# SECTION WARNING CHIME SYSTEM

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< BASIC INSPECTION >

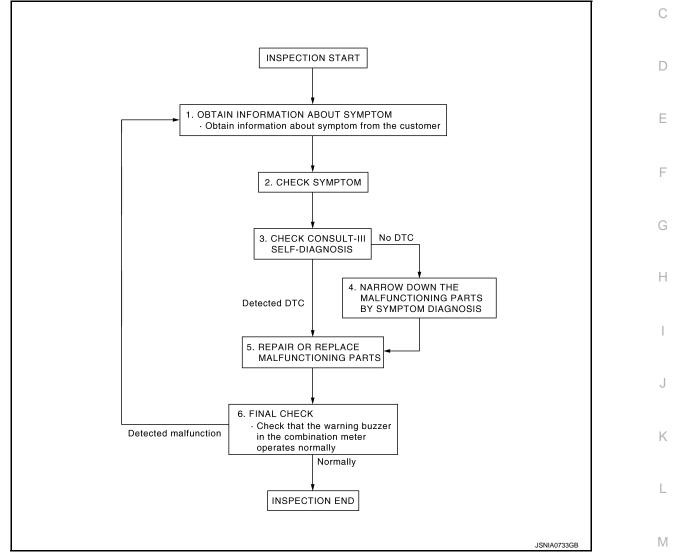
# BASIC INSPECTION DIAGNOSIS AND REPAIR WORKFLOW

#### Work Flow

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**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 that any other malfunctions are present.

#### >> GO TO 3.

**3.**CHECK CONSULT-III SELF-DIAGNOSIS RESULTS

WCS

# DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

Connect CONSULT-III and perform "Self Diagnostic Result" of "METER/M&A". Refer to <u>MWI-36, "CONSULT-</u> <u>III Function (METER/M&A)"</u>.

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 repair or replace 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.

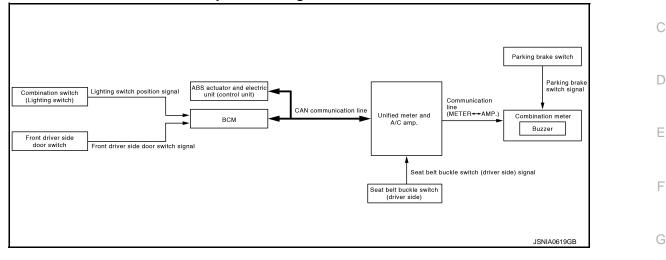
#### < SYSTEM DESCRIPTION >

# SYSTEM DESCRIPTION

WARNING CHIME SYSTEM

WARNING CHIME SYSTEM

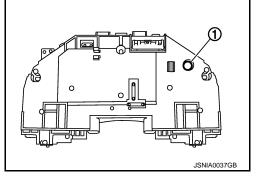
# WARNING CHIME SYSTEM : System Diagram



# WARNING CHIME SYSTEM : System Description

#### COMBINATION METER

- The buzzer (1) for warning chime system is installed in the combination meter.
- The buzzer sounds when the combination meter receives buzzer output signal from each unit through unified meter and A/C amp.
- Judges whether the parking brake is released from the vehicle speed signal received from the unified meter and A/C amp. and the parking brake switch signal from the parking brake switch, and sounds the warning buzzer if necessary.



#### UNIFIED METER AND A/C AMP.

The unified meter and A/C amp. transmits the buzzer output signal received from BCM with CAN communication line to the combination meter.

#### BCM

BCM receives signals from various units and transmits a buzzer output signal to the unified meter and A/C amp. with CAN communication line if it judges that the warning buzzer should be activated.

BCM warning function list

Warning functions	Signal name	
Light reminder warning chime	<ul><li>Lighting switch position signal</li><li>Driver side door switch signal</li></ul>	С
Seat belt warning chime	<ul><li> Ignition switch signal</li><li> Seat belt buckle switch (driver side) signal</li></ul>	P

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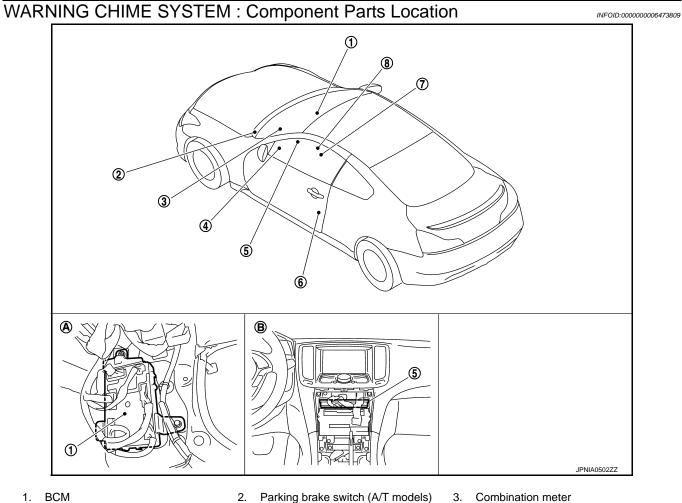
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#### < SYSTEM DESCRIPTION >



- 1. BCM
- Combination switch 4.
- (Lighting switch)
- Seat belt buckle switch (driver side) 7. A. Dash side lower (passenger side)
- 5. Unified meter and A/C amp.
- Parking brake switch (M/T models) 8.
- В. Behind cluster lid C (back)

# WARNING CHIME SYSTEM : Component Description

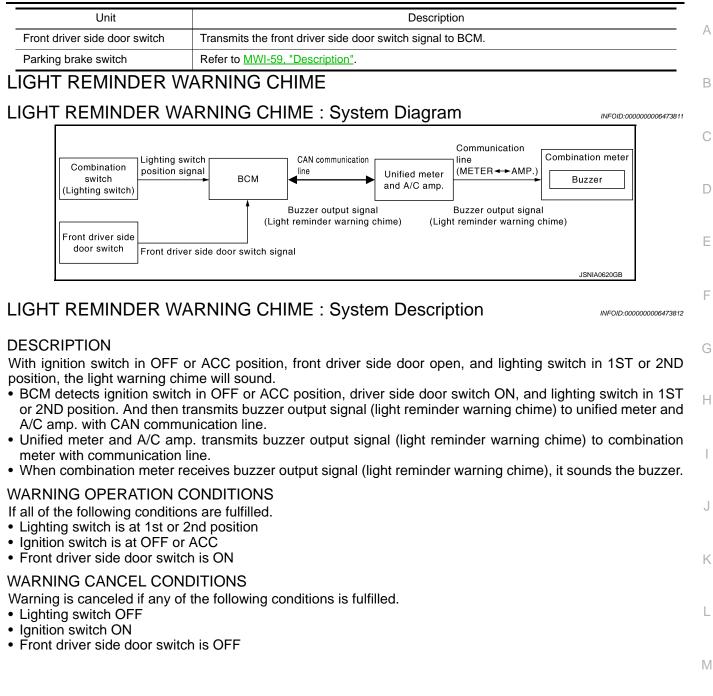
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6. Front driver side door switch

Unit	Description		
Combination meter	<ul> <li>Receives a buzzer output signal from the unified meter and A/C amp. and sounds the buzzer.</li> <li>Judges whether the parking brake is released from the vehicle speed signal received from the unified meter and A/C amp. with communication line and the parking brake switch signal from the parking brake switch, and sounds the buzzer if necessary.</li> </ul>		
Unified meter and A/C amp.	<ul> <li>Receives the seat belt buckle switch signal from the seat belt buckle switch and transmits it to BCM with CAN communication line.</li> <li>Receives a buzzer output signal from BCM with CAN communication line and transmits it to the combination meter by means of communication line.</li> <li>Receives a vehicle speed signal from ABS actuator and electric unit (control unit) with CAN communication line and transmits it to the combination meter by means of communication line.</li> </ul>		
BCM	Transmits signals provided by various units to the unified meter and A/C amp. with CAN con munication line.		
ABS actuator and electric unit (control unit)	Transmits the vehicle speed signal to BCM with CAN communication line.		
Seat belt buckle switch (driver side)	Transmits a seat belt buckle switch (driver side) signal to the unified meter and A/C amp.		
Combination switch (Lighting switch)	Transmits the lighting switch position signal to BCM.		

Revision: 2011 December

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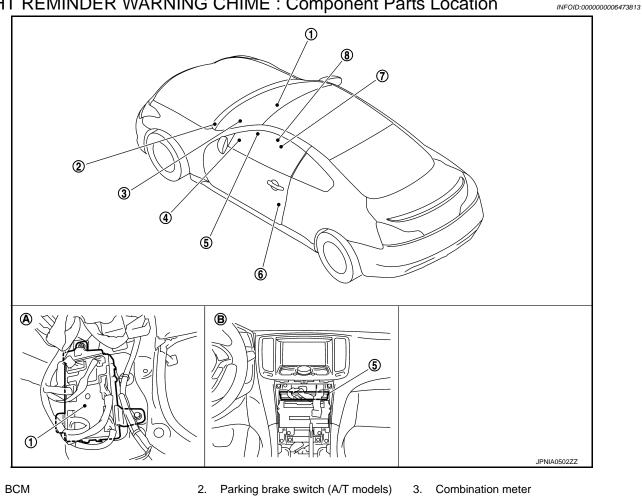


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#### < SYSTEM DESCRIPTION >

# LIGHT REMINDER WARNING CHIME : Component Parts Location



- 1. Combination switch
- 4. (Lighting switch)

7. Seat belt buckle switch (driver side)

A. Dash side lower (passenger side)

- Unified meter and A/C amp.
  - 6. Front driver side door switch
- Parking brake switch (M/T models) 8.
- B. Behind cluster lid C (back)

#### LIGHT REMINDER WARNING CHIME : Component Description

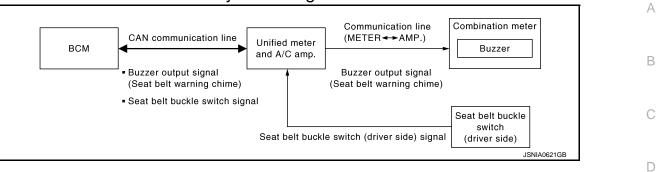
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Unit	Description           Receives a buzzer output signal from the unified meter and A/C amp. and sounds the buzzer.		
Combination meter			
Unified meter and A/C amp.	eceives a buzzer output signal from BCM via CAN communication line and transmits it to the com- ination meter by means of communication line.		
BCM	Judges the light warning chime conditions from the signals provided by various switches and trans- mits a buzzer output signal to the unified meter and A/C amp. via CAN communication line if nec- essary.		
Combination switch (Lighting switch)	Transmits the lighting switch position signal to BCM.		
Front driver side door switch	Transmits the front driver side door switch signal to BCM.		

# SEAT BELT WARNING CHIME

# < SYSTEM DESCRIPTION > SEAT BELT WARNING CHIME : System Diagram



# SEAT BELT WARNING CHIME : System Description

#### DESCRIPTION

With ignition switch turned ON and driver seat belt unfastened, seat belt warning chime will sound for approximately 6 seconds.

- BCM receives seat belt buckle switch signal from unified meter and A/C amp. with CAN communication line.
- BCM detects ignition switch turned ON and seat belt buckle switch (driver side) ON. And then transmits
- buzzer output signal (seat belt warning chime) to unified meter and A/C amp. with CAN communication line.
   Unified meter and A/C amp. transmits buzzer output signal (seat belt warning chime) to combination meter with communication line.
- When combination meter receives buzzer output signal (seat belt warning chime), it sounds the buzzer.

#### WARNING OPERATION CONDITIONS

- If all of the following conditions are fulfilled.
- Ignition switch  $OFF \rightarrow ON$
- Seat buckle switch (driver side) is ON (driver seat belt unfastened)

#### WARNING CANCEL CONDITIONS

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

- Ignition switch OFF
- Seat buckle switch (driver side) is OFF (driver seat belt fastened)

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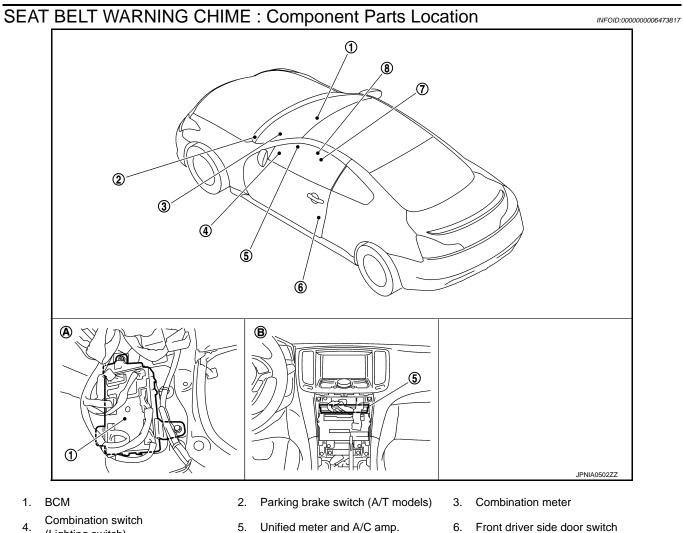
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#### < SYSTEM DESCRIPTION >



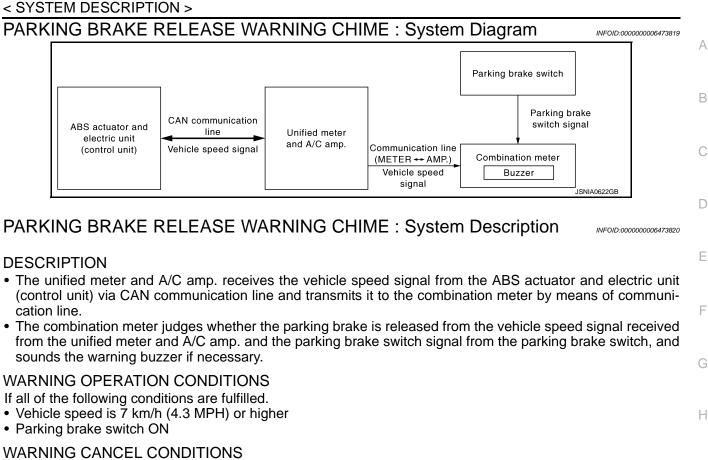
- 4. (Lighting switch)
- 7. Seat belt buckle switch (driver side) 8.A. Dash side lower (passenger side) B.
- Parking brake switch (M/T models)
  - B. Behind cluster lid C (back)

# SEAT BELT WARNING CHIME : Component Description

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Unit	Description		
Combination meter	Receives a buzzer output signal from the unified meter and A/C amp. and sounds the buzzer.		
Unified meter and A/C amp.	<ul> <li>Receives the seat belt buckle switch (driver side) signal from the seat belt buckle switch (driver side) and transmits it to BCM via CAN communication line.</li> <li>Receives a buzzer output signal from BCM via CAN communication line and transmits it to the combination meter by means of communication line.</li> </ul>		
BCM	Judges the seat belt warning chime condition from the seat belt buckle switch signal received from the unified meter and A/C amp. and transmits a buzzer output signal to the unified meter and A/C amp via CAN communication line if necessary.		
Seat belt buckle switch (driver side)	Refer to WCS-24, "Description".		

# PARKING BRAKE RELEASE WARNING CHIME



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

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

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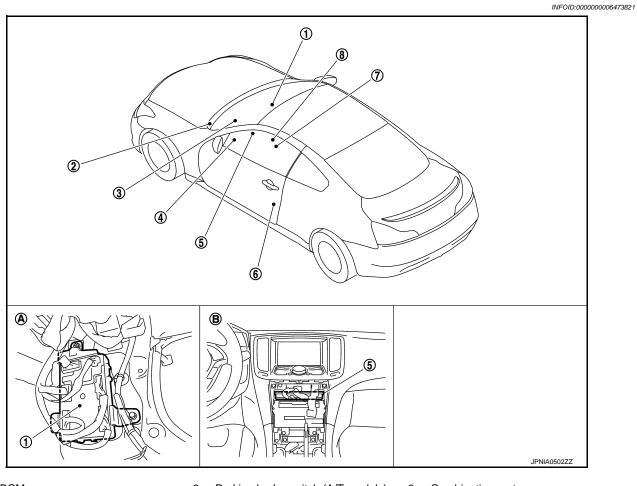
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#### < SYSTEM DESCRIPTION >

PARKING BRAKE RELEASE WARNING CHIME : Component Parts Location



- BCM 1.
- Combination switch 4. (Lighting switch)
- Parking brake switch (A/T models) 2. Unified meter and A/C amp.
- 3. Combination meter
- 6. Front driver side door switch

- 7. Seat belt buckle switch (driver side) A. Dash side lower (passenger side)
- 8. Parking brake switch (M/T models)
- B. Behind cluster lid C (back)

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# PARKING BRAKE RELEASE WARNING CHIME : Component Description INFOLD:000000006473822

Unit	Description		
Combination meter	Judges whether the parking brake is released from the vehicle speed signal received from the unified meter and A/C amp. via communication line and the parking brake switch signal from the parking brake switch, and sounds the buzzer if necessary.		
Unified meter and A/C amp.	Receives a vehicle speed signal from ABS actuator and electric unit (control unit) via CAN com- munication line and transmits it to the combination meter by means of communication line.		
ABS actuator and electric unit (control unit)	Transmits the vehicle speed signal to unified meter and A/C amp. via CAN communication line.		
Parking brake switch	Refer to <u>MWI-59, "Description"</u> .		

#### < SYSTEM DESCRIPTION >

# DIAGNOSIS SYSTEM (UNIFIED METER AND A/C AMP.)

### CONSULT-III Function (METER/M&A)

#### CONSULT-III APPLICATION ITEMS

CONSULT-III can perform the following diagnosis modes with CAN communication with the unified meter and A/C amp.

			C
System	Diagnosis mode	Description	
	Self Diagnostic Result	Unified meter and A/C amp. checks the conditions and displays memorized error.	_
METER/M&A	Data Monitor	Displays unified meter and A/C amp. input/output data in real time.	D
	Ecu Identification	The unified meter and A/C amp. part number is displayed.	_

#### SELF DIAG RESULT

Refer to MWI-103, "DTC Index".

#### DATA MONITOR

**Display Item List** 

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X:	Applicable
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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) with CAN communication line. <b>NOTE:</b> 655.35 is displayed when the malfunction signal is received.
SPEED OUTPUT [km/h]	x	Vehicle speed signal value transmitted to other units with CAN communication line. NOTE: 655.35 is displayed when the malfunction signal is received.
ODO OUTPUT [km]		Odometer signal value transmitted to other units with CAN communication line.
TACHO METER [rpm]	x	Value of the engine speed signal received from ECM with CAN communication line. NOTE: 8191.875 is displayed when the malfunction signal is received.
FUEL METER [L]	Х	Fuel level indicated on combination meter.
W TEMP METER [°C]	x	Value of engine coolant temperature signal received from ECM with CAN commu- nication line. <b>NOTE:</b> 215 is displayed when the malfunction signal is input.
FUEL CAP W/L [On/Off]		Status of fuel filler cap warning display detected from fuel filler cap warning display signal received from ECM via CAN communication.
ABS W/L [On/Off]		Status of ABS warning lamp judged from ABS warning lamp signal received from ABS actuator and electric unit (control unit) with CAN communication line.
VDC/TCS IND [On/Off]		Status of VDC OFF indicator lamp judged from VDC OFF indicator lamp signal re- ceived from ABS actuator and electric unit (control unit) with CAN communication line.
SLIP IND [On/Off]		Status of VDC warning lamp judged from VDC warning lamp signal received from ABS actuator and electric unit (control unit) with CAN communication line.
BRAKE W/L [On/Off]		Status of brake warning lamp judged from brake warning lamp signal received from ABS actuator and electric unit (control unit) with CAN communication line. <b>NOTE:</b> 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.
DOOR W/L [On/Off]		Status of door warning judged from door switch signal received from BCM with CAN communication line.

#### < SYSTEM DESCRIPTION >

Display item [Unit]	MAIN SIGNALS	Description	
TRUNK/GLAS-H [On/Off]		Status of trunk warning judged from trunk switch signal received from BCM with CAN communication line.	
HI-BEAM IND [On/Off]		Status of high beam indicator lamp judged from high beam request signal received from BCM with CAN communication line.	
TURN IND [On/Off]		Status of turn indicator lamp judged from turn indicator signal received from BCM with CAN communication line.	
FR FOG IND [On/Off]		Status of front fog lamp indicator lamp judged from front fog light request signal received from BCM with CAN communication line.	
RR FOG IND [Off]		This item is displayed, but cannot be monitored.	
LIGHT IND [On/Off]		Status of tail lamp indicator lamp judged from position light request signal received from BCM with CAN communication line.	
OIL W/L [On/Off]		Status of oil pressure warning lamp judged from oil pressure switch signal re- ceived from IPDM E/R with CAN communication line.	
MIL [On/Off]		Status of malfunction indicator lamp judged from malfunctioning indicator lamp signal received from ECM with CAN communication line.	
GLOW IND [Off]		This item is displayed, but cannot be monitored.	
C-ENG2 W/L [Off]		This item is displayed, but cannot be monitored.	
CRUISE IND [On/Off]		Status of CRUISE indicator judged from ASCD status signal received from ECM with CAN communication line.	
SET IND [On/Off]		Status of SET indicator judged from ASCD SET indicator signal received from ECM with CAN communication line.	
CRUISE W/L [On/Off]		Status of CRUISE warning lamp judged from ASCD status signal received from ECM with CAN communication line.	
BA W/L [On/Off]		This item is displayed, but cannot be monitored.	
ATC/T-AMT W/L [On/Off]		Status of A/T check warning lamp judged from A/T check indicator signal received from TCM with CAN communication line.	
4WD W/L [Off]		This item is displayed, but cannot be monitored.	
4WD LOCK IND [Off]		This item is displayed, but cannot be monitored.	
FUEL W/L [On/Off]		Low-fuel warning lamp status judged by the identified fuel level.	
WASHER W/L [On/Off]		Status of washer warning lamp judged from washer level switch input to combina- tion meter.	
AIR PRES W/L [On/Off]		Status of low tire pressure warning lamp judged from tire pressure signal received from BCM with CAN communication line.	
KEY G/Y W/L [On/Off]		Status of key warning lamp (G/Y) judged from key warning signal received from BCM with CAN communication line.	
AFS OFF IND [On/Off]		Status of AFS OFF indicator lamp judged from AFS OFF indicator lamp signal re- ceived from AFS control unit with CAN communication line.	
4WAS/RAS W/L [Off]		This item is displayed, but cannot be monitored.	
DDS W/L [Off]		This item is displayed, but cannot be monitored.	
LANE W/L [Off]		This item is displayed, but cannot be monitored.	
LDP IND [Off]		This item is displayed, but cannot be monitored.	

#### < SYSTEM DESCRIPTION >

Display item [Unit]	MAIN SIGNALS	Description	
LCD [B&P N, B&P I, ID NG, ROTAT, SFT P, INSRT, BATT, NO KY, OUTKY, LK WN, C&P N, C&P I]		Displays status of Intelligent Key system warning judged from meter display signal received from BCM with CAN communication line.	
ACC TARGET [On/Off]		Status of vehicle ahead detection indicator judged from meter display signal re- ceived from ICC sensor integrated unit with CAN communication line.	
ACC DISTANCE [Off, Short, Middle, Long]		Status of set distance indicator judged from meter display signal received from ICC sensor integrated unit with CAN communication line.	
ACC OWN VHL [On/Off]		Status of own vehicle indicator judged from meter display signal received from ICC sensor integrated unit with CAN communication line.	
ACC SET SPEED		Display ICC set vehicle speed from meter display signal received from ICC sensor integrated unit with CAN communication line.	
ACC UNIT [On/Off]		Status of display unit judged from meter display signal received from ICC sensor integrated unit with CAN communication line.	
O/D OFF SW [Off]		This item is displayed, but cannot be monitored.	
SHIFT IND [P, R, N, D, M1, M2, M3, M4, M5, M6, M7]		Status of shift position indicator judged from shift position signal and manual mode indicator signal received from TCM with CAN communication line.	
AT S MODE SW [On/Off]		Status of snow mode switch.	
AT P MODE SW [Off]		This item is displayed, but cannot be monitored.	
M RANGE SW [On/Off]		Status of manual mode switch.	
NM RANGE SW [On/Off]		Status of not manual mode switch.	
AT SFT UP SW [On/Off]		Status of A/T shift up switch.	
AT SFT DWN SW [On/Off]		Status of A/T shift down switch.	
ST SFT UP SW [On/Off]		Status of paddle shifter up switch.	
ST SFT DWN SW [On/Off]		Status of paddle shifter down switch.	
COMP F/B SIG [On/Off]		A/C compressor activation condition that ECM judges according to the engine coolant temperature and the acceleration degree.	
4WD LOCK SW [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 (driver side).	
BRAKE OIL SW [On/Off]		Status of brake fluid level switch.	
DISTANCE [km]		Value of possible driving distance calculated by unified meter and A/C amp.	
OUTSIDE TEMP [°C or °F]		Ambient air temperature value converted from ambient sensor signal received from ambient sensor. <b>NOTE:</b> This may not match with the temperature value indicated on the information dis- play. (Because the information display value is a corrected value from the ambient sensor input value.)	

#### < SYSTEM DESCRIPTION >

Display item [Unit]	MAIN SIGNALS	Description
FUEL LOW SIG [On/Off]		Status of fuel level low warning signal to output to AV control unit with CAN com- munication line.
BUZZER [On/Off]	x	Buzzer status (in the combination meter) is judged with the buzzer output signal received from each unit with CAN communication line and the warning output condition of the combination meter.

#### NOTE:

Some items are not available according to vehicle specification.

# < SYSTEM DESCRIPTION > DIAGNOSIS SYSTEM (BCM) COMMON ITEM

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

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#### 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.	D
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM. Refer to CONSULT-III opera- tion 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.	F
Configuration	This function is not used even though it is displayed.	

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

#### NOTE:

• \*1: This item is displayed, but is not used.

• \*2: At models with rain sensor this mode is displayed, but is not used.

#### FREEZE FRAME DATA (FFD)

# **DIAGNOSIS SYSTEM (BCM)**

#### < SYSTEM DESCRIPTION >

The BCM records the following vehicle condition at the time a particular DTC is detected, and displays on CONSULT-III.

CONSULT screen item	Indication/Unit	Description			
Vehicle Speed	km/h	Vehicle speed of the moment a particular DTC is detected			
Odo/Trip Meter	km	Total mileage (Odometer value) of the moment a particular DTC is detected			
	SLEEP>LOCK		While turning BCM status from low power consumption mode 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" (Except emergency stop operation)		
	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" (Emer- gency stop operation)		
	ACC>OFF		While turning power supply position from "ACC" to "OFF"		
	OFF>LOCK	Power supply position status of the moment a particular DTC is de- tected*	While turning power supply position from "OFF" to "LOCK"*		
Vehicle Condition	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 posi- tion 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 steer- ing 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	0 - 39	<ul> <li>The number of times that ignition switch is turned ON after DTC is detected</li> <li>The number is 0 when a malfunction is detected now.</li> <li>The number increases like 1 → 2 → 338 → 39 after returning to the normal condition whenever ignition switch OFF → ON.</li> <li>The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.</li> </ul>			

#### NOTE:

\*: For models without steering lock unit, power supply position changes from "OFF" to "LOCK" when steering lock conditions are satisfied.

# BUZZER

#### BUZZER : CONSULT-III Function (BCM - BUZZER)

INFOID:000000006473825

#### CONSULT-III APPLICATION ITEMS

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

# **DIAGNOSIS SYSTEM (BCM)**

#### < SYSTEM DESCRIPTION >

# DATA MONITOR

Display item [Unit]	Description
′EH SPEED 1 ⟨m/h]	Value of vehicle speed signal received from ABS actuator and electric unit (control unit) with CAN communication line.
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.
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).	
SEAT BELT WARN TEST	The seat belt warning chime operation can be checked by operating the relevant function (On/Off).	
ID REGIST WARNING	The ID regist 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	The run-flat tire warning chime operation can be checked by operating the relevant function (On/Off).	

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#### POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

# DTC/CIRCUIT DIAGNOSIS POWER SUPPLY AND GROUND CIRCUIT COMBINATION METER

**COMBINATION METER : Diagnosis Procedure** 

#### 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 terminal and ground.

	Terminals			
(	(+)		Ignition switch	Voltage (Approx.)
Combina	Combination meter		ignition switch	
Connector	Terminals	Ť		
M53	1	Ground	OFF	Pottory voltage
CCIVI	21	Giouna	ON	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 terminal and ground.

Combina	tion meter		Continuity	
Connector	Terminals	*	Continuity	
	5	Ground		
M53	15		Existed	
	22			

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

UNIFIED METER AND A/C AMP.

#### UNIFIED METER AND A/C AMP. : Diagnosis Procedure

**1.**CHECK FUSE

Check for blown fuses.

INFOID:000000006473827

INFOID:00000006473826

# POWER SUPPLY AND GROUND CIRCUIT

#### < DTC/CIRCUIT DIAGNOSIS >

	Power sou	urce		Fuse No.		
Battery				11		
	Ignition switch A	CC or ON		19		
	Ignition switch ON	N or START		3		
s the inspection	result normal?	2				
2.CHECK POW	ure to eliminat ER SUPPLY (	CIRCUIT		ore installing new fuse.		
			1			
	Terminals		_			
(+)			Ignition swi	tch Voltage (Approx.)		
Unified meter a		()		(Applox.)		
Connector	Terminals		0.77			
	54		OFF			
M67	41	Ground	ACC	Battery voltage		
s the inspection	53		ON			
<b>3.</b> CHECK GRO	UND CIRCUI					
2. Disconnect u	unified meter a	and A/C amp. c unified meter a		b. harness connector terminal and ground		
<ol> <li>Disconnect u</li> <li>Check contin</li> </ol>	unified meter a nuity between		nd A/C amp			
2. Disconnect u	unified meter a nuity between	unified meter a				
<ol> <li>Disconnect u</li> <li>Check contin</li> <li>Unified meter and</li> </ol>	unified meter a nuity between nd A/C amp.		nd A/C amp			
2. Disconnect u 3. Check contin Unified meter an Connector M67 <u>s the inspection</u> YES >> INSF NO >> Repa BCM (BODY	Inified meter a nuity between nd A/C amp. Terminals 55 71 result normal? PECTION ENE air harness or CONTRO	Ground Ground Connector. Connector.	nd A/C amp Continuit Existed	y		
2. Disconnect u 3. Check contin Unified meter an Connector M67 <u>s the inspection</u> YES >> INSF NO >> Repa BCM (BODY	Inified meter a nuity between nd A/C amp. Terminals 55 71 result normal? PECTION ENE air harness or CONTRO	Ground Ground Connector. Connector.	nd A/C amp Continuit Existed	y		
2. Disconnect u 3. Check contin Unified meter an Connector M67 S the inspection YES >> INSF NO >> Repa 3CM (BODY 3CM (BODY	Inified meter a nuity between Ind A/C amp. Terminals 55 71 result normal? PECTION ENE air harness or CONTRO CONTRO	Ground Ground Connector. L MODULE	nd A/C amp Continuit Existed	y		
2. Disconnect u 3. Check contin Unified meter an Connector M67 S the inspection YES >> INSF NO >> Repa 3CM (BODY 3CM (BODY 3CM (BODY 3CHECK FUSE	Inified meter a nuity between nd A/C amp. Terminals 55 71 result normal? PECTION ENE air harness or CONTRO CONTRO CONTROL E AND FUSIBI	Ground Ground Connector. L MODULE MODULE) LE LINK	nd A/C amp Continuit Existed	y sis Procedure		
2. Disconnect u 3. Check contin Unified meter an Connector M67 S the inspection YES >> INSF NO >> Repa 3CM (BODY 3CM (BODY 3CM (BODY 3CHECK FUSE	Inified meter a nuity between nd A/C amp. Terminals 55 71 result normal? PECTION ENE air harness or CONTRO CONTRO CONTROL E AND FUSIBI	Ground Ground Connector. L MODULE MODULE LE LINK nd fusible link a	nd A/C amp Continuit Existed	y sis Procedure		
2. Disconnect u 3. Check contin Unified meter an Connector M67 S the inspection YES >> INSF NO >> Repa 3CM (BODY 3CM (BODY 1.CHECK FUSE	Inified meter a nuity between Ind A/C amp. Terminals 55 71 result normal? PECTION ENE air harness or CONTROL CONTROL E AND FUSIBI Molowing fuse a Signal nan	Ground Ground Connector. L MODULE MODULE MODULE LE LINK nd fusible link a	nd A/C amp Continuit Existed	y sis Procedure		
2. Disconnect u 3. Check contin Unified meter an Connector M67 S the inspection YES >> INSF NO >> Repa BCM (BODY	Inified meter a nuity between Ind A/C amp. Terminals 55 71 result normal? PECTION ENE air harness or CONTRO CONTRO CONTROL E AND FUSIBI	Ground Ground Connector. L MODULE MODULE MODULE LE LINK nd fusible link a	nd A/C amp Continuit Existed	y		

# POWER SUPPLY AND GROUND CIRCUIT

#### < DTC/CIRCUIT DIAGNOSIS >

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

(	+)	(-)	Voltage
B	CM		(Approx.)
Connector	Terminal	Ground	
M118 1		Giouna	Pottony voltage
M119	11		Battery voltage

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

 $3. {\sf CHECK} \, {\sf GROUND} \, {\sf CIRCUIT}$ 

Check continuity between BCM harness connector and ground.

B	CM		Continuity
Connector	Terminal	Ground	Continuity
M119	13	-	Existed

Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

# **METER BUZZER CIRCUIT**

< DTC/CIRCUIT DIAGNOSIS >	
METER BUZZER CIRCUIT	А
Description INFOID:00000006473829	A
<ul> <li>The buzzer for warning chime system is installed in the combination meter.</li> <li>The combination meter sounds the alarm buzzer based on the signals transmitted from various units.</li> </ul>	В
Component Function Check	-
1.CHECK OPERATION OF METER BUZZER	С
<ol> <li>Connect the CONSULT-III.</li> <li>Perform "LIGHT WARN ALM" in "ACTIVE TEST" of "BCM (BUZZER)".</li> <li><u>Does meter buzzer beep?</u></li> <li>YES &gt;&gt; INSPECTION END</li> </ol>	D
NO >> GO TO 2.	Е
2.CHECK UNIFIED METER AND A/C AMP. INPUT SIGNAL	
Select the "Data Monitor" of "METER/M&A" and check the "BUZZER" monitor value.	F
"BUZZER" Under the condition of buzzer input : On Except above : Off	G
<u>Is the inspection result normal?</u> YES >> Replace combination meter. NO >> Replace BCM. Refer to <u>BCS-81, "Removal and Installation"</u> .	Н
Diagnosis Procedure	
1. CHECK POWER SUPPLY OF COMBINATION METER	
Check power supply of combination meter. Refer to <u>MWI-49</u> , "COMBINATION METER : Diagnosis Proce- dure".	J
Is the inspection result normal?         YES       >> GO TO 2.         NO       >> Repair power supply circuit of combination meter.	K
<b>2.</b> CHECK BATTERY POWER SUPPLY OF UNIFIED METER AND A/C AMP.	
Check battery power supply of unified meter and A/C amp. Refer to <u>MWI-49, "UNIFIED METER AND A/C AMP. : Diagnosis Procedure"</u> .	L
<u>Is the inspection result normal?</u> YES >> INSPECTION END NO >> Repair power supply circuit of unified meter and A/C amp.	Μ
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#### SEAT BELT BUCKLE SWITCH SIGNAL CIRCUIT

#### < DTC/CIRCUIT DIAGNOSIS >

# SEAT BELT BUCKLE SWITCH SIGNAL CIRCUIT

#### Description

#### Transmits a seat belt buckle switch signal to the unified meter and A/C amp.

#### **Component Function Check**

**1.**CHECK UNIFIED METER AND A/C AMP. INPUT SIGNAL

1. Connect the CONSULT-III.

2. Select the "Data Monitor" of the "METER/M&A" and check the "BUCKLE SW" monitor value.

"BUCKLE SW" When seat belt is fastened : Off When seat belt is unfastened : On

>> INSPECTION END

#### **Diagnosis** Procedure

# **1.**CHECK UNIFIED METER AND A/C AMP. INPUT SIGNAL

- 1. Turn ignition switch ON.
- 2. Check voltage between unified meter and A/C amp. harness connector terminal and ground.

Terminal				
(+)			Ť	Voltage (Approx.)
	Unified meter and A/C amp. (-) Connector Terminal		Condition	
Connector				
M66	9	Ground	When seat belt is fastened	12 V
10100	9		When seat belt is unfastened	0 V

Is the inspection result normal?

YES >> Replace unified meter and A/C amp.

NO >> GO TO 2.

2.CHECK SEAT BELT BUCKLE SWITCH (DRIVER SIDE) SIGNAL CIRCUIT

1. Turn ignition switch OFF.

- 2. Disconnect unified meter and A/C amp. connector and seat belt buckle switch (driver side) connector.
- 3. Check continuity between unified meter and A/C amp. harness connector terminal and seat belt buckle switch (driver side) harness connector terminal.

Unified meter	and A/C amp.	Seat belt buckle	Continuity	
Connector	Terminal	Connector Terminal		
M66	9	B13	1	Existed

4. Check harness continuity between unified meter and A/C amp. harness connector terminal and ground.

Connector Terminal Ground	
	Continuity
M66 9	Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

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INFOID:000000006473833

INFOID:00000006473834

# SEAT BELT BUCKLE SWITCH SIGNAL CIRCUIT

#### < DTC/CIRCUIT DIAGNOSIS >

# **3.**CHECK SEAT BELT BUCKLE SWITCH (DRIVER SIDE) GROUND CIRCUIT

Check harness continuity between seat belt buckle switch (driver side) harness connector terminal and ground.

					В
Seat belt buckle s	switch (driver side)		Continuity		
Connector	Terminal	Ground	Continuity		
B13	2		Existed		С
Is the inspection	n result normal	?			
	SPECTION ENI pair harness or				D
Component	Inspection			INFOID:00000006473835	
1.CHECK SEA	AT BELT BUCK	LE SWITCH (DRIVER SIDE)			Ε
2. Disconnect		uckle switch (driver side) conne terminals 1 and 2.	ector.		F
Terr	ninal	Seat belt buckle switch (driver side)	Continuity		G
	0	When seat belt is fastened	Not existed		
1	2	When seat belt is unfastened	Existed		
Is the inspection	n result normal	?			Н
YES >> INS	SPECTION END	0			
	place the seat tallation".	belt buckle (driver side). Refer	to <u>SB-8, "SEA</u>	<u>FBELT BUCKLE : Removal and</u>	Ι
					J

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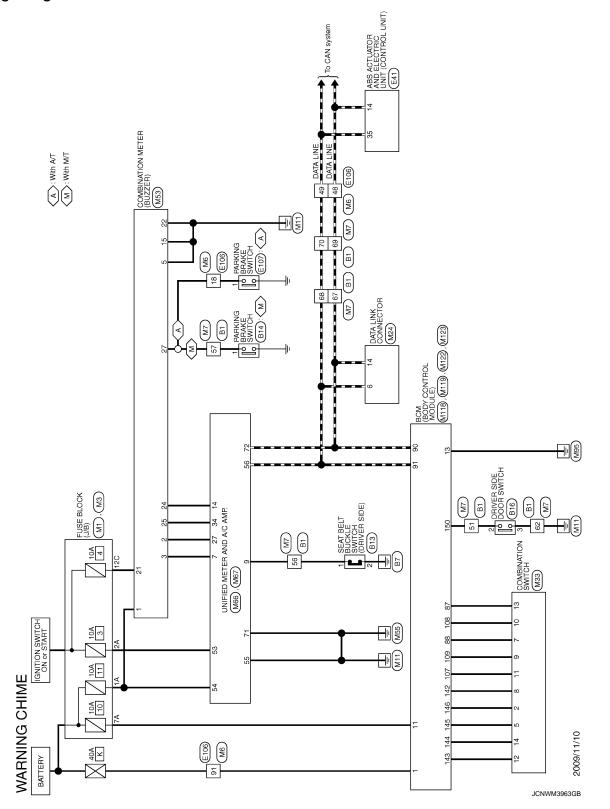
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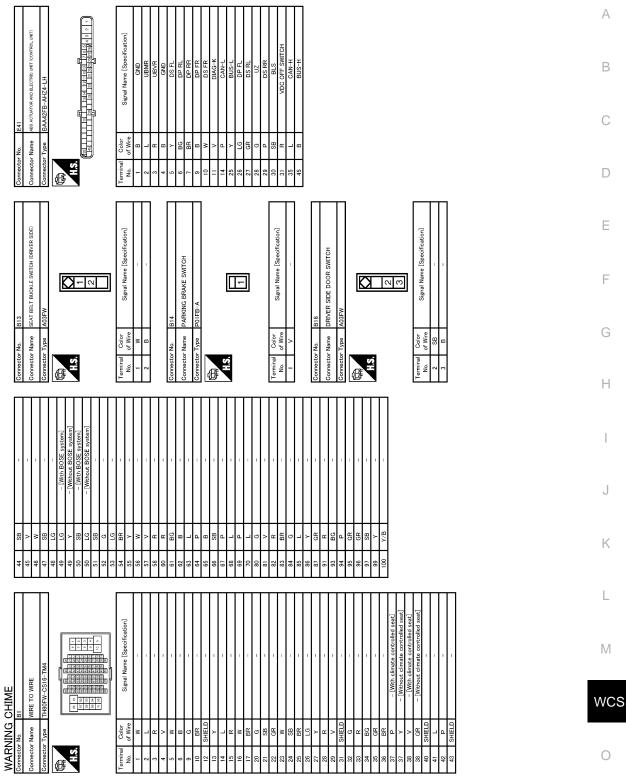
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# WARNING CHIME SYSTEM

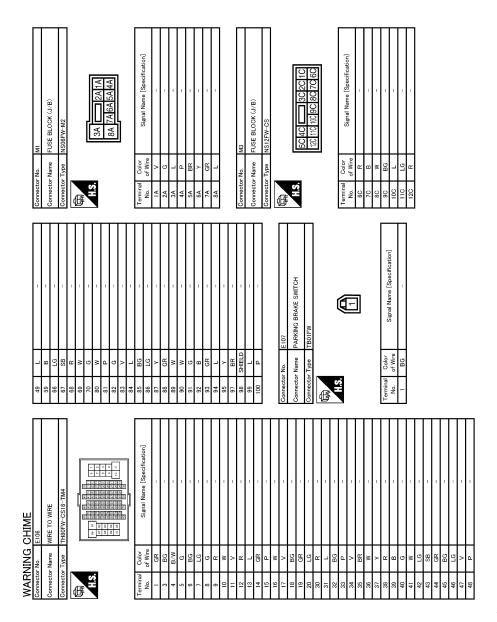
Wiring Diagram - WARNING CHIME -



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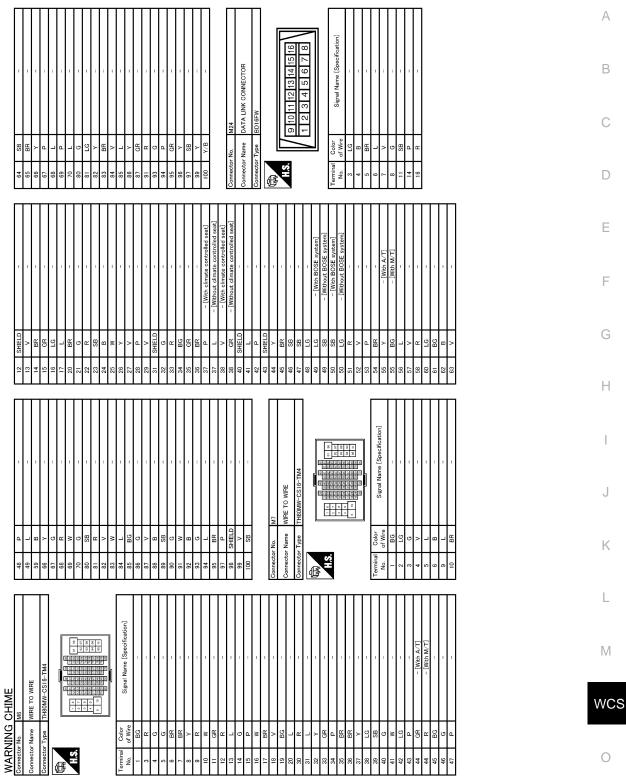


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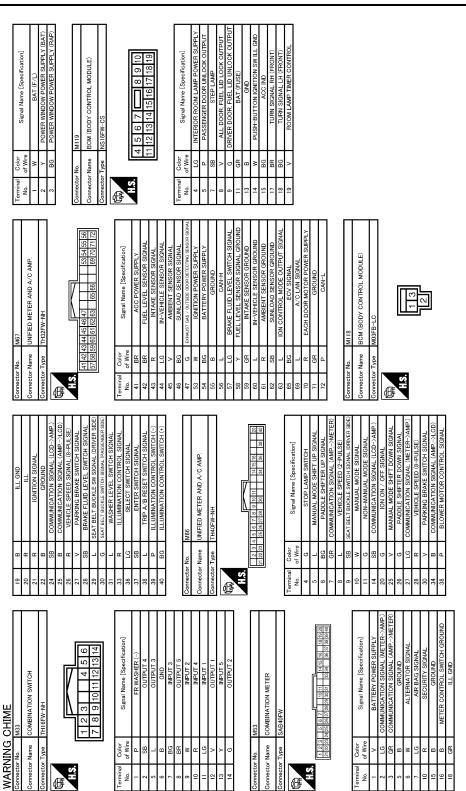


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#### < DTC/CIRCUIT DIAGNOSIS >



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# WARNING CHIME SYSTEM

#### < DTC/CIRCUIT DIAGNOSIS >

#### < DTC/CIRCUIT DIAGNOSIS >

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Control	K
	L
IIIAG     CALL       Nome     MI22       Nome     MI22       Nome     MI22       Immon     MI21       Immo	Μ
CHIME M122 EM M122 EM M122 EM M122 TH40FE-MH TH40FE-MH TH40FE-MH TH40FE-MH RECOM ANT 2- RECOM ANT 2- PASSENGER DOOR ANT 1- PASSENGER DOOR ANT 1- PASSENGER DOOR ANT 1- PASSENGER DOOR ANT 1- PASSENGER DOOR ANT 1- RECOM ANT 1-	WCS
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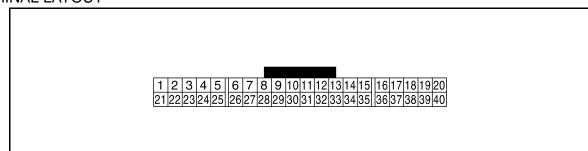
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# ECU DIAGNOSIS INFORMATION COMBINATION METER

# **Reference Value**

VALUES ON THE DIAGNOSIS TOOL Refer to <u>WCS-49. "Reference Value"</u>.

#### TERMINAL LAYOUT



#### PHYSICAL VALUES

	nal No. color)	Description				Value	
+	-	Signal name	Input/ Output	Condition		(Approx.)	
1 (V)	Ground	Battery power supply	Input	Ignition switch OFF	_	Battery voltage	
2 (LG)	Ground	Communication signal (METER $\rightarrow$ AMP.)	Output	Ignition switch ON	_	(V) 6 4 0 • • • • • • • • • • • • •	
3 (GR)	Ground	Communication signal (AMP.→ METER)	Input	Ignition switch ON	_	(V) 6 2 0 • • • 200 µs JSNIA0027GB	
5 (B)	Ground	Ground	_	Ignition switch ON	_	0 V	
6	Ground	Alternator signal	Input	Ignition switch	Charge warning lamp ON	0 V	
(W)	Giound	And mator signal	Input	ON	Charge warning lamp OFF	12 V	
7	Ground	Air bag signal	Input	Ignition switch	Air bag warning lamp ON	4 V	
(LG)	Ground	An bay signal	input	ON	Air bag warning lamp OFF	0 V	
10	Ground	Socurity signal	Input	Ignition switch	Security warning lamp ON	0 V	
(R)	Ground	Security signal	Input	OFF	Security warning lamp OFF	12 V	

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#### < ECU DIAGNOSIS INFORMATION >

	nal No. e color)	Description			Condition	Value	А
+	_	Signal name	Input/ Output		Condition	(Approx.)	
15 (B)	Ground	Ground	_	Ignition switch ON	_	0 V	В
16 (B)	Ground	Meter control switch ground		Ignition switch ON	_	0 V	С
21 (R)	Ground	Ignition signal	Input	Ignition switch ON		12 V	D
22 (B)	Ground	Ground		Ignition switch ON	_	0 V	E
24 (SB)	Ground	Communication signal (LCD $\rightarrow$ AMP.)	Output	lgnition switch ON		(V) 15 10 5 0 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	F
25 (B)	Ground	Communication signal (AMP.→ LCD)	Input	Ignition switch ON		(V) 6 2 0 ↓ 4 2 0 ↓ 4 2 0 ↓ 5 JSNIA0027GB	H I J
26 (R)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	Speedometer operated [When vehicle speed is approx. 40 km/h (25 MPH)]	NOTE: The maximum voltage varies depending on the specification (destination unit).	K L M
					Parking brake applied	0 V	WC
27 (V)	Ground	Parking brake switch signal	Input	Ignition switch ON	Parking brake released	(V) 8 4 0 10 ms JSNIA0007GB	0 P

#### < ECU DIAGNOSIS INFORMATION >

	nal No. e color)	Description		Condition		Value
+	_	Signal name	Input/ Output			(Approx.)
28 (SB)	Ground	Brake fluid level switch sig- nal	Input	Ignition switch ON	Brake fluid level is normal.	(V) 10 0 10 10 10 10 10 10 10 10 10 10 10 1
					The brake fluid level is low- er than the low level	0 V
29	Ground	Seat belt buckle switch sig-	Input	Ignition switch	When driver seat belt is fas- tened	12 V
(L)	Ground	nal (driver side)	input	ON	When driver seat belt is un- fastened	0 V
30	Ground	Seat belt buckle switch sig-	Input	Ignition switch	<ul><li>When getting in the passenger seat</li><li>When passenger seat belt is fastened</li></ul>	12 V
(G)	Ground	nal (passenger side)	input	ON	<ul> <li>When getting in the passenger seat</li> <li>When passenger seat belt is unfastened</li> </ul>	0 V
31 (L)	Ground	Washer level switch signal	Input	Ignition switch ON	Washer level switch ON Washer level switch OFF	0 V 5 V
					<ul> <li>Lighting switch 1ST</li> <li>When meter illumination is maximum</li> </ul>	(V) 15 10 5 0 2.5 ms JPNIA1363GB
33 (R)	Ground	Illumination control signal	Output	Ignition switch ON	<ul> <li>Lighting switch 1ST</li> <li>When meter illumination is step 12</li> </ul>	(V) 15 0 0 2.5 ms JPNIA1362GB
					<ul> <li>Lighting switch 1ST</li> <li>When meter illumination is minimum</li> </ul>	10 V
36 (LG)	16 (B)	Select switch signal	Input	Ignition switch	When is pressed	0 V
37 (SB)	(=) 16 (B)	Enter switch signal	Input	ON Ignition switch ON	Other than the above When 🛄 is pressed Other than the above	5 V 0 V 5 V
38 (L)	16 (B)	Trip A/B reset switch signal	Input	Ignition switch ON	When trip A/B reset switch is pressed	0 V
-				UN	Other than the above	5 V

#### < ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Value	А
+	-	Signal name	Input/ Output			(Approx.)	
39 (P)	16 (B)	Illumination control switch signal (–)	Input	Ignition switch ON	When 💏 switch is pressed	0 V	В
					Other than the above	5 V	C
40 (BG)	16 (B)	Illumination control switch signal (+)	Input	Ignition switch ON	When 🕉 + switch is pressed	0 V	_ 0
(20)					Other than the above	5 V	D

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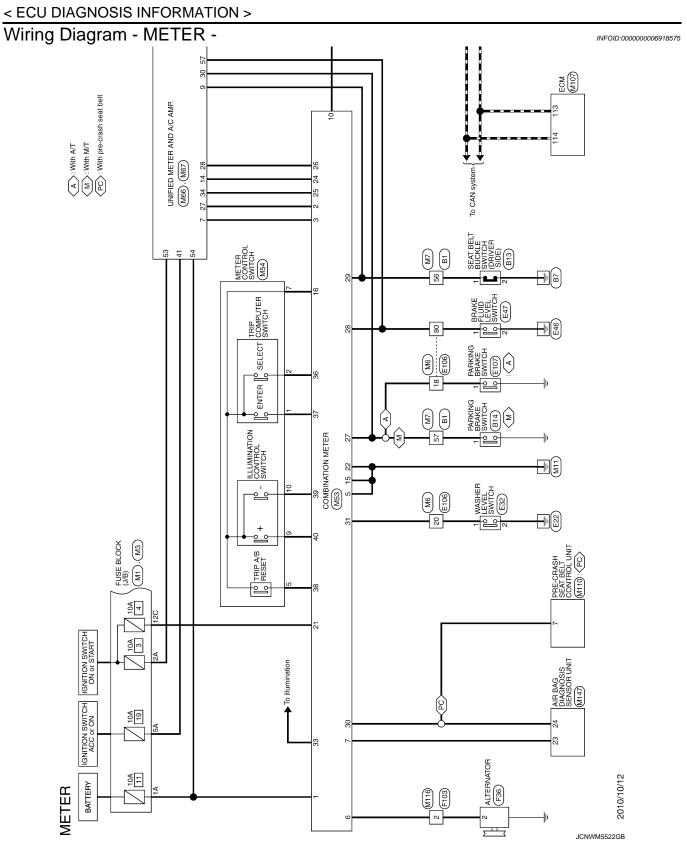
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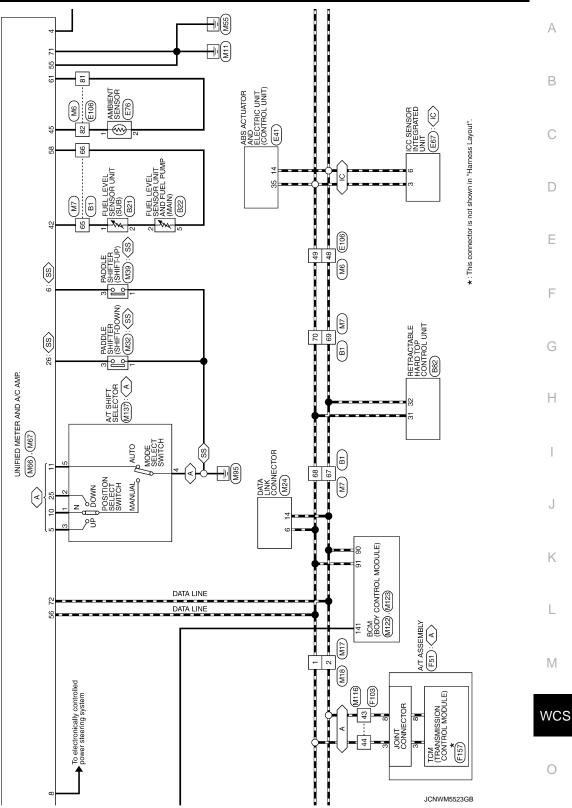
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### < ECU DIAGNOSIS INFORMATION >





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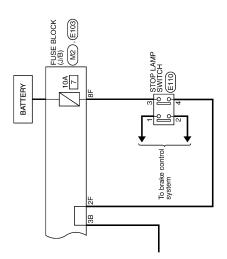
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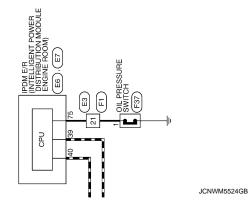
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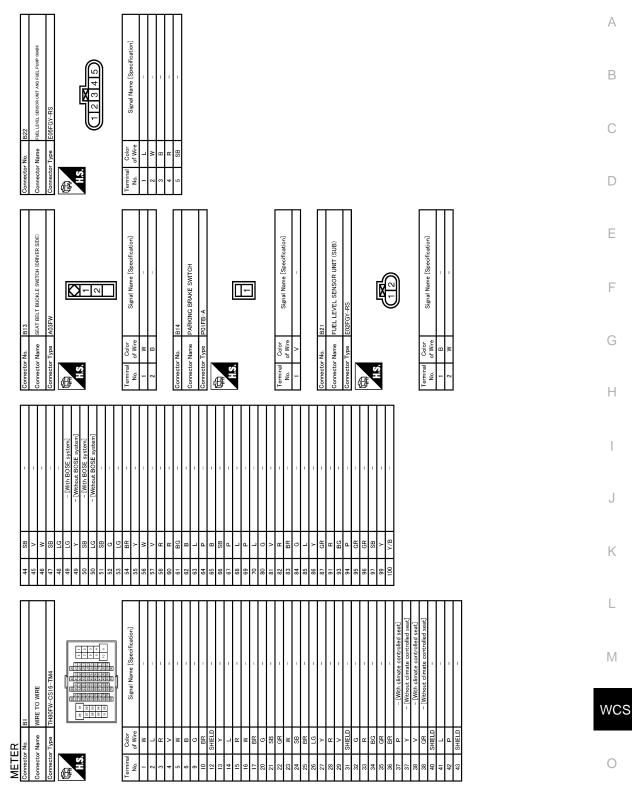
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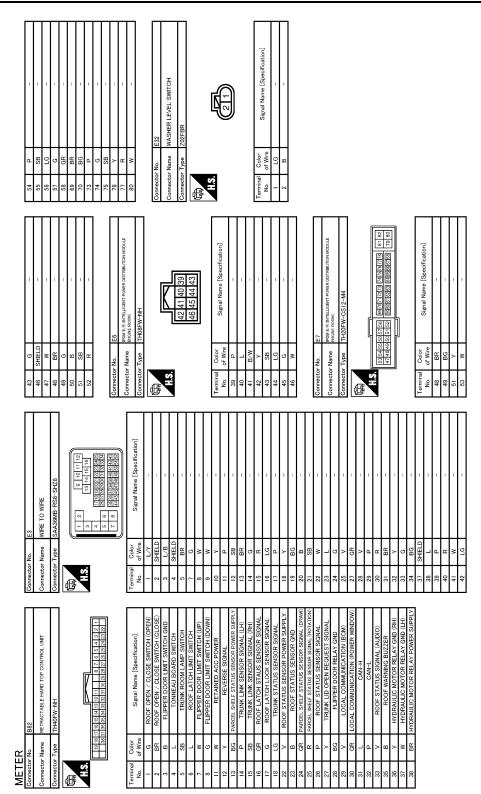
Revision: 2011 December

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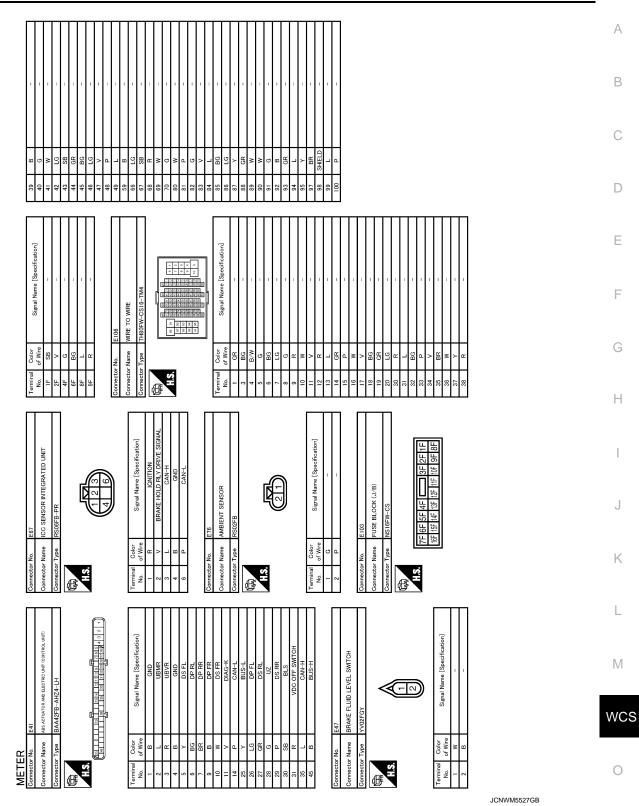
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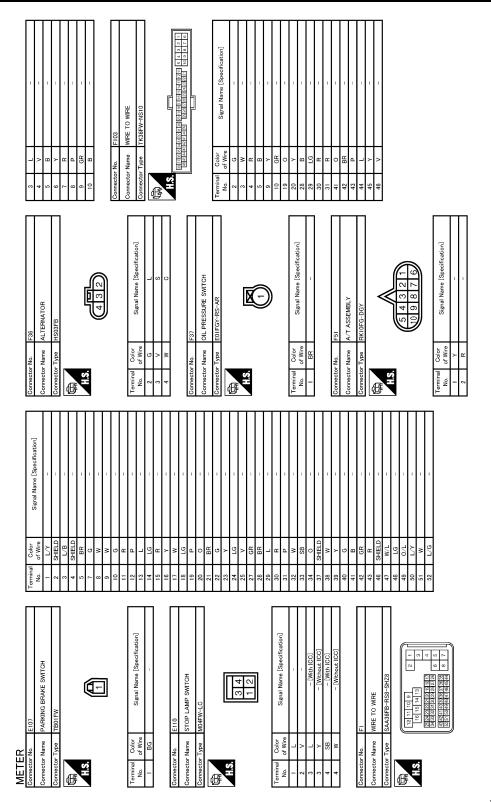


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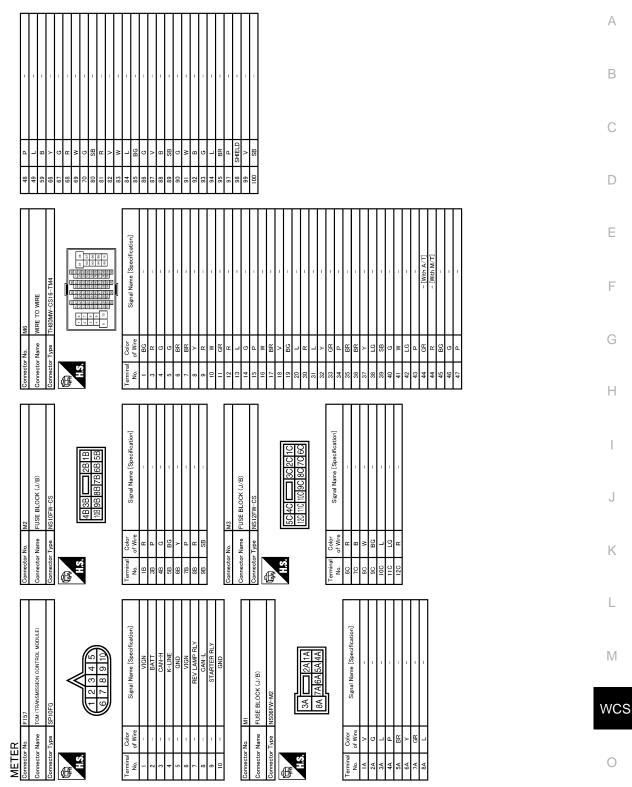


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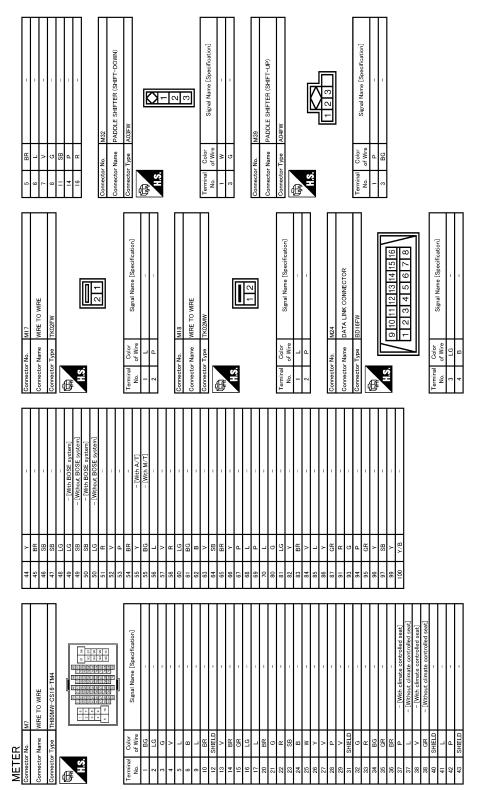
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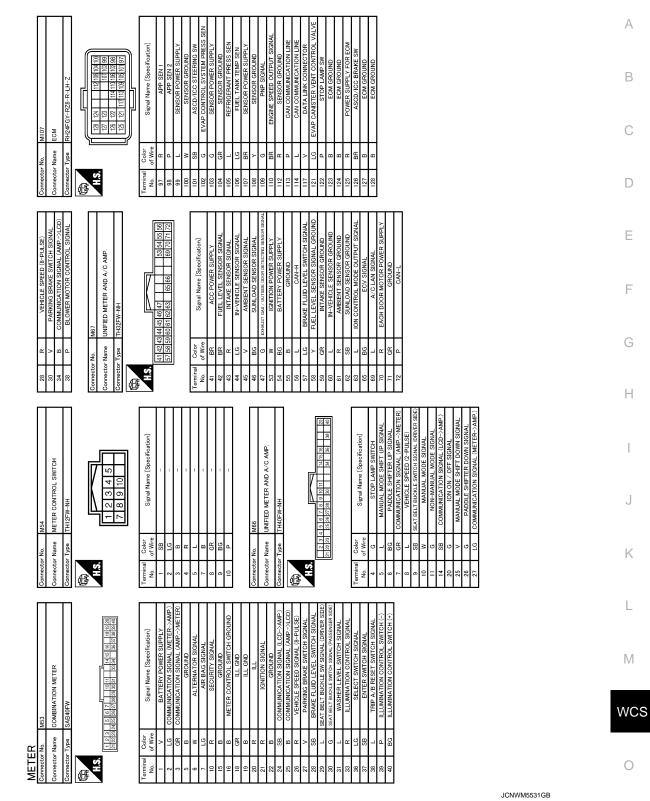
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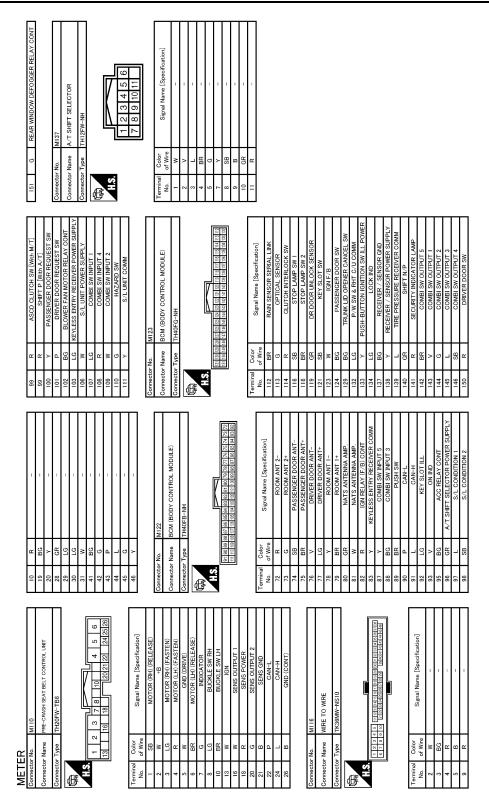


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#### < ECU DIAGNOSIS INFORMATION >



#### < ECU DIAGNOSIS INFORMATION >



JCNWM5532GB

### < ECU DIAGNOSIS INFORMATION >

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	MI47 AIR BAG DIAGNOSIS SENSOR UNIT MI26FY-EX MI26FY-EX MI26FY-EX MI26FY-EX MI26F 2 5 1 4 3 2 1 1 Signal Name [Specification] IGN AIR (-) DER (-) DER (		Μ
			WCS
METER	Oamector No.         Oamector No.           Commettor Name         Commettor Name           Commettor Name         Control Name           Commettor Name         Control Name           Commettor Name         Control Name           Commettor Name         Control Name           Control Name         Control Nam           Control Nam	JCNWM5533GB	0
Fail-safe		INFOID:00000006854232	Ρ

# FAIL SAFE

Combination meter performs fail-safe operation when unified meter and A/C amp. communication is malfunction.

Solution for communication error between the unified meter and A/C amp. and combination meter.

### < ECU DIAGNOSIS INFORMATION >

	Function	Specifications	
Speedometer			
Tachometer		Poset to zero by succending communication	
Fuel gauge         Engine coolant temperature gauge         Illumination control         Door open warning         Parking brake release warning         Low tire pressure warning         Fuel filler cap warning         Information display         Average fuel consumption         Average vehicle speed		<ul> <li>Reset to zero by suspending communication.</li> </ul>	
Engine coolant temperatur	e gauge		
Illumination control		When suspending communication, change to nighttime mode.	
Parking brake re Low tire pressur	Door open warning		
	Parking brake release warning	The display turns of hy suspending communication	
	Low tire pressure warning	— The display turns off by suspending communication.	
nformation display	Fuel filler cap warning		
Information display	Instantaneous fuel warning	• When reception time of an abnormal signal is 2 seconds or	
	Average fuel consumption	<ul> <li>less, the last received datum is used for calculation to indicate the result.</li> </ul>	
	Average vehicle speed	• When reception time of an abnormal signal is more than two	
	Travel distance	seconds, the last result calculated during normal condition is indicated.	
Buzzer		The buzzer turns off by suspending communication.	
Narning lamp/indicator amp Avera Buzzer ABS VDC Brake CRUI Malfu High Turn s Oil pr A/T C VDC Low t Key v AFS 0	ABS warning lamp		
	VDC warning lamp		
	Brake warning lamp	The lamp turns on by suspending communication.	
	CRUISE warning lamp		
	Malfunction indicator lamp		
	High beam indicator		
	Turn signal indicator lamp		
Warning lamp/indicator	Oil pressure warning lamp		
lamp	A/T CHECK warning lamp		
	VDC OFF indicator lamp		
	Low tire pressure warning lamp	The lamp turns off by suspending communication.	
	Key warning lamp		
	AFS OFF indicator lamp		
	Master warning lamp		
	Tail lamp indicator lamp		
	Front fog lamp indicator lamp		

### **DTC Index**

INFOID:000000006473840

Refer to WCS-70, "DTC Index".

### < ECU DIAGNOSIS INFORMATION >

# UNIFIED METER AND A/C AMP.

## **Reference Value**

### VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

Monitor Item		Condition	Value/Status
SPEED METER Ignition switch [km/h] ON While		While driving	Equivalent to speedometer reading <b>NOTE:</b> 655.35 is displayed when the malfunc- tion signal is received
SPEED OUTPUT [km/h]	Ignition switch ON	While driving	Equivalent to speedometer reading <b>NOTE:</b> 655.35 is displayed when the malfunc- tion signal is received
ODO OUTPUT [km]	Ignition switch ON	-	Equivalent to odometer reading in combination meter
TACHO METER [rpm]	Ignition switch ON	While driving	Equivalent to tachometer reading <b>NOTE:</b> 8191.875 is displayed when the mal- function signal is received
FUEL METER [L]	Ignition switch ON	_	Values according to fuel level
W TEMP METER [°C]	Ignition switch ON	_	Values according to engine coolant temperature <b>NOTE:</b> 215 is displayed when the malfunction signal is input
FUEL CAP W/L	Ignition switch	Fuel filler cap warning display ON	On
FUEL CAF W/L	ON	Fuel filler cap warning display OFF	Off
ABS W/L	Ignition switch	ABS warning lamp ON	On
	ON	ABS warning lamp OFF	Off
VDC/TCS IND	Ignition switch	VDC OFF indicator lamp ON	On
VDC/1031ND	ON	VDC OFF indicator lamp OFF	Off
SLIP IND	Ignition switch	VDC warning lamp ON	On
	ON	VDC warning lamp OFF	Off
BRAKE W/L	Ignition switch	Blake warning lamp ON	On
	ON	Blake warning lamp OFF	Off
DOOR W/L	Ignition switch	Door warning displayed	On
	ON	Door warning not displayed	Off
TRUNK/GLAS-H	Ignition switch	Trunk warning displayed	On
	ON	Trunk warning not displayed	Off
HI-BEAM IND	Ignition switch	Hi-beam indicator lamp ON	On
	ON	Hi-beam indicator lamp OFF	Off
TURN IND	Ignition switch	Turn indicator lamp ON	On
	ON	Turn indicator lamp OFF	Off
FR FOG IND	Ignition switch	Front fog lamp indicator lamp ON	On
	ON	Front fog lamp indicator lamp OFF	Off
RR FOG IND	Ignition switch ON	NOTE: This item is displayed, but cannot be moni- tored.	Off

А

В

INFOID:000000006854234

### < ECU DIAGNOSIS INFORMATION >

Monitor Item		Condition	Value/Status
	Ignition switch	Tail lamp indicator lamp ON	On
LIGHT IND	<b>ON</b>	Tail lamp indicator lamp OFF	Off
	Ignition switch	Oil pressure warning lamp ON	On
OIL W/L	<b>ON</b>	Oil pressure warning lamp OFF	Off
	Ignition switch	Malfunction warning lamp ON	On
MIL	<b>ON</b>	Malfunction warning lamp OFF	Off
GLOW IND	Ignition switch ON	<b>NOTE:</b> This item is displayed, but cannot be moni- tored.	Off
C-ENG2 W/L	Ignition switch ON	<b>NOTE:</b> This item is displayed, but cannot be moni- tored.	Off
CRUISE IND	Ignition switch	Cruise indicator displayed	On
	ON	Cruise indicator not displayed	Off
SET IND	Ignition switch	Set indicator lamp ON	On
	ON	Set indicator lamp OFF	Off
CRUISE W/L	Ignition switch	Cruise warning lamp ON	On
	ON	Cruise warning lamp OFF	Off
	Ignition switch	Models with ICC <b>NOTE:</b> This item is displayed, but cannot be moni- tored.	On
BA W/L	ON	Models without ICC <b>NOTE:</b> This item is displayed, but cannot be moni- tored.	Off
	Ignition switch	A/T check warning lamp ON	On
ATC/T-AMT W/L	<b>ON</b>	A/T check warning lamp OFF	Off
4WD W/L	Ignition switch ON	<b>NOTE:</b> This item is displayed, but cannot be moni- tored.	Off
4WD LOCK IND	Ignition switch ON	<b>NOTE:</b> This item is displayed, but cannot be moni- tored.	Off
	Ignition switch	Low-fuel warning lamp displayed	On
FUEL W/L	ŎN	Low-fuel warning lamp not displayed	Off
WASHER W/L	Ignition switch	Washer warning displayed	On
WASHER W/L	ON	Washer warning not displayed	Off
AIR PRES W/L	Ignition switch	Low tire pressure lamp ON	On
AIR FRES W/L	ON	Low tire pressure lamp OFF	Off
KEY G/Y W/L	Ignition switch	Key warning lamp ON	On
	ON	Key warning lamp OFF	Off
AFS OFF IND	Ignition switch	AFS OFF indicator lamp ON	On
	ON	AFS OFF indicator lamp OFF	Off
4WAS/RAS W/L	Ignition switch ON	NOTE: This item is displayed, but cannot be moni- tored.	Off
DDS W/L	Ignition switch ON	<b>NOTE:</b> This item is displayed, but cannot be moni- tored.	Off

Revision: 2011 December

### < ECU DIAGNOSIS INFORMATION >

Monitor Item		Condition	Value/Status	
LANE W/L	Ignition switch ON	NOTE: This item is displayed, but cannot be moni- tored.	Off	— A
LDP IND	Ignition switch ON	NOTE: This item is displayed, but cannot be moni- tored.	Off	В
	Ignition switch	Engine start information display (A/T model)	B&P I	С
	<b>ON</b>	Engine start information display (M/T model)	C&P I	
	Ignition switch	Engine start information display (A/T model)	B&P N	
	ACC	Engine start information display (M/T model)	C&P N	D
	Ignition switch LOCK	Key ID warning display	ID NG	E
	Ignition switch LOCK	Steering lock information display	ROTAT	
LCD	Ignition switch LOCK	P position warning display	SFT P	F
	Ignition switch LOCK	Intelligent Key insert information display	INSRT	
	Ignition switch LOCK	Intelligent Key low battery warning display	BATT	G
	Ignition switch ON	Take away warning display	NO KY	Н
	Ignition switch LOCK	Key warning display	OUTKY	
	Ignition switch ON	ICC sensor integrated unit warning display	LK WN	
	Ignition switch	Vehicle ahead detection indicator displayed	On	
ACC TARGET	ON	Vehicle ahead detection indicator not dis- played	Off	J
		When following distance set to "LONG"	Long	K
ACC DISTANCE	Ignition switch	When following distance set to "MIDDLE"	Middle	I\
ACC DISTANCE	ON	When following distance set to "SHORT"	Short	
		Set distance indicator not displayed	Off	L
	Ignition switch	Own vehicle indicator displayed	On	
ACC OWN VHL	ŎN	Own vehicle indicator not displayed	Off	5. đ
ACC SET SPEED	Ignition switch ON	ICC set vehicle speed display	Vehicle speed	— M
	Ignition switch	Set vehicle speed indicator unit display ON	On	WC
ACC UNIT	ŎN	Set vehicle speed indicator unit display OFF	Off	
O/D OFF SW	Ignition switch ON	NOTE: This item is displayed, but cannot be moni- tored.	Off	0

### < ECU DIAGNOSIS INFORMATION >

Monitor Item		Condition	Value/Status
		Shift position indicator P display	Р
		Shift position indicator R display	R
SHIFT IND T S MODE SW T P MODE SW T P MODE SW T RANGE SW M RANGE SW M RANGE SW T SFT UP SW T SFT UP SW T SFT UP SW ST SFT DWN SW		Shift position indicator N display	N
		Shift position indicator D display	D
		Shift position indicator M1 display	M1
SHIFT IND	Ignition switch ON	Shift position indicator M2 display	M2
		Shift position indicator M3 display	M3
		Shift position indicator M4 display	M4
		Shift position indicator M5 display	M5
		Shift position indicator M6 display	M6
		Shift position indicator M7 display	M7
	Ignition switch	Snow mode switch ON	On
AT S MODE SW	<b>ON</b>	Snow mode switch OFF	Off
	Institute outline	NOTE:	
AT P MODE SW	Ignition switch ON	This item is displayed, but cannot be moni- tored.	Off
	Ignition switch	Selector lever DS position	On
W RANGE SW	ON	Other than the above	Off
	Ignition switch	Selector lever DS position	Off
NWIRANGE SW	ON	Other than the above	On
	Ignition switch	Selector lever up position	On
AT SET OF SW	ON	Other than the above	Off
AT SET DWN SW	Ignition switch	Selector lever – position	On
	ON	Other than the above	Off
ST SET LIP SW	Ignition switch	Paddle shifter up operation	On
	ON	Other than the above	Off
ST SET DWN SW	Ignition switch	Paddle shifter down operation	On
	ON	Other than the above	Off
	Ignition switch	A/C compressor activation condition	On
	ON	A/C compressor deactivation condition	Off
4WD LOCK SW	Ignition switch ON	<b>NOTE:</b> This item is displayed, but cannot be moni- tored.	Off
	Ignition switch	Parking brake applied	On
PKB SVV	<b>ON</b>	Parking brake released	Off
	Ignition switch	Seat belt (driver side) unfastened	On
BUCKLE SW	<b>ON</b>	Seat belt (driver side) fastened	Off
	Ignition switch	Brake fluid level is lower than the low level	On
BRAKE UIL SW	ŌN	Brake fluid level is normal	Off
DISTANCE [km]	Ignition switch ON	_	Possible driving distance calculated by unified meter and A/C amp.
OUTSIDE TEMP [°C] or [°F]	Ignition switch ON	_	Equivalent to ambient temperature <b>NOTE:</b> This may not match the indicated val- ue on the information display.
	Ignition switch	Low-fuel warning signal output	On
FUEL LOW SIG	ON	Low-fuel warning signal not output	Off

Revision: 2011 December

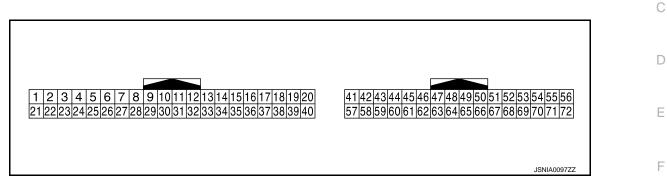
#### < ECU DIAGNOSIS INFORMATION >

Monitor Item		Condition	Value/Status	Δ
BUZZER	Ignition switch	Buzzer ON	On	A
	ON	Buzzer OFF	Off	

#### NOTE:

Some items are not available according to vehicle specification.

#### **TERMINAL LAYOUT**



### PHYSICAL VALUES

	nal No. e color)	Description			Condition	Value	G
+	-	Signal name	Input/ Output		Condition	(Approx.)	Н
4			_	Ignition	Brake pedal is depressed	12 V	
(G)	Ground	Stop lamp switch signal	Input	switch OFF	Other than the above	0 V	I
5	Onesterad	Manual mode shift up sig-	land	Ignition	Selector lever up position	0 V	
(L)	Ground	nal	Input	switch ON	Other than the above	12 V	J
6	Onesteral		la a st	Ignition	Paddle shifter up operation	0 V	
(BG)	Ground	Paddle shifter up signal	Input	switch ON	Other than the above	12 V	K
7 (GR)	Ground	Communication signal (AMP. → METER)	Output	Ignition switch ON		(V) 6 4 2 0 +++ 1ms SKIA3362E	L
8 (L)	Ground	Vehicle speed signal output (2-pulse)	Output	Ignition switch ON	Speedometer operated [When vehicle speed is approx. 40 km/h (25 MPH)]	NOTE: The maximum voltage varies depending on the specification (destination unit).	<b>WС</b> О Р
9	9	, Seat belt buckle switch sig-	Input	Ignition switch	When seat belt (driver side) is fastened	12 V	
(SB)	Ground	nal (driver side)	input	ON	When seat belt (driver side) is unfastened	0 V	

В

### < ECU DIAGNOSIS INFORMATION >

	nal No. e color)	Description		Condition		Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
10	Oracial	Manualmada simal	Innet	Ignition	Selector lever DS position	0 V
(W)	Ground	Manual mode signal	Input	switch ON	Other than the above	12 V
11	Oracial		Innet	Ignition	Selector lever DS position	12 V
(G)	Ground	Non-manual mode signal	Input	switch ON	Other than the above	0 V
14 (SB)	Ground	Communication signal (LCD $\rightarrow$ AMP.)	Input	Ignition switch ON		(V) 10 50 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
20* <sup>1</sup>	Ground	ION ON/OFF signal	Output	Ignition switch	Blower motor: ON	0 V
(G)	Ground	ION ON/OFT Signal	Output	ON	Blower motor: OFF	12 V
25 (V)	Ground	Manual mode shift down signal	Input	Ignition switch	Selector lever down posi- tion	0 V
(•)		oignai		ON	Other than the above	12 V
26	Ground	Paddle shift down signal	Input	Ignition switch	Paddle shifter down opera- tion	0 V
(G)				ON	Other than the above	12 V
27 (LG)	Ground	Communication signal (METER $\rightarrow$ AMP.)	Input	Ignition switch ON		(V) 6 2 0 • • 1ms SKIA3361E
28 (R)	Ground	Vehicle speed signal output (8-pulse)	Output	Ignition switch ON	Speedometer operated [When vehicle speed is approx. 40 km/h (25 MPH)]	NOTE: The maximum voltage varies de- pending on the specification (destination unit). 0 0 0 0 0 0 0 0 0 0 0 0 0
					Parking brake applied	0 V
30 (V)	Ground	Parking brake switch signal	Input	Ignition switch ON	Parking brake released	(V) 8 4 0 10 ms JSNIA0007GB

### < ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description			Condition	Value	А
+	-	Signal name	Input/ Output		Condition	(Approx.)	
34 (B)	Ground	Communication signal (AMP. $\rightarrow$ LCD)	Output	Ignition switch ON		(V) 6 2 0 2 2 0 4 5 2 0 4 5 2 0 4 5 2 0 4 5 2 0 4 5 2 0 4 5 2 0 4 5 2 0 4 5 2 0 4 5 2 1 5 1 1 1 1 1 1 1 1 1 1 1 1 1	B C D
38 (P)	Ground	Blower motor control signal	Output	Ignition switch ON	Fan speed: 1st speed (manual)	(V) 6 4 2 0 	E
41 (BR)	Ground	ACC power supply	Input	Ignition switch ACC	_	Battery voltage	G
42 (BR)	Ground	Fuel level sensor signal	Input	Ignition switch ON		(V) 4 2 1 0 E 1/4 1/2 3/4 F JSNIA0013GB	H
43 (R)	Ground	Intake sensor signal	Input	Ignition switch ON		0 - 4.8 V Output voltage varies with intake temperature.	J
44 (LG)	Ground	In-vehicle sensor signal	Input	Ignition switch ON	_	0 - 4.8 V Output voltage varies with in-ve- hicle temperature.	K
45 (V)	Ground	Ambient sensor signal	Input	lgnition switch ON		(V) 4 3 2 1 0 -10 (14) (32) (50) (68) (68) (104) [ <sup>-</sup> F] JSNIA0014GB	M
46 (BG)	Ground	Sunload sensor signal	Input	Ignition switch ON	_	0 - 4.8 V Output voltage varies with amount of sunload.	0
47* <sup>1</sup> (G)	Ground	Exhaust gas/outside odor detecting sensor signal	Input	lgnition switch ON	<b>NOTE:</b> The signal is different by measurement environment of a vehicle	(V) 6 2 0 4 4 ms JUA1163J	Ρ
53 (W)	Ground	Ignition power supply	Input	Ignition switch ON		Battery voltage	

### < ECU DIAGNOSIS INFORMATION >

	nal No. color)	Description			Condition	Value
+	_	Signal name	Input/ Output		Condition	(Approx.)
54 (BG)	Ground	Battery power supply	Input	Ignition switch OFF	_	Battery voltage
55 (B)	Ground	Ground	_	Ignition switch ON	_	0 V
56 (L)	Ground	CAN-H			_	_
57 (LG)	Ground	Brake fluid level switch sig- nal	Input	Ignition switch ON	Brake fluid level is normal.	(V) 10 0 10 10 10 10 10 10 10 10 10 10 10 1
					The brake fluid level is low- er than the low level	0 V
58 (Y)	Ground	Fuel level sensor ground	_	Ignition switch ON	_	0 V
59 (GR)	Ground	Intake sensor ground	_	Ignition switch ON	_	0 V
60 (L)	Ground	In-vehicle sensor ground		Ignition switch ON	_	0 V
61 (R)	Ground	Ambient sensor signal ground	_	Ignition switch ON	_	0 V
62 (SB)	Ground	Sunload sensor ground		Ignition switch ON	_	0 V
63* <sup>2</sup> (L)		_	_		_	_
65 (BG)	Ground	ECV signal	Output	Ignition switch ON	Self-diagnosis. STEP-4 (Code No. 45)	(V) 10 0 0 0 0 0 0 0 0 0 0 0 0 0
69 (L)	Ground	A/C LAN signal	Input/ Output	Ignition switch ON	_	(V) 15 10 5 0 • • • 20 ms SJIA1453J
70 (R)	Ground	Each door motor power supply	Output	Ignition switch ON	_	Battery voltage

Revision: 2011 December

### < ECU DIAGNOSIS INFORMATION >

	nal No. color)	Description           Discription           Signal name         Input/ Output		Condition		Value	A
+	-					(Approx.)	
71 (GR)	Ground	Ground	_	Ignition switch ON	_	0 V	В
72 (P)	Ground	CAN-L	_	_	_	_	С

\*1: With ACCS

\*2: Unified meter and A/C amp. is not used for control.

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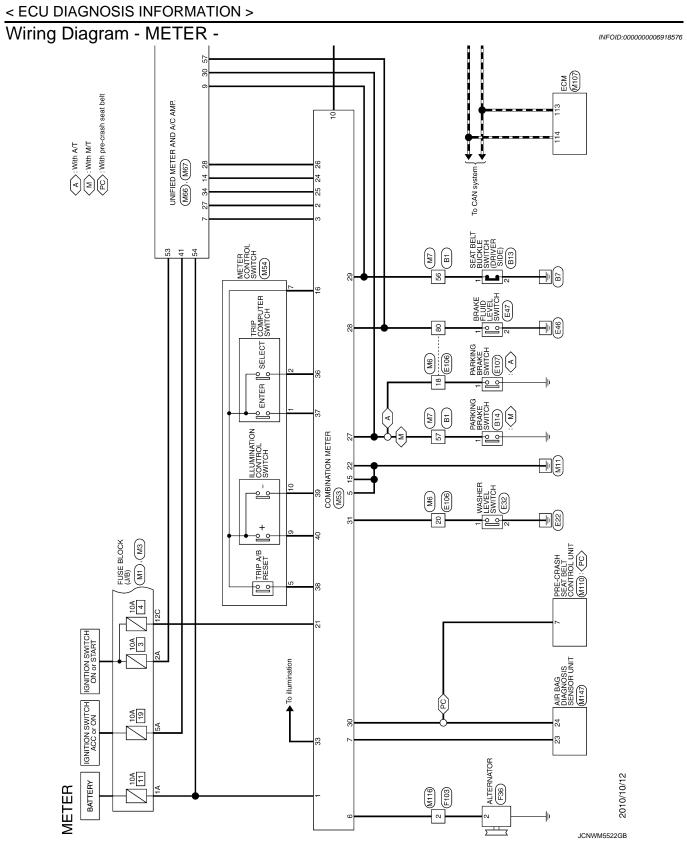
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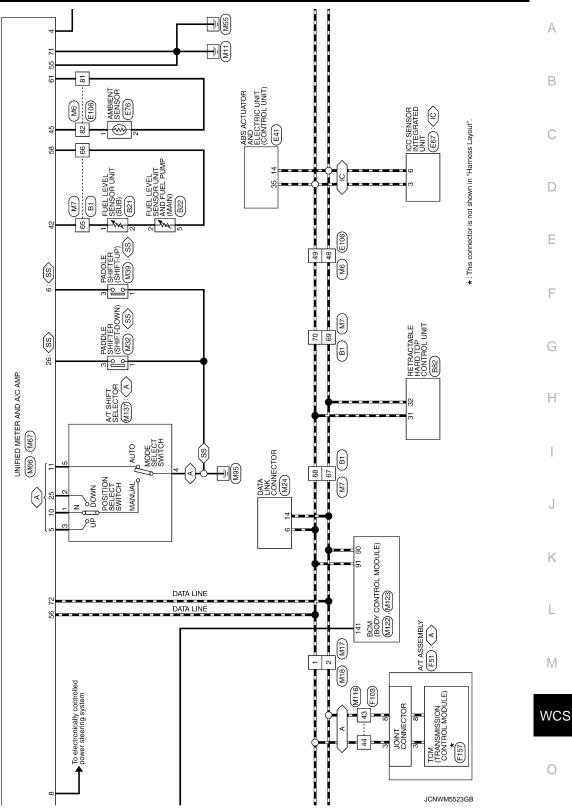
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### < ECU DIAGNOSIS INFORMATION >





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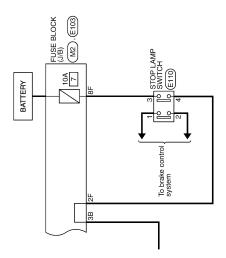
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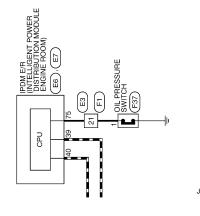
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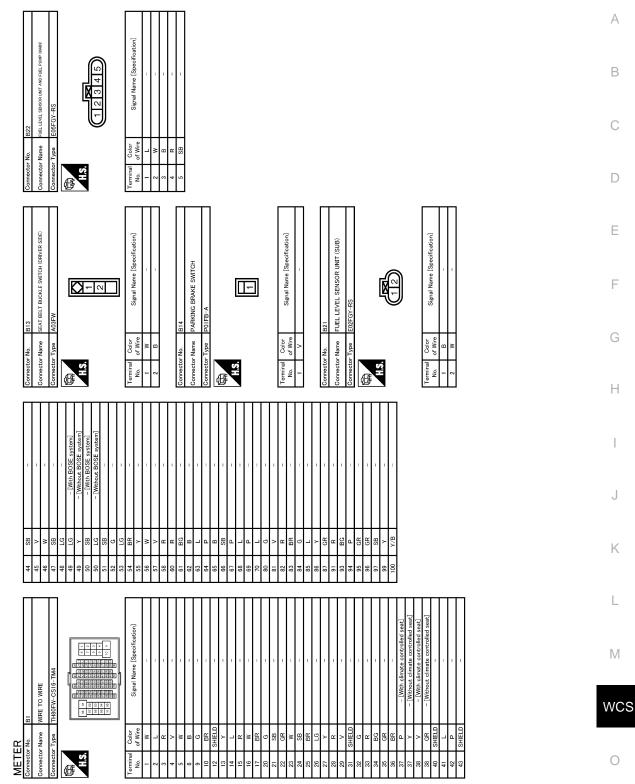
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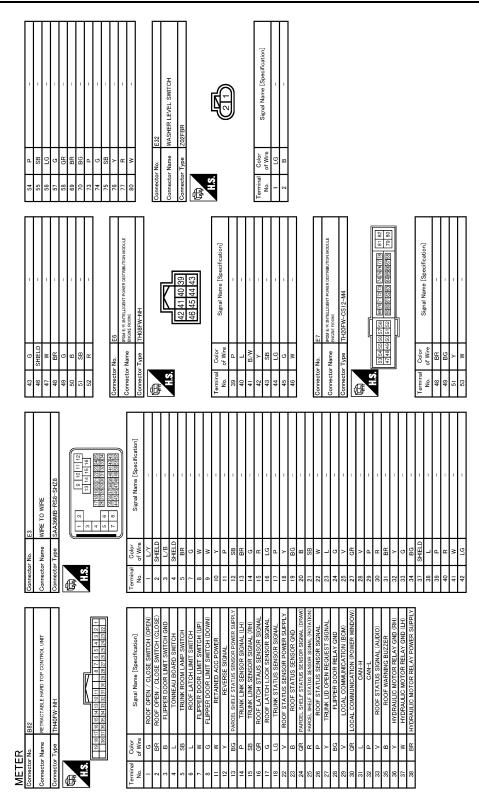
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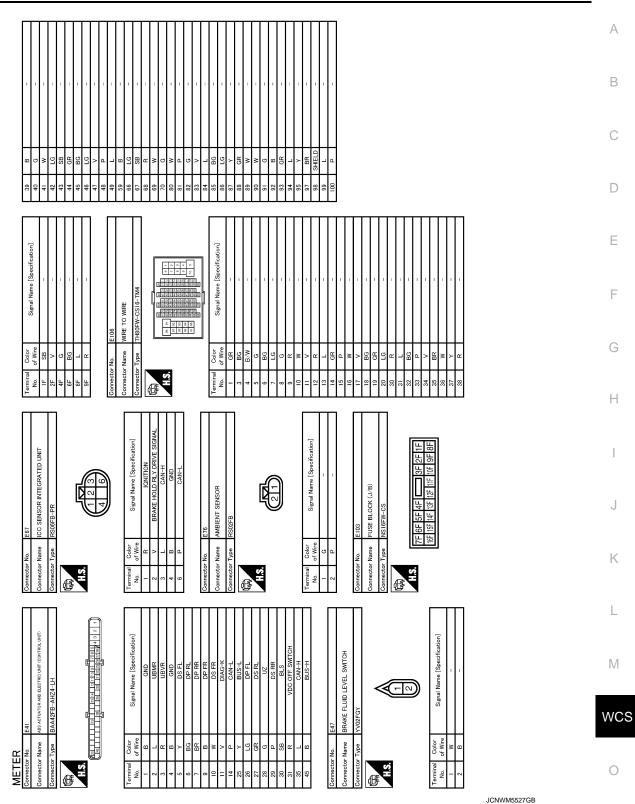
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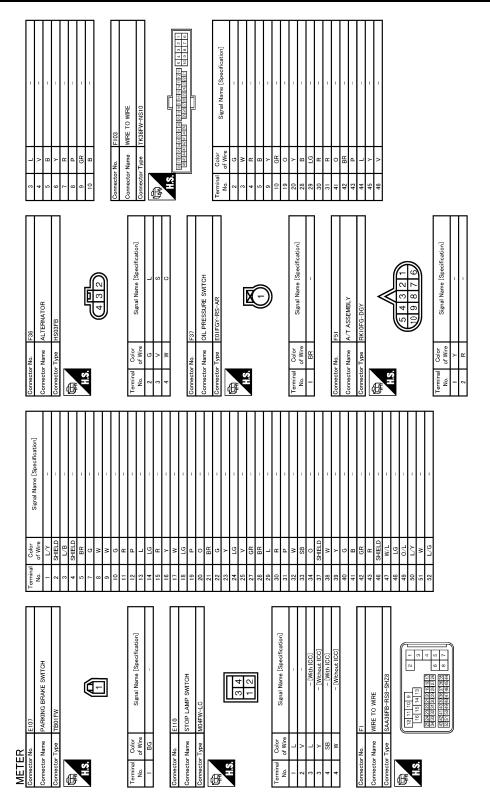
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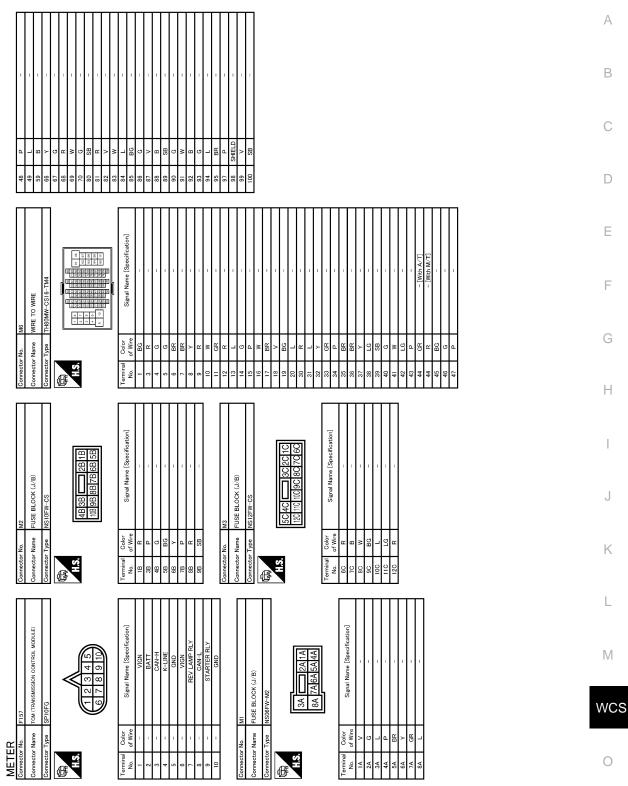
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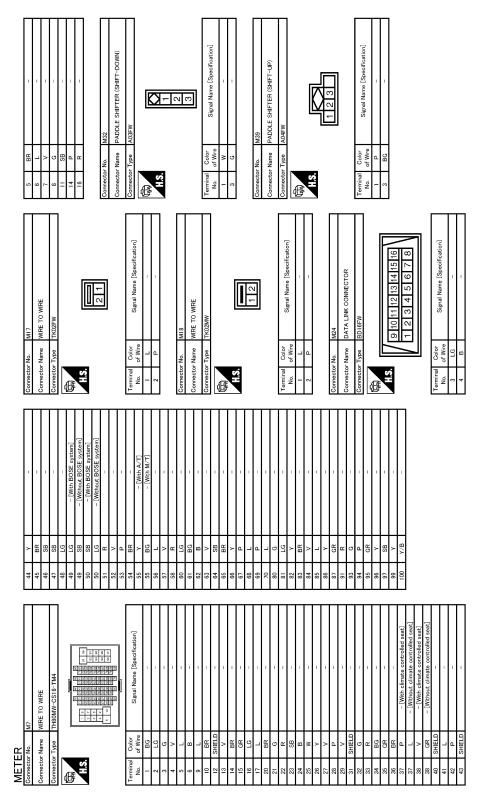
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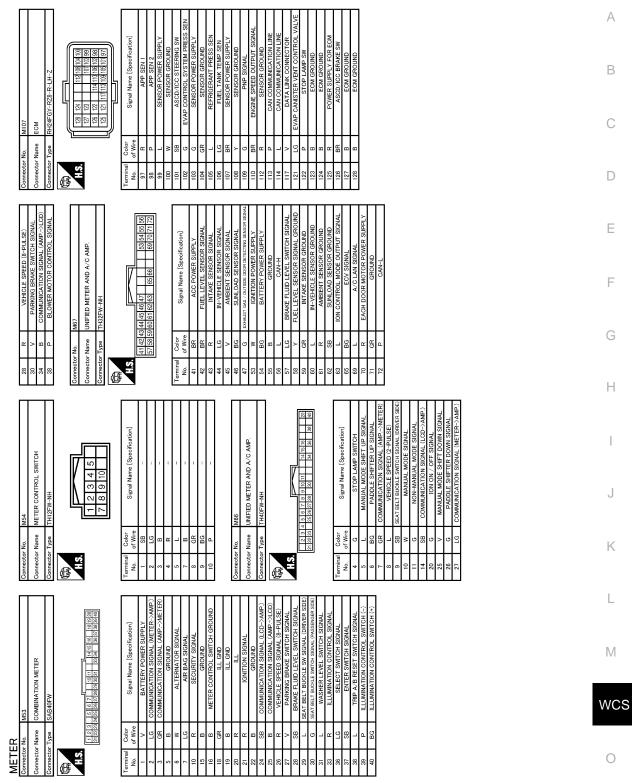
JCNWM5529GB

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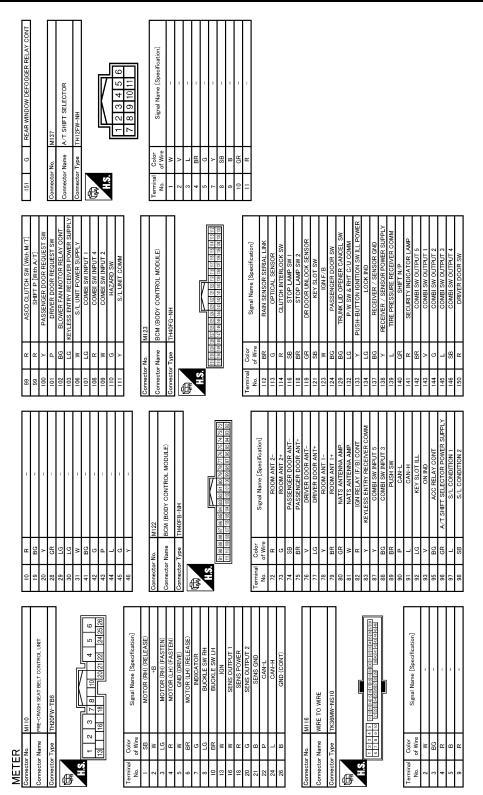
JCNWM5530GB

#### < ECU DIAGNOSIS INFORMATION >



JCNWM5531GB

### < ECU DIAGNOSIS INFORMATION >



JCNWM5532GB

### < ECU DIAGNOSIS INFORMATION >

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	WCS
American Market Commercian Mar	0
Fail-safe	Ρ

#### FAIL SAFE

Combination meter performs fail-safe operation when unified meter and A/C amp. communication is malfunction.

Solution for communication error between the unified meter and A/C amp. and combination meter.

### **WCS-69**

### < ECU DIAGNOSIS INFORMATION >

	Function	Specifications		
Speedometer				
Tachometer				
Fuel gauge		<ul> <li>Reset to zero by suspending communication.</li> </ul>		
Engine coolant temperatur	e gauge			
Illumination control		When suspending communication, change to nighttime mode.		
	Door open warning			
	Parking brake release warning			
	Low tire pressure warning	— The display turns off by suspending communication.		
	Fuel filler cap warning			
Information display	Instantaneous fuel warning	When reception time of an abnormal signal is 2 seconds or		
	Average fuel consumption	less, the last received datum is used for calculation to indicate the result.		
	Average vehicle speed	When reception time of an abnormal signal is more than two		
	Travel distance	seconds, the last result calculated during normal condition is indicated.		
Buzzer		The buzzer turns off by suspending communication.		
	ABS warning lamp			
	VDC warning lamp	The lamp turns on by suspending communication.		
	Brake warning lamp			
	CRUISE warning lamp			
	Malfunction indicator lamp			
	High beam indicator			
	Turn signal indicator lamp			
Warning lamp/indicator	Oil pressure warning lamp			
lamp	A/T CHECK warning lamp			
	VDC OFF indicator lamp			
	Low tire pressure warning lamp	The lamp turns off by suspending communication.		
	Key warning lamp			
	AFS OFF indicator lamp			
	Master warning lamp			
	Tail lamp indicator lamp			
	Front fog lamp indicator lamp			

## **DTC** Index

INFOID:000000006473844

Display contents of CONSULT-III	I Time		Diagnostic item is detected when	Refer to
U1000: CAN COMM CIRCUIT	CRNT	PAST	When unified meter and A/C amp. is not transmitting or receiving CAN communication signal for 2 seconds or more.	<u>MWI-40</u>
U1010: CONTROL UNIT (CAN)	CRNT	PAST	When detecting error during the initial diagnosis of CAN control- ler of unified meter and A/C amp.	<u>MWI-41</u>
B2201: COMM ERROR 1	CRNT	PAST	If a communication error is present in the communication line between unified meter and A/C amp. and combination meter for 2 seconds or more.	<u>MWI-42</u>
B2202: COMM ERROR 2	CRNT	PAST	If a communication error is present in the communication line between unified meter and A/C amp. and combination meter for 2 seconds or more.	<u>MWI-44</u>
B2205: VEHICLE SPEED	CRNT	PAST	The abnormal vehicle speed signal is input from ABS actuator and electric unit (control unit) for 2 seconds or more.	<u>MWI-46</u>

#### < ECU DIAGNOSIS INFORMATION >

Display contents of CONSULT-III	II Time		Diagnostic item is detected when	Refer to	_
B2267: ENGINE SPEED	CRNT	PAST	If ECM continuously transmits abnormal engine speed signals for 2 seconds or more.	<u>MWI-47</u>	A
B2268: WATER TEMP	CRNT	PAST	If ECM continuously transmits abnormal engine coolant temper- ature signals for 60 seconds or more.	<u>MWI-48</u>	В

#### NOTE:

The details of TIME display are as follows.

• CRNT: The malfunctions that are detected now.

• PAST: The malfunction was detected in the past. IGN counter is displayed on FFD (Freeze Frame data).

- 1 - 39: The number is indicated when it is normal at present and a malfunction was detected in the past. It increases like  $0 \rightarrow 1 \rightarrow 2 \cdots 38 \rightarrow 39$  after returning to the normal condition whenever IGN OFF  $\rightarrow$  ON. It is fixed to 39 until the self-diagnosis results are erased if it is over 39. It returns to 0 when a malfunction is detected again in the process.

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### < ECU DIAGNOSIS INFORMATION >

# BCM (BODY CONTROL MODULE)

## **Reference Value**

INFOID:000000006942758

### 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/AUTO	Off
	Front wiper switch INT/AUTO	On
	Front wiper is not in STOP position	Off
FR WIPER STOP	Front wiper is in STOP position	On
INT VOLUME	Wiper volume dial is in a dial position 1 - 7	Wiper volume dial posi- tion
	Other than turn signal switch RH	Off
TURN SIGNAL R	Turn signal switch RH	On
	Other than turn signal switch LH	Off
TURN SIGNAL L	Turn signal switch LH	On
	Other than lighting switch 1ST and 2ND	Off
TAIL LAMP SW	Lighting switch 1ST or 2ND	On
	Other than lighting switch HI	Off
HI BEAM SW	Lighting switch HI	On
	Other than lighting switch 2ND	Off
HEAD LAMP SW 1	Lighting switch 2ND	On
	Other than lighting switch 2ND	Off
HEAD LAMP SW 2	Lighting switch 2ND	On
	Other than lighting switch PASS	Off
PASSING SW	Lighting switch PASS	On
	Other than lighting switch AUTO	Off
AUTO LIGHT SW	Lighting switch AUTO	On
	Front fog lamp switch OFF	Off
FR FOG SW	Front fog lamp switch ON	On
RR FOG SW	NOTE: The item is indicated, but not monitored.	Off
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	NOTE: The item is indicated, but not monitored.	Off
DOOR SW-RL	NOTE: The item is indicated, but not monitored.	Off

#### < ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
DOOR SW-BK	<b>NOTE:</b> The item is indicated, but not monitored.	Off
	Other than power door lock switch LOCK	Off
CDL LOCK SW	Power door lock switch LOCK	On
	Other than power door lock switch UNLOCK	Off
CDL UNLOCK SW	Power door lock switch UNLOCK	On
	Other than driver door key cylinder LOCK position	Off
KEY CYL LK-SW	Driver door key cylinder LOCK position	On
	Other than driver door key cylinder UNLOCK position	Off
KEY CYL UN-SW	Driver door key cylinder UNLOCK position	On
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off
	Hazard switch is OFF	Off
HAZARD SW	Hazard switch is ON	On
REAR DEF SW	NOTE: The item is indicated, but not monitored.	Off
H/L WASH SW	NOTE: The item is indicated, but not monitored.	Off
TR CANCEL SW	Trunk lid opener cancel switch OFF	Off
TR CANCEL SW	Trunk lid opener cancel switch ON	On
	Trunk lid opener switch OFF	Off
TR/BD OPEN SW	While the trunk lid opener switch is turned ON	On
	Trunk lid closed	Off
TRNK/HAT MNTR	Trunk lid opened	On
	LOCK button of the Intelligent Key is not pressed	Off
RKE-LOCK	LOCK button of the Intelligent Key is pressed	On
	UNLOCK button of the Intelligent Key is not pressed	Off
RKE-UNLOCK	UNLOCK button of the Intelligent Key is pressed	On
	TRUNK OPEN button of the Intelligent Key is not pressed	Off
RKE-TR/BD	TRUNK OPEN button of the Intelligent Key is pressed	On
	PANIC button of the Intelligent Key is not pressed	Off
RKE-PANIC	PANIC button of the Intelligent Key is pressed	On
	UNLOCK button of the Intelligent Key is not pressed	Off
RKE-P/W OPEN	UNLOCK button of the Intelligent Key is pressed and held	On
RKE-MODE CHG	LOCK/UNLOCK button of the Intelligent Key is not pressed and held simulta- neously	Off
	LOCK/UNLOCK button of the Intelligent Key is pressed and held simultaneously	On
	Bright outside of the vehicle	Close to 5 V
OPTICAL SENSOR	Dark outside of the vehicle	Close to 0 V
	Driver door request switch is not pressed	Off
REQ SW -DR	Driver door request switch is pressed	On
	Passenger door request switch is not pressed	Off
REQ SW -AS	Passenger door request switch is pressed	On
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off
REQ SW -RL	NOTE: The item is indicated, but not monitored.	Off

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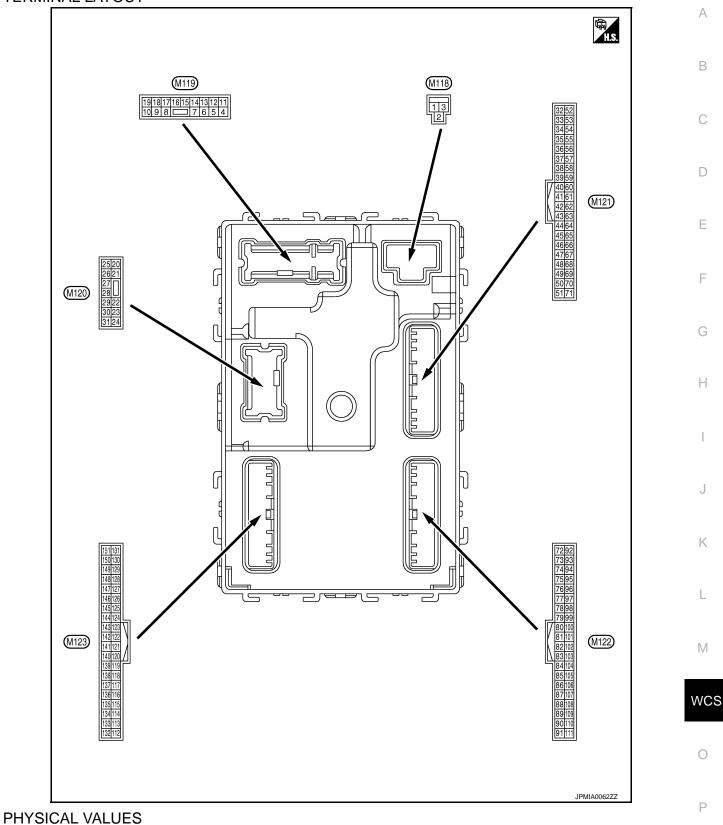
Monitor Item	Condition	Value/Status
REQ SW -BD/TR	Trunk lid opener request switch is not pressed	Off
	Trunk lid opener request switch is pressed	On
PUSH SW	Push-button ignition switch (push switch) is not pressed	Off
0011000	Push-button ignition switch (push switch) is pressed	On
GN RLY2 -F/B	Ignition switch in OFF or ACC position	Off
GN RETZ -T/B	Ignition switch in ON position	On
ACC RLY -F/B	NOTE: The item is indicated, but not monitored.	Off
CLUCH SW	The clutch pedal is not depressed	Off
	The clutch pedal is depressed	On
	The brake pedal is depressed when No. 7 fuse is blown	Off
BRAKE SW 1	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is nor- mal	On
	The brake pedal is not depressed	Off
BRAKE SW 2	The brake pedal is depressed	On
	<ul> <li>Selector lever in P position (Except M/T models)</li> <li>The clutch pedal is depressed (M/T models)</li> </ul>	Off
DETE/CANCL SW	<ul> <li>Selector lever in any position other than P (Except M/T models)</li> <li>The clutch pedal is not depressed (M/T models)</li> </ul>	On
	Selector lever in any position other than P and N	Off
SFT PN/N SW	Selector lever in P or N position	On
S/L -LOCK	Steering is unlocked	Off
NOTE: For models without steering lock unit, this tem is not monitored.	Steering is locked	On
S/L -UNLOCK	Steering is locked	Off
<b>NOTE:</b> For models without steering lock unit, this tem is not monitored.	Steering is unlocked	On
S/L RELAY-F/B	Ignition switch in OFF or ACC position	Off
NOTE: For models without steering lock unit, this tem is not monitored.	Ignition switch in ON position	On
	Driver door is unlocked	Off
JNLK SEN -DR	Driver door is locked	On
	Push-button ignition switch (push-switch) is not pressed	Off
PUSH SW -IPDM	Push-button ignition switch (push-switch) is pressed	On
	Ignition switch in OFF or ACC position	Off
GN RLY1 -F/B	Ignition switch in ON position	On
	Selector lever in any position other than P	Off
DETE SW -IPDM	Selector lever in P position	On
	<ul> <li>Selector lever in any position other than P and N (Except M/T models)</li> <li>The clutch pedal is not depressed (M/T models)</li> </ul>	Off
SFT PN -IPDM	<ul><li>Selector lever in P or N position</li><li>The clutch pedal is depressed</li></ul>	On
	Selector lever in any position other than P	Off
SFT P -MET	Selector lever in P position	On

Monitor Item	Condition	Value/Status	
SFT N -MET	Selector lever in any position other than N	Off	
	Selector lever in N position	On	
	Engine stopped	Stop	
NGINE STATE	While the engine stalls	Stall	
INGINE STATE	At engine cranking	Crank	
	Engine running	Run	
S/L LOCK-IPDM	Steering is unlocked	Off	
IOTE: For models without steering lock unit, this tem is not monitored.	Steering is locked	On	
S/L UNLK-IPDM IOTE:	Steering is locked	Off	
For models without steering lock unit, this tem is not monitored.	Steering is unlocked	On	
S/L RELAY-REQ NOTE:	Steering lock system is not the LOCK condition and the changing condition from LOCK to UNLOCK	Off	
For models without steering lock unit, this tem is not monitored.	Steering lock system are not the LOCK condition or the changing condition from LOCK to UNLOCK	On	
/EH SPEED 1	While driving	Equivalent to speed- ometer reading	
/EH SPEED 2	While driving	Equivalent to speed- ometer reading	
	Driver door is locked	LOCK	
DOOR STAT-DR	Wait with selective UNLOCK operation (60 seconds)	READY	
	Driver door is unlocked	UNLOCK	
	Passenger door is locked	LOCK	
DOOR STAT-AS	Wait with selective UNLOCK operation (60 seconds)	READY	
	Passenger door is unlocked	UNLOCK	
D OK FLAG	Driver side door is open after ignition switch is turned OFF (Selector lever is in the P position except for M/T models)	Reset	
	Ignition switch ON	Set	
	The engine start is prohibited	Reset	
PRMT ENG STRT	The engine start is permitted	Set	
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset	
	The Intelligent Key is not inserted into key slot	Off	V
KEY SW -SLOT	The Intelligent Key is inserted into key slot	On	
RKE OPE COUN1	During the operation of the Intelligent Key	Operation frequency of the Intelligent Key	
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	_	
	The key ID that the key slot receives is not recognized by any key ID registered to BCM.	Yet	
CONFRM ID ALL	The key ID that the key slot receives is recognized by any key ID registered to BCM.	Done	

Monitor Item	Condition	Value/Status
	The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.	Yet
CONFIRM ID4	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done
CONFIRM ID3	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the third key ID registered to BCM.	Done
CONFIRM ID2	The key ID that the key slot receives is not recognized by the second key ID reg- istered to BCM.	Yet
	The key ID that the key slot receives is recognized by the second key ID registered to BCM.	Done
CONFIRM ID1	The key ID that the key slot receives is not recognized by the first key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the first key ID registered to BCM.	Done
TP 4	The ID of fourth Intelligent Key is not registered to BCM	Yet
16 4	The ID of fourth Intelligent Key is registered to BCM	Done
TP 3	The ID of third Intelligent Key is not registered to BCM	Yet
11 5	The ID of third Intelligent Key is registered to BCM	Done
TP 2	The ID of second Intelligent Key is not registered to BCM	Yet
1F 2	The ID of second Intelligent Key is registered to BCM	Done
TP 1	The ID of first Intelligent Key is not registered to BCM	Yet
IFI	The ID of first Intelligent Key is registered to BCM	Done
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire
AIR PRESS RR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear RH tire
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LH tire
ID REGST FL1	ID of front LH tire transmitter is registered	Done
	ID of front LH tire transmitter is not registered	Yet
ID REGST FR1	ID of front RH tire transmitter is registered	Done
	ID of front RH tire transmitter is not registered	Yet
ID REGST RR1	ID of rear RH tire transmitter is registered	Done
	ID of rear RH tire transmitter is not registered	Yet
ID REGST RL1	ID of rear LH tire transmitter is registered	Done
	ID of rear LH tire transmitter is not registered	Yet
	Tire pressure indicator OFF	Off
WARNING LAMP	Tire pressure indicator ON	On
	Tire pressure warning alarm is not sounding	Off
BUZZER	Tire pressure warning alarm is sounding	On

< ECU DIAGNOSIS INFORMATION >

**TERMINAL LAYOUT** 



#### < ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value		
(vvire +	e color) —	Signal name	Input/ Output		Condition	(Approx.)		
1 (W)	Ground	Battery power supply	Input	Ignition switch (	OFF	Battery voltage		
2 (Y)	Ground	P/W power supply (BAT)	Output	Ignition switch (	OFF	12 V		
3 (BG)	Ground	P/W power supply (RAP)	Output	Ignition switch (	ИС	12 V		
					mp battery saver is activated. or room lamp power supply)	0 V		
4 (LG)	Ground	Interior room lamp power supply	Output	vated.	mp battery saver is not acti- erior room lamp power sup-	12 V		
5	Oneveral	Passenger door UN-	Output Passenger	UNLOCK (Actuator is activated)	12 V			
(P)	Ground	LOCK	Output	door	Other than UNLOCK (Ac- tuator is not activated)	0 V		
7	One of	Otan Jama	Output Stop Jamp	ON	0 V			
(SB)	Ground	Step lamp	Output	Step lamp	OFF	12 V		
8	Crowned	All doors, fuel lid		Output	Output	All doors, fuel	LOCK (Actuator is activated)	12 V
(V)	Ground	LOCK		lid	Other than LOCK (Actuator is not activated)	0 V		
9	Crowned	Driver door, fuel lid	Output	Driver door,	UNLOCK (Actuator is activated)	12 V		
(G)	Ground	UNLOCK	Output	fuel lid	Other than UNLOCK (Actuator is not activated)	0 V		
11 (GR)	Ground	Battery power supply	Input	Ignition switch (	DFF	Battery voltage		
13 (B)	Ground	Ground	_	Ignition switch (	NC	0 V		
					OFF	0 V		
		Push-button ignition				<b>NOTE:</b> When the illumination brighten- ing/dimming level is in the neutral position.		
14 (W)	Ground	switch illumination ground	Output	Tail lamp	ON	(V) 10 0 2 ms JSNIA0010GB		
15 (BG)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage		
					ACC	0 V		

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	nal No.	Description				Value	
(wire +	color)	Signal name	Input/ Output		Condition	(Approx.)	
					Turn signal switch OFF	0 V	
17 (BR)	Ground	Turn signal RH (Front)	Output	lgnition switch ON	Turn signal switch RH		
					Turn signal switch OFF	6.5 V 0 V	
18 (BG)	Ground	Turn signal LH (Front)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 •••••••••••••••••••••••••••••••	
						екідо926Е 6.5 V	
19 (V)	Ground	Room lamp timer control	Output	Interior room lamp	OFF ON	12 V 0 V	
					Turn signal switch OFF	0 V	
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 1 s FKID092EE	
					OPEN (Trunk lid opener actuator	6.5 V 12 V	
23 (Y)	Ground	Trunk lid open	Output	Trunk lid	is activated) Other than OPEN (Trunk lid opener actuator is not activated)	0 V	
					Turn signal switch OFF	0 V	
25 (Y)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch LH		
30				Trunk room	ON	6.5 V 0 V	
(P)	Ground	Trunk room lamp	Output	lamp	OFF	12 V	

	nal No.	Description				Value						
(VVire	color)	Signal name	Input/ Output		Condition	(Approx.)						
34 Gr	Ground	Trunk room antenna	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 0 10 10 15 0 15 0 15 0 15 0 15 0 15						
(SB)		()	When Intelligent Key is	When Intelligent Key is not in the passenger compart- ment	(V) 15 0 1 s JMKIA0063GB							
35	Ground	Trunk room antenna					0.45	Outout	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 0 0 1 s JMKIA0062GB
(V)		(+)		OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 0 0 1 s JMKIA0063GB						
38	Ground	Rear bumper anten-	Output	When the trunk lid opener re- quest switch is	When Intelligent Key is in the antenna detection area	(V) 15 0 5 0 1 5 0 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5						
(B)	Siduid	na (–)		operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 0 1 s 10 1 s 10 1 s 10 1 s 10 1 s 10 1 s 10 10 10 10 10 10 10 10 10 10 10 10 10						

	nal No.	Description				Value	
(Wire +	color)	Signal name	Input/ Output		Condition	Value (Approx.)	A
39	0	Rear bumper anten-	0.444	When the trunk lid opener re-	When Intelligent Key is in the antenna detection area	(V) 15 0 0 15 0 15 0 15 0 15 0 15 0 15 0 1	B C D
(W)	Ground	na (+)		quest switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	E
47	Ground	Ignition relay (IPDM	Output	Ignition switch	OFF or ACC	12 V	G
(Y)		E/R) control			ON	0 V	
50 (G)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (Trunk lid is closed)	(V) 15 10 0 10 ms JPMIA0011GB	H
						11.8 V 0 V	
				Ignition switch	ON (Trunk lid is opened) When selector lever is in P or N position	12 V	K
52				ON (A/T mod- els)	When selector lever is not in P or N position	0 V	
(BR)	Ground	Starter relay control	Output	Ignition switch	When the clutch pedal is depressed	Battery voltage	L
				ON (M/T mod- els)	When the clutch pedal is not depressed	0 V	M
60* <sup>1</sup>	0	Push-button ignition	1	Push-button ig-	Pressed	0 V	
(BR)	Ground	switch (Push switch)	Input	nition switch (push switch)	Not pressed	Battery voltage	WC
					ON (Pressed)	0 V	
61 (SB)	Ground	Trunk lid opener re- quest switch	Input	Trunk lid open- er request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB 1.0 V	P
64		Intelligent Key warn-		Intelligent Key	Sounding	0 V	
(G)	Ground	ing buzzer (Engine room)	Output	warning buzzer (Engine room)	Not sounding	12 V	

#### < ECU DIAGNOSIS INFORMATION > Terminal No. Description Value (Wire color) Condition Input/ (Approx.) Signal name + \_ Output 0 V Pressed 15 10 67 Trunk lid opener Trunk lid open-Ground Input (GR) switch er switch Ō Not pressed 10 ms JPMIA0011GB 11.8 V (V 15 10 When Intelligent Key is in 50 the passenger compartment 1 s JMKIA0062GB 72 Room antenna 2 (-) Ignition switch Ground Output (R) (Center console) OFF 15 10 When Intelligent Key is not n in the passenger compartment 1 s JMKIA0063GB 15 10 When Intelligent Key is in ŏ the passenger compartment 1 s JMKIA0062GB Ignition switch 73 Room antenna 2 (+) Ground Output (G) (Center console) OFF 15 10 When Intelligent Key is not ñ in the passenger compart-

## **BCM (BODY CONTROL MODULE)**

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JMKIA0063GB

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	nal No.	Description				Value	А
+	color)	Signal name	Input/ Output		Condition	(Approx.)	~
74		Passenger door an-		When the pas- senger door re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	B C D
(SB)	Ground	tenna (-)	Output	quest switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	E
75	Ground	Passenger door an-	Output	When the pas- senger door re- quest switch is	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	G H I
(BR)		tenna (+)		operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	J K L
76	Ground	Driver door antenna	Output	When the driv- er door request switch is oper-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	M WC
(V)		(-)	Cuput	ated with igni- tion switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	P

	nal No.	Description				Value		
(Wire	color) –	Signal name	Input/ Output		Condition	(Approx.)		
77 Ground	Driver door antenna	Output	When the driv- er door request itput switch is oper-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 1 1 1 5 0 1 1 5 0 1 1 1 1 1 1 1 1 1 1 1 1 1			
(LG)	Ground	(+)		(V) 15 10 5 0 1 s JMKIA0063GB				
78	Ground			When Intelligent Key is in the passenger compart- ment	(V) 15 0 0 1 s JMKIA0062GB			
(Y)		(Instrument panel)	Output	OFF	OFF	Whe in th	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 1 1 1 1 1 1 1 1 1 1 1 1
79	Ground	Room antenna 1 (+)	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB		
(BR)	Ground	(Instrument panel)	Cutput	OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 5 0 1 5 10 5 0 1 5 10 5 0 1 5 10 5 0 1 5 10 5 0 1 5 10 5 0 10 5 0 10 5 0 10 5 0 10 5 0 10 5 0 10 5 0 10 5 0 10 5 0 10 5 0 10 5 0 10 5 0 10 5 0 10 5 0 10 5 0 10 5 0 10 5 0 10 10 10 10 10 10 10 10 10 10 10 10 1		

	nal No. color)	Description		Condition		Condition		Value
+	-	Signal name	Input/ Output		Condition	(Approx.)		
80 (GR)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.		
81 (W)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.		
82 (R)	Ground	Ignition relay [Fuse block (J/B)] control	Output	Ignition switch	OFF or ACC ON	0 V 12 V		
83		Remote keyless entry		During waiting		(V) 15 10 5 0 11 11 11 11 11 11 11 11 11 11 11 11 1		
(Y)	Ground	receiver communica- tion	Input/ Output	When operating gent Key	either button on the Intelli-	(V) 15 0 0 10 10 10 10 10 10 10 10 10 10 10 10		
							All switches OFF (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V
87 (Y)	Ground	Combination switch INPUT 5	Input	Combination switch	Front fog lamp switch ON (Wiper volume dial 4)	(V) 15 0 2 ms JPMIA0037GB 1.3 V		
					Any of the conditions be- low with all switches OFF • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 6 • Wiper volume dial 7	(V) 15 0 2 ms 1.3 V		

#### Terminal No. Description Value (Wire color) Condition Input/ (Approx.) Signal name + \_ Output (V 15 10 5 All switches OFF Õ (Wiper volume dial 4) 2 ms JPMIA0041GB 1.4 V (V 15 iŏ Lighting switch HI 0 (Wiper volume dial 4) 2 ms JPMIA0036GB 1.3 V 88 Combination switch Combination Ground Input (BG) **INPUT 3** switch 15 10 Lighting switch 2ND n (Wiper volume dial 4) 2 ms JPMIA0037GB 1.3 V 15 Any of the conditions be-10 low with all switches OFF n • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 3 2 ms JPMIA0040GB 1.3 V Push-button ig-0 V Pressed 89\*<sup>2</sup> Push-button ignition Ground Input nition switch switch (Push switch) (BR) Not pressed Battery voltage (push switch) 90 Input/ Ground CAN-L (P) Output 91 Input/ CAN-H Ground (L) Output OFF 0 V (V 15 10 92 Key slot illumin Ground Key slot illumination Output Blinking (LG) nation 1 s JPMIA0015GB 6.5 V ON 12 V

## **BCM (BODY CONTROL MODULE)**

	nal No. color)	Description			Condition	Value				
+	-	Signal name	Input/ Output		Condition	(Approx.)				
93	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage				
(V)					ON	0 V				
95	Cround		Quitaut	Invition outitab	OFF	0 V				
(BG)	Ground	ACC relay control	Output	Ignition switch	ACC or ON	12 V				
96 (GR)	Ground	A/T shift selector (De- tention switch) power supply	Output		_	12 V				
97* <sup>2</sup>	Ground	Steering lock condi-	Input	Steering lock	LOCK status	0 V				
(L)	0.00.00	tion No. 1	p at	elicening lecit	UNLOCK status	12 V				
98* <sup>2</sup>	Ground	Steering lock condi-	Input	Steering lock	LOCK status	12 V				
(SB)	Croana	tion No. 2	mput	Oleening look	UNLOCK status	0 V				
		Selector lever P posi-		Selector lever	P position	0 V				
		tion switch			Any position other than P	12 V				
		ASCD clutch switch (M/T models without		ASCD clutch	OFF (Clutch pedal is de- pressed)	0 V				
99 (R)	Ground	ICC)				Input	Input	switch	ON (Clutch pedal is not depressed)	12 V
		ICC clutch switch (M/				ICC clutch	OFF (Clutch pedal is de- pressed)	0 V		
		T models with ICC)		switch	ON (Clutch pedal is not depressed)	12 V				
					ON (Pressed)	0 V				
100 (Y)	Ground	Passenger door re- quest switch	Input	Passenger door request switch	OFF (Not pressed)	(V) 15 10 10 10 10 10 10 10 10 10 10				
					ON (Pressed)	0 V				
101 (P)	Ground	Driver door request switch	Input	Driver door re- quest switch	OFF (Not pressed)	(V) 15 10 10 10 10 10 10 1.0 V JPMIA0016GB				
102	Ground	Blower fan motor re-	Output	Ignition switch	OFF or ACC	0 V				
(BG)		lay control		J	ON	12 V				
103 (LG)	Ground	Remote keyless entry receiver power sup- ply	Output	Ignition switch (	DFF	12 V				
106* <sup>2</sup>	Creation	Steering lock unit	0		OFF or ACC	12 V				
(W)	Ground	power supply	Output	Ignition switch	ON	0 V				

	nal No.	Description				Value
(VVire +	color)	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF	(V) 15 10 0 2 ms JPMIA0041GB 1.4 V
					Turn signal switch LH	(V) 15 0 2 ms JPMIA0037GB 1.3 V
107 (LG)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper volume dial 4)	Turn signal switch RH	(V) 15 0 0 2 ms JPMIA0036GB 1.3 V
					Front wiper switch LO	(V) 15 0 2 ms JPMIA0038GB 1.3 V
					Front washer switch ON	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V

	nal No.	Description				Value	А
(vvire +	color)	Signal name	Input/ Output		Condition	(Approx.)	A
					All switches OFF (Wiper volume dial 4)	(V) 15 0 2 ms JPMIA0041GB 1.4 V	B C D
108	Ground	Combination switch	Input	Combination	Lighting switch AUTO (Wiper volume dial 4)	(V) 15 0 2 ms JPMIA0038GB 1.3 V	E
(R)		INPUT 4	pat	switch	Lighting switch 1ST (Wiper volume dial 4)	(V) 15 0 2 ms 10 2 ms JPMIA0036GB 1.3 V	G H
					Any of the conditions be- low with all switches OFF • Wiper volume dial 1 • Wiper volume dial 5 • Wiper volume dial 6	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V	J K L

#### < ECU DIAGNOSIS INFORMATION >

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#### Terminal No. Description Value (Wire color) Condition Input/ (Approx.) Signal name + \_ Output (V) 15 10 5 Õ All switches OFF 2 ms JPMIA0041GB 1.4 V (V 15 10 5 õ Lighting switch PASS 2 ms JPMIA0037GB 1.3 V (V 15 10 Combination Combination switch 109 switch Ō Lighting switch 2ND Ground Input INPUT 2 (W) (Wiper volume dial 4) 2 ms JPMIA0036GB 1.3 V (V 15 10 Front wiper switch INT/ 0 AUTO 2 ms JPMIA0038GB 1.3 V (V 15 10 5 ŏ Front wiper switch HI 2 ms JPMIA0040GB 1.3 V ON 0 V 110 Ground Hazard switch Input Hazard switch (G) ŏ OFF 10 ms JPMIA0012GB 1.1 V

## **BCM (BODY CONTROL MODULE)**

	nal No.	Description				Value
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)
					LOCK status	12 V
111* <sup>2</sup> (Y) Ground		Input/ Output	Steering lock	LOCK or UNLOCK	(V) 15 0 50 ms JMKIA0066GB	
					For 15 seconds after UN- LOCK	12 V
					15 seconds or later after UNLOCK	0 V
112 (BR)	Ground	Rain sensor serial link	Input/ Output	Ignition switch ON		(V) 15 10 5 0 
					When bright outside of the vehicle	8.7 V Close to 5 V
113 (G)	Ground	Optical sensor	Input	Ignition switch ON	When dark outside of the vehicle	Close to 0 V
114 (R)	Ground	Clutch interlock switch	Input	Clutch interlock switch	OFF (Clutch pedal is not depressed)	0 V
(K)		Switch		SWIICH	ON (Clutch pedal is de- pressed)	Battery voltage
116 (SB)	Ground	Stop lamp switch 1	Input		_	Battery voltage
		Stop lamp switch 2		Stop lamp	OFF (Brake pedal is not depressed)	0 V
118	Crowned	(Without ICC)	Innut	switch	ON (Brake pedal is de- pressed)	Battery voltage
(BR)	Ground	Stop lamp switch 2	Input		h OFF (Brake pedal is not ICC brake hold relay OFF	0 V
		(With ICC)			h ON (Brake pedal is de- brake hold relay ON	Battery voltage
119 (GR)	Ground	Driver side door lock assembly (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	(V) 15 0 10 ms JPMIA0012GB 1.1 V
			UNLOCK status (Unlock switch sensor ON)		0 V	

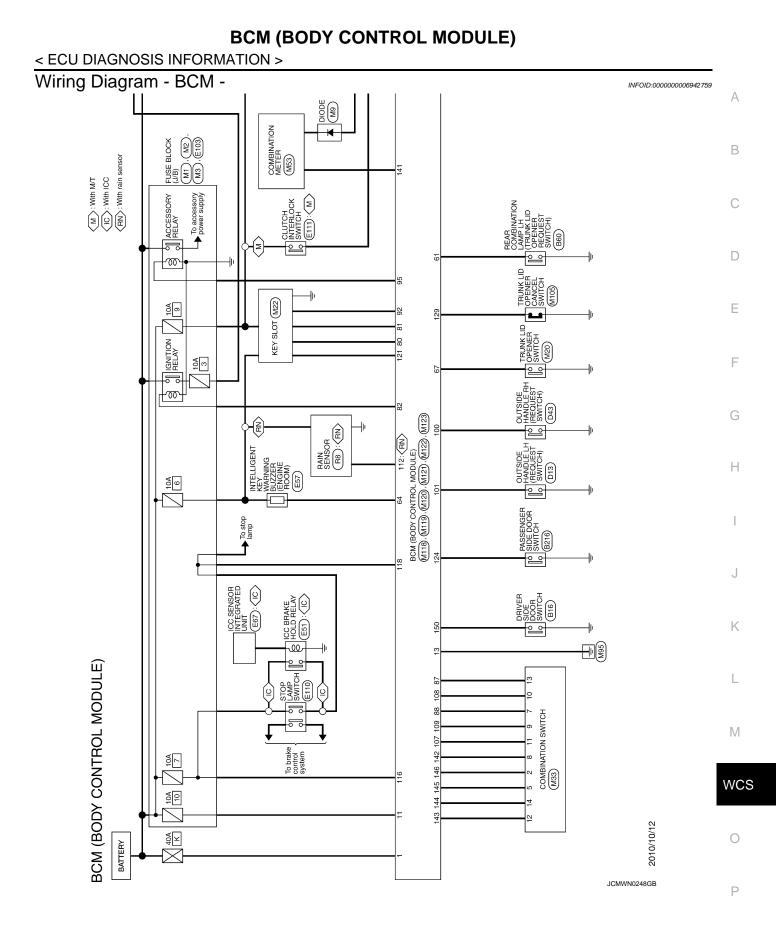
	nal No.	Description				) (5) (5)
(Wire +	color)	Signal name	Input/ Output		Condition	Value (Approx.)
121	Ground	Key slot switch	Input	When the Intelligent Key is inserted into key slot         When the Intelligent Key is not inserted into key slot         OFF or ACC		12 V
(SB)		,				0 V
123 (W)	Ground	IGN feedback	Input	Ignition switch OFF or ACC		0 V Battery voltage
124 (BG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close) ON (Door open)	(V) 15 10 10 10 10 10 10 10 11.8 V 0 V
129 (BG)	Ground	Trunk lid opener can- cel switch	Input	Trunk lid open- er cancel switch	CANCEL	(V) 15 10 10 10 10 10 11 10 11 10 11 10 10
132 (LG)	Ground	Power window switch and R.H.T. control unit communication	Input/ Output	Ignition switch ON		(V) 15 10 10 10 10 10 10 10 10 10 10
				Ignition switch C	ON (Tail lamps OFF)	9.5 V
133 (Y)	Ground	Push-button ignition switch illumination	Output	Push-button ig- nition switch il- lumination	ON (Tail lamps ON)	NOTE: The pulse width of this wave is varied by the illumination bright- ening/dimming level.
					OFF OFF	0 V Battery voltage
134 (LG)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	ON	0 V
137 (BG)	Ground	Receiver and sensor ground	Input	Ignition switch C	DN	0 V

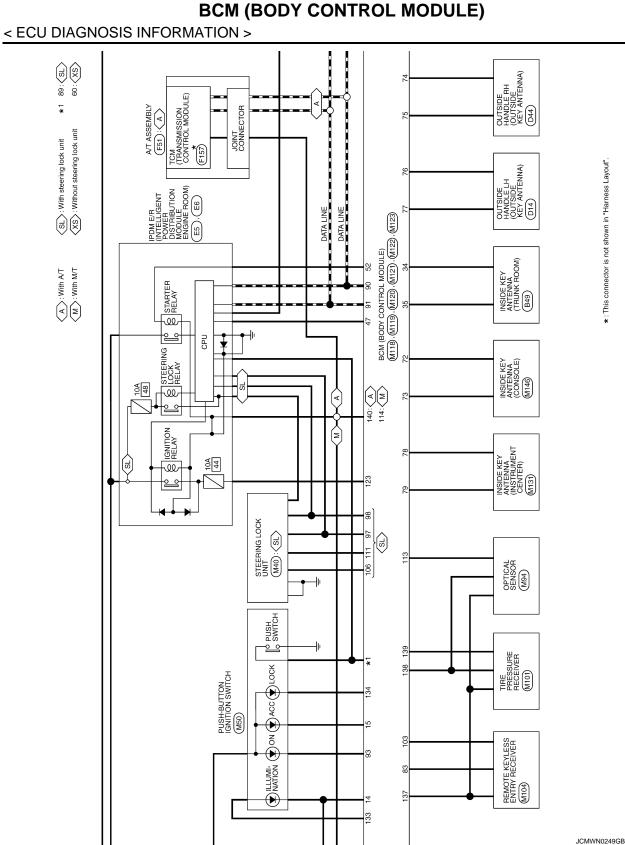
Terminal No. Description (Wire color)		4	Condition	Value		
+	-	Signal name	Input/ Output		Condition	(Approx.)
138		Receiver and sensor			OFF	0 V
(Y)	Ground	power supply	Output	Ignition switch	ACC or ON	5.0 V
139	Ground	Tire pressure receiv-	Input/	Ignition switch	Standby state	(V) 4 2 0 + 0.25 OCC3881D
(L)	(L) Ground er communication	er communication	Output	ON	When receiving the signal from the transmitter	(V) 4 2 0 • • 0.2s • • 0.2s • • 0.2s • • 0.2s
140	Ground	Selector lever P/N	Input	Selector lever	P or N position	12 V
(GR)		position (A/T models)	input		Except P and N positions	0 V
141 (R)	Ground	Security indicator lamp	Output	Security indica- tor lamp	Blinking	(V) 15 0 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 10 15 10 10 10 10 10 10 10 10 10 10
					OFF	12 V
					All switches OFF	0 V
					Lighting switch 1ST	0.0
				Combination	Lighting switch HI	(V) 15
142 (BR)	Ground	d Combination switch OUTPUT 5 Output	Output	owitch	Lighting switch 2ND	
					All switches OFF (Wiper volume dial 4)	10.7 V 0 V
					Front wiper switch HI (Wiper volume dial 4)	()/)
143 (V)		und Combination switch OUTPUT 1 Output	Combination switch	Any of the conditions be- low with all switches OFF • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 3 • Wiper volume dial 6 • Wiper volume dial 7	(V) 15 10 5 0 2 ms JPMIA0032GB 10.7 V	

### < ECU DIAGNOSIS INFORMATION >

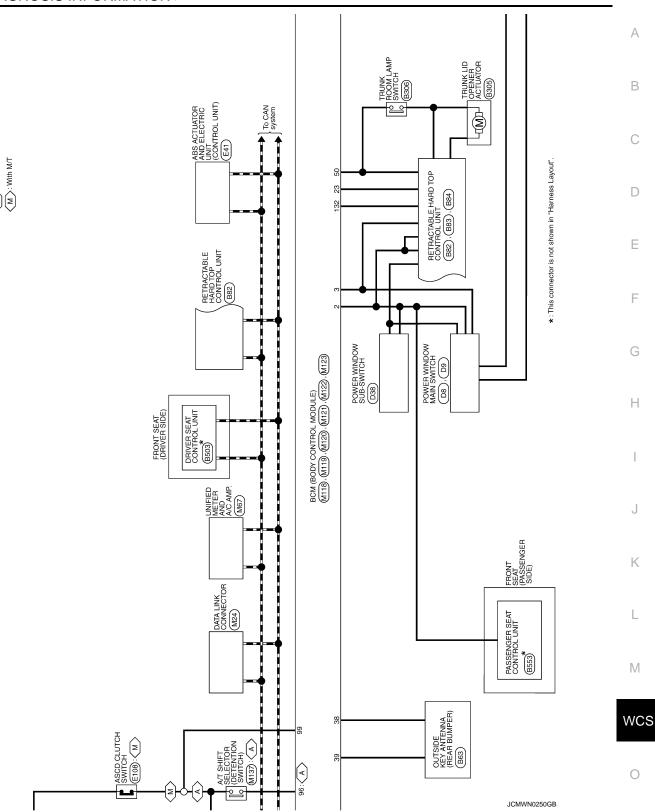
	nal No. color)	Description	1			Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF (Wiper volume dial 4)	0 V
					Front washer switch ON (Wiper volume dial 4)	(V) 15
144 (G)	Ground	Combination switch OUTPUT 2	Output	Combination switch	Any of the conditions be- low with all switches OFF • Wiper volume dial 1 • Wiper volume dial 5 • Wiper volume dial 6	10 5 0 2 ms JPMIA0033GB 10.7 V
					All switches OFF	0 V
				Front wiper switch INT/ AUTO	(V)[]	
145		Combination switch OUTPUT 3	Output	Combination switch (Wiper volume dial 4)	Front wiper switch LO	
(L)	Ground				Lighting switch AUTO	3 0 2 ms JPMIA0034GB 10.7 V
					All switches OFF	0 V
					Front fog lamp switch ON	
				Combination	Lighting switch 2ND	(V) 15
146	Ground	Combination switch	Output	switch	Lighting switch PASS	
(SB)	Clouid	OUTPUT 4	Calpar	(Wiper volume dial 4)	Turn signal switch LH	0 2 ms 10.7 V
150 (R)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V
					ON (Door open)	0 V
151	Ground	Rear window defog-	Output	Rear window	Active	0 V
(G)		ger relay control		defogger	Not activated	Battery voltage

\*1: Without steering lock unit \*2: With steering lock unit





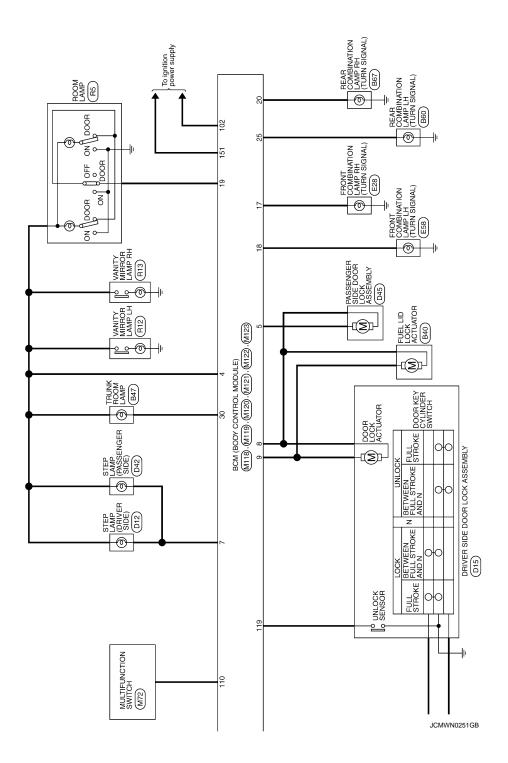
\* : This connector is not shown in "Harness Layout".



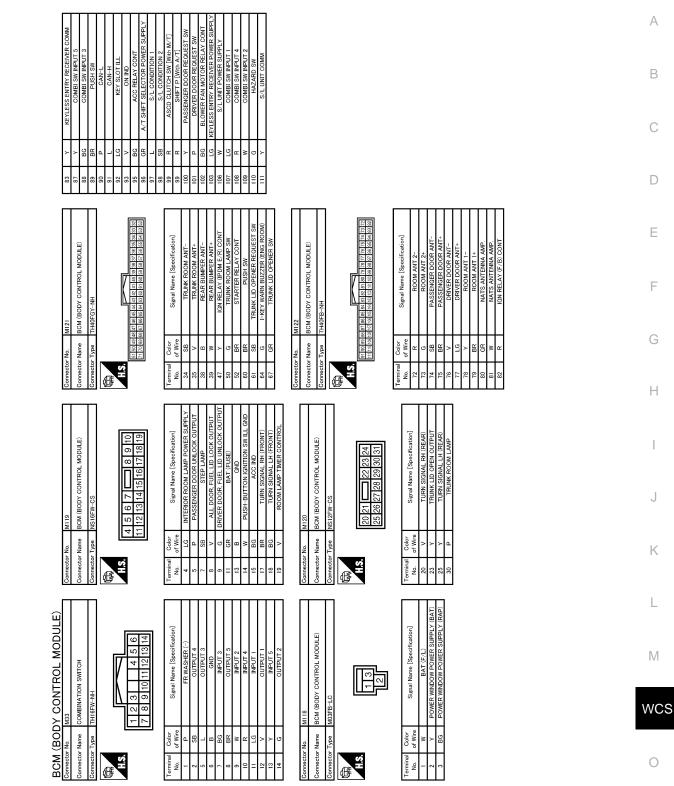
< ECU DIAGNOSIS INFORMATION >

(M): With A/T (M): With M/T

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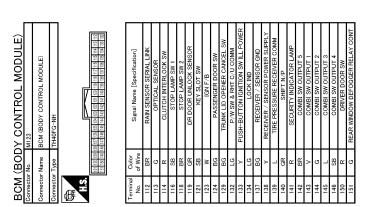
#### < ECU DIAGNOSIS INFORMATION >



JCMWN0252GB

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< ECU DIAGNOSIS INFORMATION >



JCMWN0253GB

Fail-safe

FAIL-SAFE CONTROL BY DTC

BCM performs fail-safe control when any DTC are detected.

INFOID:000000006942760

Display contents of CONSULT	Fail-safe	Cancellation
B2013: ID DISCORD BCM-S/L	Inhibit engine cranking	Erase DTC
B2014: CHAIN OF S/L-BCM	Inhibit engine cranking	Erase DTC
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
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI-SCANNING	Inhibit engine cranking	Ignition switch $ON \rightarrow OFF$
B2557: VEHICLE SPEED	Inhibit steering lock	When normal vehicle speed signals are received from ABS actua- tor and electric unit (control unit) for 500 ms
B2560: STARTER CONT RELAY	Inhibit engine cranking	<ul> <li>500 ms after the following CAN signal communication status be- comes consistent</li> <li>Starter control relay signal</li> <li>Starter relay status signal</li> </ul>
B2601: SHIFT POSITION	Inhibit steering lock	<ul> <li>500 ms after the following signal reception status becomes consistent</li> <li>Selector lever P position switch signal</li> <li>P range signal (CAN)</li> </ul>
B2602: SHIFT POSITION	Inhibit steering lock	<ul> <li>5 seconds after the following BCM recognition conditions are fulfilled</li> <li>Ignition switch is in the ON position</li> <li>Selector lever P position switch signal: Except P position (12 V)</li> <li>Vehicle speed: 4 km/h (2.5 MPH) or more</li> </ul>
B2603: SHIFT POSI STATUS	Inhibit steering lock	<ul> <li>500 ms after the following BCM recognition conditions are fulfilled</li> <li>Ignition switch is in the ON position</li> <li>Selector lever P position switch signal: Except P position (12 V)</li> <li>Selector lever P/N position signal: Except P and N positions (0 V)</li> </ul>
B2604: PNP/CLUTCH SW	Inhibit steering lock	<ul> <li>500 ms after any of the following BCM recognition conditions are fulfilled</li> <li>Status 1</li> <li>Ignition switch is in the ON position</li> <li>Selector lever P/N position signal: P and N position (12 V)</li> <li>P range signal or N range signal (CAN): ON</li> <li>Status 2</li> <li>Ignition switch is in the ON position</li> <li>Selector lever P/N position signal: Except P and N positions (0 V)</li> <li>P range signal and N range signal (CAN): OFF</li> </ul>
B2605: PNP/CLUTCH SW	Inhibit steering lock	<ul> <li>500 ms after any of the following BCM recognition conditions are fulfilled</li> <li>Status 1</li> <li>Ignition switch is in the ON position</li> <li>Selector lever P/N position signal: Except P and N positions (0 V)</li> <li>Interlock/PNP switch signal (CAN): OFF</li> <li>Status 2</li> <li>Ignition switch is in the ON position</li> <li>Selector lever P/N position signal: P or N position (12 V)</li> <li>PNP switch signal (CAN): ON</li> </ul>
B2606: S/L RELAY	Inhibit engine cranking	<ul> <li>500 ms after the following CAN signal communication status becomes consistent</li> <li>Steering lock relay signal (Request signal)</li> <li>Steering lock relay signal (Condition signal)</li> </ul>
B2607: S/L RELAY	Inhibit engine cranking	<ul> <li>500 ms after the following CAN signal communication status has becomes consistent</li> <li>Steering lock relay signal (Request signal)</li> <li>Steering lock relay signal (Condition signal)</li> </ul>

#### < ECU DIAGNOSIS INFORMATION >

Display contents of CONSULT	Fail-safe	Cancellation
B2608: STARTER RELAY	Inhibit engine cranking	<ul> <li>500 ms after the following signal communication status becomes consistent</li> <li>Starter motor relay control signal</li> <li>Starter relay status signal (CAN)</li> </ul>
B2609: S/L STATUS	<ul><li>Inhibit engine cranking</li><li>Inhibit steering lock</li></ul>	<ul> <li>When the following steering lock conditions agree</li> <li>BCM steering lock control status</li> <li>Steering lock condition No. 1 signal status</li> <li>Steering lock condition No. 2 signal status</li> </ul>
B260A: IGNITION RELAY	Inhibit engine cranking	<ul> <li>500 ms after the following conditions are fulfilled</li> <li>IGN relay (IPDM E/R) control signal: OFF (12 V)</li> <li>Ignition ON signal (CAN to IPDM E/R): OFF (Request signal)</li> <li>Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)</li> </ul>
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	<ul><li>When any of the following conditions are fulfilled</li><li>Power position changes to ACC</li><li>Receives engine status signal (CAN)</li></ul>
B2612: S/L STATUS	<ul><li>Inhibit engine cranking</li><li>Inhibit steering lock</li></ul>	<ul> <li>When any of the following conditions are fulfilled</li> <li>Steering lock unit status signal (CAN) is received normally</li> <li>The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R)</li> </ul>
B2617: BCM	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 be- comes normal
B2619: BCM	Inhibit engine cranking	1 second after the steering lock unit power supply output control in- side BCM becomes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B26E8: CLUTCH SW	Inhibit engine cranking	<ul> <li>When any of the following BCM recognition conditions are fulfilled</li> <li>Status 1</li> <li>Clutch switch signal (CAN from ECM): ON</li> <li>Clutch interlock switch signal: OFF (0 V)</li> <li>Status 2</li> <li>Clutch switch signal (CAN from ECM): OFF</li> <li>Clutch interlock switch signal: ON (Battery voltage)</li> </ul>
B26E9: S/L STATUS	<ul><li>Inhibit engine cranking</li><li>Inhibit steering lock</li></ul>	<ul> <li>When BCM transmits the LOCK request signal to steering lock unit, and receives LOCK response signal from steering lock unit, the following conditions are fulfilled</li> <li>Steering condition No. 1 signal: LOCK (0 V)</li> <li>Steering condition No. 2 signal: LOCK (12 V)</li> </ul>

## DTC Inspection Priority Chart

INFOID:000000006942761

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     U1010: CONTROL UNIT (CAN)
3	<ul> <li>B2190: NATS ANTENNA AMP</li> <li>B2191: DIFFERENCE OF KEY</li> <li>B2192: ID DISCORD BCM-ECM</li> <li>B2193: CHAIN OF BCM-ECM</li> <li>B2195: ANTI-SCANNING</li> </ul>

## < ECU DIAGNOSIS INFORMATION >

Priority	DTC	A
4	<ul> <li>B2013: ID DISCORD BCM-S/L</li> <li>B2014: CHAIN OF S/L-BCM</li> <li>B2553: IGNITION RELAY</li> <li>B2555: STOP LAMP</li> <li>B2556: PUSH-BTN IGN SW</li> <li>B2557: VEHICLE SPEED</li> <li>B2560: STARTER CONT RELAY</li> <li>B2601: SHIFT POSITION</li> <li>B2602: SHIFT POSI STATUS</li> <li>B2603: SHIFT POSI STATUS</li> <li>B2606: S/L RELAY</li> <li>B2606: S/L RELAY</li> <li>B2606: S/L RELAY</li> <li>B2608: STARTER RELAY</li> <li>B2608: STARTER RELAY</li> <li>B2609: S/L STATUS</li> <li>B26009: S/L STATUS</li> <li>B26009: S/L STATUS</li> <li>B26001: STEERING LOCK UNIT</li> <li>B26002: STEERING LOCK UNIT</li> <li>B26003: STEERING LOCK UNIT</li> <li>B26014: BCM</li> <li>B26114: BCM</li> <li>B2615: BCM</li> <li>B2616: BCM</li> <li>B2617: BCMC</li> <li>B2618: BCM</li> <li>B2618: CLUTCH SW</li> </ul>	———— A B C D E F G H
	<ul> <li>B26E9: S/L STATUS</li> <li>B26EA: KEY REGISTRATION</li> <li>C1729: VHCL SPEED SIG ERR</li> <li>U0415: VEHICLE SPEED</li> <li>C1704: LOW PRESSURE FL</li> <li>C1705: LOW PRESSURE FR</li> <li>C1706: LOW PRESSURE FR</li> </ul>	J
5	<ul> <li>C1706: LOW PRESSURE RR</li> <li>C1707: LOW PRESSURE RL</li> <li>C1708: [NO DATA] FL</li> <li>C1709: [NO DATA] FR</li> <li>C1710: [NO DATA] RR</li> <li>C1711: [NO DATA] RL</li> <li>C1716: [PRESSDATA ERR] FL</li> <li>C1717: [PRESSDATA ERR] FR</li> <li>C1718: [PRESSDATA ERR] RR</li> <li>C1719: [PRESSDATA ERR] RL</li> </ul>	L
6	<ul> <li>C1734: CONTROL UNIT</li> <li>B2621: INSIDE ANTENNA</li> <li>B2622: INSIDE ANTENNA</li> <li>B2623: INSIDE ANTENNA</li> </ul>	WC

## DTC Index

#### 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, refer to <u>BCS-16, "COM-MON ITEM : CONSULT-III Function (BCM - COMMON ITEM)"</u>.

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#### < ECU DIAGNOSIS INFORMATION >

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer- ence page
No DTC is detected. further testing may be required.		_			_
U1000: CAN COMM		_			BCS-35
U1010: CONTROL UNIT (CAN)		_	_	_	BCS-36
U0415: VEHICLE SPEED		_	_	_	BCS-37
B2013: ID DISCORD BCM-S/L*	×	×	_	_	<u>SEC-49</u>
B2014: CHAIN OF S/L-BCM*	×	×	_	_	<u>SEC-50</u>
B2190: NATS ANTENNA AMP	×	_	_	_	<u>SEC-41</u>
B2191: DIFFERENCE OF KEY	×	_		_	<u>SEC-44</u>
B2192: ID DISCORD BCM-ECM	×	_		_	<u>SEC-45</u>
B2193: CHAIN OF BCM-ECM	×	_	_	_	<u>SEC-47</u>
B2195: ANTI-SCANNING	×	—	_	_	<u>SEC-48</u>
B2553: IGNITION RELAY		×		_	PCS-49
B2555: STOP LAMP		×		_	<u>SEC-53</u>
B2556: PUSH-BTN IGN SW		×	×	_	<u>SEC-55</u>
B2557: VEHICLE SPEED	×	×	×	_	SEC-57
B2560: STARTER CONT RELAY	×	×	×	_	SEC-58
B2562: LOW VOLTAGE		×	_	_	BCS-38
B2601: SHIFT POSITION	×	×	×	_	SEC-59
B2602: SHIFT POSITION	×	×	×		SEC-62
B2603: SHIFT POSI STATUS	×	×	×		<u>SEC-64</u>
B2604: PNP/CLUTCH SW	×	×	×		<u>SEC-67</u>
B2605: PNP/CLUTCH SW	×	×	×		<u>SEC-69</u>
B2606: S/L RELAY*	×	×	×		<u>SEC-71</u>
B2607: S/L RELAY*	×	×	×		<u>SEC-72</u>
B2608: STARTER RELAY	×	×	×		SEC-74
B2609: S/L STATUS*	×	×	×		SEC-76
B260A: IGNITION RELAY	×	×	×		PCS-51
B260B: STEERING LOCK UNIT*		×	×		<u>SEC-80</u>
B260C: STEERING LOCK UNIT*		×	×		SEC-81
B260D: STEERING LOCK UNIT*		×	×		<u>SEC-82</u>
B260F: ENG STATE SIG LOST	×	×	×		<u>SEC-83</u>
B2612: S/L STATUS*	×	×	×		SEC-88
B2614: BCM	_	×	×		PCS-53
B2615: BCM		×	×		PCS-56
B2616: BCM		× ×	×		PCS-50 PCS-59
B2617: BCM		×	~ ×		<u>SEC-92</u>
B2618: BCM	×	× ×	× ×		PCS-62
B2619: BCM*	×	× ×	× ×		<u>SEC-94</u>
B2619: BCM B261A: PUSH-BTN IGN SW	×	× ×	× ×		<u>PCS-63</u>
		^	× × (Turn ON for 15		100-00
B261E: VEHICLE TYPE	×	×	x (Tulli Ok loi 15 seconds)	—	<u>SEC-95</u>

Revision: 2011 December

#### < ECU DIAGNOSIS INFORMATION >

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer- ence page	1
B2621: INSIDE ANTENNA	—	×	—	—	DLK-62	[
B2622: INSIDE ANTENNA	—	×	—	_	DLK-64	
B2623: INSIDE ANTENNA	—	×	—		DLK-66	
B26E8: CLUTCH SW	×	×	×	—	<u>SEC-84</u>	(
B26E9: S/L STATUS*	×	×	× (Turn ON for 15 seconds)	—	<u>SEC-86</u>	1
B26EA: KEY REGISTRATION	_	×	× (Turn ON for 15 seconds)	_	<u>SEC-87</u>	[
C1704: LOW PRESSURE FL	_	—	—	×		
C1705: LOW PRESSURE FR	_	—	—	×		1
C1706: LOW PRESSURE RR	_	—	—	×	<u>vv1-24</u>	
C1707: LOW PRESSURE RL	_	<u> </u>	-			
C1708: [NO DATA] FL	_	—	—	×		
C1709: [NO DATA] FR	_	—	—	×		
C1710: [NO DATA] RR	_	—	—	×	<u>vv1-20</u>	(
C1711: [NO DATA] RL	-     ×     seconds)     -     SEC-       -     -     -     ×       -     -     -     ×       -     -     -     ×       -     -     -     ×       -     -     -     ×       -     -     -     ×       -     -     ×     ×       -     -     ×     ×       -     -     ×     ×       -     -     ×     ×	-				
C1716: [PRESSDATA ERR] FL	—	—	—	×		
C1717: [PRESSDATA ERR] FR	—	—	—	×		
C1718: [PRESSDATA ERR] RR	—	—	—	×	<u>vv1-29</u>	
C1719: [PRESSDATA ERR] RL	—	—	—	×		
C1729: VHCL SPEED SIG ERR	—	—	—	×	<u>WT-30</u>	
C1734: CONTROL UNIT	_	_	_	×	<u>WT-31</u>	

\*: For models without steering lock unit, this DTC is not applied.

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## 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:000000006473850

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

### Diagnosis Procedure

INFOID:000000006473851

### **1.**CHECK UNIFIED METER AND A/C AMP. INPUT SIGNAL

- 1. Connect the CONSULT-III.
- 2. Select the "Data Monitor" of the "METER/M&A" and check the "PKB SW" monitor value. Refer to <u>MWI-59</u>, <u>"Component Function Check"</u>.

Is the inspection result normal?

YES >> Replace combination meter.

NO >> GO TO 2.

**2.**CHECK PARKING BRAKE SWITCH SIGNAL CIRCUIT

Check the parking brake switch signal circuit. Refer to <u>MWI-59</u>, "<u>Diagnosis Procedure (A/T models</u>)" (A/T models) or <u>MWI-60</u>, "<u>Diagnosis Procedure (M/T models</u>)" (M/T models).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

 $\mathbf{3.}$ CHECK PARKING BRAKE SWITCH

Check the parking brake switch. Refer to BRC-84, "Component Inspection".

Is the inspection result normal?

- YES >> Replace the combination meter.
- NO >> Replace the parking brake switch. Refer to <u>PB-6. "PEDAL TYPE : Exploded View"</u> (pedal type) or <u>PB-7. "LEVER TYPE : Exploded View"</u> (lever type).

## THE LIGHT REMINDER WARNING DOES NOT SOUND

< SYMPTOM DIAGNOSIS >
THE LIGHT REMINDER WARNING DOES NOT SOUND
Description
Light reminder warning chime does not sound even though headlamp is illuminated.
Diagnosis Procedure
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 EXL-162, "Diagnosis Procedure".
2. CHECK FRONT DRIVER SIDE DOOR SWITCH SIGNAL CIRCUIT
Check the front driver side door switch signal circuit. Refer to <u>DLK-71. "Diagnosis Procedure"</u> . Is the inspection result normal?
YES >> GO TO 3.
NO >> Repair harness or connector. 3.CHECK FRONT DRIVER SIDE DOOR SWITCH
Check the front driver side door switch. Refer to <u>DLK-72, "Component Inspection"</u> .
Is the inspection result normal?
<ul> <li>YES &gt;&gt; Replace the BCM. Refer to <u>BCS-81, "Removal and Installation"</u>.</li> <li>NO &gt;&gt; Replace the front driver side door switch. Refer to <u>DLK-292, "Removal and Installation"</u>.</li> </ul>

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## THE SEAT BELT WARNING CONTINUES SOUNDING, OR DOES NOT SOUND < SYMPTOM DIAGNOSIS >

## THE SEAT BELT WARNING CONTINUES SOUNDING, OR DOES NOT SOUND

## Description

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- Seat belt warning chime does not sound even though driver seat belt is unfastened.
- Seat belt warning chime sounds even though driver seat belt is fastened.

#### Diagnosis Procedure

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- **1.**CHECK SEAT BELT WARNING LAMP
- 1. Turn ignition switch ON.
- 2. Check the operation of the seat belt warning lamp in the combination meter.

Seat belt fastened	: OFF
Seat belt unfastened	: ON

Is the inspection result normal?

YES >> Replace the BCM.

NO >> GO TO 2.

**2.**CHECK UNIFIED METER AND A/C AMP. INPUT SIGNAL

- 1. Connect the CONSULT-III.
- 2. Select the "Data Monitor" of the "METER/M&A" and check the "BUCKLE SW" monitor value. Refer to <u>WCS-24, "Component Function Check"</u>.

Is the inspection result normal?

YES >> Replace the combination meter.

NO >> GO TO 3.

## $\mathbf{3.}$ CHECK SEAT BELT BUCKLE SWITCH (DRIVER SIDE) SIGNAL CIRCUIT

Check the seat belt buckle switch (driver side) signal circuit. Refer to WCS-24, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair harness or connector.

**4.**CHECK SEAT BELT BUCKLE SWITCH (DRIVER SIDE)

Check the seat belt buckle switch (driver side). Refer to WCS-25, "Component Inspection".

Is the inspection result normal?

- YES >> Replace the unified meter and A/C amp.
- NO >> Replace the seat belt buckle (driver side). Refer to <u>SB-8. "SEAT BELT BUCKLE : Removal and Installation"</u>.

# < PRECAUTION > PRECAUTION PRECAUTIONS

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

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. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

#### WARNING:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that 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 "SRS AIR BAG".
- 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.

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

#### WARNING:

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

#### Precaution for Battery Service

Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

Service Procedure Precautions for Models with a Pop-up Roll Bar

#### WARNING:

Always observe the following items for preventing accidental activation.

- Risk of passenger injury or death may increase if the pop-up roll bar does not deploy during a roll over collision. In order to reduce the chance of an incident where the pop-up roll bar is inoperative, all maintenance must be performed by a NISSAN or INFINITI dealer.
- Before removing and installing the pop-up roll bar component parts and harness, always turn the ignition switch OFF, disconnect the battery negative terminal, and wait for 3 minutes or more. (The purpose of this operation is to discharge electricity that is accumulated in the auxiliary power supply circuit in the air bag diagnosis sensor unit.)
- When repairing, removing, and installing a pop-up roll bar, always refer to SRS AIR BAG and SRS AIR BAG CONTROL warnings in the Service Manual.

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