

SECTION **WCS**
WARNING CHIME SYSTEM

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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

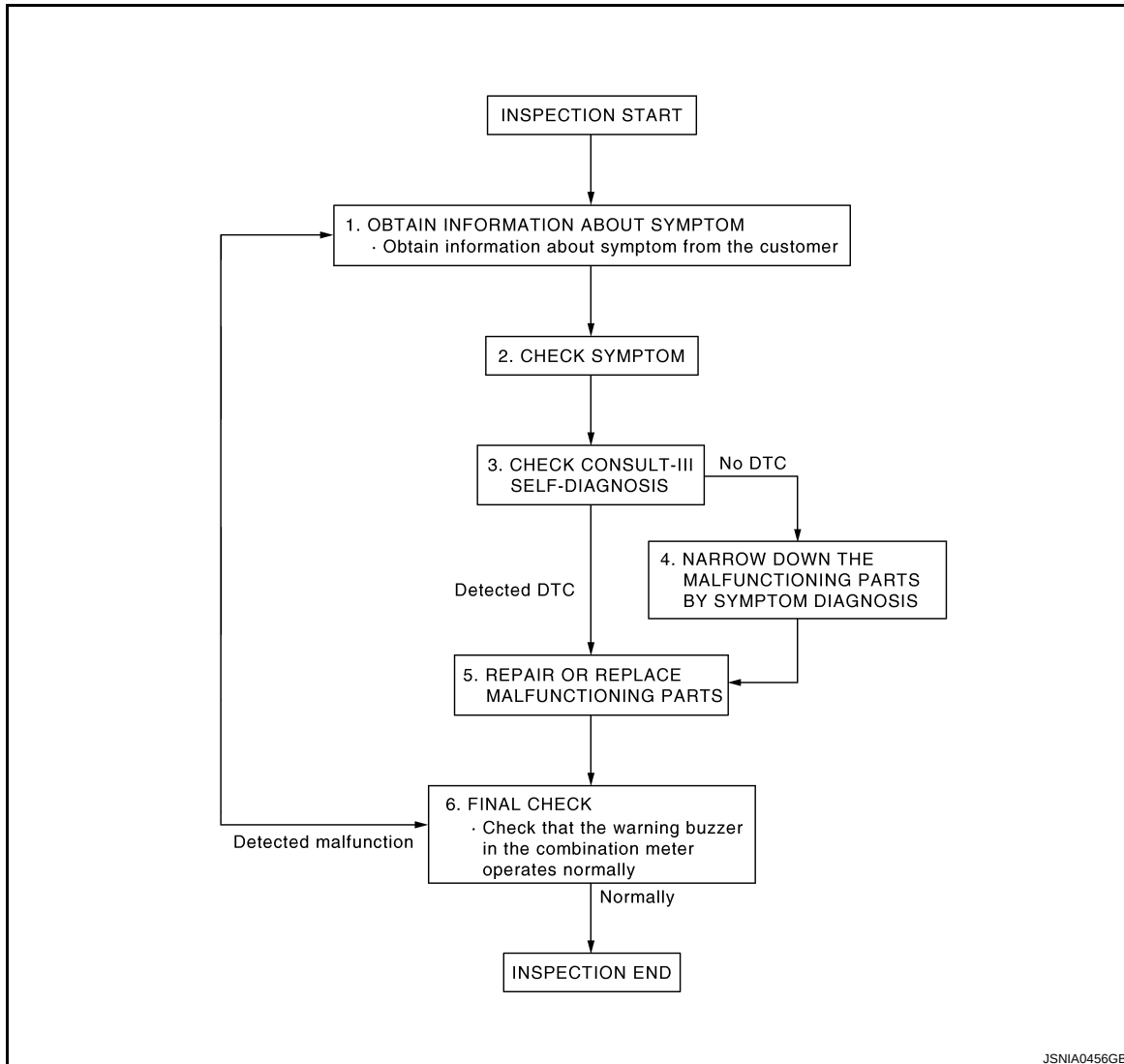
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000003838690

OVERALL SEQUENCE



DETAILED FLOW

1.OBTAIN INFORMATION ABOUT SYMPTOM

Interview the customer to obtain as much information as possible about the conditions and environment under which the malfunction occurred.

>> GO TO 2.

2.CHECK SYMPTOM

- Check the symptom based on the information obtained from the customer.
- Check if any other malfunctions are present.

>> GO TO 3.

3.CHECK CONSULT-III SELF-DIAGNOSIS RESULTS

Connect CONSULT-III and perform self-diagnosis. Refer to [WCS-12. "CONSULT-III Function \(METER/M&A\)"](#).

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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

Are self-diagnosis results normal?

YES >> GO TO 4.

NO >> GO TO 5.

4. NARROW DOWN MALFUNCTIONING PARTS BY SYMPTOM DIAGNOSIS

Perform symptom diagnosis and narrow down the malfunctioning parts.

>> GO TO 5.

5. REPAIR OR REPLACE MALFUNCTIONING PARTS

Repair or replace malfunctioning parts.

NOTE:

If DTC is displayed, erase DTC after repairing or replacing malfunctioning parts.

>> GO TO 6.

6. FINAL CHECK

Check that the warning buzzer in the combination meter operates normally.

Does it operate normally?

YES >> INSPECTION END

NO >> GO TO 1.

WARNING CHIME SYSTEM

< FUNCTION DIAGNOSIS >

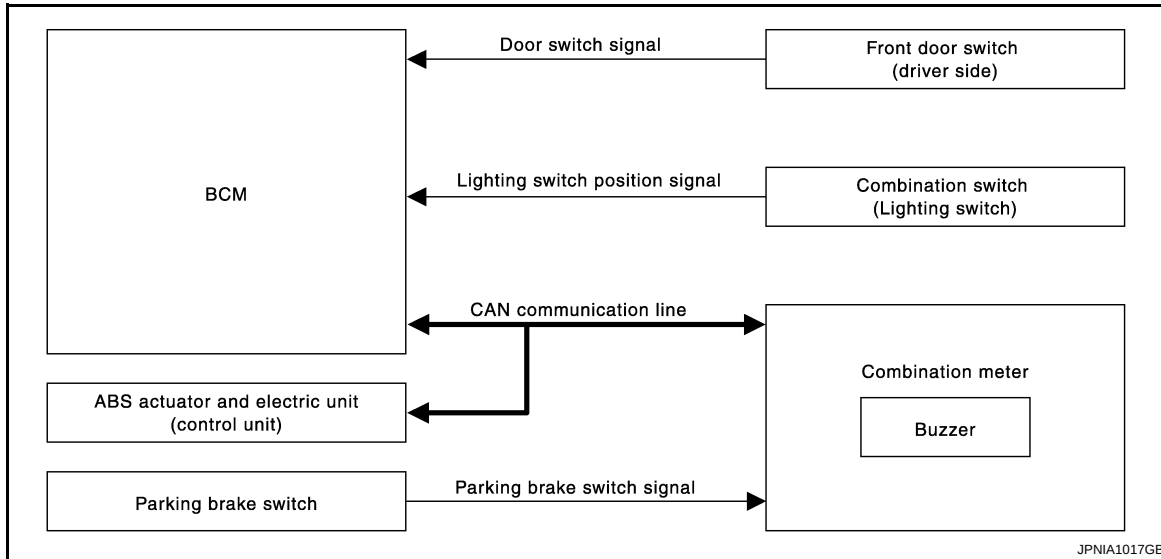
FUNCTION DIAGNOSIS

WARNING CHIME SYSTEM

WARNING CHIME SYSTEM

WARNING CHIME SYSTEM : System Diagram

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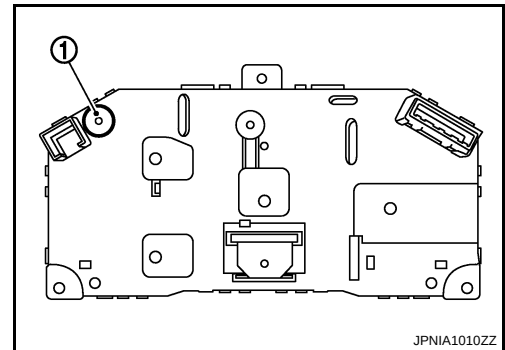


WARNING CHIME SYSTEM : System Description

INFOID:0000000003838692

COMBINATION METER

- The buzzer (1) for the warning chime system is integrated in the combination meter.
- The combination meter sounds the alarm buzzer installed in the combination meter when receiving the buzzer output signal transmitted from each unit.



BCM

BCM receives signals from various units and transmits a buzzer output signal to the combination meter via CAN communication if it judges that the warning buzzer should be activated.

BCM warning function list

Warning functions	Signal name
Light reminder warning chime	• Ignition switch signal • Lighting switch position signal • Door switch signal (driver side)

NOTE:

Parking brake release warning chime is detected by combination meter.

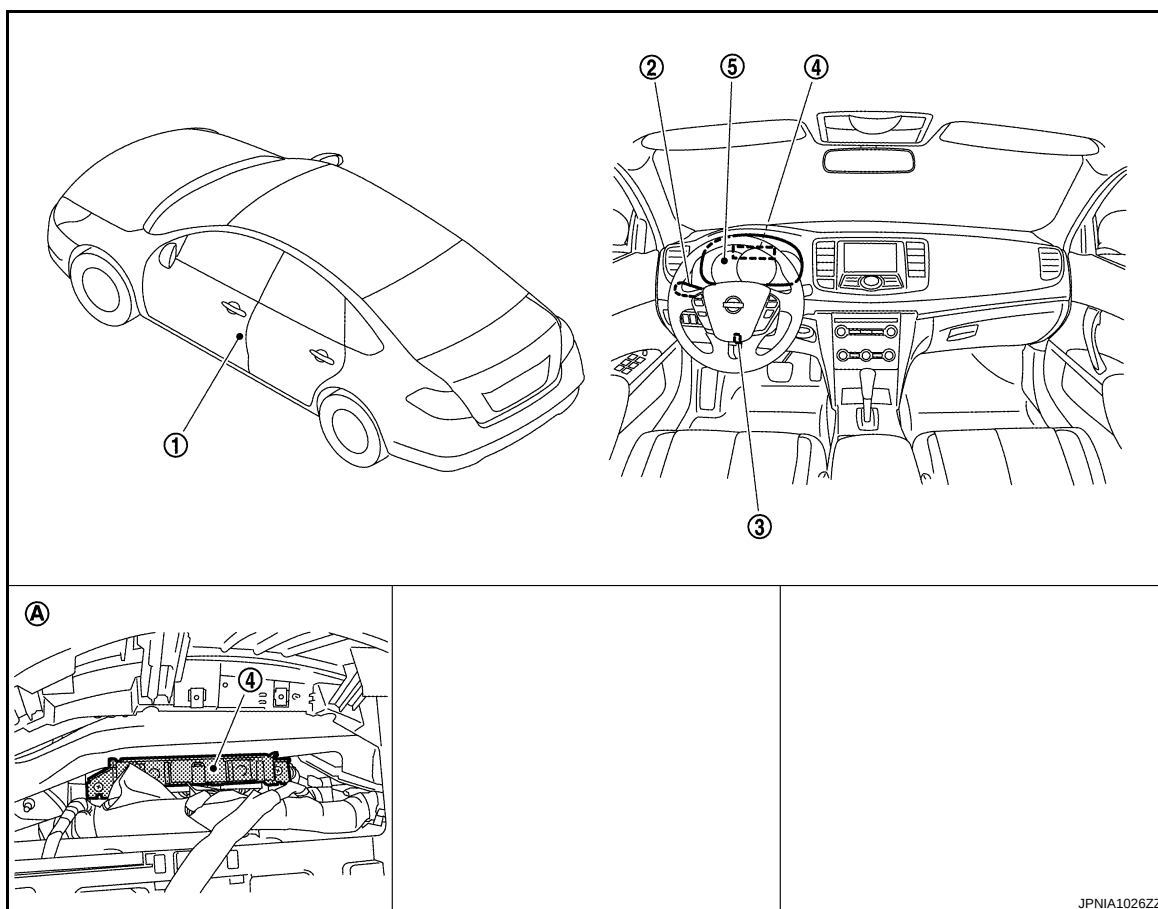
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WARNING CHIME SYSTEM

< FUNCTION DIAGNOSIS >

WARNING CHIME SYSTEM : Component Parts Location

INFOID:000000003838693



1. Front door switch (driver side)
2. Combination switch (Lighting switch)
3. Parking brake switch
4. BCM
5. Combination meter
- A. Behind the combination meter

WARNING CHIME SYSTEM : Component Description

INFOID:000000003838694

Unit	Description
Combination meter	- Receives a buzzer output signal from the BCM with CAN communication line and sounds the buzzer. - Judges whether the parking brake is released from the vehicle speed signal received from the ABS actuator and electric unit (control unit) with CAN communication line and the parking brake switch signal from the parking brake switch, and sounds the buzzer if necessary.
BCM	Transmits signals provided by various units to the combination meter with CAN communication line.
ABS actuator and electric unit (control unit)	Transmits the vehicle speed signal to combination meter with CAN communication line.
Combination switch (Lighting switch)	Transmits the lighting switch position signal to BCM.
Front door switch (driver side)	Transmits the door switch signal to BCM.
Parking brake switch	Refer to MWI-52, "Description" .

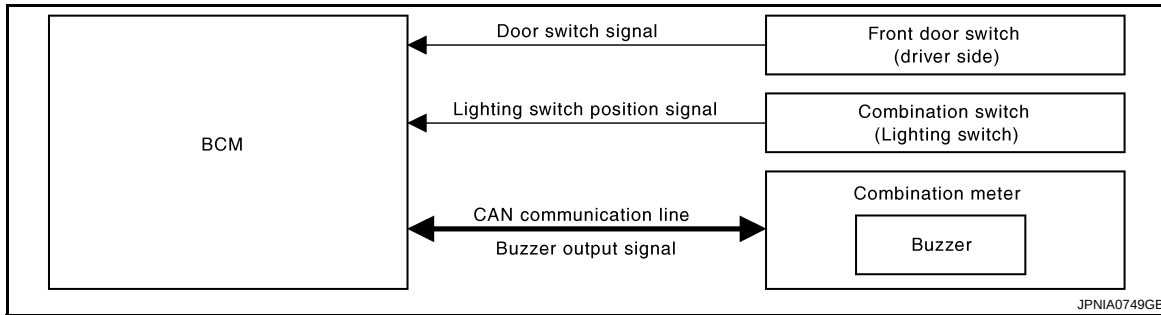
LIGHT REMINDER WARNING CHIME

WARNING CHIME SYSTEM

< FUNCTION DIAGNOSIS >

LIGHT REMINDER WARNING CHIME : System Diagram

INFOID:0000000003838695



LIGHT REMINDER WARNING CHIME : System Description

INFOID:0000000003838696

DESCRIPTION

With ignition switch in the OFF or ACC position, when the driver door is open or the lighting switch is the 1st or 2nd position, the light warning chime will sound.

- BCM detects ignition switch in the OFF or ACC position, front door switch (driver side) ON, and lighting switch in 1st or 2nd position. Then the BCM transmits the buzzer output signal (light reminder warning chime) to combination meter with CAN communication line.
- When combination meter receives buzzer output signal (light reminder warning chime), it sounds the buzzer.

WARNING OPERATION CONDITIONS

If all of the following conditions are fulfilled.

- Ignition switch is in the OFF or ACC
- Lighting switch is in the 1st or 2nd position
- Front door switch (driver side) is ON

WARNING CANCEL CONDITIONS

Warning is canceled if any of the following conditions is fulfilled.

- Lighting switch OFF
- Ignition switch ON
- Front door switch (driver side) is OFF

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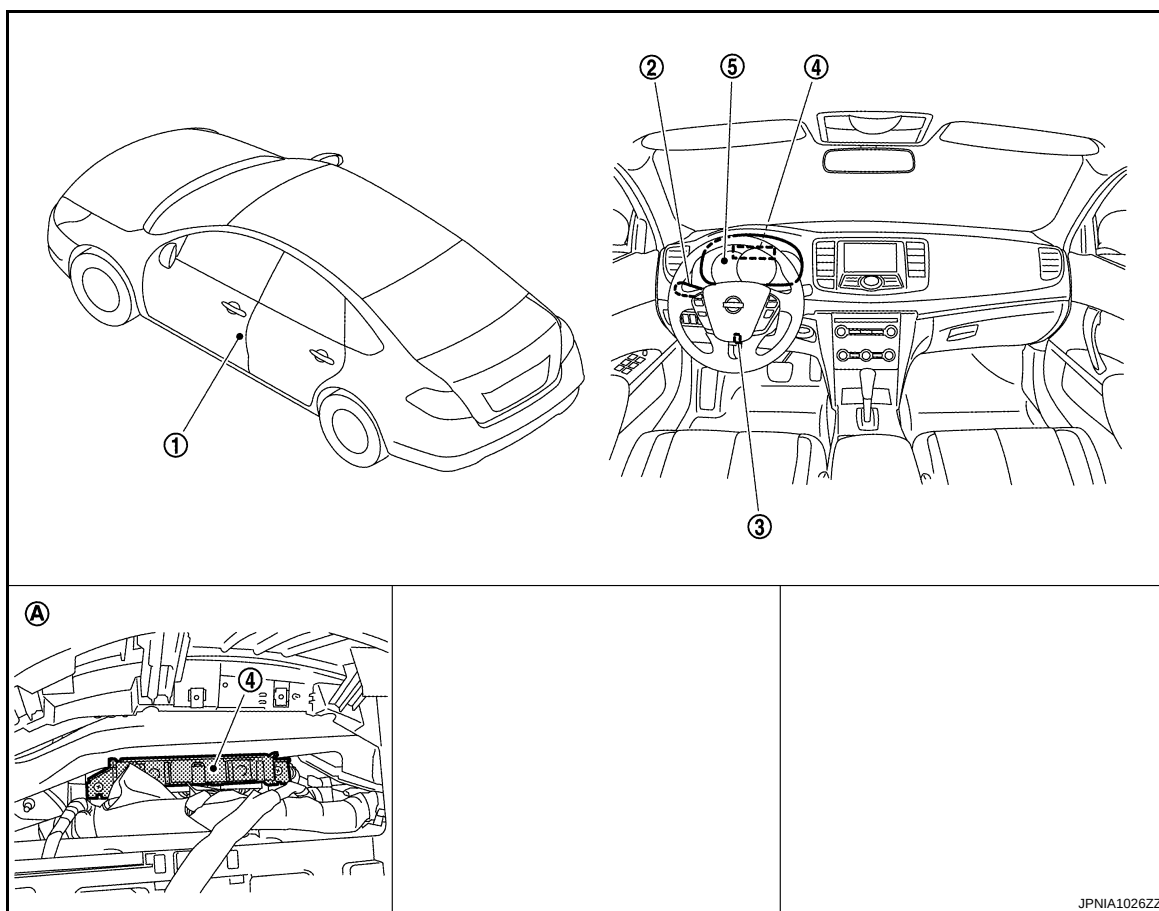
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WARNING CHIME SYSTEM

< FUNCTION DIAGNOSIS >

LIGHT REMINDER WARNING CHIME : Component Parts Location

INFOID:000000003900514



- | | | |
|------------------------------------|---|-------------------------|
| 1. Front door switch (driver side) | 2. Combination switch (Lighting switch) | 3. Parking brake switch |
| 4. BCM | 5. Combination meter | |
| A. Behind the combination meter | | |

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LIGHT REMINDER WARNING CHIME : Component Description

INFOID:000000003838698

Unit	Description
Combination meter	Receives a buzzer output signal from the BCM and sounds the buzzer.
BCM	Judges the light warning conditions from the signals provided by various switches and transmits a buzzer output signal to the combination meter via CAN communication line if necessary.
Combination switch (Lighting switch)	Transmits the lighting switch position signal to BCM.
Front door switch (driver side)	Transmits the door switch signal to BCM.

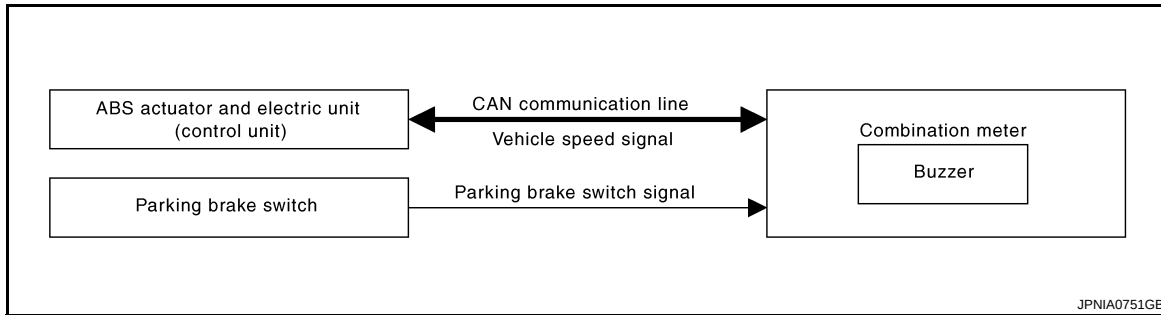
PARKING BRAKE RELEASE WARNING CHIME

WARNING CHIME SYSTEM

< FUNCTION DIAGNOSIS >

PARKING BRAKE RELEASE WARNING CHIME : System Diagram

INFOID:0000000003838699



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PARKING BRAKE RELEASE WARNING CHIME : System Description

INFOID:0000000003838700

DESCRIPTION

Parking brake release warning chime judges the remaining parking brake according to the vehicle speed signal received from the ABS actuator and electric unit (control unit) via CAN communication and the parking brake switch signal from parking brake switch to sound the warning buzzer.

WARNING OPERATION CONDITIONS

If all of the following conditions are fulfilled.

- Vehicle speed is 7 km/h (4.3 MPH) or higher
- Parking brake switch ON

WARNING CANCEL CONDITIONS

Warning is canceled if any of the following conditions are fulfilled.

- Vehicle speed is approximately 3 km/h (1.9 MPH) or less
- Parking brake switch OFF

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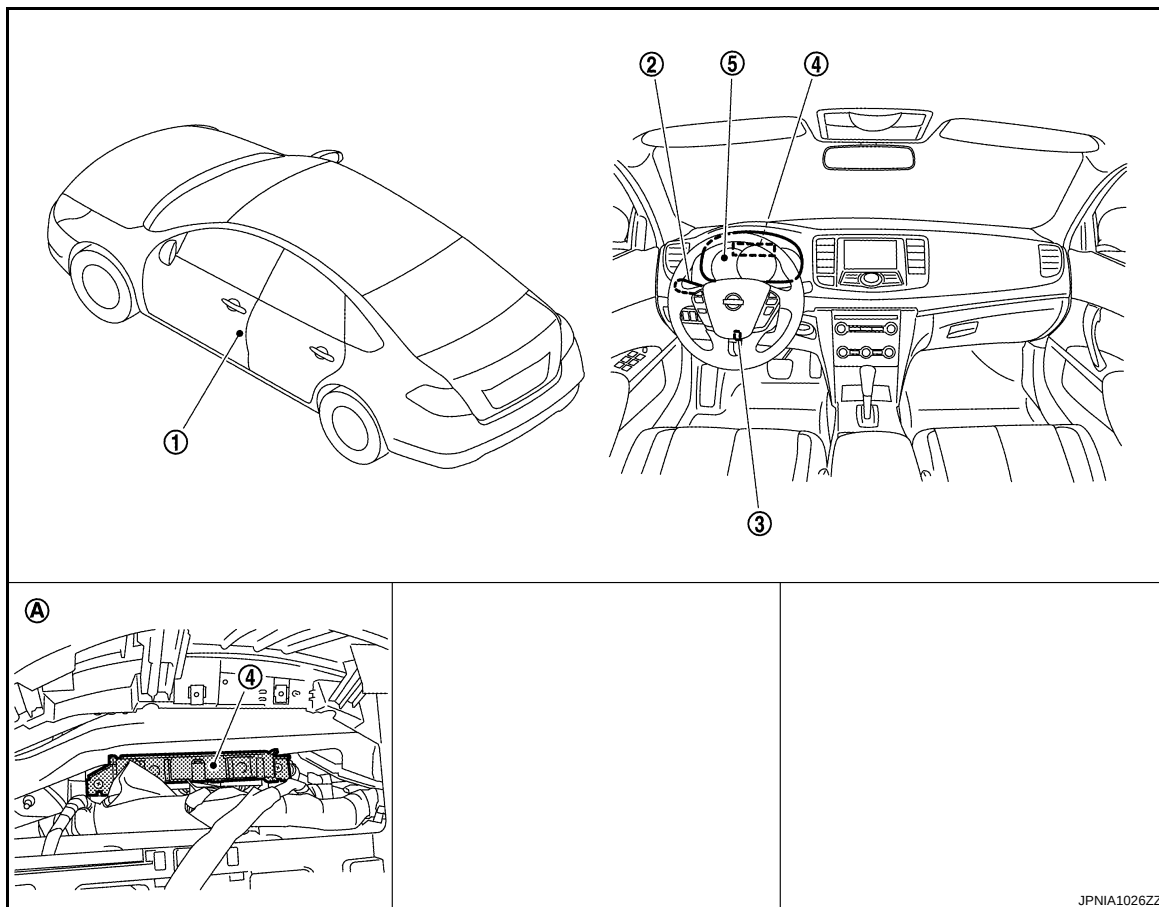
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WARNING CHIME SYSTEM

< FUNCTION DIAGNOSIS >

PARKING BRAKE RELEASE WARNING CHIME : Component Parts Location

INFOID:0000000003900515



1. Front door switch (driver side)
2. Combination switch (Lighting switch)
3. Parking brake switch
4. BCM
5. Combination meter
- A. Behind the combination meter

PARKING BRAKE RELEASE WARNING CHIME : Component Description

INFOID:0000000003838702

Unit	Description
Combination meter	Judges the remaining parking brake according to the vehicle speed signal received from the ABS actuator and electric unit (control unit) via CAN communication and the parking brake switch signal from parking brake switch and sounds the warning buzzer.
ABS actuator and electric unit (control unit)	Transmits the vehicle speed signal to the combination meter via CAN communication.
Parking brake switch	Transmits the parking brake switch signal to the combination meter.

DIAGNOSIS SYSTEM (METER)

< FUNCTION DIAGNOSIS >

DIAGNOSIS SYSTEM (METER)

Diagnosis Description

INFOID:000000003838726

SELF-DIAGNOSIS MODE

- Information display LCD segment operation can be checked in self-diagnosis mode.
- Meters/gauges can be checked in self-diagnosis mode.

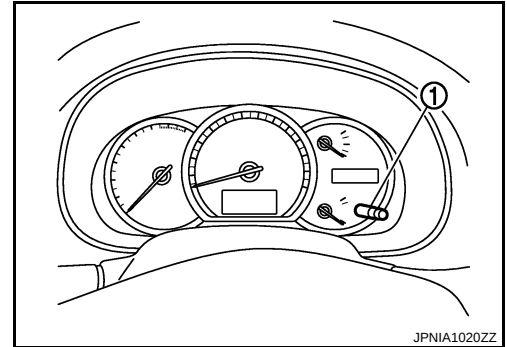
OPERATION PROCEDURE

1. Turn ignition switch ON, and switch the trip meter to "trip A" or "trip B".

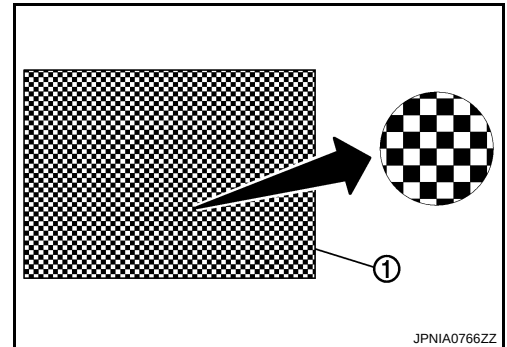
NOTE:

If the diagnosis function is activated with "trip A" displayed, the mileage on "trip A" is reset to "0000.0".
(The same way for "trip B".)

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



6. The unified meter control unit is turned to self-diagnosis mode.
 - The segment dots of the information display LCD (1) blink alternately.
 - Water temperature gauge and fuel gauge return to zero, simultaneously.



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 abnormal.
- If any of the segments are not displayed, replace combination meter.

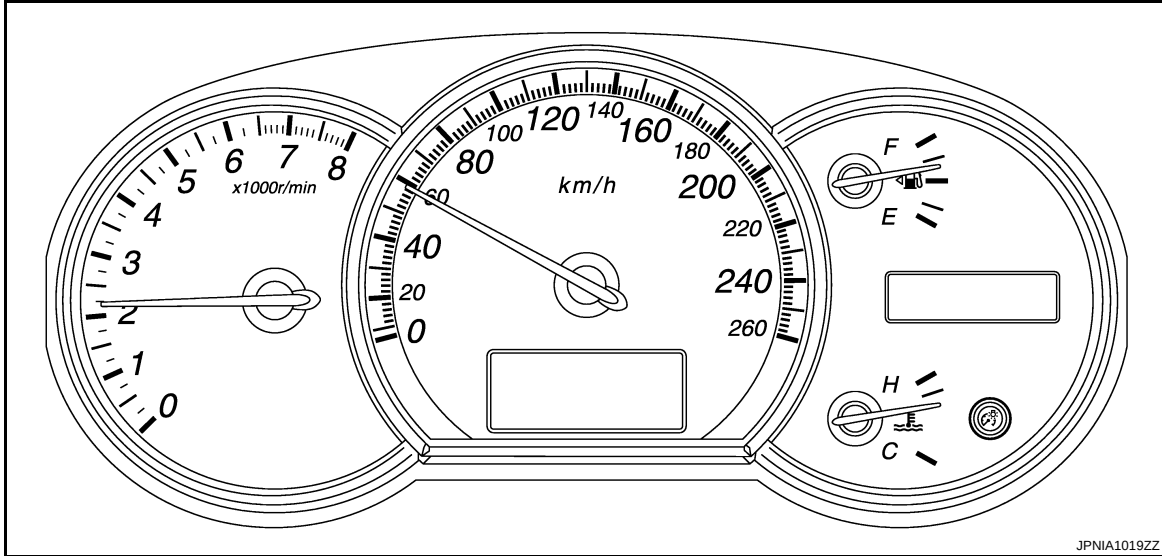
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DIAGNOSIS SYSTEM (METER)

< FUNCTION DIAGNOSIS >

7. Each meter activates by pressing the trip reset switch.



NOTE:

If any of the meters or gauges are not activated, replace combination meter.

CONSULT-III Function (METER/M&A)

INFOID:000000003838727

CONSULT-III APPLICATION ITEMS

CONSULT-III can perform the following diagnosis modes via CAN communication and the combination meter.

System	Diagnosis mode	Description
METER/M&A	Self Diagnostic Result	The combination meter checks the conditions and displays memorized errors.
	Data Monitor	Displays the combination meter input/output data in real time.
	Special function	Lighting history of the warning lamp and indicator lamp can be checked.

SELF DIAG RESULT

Refer to [WCS-40. "DTC Index"](#).

DATA MONITOR

Display Item List

X: Applicable

Display item [Unit]	MAIN SIGNALS	Description
SPEED METER [km/h]	X	Value of vehicle speed signal received from ABS actuator and electric unit (control unit) via CAN communication. NOTE: 655.35 is displayed when the malfunction signal is received.
SPEED OUTPUT [km/h]	X	Vehicle speed signal value transmitted to other units via CAN communication. NOTE: 655.35 is displayed when the malfunction signal is received.
ODO OUTPUT [km/h or mph]		Odometer signal value transmitted to other units via CAN communication.
TACHO METER [rpm]	X	Value of the engine speed signal received from ECM via CAN communication. NOTE: 8191.875 is displayed when the malfunction signal is received.
FUEL METER [lit.]	X	Fuel level indicated on combination meter.

DIAGNOSIS SYSTEM (METER)

< FUNCTION DIAGNOSIS >

Display item [Unit]	MAIN SIGNALS	Description	
W TEMP METER [°C]	X	Value of engine coolant temperature signal is received from ECM via CAN communication. NOTE: 215 is displayed when the malfunction signal is input.	A
ABS W/L [On/Off]		Status of ABS warning lamp detected from ABS warning lamp signal is received from ABS actuator and electric unit (control unit) via CAN communication.	B
VDC/TCS IND [On/Off]		Status of VDC OFF indicator lamp detected from VDC OFF indicator lamp signal is received from ABS actuator and electric unit (control unit) via CAN communication.	C
SLIP IND [On/Off]		Status of SLIP indicator lamp detected from slip indicator lamp signal received from ABS actuator and electric unit (control unit) via CAN communication.	D
BRAKE W/L [On/Off]		Status of brake warning lamp detected from brake warning lamp signal is received from ABS actuator and electric unit (control unit) via CAN communication. NOTE: 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.	E
DOOR W/L [On/Off]		Status of door warning detected from door switch signal received from BCM via CAN communication.	F
TRUNK/GLAS-H [On/Off]		Status of trunk warning detected from trunk switch signal received from BCM via CAN communication.	G
HI-BEAM IND [On/Off]		Status of high beam indicator lamp detected from high beam request signal is received from BCM via CAN communication.	H
TURN IND [On/Off]		Status of turn indicator lamp detected from turn indicator signal is received from BCM via CAN communication.	I
FR FOG IND [On/Off]		Status of front fog light indicator lamp detected from front fog light request signal is received from BCM via CAN communication.	J
RR FOG IND [On/Off]		Status of rear fog light indicator lamp detected from rear fog light request signal is received from BCM via CAN communication.	K
LIGHT IND [On/Off]		Status of light indicator lamp detected from position light request signal is received from BCM via CAN communication.	L
OIL W/L [On/Off]		Status of oil pressure warning lamp detected from oil pressure switch signal is received from BCM via CAN communication.	M
MIL [On/Off]		Status of malfunction indicator lamp detected from malfunctioning indicator lamp signal is received from ECM via CAN communication.	
CRUISE IND [On/Off]		Status of CRUISE indicator detected from ASCD status signal is received from ECM via CAN communication.	
SPORT IND [On/Off]		Status of SPORT indicator detected from sport mode switch signal is received from control device.	
4WD W/L [On/Off]		This item is displayed, but cannot be monitored.	WCS
4WD LOCK IND [On/Off]		This item is displayed, but cannot be monitored.	
FUEL W/L [On/Off]		Low-fuel warning lamp status detected by the identified fuel level.	O
WASHER W/L [On/Off]		This item is displayed, but cannot be monitored.	
KEY G/Y W/L [On/Off]		Status of key warning lamp (G/Y) detected from key warning signal is received from BCM via CAN communication.	P
AFS OFF IND [On/Off]		This item is displayed, but cannot be monitored.	
LCD [B&P N, B&P I, ID NG, ROTAT, SFT P, INSRT, BATT, NO KY,OUTKY, LK WN]		Displays status of Intelligent Key system warning detected from meter display signal is received from BCM via CAN communication.	

DIAGNOSIS SYSTEM (METER)

< FUNCTION DIAGNOSIS >

Display item [Unit]	MAIN SIGNALS	Description
SHIFT IND [P, R, N, D, L]		Status of shift position indicator detected from shift position signal and manual mode indicator signal is received from TCM via CAN communication.
O/D OFF SW [On/Off]		Status of sport mode switch.
M RANGE SW [On/Off]		This item is displayed, but cannot be monitored.
NM RANGE SW [On/Off]		This item is displayed, but cannot be monitored.
AT SFT UP SW [On/Off]		This item is displayed, but cannot be monitored.
AT SFT DWN SW [On/Off]		This item is displayed, but cannot be monitored.
ST SFT UP SW [On/Off]		This item is displayed, but cannot be monitored.
ST SFT DWN SW [On/Off]		This item is displayed, but cannot be monitored.
PKB SW [On/Off]		Status of parking brake switch.
BUCKLE SW [On/Off]		Status of seat belt buckle switch.
BRAKE OIL SW [On/Off]		Status of brake fluid level switch.
DISTANCE [km]		Value of possible driving distance calculated by combination meter.
A/C AMP CONN [On/Off]		Input status of A/C auto amp. connection recognition signal.
ENTER SW [On/Off]		Status of  (ENTER) switch.
SELECT SW [On/Off]		Status of  (SELECT) switch.
OUTSIDE TEMP [°C or °F]		Ambient air temperature value converted from ambient sensor signal received from ambient sensor. NOTE: This may not match with the temperature value indicated on the information display. (Because the information display value is a corrected value from the ambient sensor input value.)
FUEL LOW SIG [On/Off]		Status of fuel level low warning signal to output to AV control unit via CAN communication.
BUZZER [On/Off]	X	Buzzer status (in the combination meter) is detected from the buzzer output signal received from each unit via CAN communication and the warning output condition of the combination meter.

NOTE:

Some items are not available according to vehicle specification.

SPECIAL FUNCTION

Special menu

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 :

DIAGNOSIS SYSTEM (METER)

< FUNCTION DIAGNOSIS >

- 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 the brake is applied or the brake fluid level gets low.

Display Item

Display item	Description
ABS W/L	Lighting history of ABS warning lamp.
VDC/TCS IND	Lighting history of VDC OFF indicator lamp.
SLIP IND	Lighting history of SLIP indicator lamp.
BRAKE W/L	Lighting history of brake warning lamp.
DOOR W/L	Lighting history of door warning.
TRUNK/GLAS-H	Lighting history of trunk warning.
OIL W/L	Lighting history of oil pressure warning lamp.
C-ENG W/L	Lighting history of malfunction indicator lamp.
C-ENG2 W/L	This item is displayed, but cannot be monitored.
CRUISE IND	Lighting history of CRUISE indicator lamp.
SET IND	This item is displayed, but cannot be monitored.
CRUISE W/L	This item is displayed, but cannot be monitored.
BA W/L	This item is displayed, but cannot be monitored.
O/D OFF IND	This item is displayed, but cannot be monitored.
ATC/T-AMT W/L	This item is displayed, but cannot be monitored.
ATF TEMP W/L	This item is displayed, but cannot be monitored.
CVT IND	This item is displayed, but cannot be monitored.
SPORT IND	Lighting history of SPORT indicator lamp.
4WD W/L	This item is displayed, but cannot be monitored.
FUEL W/L	Lighting history of low fuel level warning.
WASHER W/L	This item is displayed, but cannot be monitored.
AIR PRES W/L	This item is displayed, but cannot be monitored.
KEY G/Y W/L	Lighting history of key warning lamp (green/yellow).
KEY R W/L	Lighting history of key warning lamp (red).
KEY KNOB W/L	This item is displayed, but cannot be monitored.
SYS FAIL W/L	This item is displayed, but cannot be monitored.
SFT POSI W/L	This item is displayed, but cannot be monitored.
HV BAT W/L	This item is displayed, but cannot be monitored.
HEV BRAKE W/L	This item is displayed, but cannot be monitored.
SFT OPER W/L	This item is displayed, but cannot be monitored.
CHAGE W/L	Lighting history of charge warning lamp.
OIL LEV LOW	This item is displayed, but cannot be monitored.
DPF W/L	This item is displayed, but cannot be monitored.

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DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM : CONSULT-III Function (BCM - COMMON ITEM)

INFOID:000000003838704

APPLICATION ITEM

CONSULT-III performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
Work Support	Changes the setting for each system function.
Self Diagnostic Result	Displays the diagnosis results judged by BCM.
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM. Refer to CONSULT-III operation manual.
Data Monitor	The BCM input/output signals are displayed.
Active Test	The signals used to activate each device are forcibly supplied from BCM.
Ecu Identification	The BCM part number is displayed.
Configuration	- Read and save the vehicle specification. - Write the vehicle specification when replacing BCM.

SYSTEM APPLICATION

BCM can perform the following functions for each system.

NOTE:

It can perform the diagnosis modes except the following for all sub system selection items.

×: Applicable item

System	Sub system selection item	Diagnosis mode		
		Work Support	Data Monitor	Active Test
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER		×	×
Warning chime	BUZZER		×	×
Interior room lamp timer	INT LAMP	×	×	×
Remote keyless entry system	MULTI REMOTE ENT*1	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER		×	×
Turn signal and hazard warning lamps	FLASHER	×	×	×
—	AIR CONDITONER*2			
- Intelligent Key system - Engine start system	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
Body control system	BCM	×		
NVIS - NATS	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door opener system	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	TPMS (AIR PRESSURE MONITOR)	×	×	×

NOTE:

- *1: At model with Intelligent Key system this item is displayed, but is not used.
- *2: This item is displayed, but is not used.

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

FREEZE FRAME DATA (FFD) AND IGN COUNTER

Freeze Frame Data

The BCM records the following condition at the moment a particular DTC is detected.

- Vehicle Speed
- Odo/Trip Meter
- Vehicle Condition (BCM detected condition)

CONSULT screen terms	Description
SLEEP>LOCK	While turning BCM status from low power consumption mode to normal mode (Power supply position is "LOCK")
SLEEP>OFF	While turning BCM status from low power consumption mode to normal mode (Power supply position is "OFF".)
LOCK>ACC	While turning power supply position from "LOCK" to "ACC"
ACC>ON	While turning power supply position from "ACC" to "IGN"
RUN>ACC	While turning power supply position from "RUN" to "ACC" (Vehicle is stopping and selector lever is except P position.)
CRANK>RUN	While turning power supply position from "CRANKING" to "RUN" (From cranking up the engine to run it)
RUN>URGENT	While turning power supply position from "RUN" to "ACC" (Emergency stop operation)
ACC>OFF	While turning power supply position from "ACC" to "OFF"
OFF>LOCK	While turning power supply position from "OFF" to "LOCK"
OFF>ACC	While turning power supply position from "OFF" to "ACC"
ON>CRANK	While turning power supply position from "IGN" to "CRANKING"
OFF>SLEEP	While turning BCM status from normal mode (Power supply position is "OFF".) to low power consumption mode
LOCK>SLEEP	While turning BCM status from normal mode (Power supply position is "LOCK".) to low power consumption mode
LOCK	Power supply position is "LOCK" (Ignition switch OFF with steering is locked.)
OFF	Power supply position is "OFF" (Ignition switch OFF with steering is unlocked.)
ACC	Power supply position is "ACC" (Ignition switch ACC)
ON	Power supply position is "IGN" (Ignition switch ON with engine stopped)
ENGINE RUN	Power supply position is "RUN" (Ignition switch ON with engine running)
CRANKING	Power supply position is "CRANKING" (At engine cranking)

IGN Counter

IGN counter indicates the number of times that ignition switch is turned ON after DTC is detected.

- The number is 0 when a malfunction is detected now.
- The number increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON.
- The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.

BUZZER

BUZZER : CONSULT-III Function (BCM - BUZZER)

INFOID:000000003838705

CONSULT-III APPLICATION ITEMS

Test item	Diagnosis mode	Description
BUZZER	Data Monitor	Displays BCM input data in real time.
	Active Test	Operation of electrical loads can be checked by sending driving signal to them.

DATA MONITOR

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

Display item [Unit]	Description
PUSH SW [On/Off]	Status of push button ignition switch judged by BCM.
UNLK SEN-DR [On/Off]	Status of unlock sensor judged by BCM.
VEH SPEED 1 [km/h]	Value of vehicle speed signal received from ABS actuator and electric unit (control unit) with CAN communication line.
KEY SW-SLOT [On/Off]	Status of key slot judged by BCM.
TAIL LAMP SW [On/Off]	Status of each switch judged by BCM using the combination switch readout function.
FR FOG SW [On/Off]	Status of front fog lamp switch judged by BCM.
DOOR SW-DR [On/Off]	Status of driver side door switch judged by BCM.

ACTIVE TEST

Display item [Unit]	Description
IGN KEY WARN ALM	The key warning chime operation can be checked by operating the relevant function (On/Off).
LIGHT WARN ALM	The light warning chime operation can be checked by operating the relevant function (On/Off).
RUN FLAT/T WARN BUZZER	This item is displayed, but not function.

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

COMPONENT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

COMBINATION METER

COMBINATION METER : Diagnosis Procedure

INFOID:000000000383728

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	11
Ignition switch ON or START	4

Is the inspection result normal?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

2.CHECK POWER SUPPLY CIRCUIT

Check voltage between combination meter harness connector terminals and ground.

Terminals			Voltage (Approx.)
(+)		(-)	
Combination meter		Ground	
Connector	Terminal		
M34	1		
	2		
			Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Check harness between combination meter and fuse.

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect combination meter connector.
3. Check continuity between combination meter harness connector terminals and ground.

Terminals			Continuity
(+)		(-)	
Combination meter		Ground	
Connector	Terminal		
M34	3		
	23		
			Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

BCM (BODY CONTROL MODULE)

BCM (BODY CONTROL MODULE) : Diagnosis Procedure

INFOID:0000000003900507

1.CHECK FUSE AND FUSIBLE LINK

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

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POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

Signal name	Fuse and fusible link No.
Battery power supply	I
	10

Is the fuse fusing?

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

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connectors.
3. Check voltage between BCM harness connector and ground.

Terminals		Voltage (Approx.)
(+)	(-)	
BCM		Ground Battery voltage
Connector	Terminal	
M118	1	
M119	11	

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M119	13		Existed

Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

METER BUZZER CIRCUIT

< COMPONENT DIAGNOSIS >

METER BUZZER CIRCUIT

Description

INFOID:0000000003838708

- The buzzer for warning chime system is installed in the combination meter.
- The combination meter sounds the alarm buzzer based on the signals transmitted from various units.

Component Function Check

INFOID:0000000003838709

1.CHECK OPERATION OF METER BUZZER

1. Select "BUZZER" of "BCM" on CONSULT-III.
2. Perform "LIGHT WARN ALM" of "Active Test".

Does meter buzzer beep?

- YES >> INSPECTION END
NO >> GO TO 2.

2.CHECK COMBINATION METER INPUT SIGNAL

Select the "Data Monitor" for the "METER/M&A" and check the "BUZZER" monitor value.

BUZZER
Under the condition of buzzer input : On
Except above : Off

Is the inspection result normal?

- YES >> Replace combination meter.
NO >> Replace BCM. Refer to [BCS-78, "Removal and Installation"](#).

Diagnosis Procedure

INFOID:0000000003838710

1.CHECK POWER SUPPLY OF COMBINATION METER

Check power supply of combination meter. Refer to [WCS-19, "COMBINATION METER : Diagnosis Procedure"](#).

Is the inspection result normal?

- YES >> INSPECTION END
NO >> Repair power supply circuit of combination meter. Refer to [WCS-19, "COMBINATION METER : Diagnosis Procedure"](#).

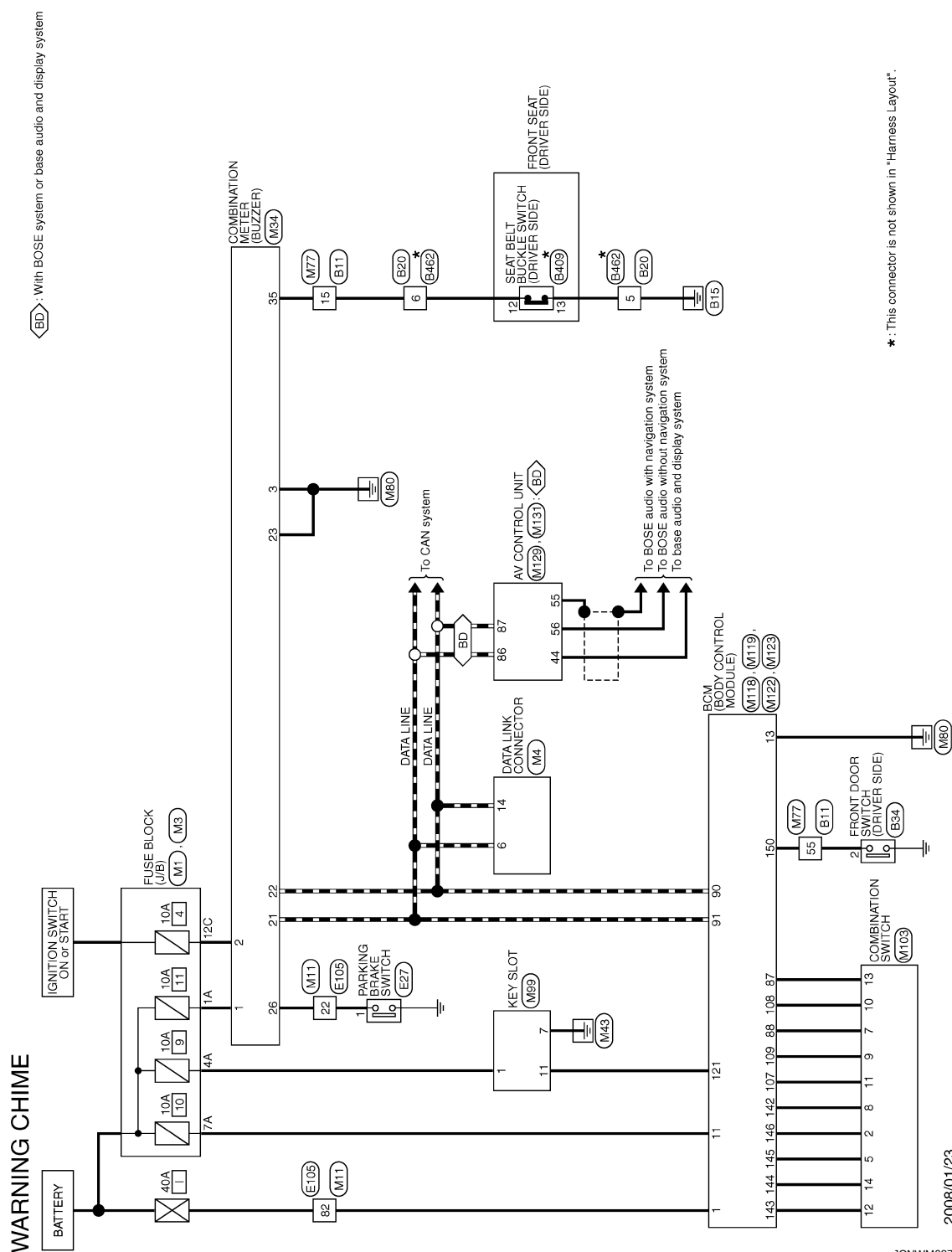
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WCS

< COMPONENT DIAGNOSIS >

Wiring Diagram - WARNING CHIME -

INFOID:0000000003838711



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WARNING CHIME SYSTEM

< COMPONENT DIAGNOSIS >

WARNING CHIME

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS19



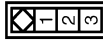
Terminal No.	Color of Wire	Signal Name [Specification]
55	GR	-
	SB	-

Connector No.	B20
Connector Name	WIRE TO WIRE
Connector Type	TK10PW-HS8



Terminal No.	Color of Wire	Signal Name [Specification]
5	B/W	-
6	GR	-

Connector No.	B34
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)
Connector Type	A43FW



Terminal No.	Color of Wire	Signal Name [Specification]
2	SB	-

Connector No.	B409
Connector Name	SEAT BELT BUCKLE SWITCH (DRIVER SIDE)
Connector Type	TK03FW



Terminal No.	Color of Wire	Signal Name [Specification]
12	W/G	-
13	GR	-

Connector No.	B462
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Connector No.	E27
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A



Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH70MW-CS10-M3



Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS00FW-M2



Terminal No.	Color of Wire	Signal Name [Specification]
5	GR	-
6	W/G	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	P	-

Terminal No.	Color of Wire	Signal Name [Specification]
22	P	-
82	LG	-

Terminal No.	Color of Wire	Signal Name [Specification]
1A	W/L	-
4A	G/Y	-
7A	Y/R	-

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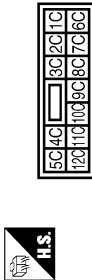
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WARNING CHIME SYSTEM

< COMPONENT DIAGNOSIS >

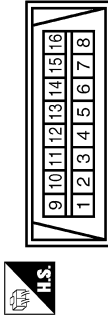
WARNING CHIME

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	HS12FW-CS



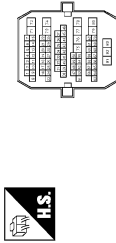
Terminal No.	Color of Wire	Signal Name [Specification]
12C	O	-

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



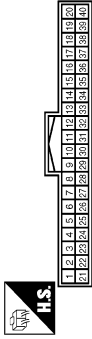
Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH10FW-CS10-M3



Terminal No.	Color of Wire	Signal Name [Specification]
22	G/R	-
82	W/B	-

Connector No.	M24
Connector Name	COMBINATION METER
Connector Type	TH40FW-NH

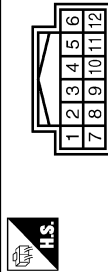


Terminal No.	Color of Wire	Signal Name [Specification]
1	W/L	BAT
2	O	IGN
3	B	GROUND
21	L	CAN-H
22	P	CAN-L
23	B	GROUND
28	G/R	PARKING BRAKE SWITCH SIGNAL
35	W/B	SEAT BELT BUOALE SWITCH SIGNAL (DRIVER SIDE)

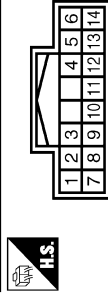
Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH60FW-CS19



Connector No.	M99
Connector Name	KEY SLOT
Connector Type	TH12FW-NH



Connector No.	M103
Connector Name	COMBINATION SWITCH
Connector Type	TH16FW-NH



Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M03FB-LC



Terminal No.	Color of Wire	Signal Name [Specification]
15	W/B	-
55	SB	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	G/Y	BAT
7	B	GND
11	Y	KEY SWITCH SIGNAL

Terminal No.	Color of Wire	Signal Name [Specification]
2	G/Y	OUTPUT 4
5	LG/R	OUTPUT 3
7	R/G	INPUT 3
8	LG/B	OUTPUT 5
9	R/B	INPUT 2
10	P/B	INPUT 4
11	R/W	INPUT 1
12	L/W	OUTPUT 1
13	R/Y	INPUT 5
14	G/B	OUTPUT 2

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WARNING CHIME SYSTEM

< COMPONENT DIAGNOSIS >

WARNING CHIME

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	MS16FW-CS



4	5	6	7		8	9	10	
11	12	13	14	15	16	17	18	19

Terminal No.	Color of Wire	Signal Name [Specification]
11	Y/R	BAT (FUSE)
13	B	GND

Connector No.	M131
Connector Name	AV CONTROL UNIT
Connector Type	TH22FW-NH



01	00	09	08	07	06	05	04	03	02	01	00	99	98	97	96	95	94	93	92
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Terminal No.	Color of Wire	Signal Name [Specification]
86	L	CAN-H
87	P	CAN-L

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



01	00	09	08	07	06	05	04	03	02	01	00	99	98	97	96	95	94	93	92
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Terminal No.	Color of Wire	Signal Name [Specification]
87	R/Y	COMBI SW INPUT 5
88	R/G	COMBI SW INPUT 3
90	P	CAN-L
91	L	CAN-H
107	R/W	COMBI SW INPUT 1
108	P/B	COMBI SW INPUT 4
109	R/B	COMBI SW INPUT 2

Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH



01	00	09	08	07	06	05	04	03	02	01	00	99	98	97	96	95	94	93	92
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Terminal No.	Color of Wire	Signal Name [Specification]
121	Y	KEY SLOT SW
142	LG/B	COMBI SW OUTPUT 5
143	L/W	COMBI SW OUTPUT 1
144	G/B	COMBI SW OUTPUT 2
145	LG/R	COMBI SW OUTPUT 3
146	G/Y	COMBI SW OUTPUT 4
150	SB	DRIVER DOOR SW

Connector No.	M129
Connector Name	AV CONTROL UNIT
Connector Type	TH24FW-NH



47	46	45	44	43	42	41	40	39	38	37	36
59	58	57	56	55	54	53	52	51	50	49	48

Terminal No.	Color of Wire	Signal Name [Specification]
44	G	COMM (DISP->CONT)
55	SHIELD	SHIELD
56	R	COMM (CONT->DISP)

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COMBINATION METER

< ECU DIAGNOSIS >

ECU DIAGNOSIS

COMBINATION METER

Reference Value

INFOID:000000003838730

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition		Value/Status
SPEED METER [km/h]	Ignition switch ON	While driving	Equivalent to speedometer reading NOTE: 655.35 is displayed when the malfunction signal is received
SPEED OUTPUT [km/h]	Ignition switch ON	While driving	Equivalent to speedometer reading NOTE: 655.35 is displayed when the malfunction signal is received
ODO OUTPUT [km/h or mph]	Ignition switch ON	—	Equivalent to odometer reading in combination meter
TACHO METER [rpm]	Ignition switch ON	While driving	Equivalent to tachometer reading NOTE: 8191.875 is displayed when the malfunction signal is received
FUEL METER [lit]	Ignition switch ON	—	Values according to fuel level
W TEMP METER [°C]	Ignition switch ON	—	Values according to engine coolant temperature NOTE: 215 is displayed when the malfunction signal is input
ABS W/L	Ignition switch ON	ABS warning lamp ON	On
		ABS warning lamp OFF	Off
VDC/TCS IND	Ignition switch ON	VDC OFF indicator lamp ON	On
		VDC OFF indicator lamp OFF	Off
SLIP IND	Ignition switch ON	SLIP Indicator lamp ON	On
		SLIP indicator lamp OFF	Off
BRAKE W/L	Ignition switch ON	Brake warning lamp ON	On
		Brake warning lamp OFF	Off
DOOR W/L	Ignition switch ON	Door warning ON	On
		Door warning OFF	Off
TRUNK/GLAS-H	Ignition switch ON	Trunk warning ON	On
		Trunk warning OFF	Off
HI-BEAM IND	Ignition switch ON	High-beam indicator lamp ON	On
		High-beam indicator lamp OFF	Off
TURN IND	Ignition switch ON	Turn signal indicator lamp ON	On
		Turn signal indicator lamp OFF	Off
FR FOG IND	Ignition switch ON	Front fog light indicator lamp ON	On
		Front fog light indicator lamp OFF	Off
RR FOG IND	Ignition switch ON	Rear fog light indicator lamp ON	On
		Rear fog light indicator lamp OFF	Off
LIGHT IND	Ignition switch ON	Tail lamp indicator lamp ON	On
		Tail lamp indicator lamp OFF	Off

COMBINATION METER

< ECU DIAGNOSIS >

Monitor Item	Condition		Value/Status	
OIL W/L	Ignition switch ON	Oil pressure warning lamp ON	On	A
		Oil pressure warning lamp OFF	Off	
MIL	Ignition switch ON	Malfunction indicator lamp ON	On	B
		Malfunction indicator lamp OFF	Off	
CRUISE IND	Ignition switch ON	Cruise indicator lamp ON	On	C
		Cruise indicator lamp OFF	Off	
SPORT IND	Ignition switch ON	SPORT indicator lamp ON	On	D
		SPORT indicator lamp OFF	Off	
4WD W/L	Ignition switch ON	NOTE: This item is displayed, but cannot be monitored.	Off	E
4WD LOCK IND	Ignition switch ON	NOTE: This item is displayed, but cannot be monitored.	Off	
FUEL W/L	Ignition switch ON	Low-fuel warning lamp ON	On	F
		Low-fuel warning lamp OFF	Off	
WASHER W/L	Ignition switch ON	NOTE: This item is displayed, but cannot be monitored.	Off	G
KEY G/Y W/L	Ignition switch ON	KEY warning lamp (green/yellow) ON	On	H
		KEY warning lamp (green/yellow) OFF	Off	
LCD	Ignition switch ON	Engine start information display	B&P I	I
	Ignition switch ACC	Engine start information display	B&P N	
	Ignition switch LOCK	Key ID warning display	ID NG	J
	Ignition switch LOCK	Steering lock information display	ROTAT	K
	Ignition switch LOCK	P position warning display	SFT P	
	Ignition switch LOCK	Intelligent Key insert information display	INSRT	L
	Ignition switch LOCK	Intelligent Key low battery warning display	BATT	
	Ignition switch ON	Take away warning display	NO KY	M
	Ignition switch LOCK	Key warning display	OUTKY	WCS
	Ignition switch ON	ACC warning display	LK WN	
SHIFT IND	Ignition switch ON	Shift position indicator P display	P	O
		Shift position indicator R display	R	
		Shift position indicator N display	N	P
		Shift position indicator D display	D	
		Shift position indicator L display	L	
O/D OFF SW	Ignition switch ON	Sport mode switch pressed	On	
		Other than the above	Off	

COMBINATION METER

< ECU DIAGNOSIS >

Monitor Item	Condition		Value/Status
M RANGE SW	Ignition switch ON	NOTE: This item is displayed, but cannot be monitored.	On
NM RANGE SW	Ignition switch ON	NOTE: This item is displayed, but cannot be monitored.	Off
AT SFT UP SW	Ignition switch ON	NOTE: This item is displayed, but cannot be monitored.	On
AT SFT DWN SW	Ignition switch ON	NOTE: This item is displayed, but cannot be monitored.	On
ST SFT UP SW	Ignition switch ON	NOTE: This item is displayed, but cannot be monitored.	Off
ST SFT DWN SW	Ignition switch ON	NOTE: This item is displayed, but cannot be monitored.	Off
PKB SW	Ignition switch ON	Parking brake switch ON	On
		Parking brake switch OFF	Off
BUCKLE SW	Ignition switch ON	Seat belt not fastened	On
		Seat belt fastened	Off
BRAKE OIL SW	Ignition switch ON	Brake fluid level switch ON	On
		Brake fluid level switch OFF	Off
DISTANCE [km]	Ignition switch ON	—	Possible driving distance calculated by combination meter
A/C AMP CONN	Ignition switch ON	Receives A/C auto amp. connection recognition signal	On
		Other than the above	Off
ENTER SW	Ignition switch ON	When  is pressed	On
		Other than the above	Off
SELECT SW	Ignition switch ON	When  is pressed	On
		Other than the above	Off
OUTSIDE TEMP [°C] or [°F]	Ignition switch ON	—	Equivalent to ambient temperature NOTE: This may not match the indicated value on the information display.
FUEL LOW SIG	Ignition switch ON	Low fuel warning signal output	On
		Low fuel warning signal not output	Off
BUZZER	Ignition switch ON	Buzzer ON	On
		Buzzer OFF	Off

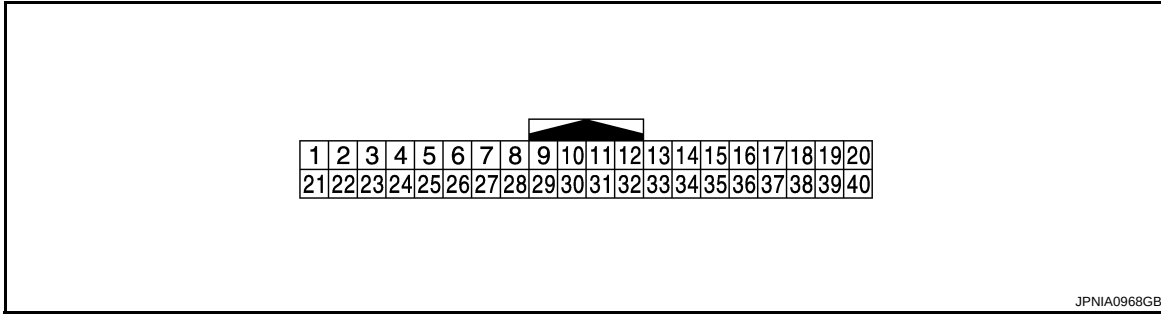
NOTE:

Some items are not available according to vehicle specification.

COMBINATION METER

< ECU DIAGNOSIS >

TERMINAL LAYOUT

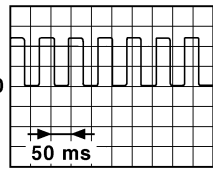
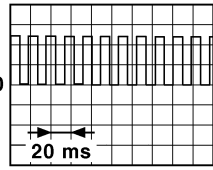
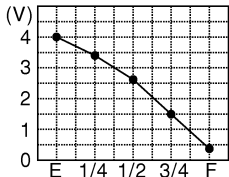


PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	—	Signal name	Input/ Output			
1 (W/L)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
2 (O)	Ground	IGN signal	Input	Ignition switch ON	—	Battery voltage
3 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
10 (O/L)	Ground	Meter control switch ground	—	Ignition switch ON	—	0 V
11 (L/R)	10 (O/L)	Enter switch signal	Input	Ignition switch ON	When is pressed.	0 V
					Other than the above	5 V
12 (B/R)	10 (O/L)	Select switch signal	Input	Ignition switch ON	When is pressed.	0 V
					Other than the above	5 V
15 (BR/W)	Ground	Air bag signal	Input	Ignition switch ON	Air bag warning lamp ON	4 V
					Air bag warning lamp OFF	0 V
18 (O/B)	Ground	Ambient sensor signal	Input	Ignition switch ON	Changes depending to am- bient temperature.	JSNIA0014GB
19 (P)	Ground	A/C auto amp. connection recognition signal	Input	Ignition switch ON	—	5 V
20 (B/Y)	Ground	Ambient sensor ground	Input	Ignition switch ON	—	0 V
21 (L)	—	CAN-H	—	—	—	—
22 (P)	—	CAN-L	—	—	—	—

COMBINATION METER

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	—	Signal name	Input/ Output			
23 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
24 (B/W)	Ground	Fuel level sensor signal ground	—	Ignition switch ON	—	0 V
25 (BR)	Ground	Alternator signal	Input	Ignition switch ON	Charge warning lamp ON	2 V
					Charge warning lamp OFF	12 V
26 (G/R)	Ground	Parking brake switch signal	Input	Ignition switch ON	When parking brake is ap- plied	0 V
					When parking brake is re- leased	5 V
27 (V)	Ground	Brake fluid level switch sig- nal	Input	Ignition switch ON	Brake fluid level is normal	12 V
					Brake fluid level is less than low level	0 V
28 (L/O)	Ground	Security signal	Input	Ignition switch ON	Security warning lamp OFF	12 V
					Security warning lamp ON	0 V
30 (L/B)	Ground	Vehicle speed signal output (2-pulse)	Output	Ignition switch ON	Speedometer operated [When vehicle speed is ap- prox. 40 km/h (25 MPH)]	NOTE: The maximum voltage varies de- pending on the specification (destination unit).  JSNIA0015GB
31 (V/W)	Ground	Vehicle speed signal output (8-pulse)	Output	Ignition switch ON	Speedometer operated [When vehicle speed is ap- prox. 40 km/h (25 MPH)]	NOTE: The maximum voltage varies de- pending on the specification (destination unit).  JSNIA0012GB
32 (LG/R)	Ground	Sport mode switch signal	Input	Ignition switch ON	Sport mode switch pressed.	0 V
					Sport mode switch not pressed.	5 V
34 (G/B)	Ground	Fuel level sensor signal	Input	Ignition switch ON	—	 JPNIA0740ZZ

COMBINATION METER

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
35 (W/B)	Ground	Seat belt buckle switch signal (driver side)	Input	Ignition switch ON	When driver seat belt is fastened.	12 V
					When driver seat belt is unfastened.	0 V

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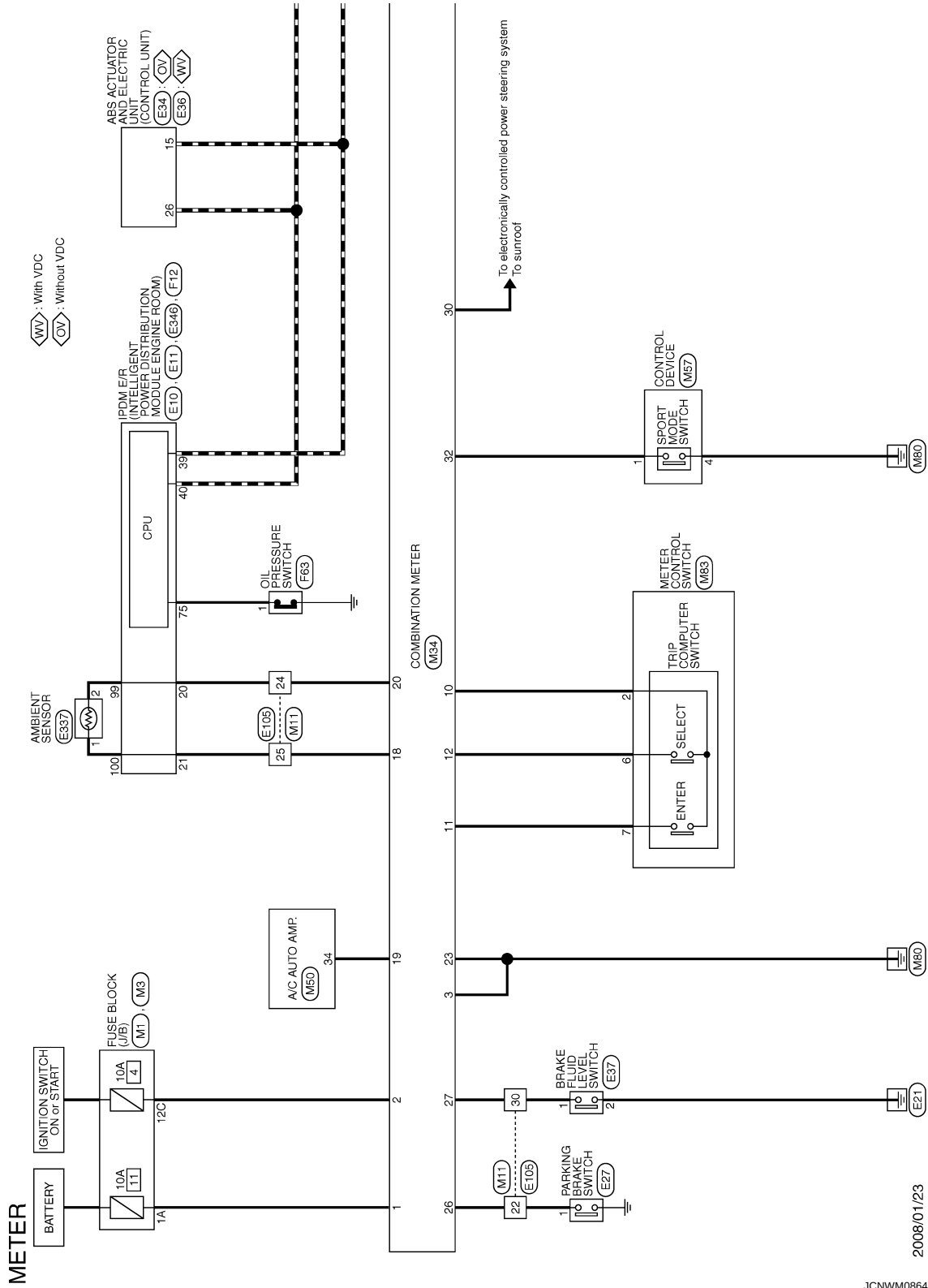
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COMBINATION METER

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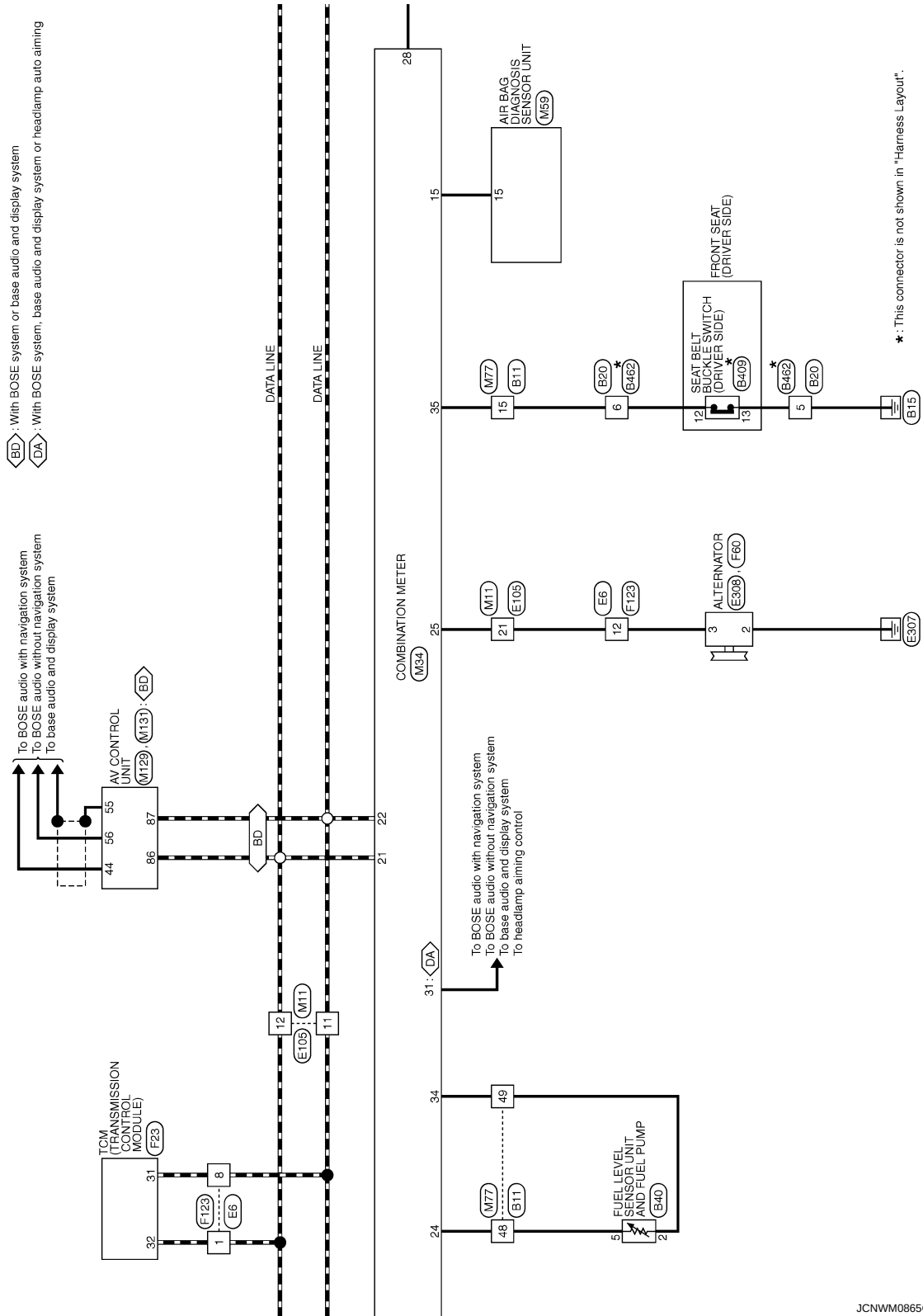
Wiring Diagram - METER -

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COMBINATION METER

< ECU DIAGNOSIS >



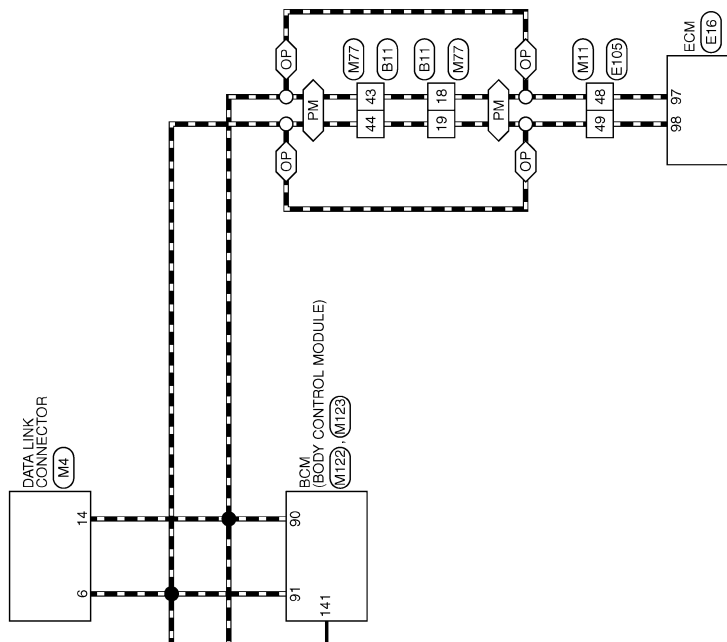
JCNWM0865GI

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COMBINATION METER

< ECU DIAGNOSIS >

PM : With automatic drive positioner
OP : Without automatic drive positioner



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COMBINATION METER

< ECU DIAGNOSIS >

METER

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS19



Terminal No.	Color of Wire	Signal Name [Specification]
15	GR	-
16	P	-
18	L	-
43	P	-
44	L	-
48	P	-
49	V	-

Connector No.	B20
Connector Name	WIRE TO WIRE
Connector Type	TK10PW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
5	B/W	-
6	GR	-

Connector No.	B40
Connector Name	FUEL LEVEL SENSOR UNIT AND FUEL PUMP
Connector Type	E08FGY-RS



Terminal No.	Color of Wire	Signal Name [Specification]
2	V	-
5	P	-

Connector No.	B409
Connector Name	SEAT BELT BUCKLE SWITCH (DRIVER SIDE)
Connector Type	TK03FW



Terminal No.	Color of Wire	Signal Name [Specification]
12	W/G	-
13	GR	-

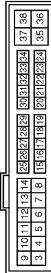
Connector No.	B462
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



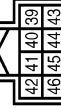
Connector No.	E6
Connector Name	WIRE TO WIRE
Connector Type	TK18MGY-1V



Connector No.	E10
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH20FW-CS12-M4-1V



Connector No.	E11
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	GR	-
6	W/G	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
8	P	-
12	BR	-

Terminal No.	Color of Wire	Signal Name [Specification]
20	B	-
21	O	-

Terminal No.	Color of Wire	Signal Name [Specification]
39	P	-
40	L	-

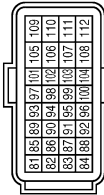
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COMBINATION METER

< ECU DIAGNOSIS >

METER

Connector No.	E16
Connector Name	ECM
Connector Type	RH24FB-RZ8-L-LH



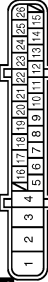
Terminal No.	Color of Wire	Signal Name [Specification]
97	P	VEHGAN-L
98	L	VEHGAN-H

Connector No.	E27
Connector Name	PARKING BRAKE SWITCH
Connector Type	R01FB-A



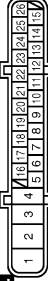
Terminal No.	Color of Wire	Signal Name [Specification]
1	P	-

Connector No.	E34
Connector Name	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) (WITHOUT VDC)
Connector Type	BAA22FB-AH24-RH



Terminal No.	Color of Wire	Signal Name [Specification]
15	P	CAN(-)
26	L	CAN(+)

Connector No.	E36
Connector Name	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) (WITH VDC)
Connector Type	BAA22FB-AH24-RH



Terminal No.	Color of Wire	Signal Name [Specification]
15	P	CAN-L(YFS)
26	L	CAN-H(YFS)

Connector No.	E37
Connector Name	BRAKE FLUID LEVEL SWITCH
Connector Type	TV02FGY



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	B/Y	-

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH70MW-GS10-M3



Terminal No.	Color of Wire	Signal Name [Specification]
11	P	-
12	L	-
21	BR	-
22	P	-
24	B	-
25	O	-
30	V	-
48	P	-
49	L	-

Connector No.	E308
Connector Name	ALTERNATOR
Connector Type	E-LAB



Terminal No.	Color of Wire	Signal Name [Specification]
2	B	-

Connector No.	E337
Connector Name	AMBIENT SENSOR
Connector Type	RS02FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	W	-

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COMBINATION METER

< ECU DIAGNOSIS >

METER

Connector No.	E346
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH16FW-NH



93	97	96	95	94	93	92	91
108	105	104	103	102	101	100	99

Terminal No.	Color of Wire	Signal Name [Specification]
99	W	-
100	SB	-

Connector No.	F12
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH2DFW-CS12-M4



53	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64

Terminal No.	Color of Wire	Signal Name [Specification]
75	P/L	-

Connector No.	F23
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	RH4JFB-RZ8-L-RH



31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

Terminal No.	Color of Wire	Signal Name [Specification]
31	P	CAN-L
32	L	CAN-H

Connector No.	F60
Connector Name	ALTERNATOR
Connector Type	HS32FB



5	4	3
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Terminal No.	Color of Wire	Signal Name [Specification]
3	L	-

Connector No.	F83
Connector Name	OIL PRESSURE SWITCH
Connector Type	EOFGY-RS-AR



Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK1BFGY-1V



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

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS32FW-M2



3A	2A	1A
8A	7A	6A

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



5C	4C	3C	2C	1C
12C	11C	10C	9C	8C

Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
8	P	-
12	BR	-

Terminal No.	Color of Wire	Signal Name [Specification]
1A	W/L	-

Terminal No.	Color of Wire	Signal Name [Specification]
12C	O	-

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COMBINATION METER

< ECU DIAGNOSIS >

METER

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



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

Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH7DFW-CS10-M3



Terminal No.	Color of Wire	Signal Name [Specification]
11	P	-
12	L	-
21	BR	-
22	G/R	-
24	B/Y	-
25	O/B	-
30	V	-
48	P	-
49	L	-

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	TH4DFW-WH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color of Wire	Signal Name [Specification]
1	W/L	BAT
2	O	IGN
3	B	GROUND
10	O/L	METER CONTROL SWITCH GROUND
11	L/R	ENTER SWITCH SIGNAL
12	B/R	SELECT SWITCH SIGNAL
15	BR/W	AIR BAG
18	O/B	AMBIENT SENSOR SIGNAL
19	P	A/C AUTO AMP CONNECTION RECOGNITION SIGNAL
20	B/Y	AMBIENT SENSOR GROUND
21	L	CAN-H

Connector No.	M50
Connector Name	A/C AUTO AMP.
Connector Type	SAB4DFW



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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Connector No.	M67
Connector Name	CONTROL DEVICE
Connector Type	TK10FW



1	2	3	4	5	6	7	8	9
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Connector No.	M59
Connector Name	AIR BAG DIAGNOSIS SENSOR UNIT
Connector Type	TK20FY-EX-SC



18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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Terminal No.	Color of Wire	Signal Name [Specification]
34	P	A/C AUTO AMP CONNECTION RECOGNITION SIGNAL

Terminal No.	Color of Wire	Signal Name [Specification]
1	LG/R	-
4	B/Y	-

Terminal No.	Color of Wire	Signal Name [Specification]
15	BR/W	W/L

22	P	CAN-L
23	B	GROUND
24	B/W	FUEL LEVEL SENSOR GROUND
25	BR	CHG
26	G/R	PARKING BRAKE SWITCH SIGNAL
27	V	BRAKE FLUID LEVEL SWITCH SIGNAL
28	L/O	SECURITY
30	L/B	VEHICLE SPEED SIGNAL (2-PULSE)
31	V/W	VEHICLE SPEED SIGNAL (8-PULSE)
32	LG/R	SPORT MODE SWITCH SIGNAL
34	G/B	FUEL LEVEL SENSOR SIGNAL
35	W/B	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH8DFW-CS19



Terminal No.	Color of Wire	Signal Name [Specification]
15	W/B	-
18	P	-
19	L	-
43	P	-
44	L	-
48	B/W	-
49	O/B	-

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COMBINATION METER

< ECU DIAGNOSIS >

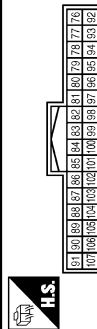
METER

Connector No.	M83
Connector Name	METER CONTROL SWITCH
Connector Type	TH8BW-NH



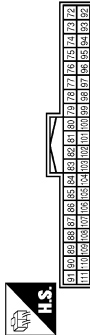
Terminal No.	Color of Wire	Signal Name [Specification]
2	O/L	GND(SATELLITE SW)
6	B/R	MODE SW B
7	L/R	MODE SW A

Connector No.	M131
Connector Name	AV CONTROL UNIT
Connector Type	TH2FW-NH



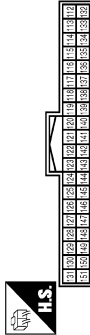
Terminal No.	Color of Wire	Signal Name [Specification]
86	L	CAN-H
87	P	CAN-L

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH4GFB-NH



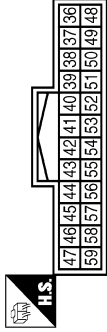
Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH4GFB-NH



Terminal No.	Color of Wire	Signal Name [Specification]
141	L/O	SECURITY INDICATOR OUTPUT

Connector No.	M129
Connector Name	AV CONTROL UNIT
Connector Type	TH2FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
44	G	COMM (DISP->CONT)
55	SHIELD	SHIELD
56	R	COMM (CONT->DISP)

Fail-Safe

FAIL-SAFE

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

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COMBINATION METER

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Function		Specifications
Speedometer		Reset to zero by suspending communication.
Tachometer		
Water temperature gauge		
Illumination control		When suspending communication, changes to nighttime mode.
Information display	Door open warning	The display turns off by suspending communication.
	Trunk open warning	
	Parking brake release warning	
	Instantaneous fuel warning	- 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	
	Average vehicle speed	
	Travel distance	
Buzzer		The buzzer turns off by suspending communication.
Warning lamp/indicator lamp	ABS warning lamp	The lamp turns on by suspending communication.
	VDC OFF indicator lamp	
	SLIP indicator lamp	
	Brake warning lamp	
	High beam indicator lamp	The lamp turns off by suspending communication.
	Front fog light indicator lamp	
	Rear fog light indicator lamp	
	Turn signal indicator lamp	
	Light indicator lamp	
	Oil pressure warning lamp	
	Malfunction indicator lamp	
	CRUISE indicator lamp	
	SPORT indicator lamp	
	Key warning lamp	

DTC Index

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Display contents of CONSULT-III	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-37. "Diagnosis Procedure"
CONTROL UNIT (CAN) [U1010]	When detecting error during the initial diagnosis of the CAN controller of combination meter.	MWI-38. "Diagnosis Procedure"
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-39. "Diagnosis Procedure"
ENGINE SPEED [B2267]	If ECM continuously transmits abnormal engine speed signals for 2 seconds or more.	MWI-40. "Diagnosis Procedure"
WATER TEMP [B2268]	If ECM continuously transmits abnormal engine coolant temperature signals for 60 seconds or more.	MWI-41. "Diagnosis Procedure"

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000003900508

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	Off
	Front wiper switch HI	On
FR WIPER LOW	Other than front wiper switch LO	Off
	Front wiper switch LO	On
FR WASHER SW	Front washer switch OFF	Off
	Front washer switch ON	On
FR WIPER INT	Other than front wiper switch INT	Off
	Front wiper switch INT	On
FR WIPER STOP	Front wiper is not in STOP position	Off
	Front wiper is in STOP position	On
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	Wiper intermittent dial position
TURN SIGNAL R	Other than turn signal switch RH	Off
	Turn signal switch RH	On
TURN SIGNAL L	Other than turn signal switch LH	Off
	Turn signal switch LH	On
TAIL LAMP SW	Other than lighting switch 1ST and 2ND	Off
	Lighting switch 1ST or 2ND	On
HI BEAM SW	Other than lighting switch HI	Off
	Lighting switch HI	On
HEAD LAMP SW 1	Other than lighting switch 2ND	Off
	Lighting switch 2ND	On
HEAD LAMP SW 2	Other than lighting switch 2ND	Off
	Lighting switch 2ND	On
PASSING SW	Other than lighting switch PASS	Off
	Lighting switch PASS	On
AUTO LIGHT SW	Other than lighting switch AUTO	Off
	Lighting switch AUTO	On
FR FOG SW	Front fog lamp switch OFF	Off
	Front fog lamp switch ON	On
RR FOG SW	Rear fog lamp switch OFF	Off
	Rear fog lamp switch ON	On
DOOR SW-DR	Driver door closed	Off
	Driver door opened	On
DOOR SW-AS	Passenger door closed	Off
	Passenger door opened	On
DOOR SW-RR	Rear RH door closed	Off
	Rear RH door opened	On
DOOR SW-RL	Rear LH door closed	Off
	Rear LH door opened	On

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BCM (BODY CONTROL MODULE)

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Monitor Item	Condition	Value/Status
DOOR SW-BK	NOTE: The item is indicated, but not monitored.	Off
CDL LOCK SW	Other than power door lock switch LOCK	Off
	Power door lock switch LOCK	On
CDL UNLOCK SW	Other than power door lock switch UNLOCK	Off
	Power door lock switch UNLOCK	On
KEY CYL LK-SW	NOTE: The item is indicated, but not monitored.	Off
KEY CYL UN-SW	NOTE: The item is indicated, but not monitored.	Off
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off
HAZARD SW	Hazard switch is OFF	Off
	Hazard switch is ON	On
REAR DEF SW NOTE: At model with BOSE audio system this item is indicated, but is not monitored.	Rear window defogger switch is OFF	Off
	Rear window defogger switch is ON	On
TR CANCEL SW	NOTE: The item is indicated, but not monitored.	Off
TR/BD OPEN SW	Trunk lid opener switch OFF	Off
	While the trunk lid opener switch is turned ON	On
TRNK/HAT MNTR	Trunk lid closed	Off
	Trunk lid opened	On
RKE-LOCK	LOCK button of the key is not pressed	Off
	LOCK button of the key is pressed	On
RKE-UNLOCK	UNLOCK button of the key is not pressed	Off
	UNLOCK button of the key is pressed	On
RKE-TR/BD	TRUNK OPEN button of the key is not pressed	Off
	TRUNK OPEN button of the key is pressed	On
RKE-PANIC	NOTE: The item is indicated, but not monitored.	Off
RKE-P/W OPEN	NOTE: The item is indicated, but not monitored.	Off
RKE-MODE CHG	LOCK/UNLOCK button of the key is not pressed and held simultaneously	Off
	LOCK/UNLOCK button of the key is pressed and held simultaneously	On
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5 V
	Dark outside of the vehicle	Close to 0 V
REQ SW -DR	Driver door request switch is not pressed	Off
	Driver door request switch is pressed	On
REQ SW -AS	Passenger door request switch is not pressed	Off
	Passenger door request switch is pressed	On
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Monitor Item	Condition	Value/Status	
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off	A
REQ SW -BD/TR	Trunk lid opener request switch is not pressed	Off	B
	Trunk lid opener request switch is pressed	On	
PUSH SW	Push-button ignition switch (push switch) is not pressed	Off	C
	Push-button ignition switch (push switch) is pressed	On	
IGN RLY2 -F/B	Ignition switch in OFF or ACC position	Off	D
	Ignition switch in ON position	On	
CLUCH SW	NOTE: The item is indicated, but not monitored.	Off	E
BRAKE SW 1	The brake pedal is not depressed	On	F
	The brake pedal is depressed	Off	
DETE/CANCL SW	Selector lever in P position	Off	G
	Selector lever in any position other than P	On	
SFT PN/N SW	Selector lever in any position other than P and N	Off	H
	Selector lever in P or N position	On	
S/L -LOCK	Steering is locked	Off	I
	Steering is unlocked	On	
S/L -UNLOCK	Steering is unlocked	Off	J
	Steering is locked	On	
S/L RELAY-F/B	Ignition switch in OFF or ACC position	Off	K
	Ignition switch in ON position	On	
UNLK SEN -DR	Driver door is unlocked	Off	L
	Driver door is locked	On	
PUSH SW -IPDM	Push-button ignition switch (push-switch) is not pressed	Off	M
	Push-button ignition switch (push-switch) is pressed	On	
IGN RLY1 -F/B	Ignition switch in OFF or ACC position	Off	WCS
	Ignition switch in ON position	On	
DETE SW -IPDM	Selector lever in P position	Off	O
	Selector lever in any position other than P	On	
SFT PN -IPDM	Selector lever in any position other than P and N	Off	P
	Selector lever in P or N position	On	
SFT P -MET	Selector lever in any position other than P	Off	
	Selector lever in P position	On	
SFT N -MET	Selector lever in any position other than N	Off	
	Selector lever in N position	On	
ENGINE STATE	Engine stopped	Stop	
	While the engine stalls	Stall	
	At engine cranking	Crank	
	Engine running	Run	
S/L LOCK-IPDM	Steering is locked	Off	
	Steering is unlocked	On	
S/L UNLK-IPDM	Steering is unlocked	Off	
	Steering is locked	On	

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

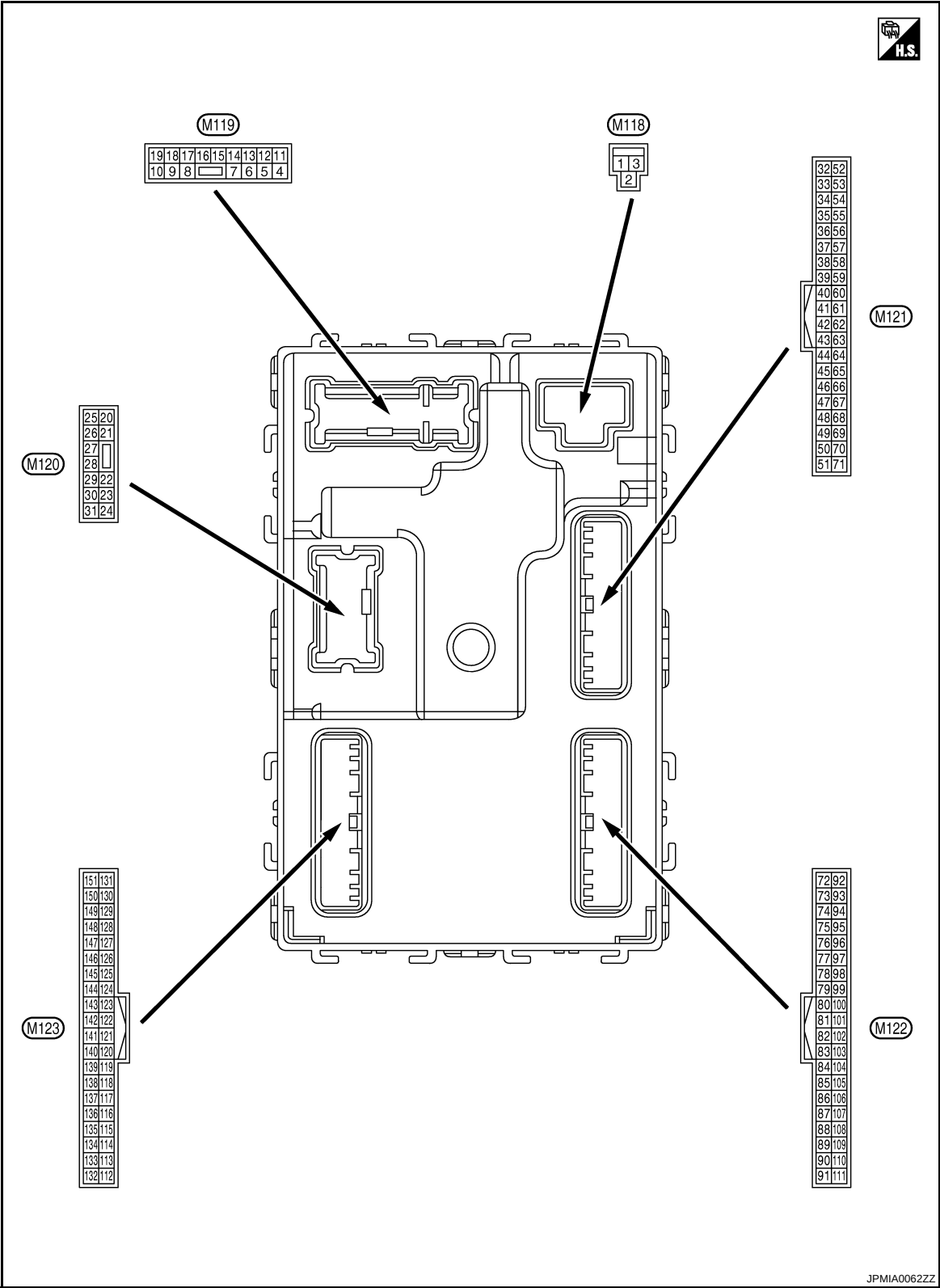
Monitor Item	Condition	Value/Status
S/L RELAY-REQ	Ignition switch in OFF or ACC position	Off
	Ignition switch in ON position	On
VEH SPEED 1	While driving	Equivalent to speedometer reading
VEH SPEED 2	While driving	Equivalent to speedometer reading
DOOR STAT-DR	Driver door is locked	LOCK
	Wait with selective UNLOCK operation (5 seconds)	READY
	Driver door is unlocked	UNLOCK
DOOR STAT-AS	Passenger door is locked	LOCK
	Wait with selective UNLOCK operation (5 seconds)	READY
	Passenger door is unlocked	UNLOCK
ID OK FLAG	Ignition switch in ACC or ON position	Reset
	Ignition switch in OFF position	Set
PRMT ENG STRT	The engine start is prohibited	Reset
	The engine start is permitted	Set
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset
KEY SW -SLOT	The key is not inserted into key slot	Off
	The key is inserted into key slot	On
RKE OPE COUN1	During the operation of the key	Operation frequency of the key
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	—
CONFIRM ID ALL	The key ID that the key slot receives does not accord with any key ID registered to BCM.	Yet
	The key ID that the key slot receives accords with any key ID registered to BCM.	Done
CONFIRM ID4	The key ID that the key slot receives does not accord with the fourth key ID registered to BCM.	Yet
	The key ID that the key slot receives accords with the fourth key ID registered to BCM.	Done
CONFIRM ID3	The key ID that the key slot receives does not accord with the third key ID registered to BCM.	Yet
	The key ID that the key slot receives accords with the third key ID registered to BCM.	Done
CONFIRM ID2	The key ID that the key slot receives does not accord with the second key ID registered to BCM.	Yet
	The key ID that the key slot receives accords with the second key ID registered to BCM.	Done
CONFIRM ID1	The key ID that the key slot receives does not accord with the first key ID registered to BCM.	Yet
	The key ID that the key slot receives accords with the first key ID registered to BCM.	Done
TP 4	The ID of fourth key is not registered to BCM	Yet
	The ID of fourth key is registered to BCM	Done
TP 3	The ID of third key is not registered to BCM	Yet
	The ID of third key is registered to BCM	Done
TP 2	The ID of second key is not registered to BCM	Yet
	The ID of second key is registered to BCM	Done

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Monitor Item	Condition	Value/Status
TP 1	The ID of first key is not registered to BCM	Yet
	The ID of first key is registered to BCM	Done

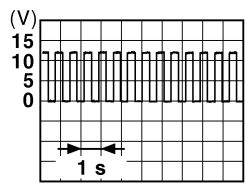
TERMINAL LAYOUT



PHYSICAL VALUES

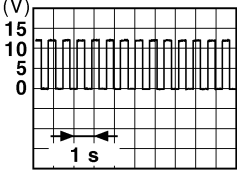
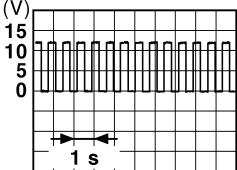
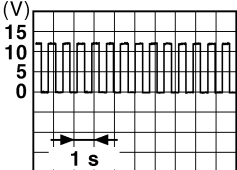
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
1 (W/B)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (R/Y)	Ground	P/W power supply (BAT)	Output	Ignition switch OFF		Battery voltage
3 (L/W)	Ground	P/W power supply (IGN)	Output	Ignition switch ON		Battery voltage
4 (P/W)	Ground	Interior room lamp power supply	Output	Interior room lamp battery saver is activated. (Cuts the interior room lamp power supply)		0 V
				Interior room lamp battery saver is not activated. (Outputs the interior room lamp power supply)		Battery voltage
5 (G/Y)	Ground	Passenger door UNLOCK	Output	Passenger door	UNLOCK (Actuator is activated)	Battery voltage
					Other than UNLOCK (Actuator is not activated)	0 V
7 (R/W)	Ground	Step lamp	Output	Step lamp	ON	0 V
					OFF	Battery voltage
8 (V)	Ground	All doors LOCK	Output	All doors	LOCK (Actuator is activated)	Battery voltage
					Other than LOCK (Actuator is not activated)	0 V
9 (G)	Ground	Driver door UNLOCK	Output	Driver door	UNLOCK (Actuator is activated)	Battery voltage
					Other than UNLOCK (Actuator is not activated)	0 V
10 (G/Y)	Ground	Rear RH door and rear LH door UNLOCK	Output	Rear RH door and rear LH door	UNLOCK (Actuator is activated)	Battery voltage
					Other than UNLOCK (Actuator is not activated)	0 V
11 (Y/R)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
13 (B)	Ground	Ground	—	Ignition switch ON		0 V
15 (Y)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
					ACC or ON	0 V
17 (G/B)	Ground	Turn signal RH (Front and door mirror)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	 6.5 V

BCM (BODY CONTROL MODULE)

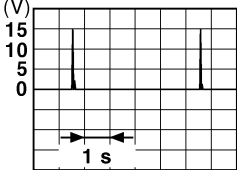
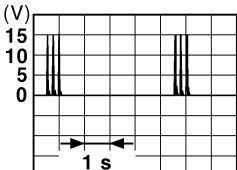
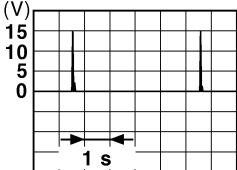
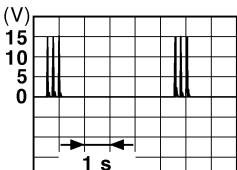
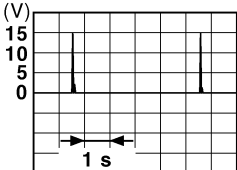
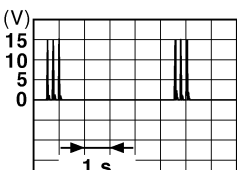
< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
18 (G/Y)	Ground	Turn signal LH (Front and door mirror)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	
19 (Y)	Ground	Room lamp timer control	Output	Interior room lamp	OFF	Battery voltage
					ON	0 V
20 (G/B)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	
23 (R)	Ground	Trunk lid opening	Output	Trunk lid	OPEN (Trunk lid opener actuator is activated)	Battery voltage
					Other than OPEN (Trunk lid opener actuator is not activated)	0 V
24 (G)	Ground	Rear fog lamp	Output	Rear fog lamp	OFF	0 V
					ON	Battery voltage
25 (G/Y)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	
30 (V/W)	Ground	Trunk room lamp	Output	Trunk room lamp	OFF	0 V
					ON	Battery voltage

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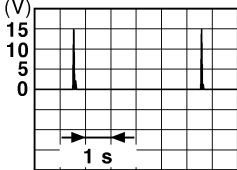
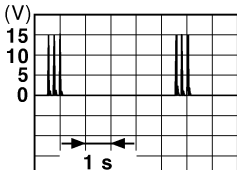
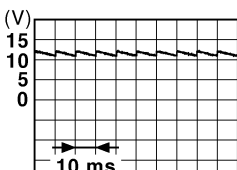
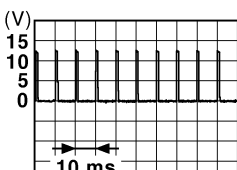
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
34 (B)	Ground	Trunk room antenna (-)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
35 (W)	Ground	Trunk room antenna (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
38 (L/O)	Ground	Rear bumper anten- na (-)	Output	When the trunk lid opener request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detec- tion area	 JMKIA0063GB

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
39 (BR/W)	Ground	Rear bumper antenna (+)	Output	When the trunk lid opener request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
				When Intelligent Key is not in the antenna detection area	When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
47 (BR/W)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	Battery voltage
					ON	0 V
50 (W)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (When trunk lid closes)	 JPMIA0011GB 11.8 V
					ON (When trunk lid opens)	0 V
52 (R)	Ground	Starter relay control	Output	Ignition switch ON	When selector lever is in P or N position	Battery voltage
					When selector lever is not in P or N position	0.3 V
61 (G/R)	Ground	Trunk lid request switch	Input	Trunk lid request switch	Ignition switch OFF	0 V
					ON (Pressed)	0 V
61 (G/R)	Ground	Trunk lid request switch	Input	Trunk lid request switch	OFF (Not pressed)	 JPMIA0016GB 1.0 V
					Request switch buzzer	0 V
64 (GR)	Ground	Request switch buzzer	Output	Request switch buzzer	Sounding	0 V
					Not sounding	Battery voltage

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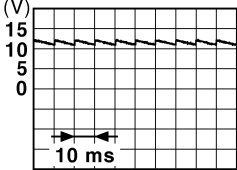
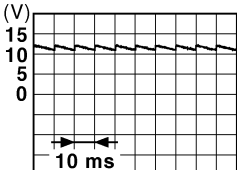
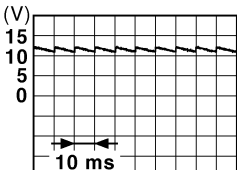
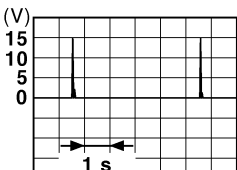
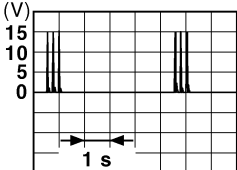
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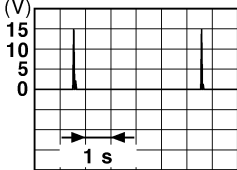
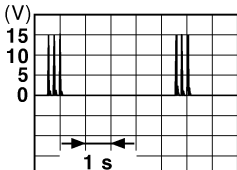
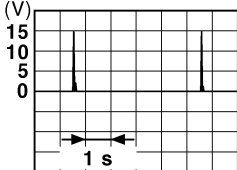
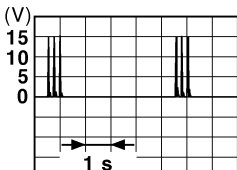
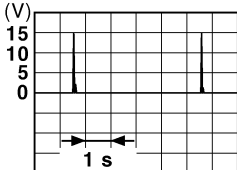
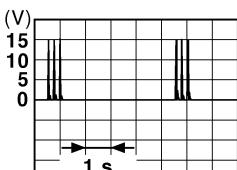
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
67 (L/R)	Ground	Trunk lid opener switch	Input	Trunk lid opener switch	Pressed	0 V
					Not pressed	 JPMIA0011GB 11.8 V
68 (R/W)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (When rear RH door closes)	 JPMIA0011GB 11.8 V
					ON (When rear RH door opens)	0 V
69 (R/B)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (When rear LH door closes)	 JPMIA0011GB 11.8 V
					ON (When rear LH door opens)	0 V
72 (B/R)	Ground	Room antenna 2 (-) (center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

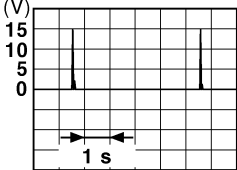
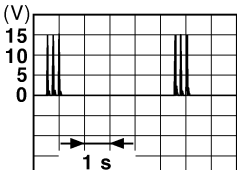
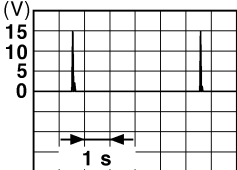
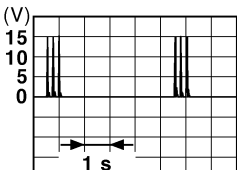
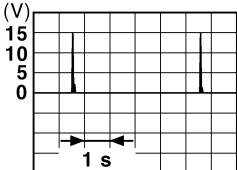
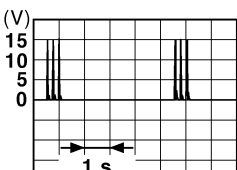
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
73 (W/R)	Ground	Room antenna 2 (+) (center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
74 (B/Y)	Ground	Passenger door an- tenna (-)	Output	When the pas- senger door re- quest switch is operated with ig- nition switch OFF	When Intelligent Key is in the antenna detec- tion area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detec- tion area	 JMKIA0063GB
75 (LG)	Ground	Passenger door an- tenna (+)	Output	When the pas- senger door re- quest switch is operated with ig- nition switch OFF	When Intelligent Key is in the antenna detec- tion area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detec- tion area	 JMKIA0063GB

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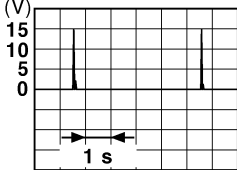
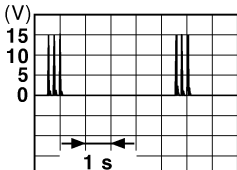
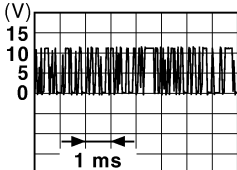
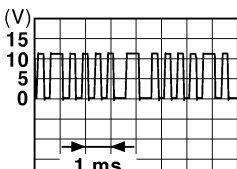
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
76 (V)	Ground	Driver door antenna (-)	Output	When the driver door request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detec- tion area	 JMKIA0063GB
77 (P)	Ground	Driver door antenna (+)	Output	When the driver door request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detec- tion area	 JMKIA0063GB
78 (R)	Ground	Room antenna 1 (-) (instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

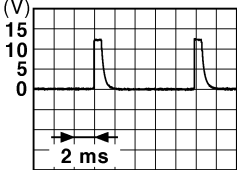
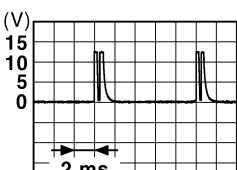
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
79 (G)	Ground	Room antenna 1 (+) (instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
80 (G/O)	Ground	NATS antenna amp (built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
81 (O)	Ground	NATS antenna amp (built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
82 (R/B)	Ground	Ignition relay [fuse block (J/B)] control	Output	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage
83 (L/O)	Ground	Remote keyless en- try receiver commu- nication	Input/ Output		During waiting	 JMKIA0064GB
					When operating either button on the key	 JMKIA0065GB

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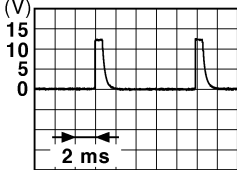
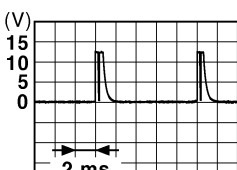
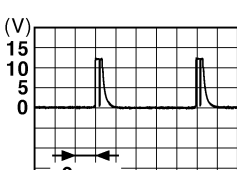
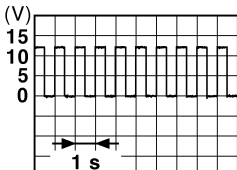
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
87 (R/Y)	Ground	Combination switch INPUT 5	Input	Combination switch	 JPMIA0041GB 1.4 V
				Front fog lamp switch ON (Wiper intermittent dial 4)	 JPMIA0037GB 1.3 V
				Rear fog lamp switch ON (Wiper intermittent dial 4)	 JPMIA0142GB 1.2 V
				Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7	 JPMIA0040GB 1.3 V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
88 (R/G)	Ground	Combination switch INPUT 3	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)  JPMIA0041GB 1.4 V
					Lighting switch HI (Wiper intermittent dial 4)  JPMIA0036GB 1.3 V
					Lighting switch 2ND (Wiper intermittent dial 4)  JPMIA0037GB 1.3 V
					Any of the conditions be- low with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3  JPMIA0040GB 1.3 V
89 (BR)	Ground	Push-button ignition switch (push switch)	Input	Push-button igni- tion switch (push switch)	Pressed 0 V Not pressed Battery voltage
90 (P)	Ground	CAN-L	Input/ Output	—	—
91 (L)	Ground	CAN-H	Input/ Output	—	—
92 (R/L)	Ground	Key slot illumination	Output	Key slot illumina- tion	OFF Battery voltage
					Blinking  JPMIA0015GB 6.5 V
					ON 0 V

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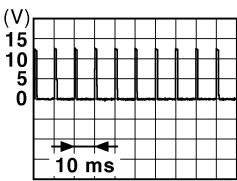
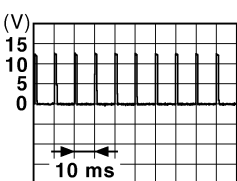
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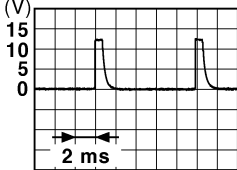
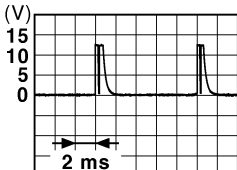
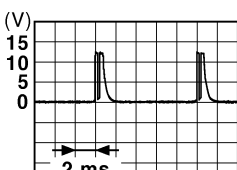
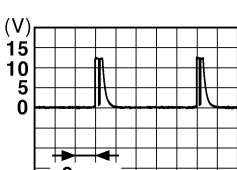
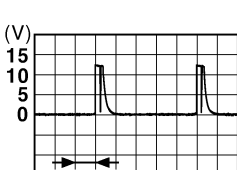
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
93 (Y)	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
					ON or ACC	0 V
95 (L)	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
					ACC or ON	Battery voltage
96 (Y/R)	Ground	Control device (detection switch) power supply	Output	—		Battery voltage
97 (L/O)	Ground	Steering lock condition No. 1	Input	Steering lock	LOCK status	0 V
					UNLOCK status	Battery voltage
98 (G/R)	Ground	Steering lock condition No. 2	Input	Steering lock	LOCK status	Battery voltage
					UNLOCK status	0 V
99 (G/B)	Ground	Selector lever P position switch	Input	Selector lever	P position	0 V
					Any position other than P	Battery voltage
100 (P/L)	Ground	Passenger door request switch	Input	Passenger door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 JPMA0016GB 1.0 V
101 (B/W)	Ground	Driver door request switch	Input	Driver door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 JPMA0016GB 1.0 V
102 (Y)	Ground	Blower fan motor relay control	Output	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage
103 (L/R)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OFF		Battery voltage
106 (G/Y)	Ground	Steering wheel lock unit power supply	Output	Ignition switch	OFF or ACC	Battery voltage
					ON	0 V

BCM (BODY CONTROL MODULE)

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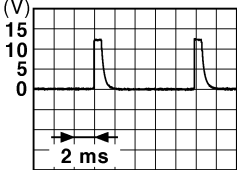
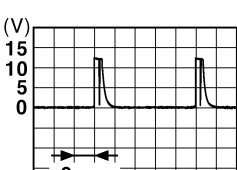
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
107 (R/W)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	 JPMIA0041GB 1.4 V
					Turn signal switch LH	 JPMIA0037GB 1.3 V
					Turn signal switch RH	 JPMIA0036GB 1.3 V
					Front wiper switch LO	 JPMIA0038GB 1.3 V
					Front washer switch ON	 JPMIA0039GB 1.3 V

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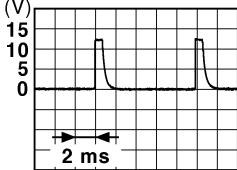
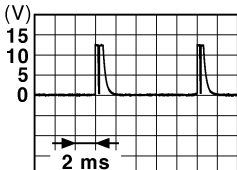
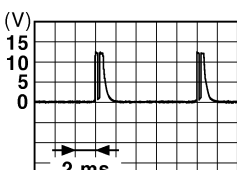
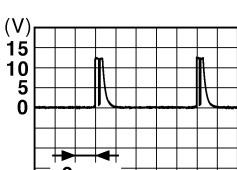
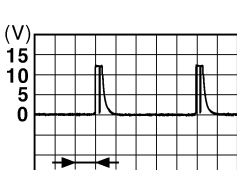
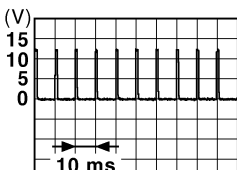
BCM (BODY CONTROL MODULE)

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Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
108 (P/B)	Ground	Combination switch INPUT 4	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)  JPMIA0041GB 1.4 V
					Lighting switch AUTO (Wiper intermittent dial 4)  JPMIA0038GB 1.3 V
					Lighting switch 1ST (Wiper intermittent dial 4)  JPMIA0036GB 1.3 V
					Any of the conditions be- low with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6  JPMIA0039GB 1.3 V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
109 (R/B)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent dial 4)	All switch OFF  JPMA0041GB 1.4 V
					Lighting switch PASS  JPMA0037GB 1.3 V
					Lighting switch 2ND  JPMA0036GB 1.3 V
					Front wiper switch INT  JPMA0038GB 1.3 V
					Front wiper switch HI  JPMA0040GB 1.3 V
					ON 0 V
110 (G/O)	Ground	Hazard switch	Input	Hazard switch	OFF  JPMA0012GB 1.1 V

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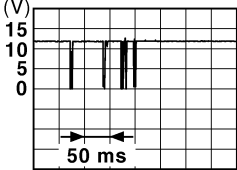
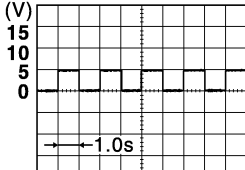
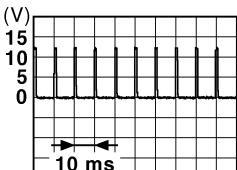
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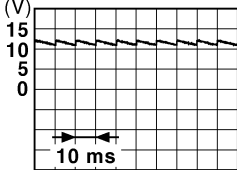
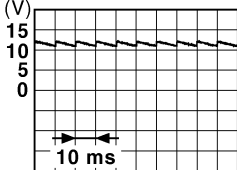
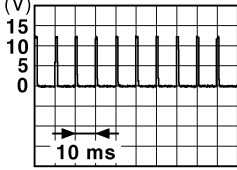
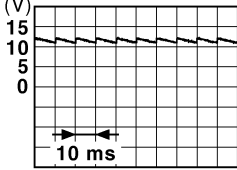
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
111 (L/Y)	Ground	Steering lock unit communication	Input/ Output	Steering lock	LOCK status	Battery voltage
					LOCK or UNLOCK	 JMKIA0066GB
					For 15 seconds after UN- LOCK	Battery voltage
					15 seconds or later after UNLOCK	0 V
113 (P/B)	Ground	Optical sensor	Input	Ignition switch ON	When bright outside of the vehicle	Close to 5 V
					When dark outside of the vehicle	Close to 0 V
115 (L)	Ground	Shock sensor	Input	Ignition switch	OFF	0 V
					ACC	5.0 V
					ON	 JPMIA1034GB
						2.5 V
116 (R/W)	Ground	Fuse check (Stop lamp switch)	Input	—		Battery voltage
118 (O/L)	Ground	Stop lamp switch	Input	Stop lamp switch	OFF (Brake pedal is not depressed)	0 V
					ON (Brake pedal is de- pressed)	Battery voltage
119 (G/W)	Ground	Front door lock as- sembly driver side (unlock sensor)	Input	Driver door	LOCK status (unlock sen- sor switch OFF)	 JPMIA0012GB
					UNLOCK status (unlock sensor switch ON)	0 V
						1.1 V
121 (Y)	Ground	Key slot switch	Input	When the key is inserted into key slot		Battery voltage
				When the key is not inserted into key slot		0 V
122 (V/R)	Ground	ACC feedback	Input	Ignition switch	OFF	0 V
					ACC or ON	Battery voltage
123 (G/W)	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage

BCM (BODY CONTROL MODULE)

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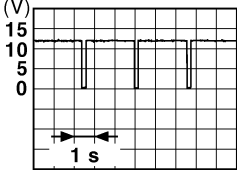
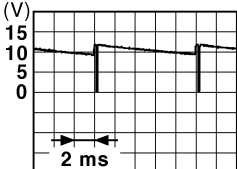
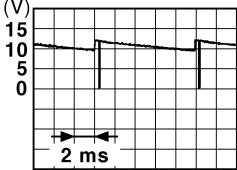
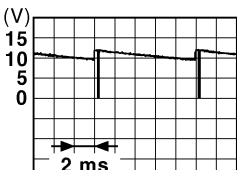
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
124 (R/B)	Ground	Passenger door switch	Input	Passenger door switch	OFF (When passenger door closes)	 JPMIA0011GB 11.8 V
					ON (When passenger door opens)	0 V
128 (GR)	Ground	Door lock and unlock switch LOCK	Input	Door lock and unlock switch [power window main switch or front power window switch (passenger side)]	NEUTRAL position	 JPMIA0011GB 11.8 V
					LOCK position	0 V
130* (GR/W)	Ground	Rear window defogger switch	Input	Ignition switch ON	Rear window defogger switch OFF	 JPMIA0012GB 1.1 V
					Rear window defogger switch ON	0 V
131 (GR/R)	Ground	Door lock and unlock switch UNLOCK	Input	Door lock and unlock switch [power window main switch or front power window switch (passenger side)]	NEUTRAL position	 JPMIA0011GB 11.8 V
					UNLOCK position	0 V
133 (W)	Ground	Push-button ignition switch illumination	Output	Push-button ignition switch illumination	ON	9.5 V
					OFF	0 V
134 (R)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF	Battery voltage
					ON	0 V
137 (P)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V
138 (V/W)	Ground	Receiver and sensor power supply output	Output	Ignition switch	OFF	0 V
					ACC or ON	5.0 V
140 (R/G)	Ground	Selector lever P/N position	Input	Selector lever	P or N position	Battery voltage
					Except P and N positions	0 V

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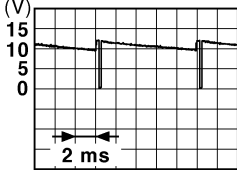
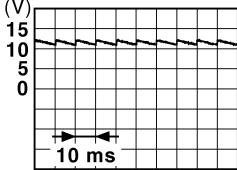
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
141 (L/O)	Ground	Security indicator	Output	Security indicator	ON	0 V
				Security indicator	Blinking	 JPMIA0014GB 11.3 V
142 (LG/B)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermit- tent dial 4)	OFF	Battery voltage
				Combination switch	All switch OFF	0 V
				Combination switch	Lighting switch 1ST	 JPMIA0031GB 10.7 V
				Combination switch	Lighting switch HI	
				Combination switch	Lighting switch 2ND	
				Combination switch	Turn signal switch RH	
143 (L/W)	Ground	Combination switch OUTPUT 1	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	0 V
				Combination switch	Front wiper switch HI (Wiper intermittent dial 4)	 JPMIA0032GB 10.7 V
144 (G/B)	Ground	Combination switch OUTPUT 2	Output	Combination switch	Any of the conditions be- low with all switch OFF	
				Combination switch	Any of the conditions be- low with all switch OFF	 JPMIA0033GB 10.7 V
				Combination switch	Any of the conditions be- low with all switch OFF	

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
145 (LG/R)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	0 V
					Front wiper switch INT	 10.7 V
					Front wiper switch LO	
					Lighting switch AUTO	
					Rear fog lamp switch ON	
146 (G/Y)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	0 V
					Front fog lamp switch ON	 10.7 V
					Lighting switch 2ND	
					Lighting switch PASS	
					Turn signal switch LH	
150 (SB)	Ground	Driver door switch	Input	Driver door switch	OFF (When driver door closes)	 11.8 V
					ON (When driver door opens)	0 V
151 (G/R)	Ground	Rear window defog- ger relay	Output	Rear window de- fogger	Active	0 V
					Not activated	Battery voltage

NOTE:

*: Without BOSE audio system

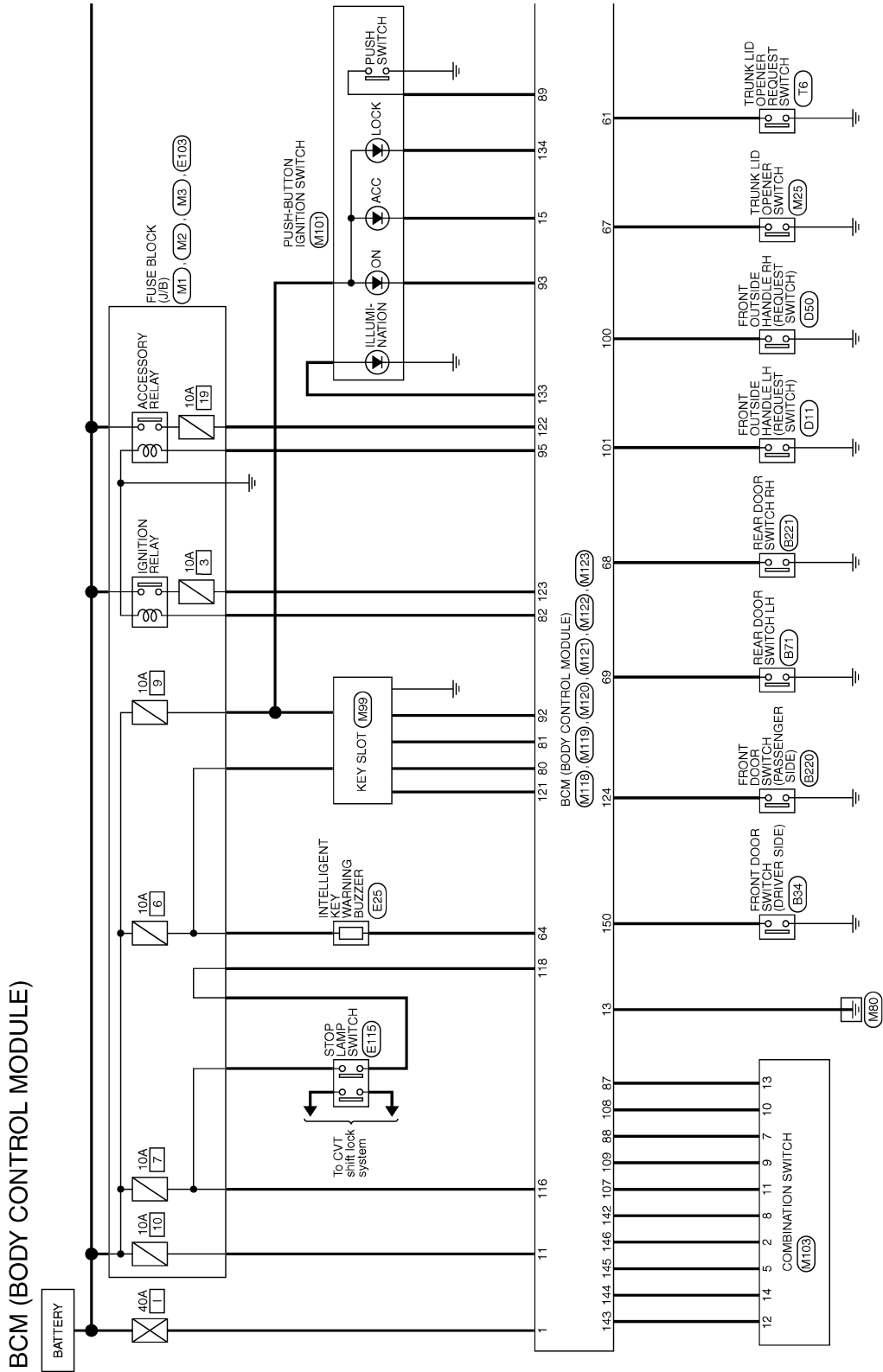
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BCM (BODY CONTROL MODULE)

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Wiring Diagram - BCM -

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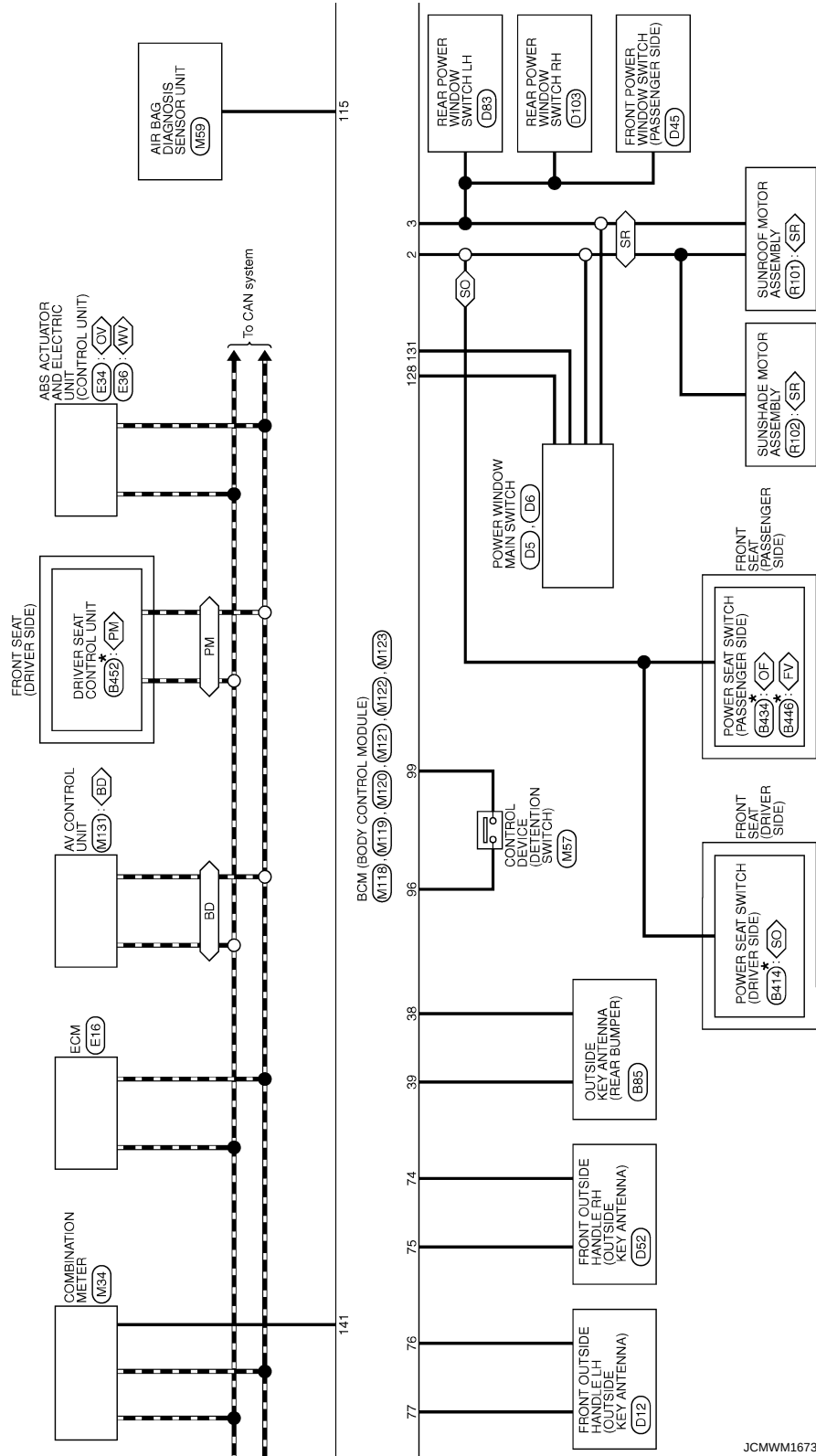


BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

- ◀WV▶ : With VDC
- ◀OV▶ : Without VDC
- ◀PM▶ : With automatic drive positioner
- ◀SO▶ : With power seat without automatic drive positioner
- ◀BD▶ : With BOSE system or base audio and display system
- ◀SR▶ : With sunroof
- ◀FV▶ : With front ventilation seat
- ◀OF▶ : Without front ventilation seat

★: This connector is not shown in "Harness Layout".

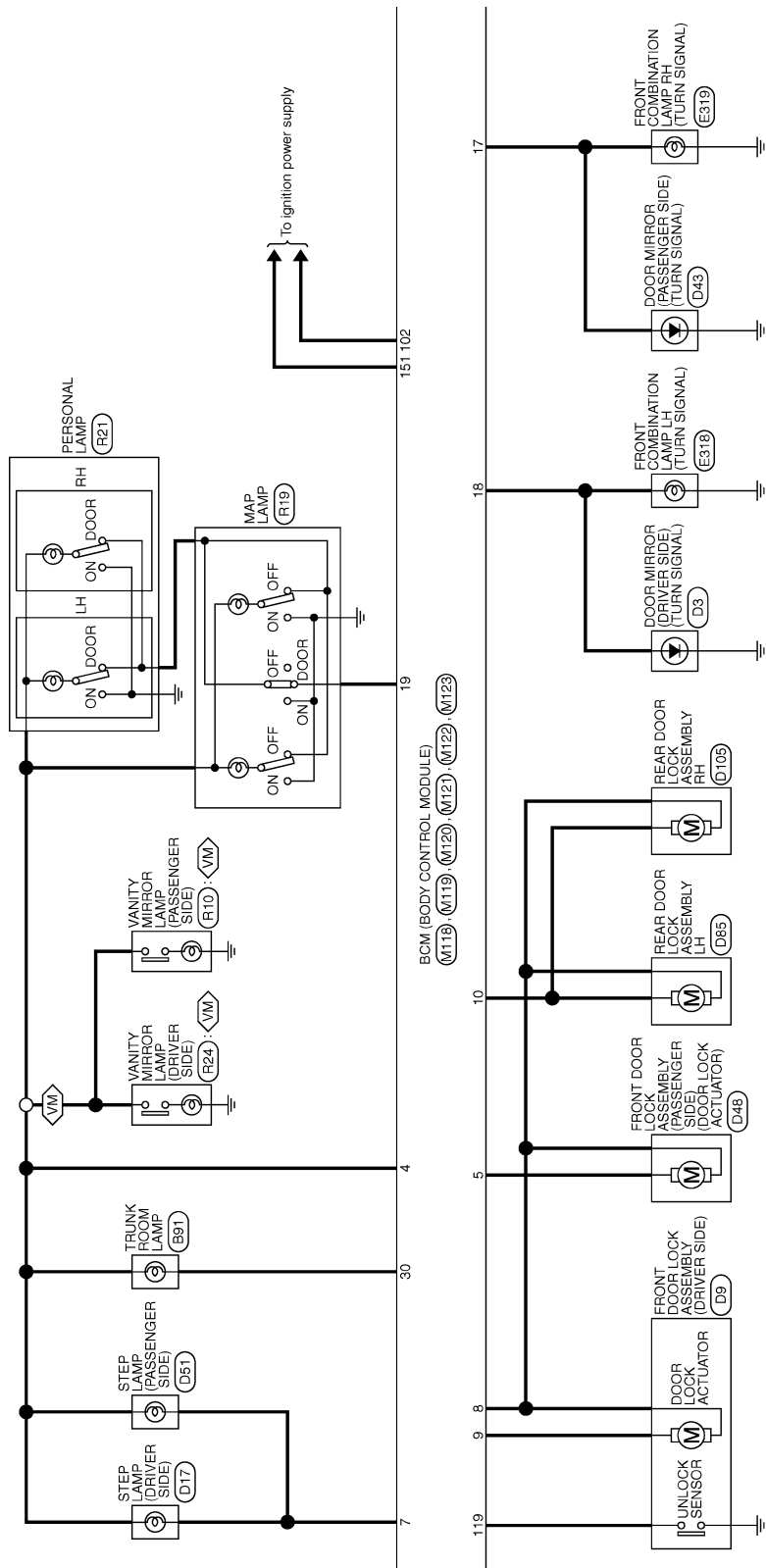


JCMWM1673G

BCM (BODY CONTROL MODULE)

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◁ VM ▷ : With vanity mirror lamp

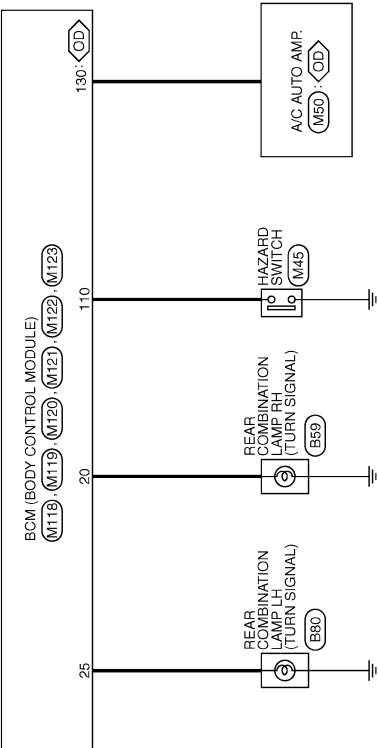


JCMWM1674GI

BCM (BODY CONTROL MODULE)

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⬠OD⬠ : Without BOSE system or base audio and display system



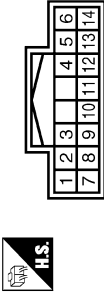
JCMWWM1675G

BCM (BODY CONTROL MODULE)

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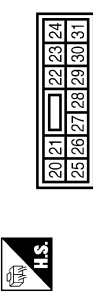
BCM (BODY CONTROL MODULE)

Connector No.	M103
Connector Name	COMBINATION SWITCH
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
2	G/Y	OUTPUT 4
5	LG/R	OUTPUT 3
7	R/G	INPUT 3
8	LG/B	OUTPUT 5
9	R/B	INPUT 2
10	P/B	INPUT 4
11	R/W	INPUT 1
12	L/W	OUTPUT 1
13	R/Y	INPUT 5
14	G/B	OUTPUT 2

Connector No.	M120
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS12FW-CS



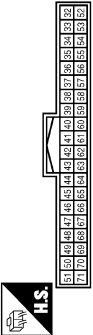
Terminal No.	Color of Wire	Signal Name [Specification]
20	G/B	TURN SIGNAL RH (REAR)
23	R	TRUNK OPEN OUTPUT
24	G	REAR FOG LAMP OUTPUT
25	G/Y	TURN SIGNAL LH (REAR)
30	V/W	TRUNK LAMP OUTPUT

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M03FB-LC



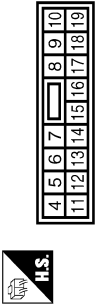
Terminal No.	Color of Wire	Signal Name [Specification]
1	W/B	BAT (F/L)
2	R/Y	POWER WINDOW POWER SUPPLY (BAT)
3	L/W	POWER WINDOW POWER SUPPLY (IGN)

Connector No.	M121
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FGY-NH



Terminal No.	Color of Wire	Signal Name [Specification]
34	B	TRUNK ANT I B
35	W	TRUNK ANT I A
38	L/O	RR BUMPER ANT B
39	BR/W	RR BUMPER ANT A
47	BR/W	IGN RELAY IPDM E/R CONT
50	W	TRUNK SW
52	R	IGN RELAY IPDM E/R CONT
61	G/R	TRUNK REQUEST SW
64	GR	REQUEST SW BUZZER
67	L/R	INTERIOR TRUNK SW
68	R/W	REAR RH DOOR SW

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS18FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
4	P/W	INTERIOR ROOM LAMP POWER SUPPLY
5	G/Y	PASSENGER DOOR UNLOCK OUTPUT
7	R/W	STEP LAMP OUTPUT
8	V	ALL DOOR LOCK OUTPUT
9	G	DRIVER DOOR UNLOCK OUTPUT
10	G/Y	REAR DOOR UNLOCK OUTPUT
11	Y/R	BAT (FUSE)
13	B	GND
15	Y	ACC IND
17	G/B	TURN SIGNAL RH (FRONT D/MIRROR)
18	G/Y	TURN SIGNAL LH (FRONT D/MIRROR)

Connector No.	69
Connector Name	REAR LH DOOR SW

19	Y	ROOM LAMP TIMER CONTROL
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BCM (BODY CONTROL MODULE)

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BCM (BODY CONTROL MODULE)

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



91	90	89	88	87	86	85	84	83	82	81	80	79	78	77	76	75	74	73	72
111	110	109	108	107	106	105	104	103	102	101	100	99	98	97	96	95	94	93	92

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Display contents of CONSULT	Fail-safe	Cancellation	
B2013: ID DISCORD BCM-S/L	Inhibit engine cranking	Erase DTC	A
B2014: CHAIN OF S/L-BCM	Inhibit engine cranking	Erase DTC	B
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC	
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC	
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC	C
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC	
B2557: VEHICLE SPEED	Inhibit steering lock	When normal vehicle speed signals have been received from ABS actuator and electric unit (control unit) for 500 ms	D
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent • Starter control relay signal • Starter relay status signal	E
B2601: SHIFT POSITION	Inhibit steering lock	500 ms after the following signal reception status becomes consistent • Selector lever P position switch signal • P range signal (CAN)	F
B2602: SHIFT POSITION	Inhibit steering lock	5 seconds after the following BCM recognition conditions are fulfilled • Ignition switch is in the ON position • Selector lever P position switch signal: Except P position (battery voltage) • Vehicle speed: 4 km/h (2.5 MPH) or more	G
B2603: SHIFT POSI STATUS	Inhibit steering lock	500 ms after the following BCM recognition conditions are fulfilled • Ignition switch is in the ON position • Selector lever P position switch signal: Except P position (battery voltage) • Selector lever P/N position signal: Except P and N positions (0 V)	H
B2604: PNP SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions is fulfilled • Status 1 - Ignition switch is in the ON position - Selector lever P/N position signal: P and N position (battery voltage) - P range signal or N range signal (CAN): ON • Status 2 - Ignition switch is in the ON position - Selector lever P/N position signal: Except P and N positions (0 V) - P range signal and N range signal (CAN): OFF	I
B2605: PNP SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions is fulfilled • Ignition switch is in the ON position - Power position: IGN - Selector lever P/N position signal: Except P and N positions (0 V) - Interlock/PNP switch signal (CAN): OFF • Status 2 - Ignition switch is in the ON position - Selector lever P/N position signal: P or N position (battery voltage) - PNP switch signal (CAN): ON	J
B2606: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent • Steering lock relay signal (Request signal) • Steering lock relay signal (Condition signal)	K
B2607: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent • Steering lock relay signal (Request signal) • Steering lock relay signal (Condition signal)	L

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Display contents of CONSULT	Fail-safe	Cancellation
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent - Starter motor relay control signal - Starter relay status signal (CAN)
B2609: S/L STATUS	- Inhibit engine cranking - Inhibit steering lock	When the following steering lock conditions agree - BCM steering lock control status - Steering lock condition No. 1 signal status - Steering lock condition No. 2 signal status
B260A: IGNITION RELAY	Inhibit engine cranking	500 ms after the following conditions are fulfilled - IGN relay (IPDM E/R) control signal: OFF (Battery voltage) - Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) - Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions is fulfilled - Power position changes to ACC - Receives engine status signal (CAN)
B2612: S/L STATUS	- Inhibit engine cranking - Inhibit steering lock	When any of the following conditions is fulfilled - Steering lock unit status signal (CAN) is received normally - The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R)
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal
B2619: BCM	Inhibit engine cranking	1 second after the steering lock unit power supply output control inside BCM becomes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B26E1: ENG STATE NO RES	Inhibit engine cranking	When any of the following conditions is fulfilled - Power position changes to ACC - Receives engine status signal (CAN)
B26E9: S/L STATUS	- Inhibit engine cranking - Inhibit steering lock	When BCM transmits the LOCK request signal to steering lock unit, and receives LOCK response signal from steering lock unit, the following conditions is fulfilled - Steering condition No. 1 signal: LOCK (0 V) - Steering condition No. 2 signal: LOCK (Battery voltage)

HIGH FLASHER OPERATION

BCM detects the turn signal lamp circuit status by the current value.

BCM increases the turn signal lamp blinking speed if the bulb or harness open is detected with the turn signal lamp operating.

NOTE:

The blinking speed is normal while activating the hazard warning lamp.

DTC Inspection Priority Chart

INFOID:000000003900511

If some DTCs are displayed at the same time, perform inspections one by one based on the following priority chart.

Priority	DTC
1	B2562: LOW VOLTAGE
2	- U1000: CAN COMM CIRCUIT - U1010: CONTROL UNIT (CAN)
3	- B2190: NATS ANTENNA AMP - B2191: DIFFERENCE OF KEY - B2192: ID DISCORD BCM-ECM - B2193: CHAIN OF BCM-ECM

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Priority	DTC	
4	• B2013: ID DISCORD BCM-S/L	A
	• B2014: CHAIN OF S/L-BCM	
	• B2553: IGNITION RELAY	B
	• B2555: STOP LAMP	
	• B2556: PUSH-BTN IGN SW	
	• B2557: VEHICLE SPEED	
	• B2560: STARTER CONT RELAY	C
	• B2601: SHIFT POSITION	
	• B2602: SHIFT POSITION	
	• B2603: SHIFT POSI STATUS	
	• B2604: PNP SW	D
	• B2605: PNP SW	
	• B2606: S/L RELAY	
	• B2607: S/L RELAY	
	• B2608: STARTER RELAY	E
	• B2609: S/L STATUS	
	• B260A: IGNITION RELAY	
	• B260B: STEERING LOCK UNIT	F
	• B260C: STEERING LOCK UNIT	
	• B260D: STEERING LOCK UNIT	
	• B260F: ENG STATE SIG LOST	
	• B2612: S/L STATUS	G
	• B2614: ACC RELAY CIRC	
	• B2615: BLOWER RELAY CIRC	
	• B2616: IGN RELAY CIRC	
	• B2617: STARTER RELAY CIRC	H
	• B2618: BCM	
	• B2619: BCM	
	• B261A: PUSH-BTN IGN SW	I
	• B261E: VEHICLE TYPE	
	• B26E1: ENG STATE NO RES	
	• B26E9: S/L STATUS	J
	• B26EA: KEY REGISTRATION	
	• U0415: VEHICLE SPEED SIG	
5	• B2621: INSIDE ANTENNA	K
	• B2622: INSIDE ANTENNA	
	• B2623: INSIDE ANTENNA	

DTC Index

INFOID:000000003900512

NOTE:

The details of time display are as follows.

- CRNT: A malfunction is detected now.
- PAST: A malfunction was detected in the past.

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data and IGN Counter, refer to [BCS-16, "COMMON ITEM : CONSULT-III Function \(BCM - COMMON ITEM\)"](#).

CONSULT display	Fail-safe	Freeze Frame Data	Intelligent Key warning lamp ON	Reference page
No DTC is detected. further testing may be required.	—	—	—	—
U1000: CAN COMM CIRCUIT	—	—	—	BCS-33
U1010: CONTROL UNIT (CAN)	—	—	—	BCS-34
U0415: VEHICLE SPEED SIG	—	—	—	BCS-35
B2013: ID DISCORD BCM-S/L	×	×	—	SEC-46
B2014: CHAIN OF S/L-BCM	×	×	—	SEC-47
B2190: NATS ANTENNA AMP	×	—	—	SEC-39
B2191: DIFFERENCE OF KEY	×	—	—	SEC-42

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

CONSULT display	Fail-safe	Freeze Frame Data	Intelligent Key warn- ing lamp ON	Reference page
B2192: ID DISCORD BCM-ECM	×	—	—	SEC-43
B2193: CHAIN OF BCM-ECM	×	—	—	SEC-45
B2553: IGNITION RELAY	—	×	—	PCS-49
B2555: STOP LAMP	—	×	—	SEC-50
B2556: PUSH-BTN IGN SW	—	×	×	SEC-52
B2557: VEHICLE SPEED	×	×	×	SEC-54
B2560: STARTER CONT RELAY	×	×	×	SEC-55
B2562: LOW VOLTAGE	—	×	—	BCS-36
B2601: SHIFT POSITION	×	×	×	SEC-56
B2602: SHIFT POSITION	×	×	×	SEC-59
B2603: SHIFT POSI STATUS	×	×	×	SEC-61
B2604: PNP SW	×	×	×	SEC-64
B2605: PNP SW	×	×	×	SEC-67
B2606: S/L RELAY	×	×	×	SEC-69
B2607: S/L RELAY	×	×	×	SEC-70
B2608: STARTER RELAY	×	×	×	SEC-72
B2609: S/L STATUS	×	×	×	SEC-74
B260A: IGNITION RELAY	×	×	×	PCS-51
B260B: STEERING LOCK UNIT	—	×	×	SEC-78
B260C: STEERING LOCK UNIT	—	×	×	SEC-79
B260D: STEERING LOCK UNIT	—	×	×	SEC-80
B260F: ENG STATE SIG LOST	×	×	×	SEC-81
B2612: S/L STATUS	×	×	×	SEC-85
B2614: ACC RELAY CIRC	—	×	×	PCS-53
B2615: BLOWER RELAY CIRC	—	×	×	PCS-55
B2616: IGN RELAY CIRC	—	×	×	PCS-57
B2617: STARTER RELAY CIRC	×	×	×	SEC-89
B2618: BCM	×	×	×	PCS-59
B2619: BCM	×	×	×	SEC-91
B261A: PUSH-BTN IGN SW	—	×	×	SEC-92
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	SEC-95
B2621: INSIDE ANTENNA	—	×	—	DLK-50
B2622: INSIDE ANTENNA	—	×	—	DLK-52
B2623: INSIDE ANTENNA	—	×	—	DLK-54
B26E1: ENG STATE NO RES	×	×	×	SEC-82
B26E9: S/L STATUS	×	×	× (Turn ON for 15 seconds)	SEC-83
B26EA: KEY REGISTRATION	—	×	× (Turn ON for 15 seconds)	SEC-84

THE PARKING BRAKE RELEASE WARNING CONTINUES SOUNDING, OR DOES NOT SOUND

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

THE PARKING BRAKE RELEASE WARNING CONTINUES SOUNDING, OR DOES NOT SOUND

Description

INFOID:000000003838721

- The parking brake warning buzzer sounds continuously during vehicle travel though the parking brake is released
- The parking brake warning buzzer does not sound at all even though driving the vehicle with the parking brake applied.

Diagnosis Procedure

INFOID:000000003838722

1.CHECK PARKING BRAKE WARNING LAMP

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

When parking brake is applied : ON

When parking brake is released : OFF

Is the inspection result normal?

YES >> Replace the combination meter.

NO >> GO TO 2.

2.CHECK PARKING BRAKE SWITCH SIGNAL CIRCUIT

Perform a check for the parking brake switch signal circuit. Refer to [MWI-52, "Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK PARKING BRAKE SWITCH UNIT

Perform a unit check for the parking brake switch. Refer to [BRC-124, "Component Inspection"](#).

Is the inspection result normal?

YES >> Replace the combination meter.

NO >> Replace the parking brake switch.

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THE LIGHT REMINDER WARNING DOES NOT SOUND

< SYMPTOM DIAGNOSIS >

THE LIGHT REMINDER WARNING DOES NOT SOUND

Description

INFOID:000000003838723

Light reminder warning chime does not sound even though headlamp is illuminated.

Diagnosis Procedure

INFOID:000000003838724

1.CHECK COMBINATION SWITCH (LIGHT SWITCH) OPERATION

Check that the headlamps operate normally by operating the combination switch (light switch).

Do they operate normally?

YES >> GO TO 2.

NO >> Refer to [BCS-76, "Symptom Table"](#).

2.CHECK FRONT DOOR SWITCH (DRIVER SIDE) SIGNAL CIRCUIT

Perform the check for the front door switch (driver side) signal circuit. Refer to [DLK-57, "Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK FRONT DOOR SWITCH (DRIVER SIDE) UNIT

Perform a unit check for the front door switch (driver side). Refer to [DLK-59, "Component Inspection"](#).

Is the inspection result normal?

YES >> Replace the BCM. Refer to [BCS-78, "Removal and Installation"](#).

NO >> Replace the front door switch (driver side). Refer to [DLK-234, "Removal and Installation"](#).

PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS

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

INFOID:000000003940982

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 "SRS AIRBAG" and "SEAT BELT" 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 "SRS AIRBAG".
- Never 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.

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