults related to the DMTL have been logged. The conditions for fault detection apply to the function test, but not to diagnosis in the course of normal operation.

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DTC P1434; BMW DTC 190404: DMTL, SYSTEM FAULT: ABORT DUE TO CURRENT FLUCTUATIONS DURING REFERENCE MEASUREMENT

Information saved in

DME

Fault code

190404 - P1434

Fault description

The diagnostic function monitors the leakage diagnosis pump's current draw during the reference current measurement.

Condition for fault identification

Test condition:

The fault is registered when the current draw from the leakage diagnosis pump fluctuates by more than 1 mA during a time window defined in the program map.

Potential problem source(s):

- Defective wiring harness
- DMTL defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Ambient temperature between 1.5 °C and 38 °C

Time condition:

- 10 min. in shutdown phase

Other conditions:

1. Cold start (engine temperature max. 6 °C above ambient temperature)
2. Then drive at least 600 sec.

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3. Remain stationary for at least 30 sec. at idle
4. Drive over 45 km/h for at least 300 sec. (total)
5. Fuel level between 15% and 85% of maximum tank capacity
6. Then switch off engine, Terminal 15 off
7. Wait roughly 10 min. until diagnostic routine is completed

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and DMTL
- Replace DMTL

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

MIL on, customer proceeds to service facility.

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

Function testing on the DMTL (Diagnostic Module Tank Leakage) can only be carried out provided that no faults related to the DMTL have been logged. The conditions for fault detection apply to the function test, but not to diagnosis in the course of normal operation.

DTC P1447; BMW DTC 190408: DMTL, SYSTEM FAULT: PUMP CURRENT REACHES LIMIT VALUE DURING VALVE TEST

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Information saved in

DME

Fault code

190408 - P1447

Fault description

The diagnostic function monitors the leakage diagnosis pump's current draw during the DMTL solenoid valve's switching process.

Condition for fault identification

Test condition:

The fault is recognized when the current draw from the leakage diagnosis pump drops by less than 2 mA.

Potential problem source(s):

- Defective wiring harness
- DMTL defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Ambient temperature between 1.5 °C and 38 °C

Time condition:

- 10 min. in shutdown phase

Other conditions:

1. Cold start (engine temperature max. 6 °C above ambient temperature)
2. Then drive at least 600 sec.
3. Remain stationary for at least 30 sec. at idle
4. Drive over 45 km/h for at least 300 sec. (total)
5. Fuel level between 15% and 85% of maximum tank capacity
6. Then switch off engine, Terminal 15 off

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7. Wait roughly 10 min. until diagnostic routine is completed

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and DMTL
- Replace DMTL

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

Function testing on the DMTL (Diagnostic Module Tank Leakage) can only be carried out provided that no faults related to the DMTL have been logged. The conditions for fault detection apply to the function test, but not to diagnosis in the course of normal operation.

DTC P240C; BMW DTC 190501: DMTL, HEATING, ACTIVATION: SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

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190501 - P240C

Fault description

The diagnostic function monitors the electrical connection between the DME and the DMTL heater.

Condition for fault identification

Test condition:

The fault is recognized when an activation signal is transmitted to the heater and a short circuit is present.

Potential problem source(s):

- Defective wiring harness
- DMTL defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Ambient temperature between 4 °C and 35 °C

Time condition:

- 10 sec. after engine off

Other conditions:

1. Cold start (engine temperature max. 6 °C above ambient temperature)
2. Then drive at least 600 sec.
3. Remain stationary for at least 30 sec. at idle
4. Drive over 45 km/h for at least 300 sec. (total)
5. Fuel level between 15% and 85% of maximum tank capacity
6. Then switch off engine, Terminal 15 off
7. Wait roughly 10 min. until diagnostic routine is completed

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

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Action in service

- Check wiring harness between DME and DMTL
- Replace DMTL

Fault effect and breakdown warning

Breakdown notice:

To be submitted by end of week 44

L6 (MSD85): - None

Possible apparent symptoms:

MIL on, customer proceeds to service facility.

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

Function testing on the DMTL (Diagnostic Module Tank Leakage) can only be carried out provided that no faults related to the DMTL have been logged. The conditions for fault detection apply to the function test, but not to diagnosis in the course of normal operation.

DTC P240B; BMW DTC 190502: DMTL, HEATING, ACTIVATION: SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

190502 - P240B

Fault description

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The diagnostic function monitors the electrical connection between the DME and the DMTL heater.

Condition for fault identification

Test condition:

The fault is recognized when an activation signal is transmitted to the DMTL heater and a short circuit is present.

Potential problem source(s):

- Defective wiring harness
- DMTL defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Ambient temperature between 4 °C and 35 °C

Time condition:

- 10 sec. after engine off

Other conditions:

1. Cold start (engine temperature max. 6 °C above ambient temperature)
2. Then drive at least 600 sec.
3. Remain stationary for at least 30 sec. at idle
4. Drive over 45 km/h for at least 300 sec. (total)
5. Fuel level between 15% and 85% of maximum tank capacity
6. Then switch off engine, Terminal 15 off
7. Wait roughly 10 min. until diagnostic routine is completed

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and DMTL

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- Replace DMTL

Fault effect and breakdown warning

Breakdown notice:

To be submitted by end of week 44

L6 (MSD85): - None

Possible apparent symptoms:

MIL on, customer proceeds to service facility.

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

Function testing on the DMTL (Diagnostic Module Tank Leakage) can only be carried out provided that no faults related to the DMTL have been logged. The conditions for fault detection apply to the function test, but not to diagnosis in the course of normal operation.

DTC P240A; BMW DTC 190504: DMTL, HEATING, ACTIVATION: OPEN CIRCUIT

Information saved in

DME

Fault code

190504 - P240A

Fault description

The diagnostic function monitors the electrical connection between the DME and the DMTL heater.

Condition for fault identification

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Test condition:

The fault is recognized when an activation signal is transmitted to the DMTL heater and an open wire is present.

Potential problem source(s):

- Defective wiring harness
- DMTL defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Ambient temperature between 4 °C and 35 °C

Time condition:

- 10 sec. after engine off

Other conditions:

1. Cold start (engine temperature max. 6 °C above ambient temperature)
2. Then drive at least 600 sec.
3. Remain stationary for at least 30 sec. at idle
4. Drive over 45 km/h for at least 300 sec. (total)
5. Fuel level between 15% and 85% of maximum tank capacity
6. Then switch off engine, Terminal 15 off
7. Wait roughly 10 min. until diagnostic routine is completed

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and DMTL
- Replace DMTL

Fault effect and breakdown warning

Breakdown notice:

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To be submitted by end of week 44

L6 (MSD85): - None

Possible apparent symptoms:

MIL on, customer proceeds to service facility.

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

Function testing on the DMTL (Diagnostic Module Tank Leakage) can only be carried out provided that no faults related to the DMTL have been logged. The conditions for fault detection apply to the function test, but not to diagnosis in the course of normal operation.

DTC P2402; BMW DTC 190601: DMTL LEAK DIAGNOSIS PUMP, ACTIVATION: SHORT CIRCUIT TO B+

Information saved in

DME

Fault code

190601 - P2402

Fault description

The diagnostic function monitors electrical activation of the leakage diagnosis pump.

Condition for fault identification

Test condition:

The fault is recognized when an activation signal is transmitted to the leakage diagnosis pump and a short circuit is present.

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Potential problem source(s):

- Defective wiring harness
- DMTL defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Ambient temperature between 4 °C and 35 °C

Time condition:

- 10 min. in shutdown phase

Other conditions:

1. Cold start (engine temperature max. 6 °C above ambient temperature)
2. Then drive at least 600 sec.
3. Remain stationary for at least 30 sec. at idle
4. Drive over 45 km/h for at least 300 sec. (total)
5. Fuel level between 15% and 85% of maximum tank capacity
6. Then switch off engine, Terminal 15 off
7. Wait roughly 10 min. until diagnostic routine is completed

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and DMTL
- Replace DMTL

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

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CC message, customer seeks

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

Service instruction

Function testing on the DMTL (Diagnostic Module Tank Leakage) can only be carried out provided that no faults related to the DMTL have been logged. The conditions for fault detection apply to the function test, but not to diagnosis in the course of normal operation.

DTC P2401; BMW DTC 190702: DMTL LEAK DIAGNOSIS PUMP, ACTIVATION: SHORT TO EARTH

Information saved in

DME

Fault code

190702 - P2401

Fault description

The diagnostic function monitors electrical activation of the leakage diagnosis pump.

Condition for fault identification

Test condition:

The fault is recognized when an activation signal is transmitted to the leakage diagnosis pump and a short circuit is present.

Potential problem source(s):

- Fault in wiring harness between DME and low-pressure sensor
- Defective in-tank overpressure valve
- Defect in low-pressure sensor

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- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Ambient temperature between 4 °C and 35 °C

Time condition:

- 10 min. in shutdown phase

Other conditions:

1. Cold start (engine temperature max. 6 °C above ambient temperature)
2. Then drive at least 600 sec.
3. Remain stationary for at least 30 sec. at idle
4. Drive over 45 km/h for at least 300 sec. (total)
5. Fuel level between 15% and 85% of maximum tank capacity
6. Then switch off engine, Terminal 15 off
7. Wait roughly 10 min. until diagnostic routine is completed

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and DMTL
- Replace DMTL

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

MIL on, customer proceeds to service facility.

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Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

Function testing on the DMTL (Diagnostic Module Tank Leakage) can only be carried out provided that no faults related to the DMTL have been logged. The conditions for fault detection apply to the function test, but not to diagnosis in the course of normal operation.

DTC P2400; BMW DTC 190704: DMTL LEAK DIAGNOSIS PUMP, ACTIVATION: OPEN CIRCUIT

Information saved in

DME

Fault code

190704 - P2400

Fault description

The diagnostic function monitors electrical activation of the leakage diagnosis pump.

Condition for fault identification

Test condition:

The fault is recognized when an activation signal is transmitted to the leakage diagnosis pump and an open wire is present.

Potential problem source(s):

- Fault in wiring harness between DME and low-pressure sensor
- Defect in low-pressure sensor
- Defective DME

Terminal condition: none

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Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Ambient temperature between 4 °C and 35 °C

Time condition:

- 10 min. in shutdown phase

Other conditions:

1. Cold start (engine temperature max. 6 °C above ambient temperature)
2. Then drive at least 600 sec.
3. Remain stationary for at least 30 sec. at idle
4. Drive over 45 km/h for at least 300 sec. (total)
5. Fuel level between 15% and 85% of maximum tank capacity
6. Then switch off engine, Terminal 15 off
7. Wait roughly 10 min. until diagnostic routine is completed

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and DMTL
- Replace DMTL

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

MIL on, customer proceeds to service facility.

Driver information

Warning light:

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- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

Function testing on the DMTL (Diagnostic Module Tank Leakage) can only be carried out provided that no faults related to the DMTL have been logged. The conditions for fault detection apply to the function test, but not to diagnosis in the course of normal operation.

DTC P0459; BMW DTC 191001: TANK-VENTING VALVE, ACTIVATION: SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

191001 - P0459

Fault description

The diagnostic function monitors the control wire to the EVAP valve for short circuits to positive.

Condition for fault identification

Test condition:

The fault is recognized by the driver circuit diagnostic function.

Potential problem source(s):

- Defect in wiring harness between DME and EVAP evaporative emissions valve
- Defect in evaporative emissions valve
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

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Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between evaporative emissions valve and DME
- Replace EVAP evaporative emissions valve
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

MIL on, customer proceeds to service facility

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

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None

DTC P0458; BMW DTC 191002: TANK-VENTING VALVE, ACTIVATION: SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

191002 - P0458

Fault description

The diagnostic function monitors the control wire to the EVAP valve for short circuits to ground.

Condition for fault identification

Test condition:

The fault is recognized by the driver circuit diagnostic function.

Potential problem source(s):

- Defect in wiring harness between DME and EVAP evaporative emissions valve
- Defect in evaporative emissions valve
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

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Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between evaporative emissions valve and DME
- Replace EVAP evaporative emissions valve
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

MIL on, customer proceeds to service facility

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0444; BMW DTC 191004: TANK-VENTING VALVE, ACTIVATION: OPEN CIRCUIT

Information saved in

DME

Fault code

191004 - P0444

Fault description

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The diagnostic function monitors the control wire to the EVAP valve for an open circuit.

Condition for fault identification

Test condition:

The fault is recognized by the driver circuit diagnostic function.

Potential problem source(s):

- Defect in wiring harness between DME and EVAP evaporative emissions valve
- Defect in evaporative emissions valve
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between evaporative emissions valve and DME
- Replace EVAP evaporative emissions valve
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

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None

Possible apparent symptoms:

MIL on, customer proceeds to service facility

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P2421; BMW DTC 191A21: TANK-VENTING VALVE: JAMMED OPEN

Information saved in

DME

Fault code

191A21 - P2421

Fault description

The diagnostic function monitors the flow through the fuel tank's EVAP vent line.

Condition for fault identification

Test condition:

The fault is recognized when there is no drop in the current consumed by the leakage diagnosis pump.

Potential problem source(s):

- EVAP evaporative emissions valve seizes in closed position - Obstruction in path between intake manifold and tank

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Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Replace EVAP evaporative emissions valve
- Check flow in lines between intake manifold and tank

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off

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- CC message: none

Service instruction

None

DTC P149C; BMW DTC 191B01: TANK SAFETY VALVE SHUT-OFF VALVE, ACTIVATION: SHORT CIRCUIT TO B+

Information saved in

DME

Fault code

191B01 - P149C

Fault description

The diagnostic function monitors electrical activation of the tank cutoff valve.

Condition for fault identification

Test condition:

The fault is recognized when the diagnostic fault code for the sensor is logged on the PT CAN (OBD services message) from the TFE1 ECU (ECU for tank's electronic functions).

Potential problem source(s):

- Global LIN bus fault 'LIN bus communications: signal missing'
- Defective fuse
- Defect in the LIN bus wire, ground wire or Terminal 30 wire (open wire, short to ground, short to UBatt)
- Corrosion on plug
- Electric water pump component fault

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

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Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the ECU fault memory if it remains present for longer than 45 sec.

Action in service

- If diagnostic fault code 'LIN bus communications: signal missing' is logged, start by repairing this problem, then clear the ECU fault memory, switch on the ignition, then wait at least 1 minute before checking to determine whether the fault has been logged again
- Check pump plug (also for corrosion)
- Check power-supply voltage to Terminal 30 / Terminal 31
- If no voltage is present, check the fuse - If the fuse is defective, replace it and check power supply for short and open circuits
- Check the LIN wire for opens and shorts to UBatt and ground
- Perform tester job, if not successful: Replace EWP electric water pump

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

MIL comes on

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

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Service instruction

None

DTC P149B; BMW DTC 191B02: TANK SAFETY VALVE SHUT-OFF VALVE, ACTIVATION: SHORT CIRCUIT TO EARTH

Information saved in

DME

Fault code

191B02 - P149B

Fault description

The diagnostic function monitors electrical activation of the tank cutoff valve.

Condition for fault identification

Test condition:

The fault is recognized when the diagnostic fault code for the sensor is logged on the PT CAN (OBD services message) from the TFE1 ECU (ECU for tank electronic functions).

Potential problem source(s):

- Defective wiring harness
- Tank cutoff valve defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

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- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness at TFE1 ECU and tank cutoff valve
- Replace tank cutoff valve

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

MIL comes on

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P149A; BMW DTC 191B04: TANK SAFETY VALVE SHUT-OFF VALVE, ACTIVATION: LINE DISCONNECTION

Information saved in

DME

Fault code

191B04 - P149A

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Fault description

The diagnostic function monitors electrical activation of the tank cutoff valve.

Condition for fault identification

Test condition:

The fault is recognized when the diagnostic fault code for the sensor is logged on the PT CAN (OBD services message) from the TFE1 ECU (ECU for tank electronic functions).

Potential problem source(s):

- Defective wiring harness
- Tank cutoff valve defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness at TFE1 ECU and tank cutoff valve
- Replace tank cutoff valve

Fault effect and breakdown warning

Breakdown notice:

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None

Possible apparent symptoms:

MIL comes on

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P149D; 191C01: TANK SAFETY VALVE SHUT-OFF VALVE: JAMMED OPEN

Information saved in

DME

Fault code

191C01 - P149D

Fault description

Evaporative Emission System Shutoff Valve 2 Stuck Off

Condition for fault identification

Test condition:

Potential problem source(s):

- none

Terminal condition: none

Voltage condition:

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Temperature condition:

Time condition:

Other conditions:

Condition for fault memory entry

If the fault, then it is logged.

Action in service

- None

Fault effect and breakdown warning

Breakdown notice:

Possible apparent symptoms:

Customer perception in prose at this juncture

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

none

DTC P0440; BMW DTC 191C02: TANK SAFETY VALVE: MALFUNCTION

Information saved in

DME

Fault code

191C02 - P0440

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Fault description

Open

Condition for fault identification

Test condition:

The fault is recognized when?

Potential problem source(s):

- ?
- ?

Terminal condition: none

Voltage condition:

Temperature condition:

Time condition:

Other conditions:

Condition for fault memory entry

If the fault?, then it is logged.

Action in service

- ?
- ?

Fault effect and breakdown warning

Breakdown notice:

Possible apparent symptoms:

Customer perception in prose at this juncture

Driver information

Warning light:

- ECE emissions warning lamp: on

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- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

none

DTC P143F; BMW DTC 191C03: TANK SAFETY VALVE, AFTER-RUN: MALFUNCTION

Information saved in

DME

Fault code

191C03 - P143F

Fault description

Open

Condition for fault identification

Test condition:

The fault is recognized when?

Potential problem source(s):

- ?
- ?

Terminal condition: none

Voltage condition:

Temperature condition:

Time condition:

Other conditions:

Condition for fault memory entry

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If the fault?, then it is logged.

Action in service

- ?
- ?

Fault effect and breakdown warning

Breakdown notice:

Possible apparent symptoms:

Customer perception in prose at this juncture

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

none

DTC P0440; BMW DTC 191D01: TANK SAFETY VALVE: MALFUNCTION

Information saved in

DME

Fault code

191D01 - P0440

Fault description

The diagnostic function monitors the flow through the fuel tank's EVAP vent line.

Condition for fault identification

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Test condition:

The fault is recognized when there is no drop in the current consumed by the leakage diagnosis pump.

Potential problem source(s):

- Tank EVAP evaporative emissions valve sticks in closed position
- Obstruction in line between tank and intake manifold

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged once the fault appears four times.

Action in service

- Replace EVAP evaporative emissions valve
- Check flow in line between intake manifold and tank and replace as indicated

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

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Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0462; BMW DTC 193002: FUEL LEVEL SENSOR, LEFT, SIGNAL: SHORT TO EARTH

Information saved in

DME

Fault code

193002 - P0462

Fault description

The diagnostic function monitors the tank fuel-level sensor for a valid output signal within specified limits. The fault is first stored in the junction box electronics and then relayed to the DME.

Condition for fault identification

Test condition:

The fault is recognized when the output signal from the tank fuel-level sensor is below a specified level.

Potential problem source(s):

- Defective wiring harness
- Tank fuel-level sensor on left (looking toward front) is defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

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Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 3 min.

Action in service

- Read out and work through diagnostic fault codes in instrument cluster and in junction box

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Possible problem with fuel gauge display in I-cluster

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

With the JPE Terminal 15 is adequate to trigger entry of a fault code, with the DME the engine must also be running.

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DTC P1407; BMW DTC 193008: FUEL LEVEL SENSOR, LEFT, SIGNAL: CAN VALUE IMPLAUSIBLE

Information saved in

DME

Fault code

193008 - P1407

Fault description

The diagnostic function monitors the message on the CAN bus to assess the plausibility of the fuel level indicated by the left-side fuel-level sensor.

Condition for fault identification

Test condition:

The fault is recognized when the left-side fuel-level sensor transmits correct data, but the processed fuel level is too high to be plausible.

Potential problem source(s):

- Problem with CAN communications between instrument cluster, junction box and DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

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The diagnostic fault code is logged when the fault remains present for longer than 3 min.

Action in service

- Read out and work through diagnostic fault codes in instrument cluster and in junction box

Fault effect and breakdown warning

Breakdown notice:

Tank may be empty. Please refuel using fuel canister and proceed to nearest service station. Then proceed to BMW Service facility.

Possible apparent symptoms:

Possible problem with fuel gauge display in I-cluster

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P2068; BMW DTC 193011: FUEL LEVEL SENSOR, RIGHT, SIGNAL: SHORT CIRCUIT TO B+

Information saved in

DME

Fault code

193011 - P2068

Fault description

The diagnostic function monitors the tank fuel-level sensor for a valid output signal within specified limits. The fault is first stored in the junction box electronics and then relayed to the DME.

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Condition for fault identification

Test condition:

The fault is recognized when the output signal from the tank fuel-level sensor exceeds a specified level.

Potential problem source(s):

- Open electrical circuit to fuel-level sensor on right (looking toward front)

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 3 min.

Action in service

- Read out and work through diagnostic fault codes in instrument cluster and in junction box

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Possible problem with fuel gauge display in I-cluster

Driver information

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Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

With the JPE Terminal 15 is adequate to trigger entry of a fault code, with the DME the engine must also be running.

DTC P2067; BMW DTC 193102: FUEL LEVEL SENSOR, RIGHT, SIGNAL: SHORT TO EARTH

Information saved in

DME

Fault code

193102 - P2067

Fault description

The diagnostic function monitors the tank fuel-level sensor for a valid output signal within specified limits. The fault is first stored in the junction box electronics and then relayed to the DME.

Condition for fault identification

Test condition:

The fault is recognized when the output signal from the tank fuel-level sensor is below a specified level.

Potential problem source(s):

- Open electrical circuit to fuel-level sensor on right (looking toward front)

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

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- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 3 min.

Action in service

- Read out and work through diagnostic fault codes in instrument cluster and in junction box

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Possible problem with fuel gauge display in I-cluster

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

With the JPE Terminal 15 is adequate to trigger entry of a fault code, with the DME the engine must also be running.

DTC P1408; BMW DTC 193108: FUEL LEVEL SENSOR, RIGHT, SIGNAL: CAN VALUE IMPLAUSIBLE

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Information saved in

DME

Fault code

193108 - P1408

Fault description

The diagnostic function monitors the message on the CAN bus to assess the plausibility of the fuel level indicated by the right-side fuel-level sensor.

Condition for fault identification

Test condition:

The fault is recognized when the right-side fuel-level sensor transmits correct data, but the processed fuel level is too high to be plausible.

Potential problem source(s):

- Problem with CAN communications between instrument cluster, junction box and DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 3 min.

Action in service

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- Read out and work through diagnostic fault codes in instrument cluster and in junction box

Fault effect and breakdown warning

Breakdown notice:

Tank may be empty. Please refuel using fuel canister and proceed to nearest service station. Then proceed to BMW Service facility.

Possible apparent symptoms:

Possible problem with fuel gauge display in I-cluster

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0463; BMW DTC 193111: FUEL LEVEL SENSOR, LEFT, SIGNAL: SHORT CIRCUIT TO B+

Information saved in

DME

Fault code

193111 - P0463

Fault description

The diagnostic function monitors the tank fuel-level sensor for a valid output signal within specified limits. The fault is first stored in the junction box electronics and then relayed to the DME.

Condition for fault identification

Test condition:

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The fault is recognized when the output signal from the tank fuel-level sensor exceeds a specified level.

Potential problem source(s):

- Defective wiring harness
- Tank fuel-level sensor on left (looking toward front) is defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the ECU fault memory if it remains present for longer than 3 sec.

Action in service

- Read out and work through diagnostic fault codes in instrument cluster and in junction box

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Possible problem with fuel gauge display in I-cluster

Driver information

Warning light:

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- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

With the JPE Terminal 15 is adequate to trigger entry of a fault code, with the DME the engine must also be running.

DTC P144B; BMW DTC 193221: FUEL LEVEL SENSOR: DEVIATION BETWEEN CONSUMPTION AND FILL-LEVEL CHANGE

Information saved in

DME

Fault code

193221 - P144B

Fault description

The diagnostic function monitors the drop in the tank's fuel level and compares it to the quantity of fuel injected into the engine during the same period.

Condition for fault identification

Test condition:

The fault is recognized when the tank content that the DME calculates from the injection signal deviates too starkly from the actual gauge reading appearing in the instrument cluster.

Potential problem source(s):

- Fuel level sensor sticking
- Fuel level sensor mechanically damaged
- Float on fuel level sensor is damaged
- Frequent refueling with quantities of less than 5 liters (as with rental vehicles)

Terminal condition: none

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- No fault related to tank fuel-level sensor is currently present
- At least 20 liters of fuel must be consumed without refueling (multiple cycles possible)

Condition for fault memory entry

The diagnostic fault code is logged the first time (pending FC) and then confirmed the second time (confirmed fault code).

Action in service

- Read out instrument cluster ECU fault memory and work through logged faults

Fault effect and breakdown warning

Breakdown notice:

Tank may be empty. Please refuel using fuel canister and proceed to nearest service station. Then proceed to BMW Service facility.

Possible apparent symptoms:

- Fuel gauge fails to read full after refueling.
- Tank is empty although gauge indicates that fuel is still present.

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off

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- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0692; BMW DTC 1A2001: ELECTRIC FAN, ACTIVATION: SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

1A2001 - P0692

Fault description

The diagnostic function monitors the wire between the electric fan and the DME.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit is present between the DME and the electric fan.

Potential problem source(s):

- Defective wiring harness
- Electric fan defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

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Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness
- Check electric fan (specified resistance between PWM pin and Terminal 30 pin with electric fan plug disconnected: greater than 10 ohms)
- Replace electric fan

Fault effect and breakdown warning

Breakdown notice:

Probably not possible to activate electric fan, continued driving at reduced power possible.

Possible apparent symptoms:

Engine can overheat, breakdown in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

none

DTC P0691; BMW DTC 1A2002: ELECTRIC FAN, ACTIVATION: SHORT CIRCUIT TO GROUND

Information saved in

DME

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Fault code

1A2002 - P0691

Fault description

The diagnostic function monitors the wire between the electric fan and the DME.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit is present between the DME and the electric fan.

Potential problem source(s):

- Defective wiring harness
- Electric fan defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Check wiring harness
- Check electric fan cutoff relay
- Check electric fan (specified resistance between PWM pin and Terminal 30 pin with electric fan plug

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disconnected: greater than 10 ohms)
- Replace electric fan

Fault effect and breakdown warning

Breakdown notice:

Probably not possible to activate electric fan, continued driving at reduced power possible.

Possible apparent symptoms:

Engine can overheat, breakdown in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

none

DTC P0480; BMW DTC 1A2004: ELECTRIC FAN, ACTIVATION: OPEN CIRCUIT

Information saved in

DME

Fault code

1A2004 - P0480

Fault description

The diagnostic function monitors the wire between the electric fan and the DME.

Condition for fault identification

Test condition:

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The fault is recognized when the electric fan has no power supply.

Potential problem source(s):

- Defect in wiring harness
- Cutoff relay for electric fan defective
- Electric fan defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness
- Check electric fan cutoff relay
- Check electric fan (specified resistance between PWM pin and Terminal 30 pin with electric fan plug disconnected: less than 1 mOhm)
- Replace electric fan

Fault effect and breakdown warning

Breakdown notice:

Probably not possible to activate electric fan, continued driving at reduced power possible.

Possible apparent symptoms:

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Engine can overheat, breakdown in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

none

DTC P14C0; BMW DTC 1A2108: ELECTRIC FAN, SELF-DIAGNOSIS, STAGE 1: MINOR FAN FAULT

Information saved in

DME

Fault code

1A2108 - P14C0

Fault description

The diagnostic function monitors operation of the electric fan.

Condition for fault identification

Test condition:

The fault is recognized when unit fails to reach the specified rotation rate within the specified period.

Potential problem source(s):

- Fan shows resistance to rotation
- Electric fan is defective (electronics)

Terminal condition: Terminal 15

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Disconnect plug from fan (to prevent injury hazard). Check freedom of movement of fan. Remove any foreign objects/matter as required.
- Fan is physically seized: Replace fan
- Fan turns freely: Connect plug and use tester to transmit activation signal of at least 30 %; if fan fails to start rotating: Replace fan
- Allow engine to run roughly 6 minutes, until it warms to normal temperature (above 80 °C), read out diagnostic fault codes from ECU; if fan fault has returned: Replace fan
- Allow engine to run an additional 10 minutes, read out diagnostic fault codes from ECU; if fan fault is again present: Replace fan
- If no new diagnostic fault code has been entered: Test OK

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off

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- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

none

DTC P14C0; BMW DTC 1A2308: ELECTRIC FAN, SELF-DIAGNOSIS, STAGE 2: FAN FAULT WITH POTENTIAL DANGER TO FAN

Information saved in

DME

Fault code

1A2308 - P14C0

Fault description

The diagnostic function monitors operation of the electric fan.

Condition for fault identification

Test condition:

The fault is recognized when unit fails to reach the specified rotation rate within the specified period.

Potential problem source(s):

- Fan shows resistance to rotation
- Electric fan is defective (electronics)

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

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Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Disconnect plug from fan (to prevent injury hazard). Check freedom of movement of fan. Remove any foreign matter/objects that may be present.
- Fan is physically seized: Replace fan
- Fan turns freely: Connect plug and use tester to transmit activation signal of at least 30 %; if fan fails to start rotating: Replace fan
- Allow engine to run roughly 6 minutes, until it warms to normal temperature (above 80 °C), read out diagnostic fault codes from ECU; if fan fault has returned: Replace fan
- Allow engine to run an additional 10 minutes, read out diagnostic fault codes from ECU; if fan fault is again present: Replace fan
- If no new diagnostic fault code has been entered: Test OK

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

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Service instruction

None

DTC P14C0; BMW DTC 1A2408: ELECTRIC FAN, SELF-DIAGNOSIS, STAGE 3: FAN FAULT WITH RESTRICTED MOTOR FUNCTION

Information saved in

DME

Fault code

1A2408 - P14C0

Fault description

The diagnostic function monitors operation of the electric fan.

Condition for fault identification

Test condition:

The fault is recognized when the electric fan fails to turn.

Potential problem source(s):

- Fan is seized
- Electric fan is defective (electronics)

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

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Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Disconnect plug from fan (to prevent injury hazard). Check freedom of movement of fan. Remove any foreign matter/objects that may be present.
- Fan is physically seized: Replace fan
- Fan turns freely: Connect plug and use tester to transmit activation signal of at least 30 %; if fan fails to start rotating: Replace fan
- Allow engine to run roughly 6 minutes, until it warms to normal temperature (above 80 °C), read out diagnostic fault codes from ECU; if fan fault has returned: Replace fan
- Allow engine to run an additional 10 minutes, read out diagnostic fault codes from ECU; if fan fault is again present: Replace fan
- If no new diagnostic fault code has been entered: Test OK

Fault effect and breakdown warning

Breakdown notice:

Probably not possible to activate electric fan, continued driving at reduced power possible.

Possible apparent symptoms:

Engine can overheat, breakdown in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

Service instruction

None

DTC P14C0; BMW DTC 1A2508: ELECTRIC FAN, SELF-DIAGNOSIS, STAGE 4: SERIOUS FAN FAULT

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Information saved in

DME

Fault code

1A2508 - P14C0

Fault description

The diagnostic function monitors the electric fan's electronic components.

Condition for fault identification

Test condition:

The fault is recognized when a hardware fault is present in the electric fan.

Potential problem source(s):

- Electric fan electronics defect
- Multiple entries of another electric fan fault

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

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- Replace electric fan

Fault effect and breakdown warning

Breakdown notice:

Electric fan failed, vehicle should not be driven

Possible apparent symptoms:

Engine can overheat, breakdown in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

Service instruction

A terminal status switch must be conducted before this fault can be deleted.

DTC P144E; BMW DTC 1A2601: FUSE RELAY, ELECTRIC FAN, ACTIVATION: SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

1A2601 - P144E

Fault description

The diagnostic function monitors the wire between the electric fan cutoff relay and the DME.

Condition for fault identification

Test condition:

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The fault is recognized when a short circuit to positive is present.

Potential problem source(s):

- Defect in wiring harness
- Cutoff relay for electric fan defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and electric fan cutoff relay
- Check cutoff relay (with Terminal 15 off: 0 V at both screw connections, 12V at both screw connections when voltage is applied: Relay makes a loud click and the measured resistance between the two screw connections is roughly 0 ohms)
- Replace cutoff relay

Fault effect and breakdown warning

Breakdown notice:

Probably not possible to activate electric fan, continued driving at reduced power possible.

Possible apparent symptoms:

Engine can overheat, breakdown in extreme cases

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Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

none

DTC P144D; BMW DTC 1A2602: FUSE RELAY, ELECTRIC FAN, ACTIVATION: SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

1A2602 - P144D

Fault description

The diagnostic function monitors the wire between the electric fan cutoff relay and the DME.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit to ground is present.

Potential problem source(s):

- Defect in wiring harness
- Cutoff relay for electric fan defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

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Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and electric fan cutoff relay
- Check cutoff relay (with Terminal 15 off: 0 V at both screw connections, 12V at both screw connections when voltage is applied: Relay makes a loud click and the measured resistance between the two screw connections is roughly 0 ohms)
- Replace cutoff relay

Fault effect and breakdown warning

Breakdown notice:

Probably not possible to activate electric fan, continued driving at reduced power possible.

Possible apparent symptoms:

Engine can overheat, breakdown in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

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Service instruction

none

DTC P144C; BMW DTC 1A2604: FUSE RELAY, ELECTRIC FAN, ACTIVATION: OPEN CIRCUIT

Information saved in

DME

Fault code

1A2604 - P144C

Fault description

The diagnostic function monitors the wire between the electric fan cutoff relay and the DME.

Condition for fault identification

Test condition:

The fault is recognized when the electric fan has no power supply.

Potential problem source(s):

- Defective wiring harness
- Cutoff relay for electric fan defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

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Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and electric fan cutoff relay
- Check cutoff relay (with Terminal 15 off: 0 V at both screw connections, 12V at both screw connections when voltage is applied: Relay makes a loud click and the measured resistance between the two screw connections is roughly 0 ohms)
- Replace cutoff relay

Fault effect and breakdown warning

Breakdown notice:

Probably not possible to activate electric fan, continued driving at reduced power possible.

Possible apparent symptoms:

Engine can overheat, breakdown in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

none

DTC P1518; BMW DTC 1B0A20: POOR-ROAD-SURFACE DETECTION: WHEEL SPEED TOO HIGH

Information saved in

DME

Fault code

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1B0A20 - P1518

Fault description

The diagnostic function monitors the signals from the wheel speed sensors to determine if they are valid.

Condition for fault identification

Test condition:

The fault is recognized when one peripheral wheel speed is too high.

Potential problem source(s):

- Vehicle speed signal implausible

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Continue fault diagnosis with DSC

Fault effect and breakdown warning

Breakdown notice:

None

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Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P1517; BMW DTC 1B0A21: POOR-ROAD-SURFACE DETECTION: NO WHEEL-SPEED SIGNAL RECEIVED

Information saved in

DME

Fault code

1B0A21 - P1517

Fault description

The diagnostic function monitors reception of the message.

Condition for fault identification

Test condition:

The fault is recognized when the message is not received in the specified time.

Potential problem source(s):

- Signal error from at least one wheelspeed sensor

Terminal condition: none

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Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Continue fault diagnosis with DSC

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

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None

DTC P0503; BMW DTC 1B0A40: VEHICLE SPEED: SIGNAL TOO HIGH

Information saved in

DME

Fault code

1B0A40 - P0503

Fault description

The diagnostic function determines whether the speed signal is within a plausible range.

Condition for fault identification

Test condition:

None

Potential problem source(s):

- Speed signal too high (possible tampering)

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Vehicle speed in excess of 4 km/h

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

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Action in service

- Continue fault diagnosis with DSC

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

Service instruction

None

DTC P152A; BMW DTC 1B0A60: VEHICLE SPEED, PLAUSIBILITY: MINIMUM SPEED UNDER LOAD NOT REACHED

Information saved in

DME

Fault code

1B0A60 - P152A

Fault description

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The diagnostic function monitors the plausibility of the speed signal.

Condition for fault identification

Test condition:

The fault is recognized when the vehicle speed deviates from the calculated vehicle speed.

Potential problem source(s):

- Vehicle speed signal implausible

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine speed above 1800 RPM
- Left-to-right speed differential less than 10 km/h

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Continue fault diagnosis with DSC

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

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None

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

Service instruction

None

DTC P152B; BMW DTC 1B0A61: VEHICLE SPEED, PLAUSIBILITY: MINIMUM SPEED IN OVERRUN MODE NOT REACHED

Information saved in

DME

Fault code

1B0A61 - P152B

Fault description

The diagnostic function monitors the plausibility of the speed signal while the overrun cutoff is active.

Condition for fault identification

Test condition:

The fault is recognized when the vehicle speed deviates from the calculated vehicle speed.

Potential problem source(s):

- Vehicle speed signal implausible

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Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine ON
- Trailing throttle/overrun between 4520 RPM and 1520 RPM
- Speed > 4 km/h

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Continue fault diagnosis with DSC

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off

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- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

Service instruction

None

DTC P0501; BMW DTC 1B0A62: VEHICLE SPEED, PLAUSIBILITY: IMPLAUSIBLE SPEED SIGNAL

Information saved in

DME

Fault code

1B0A62 - P0501

Fault description

The diagnostic function monitors the difference in signals from the left and right wheelspeed sensors.

Condition for fault identification

Test condition:

The fault is recognized when the vehicle speed deviates from the calculated vehicle speed.

Potential problem source(s):

- Vehicle speed signal implausible

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

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Time condition:

- None

Other conditions:

- Engine speed above 1800 RPM
- Left-to-right speed differential less than 10 km/h

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Continue fault diagnosis with DSC

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

Service instruction

None

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DTC P15DC; BMW DTC 1B0A64: VEHICLE SPEED, WHEEL SENSOR REAR/LEFT, PLAUSIBILITY: SIGNAL IMPLAUSIBLE

Information saved in

DME

Fault code

1B0A64 - P15DC

Fault description

The diagnostic function monitors the signals from the wheelspeed sensors for plausibility.

Condition for fault identification

Test condition:

The fault is recognized when the signal from one wheelspeed sensor varies from that of the other sensors during stable vehicle operating conditions.

Potential problem source(s):

- Vehicle speed signal implausible

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Vehicle speed in excess of 4 km/h

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

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Action in service

- Continue fault diagnosis with DSC

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Driver assistance systems failed

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P15DA; BMW DTC 1B0A65: VEHICLE SPEED, WHEEL SENSOR FRONT/LEFT, PLAUSIBILITY: SIGNAL IMPLAUSIBLE

Information saved in

DME

Fault code

1B0A65 - P15DA

Fault description

The diagnostic function monitors the signals from the wheelspeed sensors for plausibility.

Condition for fault identification

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Test condition:

The fault is recognized when the signal from one wheelspeed sensor varies from that of the other sensors during stable vehicle operating conditions.

Potential problem source(s):

- Vehicle speed signal implausible

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Vehicle speed in excess of 4 km/h

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Continue fault diagnosis with DSC

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Driver assistance systems failed

Driver information

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Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P15DD; BMW DTC 1B0A66: VEHICLE SPEED, WHEEL SENSOR REAR/RIGHT, PLAUSIBILITY: SIGNAL IMPLAUSIBLE

Information saved in

DME

Fault code

1B0A66 - P15DD

Fault description

The diagnostic function monitors the signals from the wheelspeed sensors for plausibility.

Condition for fault identification

Test condition:

The fault is recognized when the signal from one wheelspeed sensor varies from that of the other sensors during stable vehicle operating conditions.

Potential problem source(s):

- Vehicle speed signal implausible

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

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- None

Time condition:

- None

Other conditions:

- Vehicle speed in excess of 4 km/h

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Continue fault diagnosis with DSC

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Driver assistance systems failed

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P15DB; BMW DTC 1B0A67: VEHICLE SPEED, WHEEL SENSOR FRONT/RIGHT, PLAUSIBILITY: SIGNAL IMPLAUSIBLE

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Information saved in

DME

Fault code

1B0A67 - P15DB

Fault description

The diagnostic function monitors the signals from the wheelspeed sensors for plausibility.

Condition for fault identification

Test condition:

The fault is recognized when the signal from one wheelspeed sensor varies from that of the other sensors during stable vehicle operating conditions.

Potential problem source(s):

- Vehicle speed signal implausible

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Vehicle speed in excess of 4 km/h

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

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- Continue fault diagnosis with DSC

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Driver assistance systems failed

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P1667; BMW DTC 1B2002: EWS ANTI-TAMPERING PROTECTION: NO STARTING VALUE PROGRAMMED

Information saved in

DME

Fault code

1B2002 - P1667

Fault description

The diagnostic function determines whether a start value is programmed.

Condition for fault identification

Test condition:

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The fault is recognized when no start value has been programmed.

Potential problem source(s):

- No start value programmed

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- DME defective

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None, as this fault occurs only on new units

Driver information

Warning light:

- ECE emissions warning lamp: off

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- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P16CF; BMW DTC 1B2008: EWS ANTI-TAMPERING PROTECTION: EXPECTED RESPONSE IMPLAUSIBLE

Information saved in

DME

Fault code

1B2008 - P16CF

Fault description

The diagnostic function determines whether a start value is programmed.

Condition for fault identification

Test condition:

The fault is recognized when the start values of CAS and DME do not agree.

Potential problem source(s):

- Defective CAS
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

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Time condition:

- None

Other conditions:

- Vehicle key recognized and valid

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Replace CAS
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Starter turns, engine fails to start

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P165A; BMW DTC 1B2101: INTERFACE EWS-DME: HARDWARE FAULT

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DME

Fault code

1B2101 - P165A

Fault description

The diagnostic function monitors the electronic immobilizer messages.

Condition for fault identification

Test condition:

The fault is registered when a message error is present.

Potential problem source(s):

- Defective wiring harness
- Defective CAS
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine off
- Vehicle key recognized and valid for the duration of the monitoring process

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

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- Check wiring harness between CAS and DME
- Replace CAS
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

In worst case the starter turns but the engine fails to start

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P1660; BMW DTC 1B2102: INTERFACE EWS-DME: FRAME FAULT

Information saved in

DME

Fault code

1B2102 - P1660

Fault description

The diagnostic function monitors the electronic immobilizer messages.

Condition for fault identification

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Test condition:

The fault is registered when a message error is present.

Potential problem source(s):

- Defective CAS
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine off
- Vehicle key recognized and valid for the duration of the monitoring process

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 3 min.

Action in service

- Replace CAS
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

In worst case the starter turns but the engine fails to start

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Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P1661; BMW DTC 1B2104: INTERFACE EWS-DME: TIMEOUT

Information saved in

DME

Fault code

1B2104 - P1661

Fault description

The diagnostic function monitors the electronic immobilizer messages.

Condition for fault identification

Test condition:

The fault is registered when a time limit violation is detected.

Potential problem source(s):

- Defective wiring harness
- Defective CAS
- Defective DME

Terminal condition: none

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine off
- Vehicle key recognized and valid for the duration of the monitoring process

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 3 min.

Action in service

- Check wiring harness between CAS and DME
- Replace CAS
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

In worst case the starter turns but the engine fails to start

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

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Service instruction

None

DTC P165C; BMW DTC 1B2201: DME, INTERNAL FAULT, EWS DATA: NO AVAILABLE MEMORY POSSIBILITY

Information saved in

DME

Fault code

1B2201 - P165C

Fault description

The diagnostic function monitors the electronic immobilizer messages.

Condition for fault identification

Test condition:

The fault is recognized when no memory is available for the EWS electronic immobilizer synchronization.

Potential problem source(s):

- DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

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Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Replace DME

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- none

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

- none

DTC P165D; BMW DTC 1B2202: DME, INTERNAL FAULT, EWS DATA: FAULT-ACTIVATION-CODE STORAGE

Information saved in

DME

Fault code

1B2202 - P165D

Fault description

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The diagnostic function monitors the electronic immobilizer messages.

Condition for fault identification

Test condition:

The fault is recognized when errors are present in the saved EWS electronic immobilizer data.

Potential problem source(s):

- DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Replace DME

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- none

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Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

- none

DTC P165E; BMW DTC 1B2208: DME, INTERNAL FAULT, EWS DATA: CHECKSUM FAULT

Information saved in

DME

Fault code

1B2208 - P165E

Fault description

The diagnostic function monitors the electronic immobilizer messages.

Condition for fault identification

Test condition:

The fault is recognized when errors are present in the saved EWS electronic immobilizer data.

Potential problem source(s):

- DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

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- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- Breakdown in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

- none

DTC U1166; BMW DTC 1B2302: MESSAGE, EWS-DME, INCORRECT: FRAME FAULT

Information saved in

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DME

Fault code

1B2302 - U1166

Fault description

The diagnostic function monitors communications on the CAN bus to assess electronic immobilizer messages.

Condition for fault identification

Test condition:

The fault is registered when a message error is present.

Potential problem source(s):

- Defective CAS
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine off
- Vehicle key recognized and valid for the duration of the monitoring process

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 3 min.

Action in service

- Replace CAS

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- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

In worst case the starter turns but the engine fails to start

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC U0167; BMW DTC 1B2304: MESSAGE, EWS-DME, INCORRECT: TIMEOUT

Information saved in

DME

Fault code

1B2304 - U0167

Fault description

The diagnostic function monitors communications on the CAN bus to assess electronic immobilizer messages.

Condition for fault identification

Test condition:

The fault is recognized when no message has been received from the CAS.

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Potential problem source(s):

- Defective wiring harness
- Gateway defect
- Defective CAS
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine off
- Vehicle key recognized and valid for the duration of the monitoring process

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 3 min.

Action in service

- Check wiring harness on CAS, gateway and at the DME
- Replace gateway
- Replace CAS
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

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In worst case the starter turns but the engine fails to start

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P15B0; BMW DTC 1B5101: TERMINAL 15_3, LINE FROM CAS, ELECTRICAL: SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

1B5101 - P15B0

Fault description

The diagnostic function monitors the redundant "Terminal 15 off" wire from the CAS to the DME for short circuits to positive.

Condition for fault identification

Test condition:

The fault is recognized by the driver circuit diagnostic function.

Potential problem source(s):

- Defect in wiring harness between CAS and DME
- Defective CAS
- Defective DME

Terminal condition: none

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Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Shutdown phase

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between CAS and DME
- Replace CAS
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off

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- CC message: on

Service instruction

None

DTC P15B1; BMW DTC 1B5102: TERMINAL 15_3, LINE FROM CAS, ELECTRICAL: SHORT CIRCUIT TO GROUND OR OPEN CIRCUIT

Information saved in

DME

Fault code

1B5102 - P15B1

Fault description

The diagnostic function monitors the redundant "Terminal 15 off" wire from the CAS to the DME for short circuits to ground and opens.

Condition for fault identification

Test condition:

The fault is recognized by the driver circuit diagnostic function.

Potential problem source(s):

- Defect in wiring harness between CAS and DME
- Defective CAS
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

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- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between CAS and DME
- Replace CAS
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: off
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: off

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- ECE electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P15D9; BMW DTC 1B5202: TERMINAL 15N_1, POWER SUPPLY SWITCHED BY CAS, ELECTRICAL: SHORT TO EARTH OR OPEN CIRCUIT

Information saved in

DME

Fault code

1B5202 - P15D9

Fault description

The diagnostic function monitors the voltage-supply wire to Terminals 15N_1 and KL87_1 for an open wire or short circuit to ground.

Condition for fault identification

Test condition:

The diagnostic fault code is logged when no voltage is present at the DME input (KL87_1 or 15N_1) although the main relay has closed.

Potential problem source(s):

- Fuse defective
- Defect in wiring harness between main relay and DME
- Main relay defective
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

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Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check fuse
- Check wiring harness between main relay and DME
- Replace main relay
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Range from reduced power to breakdown vehicle

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P15ED; BMW DTC 1B5302: TERMINAL 15N_2, POWER SUPPLY SWITCHED BY CAS,

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ELECTRICAL: SHORT TO EARTH OR OPEN CIRCUIT

Information saved in

DME

Fault code

1B5302 - P15ED

Fault description

The diagnostic function monitors the voltage-supply wire to Terminals 15N_2 and KL87_2 for an open wire or short circuit to ground.

Condition for fault identification

Test condition:

The diagnostic fault code is logged when no voltage is present at the DME input (KL87_2 or 15N_2) although the main relay has closed.

Potential problem source(s):

- Fuse defective
- Defect in wiring harness between main relay and DME
- Main relay defective
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

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Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check fuse
- Check wiring harness between main relay and DME
- Replace main relay
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Range from reduced power to breakdown vehicle

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P15F8; BMW DTC 1B5402: TERMINAL 15N_3, POWER SUPPLY SWITCHED BY CAS, ELECTRICAL: SHORT TO EARTH OR OPEN CIRCUIT

Information saved in

DME

Fault code

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1B5402 - P15F8

Fault description

The diagnostic function monitors the voltage-supply wire to Terminals 15N_3 and KL87_3 for an open wire or short circuit to ground.

Condition for fault identification

Test condition:

The diagnostic fault code is logged when no voltage is present at the DME input (Terminal 87_3 or 15 N_3) although the main relay has closed.

Potential problem source(s):

- Fuse defective
- Defect in wiring harness between main relay and DME
- Main relay defective
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check fuse

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- Check wiring harness between main relay and DME
- Replace main relay
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Range from reduced power to breakdown vehicle

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0571; BMW DTC 1B6008: BRAKE-LIGHT SWITCH, PLAUSIBILITY: SIGNAL IMPLAUSIBLE

Information saved in

DME

Fault code

1B6008 - P0571

Fault description

The diagnostic function monitors the plausibility of the brake light switch

Condition for fault identification

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Test condition:

The fault is recognized when the status of the brake light switch does not correspond to that of the brake light test switch.

Potential problem source(s):

- Defective wiring harness
- Brake light switch defective
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- 2 min. continuous open circuit at both switches (brake light switch and brake light test switch)

Other conditions:

- Multiple brake applications

Condition for fault memory entry

This fault code is logged in the control module's fault memory when it remains present for longer than 2 sec.

Action in service

- Check wiring harness between DME and brake light switch
- Replace brake light switch
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

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CC message

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

Service instruction

None

DTC P15E8; BMW DTC 1B9508: ENGINE SWITCH-OFF TIME, PLAUSIBILITY: TIME TOO SHORT IN CORRELATION TO ENGINE-COOLANT COOLING

Information saved in

DME

Fault code

1B9508 - P15E8

Fault description

The diagnostic function monitors the engine's calculated downtime by comparing it with the drop in coolant temperature while the engine is stationary.

Condition for fault identification

Test condition:

The fault is recognized when the time required for engine cooling is implausibly short relative to the calculated time.

Potential problem source(s):

- Instrument cluster disconnected from Terminal 30 during stationary phase (battery change)
- Collateral fault stemming from a defective engine temperature sensor
- Collateral fault from incorrect time signal from the instrument cluster

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Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine temperature at engine shutdown > 80 °C
- Engine cooled by > 10 °C

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- If Terminal 30 was disconnected, no further action required
- Note any logged faults related to the coolant temperature sensor
- Check whether the instrument cluster time is correct

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on

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- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P15E9; BMW DTC 1B9608: ENGINE SWITCH-OFF TIME, PLAUSIBILITY: TIME TOO LONG IN CORRELATION TO ENGINE-COOLANT COOLING

Information saved in

DME

Fault code

1B9608 - P15E9

Fault description

The diagnostic function monitors the engine's calculated downtime by comparing it with the drop in coolant temperature while the engine is stationary.

Condition for fault identification

Test condition:

The fault is recognized when the time required for engine cooling is implausibly long relative to the calculated time.

Potential problem source(s):

- Collateral fault stemming from a defective engine temperature sensor
- Collateral fault stemming from incorrect time signal from instrument cluster

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine temperature at engine shutdown > 80°C

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Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Watch for diagnostic fault code entries related to the coolant temperature sensor, replace the coolant temperature sensor as indicated
- Check whether the instrument cluster time is correct

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P15FA; BMW DTC 1B9701: ENGINE SWITCH-OFF TIME: TOO FAST DURING ENGINE OPERATION

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Information saved in

DME

Fault code

1B9701 - P15FA

Fault description

The diagnostic function compares the internal timers of the DME and the instrument cluster while the engine is running.

Condition for fault identification

Test condition:

The fault is recognized in response to a disparity of 12 sec. The comparison starts again every minute while the engine is running.

Potential problem source(s):

- Collateral fault resulting from fault memory entries in the DME and/or instrument cluster

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 3 min.

Action in service

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- Because this is a collateral fault, start by resolving issues related to other faults logged in the DME or instrument cluster; no additional action will be needed with these kinds of faults

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

MY10 US:

- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P15FB; BMW DTC 1B9702: ENGINE SWITCH-OFF TIME: TOO SLOW DURING ENGINE OPERATION

Information saved in

DME

Fault code

1B9702 - P15FB

Fault description

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The diagnostic function compares the internal timers of the DME and the instrument cluster while the engine is running.

Condition for fault identification

Test condition:

The fault is recognized in response to a disparity of 12 sec. The comparison starts again every minute while the engine is running.

Potential problem source(s):

- Collateral fault resulting from fault memory entries in the DME and/or instrument cluster

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 3 min.

Action in service

- Because this is a collateral fault, start by resolving issues related to other faults logged in the DME or instrument cluster; no additional action will be needed with these kinds of faults

Fault effect and breakdown warning

Breakdown notice:

None

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Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P15FE; BMW DTC 1B9804: ENGINE SWITCH-OFF TIME, SIGNAL: NO SIGNAL

Information saved in

DME

Fault code

1B9804 - P15FE

Fault description

The diagnostic function monitors transmission of the CAN time signal from the instrument cluster. Diagnosis is interlocked by CAN fault.

Condition for fault identification

Test condition:

The fault is recognized when no CAN time signal is transmitted for longer than 5 sec.

Potential problem source(s):

- Collateral fault resulting from fault memory entries in the DME and/or instrument cluster

Terminal condition: Terminal 15

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Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Because this is a collateral fault, start by resolving issues related to other faults logged in the DME or instrument cluster; no additional action will be needed with these kinds of faults

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

No display of time and date

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

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Service instruction

None

DTC P15FC; BMW DTC 1B9A01: ENGINE SWITCH-OFF TIME: TOO FAST DURING RUN-ON

Information saved in

DME

Fault code

1B9A01 - P15FC

Fault description

The diagnostic function compares the internal timers of the DME and the instrument cluster when the ignition is switched on again while the control module is in its shutdown phase.

Condition for fault identification

Test condition:

The fault is recognized when a deviation of more than 12 sec. is present.

Potential problem source(s):

- Collateral fault resulting from fault memory entries in the DME and/or instrument cluster

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

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Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Because this is a collateral fault, start by resolving issues related to other faults logged in the DME or instrument cluster; no additional action will be needed with these kinds of faults

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

- The ECU shutdown phase lasts between 1 min. and 20 min.

DTC P15FD; BMW DTC 1B9A02: ENGINE SWITCH-OFF TIME: TOO SLOW DURING RUN-ON

Information saved in

DME

Fault code

1B9A02 - P15FD

Fault description

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The diagnostic function compares the internal timers of the DME and the instrument cluster when the ignition is switched on again while the control module is in its shutdown phase.

Condition for fault identification

Test condition:

The fault is recognized when a deviation of more than 12 sec. is present.

Potential problem source(s):

- Collateral fault resulting from fault memory entries in the DME and/or instrument cluster

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Because this is a collateral fault, start by resolving issues related to other faults logged in the DME or instrument cluster; no additional action will be needed with these kinds of faults

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

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None

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

- The ECU shutdown phase lasts between 1 min. and 20 min.

DTC P159E; BMW DTC 1C0001: ENGINE-OIL PRESSURE CONTROL, DYNAMIC: PRESSURE FLUCTUATIONS

Information saved in

DME

Fault code

1C0001 - P159E

Fault description

The diagnostic function monitors the oscillation characteristics of the oil pressure.

Condition for fault identification

Test condition:

The fault is recognized when the oil pressure rises above the limit several times within a defined period.

Potential problem source(s):

- Oil pressure control valve defective
- Oil pump defective

Terminal condition: Terminal 15

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Replace oil pressure control valve
- Replace oil pump

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- Vibration noise at a frequency between 5 Hz and 7 Hz

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

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- none

DTC P159F; BMW DTC 1C0101: ENGINE-OIL PRESSURE CONTROL, STATIC: ENGINE-OIL PRESSURE TOO HIGH, LIMP-HOME OPERATION

Information saved in

DME

Fault code

1C0101 - P159F

Fault description

The diagnostic function monitors the oil pressure.

Condition for fault identification

Test condition:

The fault is recognized when the oil pressure rises beyond a defined level in relation to oil temperature and engine speed.

Potential problem source(s):

- Defect in wiring harness between oil-pressure sensor and DME
- Defective oil-pressure sensor
- Oil pressure control valve defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

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- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between oil-pressure sensor and DME
- Replace oil-pressure sensor
- Replace oil pressure control valve

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- none

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

- none

DTC P15A0; BMW DTC 1C0102: ENGINE-OIL PRESSURE CONTROL, STATIC: ENGINE-OIL PRESSURE TOO LOW, LIMP-HOME OPERATION

Information saved in

DME

Fault code

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1C0102 - P15A0

Fault description

The diagnostic function monitors the oil pressure.

Condition for fault identification

Test condition:

The fault is recognized when the oil pressure drops below a defined level in relation to oil temperature and engine speed.

Potential problem source(s):

- Defect in wiring harness between oil-pressure sensor and DME
- Defective oil-pressure sensor
- Oil pressure control valve defective
- Oil pump defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between oil-pressure sensor and DME
- Replace oil-pressure sensor

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- Replace oil pressure control valve
- Replace oil pump

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- none

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

- none

DTC P15EC; BMW DTC 1C0201: OIL-PRESSURE REGULATING VALVE, ACTIVATION: SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

1C0201 - P15EC

Fault description

The diagnostic function monitors the wire from the DME to the oil-pressure control valve for shorts to positive.

Condition for fault identification

Test condition:

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The fault is recognized by the driver circuit's diagnostic function.

Potential problem source(s):

- Defective plug or wiring harness
- Oil pressure control valve/oil pump defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- Control-activation of oil-pressure control valve (PWM) between 5% and 95%

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between oil pump and DME
- Replace oil pressure control valve/oil pump
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

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Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P15EB; BMW DTC 1C0202: OIL-PRESSURE REGULATING VALVE, ACTIVATION: SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

1C0202 - P15EB

Fault description

The diagnostic function monitors the wire from the DME to the oil-pressure control valve for shorts to ground.

Condition for fault identification

Test condition:

The fault is recognized by the driver circuit's diagnostic function.

Potential problem source(s):

- Defective plug or wiring harness
- Oil pressure control valve/oil pump defective
- Defective DME

Terminal condition: none

Voltage condition:

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- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- Control-activation of oil-pressure control valve (PWM) between 5% and 95%

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between oil pump and DME
- Replace oil pressure control valve/oil pump
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None (possible increase in fuel consumption)

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

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Service instruction

None

DTC P15EA; BMW DTC 1C0204: OIL-PRESSURE REGULATING VALVE, ACTIVATION: OPEN CIRCUIT

Information saved in

DME

Fault code

1C0204 - P15EA

Fault description

The diagnostic function monitors the wire from the DME to the oil-pressure control valve for open circuits.

Condition for fault identification

Test condition:

The fault is recognized by the driver circuit's diagnostic function.

Potential problem source(s):

- Defective plug or wiring harness
- Oil pressure control valve/oil pump defective
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

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- Engine on
- Control-activation of oil-pressure control valve (PWM) between 5% and 95%

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between oil pump and DME
- Replace oil pressure control valve/oil pump
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P15A1; BMW DTC 1C0301: OIL-PRESSURE REGULATING VALVE, MECHANICAL: STICKS IN FULLY ENERGIZED POSITION (MINIMUM OIL PRESSURE)

Information saved in

DME

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Fault code

1C0301 - P15A1

Fault description

The diagnostic function monitors the oil pressure.

Condition for fault identification

Test condition:

The fault is recognized when the oil pressure remains at maximum level despite targeted application of voltage to the solenoid valve.

Potential problem source(s):

- Oil pressure control valve defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Replace oil pressure control valve

Fault effect and breakdown warning

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Breakdown notice:

- Engine damage possible. Switch off engine, continued driving is not possible.

Possible apparent symptoms:

- none

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

Service instruction

- none

DTC P15A2; BMW DTC 1C0302: OIL-PRESSURE REGULATING VALVE, MECHANICAL: STICKS IN NON-ENERGIZED POSITION (MAXIMUM OIL PRESSURE)

Information saved in

DME

Fault code

1C0302 - P15A2

Fault description

The diagnostic function monitors the oil pressure.

Condition for fault identification

Test condition:

The fault is recognized when the oil pressure remains at maximum level despite targeted application of voltage to the solenoid valve.

Potential problem source(s):

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- Oil pressure control valve defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Replace oil pressure control valve

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- none

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off

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- US electronic engine power reduction: off
- CC message: none

Service instruction

- none

DTC P15A3; BMW DTC 1C2001: OIL PUMP, MECHANICAL: OIL PRESSURE TOO HIGH

Information saved in

DME

Fault code

1C2001 - P15A3

Fault description

The diagnostic function monitors the oil pressure.

Condition for fault identification

Test condition:

The fault is recognized when the oil pressure rises beyond a defined level in relation to oil temperature and engine speed.

Potential problem source(s):

- Mechanical defect in oil pump

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

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- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Replace oil pump

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- none

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

- none

DTC P0524; BMW DTC 1C2002: OIL PUMP, MECHANICAL: OIL PRESSURE TOO LOW

Information saved in

DME

Fault code

1C2002 - P0524

Fault description

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The diagnostic function monitors the oil pressure.

Condition for fault identification

Test condition:

The fault is recognized when the oil pressure rises beyond a defined level in relation to oil temperature and engine speed.

Potential problem source(s):

- Mechanical defect in oil pump

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Replace oil pump

Fault effect and breakdown warning

Breakdown notice:

- Engine damage possible. Switch off engine, continued driving is not possible.

Possible apparent symptoms:

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- none

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

Service instruction

- none

DTC P0523; BMW DTC 1C3001: ENGINE-OIL PRESSURE SENSOR, ELECTRIC: SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

1C3001 - P0523

Fault description

The diagnostic function monitors the upper voltage limit of the engine oil-pressure sensor.

Condition for fault identification

Test condition:

The fault is recognized when the voltage of the engine oil-pressure sensor exceeds 4.9 V.

Potential problem source(s):

- Fault in wiring harness between sensor and DME
- Sensor defective
- Defective DME

Terminal condition: Terminal 15

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Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and sensor
- Replace sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off

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- CC message: none

Service instruction

None

DTC P0522; BMW DTC 1C3002: ENGINE OIL PRESSURE SENSOR, ELECTRICAL: SHORT TO EARTH

Information saved in

DME

Fault code

1C3002 - P0522

Fault description

The diagnostic function monitors the engine oil-pressure sensor's lower voltage limit.

Condition for fault identification

Test condition:

The fault is recognized when the voltage of the engine oil-pressure sensor is less than 0.1 V.

Potential problem source(s):

- Fault in wiring harness between engine oil-pressure sensor and DME
- Engine oil-pressure sensor defective
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

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Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Inspect wiring harness between engine oil-pressure sensor and DME
- Replace engine oil-pressure sensor
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0521; BMW DTC 1C3108: ENGINE-OIL PRESSURE SENSOR, PLAUSIBILITY: SIGNAL HANGS

Information saved in

DME

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Fault code

1C3108 - P0521

Fault description

The diagnostic function monitors the oil pressure.

Condition for fault identification

Test condition:

The fault is recognized when the oil pressure fails to change by more than 12 hPa for longer than 2.5 sec.

Potential problem source(s):

- Defect in wiring harness between oil-pressure sensor and DME
- Defective oil-pressure sensor

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Shutdown phase

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between oil-pressure sensor and DME
- Replace oil-pressure sensor

Fault effect and breakdown warning

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Breakdown notice:

- none

Possible apparent symptoms:

- none

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

- none

DTC P250F; BMW DTC 1C4002: ENGINE-OIL LEVEL: TOO LOW

Information saved in

DME

Fault code

1C4002 - P250F

Fault description

The diagnostic function monitors the engine oil level.

Condition for fault identification

Test condition:

The fault is recognized when the engine oil level falls below 5 liters.

Potential problem source(s):

- Engine operated with oil level too low

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Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when = TRUE is recognized 50 times.

Action in service

- Top up engine oil
- Check oil level

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

CC message

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off

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- CC message: on

Service instruction

None

DTC P252A; BMW DTC 1C4110: OIL-CONDITION SENSOR, ELECTRICAL: MALFUNCTION

Information saved in

DME

Fault code

1C4110 - P252A

Fault description

The diagnostic function monitors the signal from the oil condition sensor for electrical faults.

Condition for fault identification

Test condition:

The fault is recognized when the oil condition sensor reports a fault over the bus.

Potential problem source(s):

- Defect in plugs or wiring harness between oil condition sensor and DME
- Oil condition sensor defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

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- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check plugs and wiring harness between oil condition sensor and DME
- Replace oil condition sensor

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Adaptation (reduction) of engine oil service interval

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P1587; BMW DTC 1C4111: OIL-CONDITION SENSOR, PLAUSIBILITY: LEVEL IMPLAUSIBLE

Information saved in

DME

Fault code

1C4111 - P1587

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Fault description

The diagnostic function monitors the plausibility of the oil level signal.

Condition for fault identification

Test condition:

The fault is recognized when the signal remains constant, implausible signal jumps are present, and when the signal's mean value leaves the specified range.

Potential problem source(s):

- Defect in plugs or wiring harness between oil condition sensor and DME
- Oil condition sensor defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check plugs and wiring harness between oil condition sensor and DME
- Replace oil condition sensor

Fault effect and breakdown warning

Breakdown notice:

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None

Possible apparent symptoms:

Adaptation (reduction) of engine oil service interval

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P1586; BMW DTC 1C4112: OIL-CONDITION SENSOR, PLAUSIBILITY: TEMPERATURE IMPLAUSIBLE

Information saved in

DME

Fault code

1C4112 - P1586

Fault description

The diagnostic function monitors the plausibility of the oil temperature signal.

Condition for fault identification

Test condition:

The fault is recognized when the signal remains constant, implausible signal jumps are present, and when the signal's mean value leaves the specified range.

Potential problem source(s):

- Defect in plugs or wiring harness between oil condition sensor and DME

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- Oil condition sensor defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check plugs and wiring harness between oil condition sensor and DME
- Replace oil condition sensor

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Adaptation (reduction) of engine oil service interval

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

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- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P1587; BMW DTC 1C4113: OIL-CONDITION SENSOR, PLAUSIBILITY: LEVEL IMPLAUSIBLE

Information saved in

DME

Fault code

1C4113 - P1587

Fault description

The diagnostic function monitors the plausibility of the oil level signal.

Condition for fault identification

Test condition:

The fault is recognized when the signal remains constant, implausible signal jumps are present, and when the signal's mean value leaves the specified range.

Potential problem source(s):

- Defect in plugs or wiring harness between oil condition sensor and DME
- Oil condition sensor defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

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- None

Other conditions:

- Engine on
- Engine speed above 5000 RPM
- No BSD fault

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Check plugs and wiring harness between oil condition sensor and DME
- Replace oil condition sensor

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Adaptation (reduction) of engine oil service interval

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P1586; BMW DTC 1C4115: OIL-CONDITION SENSOR, PLAUSIBILITY: TEMPERATURE IMPLAUSIBLE

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Information saved in

DME

Fault code

1C4115 - P1586

Fault description

The diagnostic function monitors the oil temperature signal to assess plausibility.

Condition for fault identification

Test condition:

The fault is recognized when the oil condition sensor reports a fault.

Potential problem source(s):

- Defect in plugs or wiring harness between oil condition sensor and DME
- Oil condition sensor defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- Engine speed above 5000 RPM
- No BSD fault

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

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Action in service

- Check plugs and wiring harness between oil condition sensor and DME
- Replace oil condition sensor

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Adaptation (reduction) of engine oil service interval

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P1587; BMW DTC 1C4116: OIL-CONDITION SENSOR, ELECTRICAL: LEVEL, MALFUNCTION

Information saved in

DME

Fault code

1C4116 - P1587

Fault description

The diagnostic function monitors the oil condition sensor.

Condition for fault identification

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Test condition:

The fault is recognized when the oil condition sensor reports a fault.

Potential problem source(s):

- Defect in plugs or wiring harness between oil condition sensor and DME
- Oil condition sensor defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- Engine speed above 5000 RPM
- No BSD fault

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Check plugs and wiring harness between oil condition sensor and DME
- Replace oil condition sensor

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

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Adaptation (reduction) of engine oil service interval

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P1588; BMW DTC 1C4117: OIL-CONDITION SENSOR, ELECTRICAL: PERMITTIVITY, MALFUNCTION

Information saved in

DME

Fault code

1C4117 - P1588

Fault description

The diagnostic function detects an electrical fault in the oil quality signal

Condition for fault identification

Test condition:

The fault is recognized when the oil condition sensor reports a fault over the bus.

Potential problem source(s):

- Water in oil
- Defect in plug or wiring harness at oil condition sensor
- Sensor defective

Terminal condition: Terminal 15

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Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine oil temperature greater than 100 °C

Time condition:

- Longer than 15 minutes

Other conditions:

- Engine on
- Engine speed above 5000 RPM
- No BSD fault

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check plug and wiring harness and oil condition sensor
- Replace engine oil
- Replace oil condition sensor

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Adaptation (reduction) of engine oil service interval

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

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- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P1586; BMW DTC 1C4118: OIL-CONDITION SENSOR, ELECTRICAL: TEMPERATURE, MALFUNCTION

Information saved in

DME

Fault code

1C4118 - P1586

Fault description

The diagnostic function monitors the oil temperature signal to detect electrical faults.

Condition for fault identification

Test condition:

The fault is recognized when the oil condition sensor reports a fault over the bus.

Potential problem source(s):

- Defect in plugs or wiring harness between oil condition sensor and DME
- Water in oil
- Oil condition sensor defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine oil temperature greater than 100 °C

Time condition:

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- Longer than 15 minutes

Other conditions:

- Engine on
- Engine speed above 5000 RPM
- No BSD fault

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Check plugs and wiring harness between oil condition sensor and DME
- Replace engine oil
- Replace oil condition sensor

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Adaptation (reduction) of engine oil service interval

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0195; BMW DTC 1C4119: ENGINE-OIL TEMPERATURE SENSOR, ELECTRICAL: MALFUNCTION

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Information saved in

DME

Fault code

1C4119 - P0195

Fault description

The diagnostic function monitors the signal from the engine oil temperature sensor for electrical malfunctions.

Condition for fault identification

Test condition:

The fault is recognized when the signal voltage exceeds 3.6 V.

Potential problem source(s):

- Defect in plugs or wiring harness between engine oil temperature sensor and DME
- Defective engine oil temperature sensor

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 2 min.

Action in service

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- Check plugs and wiring harness between engine oil temperature sensor and DME
- Replace engine oil temperature sensor

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Adaptation (reduction) of engine oil service interval

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0196; BMW DTC 1C4120: ENGINE-OIL TEMPERATURE SENSOR, PLAUSIBILITY: TEMPERATURE IMPLAUSIBLE

Information saved in

DME

Fault code

1C4120 - P0196

Fault description

The diagnostic function monitors the plausibility of the oil temperature signal.

Condition for fault identification

Test condition:

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The fault is recognized when the signal is frozen, implausible signal jumps are present, and when the signal's mean value leaves the specified range.

Potential problem source(s):

- Defect in plugs or wiring harness between engine oil temperature sensor and DME
- Defective engine oil temperature sensor

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Check plugs and wiring harness between engine oil temperature sensor and DME
- Replace engine oil temperature sensor

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Adaptation (reduction) of engine oil service interval

Driver information

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Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P1521; BMW DTC 1C5A20: BSD MESSAGE FROM OIL-CONDITION SENSOR: NO MESSAGE

Information saved in

DME

Fault code

1C5A20 - P1521

Fault description

The diagnostic function monitors the BSD message from the oil level sensor (QLT).

Condition for fault identification

Test condition:

The fault is recognized when no BSD telegram from the oil condition sensor (QLT) is received.

Potential problem source(s):

- Problem with BSD wire between DME and oil quality sensor (QLT)
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

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- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 2 min.

Action in service

- Check wiring harness between DME and oil quality sensor (QLT),
- replace oil quality sensor (QLT),
- replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Adaptation (reduction) of engine oil service interval

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

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DTC P0128; BMW DTC 1D2008: MAP THERMOSTAT, MECHANICAL: JAMMED OPEN

Information saved in

DME

Fault code

1D2008 - P0128

Fault description

The diagnostic function monitors the rise in coolant temperature at the engine's discharge connection.

Condition for fault identification

Test condition:

A fault is recognized when the engine temperature is below 80 °C when the test is executed. Because the test time is defined by the temperature model, it is also determined by the model's input variables (air mass, ambient temperature and model temperature).

Potential problem source(s):

- Defective wiring harness
- Characteristic map thermostat defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Coolant temperature sensor less than 40 °C

Time condition:

- None

Other conditions:

- Engine cold start
- Vehicle speed in excess of 30 km/h
- Ambient temperature higher than minus 10°C

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- Engine speed between 800 RPM and 7000 RPM

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Check wiring harness
- Replace map-controlled thermostat

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

- The output of the interior heater may be reduced.

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

Service instruction

- When the engine is heated from external sources, such as an auxiliary heater, diagnosis errors can result!

DTC P0599; BMW DTC 1D2401: MAP THERMOSTAT, ACTIVATION: SHORT CIRCUIT TO POSITIVE

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DME

Fault code

1D2401 - P0599

Fault description

The diagnostic function monitors activation of the program map thermostat.

Condition for fault identification

Test condition:

The fault is recognized by the driver circuit's diagnostic function.

Potential problem source(s):

- Defect in wiring harness between DME and program map thermostat

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and map-controlled thermostat
- Replace map-controlled thermostat
- Replace DME

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Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

US: MIL on, customer proceeds to service facility.

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0598; BMW DTC 1D2402: MAP THERMOSTAT, ACTIVATION: SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

1D2402 - P0598

Fault description

The diagnostic function monitors activation of the program map thermostat.

Condition for fault identification

Test condition:

The fault is recognized by the driver circuit's diagnostic function.

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Potential problem source(s):

- Defect in wiring harness between DME and program map thermostat

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and map-controlled thermostat
- Replace map-controlled thermostat
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

US: MIL on, customer proceeds to service facility.

Driver information

Warning light:

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- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0597; BMW DTC 1D2404: MAP THERMOSTAT, ACTIVATION: OPEN CIRCUIT

Information saved in

DME

Fault code

1D2404 - P0597

Fault description

The diagnostic function monitors activation of the program map thermostat.

Condition for fault identification

Test condition:

The fault is recognized by the driver circuit's diagnostic function.

Potential problem source(s):

- Defect in wiring harness between DME and program map thermostat

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

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- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and map-controlled thermostat
- Replace map-controlled thermostat
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

US: MIL on, customer proceeds to service facility.

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0507; BMW DTC 1E0001: IDLE-SPEED CONTROL: SPEED TOO HIGH

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DME

Fault code

1E0001 - P0507

Fault description

The diagnostic function monitors the idle speed when the engine is warmed to normal operating temperature.

Condition for fault identification

Test condition:

The fault is recognized when the actual idle speed exceeds the specified idle speed by more than 100 RPM.

Potential problem source(s):

- Collateral fault from defective throttle valve
- Leak in air-induction tract between throttle valve and engine

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- 3 sec. after engine on

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- If faults related to the throttle valve have been logged, repair these first
- Check for leaks in air-induction tract between throttle valve and engine

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Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

- Idle speed too high

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0506; BMW DTC 1E0002: IDLE-SPEED CONTROL: SPEED TOO LOW

Information saved in

DME

Fault code

1E0002 - P0506

Fault description

The diagnostic function monitors the idle speed when the engine is warmed to normal operating temperature.

Condition for fault identification

Test condition:

The fault is recognized when the actual idle speed falls below the specified idle speed by more than 100 RPM.

Potential problem source(s):

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- Collateral fault from defective throttle valve
- Leak in air-induction tract between throttle valve and engine

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- 3 sec. after engine on

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- If faults related to the throttle valve have been logged, repair these first
- Check for leaks in air-induction tract between throttle valve and engine

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

- In extreme cases the engine may stall.

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on

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- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P1562; BMW DTC 1E0101: IDLE-SPEED CONTROL, COLD START: ENGINE SPEED TOO HIGH

Information saved in

DME

Fault code

1E0101 - P1562

Fault description

The diagnostic function monitors the idle speed during the catalytic converter's warmup phase.

Condition for fault identification

Test condition:

The fault is recognized when the actual idle speed exceeds the specified idle speed by more than 300 RPM.

Potential problem source(s):

- Collateral fault from defective throttle valve
- Leak in air-induction tract between throttle valve and engine

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

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- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- If faults related to the throttle valve have been logged, repair these first
- Check for leaks in air-induction tract between throttle valve and engine

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

- Idle speed too high

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P1561; BMW DTC 1E0102: IDLE-SPEED CONTROL, COLD START: ENGINE SPEED TOO LOW

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DME

Fault code

1E0102 - P1561

Fault description

The diagnostic function monitors the idle speed during the catalytic converter's warmup phase.

Condition for fault identification

Test condition:

The fault is recognized when the actual idle speed falls below the specified idle speed by more than 300 RPM.

Potential problem source(s):

- Collateral fault from defective throttle valve
- Leak in air-induction tract between throttle valve and engine

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- If faults related to the throttle valve have been logged, repair these first
- Check for leaks in air-induction tract between throttle valve and engine

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Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

- In extreme cases the engine may stall.

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P10E3; BMW DTC 1F0514: VALVETRONIC RELAY, SUPPLY VOLTAGE: SHORT TO EARTH

Information saved in

DME

Fault code

1F0514 - P10E3

Fault description

The diagnostic function monitors the wire from the Valvetronic relay to the DME for short circuits to ground.

Condition for fault identification

Test condition:

The fault is recognized when the voltage in the control wire to the Valvetronic relay is less than 2 V.

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Potential problem source(s):

- Defect in wiring harness between Valvetronic relay and DME
- Valvetronic relay defective
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between Valvetronic relay and DME (U_VVTR)
- Replace Valvetronic relay
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

CC message, customer seeks

Driver information

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Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P10E4; BMW DTC 1F0515: VALVETRONIC RELAY, SUPPLY VOLTAGE: OPEN CIRCUIT

Information saved in

DME

Fault code

1F0515 - P10E4

Fault description

The diagnostic function monitors the wire from the Valvetronic relay to the DME for open wires, and monitors the control wire to the Valvetronic relay for open wires and shorts to ground.

Condition for fault identification

Test condition:

The fault is recognized when the difference between battery voltage and buffer capacitor exceeds 7 V.

Potential problem source(s):

- Valvetronic fuse defective
- Defect in wiring harness between Valvetronic relay and DME
- Valvetronic relay defective
- Defective DME

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Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Inspect Valvetronic fuse
- Check wiring harness between Valvetronic relay and DME (U_VVTR)
- Check wiring harness between Valvetronic relay and DME (S_VVTR)
- Replace Valvetronic relay
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

CC message, customer seeks

Driver information

Warning light:

ECE:

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- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

None

DTC P326A; BMW DTC 1F0516: DME, INTERNAL FAULT, ELECTRIC ACCELERATOR PEDAL MONITORING: A/D CONVERTER IDLING TEST PULSE CHECK

Information saved in

DME

Fault code

1F0516 - P326A

Fault description

The diagnostic function monitors the DME's internal status.

Condition for fault identification

Test condition:

The fault is recognized by the self-diagnosis.

Potential problem source(s):

- DME defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

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- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to reduction in engine output.

Possible apparent symptoms:

- Loss of power
- Speed limitation

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

- A terminal status switch must be conducted before this fault can be deleted.

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DTC P326A; BMW DTC 1F0517: DME, INTERNAL FAULT, ELECTRIC ACCELERATOR PEDAL MONITORING: AD CONVERTER, TEST VOLTAGE CHECK

Information saved in

DME

Fault code

1F0517 - P326A

Fault description

The diagnostic function monitors the DME's internal status.

Condition for fault identification

Test condition:

The fault is recognized by the self-diagnosis.

Potential problem source(s):

- DME defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

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Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to reduction in engine output.

Possible apparent symptoms:

- Loss of power
- Speed limitation

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

- A terminal status switch must be conducted before this fault can be deleted.

DTC P326B; BMW DTC 1F0518: DME, INTERNAL FAULT, ELECTRIC ACCELERATOR PEDAL MONITORING: AIR QUANTITY ADJUSTMENT

Information saved in

DME

Fault code

1F0518 - P326B

Fault description

The diagnostic function monitors the DME's internal status.

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Condition for fault identification

Test condition:

The fault is recognized by the self-diagnosis.

Potential problem source(s):

- DME defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON
- Engine speed above 1200 RPM

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to reduction in engine output.

Possible apparent symptoms:

- Loss of power

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- Speed limitation

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

- A terminal status switch must be conducted before this fault can be deleted.

DTC P060D; BMW DTC 1F0519: DME, INTERNAL FAULT: MONITORING, SIGNAL PLAUSIBILIZATION, ACCELERATOR-PEDAL MODULE OR PEDAL-TRAVEL SENSOR

Information saved in

DME

Fault code

1F0519 - P060D

Fault description

The diagnostic function monitors the DME's internal status.

Condition for fault identification

Test condition:

The fault is recognized by the self-diagnosis.

Potential problem source(s):

- Accelerator pedal module defective
- Wiring harness defective
- DME defective

Terminal condition: none

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Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and accelerator pedal module
- Replace accelerator pedal module
- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to reduction in engine output.

Possible apparent symptoms:

- Loss of power
- Speed limitation

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on

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- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on

Service instruction

- A terminal status switch must be conducted before this fault can be deleted.

DTC P325C; BMW DTC 1F0520: DME, INTERNAL FAULT, ELECTRIC ACCELERATOR PEDAL MONITORING: SPEED SENSOR

Information saved in

DME

Fault code

1F0520 - P325C

Fault description

The diagnostic function monitors the DME's internal status.

Condition for fault identification

Test condition:

The fault is recognized by the self-diagnosis.

Potential problem source(s):

- Crankshaft sensor defective
- Wiring harness defective
- DME defective

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Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and crankshaft sensor
- Replace crankshaft sensor
- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to reduction in engine output.

Possible apparent symptoms:

- Loss of power
- Speed limitation

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on

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- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

- A terminal status switch must be conducted before this fault can be deleted.

DTC P3237; BMW DTC 1F0521: DME, INTERNAL FAULT: MONITORING, PLAUSIBILIZATION OF MIXTURE-CORRECTION FACTORS

Information saved in

DME

Fault code

1F0521 - P3237

Fault description

The diagnostic function monitors the DME's internal status.

Condition for fault identification

Test condition:

The fault is recognized by the self-diagnosis.

Potential problem source(s):

- DME defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

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- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to reduction in engine output.

Possible apparent symptoms:

- Loss of power
- Speed limitation

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

- A terminal status switch must be conducted before this fault can be deleted.

DTC P325D; BMW DTC 1F0522: DME, INTERNAL FAULT: MONITORING, INJECTION-RATE LIMITATION, LEVEL 1

Information saved in

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DME

Fault code

1F0522 - P325D

Fault description

The diagnostic function monitors the DME's internal status.

Condition for fault identification

Test condition:

The fault is recognized by the self-diagnosis.

Potential problem source(s):

- DME defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

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Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to reduction in engine output.

Possible apparent symptoms:

- Loss of power
- Speed limitation

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

- A terminal status switch must be conducted before this fault can be deleted.

DTC P325D; BMW DTC 1F0523: DME, INTERNAL FAULT: MONITORING, INJECTION-RATE LIMITATION, LEVEL 2

Information saved in

DME

Fault code

1F0523 - P325D

Fault description

The diagnostic function monitors the DME's internal status.

Condition for fault identification

Test condition:

The fault is recognized by the self-diagnosis.

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Potential problem source(s):

- DME defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to reduction in engine output.

Possible apparent symptoms:

- Loss of power
- Speed limitation

Driver information

Warning light:

- ECE emissions warning lamp: on

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- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

- A terminal status switch must be conducted before this fault can be deleted.

DTC P3337; BMW DTC 1F0524: DME, INTERNAL FAULT: MONITORING OF THE NOMINAL OXYGEN SENSOR VALUE

Information saved in

DME

Fault code

1F0524 - P3337

Fault description

The diagnostic function monitors the DME's internal status.

Condition for fault identification

Test condition:

The fault is recognized by the self-diagnosis.

Potential problem source(s):

- Wiring harness defective
- Oxygen sensor defective
- DME defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

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- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between oxygen sensor and DME
- Replace oxygen sensor
- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to reduction in engine output.

Possible apparent symptoms:

- Loss of power
- Speed limitation

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

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- A terminal status switch must be conducted before this fault can be deleted.

DTC P325F; BMW DTC 1F0525: DME, INTERNAL FAULT: MONITORING, PLAUSIBILIZATION OF RELATIVE FUEL MASS

Information saved in

DME

Fault code

1F0525 - P325F

Fault description

The diagnostic function monitors the DME's internal status.

Condition for fault identification

Test condition:

The fault is recognized by the self-diagnosis.

Potential problem source(s):

- Rail-pressure sensor defective
- Wiring harness defective
- DME defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

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Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and rail-pressure sensor
- Replace rail-pressure sensor
- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to reduction in engine output.

Possible apparent symptoms:

- Loss of power
- Speed limitation

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

- A terminal status switch must be conducted before this fault can be deleted.

DTC P061B; BMW DTC 1F0526: DME, INTERNAL FAULT: MONITORING, TORQUE COMPARISON

Information saved in

DME

Fault code

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1F0526 - P061B

Fault description

The diagnostic function monitors the DME's internal status.

Condition for fault identification

Test condition:

The fault is recognized by the self-diagnosis.

Potential problem source(s):

- Secondary fault from mixture formation
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Start by repairing faults related to logged ECU fault memory entries for mixture formation
- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

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- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to reduction in engine output.

Possible apparent symptoms:

- Loss of power
- Speed limitation

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on

Service instruction

- A terminal status switch must be conducted before this fault can be deleted.

DTC P326C; BMW DTC 1F0527: DME, INTERNAL FAULT, ELECTRIC ACCELERATOR PEDAL MONITORING: DRIVE TRAIN TRANSMISSION RATIO IMPLAUSIBLE

Information saved in

DME

Fault code

1F0527 - P326C

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Fault description

The diagnostic function monitors the DME's internal status.

Condition for fault identification

Test condition:

The fault is recognized by the self-diagnosis.

Potential problem source(s):

- Secondary fault from mixture formation
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Start by repairing faults related to logged ECU fault memory entries for mixture formation
- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to

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reduction in engine output.

Possible apparent symptoms:

- Loss of power
- Speed limitation

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

- A terminal status switch must be conducted before this fault can be deleted.

DTC P3235; BMW DTC 1F0528: DME, INTERNAL FAULT: MONITORING, VARIANT CODING

Information saved in

DME

Fault code

1F0528 - P3235

Fault description

The diagnostic function monitors the DME's internal status.

Condition for fault identification

Test condition:

The fault is recognized by the self-diagnosis.

Potential problem source(s):

- DME defective

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Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to reduction in engine output.

Possible apparent symptoms:

- Loss of power
- Speed limitation

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on

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- US electronic engine power reduction: on
- CC message: on

Service instruction

- A terminal status switch must be conducted before this fault can be deleted.

DTC P325E; BMW DTC 1F0529: DME, INTERNAL FAULT, ELECTRIC ACCELERATOR PEDAL MONITORING: IGNITION-TIMING MONITORING

Information saved in

DME

Fault code

1F0529 - P325E

Fault description

The diagnostic function monitors the DME's internal status.

Condition for fault identification

Test condition:

The fault is recognized by the self-diagnosis.

Potential problem source(s):

- DME defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

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- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to reduction in engine output.

Possible apparent symptoms:

- Loss of power
- Speed limitation

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

- A terminal status switch must be conducted before this fault can be deleted.

DTC P326D; BMW DTC 1F0530: DME, INTERNAL FAULT: SWITCH-OFF PATH TEST BY MONITORING MODULE

Information saved in

DME

Fault code

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1F0530 - P326D

Fault description

The diagnostic function monitors the DME's internal status.

Condition for fault identification

Test condition:

The fault is recognized by the self-diagnosis.

Potential problem source(s):

- DME defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to

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reduction in engine output.

Possible apparent symptoms:

- Loss of power
- Speed limitation

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

- A terminal status switch must be conducted before this fault can be deleted.

DTC P325F; BMW DTC 1F0531: DME, INTERNAL FAULT: PLAUSIBILITY MONITORING, FUEL MASS

Information saved in

DME

Fault code

1F0531 - P325F

Fault description

The diagnostic function monitors the DME's internal status.

Condition for fault identification

Test condition:

The fault is recognized by the self-diagnosis.

Potential problem source(s):

- DME defective

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Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to reduction in engine output.

Possible apparent symptoms:

- Loss of power
- Speed limitation

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on

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- US electronic engine power reduction: on
- CC message: on

Service instruction

- A terminal status switch must be conducted before this fault can be deleted.

DTC P1646; BMW DTC 1F0532: DME, INTERNAL FAULT, MONITORING MSC COMMUNICATION MALFUNCTION IN MODULE R2S2/1

Information saved in

DME

Fault code

1F0532 - P1646

Fault description

The diagnostic function monitors communications within the DME.

Condition for fault identification

Test condition:

The fault is detected by the internal calculation algorithms.

Potential problem source(s):

- DME defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

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- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

Active fault can cause engine to stall or fail to start.

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

MY10 US:

- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

- none

DTC P1646; BMW DTC 1F0533: DME, INTERNAL FAULT, MONITORING MSC COMMUNICATION MALFUNCTION IN MODULE R2S2/2

Information saved in

DME

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Fault code

1F0533 - P1646

Fault description

The diagnostic function monitors communications of DME hardware components.

Condition for fault identification

Test condition:

The fault is recognized when interference occurs in communications between the CPU and a driver circuit.

Potential problem source(s):

- DME defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

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- none

Possible apparent symptoms:

- Breakdown in extreme cases

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

MY10 US:

- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

- none

DTC P10E5; BMW DTC 1F0904: DME, INTERNAL FAULT, ACTIVATION VALVETRONIC: MALFUNCTION

Information saved in

DME

Fault code

1F0904 - P10E5

Fault description

The diagnostic function monitors the current flow through the Valvetronic actuator motor when the driver circuit is switched off.

Condition for fault identification

Test condition:

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The fault is logged in the ECU fault memory when the current draw in the driver circuit exceeds 4 amps while the driver circuit is deactivated.

Potential problem source(s):

- Defective wiring harness
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Voltage behind motor relay > 5 V

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between Valvetronic actuator motor and DME
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- Breakdown in extreme cases

Driver information

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Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

If the fault occurs while the Valvetronic unit's stroke is not at full extension then the engine will stall and fail to restart. This is because the Valvetronic driver circuit is deactivated and the Valvetronic unit cannot return to minimum stroke. If the fault occurs at maximum stroke, unrestricted throttled operation is possible.

DTC P062F; BMW DTC 1F1A50: DME, INTERNAL FAULT: ERASE EEPROM FAULTY

Information saved in

DME

Fault code

1F1A50 - P062F

Fault description

The diagnostic function monitors the EEPROM emulation's "delete sector."

Condition for fault identification

Test condition:

The fault is recognized by the self-diagnosis.

Potential problem source(s):

- DME defective

Terminal condition: none

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Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

Engine can fail to start when fault is active (electronic immobilizer).

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

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- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: None

Service instruction

- none

DTC P062F; BMW DTC 1F1A52: DME, INTERNAL FAULT: WRITE EEPROM FAULTY

Information saved in

DME

Fault code

1F1A52 - P062F

Fault description

The diagnostic function monitors the EEPROM emulation's "write block."

Condition for fault identification

Test condition:

The fault is recognized by the self-diagnosis.

Potential problem source(s):

- DME defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

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- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- none

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

- none

DTC P060A; BMW DTC 1F1A60: DME, INTERNAL FAULT: MONITORING-MODULE FAULT

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DME

Fault code

1F1A60 - P060A

Fault description

The diagnostic function monitors the DME's internal monitor modules.

Condition for fault identification

Test condition:

The fault is recognized by the self-diagnosis.

Potential problem source(s):

- DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

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Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to reduction in engine output.

Possible apparent symptoms:

- Loss of power
- Speed limitation

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

- A terminal status switch must be conducted before this fault can be deleted.

DTC P16EA; BMW DTC 1F1A80: DME, INTERNAL FAULT, WATCHDOG OUTPUT: MALFUNCTION

Information saved in

DME

Fault code

1F1A80 - P16EA

Fault description

The diagnostic function monitors the internal ABE and WDA wire in the DME.

Condition for fault identification

Test condition:

The fault is recognized by the self-diagnosis.

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Potential problem source(s):

- DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

Continued driving is not possible while fault is active. When the fault is no longer present continued driving is possible with no restrictions.

Possible apparent symptoms:

- Non-starter in extreme cases

Driver information

Warning light:

MY10 ECE:

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- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: off
- US electronic engine power reduction: on
- CC message: on

Service instruction

- A terminal status switch must be conducted before this fault can be deleted.

DTC P16EB; BMW DTC 1F1A81: DME, INTERNAL FAULT, WATCHDOG OUTPUT: FAULTY QUESTION/ANSWER COMMUNICATION

Information saved in

DME

Fault code

1F1A81 - P16EB

Fault description

The diagnostic function monitors the internal WDA wire in the DME.

Condition for fault identification

Test condition:

The fault is recognized by the self-diagnosis.

Potential problem source(s):

- DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

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- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- Breakdown in extreme cases

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: off
- US electronic engine power reduction: on
- CC message: on

Service instruction

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- A terminal status switch must be conducted before this fault can be deleted.

DTC P16EC; BMW DTC 1F1A82: DME, INTERNAL FAULT, WATCHDOG OUTPUT: OVERVOLTAGE DETECTION

Information saved in

DME

Fault code

1F1A82 - P16EC

Fault description

The diagnostic function monitors the internal ABE wire in the DME.

Condition for fault identification

Test condition:

The fault is recognized by the self-diagnosis.

Potential problem source(s):

- DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

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This fault is logged in the control module's fault memory immediately.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- Breakdown in extreme cases

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on

MY10 US:

- US emissions warning lamp: off
- US electronic engine power reduction: on
- CC message: on

Service instruction

- A terminal status switch must be conducted before this fault can be deleted.

DTC P16E7; BMW DTC 1F1A90: DME, INTERNAL FAULT, MONITORING 5V SENSOR SUPPLY: VOLTAGE OUTSIDE VALID RANGE

Information saved in

DME

Fault code

1F1A90 - P16E7

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Fault description

The diagnostic function monitors the sensor voltage supply G1.

Condition for fault identification

Test condition:

The fault is recognized by the self-diagnosis.

Potential problem source(s):

- DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to reduction in engine output.

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Possible apparent symptoms:

- Reduced performance
- Speed limitation

Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

Service instruction

- none

DTC P16E8; BMW DTC 1F1A91: DME, INTERNAL FAULT, MONITORING 5V SENSOR SUPPLY 2: VOLTAGE OUTSIDE VALID RANGE

Information saved in

DME

Fault code

1F1A91 - P16E8

Fault description

The diagnostic function monitors the internal sensor supply voltage G2.

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Condition for fault identification

Test condition:

The fault is recognized by the self-diagnosis.

Potential problem source(s):

- DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to reduction in engine output.

Possible apparent symptoms:

- Reduced performance
- Speed limitation

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Driver information

Warning light:

MY10 ECE:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

Service instruction

- none

DTC P16E9; BMW DTC 1F1A92: DME, INTERNAL FAULT, MONITORING 5V SENSOR SUPPLY 3: VOLTAGE OUTSIDE VALID RANGE

Information saved in

DME

Fault code

1F1A92 - P16E9

Fault description

The diagnostic function monitors the internal sensor supply voltage G2.

Condition for fault identification

Test condition:

The fault is recognized by the self-diagnosis.

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Potential problem source(s):

- DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- It is possible to continue driving the vehicle, but passing maneuvers should not be attempted owing to reduction in engine output.

Possible apparent symptoms:

- Reduced performance
- Speed limitation

Driver information

Warning light:

MY10 ECE:

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- ECE emissions warning lamp: on
- ECE electronic engine power reduction: off
- CC message: on

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

MY11 ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: on

Service instruction

- none

DTC P0617; BMW DTC 1F1B40: STARTER, ACTIVATION: SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

1F1B40 - P0617

Fault description

The diagnostic function monitors the starter control-activation wire (Terminal 50) from the DME to the CAS.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit to positive is present.

Potential problem source(s):

- Defect in wiring harness between CAS and DME
- CAS defective
- DME defective

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Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between CAS and DME
- Continue fault diagnosis with CAS
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off

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- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0616; BMW DTC 1F1B41: STARTER, ACTIVATION: SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

1F1B41 - P0616

Fault description

The diagnostic function monitors the starter control-activation wire (Terminal 50) from the DME to the CAS.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit to ground is present.

Potential problem source(s):

- Defect in wiring harness between CAS and DME
- CAS defective
- DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

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Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between CAS and DME
- Continue fault diagnosis with CAS
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Delayed engine start

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0615; BMW DTC 1F1B42: STARTER, ACTIVATION: OPEN CIRCUIT

Information saved in

DME

Fault code

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1F1B42 - P0615

Fault description

The diagnostic function monitors the starter control-activation wire (Terminal 50) from the DME to the CAS.

Condition for fault identification

Test condition:

The fault is recognized when an open wire is present.

Potential problem source(s):

- Defect in wiring harness between CAS and DME
- CAS defective
- DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between CAS and DME
- Continue fault diagnosis with CAS
- Replace DME

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Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0687; BMW DTC 1F1B50: SYSTEM VOLTAGE, DME MASTER RELAY: VOLTAGE TOO HIGH

Information saved in

DME

Fault code

1F1B50 - P0687

Fault description

The diagnostic function monitors the battery voltage relative to an upper limit.

Condition for fault identification

Test condition:

Electrical system voltage above 16 V

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Potential problem source(s):

- Systematic fault, for instance, jump start with 24 V
- Defect in power supply to DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- 2 min. after engine start

Other conditions:

- Speed > 20 km/h

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- If an overvoltage fault is logged in the fault memories of multiple control modules then the source is a systematic malfunction in the vehicle (for instance, jump start with 24 V). - If the overvoltage fault is logged in the fault memory of only one control module, then the problem lies with the power supply to this specific control module.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

- none

Driver information

Warning light:

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- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P3288; BMW DTC 1F2104: INCORRECT DATA RECORD: CAN TIMEOUT

Information saved in

DME

Fault code

1F2104 - P3288

Fault description

The diagnostic function monitors the CAN bus between the CAS and DME.

Condition for fault identification

Test condition:

The fault is recognized when the VEHICLE VERSION message from the CAS is missing.

Potential problem source(s):

- Time limit violation transmitting VEHICLE VERSION message from CAS
- Defective CAS
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

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- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Continue fault diagnosis at the following ECU: CAS Replace CAS
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Avoid passing maneuvers as engine power is reduced

Possible apparent symptoms:

- Possible power reduction caused by incorrect performance class

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

Service instruction

None

DTC P3289; BMW DTC 1F2108: INCORRECT DATA RECORD: VARIANT MONITORING

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Information saved in

DME

Fault code

1F2108 - P3289

Fault description

The diagnostic function monitors the software versions in the CAS and DME.

Condition for fault identification

Test condition:

The fault is recognized when the software versions are not mutually compatible.

Potential problem source(s):

- DME programming error
- DME encoded incorrectly
- Defective CAS
- Defective DME

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

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Action in service

- Continue fault diagnosis at the following ECU: CAS

Reprogram and encode DME

- Replace CAS
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

Avoid passing maneuvers as engine power is reduced

Possible apparent symptoms:

- Possible power reduction caused by incorrect performance class

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

Service instruction

None

DTC P0634; BMW DTC 1F5020: DME, INTERNAL FAULT, INTERIOR-TEMPERATURE SENSOR: VALUE TOO HIGH

Information saved in

DME

Fault code

1F5020 - P0634

Fault description

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The diagnostic function monitors control module temperature for violation of an upper limit.

Condition for fault identification

Test condition:

The diagnostic fault code is logged when the voltage value for ECU temperature > 4.9 V.

Potential problem source(s):

- DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- Loss of power

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Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

Service instruction

- none

DTC P163A; BMW DTC 1F5021: DME, INTERNAL FAULT, INTERIOR-TEMPERATURE SENSOR: VALUE TOO LOW

Information saved in

DME

Fault code

1F5021 - P163A

Fault description

The diagnostic function monitors control module temperature for violation of a lower limit.

Condition for fault identification

Test condition:

The fault is logged in the ECU fault memory when the voltage for the control module temperature is > 0.1 V.

Potential problem source(s):

- DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

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Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- Loss of power

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

Service instruction

- none

DTC P0634; BMW DTC 1F5101: DME TEMPERATURE: OVERTEMPERATURE

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Information saved in

DME

Fault code

1F5101 - P0634

Fault description

The diagnostic function monitors the interior temperature of the DME.

Condition for fault identification

Test condition:

The fault is recognized when the temperature in the DME is too high.

Potential problem source(s):

- DME overheated
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

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- Check E-box fan as indicated
- Only replace the DME if the fault remains present continuously or if the fault frequency is greater than 3

Fault effect and breakdown warning

Breakdown notice:

- none

Possible apparent symptoms:

- Loss of power

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: on
- US electronic engine power reduction: on
- CC message: on

Service instruction

- none

DTC P10DC; BMW DTC 201010: CAN HARDWARE: FAULTY

Information saved in

DME

Fault code

201010 - P10DC

Fault description

The diagnostic function monitors the CAN controller in the DME.

Condition for fault identification

Test condition:

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The fault is recognized when a hardware fault is present in the CAN controller.

Potential problem source(s):

- DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

- No tachometer display in the instrument cluster
- Brief RPM drop when IHKA automatic climate control is activated at idle

Driver information

Warning light:

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ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

Service instruction

None

DTC P10DD; BMW DTC 201020: FLEXRAY HARDWARE: FAULTY

Information saved in

DME

Fault code

201020 - P10DD

Fault description

The diagnostic function monitors the CAN controller in the DME.

Condition for fault identification

Test condition:

The fault is recognized when a hardware fault is present in the FlexRay controller.

Potential problem source(s):

- DME defective

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

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Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

- DSC Failure
- Cruise control failure

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

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Service instruction

None

DTC P15D0; BMW DTC 20A701: COOLANT PUMP, SPEED DEVIATION: OUTSIDE TOLERANCE

Information saved in

DME

Fault code

20A701 - P15D0

Fault description

The diagnostic function monitors the rotation speed of the electric water pump.

Condition for fault identification

Test condition:

The fault is recognized when the specified and actual rotation speeds of the electric water pump fail to match.

Potential problem source(s):

- Air in the cooling system
- Defect in wiring harness to water pump
- Defective water pump

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- Engine warmed to normal temp, above 80 °C

Time condition:

- None

Other conditions:

- Engine on

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- No BSD fault

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Check mixture ratio of coolant and inspect for contamination
- Bleed air from cooling system
- Transmit activation voltage to water pump and evaluate operation with visual inspection at the expansion tank
- Check wiring harness between water pump and DME
- Replace water pump

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

CC message if engine becomes too hot, breakdown in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

Service instruction

Observe sequence for fault rectification:

- If the pump is activated at TMOT>90 °C as tester job the diagnostic fault code 0x3792 or 0x20AD08 'Water pump: rotation speed implausible' can be logged, ignore this fault and delete it --> Carry out tester job at Tmot<90°C

DTC P15D1; BMW DTC 20A801: COOLANT PUMP, DEACTIVATION: INTERNAL

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TEMPERATURE TOO HIGH

Information saved in

DME

Fault code

20A801 - P15D1

Fault description

The diagnostic function monitors the temperature of the electric water pump's electronics.

Condition for fault identification

Test condition:

The fault is recognized when the temperature of the water pump's electronics is >136 °C. A power reduction is entered.

Potential problem source(s):

- Electric fan defective
- Coolant thermostat defective
- Insufficient coolant
- Defective water pump

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- No BSD fault

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Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Continue testing with test modules focusing on problems with the electric fan and the thermostat
- Start engine, set heat to maximum output, allow to run for 5 minutes and the check to determine whether the diagnostic fault code has been logged again
- If the diagnostic fault code continues to appear despite correct engine temperature replace the water pump

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

CC message if engine becomes too hot, breakdown in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

Service instruction

Observe sequence for fault rectification:

- If the pump is activated at TMOT>90 °C as tester job the diagnostic fault code 0x3792 or 0x20AD08 'Water pump: rotation speed implausible' can be logged, ignore this fault and delete it --> Carry out tester job at Tmot<90°C

DTC P15D2; BMW DTC 20A802: COOLANT PUMP, SHUTDOWN: OVERVOLTAGE DETECTED

Information saved in

DME

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Fault code

20A802 - P15D2

Fault description

The diagnostic function monitors the power-supply voltage to the electric water pump.

Condition for fault identification

Test condition:

The fault is recognized when the electric water pump deactivates as a result of overvoltage.

Potential problem source(s):

- Jump-start with 24 V battery
- Problem with electrical system voltage
- Defective water pump

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- No BSD fault

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Continue test routine with test modules that deal with problems related to voltage in onboard electrical

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system
- Start engine, set heat to maximum output, allow to run for one minute and the check to determine whether the diagnostic fault code has been logged again
- If the diagnostic fault code continues to appear despite correct electrical system voltage replace the water pump

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

CC message if engine becomes too hot, breakdown in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

Service instruction

Observe sequence for fault rectification:

- If the pump is activated at TMOT>90 °C as tester job the diagnostic fault code 0x3792 or 0x20AD08 'Water pump: rotation speed implausible' can be logged, ignore this fault and delete it --> Carry out tester job at Tmot<90°C

DTC P15D3; BMW DTC 20A804: COOLANT PUMP, SHUTDOWN: PUMP BLOCKED

Information saved in

DME

Fault code

20A804 - P15D3

Fault description

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The diagnostic function monitors the electric water pump for mechanical seizure.

Condition for fault identification

Test condition:

The fault is recognized when the electric water pump deactivates in response to recognized seizure.

Potential problem source(s):

- Foreign matter/contamination in coolant
- Incorrect coolant mixture ratio
- Defective water pump

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- No BSD fault

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Execute operational check
- Check coolant mixture ratio
- Check water pump and coolant for foreign matter/objects
- Replace water pump

Fault effect and breakdown warning

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Breakdown notice:

None

Possible apparent symptoms:

CC message if engine becomes too hot, breakdown in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

Service instruction

Observe sequence for fault rectification:

- If the pump is activated at TMOT>90 °C as tester job the diagnostic fault code 0x3792 or 0x20AD08 'Water pump: rotation speed implausible' can be logged, ignore this fault and delete it --> Carry out tester job at Tmot<90°C

DTC P15D4; BMW DTC 20A901: COOLANT PUMP, OPERATION WITH REDUCED OUTPUT: DRY RUNNING DETECTED

Information saved in

DME

Fault code

20A901 - P15D4

Fault description

The diagnostic function monitors the electric water pump for cavitation.

Condition for fault identification

Test condition:

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The fault is recognized when the electric water pump recognizes cavitation.

Potential problem source(s):

- Coolant loss, leak in cooling system
- Air in the cooling system

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- No BSD fault

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Check cooling system for leaks
- Refill and then bleed cooling system as indicated
- If the fault continues to appear although the cooling system is bled and no leaks are present, replace the water pump.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

CC message if engine becomes too hot, breakdown in extreme cases

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Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

Service instruction

Observe sequence for fault rectification:

- If the pump is activated at TMOT>90 °C as tester job the diagnostic fault code 0x3792 or 0x20AD08 'Water pump: rotation speed implausible' can be logged, ignore this fault and delete it --> Carry out tester job at Tmot<90°C

DTC P15D5; BMW DTC 20A902: COOLANT PUMP, OPERATION WITH REDUCED OUTPUT: UNDERVOLTAGE DETECTED

Information saved in

DME

Fault code

20A902 - P15D5

Fault description

The diagnostic function monitors the power-supply voltage to the electric water pump.

Condition for fault identification

Test condition:

The fault is recognized when the voltage is <10 V.

Potential problem source(s):

- Battery charge status or electrical system voltage is not OK
- Defective wiring harness
- Defective water pump

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Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- No BSD fault
- No alternator fault

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Continue test routine with test modules that deal with problems related to voltage in onboard electrical system
- Start engine, set heat to maximum output, allow to run for one minute and the check to determine whether the diagnostic fault code has been logged again
- If the fault continues to appear despite correct electrical system voltage replace the water pump

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

CC message if engine becomes too hot, breakdown in extreme cases

Driver information

Warning light:

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- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

Service instruction

Observe sequence for fault rectification:

- If the pump is activated at TMOT>90 °C as tester job the diagnostic fault code 0x3792 or 0x20AD08 'Water pump: rotation speed implausible' can be logged, ignore this fault and delete it --> Carry out tester job at Tmot<90°C

DTC P15D6; BMW DTC 20A904: COOLANT PUMP, POWER-REDUCED OPERATION: TEMPERATURE LIMIT 1 EXCEEDED

Information saved in

DME

Fault code

20A904 - P15D6

Fault description

The diagnostic function monitors the temperature of the water pump's electronics.

Condition for fault identification

Test condition:

The fault is recognized when the temperature of the water pump's electronics is >133 °C. A power reduction is entered.

Potential problem source(s):

- Electric fan defective
- Coolant thermostat defective
- Insufficient coolant
- Defective water pump

Terminal condition: none

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Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- No BSD fault

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Continue testing with test modules focusing on problems with the electric fan and the thermostat
- Start engine, set heat to maximum output, allow to run for 5 minutes and the check to determine whether the diagnostic fault code has been logged again
- If the diagnostic fault code continues to appear despite correct engine temperature replace the water pump

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

CC message if engine becomes too hot, breakdown in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: off

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- US electronic engine power reduction: off
- CC message: on

Service instruction

Observe sequence for fault rectification:

- If the pump is activated at TMOT>90 °C as tester job the diagnostic fault code 0x3792 or 0x20AD08 'Water pump: rotation speed implausible' can be logged, ignore this fault and delete it --> Carry out tester job at Tmot<90°C

DTC P15D7; BMW DTC 20A908: COOLANT PUMP, POWER-REDUCED OPERATION: TEMPERATURE LIMIT 2 EXCEEDED

Information saved in

DME

Fault code

20A908 - P15D7

Fault description

The diagnostic function monitors the temperature of the water pump's electronics.

Condition for fault identification

Test condition:

The fault is recognized when the temperature of the water pump's electronics is >133 °C. A power reduction is entered.

Potential problem source(s):

- Electric fan defective
- Coolant thermostat defective
- Insufficient coolant
- Defective water pump

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

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Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- No BSD fault

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Continue testing with test modules focusing on problems with the electric fan and the thermostat
- Start engine, set heat to maximum output, allow to run for 5 minutes and the check to determine whether the diagnostic fault code has been logged again
- If the diagnostic fault code continues to appear despite correct engine temperature replace the water pump

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

CC message if engine becomes too hot, breakdown in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

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Service instruction

Observe sequence for fault rectification:

- If the pump is activated at TMOT>90 °C as tester job the diagnostic fault code 0x3792 or 0x20AD08 'Water pump: rotation speed implausible' can be logged, ignore this fault and delete it --> Carry out tester job at Tmot<90°C

DTC U1170; BMW DTC 20AA04: COOLANT PUMP, COMMUNICATION: MALFUNCTION

Information saved in

DME

Fault code

20AA04 - U1170

Fault description

The diagnostic function monitors BSD bus communications with the electric water pump.

Condition for fault identification

Test condition:

The fault is recognized when the electric water pump fails to respond to BSD bus messages from the DME.

Potential problem source(s):

- Defect in wiring harness to water pump
- Communications problem on BSD bus
- Defective water pump

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

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Other conditions:

- Engine on
- No BSD fault

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Continue test routine with test modules that deal with problems related to voltage in onboard electrical system
- Check wiring harness between water pump and DME
- Conduct tester job
- Replace water pump

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Breakdown in extreme cases, electric water pump stops operating - engine overheats

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

Service instruction

Observe sequence for fault rectification:

- If the pump is activated at TMOT>90 °C as tester job the diagnostic fault code 0x3792 or 0x20AD08 'Water pump: rotation speed implausible' can be logged, ignore this fault and delete it --> Carry out tester job at Tmot<90°C

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DTC P0620; BMW DTC 210201: ALTERNATOR, ELECTRIC: MALFUNCTION

Information saved in

DME

Fault code

210201 - P0620

Fault description

The diagnostic function monitors whether the alternator is supplying power.

Condition for fault identification

Test condition:

The fault is recognized by complex self-diagnosis routines in the regulator and transmitted to the DME via the BSD bus.

Potential problem source(s):

- Positive wire not correctly connected to battery
- Ground not correctly connected
- Defective regulator
- Alternator defect

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- Alternator not fully loaded

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Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Check positive wire for correct installation
- Check ground wire for correct installation
- Check alternator
- Fault frequency = 1: If the IMIB is available, perform an alternator test / If no IMIB is available, delete stored fault codes from control module fault memory and do not perform any other actions Fault frequency > 1: Replace alternator

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

- Charge indicator lamp lights up
- Breakdown in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

Service instruction

Can occur during vehicle servicing when external power source is connected, etc.

DTC P325A; BMW DTC 210301: ALTERNATOR, PLAUSIBILITY, ELECTRIC: CALCULATED

Information saved in

DME

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Fault code

210301 - P325A

Fault description

The diagnostic function monitors the voltage of the onboard electrical system and compares it with the specified alternator voltage.

Condition for fault identification

Test condition:

The fault is recognized when the actual voltage of the onboard electrical system is below the specified voltage.

Potential problem source(s):

- Positive wire not correctly connected to battery
- Ground not correctly connected
- Defective battery
- Defective regulator
- Alternator defect

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- Alternator not fully loaded

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 6 min.

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Action in service

- Check positive wire for correct installation
- Check ground wire for correct installation
- Check battery
- If the IMIB is available, perform an alternator test
- If no IMIB is available, replace alternator

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

- Charge indicator lamp lights up
- Breakdown in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

Service instruction

Can occur during vehicle servicing when external power source is connected, etc.

DTC P0A3B; BMW DTC 210401: ALTERNATOR, TEMPERATURE: OVERTEMPERATURE

Information saved in

DME

Fault code

210401 - P0A3B

Fault description

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The diagnostic function monitors the alternator temperature.

Condition for fault identification

Test condition:

The fault is recognized by temperature measurement in the regulator and transmitted to the DME via the BSD bus.

Potential problem source(s):

- Alternator dirty
- Airflow to alternator obstructed
- Thermal overload from unfavorable driving profile possible

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- Alternator not fully loaded

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Inspect alternator for unobstructed air current
- If the IMIB is available, perform an alternator test
- If no IMIB is available, delete stored fault codes from control module fault memory and take no further action

Fault effect and breakdown warning

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Breakdown notice:

None

Possible apparent symptoms:

Reduction in availability of comfort and convenience accessories

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

If no other faults related to the alternator have been logged, do not replace the alternator.

This fault only indicates that the alternator's thermal protection function has assumed active status in response to excessive component temperature.

This is not a case of a defective component.

DTC P324C; BMW DTC 210501: ALTERNATOR, PLAUSIBILITY, TEMPERATURE: OVERTEMPERATURE CALCULATED

Information saved in

DME

Fault code

210501 - P324C

Fault description

The diagnostic function monitors the alternator temperature.

Condition for fault identification

Test condition:

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The fault is recognized when the calculated diode temperature rises above a specified limit temperature.

Potential problem source(s):

- Alternator dirty
- Airflow to alternator obstructed
- Thermal overload from unfavorable driving profile possible

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- Alternator not fully loaded

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Inspect alternator for unobstructed air current
- If the IMIB is available, perform an alternator test
- If no IMIB is available, delete stored fault codes from control module fault memory and take no further action

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

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Reduction in availability of comfort and convenience accessories

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

If no other faults related to the alternator have been logged, do not replace the alternator.

This fault only indicates that the alternator's thermal protection function has assumed active status in response to excessive component temperature.

This is not a case of a defective component.

DTC P3223; BMW DTC 210601: ALTERNATOR, MECHANICAL: MALFUNCTION

Information saved in

DME

Fault code

210601 - P3223

Fault description

The diagnostic function monitors the alternator's rotation speed.

Condition for fault identification

Test condition:

The fault is recognized by complex self-diagnosis routines in the regulator and transmitted to the DME via the BSD bus.

Potential problem source(s):

- Alternator drive defective

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- Alternator defect (bearing damage)

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- Alternator not fully loaded

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Check alternator drive (belt)
- Replace alternator

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

- Charge indicator lamp lights up
- Breakdown in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: off

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- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

Service instruction

Can occur during vehicle servicing when external power source is connected, etc.

DTC P324E; BMW DTC 210701: ALTERNATOR, REGULATOR: MODEL INCORRECT

Information saved in

DME

Fault code

210701 - P324E

Fault description

The diagnostic function monitors the regulator code and compares it with the specified value stored in the DME.

Condition for fault identification

Test condition:

The fault is recognized when the regulator code does not match the code stored in the DME.

Potential problem source(s):

- Incorrect regulator installed

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

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- None

Other conditions:

- Engine on
- Alternator not fully loaded

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- If the fault frequency is less than or equal to 3, clear the control module fault memory and do not take any further action
- If the fault frequency is > 3, then replace the alternator

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P324A; BMW DTC 210801: ALTERNATOR, MODEL INCORRECT

Information saved in

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DME

Fault code

210801 - P324A

Fault description

The diagnostic function monitors alternator's code and compares it with the specified value.

Condition for fault identification

Test condition:

The fault is recognized when the regulator code does not match the code stored in the DME.

Potential problem source(s):

- Incorrect alternator installed

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- Alternator not fully loaded

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- If the fault frequency is less than or equal to 3, clear the control module fault memory and do not take any further action

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- If the fault frequency is > 3, then replace the alternator

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Mild roughness at idle can occur

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

Alternator continues to supply power to vehicle.

DTC P160C; BMW DTC 213301: POWER MANAGEMENT: OVERVOLTAGE

Information saved in

DME

Fault code

213301 - P160C

Fault description

The diagnostic function monitors the onboard electrical system's voltage at the DME while the engine is running.

Condition for fault identification

Test condition:

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The fault is recognized when the onboard electrical system's voltage exceeds 16 V.

Potential problem source(s):

- With engine running, excessive voltage from:
- External charger/battery (jump-start from truck, 24 V)
- Defective voltage regulator
- PCU Power Control Unit defective, if present
- DME/DDE voltage measurement defective

Terminal condition: none

Voltage condition:

- Electrical system voltage greater than 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Ask customer if charge from external source/jump start has been performed
- Check voltage regulator
- Determine whether diagnostic fault codes are logged in the PCU.
- Determine whether internal control module faults have been logged in the DME/DDE.

Fault effect and breakdown warning

Breakdown notice:

None

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Possible apparent symptoms:

- Flickering lights,
- Functional failure (loss of functionality)
- Possible destruction of electrical equipment.

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P160D; BMW DTC 213401: POWER MANAGEMENT: UNDERVOLTAGE

Information saved in

DME

Fault code

213401 - P160D

Fault description

The diagnostic function monitors the electrical system voltage at the DME/DDE with the engine running.

Condition for fault identification

Test condition:

The fault is recognized when the onboard electrical system's voltage falls below 9 V.

Potential problem source(s):

- Defective battery
- Defective voltage regulator

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- Defect in wiring harness (power supply wiring to DME/DDE)
- DME/DDE voltage measurement defective

Terminal condition: none

Voltage condition:

- Electrical system voltage less than 9 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Use battery tester to check battery condition
- Check battery for damage (electrolyte loss, deformation,?), replace as indicated
- Check alternator, replace as indicated
- Check power-supply voltage to DME/DDE,
- Determine whether internal ECU errors are logged in the DME/DDE.
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

- Flickering lights
- Functional failure (loss of functionality)
- Electrical devices cease to operate

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- Breakdown in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P160A; BMW DTC 213501: POWER MANAGEMENT: EXHAUSTIVE BATTERY CHARGE

Information saved in

DME

Fault code

213501 - P160A

Fault description

The diagnostic function monitors the electrical system voltage at the DME/DDE.

Condition for fault identification

Test condition:

The fault is recognized when the battery voltage is too low.

Potential problem source(s):

- Increased power consumption while stationary leading to battery damage,
- Vehicle parked too long

Terminal condition: none

Voltage condition:

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- Electrical system voltage less than 9.5 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Conduct (ABL) energy diagnosis test module
- Ask customer if vehicle has remained parked for an extended period

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

- Breakdown in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

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None

DTC P160F; BMW DTC 213604: POWER MANAGEMENT: CLOSED-CIRCUIT CURRENT FAULT

Information saved in

DME

Fault code

213604 - P160F

Fault description

The diagnostic function monitors the standby current draw.

Condition for fault identification

Test condition:

The fault is recognized when the discharge from excessively high standby currents is higher than 1 Ah.

Potential problem source(s):

- Closed-circuit current too high

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

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Action in service

- Conduct (ABL) energy diagnosis test module
- Conduct external standby current measurement

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

- Breakdown in extreme cases

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

Service instruction

None

DTC P160E; BMW DTC 213701: POWER MANAGEMENT: RIPPLE IN SYSTEM VOLTAGE TOO HIGH

Information saved in

DME

Fault code

213701 - P160E

Fault description

The diagnostic function monitors the electrical system voltage at the DME/DDE with the engine running.

Condition for fault identification

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Test condition:

The fault is logged in the control module's fault memory when the electrical system voltage is less than 8.5 V or higher than 18 V.

Potential problem source(s):

- Battery not connected correctly (loose contact).
- Defect in wiring harness (power supply wiring to DME/DDE)
- DME/DDE voltage measurement defective

Terminal condition: none

Voltage condition:

- Electrical system voltage less than 8.5 V
- Electrical system voltage greater than 18 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check screws on battery terminals
- Check DME/DDE power-supply voltage
- Determine whether internal control module faults have been logged in the DME/DDE.

Fault effect and breakdown warning

Breakdown notice:

None

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Possible apparent symptoms:

- Flickering lights
- Functional failure (loss of functionality)
- In extreme cases engine fails to operate owing to undervoltage.

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: on

Service instruction

None

DTC P0563; BMW DTC 213A20: SYSTEM VOLTAGE: VOLTAGE TOO HIGH

Information saved in

DME

Fault code

213A20 - P0563

Fault description

The diagnostic function monitors the electrical system voltage relative to an upper limit value.

Condition for fault identification

Test condition:

The diagnostic fault code is logged when the electrical system voltage exceeds 16V.

Potential problem source(s):

- Alternator voltage regulator is defective

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Terminal condition: none

Voltage condition:

- Electrical system voltage greater than 16 V

Temperature condition:

- None

Time condition:

- 2 min. after engine start

Other conditions:

- Engine on
- Speed > 20 km/h

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Replace alternator

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

Power reduction, CC message for engine malfunction

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off

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- CC message: on

Service instruction

None

DTC P0562; BMW DTC 213A21: SYSTEM VOLTAGE: VOLTAGE TOO LOW

Information saved in

DME

Fault code

213A21 - P0562

Fault description

The diagnostic function monitors the battery voltage relative to a lower limit.

Condition for fault identification

Test condition:

The fault code is logged in the ECU fault memory when the electrical system voltage is higher than 2.54 V but lower than 9.99 V.

Potential problem source(s):

- Plug or wiring harness on alternator defective
- Plug or wiring harness on DME defective
- Alternator defect
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 2.54 V and 9.99 V

Temperature condition:

- None

Time condition:

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- 3 min. after engine start

Other conditions:

- Engine ON

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check alternator and power manager
- Check plug and wiring harness at alternator
- Check plug and wiring harness at DME
- Replace alternator
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0560; BMW DTC 213A22: SYSTEM VOLTAGE: ANALOGUE-DIGITAL CONVERTER FAULTY

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Information saved in

DME

Fault code

213A22 - P0560

Fault description

The diagnostic function monitors the voltage of the analog-digital converter.

Condition for fault identification

Test condition:

The fault is logged in the ECU fault memory when the voltage at the AD converter (inside DME) is less than 2.54 V.

Potential problem source(s):

- Defective DME (analog-digital converter)

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

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- Clear diagnostic fault codes from ECU fault memory,
- if fault appears again replace the DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P150A; BMW DTC 215001: INTELLIGENT BATTERY SENSOR, SIGNAL: BUS FAULT

Information saved in

DME

Fault code

215001 - P150A

Fault description

The diagnostic function monitors expanded communications between the IBS and DME on the LIN bus.

Condition for fault identification

Test condition:

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The fault is recognized when frequent interference occurs on the LIN bus.

Potential problem source(s):

- Intermittent open on LIN bus wire
- Other defective components on LIN bus
- IBS defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Check LIN bus and plug connector between IBS and DME/DDE
- Note faults at other devices on the bus
- Replace IBS

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

- Anything from no symptoms to breakdown from undercharged battery

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Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P150D; BMW DTC 215101: INTELLIGENT BATTERY SENSOR (IBS): INTERNAL TEMPERATURE MEASUREMENT IMPLAUSIBLE

Information saved in

DME

Fault code

215101 - P150D

Fault description

The diagnostic system plausibilities the IBS temperature measurement.

Condition for fault identification

Test condition:

The fault is recognized when a fault with the temperature measurement is present.

Potential problem source(s):

- IBS defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

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Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- If the diagnostic fault code has been entered with a frequency > 3 or is present continuously then replace the IBS

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

- Anything from no symptoms to breakdown from undercharged battery

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

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DTC P150E; BMW DTC 215104: INTELLIGENT BATTERY SENSOR (IBS): INTERNAL VOLTAGE MEASUREMENT IMPLAUSIBLE

Information saved in

DME

Fault code

215104 - P150E

Fault description

The diagnostic system plausibilities the IBS voltage measurement.

Condition for fault identification

Test condition:

The fault is recognized when a fault with the voltage measurement is present.

Potential problem source(s):

- IBS defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

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Action in service

- If the diagnostic fault code has been entered with a frequency > 3 or is present continuously then replace the IBS

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

- Anything from no symptoms to breakdown from undercharged battery

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P150F; BMW DTC 215108: INTELLIGENT BATTERY SENSOR (IBS): INTERNAL CURRENT MEASUREMENT IMPLAUSIBLE

Information saved in

DME

Fault code

215108 - P150F

Fault description

The diagnostic system plausibilities the IBS current measurement.

Condition for fault identification

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Test condition:

The fault is recognized when the IBS current measurement is incorrect.

Potential problem source(s):

- IBS defective

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- If the diagnostic fault code has been entered with a frequency > 3 or is present continuously then replace the IBS

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

- Anything from no symptoms to breakdown from undercharged battery

Driver information

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Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P15CE; BMW DTC 215801: INTELLIGENT BATTERY SENSOR (IBS): WAKE-UP LINE, SHORT CIRCUIT TO B+ OR EARTH

Information saved in

DME

Fault code

215801 - P15CE

Fault description

L4: The diagnostic function monitors the wake-up wire

L6: The diagnostic function monitors the wake-up wire to the junction box electronics.

Condition for fault identification

Test condition:

The fault is recognized when the wake-up wire has a short circuit.

Potential problem source(s):

- L4: Defect in wake-up wire
- L6: Defect in wake-up wire from IBS to junction box electronics

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

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Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- L4: Check wake-up wire
- L6: Check wake-up wire between IBS and junction box electronics

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

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DTC P15CF; BMW DTC 215901: INTELLIGENT BATTERY SENSOR (IBS): INCORRECT VERSION

Information saved in

DME

Fault code

215901 - P15CF

Fault description

The diagnostic function monitors compatibility of the IBS version with the power management in the DME/DDE.

Condition for fault identification

Test condition:

The fault is recognized when the IBS and DME/DDE are not compatible.

Potential problem source(s):

- DME/DDE and IBS are not compatible

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

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Action in service

- Replace IBS

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

- none

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P15C3; BMW DTC 215A01: INTELLIGENT BATTERY SENSOR (IBS): WAKE-UP LINE, LINE DISCONNECTION

Information saved in

DME

Fault code

215A01 - P15C3

Fault description

L4: The diagnostic function monitors the wake-up wire

L6: The diagnostic function monitors the wake-up wire to the junction box electronics.

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Condition for fault identification

Test condition:

L4: The fault is recognized when the signal level in the wake-up wire is implausible.

L6: The fault is recognized when the wake-up wire is open.

Potential problem source(s):

- L4: Defect in wake-up wire or IBS
- L6: Defect in wake-up wire from IBS to junction box electronics

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- L4: Check wake-up wire, replace IBS
- L6: Check wake-up wire between IBS and junction box electronics

Fault effect and breakdown warning

Breakdown notice:

None

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Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0A16; BMW DTC 219001: ACTIVE ENGINE MOUNT, ELECTRIC: SHORT CIRCUIT TO POSITIVE

Information saved in

DME

Fault code

219001 - P0A16

Fault description

The diagnostic function monitors the wire from the DME to the engine mount for shorts to positive.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit to positive is present.

Potential problem source(s):

- Defect in wiring harness between engine mount and DME
- Defective engine mount
- Defective DME

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Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- Engine speed > 1200 RPM,
- Vehicle speed > 8.8 km/h

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and engine mount
- Replace engine mount
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off

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- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC P0A15; BMW DTC 219002: ACTIVE ENGINE MOUNT, ELECTRIC: SHORT CIRCUIT TO GROUND

Information saved in

DME

Fault code

219002 - P0A15

Fault description

The diagnostic function monitors the wire from the DME to the engine mount for shorts to ground.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit to ground is present.

Potential problem source(s):

- Defect in wiring harness between engine mount and DME
- Defective engine mount
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

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Time condition:

- None

Other conditions:

- Engine on
- Engine speed > 1200 RPM,
- Vehicle speed > 8.8 km/h

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and engine mount
- Replace engine mount
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

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DTC P0A14; BMW DTC 219004: ACTIVE ENGINE MOUNT, ELECTRIC: OPEN CIRCUIT

Information saved in

DME

Fault code

219004 - P0A14

Fault description

The diagnostic function monitors the electrical wire from the DME to the engine mount for opens.

Condition for fault identification

Test condition:

The fault is recognized when an open wire is present.

Potential problem source(s):

- Defect in wiring harness between engine mount and DME
- Defective engine mount
- Defective DME

Terminal condition: none

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- Engine on
- Engine speed > 1200 RPM,
- Vehicle speed > 8.8 km/h

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Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Check wiring harness between DME and engine mount
- Replace engine mount
- Replace DME

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC U1190; BMW DTC 231F04: ELECTRONIC TRANSMISSION CONTROL (EGS), PT-CAN, PT-CAN2: COMMUNICATION FAULT

Information saved in

DME

Fault code

231F04 - U1190

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Fault description

The diagnostic function monitors the two communications paths A CAN and FA CAN between the transmission and the engine-management ECU.

Condition for fault identification

Test condition:

The fault is recognized when communications with the EGS electronic gearbox control in the A and FA CAN break down.

Potential problem source(s):

- Interference in communications to EGS via A and FA CAN

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

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Possible apparent symptoms:

- Transmission in emergency program

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC U1169; BMW DTC 233004: NO MESSAGE (OBD SENSOR, DIAGNOSIS, STATUS, 0X5E0, 0X8C), RECEIVER DME, IHKA, TRANSMITTER KOMBI

Information saved in

DME

Fault code

233004 - U1169

Fault description

The diagnostic function monitors reception of the message.

Condition for fault identification

Test condition:

The fault is recognized when the message is not received in the specified time.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

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Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

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None

DTC U1185; BMW DTC CD840A: DME/DDE PT-CAN: COMMUNICATION FAULT

Information saved in

DME

Fault code

CD840A - U1185

Fault description

The diagnostic function monitors the FA CAN.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit is present.

Potential problem source(s):

- Defect in FA CAN plugs or wiring harness

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

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Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

- No tachometer display in the instrument cluster
- Brief RPM drop when IHKA automatic climate control is activated at idle

Driver information

Warning light:

- ECE emissions warning lamp: on
- ECE electronic engine power reduction: on
- CC message: on
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC U119E; BMW DTC CD8420: DME/DDE FLEXRAY BUS: COMMUNICATION FAULT

Information saved in

DME

Fault code

CD8420 - U119E

Fault description

The diagnosis monitors the FlexRay.

Condition for fault identification

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Test condition:

The fault is recognized when a short circuit is present.

Potential problem source(s):

- Defective FlexRay plug or wiring harness

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

- DSC Failure
- Cruise control failure

Driver information

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Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: on
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC U1184; BMW DTC CD8486: DME/DDE PT-CAN2: COMMUNICATION FAULT

Information saved in

DME

Fault code

CD8486 - U1184

Fault description

The diagnostic function monitors the A CAN.

Condition for fault identification

Test condition:

The fault is recognized when a short circuit is present.

Potential problem source(s):

- Defect in A CAN plug(s) or wiring harness

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

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Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC U1117; BMW DTC CD9902: MESSAGE (VEHICLE SPEED, 55.3.4) NOT CURRENT, RECEIVER DME/DDE, TRANSMITTER ICM

Information saved in

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DME

Fault code

CD9902 - U1117

Fault description

The diagnostic function monitors the currency of the message.

Condition for fault identification

Test condition:

The fault is recognized when the keep-alive counter has not timed the message.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

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Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

Service instruction

None

DTC U1118; BMW DTC CD9904: NO MESSAGE (VEHICLE SPEED, 55.3.4), RECEIVER DME/DDE, TRANSMITTER IC

Information saved in

DME

Fault code

CD9904 - U1118

Fault description

The diagnostic function monitors reception of the message.

Condition for fault identification

Test condition:

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The fault is recognized when the message is not received in the specified time.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

ECE:

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- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

Service instruction

None

DTC U1119; BMW DTC CD9908: MESSAGE (VEHICLE SPEED, 55.3.4) CHECKSUM ERROR, RECEIVER DME/DDE, TRANSMITTER ICM

Information saved in

DME

Fault code

CD9908 - U1119

Fault description

The diagnostic function monitors the checksum of the message.

Condition for fault identification

Test condition:

The diagnostic fault code is logged when the message has a checksum error.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

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- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

Service instruction

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None

DTC U11C6; BMW DTC CD9932: MESSAGE (YAW RATE, VEHICLE, 38.0.2) ALIVE CHECK

Information saved in

DME

Fault code

CD9932 - U11C6

Fault description

The diagnostic function monitors the currency of the message.

Condition for fault identification

Test condition:

The fault is recognized when the keep-alive counter has not timed the message.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

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Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

Service instruction

None

DTC U0123; BMW DTC CD9933: NO MESSAGE (YAW RATE, VEHICLE, 38.0.2)

Information saved in

DME

Fault code

CD9933 - U0123

Fault description

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The diagnostic function monitors reception of the message.

Condition for fault identification

Test condition:

The fault is recognized when the message is not received in the specified time.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

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Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

Service instruction

None

DTC U11C7; BMW DTC CD9934: MESSAGE (YAW RATE, VEHICLE, 38.0.2) CHECKSUM ERROR

Information saved in

DME

Fault code

CD9934 - U11C7

Fault description

The diagnostic function monitors the currency and the checksum of the message.

Condition for fault identification

Test condition:

The fault is recognized when the keep-alive counter has not timed the message and the message checksum is incorrect.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

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Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

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- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

Service instruction

None

DTC U0122; BMW DTC CD9935: NO MESSAGE (DATA, DRIVING DYNAMICS SENSOR, EXTENDED, 38.0.2)

Information saved in

DME

Fault code

CD9935 - U0122

Fault description

The diagnostic function monitors reception of the message.

Condition for fault identification

Test condition:

The fault is recognized when the message is not received in the specified time.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

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Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

Service instruction

None

DTC U1197; BMW DTC CD9A02: MESSAGE (ACTUAL BRAKING TORQUE, SUM, 43.3.4) NOT CURRENT, RECEIVER DME/DDE, TRANSMITTER DSC

Information saved in

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DME

Fault code

CD9A02 - U1197

Fault description

The diagnostic function monitors the currency of the message.

Condition for fault identification

Test condition:

The fault is recognized when the keep-alive counter has not timed the message.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

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Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC U1198; BMW DTC CD9A04: NO MESSAGE (ACTUAL BRAKING TORQUE, SUM, 43.3.4), RECEIVER DME/DDE, TRANSMITTER DSC

Information saved in

DME

Fault code

CD9A04 - U1198

Fault description

The diagnostic function monitors reception of the message.

Condition for fault identification

Test condition:

The fault is recognized when the message is not received in the specified time.

Potential problem source(s):

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- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off

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- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC U1199; BMW DTC CD9A08: MESSAGE (ACTUAL BRAKING TORQUE, SUM, 43.3.4) CHECKSUM ERROR, RECEIVER DME/DDE, TRANSMITTER DSC

Information saved in

DME

Fault code

CD9A08 - U1199

Fault description

The diagnostic function monitors the checksum of the message.

Condition for fault identification

Test condition:

The diagnostic fault code is logged when the message has a checksum error.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

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- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC U1195; BMW DTC CD9B02: MESSAGE (ACTUAL WHEEL SPEED, 46.0.1) NOT CURRENT, RECEIVER DME/DDE, TRANSMITTER DSC

Information saved in

DME

Fault code

CD9B02 - U1195

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Fault description

The diagnostic function monitors the currency of the message.

Condition for fault identification

Test condition:

The fault is recognized when the keep-alive counter has not timed the message.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

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None

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

Service instruction

None

DTC U116D; BMW DTC CD9B04: NO MESSAGE (ACTUAL WHEEL SPEED, 46.0.1), RECEIVER DME/DDE, TRANSMITTER DSC

Information saved in

DME

Fault code

CD9B04 - U116D

Fault description

The diagnostic function monitors reception of the message.

Condition for fault identification

Test condition:

The fault is recognized when the message is not received in the specified time.

Potential problem source(s):

- Fault with transmitting control module

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Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

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MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

Service instruction

None

DTC U1196; BMW DTC CD9B08: MESSAGE (ACTUAL WHEEL SPEED, 46.0.1) CHECKSUM ERROR, RECEIVER DME/DDE, TRANSMITTER DSC

Information saved in

DME

Fault code

CD9B08 - U1196

Fault description

The diagnostic function monitors the checksum of the message.

Condition for fault identification

Test condition:

The diagnostic fault code is logged when the message has a checksum error.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

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- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

Service instruction

None

DTC U1125; BMW DTC CD9F02: MESSAGE (DYNAMIC STABILITY CONTROL STABILIZATION, 47.1.2) NOT CURRENT, RECEIVER DME/DDE, TRANSMITTER DSC

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Information saved in

DME

Fault code

CD9F02 - U1125

Fault description

The diagnostic function monitors the currency of the message.

Condition for fault identification

Test condition:

The fault is recognized when the keep-alive counter has not timed the message.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Carry out system analysis.

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Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

- Cruise control failure
- Accelerator pedal progression failure

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC U1126; BMW DTC CD9F04: NO MESSAGE (DYNAMIC STABILITY CONTROL STABILIZATION, 47.1.2), RECEIVER DME/DDE, TRANSMITTER DSC

Information saved in

DME

Fault code

CD9F04 - U1126

Fault description

The diagnostic function monitors reception of the message.

Condition for fault identification

Test condition:

The fault is recognized when the message is not received in the specified time.

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Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

- Cruise control failure
- Accelerator pedal progression failure

Driver information

Warning light:

- ECE emissions warning lamp: off

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- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC U1127; BMW DTC CD9F08: MESSAGE (DYNAMIC STABILITY CONTROL STABILIZATION, 47.1.2) CHECKSUM ERROR, RECEIVER DME/DDE, TRANSMITTER DSC

Information saved in

DME

Fault code

CD9F08 - U1127

Fault description

The diagnostic function monitors the checksum of the message.

Condition for fault identification

Test condition:

The diagnostic fault code is logged when the message has a checksum error.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

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- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

- Cruise control failure
- Accelerator pedal progression failure

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC U1101; BMW DTC CDA804: NO MESSAGE (RELATIVE TIME, 0X328), RECEIVER DME/DDE, TRANSMITTER KOMBI

Information saved in

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DME

Fault code

CDA804 - U1101

Fault description

The diagnostic function monitors reception of the message.

Condition for fault identification

Test condition:

The fault is recognized when the message is not received in the specified time.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

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Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

Service instruction

None

DTC U0137; BMW DTC CDA904: NO MESSAGE (STATUS, TRAILER, 0X2E4), RECEIVER DME/DDE, TRANSMITTER AH

Information saved in

DME

Fault code

CDA904 - U0137

Fault description

The diagnostic function monitors reception of the message.

Condition for fault identification

Test condition:

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The fault is recognized when the message is not received in the specified time.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 6 min.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off

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- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC U1129; BMW DTC CDAB04: NO MESSAGE (REVERSE GEAR, 0X3B0), RECEIVER DME/DDE, TRANSMITTER FRM, FEM

Information saved in

DME

Fault code

CDAB04 - U1129

Fault description

The diagnostic function monitors reception of the message.

Condition for fault identification

Test condition:

The fault is recognized when the message is not received in the specified time.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

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- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

- Accelerator pedal progression failure

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC U11A5; BMW DTC CDAC04: NO MESSAGE (STATUS, TRANSMISSION CONTROL UNIT, 0X39A), RECEIVER DME/DDE, TRANSMITTER EGS

Information saved in

DME

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Fault code

CDAC04 - U11A5

Fault description

The diagnostic function monitors reception of the message.

Condition for fault identification

Test condition:

The fault is recognized when the message is not received in the specified time.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

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None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC U112D; BMW DTC CDAD04: NO MESSAGE (CONTROL, CRASH SHUTDOWN, ELECTRIC FUEL PUMP, 0X135), RECEIVER DME/DDE, TRANSMITTER ACSM

Information saved in

DME

Fault code

CDAD04 - U112D

Fault description

The diagnostic function monitors reception of the message.

Condition for fault identification

Test condition:

The fault is recognized when the message is not received in the specified time.

Potential problem source(s):

- Fault with transmitting control module

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Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 2 min.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

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Service instruction

None

DTC U113C; BMW DTC CDAE04: NO MESSAGE (TIME DISPLAY, 0X2F8), RECEIVER DME/DDE, TRANSMITTER KOMB

Information saved in

DME

Fault code

CDAE04 - U113C

Fault description

The diagnostic function monitors reception of the message.

Condition for fault identification

Test condition:

The fault is recognized when the message is not received in the specified time.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

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Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 2 min.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC U113A; BMW DTC CDAF04: NO MESSAGE (CENTRAL LOCKING AND LID STATUS, 0X2FC), RECEIVER DME/DDE, TRANSMITTER CAS, FEM

Information saved in

DME

Fault code

CDAF04 - U113A

Fault description

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The diagnostic function monitors reception of the message.

Condition for fault identification

Test condition:

The fault is recognized when the message is not received in the specified time.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

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Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC U119B; BMW DTC CDB204: NO MESSAGE (AMBIENT TEMPERATURE, 0X2CA), RECEIVER DME/DDE, TRANSMITTER KOMBI

Information saved in

DME

Fault code

CDB204 - U119B

Fault description

The diagnostic function monitors reception of the message.

Condition for fault identification

Test condition:

The fault is recognized when the message is not received in the specified time.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

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Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

ECE:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none

MY10 US:

- US emissions warning lamp: on
- US electronic engine power reduction: off
- CC message: on

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Service instruction

None

DTC U111C; BMW DTC CDB504: NO MESSAGE (KILOMETER READING / RANGE, 0X330), RECEIVER DME/DDE, TRANSMITTER KOMBI

Information saved in

DME

Fault code

CDB504 - U111C

Fault description

The diagnostic function monitors reception of the message.

Condition for fault identification

Test condition:

The fault is recognized when the message is not received in the specified time.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

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Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 2 min.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC U111D; BMW DTC CDB602: MESSAGE (TERMINALS, 0X12F) NOT CURRENT, RECEIVER DME/DDE, TRANSMITTER CAS

Information saved in

DME

Fault code

CDB602 - U111D

Fault description

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The diagnostic function monitors the currency of the message.

Condition for fault identification

Test condition:

The fault is recognized when the keep-alive counter has not timed the message.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

- Next engine start may take longer - No automatic car wash function

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Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC U111E; BMW DTC CDB604: NO MESSAGE (TERMINALS, 0X12F), RECEIVER DME/DDE, TRANSMITTER CAS, FEM

Information saved in

DME

Fault code

CDB604 - U111E

Fault description

The diagnostic function monitors reception of the message.

Condition for fault identification

Test condition:

The fault is recognized when the message is not received in the specified time.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

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Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

- Next engine start may take longer - No automatic car wash function

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC U111F; BMW DTC CDB608: MESSAGE (TERMINALS, 0X12F) CHECKSUM ERROR,

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RECEIVER DME/DDE, TRANSMITTER CAS

Information saved in

DME

Fault code

CDB608 - U111F

Fault description

The diagnostic function monitors the checksum of the message.

Condition for fault identification

Test condition:

The diagnostic fault code is logged when the message has a checksum error.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

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- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

- Next engine start may take longer - No automatic car wash function

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC U11A7; BMW DTC CDB904: NO MESSAGE (DIAGNOSIS, OBD GEARBOX, 0X396), RECEIVER DME/DDE, TRANSMITTER DKG, EGS

Information saved in

DME

Fault code

CDB904 - U11A7

Fault description

The diagnostic function monitors reception of the message.

Condition for fault identification

Test condition:

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The fault is recognized when the message is not received in the specified time.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off

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- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC U11B3; BMW DTC CDBB02: MESSAGE (REQUEST, TORQUE, CRANKSHAFT, GEARBOX 2, 0XA0) NOT CURRENT, RECEIVER DME/DDE, TRANSMITTER DKG, EGS

Information saved in

DME

Fault code

CDBB02 - U11B3

Fault description

The diagnostic function monitors the currency of the message.

Condition for fault identification

Test condition:

The fault is recognized when the message is not received in the specified time.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

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- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC U11B4; BMW DTC CDBB04: NO MESSAGE (REQUEST, TORQUE, CRANKSHAFT, GEARBOX 2, 0XA0), RECEIVER DME/DDE, TRANSMITTER DKG, EGS

Information saved in

DME

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Fault code

CDBB04 - U11B4

Fault description

The diagnostic function monitors reception of the message.

Condition for fault identification

Test condition:

The fault is recognized when the message is not received in the specified time.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

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None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC U11B5; BMW DTC CDBB08: MESSAGE (REQUEST, TORQUE, CRANKSHAFT, GEARBOX 2, 0XA0) CHECKSUM ERROR, RECEIVER DME/DDE, TRANSMITTER DKG, EGS

Information saved in

DME

Fault code

CDBB08 - U11B5

Fault description

The diagnostic function monitors the checksum of the message.

Condition for fault identification

Test condition:

The diagnostic fault code is logged when the message has a checksum error.

Potential problem source(s):

- Fault with transmitting control module

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Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

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Service instruction

None

DTC U11A6; BMW DTC CDBF04: NO MESSAGE (STATUS, TRANSMISSION CONTROL UNIT, 0X39A), RECEIVER DME/DDE, TRANSMITTER DKG, EGS

Information saved in

DME

Fault code

CDBF04 - U11A6

Fault description

The diagnostic function monitors reception of the message.

Condition for fault identification

Test condition:

The fault is recognized when the message is not received in the specified time.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

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Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC U11A4; BMW DTC CDC004: NO MESSAGE (DIAGNOSIS, OBD GEARBOX, 0X396), RECEIVER DME/DDE, TRANSMITTER DKG, EGS

Information saved in

DME

Fault code

CDC004 - U11A4

Fault description

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The diagnostic function monitors reception of the message.

Condition for fault identification

Test condition:

The fault is recognized when the message is not received in the specified time.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

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Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC U11A1; BMW DTC CDC102: MESSAGE (DATA, TRANSMISSION LINE, 0X1AF) NOT CURRENT, RECEIVER DME/DDE, TRANSMITTER DKG, EGS

Information saved in

DME

Fault code

CDC102 - U11A1

Fault description

The diagnostic function monitors the currency of the message.

Condition for fault identification

Test condition:

The fault is recognized when the message is not received in the specified time.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

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Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Repair any problems indicated by diagnostic fault codes for other mixture-formation problems
- Replace the DME if currently present or the fault frequency is greater than 3.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

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DTC U11A2; BMW DTC CDC104: NO MESSAGE (DATA, TRANSMISSION LINE, 0X1AF), RECEIVER DME/DDE, TRANSMITTER DKG, EGS

Information saved in

DME

Fault code

CDC104 - U11A2

Fault description

The diagnostic function monitors reception of the message.

Condition for fault identification

Test condition:

The fault is recognized when the message is not received in the specified time.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

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Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC U11A3; BMW DTC CDC108: MESSAGE (DATA, TRANSMISSION LINE, 0X1AF) CHECKSUM ERROR, RECEIVER DME/DDE, TRANSMITTER DKG, EGS

Information saved in

DME

Fault code

CDC108 - U11A3

Fault description

The diagnostic function monitors the checksum of the message.

Condition for fault identification

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Test condition:

The diagnostic fault code is logged when the message has a checksum error.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

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- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC U11AD; BMW DTC CDC202: MESSAGE (REQUEST, TORQUE, CRANKSHAFT, EGS, 0X0B0) NOT CURRENT, RECEIVER DME/DDE, TRANSMITTER DKG, EGS

Information saved in

DME

Fault code

CDC202 - U11AD

Fault description

The diagnostic function monitors the currency of the message.

Condition for fault identification

Test condition:

The fault is recognized when the message is not received in the specified time.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

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Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC U11AE; BMW DTC CDC204: NO MESSAGE (REQUEST, TORQUE, CRANKSHAFT, EGS, 0X0B0), RECEIVER DME/DDE, TRANSMITTER DKG, EGS

Information saved in

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DME

Fault code

CDC204 - U11AE

Fault description

The diagnostic function monitors reception of the message.

Condition for fault identification

Test condition:

The fault is recognized when the message is not received in the specified time.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

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Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC U11AF; BMW DTC CDC208: MESSAGE (REQUEST, TORQUE, CRANKSHAFT, EGS, 0X0B0) CHECKSUM ERROR, RECEIVER DME/DDE, TRANSMITTER DKG, EGS

Information saved in

DME

Fault code

CDC208 - U11AF

Fault description

The diagnostic function monitors the checksum of the message.

Condition for fault identification

Test condition:

The diagnostic fault code is logged when the message has a checksum error.

Potential problem source(s):

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- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

- none

Condition for fault memory entry

This fault is logged in the control module's fault memory immediately.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off

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- US electronic engine power reduction: off
- CC message: none

Service instruction

None

DTC U1128; BMW DTC CDC304: NO MESSAGE (STATUS, ELECTRIC FUEL PUMP, 335), RECEIVER DME/DDE, TRANSMITTER EKP

Information saved in

DME

Fault code

CDC304 - U1128

Fault description

The diagnostic function monitors reception of the message.

Condition for fault identification

Test condition:

The fault is recognized when the message is not received in the specified time.

Potential problem source(s):

- Fault with transmitting control module

Terminal condition: Terminal 15

Voltage condition:

- Onboard electrical system voltage between 9 V and 16 V

Temperature condition:

- None

Time condition:

- None

Other conditions:

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- none

Condition for fault memory entry

The diagnostic fault code is logged when the fault remains present for longer than 1 min.

Action in service

- Carry out system analysis.

Fault effect and breakdown warning

Breakdown notice:

None

Possible apparent symptoms:

None

Driver information

Warning light:

- ECE emissions warning lamp: off
- ECE electronic engine power reduction: off
- CC message: none
- US emissions warning lamp: off
- US electronic engine power reduction: off
- CC message: none

Service instruction

None

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