

MWI

SECTION

METER, WARNING LAMP & INDICATOR

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PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:000000009473005

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

- When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery and wait at least three minutes before performing any service.

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PREPARATION

< PREPARATION >

PREPARATION

PREPARATION

Commercial Service Tools

INFOID:000000009482448

Tool name	Description
Power Tool	Loosening nuts, screws and bolts
 P11B1407E	

COMPONENT PARTS

< SYSTEM DESCRIPTION >

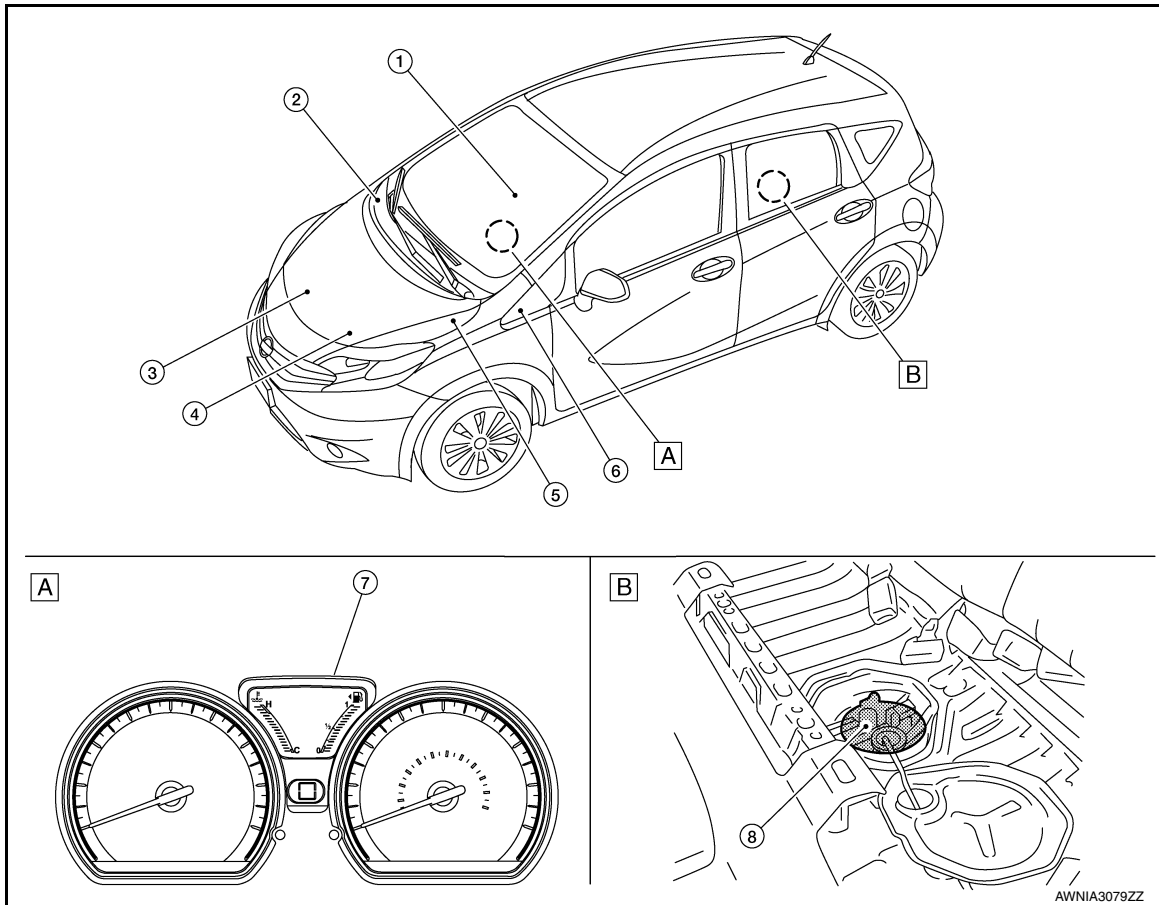
SYSTEM DESCRIPTION

COMPONENT PARTS

METER SYSTEM

METER SYSTEM : Component Parts Location

INFOID:000000009561107



A. Combination meter

B. View with inspection hole cover removed.

No.	Component	Function
1.	Parking brake switch	Transmits the parking brake switch signal to the combination meter.
2.	ABS actuator and electric unit (control unit)	Transmits the vehicle speed signal to the combination meter via CAN communication. Refer to BRC-6, "Component Parts Location" for detailed installation location.
3.	Engine oil pressure sensor	Transmits the engine oil pressure sensor signal to the ECM. Refer to EM-92, "Exploded View" for detailed installation location.
4.	TCM	Transmits the shift position signal to the combination meter via CAN communication. Refer to TM-59, "CVT CONTROL SYSTEM : Component Parts Location" for detailed installation location.
5.	ECM	Transmits the following signals to the combination meter via CAN communication. • Engine speed signal • Engine coolant temperature signal • Fuel consumption monitor signal • Engine oil pressure sensor signal Refer to EC-11, "ENGINE CONTROL SYSTEM : Component Parts Location" for detailed installation location.

COMPONENT PARTS

< SYSTEM DESCRIPTION >

No.	Component	Function
6.	BCM	Transmits the following signals to the combination meter via CAN communication. • Door switch signal • Buzzer signal Refer to BCS-4, "BODY CONTROL SYSTEM : Component Parts Location" for detailed installation location.
7.	Combination meter	Refer to MWI-6, "METER SYSTEM : Combination Meter" .
8.	Fuel level sensor unit and fuel pump (fuel level sensor)	Transmits the fuel level sensor signal to the combination meter.

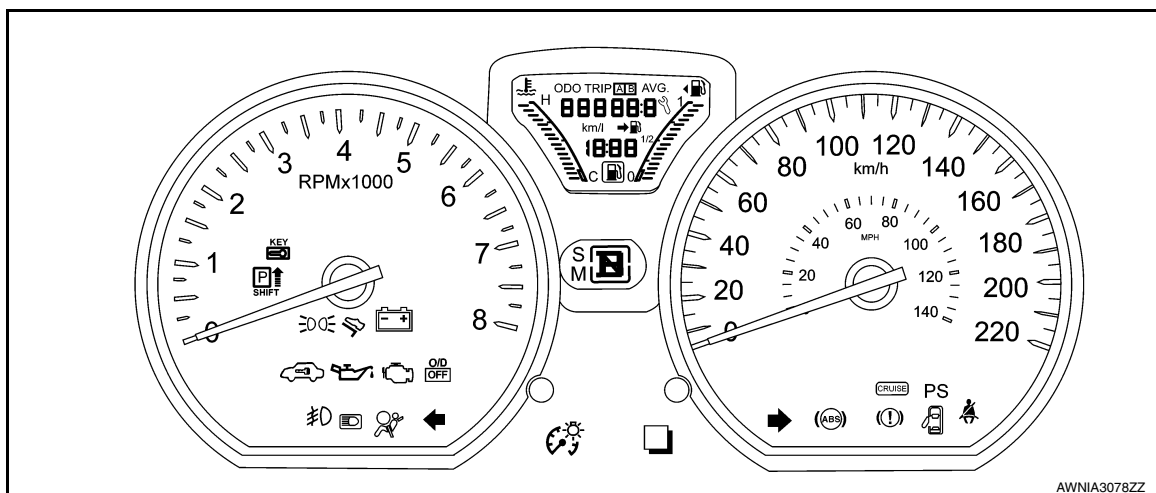
METER SYSTEM : Combination Meter

INFOID:000000009561108

The combination meter controls the following items according to the signals received from each unit via CAN communication and the signals from switches and sensors.

- Measuring instruments
- Indicator lamps
- Warning lamps
- Meter illumination control
- Information display

ARRANGEMENT OF COMBINATION METER



SYSTEM

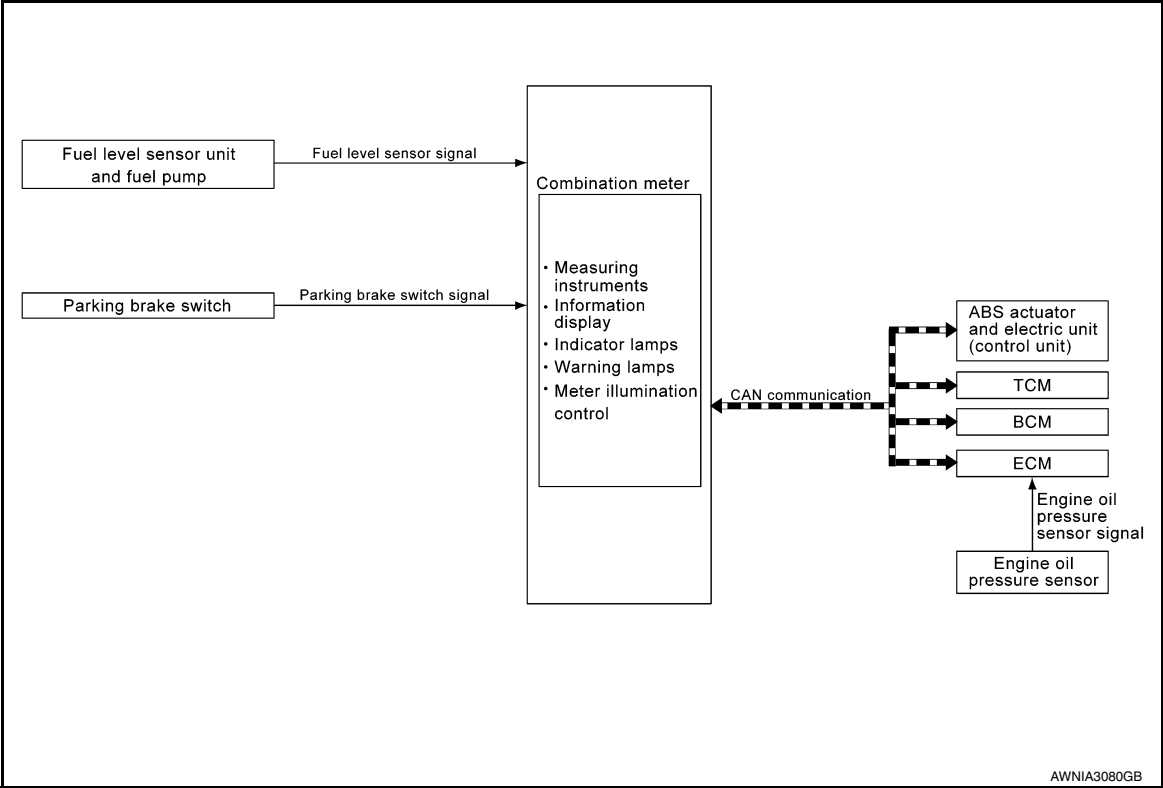
< SYSTEM DESCRIPTION >

SYSTEM
METER SYSTEM

METER SYSTEM : System Description

INFOID:0000000009561109

SYSTEM DIAGRAM



COMBINATION METER INPUT SIGNAL (CAN COMMUNICATION SIGNAL)

Transmit unit	Signal name
ABS actuator and electric unit (control unit)	Vehicle speed signal
BCM	Door switch signal
	Buzzer signal
TCM	Shift position signal
ECM	Engine speed signal
	Engine coolant temperature signal
	Engine oil pressure signal
	Fuel consumption signal
	Loose fuel cap signal

DESCRIPTION

Combination Meter

- The combination meter receives necessary signals from each unit, switch, and sensor to control the following functions.
 - Measuring instruments
 - Warning lamps
 - Indicator lamps
 - Meter illumination control
 - Information display
- The combination meter incorporates a buzzer function that sounds an audible alarm with the integrated buzzer device. Refer to [WCS-5. "WARNING CHIME SYSTEM : System Description"](#) for further details.

SYSTEM

< SYSTEM DESCRIPTION >

- The combination meter includes an on board diagnosis function.
- The combination meter can be diagnosed with CONSULT.

METER CONTROL FUNCTION LIST

System			Description	Reference
Measuring instruments	Speedometer		Indicates vehicle speed.	MWI-9, "SPEED-OMETER : System Description"
	Tachometer		Indicates engine speed.	MWI-9, "TACHOMETER : System Description"
Shift position indicator			Indicates shift position.	MWI-10, "SHIFT POSITION INDICATOR : System Description"
Warning lamp/indicator lamp	Engine oil pressure warning lamp		The warning lamp turns ON or turns OFF, according to engine hydraulic pressure.	MWI-10, "OIL PRESSURE WARNING LAMP : System Description"
Meter illumination control	Meter illumination control function		Controls the back light of combination meter.	MWI-10, "METER ILLUMINATION CONTROL : System Description"
Information display	Odo/trip meter		Indicates mileage.	MWI-11, "INFORMATION DISPLAY : System Description"
	Engine coolant temperature gauge		Indicates engine coolant temperature.	
	Fuel gauge		Indicates fuel level.	
	Loose fuel cap warning		Indicates loose fuel cap.	
	Low fuel warning		Indicates fuel level.	
	Trip computer	Instant fuel consumption	Displays current fuel consumption.	
		Average fuel consumption	Displays average fuel consumption.	
		Distance to empty	Displays distance to empty.	
Travel distance		Displays mileage.		

METER SYSTEM : Fail-safe

INFOID:000000009643043

The combination meter activates the fail-safe control if CAN communication with each unit is malfunctioning.

Function			Specifications
Speedometer			Reset to zero by suspending communication.
Tachometer			
Illumination control			When suspending communication, changes to nighttime mode.
Shift position indicator			When suspending communication, not indicate.
Information display	Trip computer	Current fuel consumption	• When reception time of an abnormal signal is 2 seconds or less, the last received datum is used for calculation to indicate the result. • When reception time of an abnormal signal is more than two seconds, the last result calculated during normal condition is indicated.
		Average fuel consumption	
		Distance to empty	
	Engine coolant temperature gauge		Reset to zero by suspending communication.
	Odo/trip meter		An indicated value is maintained at communications blackout.
Buzzer			The buzzer turns OFF by suspending communication.

SYSTEM

< SYSTEM DESCRIPTION >

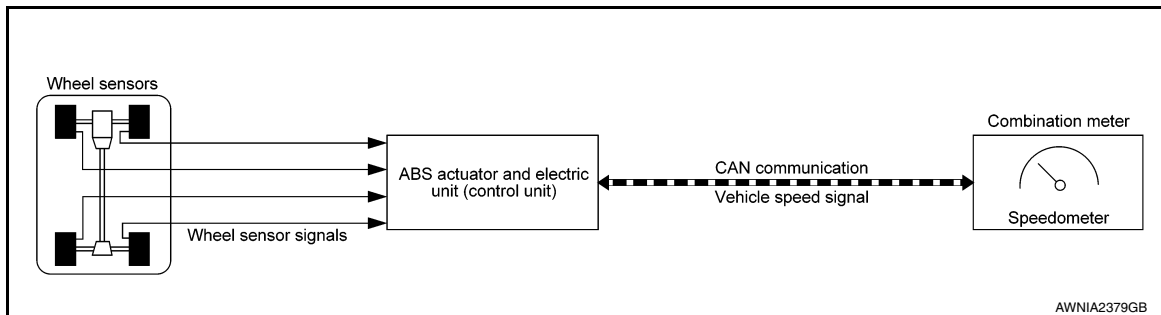
	Function	Specifications
Warning lamp/indicator lamp	ABS warning lamp	The lamp turns ON by suspending communication.
	Malfunction indicator lamp (MIL)	
	EPS warning lamp	
	Brake warning lamp	
	High beam indicator lamp	The lamp turns OFF by suspending communication.
	Turn signal indicator lamp	
	Door warning lamp	
	Light indicator lamp	
	Engine oil pressure warning lamp	
	Key warning lamp	
	O/D OFF indicator lamp	
	Shift P warning lamp	
	Engine start operation indicator lamp	

SPEEDOMETER

SPEEDOMETER : System Description

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SYSTEM DIAGRAM



DESCRIPTION

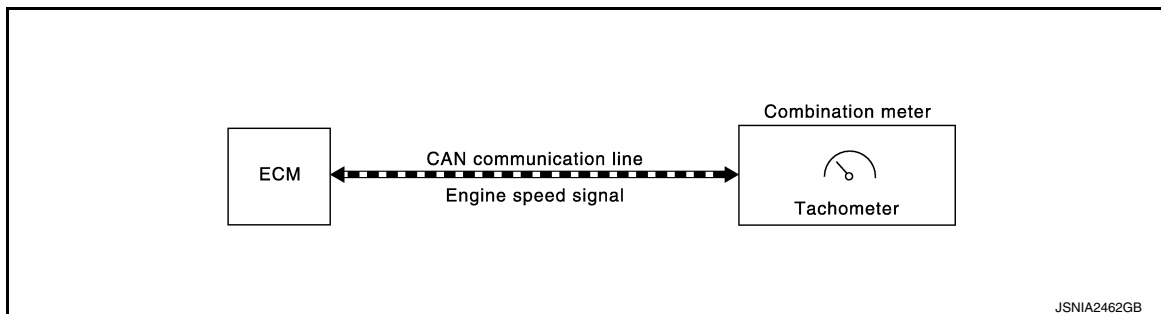
The ABS actuator and electric unit (control unit) receives each wheel speed sensor signal and provides a vehicle speed signal to the combination meter via CAN communication.

TACHOMETER

TACHOMETER : System Description

INFOID:0000000009549335

SYSTEM DIAGRAM



DESCRIPTION

The crank position sensor sends a crankshaft position signal to the ECM. The ECM provides an engine speed signal to the combination meter via CAN communication lines. The tachometer indicates engine speed in revolutions per minute (rpm).

SHIFT POSITION INDICATOR

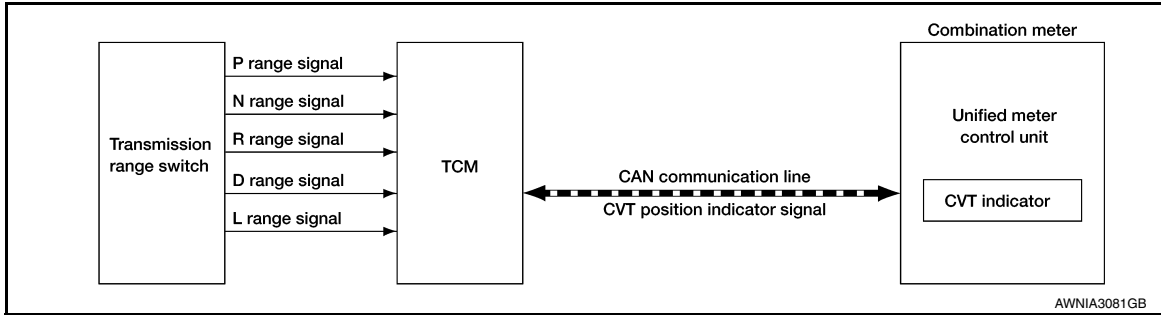
SYSTEM

< SYSTEM DESCRIPTION >

SHIFT POSITION INDICATOR : System Description

INFOID:000000009549337

SYSTEM DIAGRAM



DESCRIPTION

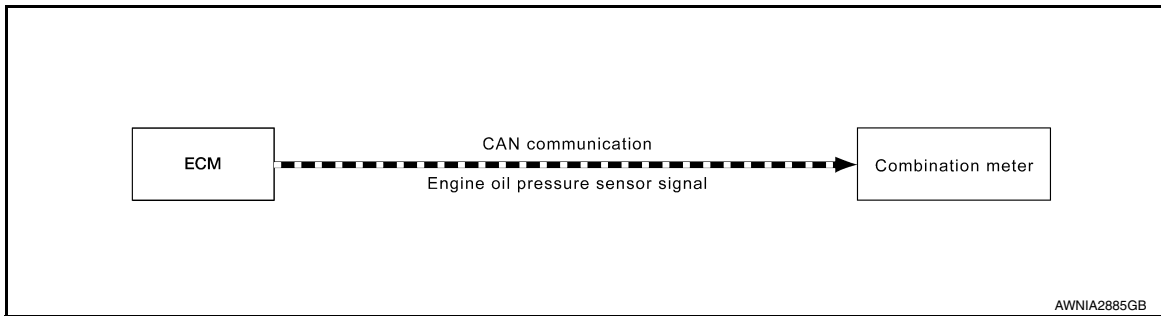
The combination meter receives the shift position signal from TCM via CAN communication, and displays the position of the shift indicator.

OIL PRESSURE WARNING LAMP

OIL PRESSURE WARNING LAMP : System Description

INFOID:000000009549339

SYSTEM DIAGRAM



DESCRIPTION

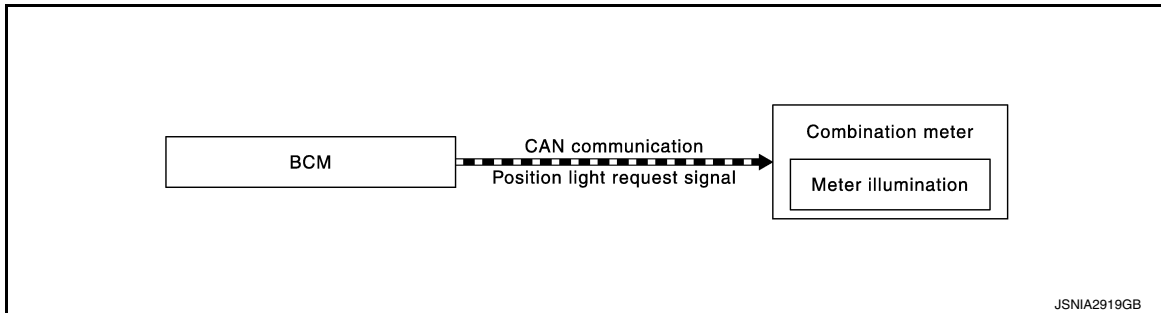
The combination meter turns the engine oil pressure warning lamp ON when receiving a signal from the ECM via CAN communication.

METER ILLUMINATION CONTROL

METER ILLUMINATION CONTROL : System Description

INFOID:000000009549341

SYSTEM DIAGRAM



DESCRIPTION

- Combination meter controls meter illumination, based on the following signal.
- Position light request signal
- The combination meter turns ON meter illumination when the following conditions are satisfied.

Condition	
Combination switch (Lighting switch)	1st or 2nd position

SYSTEM

< SYSTEM DESCRIPTION >

- The combination meter turns OFF meter illumination when the following conditions are satisfied.

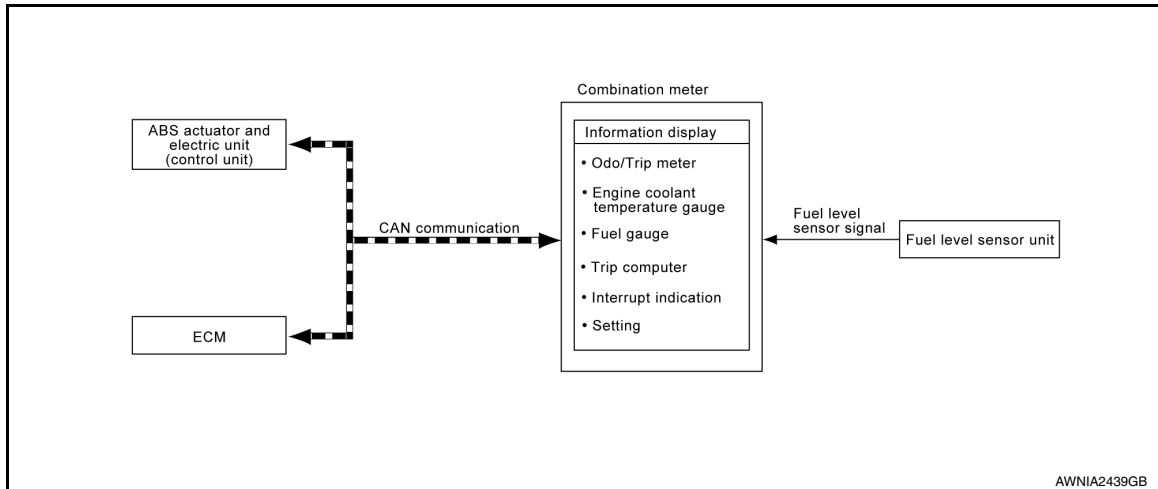
Condition	
Combination switch (Lighting switch)	OFF

INFORMATION DISPLAY

INFORMATION DISPLAY : System Description

INFOID:000000009549343

SYSTEM DIAGRAM



DESCRIPTION

- The combination meter receives signals from switches, sensors and modules for operating the following functions on the information display.
 - Odo/trip meter
 - Engine coolant temperature gauge
 - Fuel gauge
 - Trip computer
 - Interrupt indication
 - Meter illumination level
 - Low fuel warning
 - Loose fuel cap warning

ODO/TRIP METER

The combination meter calculates mileage using the vehicle speed signal from the ABS actuator and electric unit (control unit) and displays the mileage on the information display.

ENGINE COOLANT TEMPERATURE GAUGE

The engine coolant temperature gauge indicates the engine coolant temperature.

The ECM provides an engine coolant temperature signal to the combination meter via CAN communication.

FUEL GAUGE

Control Outline

The fuel level sensor unit sends a variable resistor signal to the combination meter. The fuel gauge indicates the approximate fuel level in the fuel tank.

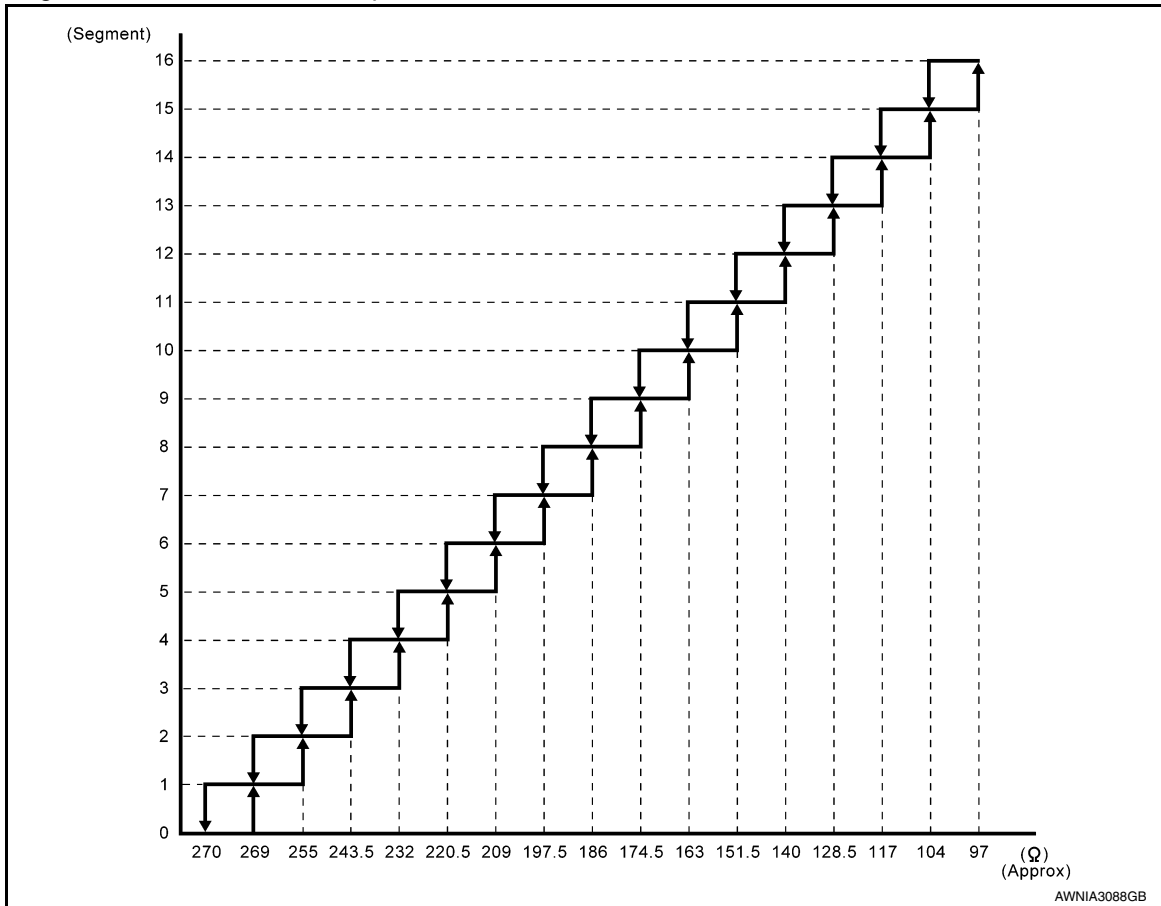
Refuel Control

The unit detects the driver is refueling the vehicle and accelerates the fuel gauge segment movement if the fuel level changes by 9 ℓ (2-3/8 US, 2 Imp gal) or more.

SYSTEM

< SYSTEM DESCRIPTION >

Lighting segment-resistance relationship



INTERRUPT INDICATION

Low Fuel Warning

The low fuel warning turns ON when the fuel level in the fuel tank reaches approximately 7.3 ℓ (1-7/8 US gal, 1-5/8 Imp gal).

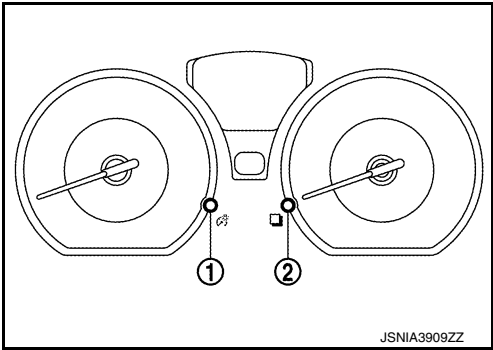
LOOSE FUEL CAP WARNING

The LOOSE FUEL CAP message will display in the information display when the fuel-filler cap is not tightened correctly. The message will turn off as soon as the ECM detects the fuel-filler cap is properly tightened. The ECM provides a loose fuel cap signal to the combination meter via CAN communication lines.

OPERATION

Switch Name and Function

INFOID:000000009643045



Switch name	Operation	Description
Illumination control switch (1)	Press	An illuminance level of the back light of the combination meter can be adjusted.
Meter control switch (2)		• The information display screen can be switched. • The trip meter can be switched between A and B. • Trip meter A/B can be reset by pressing and holding the meter control switch. • Time can be adjusted.

DIAGNOSIS SYSTEM (COMBINATION METER)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (COMBINATION METER)

On Board Diagnosis Function

INFOID:000000009549344

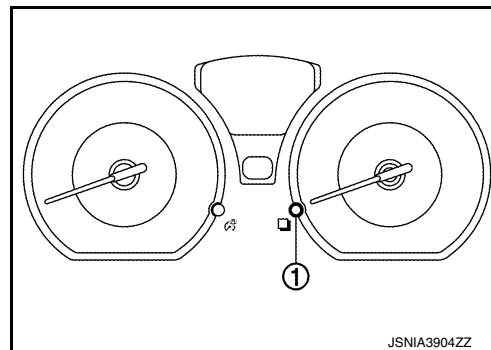
ON BOARD DIAGNOSIS ITEM

Information display, speedometer and tachometer can be checked in self-diagnosis mode.

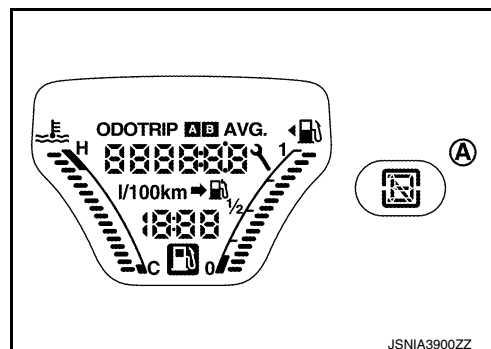
STARTING COMBINATION METER SELF-DIAGNOSIS MODE

METHOD OF STARTING

1. Turn ignition switch ON, and switch the trip meter to "trip A" or "trip B".
2. Turn ignition switch to OFF.
3. While pressing the meter control switch (1), turn the ignition switch ON.
4. Make sure that the trip meter displays "0000.0".
5. Press the meter control switch (1) at least 3 times. (Within 7 seconds after the ignition switch is turned ON).



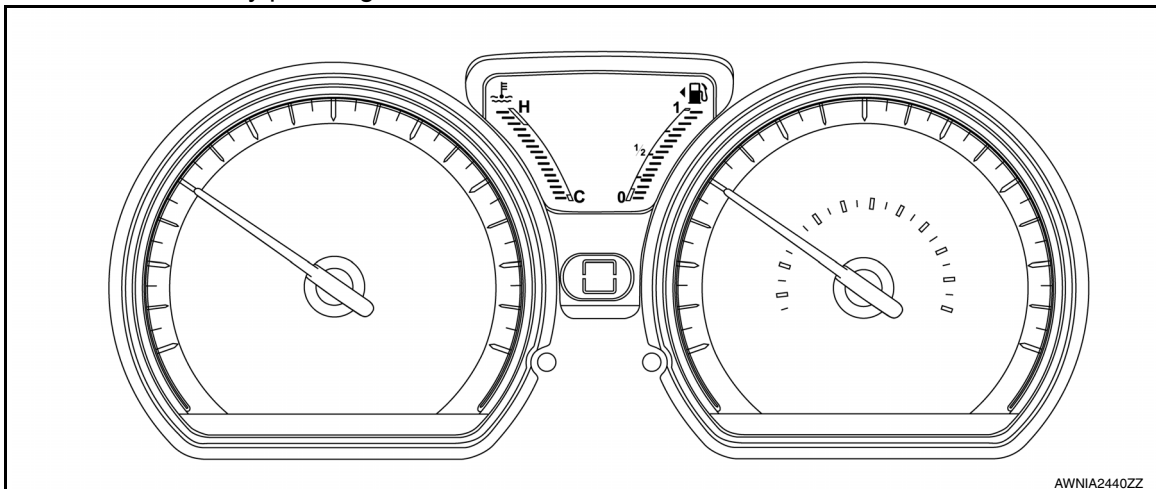
6. The combination meter is turned to self-diagnosis mode.
 - All segments of the information display and shift position indicator (A) for CVT models are displayed.



NOTE:

- Check combination meter power supply and ground circuit when the self-diagnosis mode of the combination meter does not start. replace combination meter if power supply and ground circuit are normal.
- If any of the segments are not displayed, replace combination meter.

7. Each meter activates by pressing the meter control switch.



DIAGNOSIS SYSTEM (COMBINATION METER)

< SYSTEM DESCRIPTION >

NOTE:

- If any of the meters or gauges is not activated, replace combination meter.
- The figure is reference.

CONSULT Function

INFOID:000000009549345

APPLICATION ITEMS

CONSULT can display each diagnostic item using the diagnostic test modes shown.

METER/M&A Diagnosis mode	Description
SELF DIAGNOSTIC RESULT	The combination meter self-diagnosis results.
Data Monitor	Displays combination meter input/output data in real time.
Warning History	Lighting history of the warning lamp and indicator lamp can be checked.

SELF DIAG RESULT

Refer to [MWI-20, "DTC Index"](#).

DATA MONITOR

Display Item List

X: Applicable

Display item [Unit]	MAIN SIGNALS	Description
SPEED METER [km/h] or [mph]	X	Displays the value of vehicle speed signal.
SPEED OUTPUT [km/h] or [mph]	X	Displays the value of vehicle speed signal, which is transmitted to each unit with CAN communication.
ODO OUTPUT [km/h or mph]		Displays odometer signal value transmitted to other units via CAN communication.
TACHO METER [rpm]	X	Displays the value of engine speed signal, which is input from ECM.
FUEL METER [L]	X	Displays the fuel level.
W TEMP METER [°C] or [°F]	X	Displays the value of engine coolant temperature signal, which is input from ECM.
ABS W/L [ON/OFF]		Displays [ON/OFF] condition of ABS warning indicator
BRAKE W/L [ON/OFF]		Displays [ON/OFF] condition of brake warning indicator.
DOOR W/L [ON/OFF]		Displays [ON/OFF] condition of door warning indicator.
HI-BEAM IND [ON/OFF]		Displays [ON/OFF] condition of high beam indicator.
TURN IND [ON/OFF]		Displays [ON/OFF] condition of turn indicator.
LIGHT IND [ON/OFF]		Displays [ON/OFF] condition of light indicator.
OIL W/L [ON/OFF]		Displays [ON/OFF] condition of engine oil pressure warning indicator.
MIL [ON/OFF]		Displays [ON/OFF] condition of malfunction indicator.
CRUISE IND [Off]		Displays [ON/OFF] condition of CRUISE indicator.
O/D OFF IND [ON/OFF]		Displays [ON/OFF] condition of O/D OFF indicator.

DIAGNOSIS SYSTEM (COMBINATION METER)

< SYSTEM DESCRIPTION >

Display item [Unit]	MAIN SIGNALS	Description
FUEL W/L [ON/OFF]		Displays [ON/OFF] condition of low-fuel warning indicator.
O/D OFF SW [ON/OFF]		Displays [ON/OFF] condition of O/D OFF switch.
REAR DEF SW [ON/OFF]		Displays [ON/OFF] condition of rear window defogger switch.
BRAKE SW [ON/OFF]		Displays [ON/OFF] condition of brake switch.
EPS W/L [ON/OFF]		Displays [ON/OFF] condition of EPS indicator.
CHARGE W/L [Off]		Displays [ON/OFF] condition of charge warning indicator.
SHIFT IND [P, R, N, D, L]		Displays shift selector position.
FUEL CAP W/L [Off]		Displays [ON/OFF] condition of loose fuel cap warning message.
PKB SW [ON/OFF]		Status of parking brake switch.
BUCKLE SW [ON/OFF]		Status of seat belt buckle switch (LH).
BRAKE OIL SW [ON/OFF]		Status of brake fluid level switch.
DISTANCE [km] or [Mi]		Displays distance to empty.
BUZZER [ON/OFF]	X	Displays [ON/OFF] condition of buzzer.
FR FOG IND [ON/OFF]		Displays [ON/OFF] condition of front fog lamp indicator.
KEY G/Y W/L [ON/OFF]		Displays [ON/OFF] condition of Intelligent Key warning lamp.

NOTE:

Some items are not available according to vehicle specification.

WARNING HISTORY

Display item	Description
W/L ON HISTORY	Lighting history of warning lamp and indicator lamp can be checked.

W/L ON HISTORY

- Stores histories when warning/indicator lamp is turned on.
- “W/L ON HISTORY” indicates the “TIME” when the warning/ indicator lamp is turned on.
- The “TIME” above is:
 - 0: The condition that the warning/indicator lamp has been turned on 1 or more times after starting the engine and waiting for 30 seconds.
 - 1 - 39: The number of times the engine was restarted after the 0 condition.
 - NO W/L ON HISTORY: Stores NO (0) turning on history of warning/indicator lamp.

NOTE:

- W/L ON HISTORY is not stored for approximately 30 seconds after the engine starts.
- Brake warning lamp does not store any history when the parking brake is applied or the brake fluid level gets low.

COMBINATION METER

< ECU DIAGNOSIS INFORMATION >

ECU DIAGNOSIS INFORMATION

COMBINATION METER

Reference Value

INFOID:000000009015874

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Display content	Data monitor	
		Condition	Reference value in normal operation
SPEED METER [km/h or mph]	Speed meter operation	While driving	Vehicle speed matches speed meter
SPEED OUTPUT [km/h or mph]	Vehicle speed	While driving	The speed output signal value via CAN communication is approx. value of vehicle speed.
ODO OUTPUT [km/h or mph]	ODO meter operation	Driving	Distance driven
TACHO METER [rpm]	Tacho meter operation	Engine running	The tacho meter is approx. value of engine speed via CAN communication.
FUEL METER [L]	Fuel level	Ignition ON	Fuel level is approx. value of fuel gauge.
W TEMP METER [°C] or [°F]	Engine coolant temperature	Engine running	Input value of engine coolant temperature signal via CAN communication.
ABS W/L	ABS warning lamp	When ABS warning lamp is ON	On
		When ABS warning lamp is OFF	Off
BRAKE W/L	Brake warning lamp	When Brake warning lamp is ON	On*
		When Brake warning lamp is OFF	Off
DOOR W/L	Door open warning lamp	When Door warning lamp is ON	On
		When Door warning lamp is OFF	Off
HI-BEAM IND	HI-Beam indicator lamp	When High-beam indicator lamp is ON	On
		When High-beam indicator lamp is OFF	Off
TURN IND	Turn signal indicator	When Turn signal indicator lamp is ON	On
		When Turn signal indicator lamp is OFF	Off
LIGHT IND	Light indicator	When Tail lamp indicator lamp is ON	On
		When Tail lamp indicator lamp is OFF	Off
FR FOG IND	Front fog lamp indicator	Front fog lamp indicator lamp ON	On
		Front fog lamp indicator lamp OFF	Off
OIL W/L	Engine oil pressure warning light	When engine oil pressure warning lamp is ON	On
		When engine oil pressure warning lamp is OFF	Off
MIL	MIL warning lamp	When Malfunction indicator lamp (MIL) is ON	On
		When Malfunction indicator lamp (MIL) is OFF	Off
CRUISE IND	Cruise indicator lamp	When cruise indicator lamp is ON.	ON
		When cruise indicator lamp is OFF.	Off
O/D OFF IND	O/D OFF indicator	When O/D OFF indicator lamp is OFF.	Off
		When O/D OFF indicator lamp is ON.	On

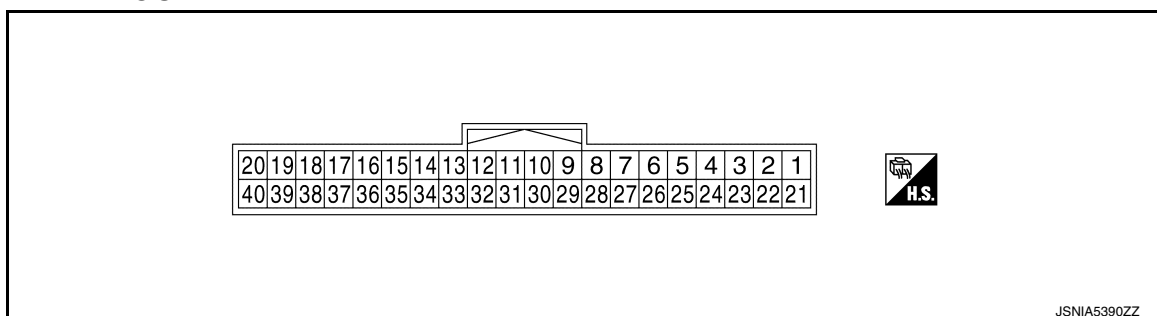
COMBINATION METER

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Display content	Data monitor	
		Condition	Reference value in normal operation
O/D OFF SW	O/D OFF switch	When O/D OFF switch is pressed to OFF.	Off
		When O/D OFF switch is pressed to ON.	On
REAR DEF SW	Rear defogger switch	When rear defogger switch is pressed to ON	On
		When rear defogger is pressed to Off	Off
BRAKE SW	Brake switch	When brake pedal is applied	On
		When brake pedal is released	Off
FUEL W/L	Low fuel warning	When low fuel warning is ON	On
		When low fuel warning is Off	Off
EPS W/L	EPS warning lamp	EPS warning lamp ON	On
		EPS warning lamp OFF	Off
CHAGE W/L	Charge warning lamp	Engine running	Off
SHIFT IND	Shift position indicator	The position of the shift position selector.	[P, R, N, D, L]
FUEL CAP W/L	Loose fuel cap warning	Loose fuel filler cap warning is On	On
		Loose fuel filler cap warning is Off	Off
PKB SW	Parking brake switch	When parking brake is active	On
		When parking brake is inactive	Off
BUCKLE SW	Seat belt buckle switch LH	When seat belt buckle is unfastened (LH).	On
		When seat belt buckle is fastened (LH).	Off
BRAKE OIL SW	Brake fluid level switch	When brake fluid level switch ON	On
		When brake fluid level switch OFF	Off
DISTANCE	Distance to empty	While driving	[km/h or mph]
BUZZER	Buzzer operation	When Buzzer is ON	On
		When Buzzer is OFF	Off

*: Displays "Off" if the brake warning lamp is illuminated when the valve check starts, the parking brake switch is turned ON or the brake fluid level switch is turned ON.

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal No.	Wire color	Item	Condition		Reference value (V) (Approx.)
			Ignition switch	Operation or condition	
1	L	CAN-H	—	—	—
2	P	CAN-L	—	—	—

COMBINATION METER

< ECU DIAGNOSIS INFORMATION >

Terminal No.	Wire color	Item	Condition		Reference value (V) (Approx.)
			Ignition switch	Operation or condition	
3	SB	2P/R	—	—	—
4	LG	8P/R	—	—	—
6	W	Fuel level sensor signal (+)	—	—	Refer to MWI-42, "Component Inspection" .
7	V	Air bag	—	—	—
8	P	O/D OFF switch	ON	O/D OFF switch pressed	0
				O/D OFF switch released	Battery voltage
9	V	Seat belt buckle switch LH	ON	Unfastened (ON)	0
				Fastened (OFF)	Battery voltage
10	SB	Parking Brake switch	ON	Parking brake is inactive	0
				Parking brake is active	Battery voltage
11	BR	Brake fluid level switch	ON	Brake fluid level low	0
				Brake fluid level normal	Battery voltage
15	R	Ignition switch ON or ACC	—	—	Battery voltage
18	R/Y	Security	—	—	—
21	B	Ground	—	—	0
22	B				
23	B				
24	GR	Fuel level sensor ground (-)	ON	—	0
27	R/W	Battery power supply	OFF	—	Battery voltage
28	GR	Ignition switch ON or START	ON	—	Battery voltage
38	Y	Generator	ON	Generator voltage low	0
				Generator voltage normal	Battery voltage

Fail-safe

INFOID:000000009015875

The combination meter activates the fail-safe control if CAN communication with each unit is malfunctioning.

Function			Specifications
Speedometer			Reset to zero by suspending communication.
Tachometer			
Illumination control			When suspending communication, changes to nighttime mode.
Shift position indicator			When suspending communication, not indicate.
Information display	Trip computer	Current fuel consumption	• When reception time of an abnormal signal is 2 seconds or less, the last received datum is used for calculation to indicate the result. • When reception time of an abnormal signal is more than two seconds, the last result calculated during normal condition is indicated.
		Average fuel consumption	
		Distance to empty	
	Engine coolant temperature gauge		Reset to zero by suspending communication.
	Odo/trip meter		An indicated value is maintained at communications blackout.
Buzzer			The buzzer turns OFF by suspending communication.

COMBINATION METER

< ECU DIAGNOSIS INFORMATION >

Function		Specifications
Warning lamp/indicator lamp	ABS warning lamp	The lamp turns ON by suspending communication.
	Malfunction indicator lamp (MIL)	
	EPS warning lamp	
	Brake warning lamp	
	High beam indicator lamp	The lamp turns OFF by suspending communication.
	Turn signal indicator lamp	
	Door warning lamp	
	Light indicator lamp	
	Engine oil pressure warning lamp	
	Key warning lamp	
	O/D OFF indicator lamp	
	Shift P warning lamp	
	Engine start operation indicator lamp	

DTC Index

INFOID:000000009015876

Display contents of CONSULT	Diagnostic item is detected when...	Refer to
CAN COMM CIRCUIT [U1000]	When combination meter is not transmitting or receiving CAN communication signal for 2 seconds or more.	MWI-34
CONTROL UNIT (CAN) [U1010]	When detecting error during the initial diagnosis of the CAN controller of combination meter.	MWI-35
VEHICLE SPEED [B2205]	The abnormal vehicle speed signal is input from the ABS actuator and electric unit (control unit) for 2 seconds or more.	MWI-36
ENGINE SPEED [B2267]	If ECM continuously transmits abnormal engine speed signals for 2 seconds or more.	MWI-37
WATER TEMP [B2268]	If ECM continuously transmits abnormal engine coolant temperature signals for 60 seconds or more.	MWI-38

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

BCM (BODY CONTROL MODULE)

List of ECU Reference

INFOID:000000009549346

ECU	Reference
BCM	BCS-28. "Reference Value"
	BCS-44. "Fail-safe"
	BCS-46. "DTC Inspection Priority Chart"
	BCS-46. "DTC Index"

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MWI

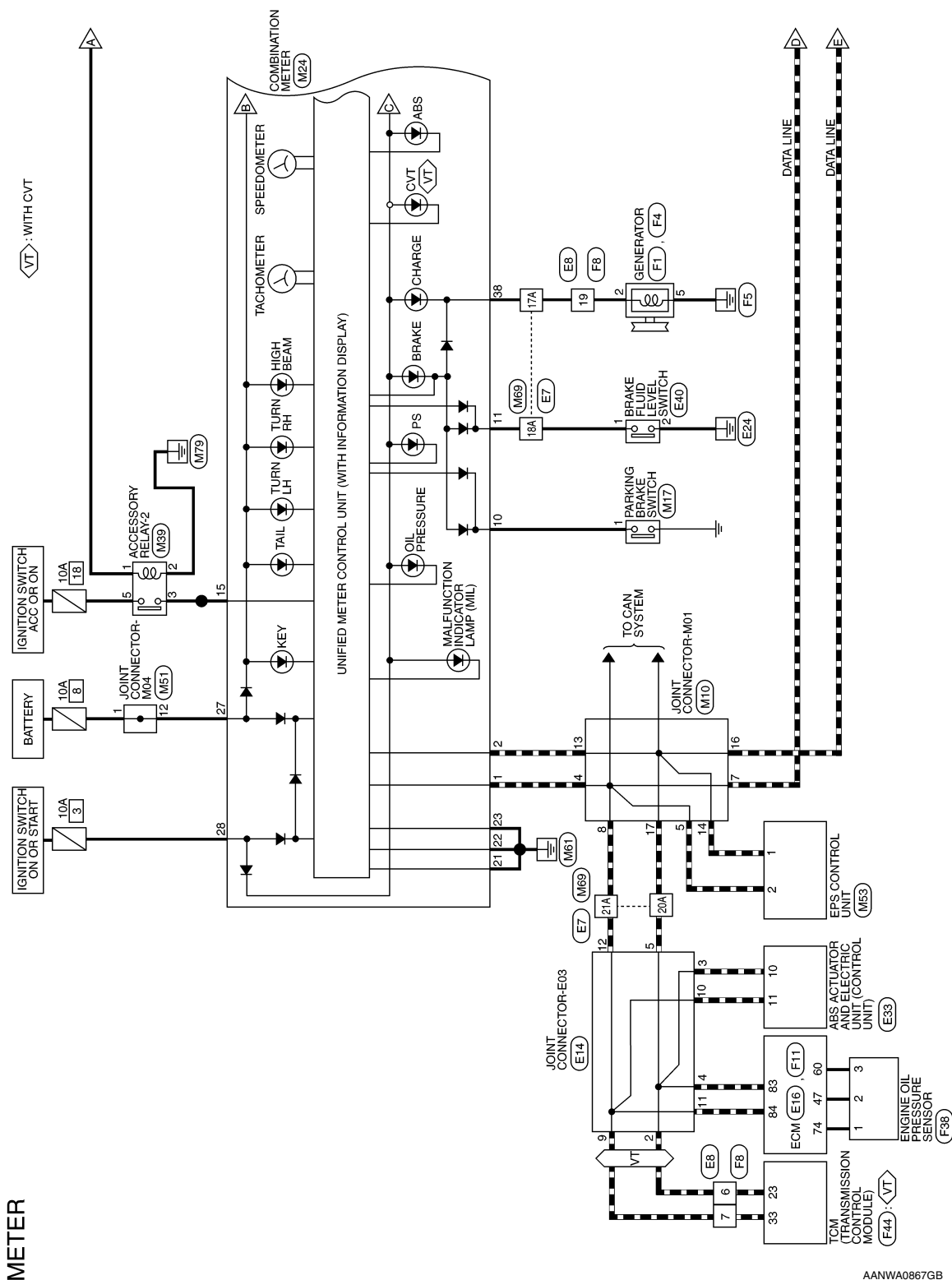
< WIRING DIAGRAM >

WIRING DIAGRAM

METER SYSTEM

Wiring Diagram

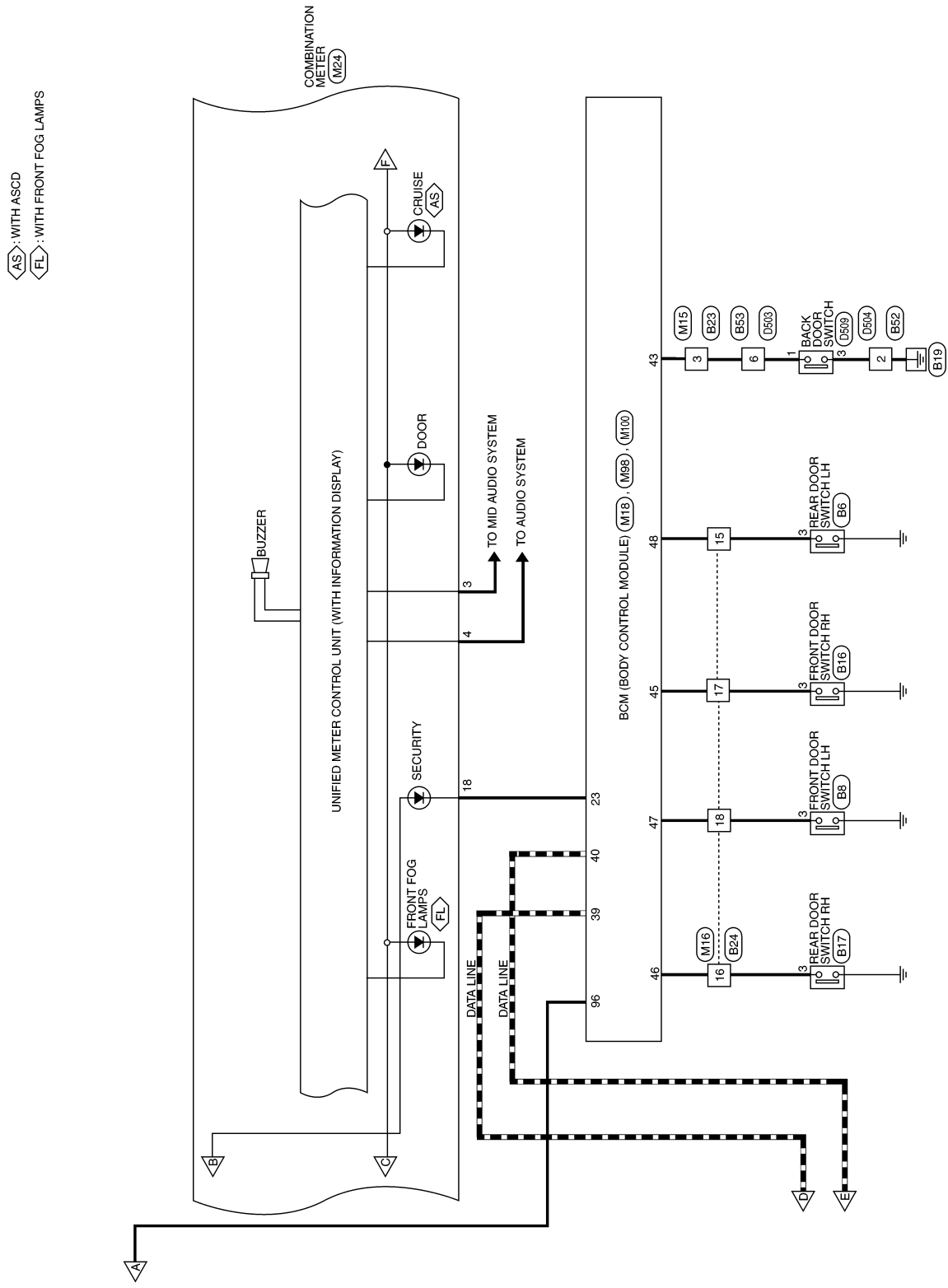
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METER SYSTEM

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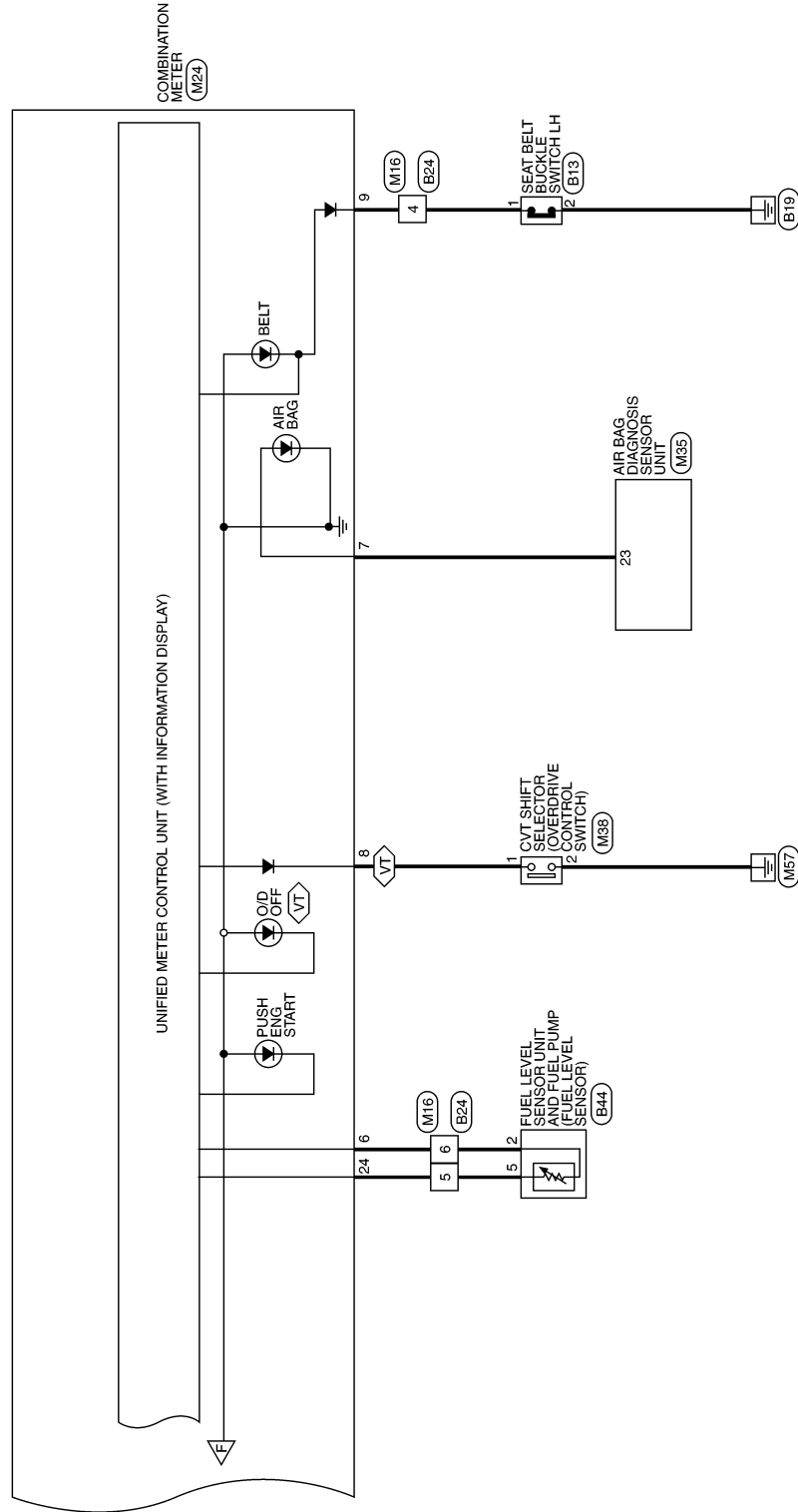


MWI

METER SYSTEM

< WIRING DIAGRAM >

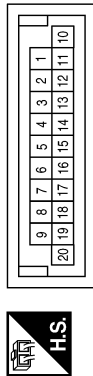
VT : WITH CVT



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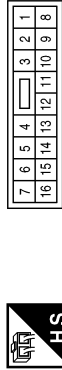
METER CONNECTORS

Connector No.	M10
Connector Name	JOINT CONNECTOR-M01
Connector Color	BLUE



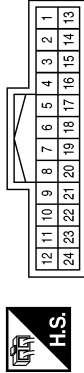
Terminal No.	Color of Wire	Signal Name
4	L	-
5	L	-
7	L	-
8	L	-
13	P	-
14	P	-
16	P	-
17	P	-

Connector No.	M15
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	P	-

Connector No.	M16
Connector Name	WIRE TO WIRE
Connector Color	WHITE



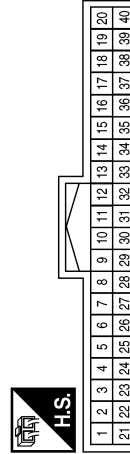
Terminal No.	Color of Wire	Signal Name
4	V	-
5	GR	-
6	W	-
15	W	-
16	BR	-
17	O	-
18	SB	-

Connector No.	M17
Connector Name	PARKING BRAKE SWITCH
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	SB	-

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
23	R/Y	SECURITY INDICATOR OUTPUT
39	L	CAN-H
40	P	CAN-L

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METER SYSTEM

< WIRING DIAGRAM >

Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE



20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21

Terminal No.	Color of Wire	Signal Name
1	L	CAN-H
2	P	CAN-L
3	SB	2 P/R
4	LG	8 P/R
5	-	-
6	W	FM SIG
7	V	AIR BAG
8	P	O/D OFF

Terminal No.	Color of Wire	Signal Name
9	V	BELT
10	SB	PKB SW
11	BR	BRAKE OIL SW
12	-	-
13	-	-
14	-	-
15	R	ACC SW
16	-	-
17	-	-
18	R/Y	SECURITY
19	-	-
20	-	-
21	B	GND (ILLUMINATION)
22	B	GND (POWER)
23	B	GND (CIRCUIT)
24	GR	FM GND
25	-	-

Terminal No.	Color of Wire	Signal Name
26	-	-
27	RW	BAT
28	GR	IGN
29	-	-
30	-	-
31	-	-
32	-	-
33	-	-
34	-	-
35	-	-
36	-	-
37	-	-
38	Y	CHG
39	-	-
40	-	-

Connector No.	M35
Connector Name	AIR BAG DIAGNOSIS SENSOR UNIT
Connector Color	YELLOW



8	9	7	6	2	5	4	3
19	52	54	23	24	22		
18	51	53	60	59	25		1

Connector No.	M38
Connector Name	CVT SHIFT SELECTOR
Connector Color	WHITE



1	2	3	4
5	6	7	8

Connector No.	M39
Connector Name	ACCESSORY RELAY-2
Connector Color	BLUE



3	5
2	1

Terminal No.	Color of Wire	Signal Name
23	V	AIRBAG W/L

Terminal No.	Color of Wire	Signal Name
1	P	-
2	B/W	-

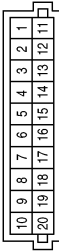
Terminal No.	Color of Wire	Signal Name
1	SB	-
2	B	-
3	L	-
5	O	-

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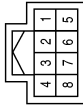
METER SYSTEM

< WIRING DIAGRAM >

Connector No.	M51
Connector Name	JOINT CONNECTOR-M04
Connector Color	GRAY



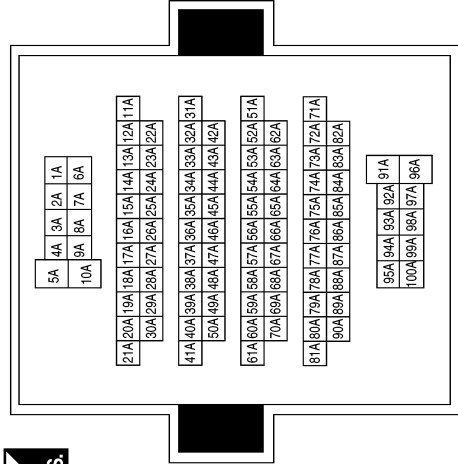
Connector No.	M53
Connector Name	EPS CONTROL UNIT
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	LG	-
12	R/W	-

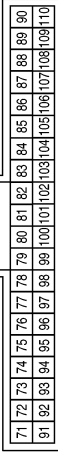
Terminal No.	Color of Wire	Signal Name
1	P	CAN-L
2	L	CAN-H

Connector No.	M69
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
17A	Y	-
18A	BR	-
20A	P	-
21A	L	-

Connector No.	M98
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
96	SB	ACC RELAY OUTPUT

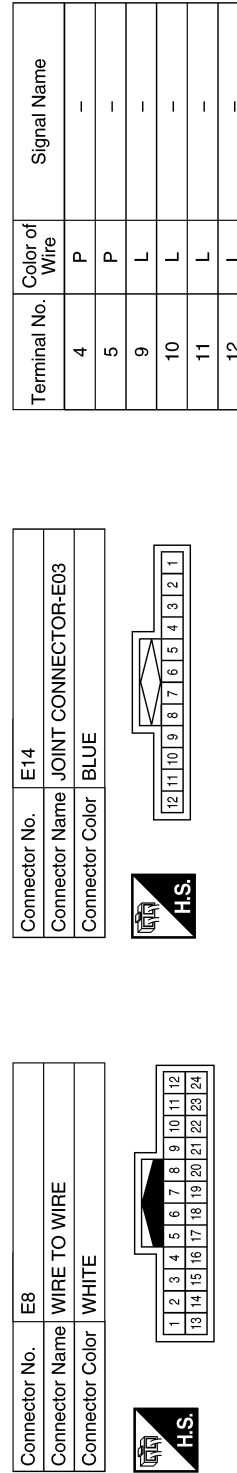
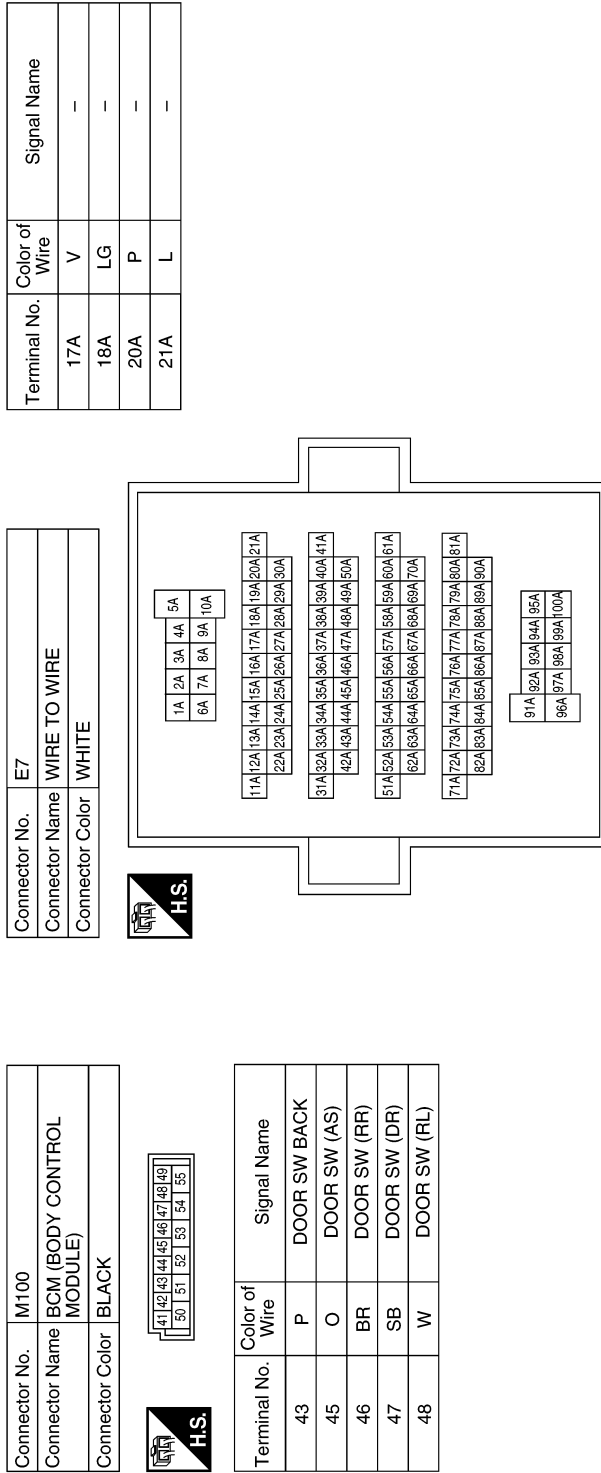
AANIA1739GB

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METER SYSTEM

< WIRING DIAGRAM >

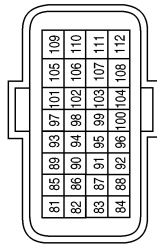


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METER SYSTEM

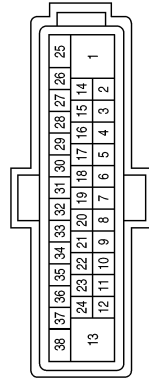
< WIRING DIAGRAM >

Connector No.	E16
Connector Name	ECM
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
83	P	CAN-L
84	L	CAN-H

Connector No.	E33
Connector Name	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
10	P	CAN-L
11	L	CAN-H

Connector No.	E40
Connector Name	BRAKE FLUID LEVEL SWITCH
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	LG	-
2	B	-

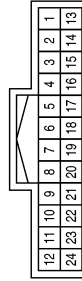
Connector No.	F1
Connector Name	GENERATOR
Connector Color	BLACK



Connector No.	F4
Connector Name	GENERATOR
Connector Color	-



Connector No.	F8
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	LW	-

Terminal No.	Color of Wire	Signal Name
5	B/Y	-

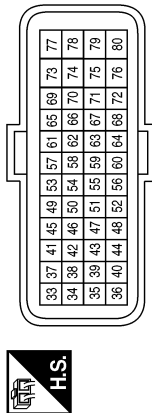
Terminal No.	Color of Wire	Signal Name
6	P/L	-
7	L/G	-
19	LW	-

AANIA1741GB

METER SYSTEM

< WIRING DIAGRAM >

Connector No.	F11
Connector Name	ECM
Connector Color	BROWN



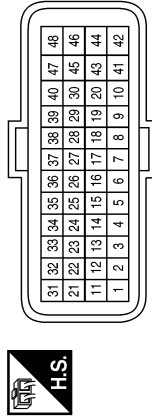
Terminal No.	Color of Wire	Signal Name
47	Y	OILPRES
60	L	GNDA - OILPRES
74	O	AVCC1 - OILPRES

Connector No.	F38
Connector Name	ENGINE OIL PRESSURE SENSOR
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	O	-
2	Y	-
3	L	-

Connector No.	F44
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
23	P/L	CAN-L
33	L/G	CAN-H

Connector No.	B6
Connector Name	REAR DOOR SWITCH LH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	V	-

Connector No.	B8
Connector Name	FRONT DOOR SWITCH LH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	LG	-

Connector No.	B13
Connector Name	SEAT BELT BUCKLE SWITCH LH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	O	-
2	B	-

METER SYSTEM

< WIRING DIAGRAM >

Connector No.	B23
Connector Name	WIRE TO WIRE
Connector Color	WHITE



1	2	3	4	5	6	7		
8	9	10	11	12	13	14	15	16

Terminal No.	3
Color of Wire	P
Signal Name	—

Connector No.	B17
Connector Name	REAR DOOR SWITCH RH
Connector Color	WHITE



1	2	3	4
---	---	---	---

Terminal No.	3
Color of Wire	R
Signal Name	—

Connector No.	B16
Connector Name	FRONT DOOR SWITCH RH
Connector Color	WHITE



1	2	3	4
---	---	---	---

Terminal No.	3
Color of Wire	L
Signal Name	—

Connector No.	B52
Connector Name	WIRE TO WIRE
Connector Color	WHITE



4	3	2	1
---	---	---	---

Terminal No.	2
Color of Wire	B
Signal Name	—

Connector No.	B44
Connector Name	FUEL LEVEL SENSOR UNIT AND FUEL PUMP
Connector Color	GRAY



1	2	3	4	5
---	---	---	---	---

Terminal No.	2	5
Color of Wire	R	P
Signal Name	—	—

Connector No.	B24
Connector Name	WIRE TO WIRE
Connector Color	WHITE



1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24

Terminal No.	4	5	6	15	16	17	18
Color of Wire	O	P	R	V	R	L	LG
Signal Name	—	—	—	—	—	—	—

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METER SYSTEM

< WIRING DIAGRAM >

Connector No.	D504
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	B	-

Connector No.	D503
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
6	P	-

Connector No.	B53
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
6	P	-

Connector No.	D509
Connector Name	BACK DOOR SWITCH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	P	-
3	B	-

AANIA1744GB

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

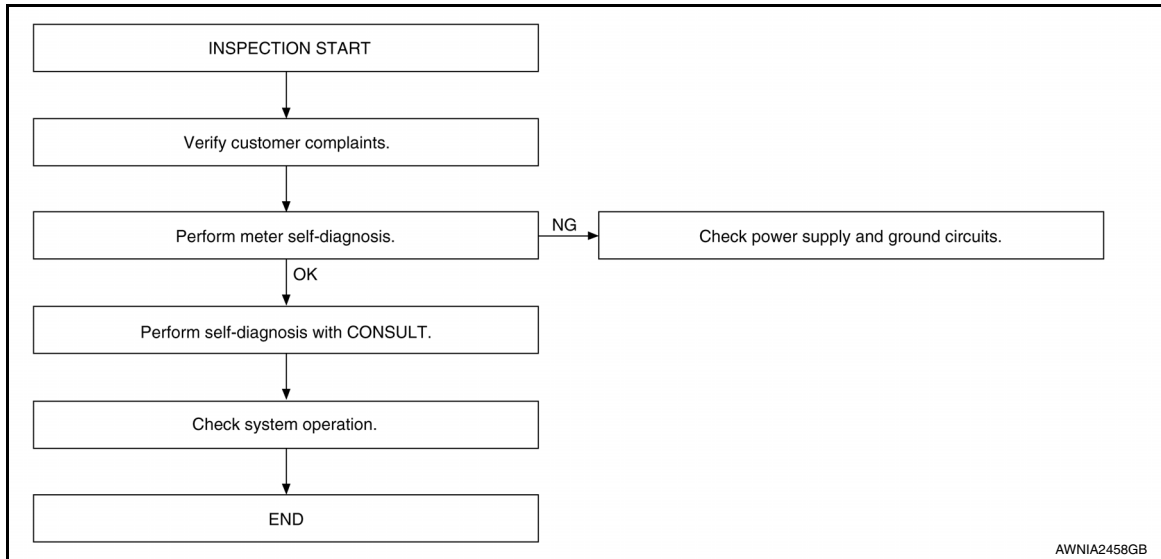
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:000000009549347

OVERALL SEQUENCE



DETAILED FLOW

1.CONFIRM SYMPTOM

Confirm symptom or customer complaint.

>> GO TO 2.

2.SELF-DIAGNOSIS OF COMBINATION METER

Perform self-diagnosis of combination meter. Refer to [MWI-14, "On Board Diagnosis Function"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> If self-diagnosis will not start, check power supply and ground circuit of combination meter. Refer to [MWI-39, "COMBINATION METER : Diagnosis Procedure"](#). If power supply and ground circuits are OK, replace combination meter. Refer to [MWI-48, "Removal and Installation"](#).

3.CHECK COMBINATION METER WITH CONSULT

Select METER/M&A on CONSULT and perform self-diagnosis of combination meter. Refer to [MWI-15, "CONSULT Function"](#).

Is the inspection result normal?

YES >> Check symptom. GO TO 4.

NO >> Refer to [MWI-20, "DTC Index"](#).

4.CHECK SYSTEM OPERATION

Check the combination meter to verify that the repair has been completed successfully.

Is the inspection result normal?

YES >> Inspection End.

NO >> GO TO 1.

U1000 CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

DTC Logic

INFOID:000000009549371

DTC DETECTION LOGIC

DTC	Display Item	Malfunction detected condition	Possible malfunction
U1000	CAN COMM CIRC [U1000]	When combination meter is not receiving CAN communication signals for 2 seconds or more.	Combination meter

Diagnosis Procedure

INFOID:000000009549372

1. CHECK CAN COMMUNICATION

Select SELF-DIAG RESULTS mode for METER/M&A with CONSULT.

>> GO TO LAN system. Refer to [LAN-15, "Trouble Diagnosis Flow Chart"](#).

U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

U1010 CONTROL UNIT (CAN)

Description

INFOID:0000000009549373

Initial diagnosis of combination meter.

DTC Logic

INFOID:0000000009549374

DTC DETECTION LOGIC

DTC	Display Item	Malfunction detected condition	Possible malfunction
U1010	CONTROL UNIT (CAN) [U1010]	When detecting error during the initial diagnosis of the CAN controller of combination meter.	Combination meter

Diagnosis Procedure

INFOID:0000000009549375

1. REPLACE COMBINATION METER

When DTC U1010 is detected, replace combination meter. Refer to [MWI-48. "Removal and Installation"](#).

>> Inspection End.

MWI

B2205 VEHICLE SPEED

< DTC/CIRCUIT DIAGNOSIS >

B2205 VEHICLE SPEED

Description

INFOID:000000009549376

The ABS actuator and electric unit (control unit) provides a vehicle speed signal to the combination meter via CAN communication lines.

DTC Logic

INFOID:000000009549377

DTC DETECTION LOGIC

DTC	Display Item	Malfunction detected condition	Possible malfunction
B2205	VEHICLE SPEED CIRC [B2205]	Malfunction is detected when an erroneous speed signal is received for 2 seconds or more.	• Combination meter • ABS actuator and electric unit (control unit)

Diagnosis Procedure

INFOID:000000009549378

1. CHECK COMBINATION METER INPUT SIGNAL

1. Start engine and select METER/M&A on CONSULT.
2. Using SPEED METER on DATA MONITOR, compare the value of DATA MONITOR with speedometer pointer of combination meter. Speedometer and DATA MONITOR indications should be close.

Is the inspection result normal?

- YES >> Perform ABS actuator and electric unit (control unit) self-diagnosis. Refer to [BRC-19, "CONSULT Function \(ABS\)"](#).
- NO >> Replace combination meter. Refer to [MWI-48, "Removal and Installation"](#).

B2267 ENGINE SPEED

< DTC/CIRCUIT DIAGNOSIS >

B2267 ENGINE SPEED

Description

INFOID:000000009549379

The engine speed signal is transmitted from ECM to the combination meter via CAN communication.

DTC Logic

INFOID:000000009549380

DTC DETECTION LOGIC

DTC	Display Item	Malfunction detected condition	Possible malfunction
B2267	TACHO METER [B2267]	ECM continuously transmits abnormal engine speed signals for 2 seconds or more	• Crankshaft position sensor (POS) • ECM

Diagnosis Procedure

INFOID:000000009549381

1.PERFORM SELF-DIAGNOSIS OF ECM

Perform Self Diagnostic Result of ECM, and repair or replace malfunctioning parts.

>> Refer to [EC-53, "CONSULT Function"](#).

MWI

B2268 WATER TEMP

< DTC/CIRCUIT DIAGNOSIS >

B2268 WATER TEMP

Description

INFOID:000000009549382

The engine coolant temperature signal is transmitted from ECM to the combination meter via CAN communication.

DTC Logic

INFOID:000000009549383

DTC DETECTION LOGIC

DTC	Display Item	Malfunction detected condition	Possible malfunction
B2268	WATER TEMP METER [B2268]	ECM continuously transmits abnormal engine coolant temperature signals for 60 seconds or more	• Engine coolant temperature sensor • ECM

Diagnosis Procedure

INFOID:000000009549384

1. PERFORM SELF-DIAGNOSIS OF ECM

Perform Self Diagnostic Result of ECM, and repair or replace malfunctioning parts.

>> Refer to [EC-53. "CONSULT Function"](#).

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

POWER SUPPLY AND GROUND CIRCUIT COMBINATION METER

COMBINATION METER : Diagnosis Procedure

INFOID:000000009549348

Regarding Wiring Diagram information, refer to [MWI-22, "Wiring Diagram"](#).

1. CHECK FUSE

Check that the following fuses are not blown.

Power source	Fuse No.
Battery	8
Ignition switch ON or START	3
Ignition switch ACC or ON	18

Is the fuse blown?

YES >> GO TO 2.

NO >> Replace the blown fuse after repairing the affected circuit.

2. POWER SUPPLY CIRCUIT CHECK

1. Disconnect combination meter connector.
2. Check voltage between combination meter harness connector M24, terminals 27, 28, 15 and ground.

Terminals			Ignition switch position			
(+) (+)		(-)	OFF	ACC	ON	START
Connector	Terminal					
M24	27	Ground	Battery voltage	Battery voltage	Battery voltage	Battery voltage
	28		0V	0V	Battery voltage	Battery voltage
	15		0V	Battery voltage	Battery voltage	0V

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

3. GROUND CIRCUIT CHECK

1. Turn ignition switch OFF.
2. Disconnect combination meter connector.
3. Check continuity between combination meter harness connector M24, terminals 21, 22, 23 and ground.

Terminals			Continuity
(+) (+)		(-)	
Connector	Terminal		
M24	21	Ground	Yes
	22		
	23		

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connector.

BODY CONTROL SYSTEM

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

BODY CONTROL SYSTEM : Diagnosis Procedure

INFOID:000000009643044

Regarding Wiring Diagram information, refer to [BCS-48. "Wiring Diagram"](#).

1.CHECK FUSES AND FUSIBLE LINK

Check that the following fuses and fusible link are not blown.

Terminal No.	Signal name	Fuses and fusible link No.
57	Battery power supply	12 (10A)
70		G (40A)

Is the fuse blown?

YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

1. Disconnect BCM connector M99.
2. Check voltage between BCM connector M99 and ground.

BCM		Ground	Voltage
Connector	Terminal		
M99	57	—	Battery voltage
	70		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK GROUND CIRCUIT

Check continuity between BCM connector M99 and ground.

BCM		Ground	Continuity
Connector	Terminal		
M99	67	—	Yes

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair harness or connector.

FUEL LEVEL SENSOR SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

FUEL LEVEL SENSOR SIGNAL CIRCUIT

Description

INFOID:000000009549351

The fuel level sensor unit and fuel pump detects the approximate fuel level in the fuel tank and transmits the fuel level signal to the combination meter.

Component Function Check

INFOID:000000009549352

1.COMBINATION METER INPUT SIGNAL

1. Select METER/M&A on CONSULT.
2. Using FUEL METER of DATA MONITOR, compare the DATA MONITOR value with the fuel gauge position.

Fuel gauge indication position	Reference value of data monitor [L]
1	Approx. 39.7
3/4	Approx. 32.9
1/2	Approx. 22.7
1/4	Approx. 11.9
0	Approx. 2.7

Does monitor value match fuel gauge reading?

- YES >> Inspection End.
NO >> Replace combination meter. Refer to [MWI-48, "Removal and Installation"](#).

Diagnosis Procedure

INFOID:000000009549353

Regarding Wiring Diagram information, refer to [MWI-22, "Wiring Diagram"](#).

1.CHECK HARNESS CONNECTOR

1. Turn ignition switch OFF.
2. Check combination meter and fuel level sensor unit terminals (meter-side and harness-side) for poor connection.

Is the inspection result normal?

- YES >> GO TO 2.
NO >> Repair or replace terminals or connectors.

2.CHECK FUEL LEVEL SENSOR UNIT CIRCUIT

1. Disconnect combination meter harness connector M24 and fuel level sensor unit and fuel pump harness connector B44.
2. Check continuity between combination meter harness connector M24 terminal 6 and fuel level sensor unit and fuel pump harness connector B44 terminal 2.

Connector	Terminal	Connector	Terminal	Continuity
M24	6	B44	2	Yes

3. Check continuity between fuel level sensor unit and fuel pump harness connector B44 terminal 2 and ground.

Connector	Terminal	Ground	Continuity
B44	2		No

Is the inspection result normal?

- YES >> GO TO 3.
NO >> Repair harness or connector.

FUEL LEVEL SENSOR SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

3.CHECK FUEL LEVEL SENSOR GROUND CIRCUIT

1. Check continuity between combination meter harness connector M24 terminal 24 and fuel level sensor unit and fuel pump harness connector B44 terminal 5.

Connector	Terminal	Connector	Terminal	Continuity
M24	24	B44	5	Yes

2. Check continuity between fuel level sensor unit and fuel pump harness connector B44 terminal 5 and ground.

Connector	Terminal	Ground	Continuity
B44	5		No

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair harness or connector.

4.CHECK INSTALLATION CONDITION

Check fuel level sensor unit installation, and verify the float arm does not interfere or bind with the internal components in the fuel tank.

Is the inspection result normal?

YES >> Inspection End.

NO >> Install the fuel level sensor unit properly.

Component Inspection

INFOID:000000009549354

1.REMOVE FUEL LEVEL SENSOR UNIT

Remove the fuel level sensor unit. Refer to [FL-6, "Removal and Installation"](#).

>> GO TO 2.

2.CHECK FUEL LEVEL SENSOR UNIT

Check the resistance between fuel level sensor unit and fuel pump.

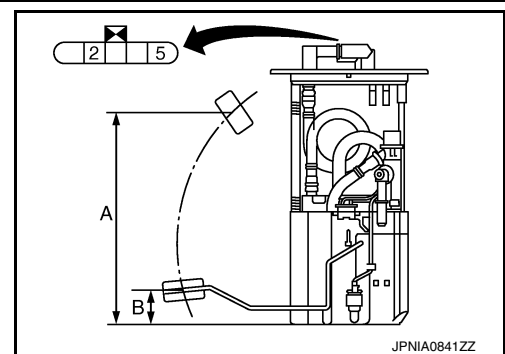
Terminals		Condition	Resistance (Ω) (Approx.)	Height [mm (in)]
Fuel level sensor unit				
2	5	Full* (A)	51	168.2 (6.62)
		Empty* (B)	283	17.5 (0.69)

*: When float rod is in contact with stopper.

Is inspection result OK?

YES >> Inspection End.

NO >> Replace fuel level sensor unit and fuel pump. Refer to [FL-6, "Removal and Installation"](#).



THE FUEL GAUGE INDICATOR DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

THE FUEL GAUGE INDICATOR DOES NOT OPERATE

Description

INFOID:000000009549355

Fuel gauge will not indicate from a certain position.

Diagnosis Procedure

INFOID:000000009549356

1.CHECK COMBINATION METER INPUT SIGNAL

1. Select METER/M&A on CONSULT.
2. Using DATA MONITOR, compare the monitor value with the fuel gauge reading on the combination meter.
Refer to [MWI-41, "Component Function Check"](#).

Does monitor value match fuel gauge reading?

YES >> GO TO 2.

NO >> Replace combination meter. Refer to [MWI-48, "Removal and Installation"](#).

2.CHECK FUEL LEVEL SENSOR SIGNAL CIRCUIT

Check the fuel level sensor signal circuit. Refer to [MWI-41, "Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.COMPONENT INSPECTION

Perform a component inspection on the fuel level sensor unit. Refer to [MWI-42, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace fuel level sensor unit. Refer to [FL-6, "Removal and Installation"](#).

4.CHECK FLOAT INTERFERENCE

Check that the float arm does not interfere or bind with components in the fuel tank.

Is the inspection result normal?

YES >> Replace combination meter. Refer to [MWI-48, "Removal and Installation"](#).

NO >> Repair or replace malfunctioning parts.

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M

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O

P

THE OIL PRESSURE WARNING LAMP DOES NOT TURN ON

< SYMPTOM DIAGNOSIS >

THE OIL PRESSURE WARNING LAMP DOES NOT TURN ON

Description

INFOID:000000009549357

The engine oil pressure warning lamp stays off when the ignition switch is turned ON.

Diagnosis Procedure

INFOID:000000009549358

1. CHECK COMBINATION METER ENGINE OIL PRESSURE WARNING LIGHT

1. Select METER/M&A on CONSULT.
2. Observe OIL W/L DATA MONITOR while operating the ignition switch.

Component	Condition	CONSULT
Engine oil pressure warning light	Ignition ON	ON
	Ignition OFF	OFF

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace combination meter. Refer to [MWI-48, "Removal and Installation"](#).

THE OIL PRESSURE WARNING LAMP DOES NOT TURN OFF

< SYMPTOM DIAGNOSIS >

THE OIL PRESSURE WARNING LAMP DOES NOT TURN OFF

Description

INFOID:000000009549359

The engine oil pressure warning lamp remains on while the engine is running (normal oil pressure).

Diagnosis Procedure

INFOID:000000009549360

1.CHECK COMBINATION METER INPUT SIGNAL

1. Start the engine and select METER/M&A on CONSULT.
2. Observe OIL W/L DATA MONITOR and the operation of the engine oil pressure warning lamp on the combination meter.

Component	Condition	CONSULT
Engine oil pressure warning light	Engine running	OFF

Is the inspection result normal?

- YES >> Perform ECM self-diagnosis. Refer to [EC-53, "CONSULT Function"](#).
- NO >> Replace combination meter. Refer to [MWI-48, "Removal and Installation"](#).

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MWI

THE DOOR OPEN WARNING CONTINUES DISPLAYING, OR DOES NOT DISPLAY

< SYMPTOM DIAGNOSIS >

THE DOOR OPEN WARNING CONTINUES DISPLAYING, OR DOES NOT DISPLAY

Description

INFOID:000000009549367

- The door ajar warning is displayed even though all of the doors are closed.
- The door ajar warning is not displayed even though a door is ajar.

Diagnosis Procedure

INFOID:000000009549368

1.CHECK BCM INPUT SIGNAL

Check the BCM input signal. Refer to [DLK-84. "Component Function Check"](#).

Is the inspection result normal?

- YES >> GO TO 2.
NO >> GO TO 3.

2.CHECK COMBINATION METER INPUT SIGNAL

Select the METER/M&A Data Monitor and check the DOOR W/L monitor value while opening and closing doors.

Monitor item	Condition	Status
DOOR W/L	Door open	ON
	Door closed	OFF

Is the inspection result normal?

- YES >> Replace combination meter. Refer to [MWI-48. "Removal and Installation"](#).
NO >> Replace BCM. Refer to [BCS-67. "Removal and Installation"](#).

3.CHECK DOOR SWITCH SIGNAL CIRCUIT

Check the door switch signal circuit. Refer to [DLK-84. "Diagnosis Procedure"](#).

Is the inspection result normal?

- YES >> GO TO 4.
NO >> Repair or replace harness or connector.

4.CHECK DOOR SWITCH

Check the door switch. Refer to [DLK-85. "Component Inspection"](#).

Is the inspection result normal?

- YES >> Replace combination meter. Refer to [MWI-48. "Removal and Installation"](#).
NO >> Replace applicable door switch. Refer to [DLK-158. "Removal and Installation"](#).

THE PARKING BRAKE RELEASE WARNING CONTINUES DISPLAYING, OR DOES NOT DISPLAY

< SYMPTOM DIAGNOSIS >

THE PARKING BRAKE RELEASE WARNING CONTINUES DISPLAYING, OR DOES NOT DISPLAY

Description

INFOID:000000009549369

- The parking brake warning is displayed while driving the vehicle even though the parking brake is released.
- The parking brake warning is not displayed while driving the vehicle even though the parking brake is applied.

Diagnosis Procedure

INFOID:000000009549370

1.CHECK PARKING BRAKE WARNING LAMP OPERATION

1. Start engine.
2. Check the operation of the brake warning lamp while operating the parking brake.

Condition	Warning lamp status
Parking brake applied	ON
Parking brake released	OFF

Is the inspection result normal?

- YES >> Replace combination meter. Refer to [MWI-48, "Removal and Installation"](#).
NO >> GO TO 2.

2.CHECK PARKING BRAKE SWITCH

Check the parking brake switch. Refer to [BRC-59, "Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 3.
NO >> Replace parking brake switch. Refer to [PB-9, "Removal and Installation"](#).

3.CHECK PARKING BRAKE SWITCH SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Check the parking brake switch signal circuit. Refer to [BRC-58, "Diagnosis Procedure"](#).

Is the inspection result normal?

- YES >> Replace combination meter. Refer to [MWI-48, "Removal and Installation"](#).
NO >> Repair or replace harness or connector.

COMBINATION METER

< UNIT REMOVAL AND INSTALLATION >

UNIT REMOVAL AND INSTALLATION

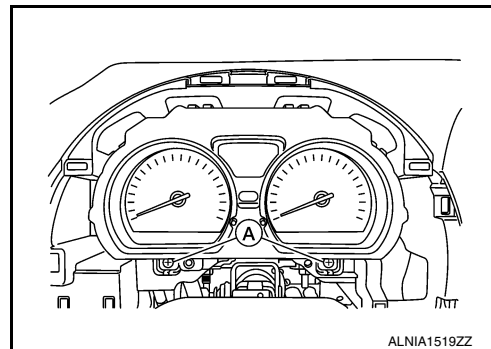
COMBINATION METER

Removal and Installation

INFOID:000000009482449

REMOVAL

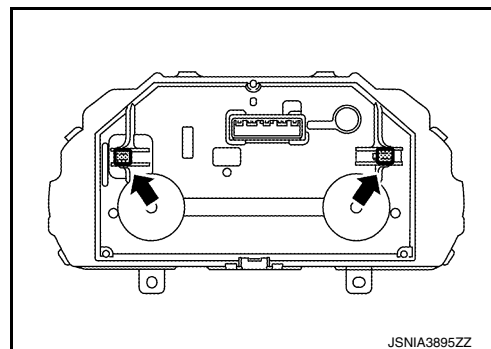
1. Disconnect negative battery terminal. Refer to [PG-69, "Removal and Installation \(Battery\)"](#).
2. Remove cluster lid A. Refer to [IP-21, "Removal and Installation"](#).
3. Remove combination meter screws (A).



4. Pull the combination meter straight out to release clips.

NOTE:

Back side of the combination meter shown for clip position (←) clarity.



5. Disconnect the harness connector from the combination meter.

INSTALLATION

Installation is in the reverse order of removal.

COMBINATION METER

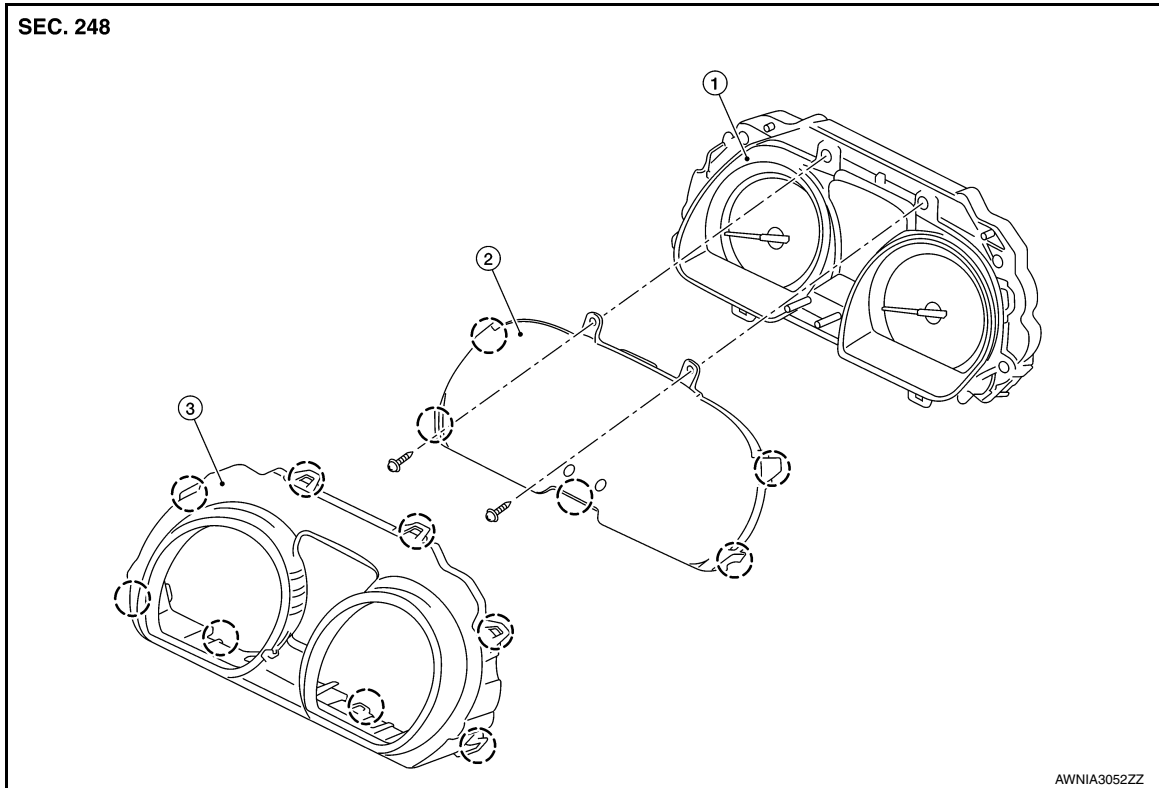
< UNIT DISASSEMBLY AND ASSEMBLY >

UNIT DISASSEMBLY AND ASSEMBLY

COMBINATION METER

Exploded View

INFOID:000000009482450



1. Combination meter

2. Combination meter lens

3. Combination meter finisher

○ Pawl

Disassembly and Assembly

INFOID:000000009482451

CAUTION:

- Do not touch the display, pointer, the inside of combination meter and the printed area of the dial during the work.
- Keep away from magnetic sources.
- Do not damage the combination meter finisher.

DISASSEMBLY

1. Remove the combination meter. Refer to [MWI-48, "Removal and Installation"](#).
2. Release the pawls and remove combination meter finisher.
3. Remove screws, then release pawls and remove combination meter lens.

ASSEMBLY

Assembly is in the reverse order of disassembly.