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#### **PRECAUTIONS**

#### < 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. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

#### **WARNING:**

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

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

#### **WARNING:**

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

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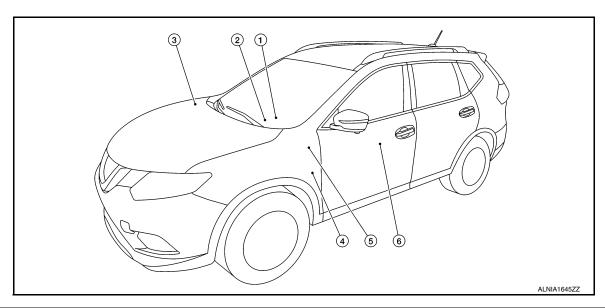
Revision: September 2015 WCS-3 2016 Rogue NAM

# SYSTEM DESCRIPTION

### **COMPONENT PARTS**

# **Component Parts Location**

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No.	Component	Function
1.	Key switch	Transmits the key switch signal to the BCM.  Refer to <u>SEC-124, "Component Parts Location"</u> (without Intelligent Key system) for detailed installation location.
2.	Combination meter	<ul> <li>Receives a buzzer output signal from the BCM with CAN communication line and sounds the buzzer.</li> <li>Controls the following with the vehicle speed signal received from ABS actuator and electric unit (control unit) via CAN communication and the signals from switches:</li> <li>Seat belt reminder warning chime</li> <li>Parking brake release warning chime</li> <li>Key warning chime</li> </ul>
3.	ABS actuator and electric unit (control unit)	Transmits the vehicle speed signal to the combination meter via CAN communication.  Refer to BRC-9, "Component Parts Location" for detailed installation location.
4.	Parking brake switch	Transmits the parking brake switch signal to the combination meter.
5.	ВСМ	Based on the signals received from various units and switches, transmits the buzzer output signal to the combination meter via CAN communication.  Refer to BCS-7. "BODY CONTROL SYSTEM: Component Parts Location" (with Intelligent Key system) or BCS-80. "BODY CONTROL SYSTEM: Component Parts Location" (without Intelligent Key system) for detailed installation location.
6.	Seat belt buckle switch LH	Transmits a seat belt buckle switch signal LH to the combination meter.

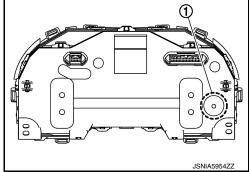
### **COMPONENT PARTS**

#### < SYSTEM DESCRIPTION >

# Combination Meter

The combination meter has a built-in buzzer (1) and sounds the following warnings, according to signals from each switch and unit:

- Light reminder warning
- · Parking brake release warning chime
- Seat belt warning
- · Key warning chime



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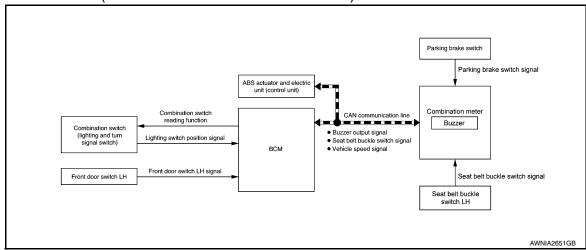
#### **SYSTEM**

#### WARNING CHIME SYSTEM

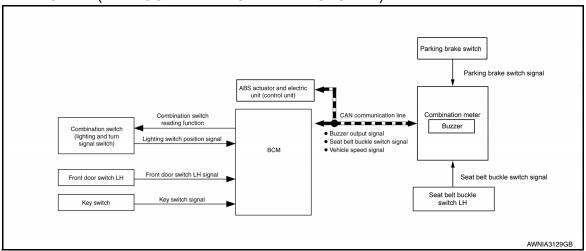
### WARNING CHIME SYSTEM: System Description

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#### SYSTEM DIAGRAM (WITH INTELLIGENT KEY SYSTEM)



#### SYSTEM DIAGRAM (WITHOUT INTELLIGENT KEY SYSTEM)



#### COMBINATION METER INPUT/OUTPUT SIGNAL (CAN COMMUNICATION SIGNAL)

#### Input signal

Signal name	Transmit unit
Vehicle speed signal	ABS actuator and electric unit (control unit)
Buzzer output signal	BCM

#### Output signal

Signal name	Reception unit
Vehicle speed signal	BCM

### BCM INPUT/OUTPUT SIGNAL (CAN COMMUNICATION SIGNAL)

Input signal

#### < SYSTEM DESCRIPTION >

Signal name	Transmit unit	
Vehicle speed signal	Combination meter	

#### Output signal

Signal name	Reception unit	
Buzzer output signal	Combination meter	

#### **DESCRIPTION**

#### Combination Meter

The combination meter sounds the alarm buzzer installed in the combination meter when receiving the buzzer output signal transmitted from each unit.

#### **BCM**

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

#### WARNING CHIME FUNCTION LIST

Warning functions	Refer to
Light reminder warning	WCS-7, "LIGHT REMINDER WARNING CHIME : Light Reminder Warning"
Parking brake release warning chime	WCS-8, "PARKING BRAKE RELEASE WARNING CHIME : Parking Brake Release Warning Chime"
Seat belt warning	WCS-9, "SEAT BELT REMINDER WARNING CHIME : Seat belt Warning"
Key warning chime (without Intelligent Key system)	WCS-10, "KEY WARNING CHIME : Key Warning Chime"

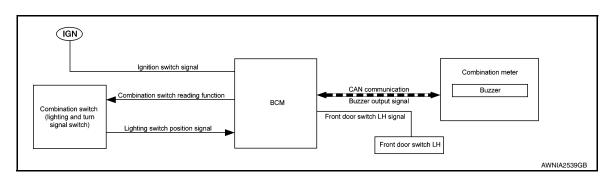
#### WARNING CHIME SYSTEM: Fail-safe

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

Function	Specifications
Buzzer	The buzzer turns OFF by suspending communication.

#### LIGHT REMINDER WARNING CHIME

### LIGHT REMINDER WARNING CHIME: Light Reminder Warning



#### WARNING CHIME OPERATION CONDITIONS

If all of the following conditions are fulfilled:

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Operation conditions	
Ignition switch	OFF
Combination switch (Lighting switch)	1st or 2nd position
Driver side door	Open [front door switch LH ON]

#### WARNING CHIME CANCEL CONDITIONS

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

Operation conditions	
Ignition switch	ON
Combination switch (Lighting switch)	OFF or AUTO position
Driver side door	Close [front door switch LH OFF]

#### SIGNAL PATH

1. BCM requires warning chime output to combination meter when it judges light reminder warning chime is necessary from signals below.

Signal name	Signal source
Ignition switch signal	
Combination switch signal	Combination switch (Lighting switch) BCM
Driver door switch signal	Front door switch LH BCM

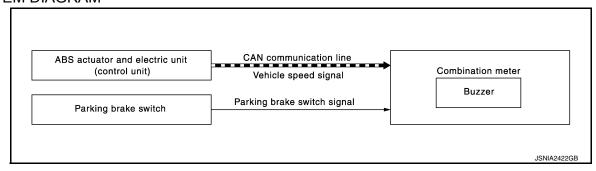
2. Combination meter sounds integrated buzzer, following the warning chime output requirement (below signal) from BCM.

Signal name	Signal source
Buzzer output signal	BCM CAN Combination meter

### PARKING BRAKE RELEASE WARNING CHIME

# PARKING BRAKE RELEASE WARNING CHIME: Parking Brake Release Warning Chime

#### SYSTEM DIAGRAM



#### WARNING OPERATION CONDITIONS

If all of the following conditions are fulfilled:

Operation conditions	
Ignition switch	ON

#### < SYSTEM DESCRIPTION >

Operation conditions	
Parking brake	During the operation (parking brake switch ON).
Vehicle speed	Approximately 4.3 MPH (7 km/h) or more.

#### WARNING CANCEL CONDITIONS

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

Operation conditions	
Ignition switch	OFF
Parking brake	Release condition (parking brake switch OFF).
Vehicle speed	Approximately 1.9 MPH (3 km/h) or less.

#### SIGNAL PATH

Combination meter sounds integrated buzzer when it judges that parking brake release warning chime is necessary from signals below.

Signal name	Signal source
Ignition switch signal	_
Parking brake switch signal	Parking brake switch Combination meter
Vehicle speed signal	ABS actuator and electric unit (control unit) CAN Combination meter

### SEAT BELT REMINDER WARNING CHIME

### SEAT BELT REMINDER WARNING CHIME: Seat belt Warning

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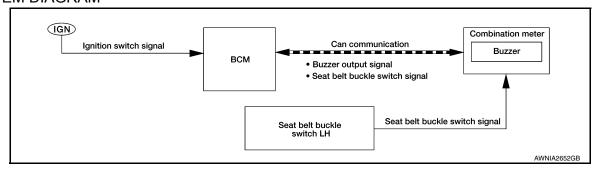
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#### SYSTEM DIAGRAM



#### WARNING OPERATION CONDITIONS

If all of the following conditions are fulfilled:

Operation conditions	
Ignition switch	ON
Driver seat belt	Unfastened [seat belt buckle switch LH ON]

#### WARNING CANCEL CONDITIONS

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

Operation conditions	
Ignition switch	OFF
Driver seat belt	Fastened (seat belt buckle switch LH OFF)
6 seconds after the start of warning sound.	

#### SIGNAL PATH

#### **SYSTEM**

#### < SYSTEM DESCRIPTION >

1. BCM requires warning chime output to combination meter when it judges seat belt warning chime is necessary from signals below.

Signal name	Signal source
Ignition switch signal	_
Seat belt buckle switch signal LH	Seat belt buckle switch LH Combination meter CAN BCM

Combination meter sounds integrated buzzer, following the warning chime output requirement (below signal) from BCM.

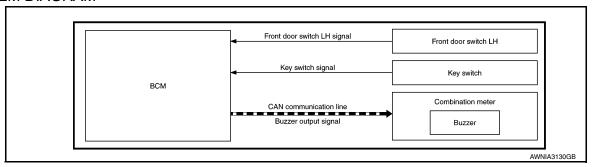
Signal name	Signal source
Buzzer output signal	BCM CAN Combination meter

### **KEY WARNING CHIME**

### KEY WARNING CHIME: Key Warning Chime

INFOID:0000000012422027

#### SYSTEM DIAGRAM



#### WARNING CHIME OPERATION CONDITIONS

If all of the following conditions are fulfilled:

Operation conditions	
Ignition switch	OFF
Key switch	ON (key is in key cylinder)
Driver side door	Open [front door switch LH ON]

#### WARNING CHIME CANCEL CONDITIONS

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

Operation conditions	
Ignition switch	ON
Key switch	ON (key is removed from key cylinder)
Driver side door	Close [front door switch LH OFF]

#### SIGNAL PATH

 BCM detects key inserted into the ignition switch, and sends key warning signal to combination meter with CAN communication line.

Signal name	Signal source	
Ignition switch signal	_	

### **SYSTEM**

# < SYSTEM DESCRIPTION >

Signal name	Signal source
Key switch signal	Key switch BCM
Driver door switch signal	Front door switch LH BCM

2. Combination meter sounds integrated buzzer, when it receives a buzzer output signal from BCM.

Signal name	Signal source	
Buzzer output signal	BCM CAN Combination meter	

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#### < SYSTEM DESCRIPTION >

### DIAGNOSIS SYSTEM (COMBINATION METER)

Description INFOID.000000012572218

#### COMBINATION METER SELF-DIAGNOSIS MODE

The following meter functions can be checked during Combination Meter Self-Diagnosis Mode:

- Pointer sweep of speedometer, tachometer and gauges.
- Illumination of all LCD segments and color patterns for meter displays.
- Illumination of all lamps/LEDs that are controlled by the combination meter (regardless of switch status).

### STARTING COMBINATION METER SELF-DIAGNOSIS MODE

#### NOTE:

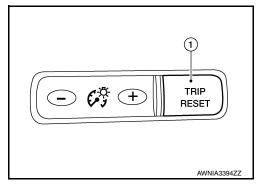
- Check combination meter power supply and ground circuits if self-diagnosis mode does not start. Refer to
   <u>WCS-39, "COMBINATION METER: Diagnosis Procedure"</u>. Replace combination meter if power supply and
   ground circuits are found to be normal and self-diagnosis mode does not start. Refer to <u>MWI-84, "Removal and Installation"</u>.
- Combination meter self-diagnosis mode will function with the ignition switch in ON. Combination meter self-diagnosis mode will exit upon turning the ignition switch to OFF.

#### How to Initiate Self-Diagnosis Mode

- 1. Turn ignition switch OFF.
- While pressing the trip reset switch (1), turn ignition switch ON.
- 3. Keep the trip reset switch for 1 seconds or more.
- 4. Press the trip reset switch at least 3 times. (Within 7 seconds after the ignition switch is turned ON.)
- 5. "Work instruction code" is indicated in the top portion of information display and self-diagnosis is started.
- 6. The mode switches in the order shown below each time the trip reset switch is pressed.

#### NOTE:

If the trip reset switch is not operated for 20 seconds or more, the self-diagnosis mode is automatically cancelled.



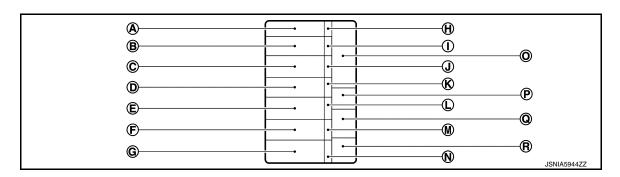
Test order	Test item	Description
1	Work instruction code	
2	Part number	
3	Software code	This item is displayed, but not used
4	EEPROM code	This item is displayed, but not used.
5	Hardware code	
6	P.C.B code	
7	Circuit check	The pointer of the following items moves from 0 to MAX twice.  • Speedometer  • Tachometer  • Engine coolant temperature gauge  • Fuel gauge  NOTE:  If any one of the pointers does not sweep, replace combination meter.
8	Color check*1	Performs the color check of the information display.

#### < SYSTEM DESCRIPTION >

Test order	Test item	Description
9	error code*2	Displays the error code of the following items:  • Speedometer  • Tachometer  • Engine coolant temperature gauge  • Fuel gauge  • Meter control switch
10	Warning/indicator lamp check	All warning/indicator lamp illuminate.  NOTE:  When either one of them does not turn ON, replace combination meter.  SRS air bag warning lamp and security indicator lamp are not illuminate.

#### NOTE:

When the trip reset switch is pressed during the indication of Test order "10," test item returns to Test order "2." \*1: Color Check

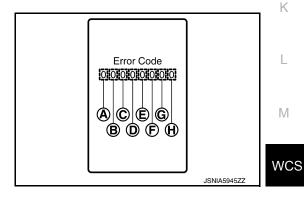


- (A) Blue
- Green
- G White
- Light blue
- M Black
- P) Dark blue

- Red
- E Light blue
- H) White
- (K) Black
- N Blue
- White

- © Pink
- F Yellow
- ① Black
- Pink
- O Black
- R Blue

\*2: Error Code



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	Item	Code	Description	Action to take/Reference
(A) Speedometer	0	Normal	_	
	1	A vehicle speed signal cannot be received from ABS actuator and electric unit (control unit).	Perform "Self Diagnostic Result" of "ABS."	
		2	A vehicle speed signal received from the ABS actuator and electric unit (control unit) is abnormal.	Refer to BRC-212, "DTC Index".

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#### < SYSTEM DESCRIPTION >

	Item	Code	Description	Action to take/Reference
	0	Normal	_	
B	Tachometer	1	An engine speed signal cannot be received from ECM.	Perform "Self Diagnostic Result" of "ECM." Refer to EC-96, "DTC Index".
		0	Normal	_
<b>©</b>	Fuel gauge	1	Fuel gauge circuit is short.	Refer to MWI-63, "Component Function
		2	Fuel gauge circuit is open.	Check".
		0	Normal	_
<b>(D)</b>	© Engine coolant temperature gauge	1	An engine coolant temperature signal cannot be received from ECM.	Perform "Self Diagnostic Result" of "ECM." Refer to EC-96. "DTC Index".
		0	Normal	_
	Meter control switch	1	When judging that the illumination control switch signal circuit is shorted for 5 minutes or more.	
E		2	When judging that the trip reset switch signal circuit is shorted for 5 minutes or more.	Refer to MWI-69, "Diagnosis Procedure".
		3	When judging that the both switch signal circuit is shored for 5 minutes or more.	
E	_	0	Displays "0" constantly.	<del>_</del>
G	_	0	Displays "0" constantly.	_
$\overline{\mathbb{H}}$	_	0	Displays "0" constantly.	_

#### How to Reset Error Code

Error codes stored in combination meter can be reset by following the instructions below:

- 1. Turn ignition switch OFF.
- 2. While pressing the trip reset switch, turn ignition switch ON.
- 3. Keep the trip reset switch for 1 seconds or more.
- 4. Press the trip reset switch at least 3 times. (Within 7 seconds after the ignition switch is turned ON.)
- 5. Turn ignition switch OFF.
- Perform self-diagnosis and check that the error codes are reset.

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

INFOID:0000000012572219

#### **APPLICATION ITEMS**

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

METER/M&A Diagnosis mode	Description
Self Diagnostic Result	Displays combination meter self-diagnosis results.
Data Monitor	Displays combination meter input/output data in real time.
Warning History	Lighting history of the warning lamp and indicator lamp can be checked.
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.

#### SELF DIAG RESULT

Refer to MWI-31, "DTC Index".

#### **DATA MONITOR**

Display Item List

### < SYSTEM DESCRIPTION >

Display item [Unit]	MAIN SIGNALS	Description
SPEED METER	X	Displays the value of vehicle speed signal.
SPEED OUTPUT [mph or km/h]	X	Vehicle speed signal value transmitted to other units via CAN communication.
ODO OUTPUT [mph or km/h]		Odometer signal value transmitted to other units via CAN communication.
TACHO METER [rpm]	×	Value of the engine speed signal received from ECM via CAN communication.
FUEL METER [L]	Х	Fuel level indicated on combination meter.
W TEMP METER [°F] or [°C]	×	Displays the value of engine coolant temperature signal, which is input from ECM
ABS W/L [On/Off]		Displays [ON/OFF] condition of ABS warning indicator.
VDC/TCS IND [On/Off]		Displays [ON/OFF] condition of VDC OFF indicator lamp.
SLIP IND [On/Off]		Displays [ON/OFF] condition of SLIP indicator lamp.
BRAKE W/L [On/Off]		Displays [ON/OFF] condition of brake warning indicator.
DOOR W/L [On/Off]		Displays [ON/OFF] condition of door or liftgate warning message in the information display.
HI-BEAM IND [On/Off]		Displays [ON/OFF] condition of high beam indicator.
TURN IND [On/Off]		Displays [ON/OFF] condition of turn indicator.
LIGHT IND [On/Off]		Displays [ON/OFF] condition of light indicator.
FR FOG IND [On/Off]		Displays [ON/OFF] condition of front fog lamp indicator.
OIL W/L [On/Off]		Displays [ON/OFF] condition of low oil pressure warning message in the information display.
O/D OFF IND [On/Off]		Displays [ON/OFF] condition of O/D OFF indicator.
DDS W/L [On/Off]		Displays [ON/OFF] condition of hill descent control warning indicator.
MIL [On/Off]		Displays [ON/OFF] condition of malfunction indicator.
SPORT IND [On/Off]		Displays [ON/OFF] condition of SPORT indicator.
CHAGE W/L [On/Off]		Displays [ON/OFF] condition of charge warning indicator.
4WD LOCK IND [On/Off]		Displays [ON/OFF] condition of AWD LOCK indicator lamp.
4WD W/L [On/Off]		Displays [ON/OFF] condition of AWD warning message in the information display.
FUEL W/L [On/Off]		Displays [ON/OFF] condition of low-fuel warning message.
WASHER W/L [On/Off]		Displays [ON/OFF] condition of low washer fluid warning message.

### < SYSTEM DESCRIPTION >

Display item [Unit]	MAIN SIGNALS	Description
AIR PRES W/L [On/Off]		Displays [ON/OFF] condition of tire pressure warning lamp.
KEY G/Y W/L [On/Off]		Displays [ON/OFF] condition of key green warning lamp.
EPS W/L [On/Off]		Displays [ON/OFF] condition of EPS warning indicator.
LCD		Displays the value of Intelligent Key system message indication.
ECO MODE IND [On/Off]		Displays [ON/OFF] condition of ECO mode indicator lamp.
SHIFT IND [P, R, N, D, L]		Displays shift selector position.
FUEL CAP W/L [On/Off]		Displays [ON/OFF] condition of loose fuel cap warning message.
O/D OFF SW [On/Off]		Displays [ON/OFF] condition of O/D Off switch.
PKB SW [On/Off]		Displays [ON/OFF] condition of parking brake switch.
BUCKLE SW [On/Off]		Displays [ON/OFF] condition of seat belt buckle switch LH.
PASS BUCKLE SW [On/Off]		Displays [ON/OFF] condition of seat belt buckle switch RH.
ECO MODE SW [On/Off]		Displays [ON/OFF] condition of ECO mode switch.
BRAKE OIL SW [On/Off]		Displays [ON/OFF] condition of brake fluid level switch.
DISTANCE [Mi] or [km]		Displays distance to empty.
OUTSIDE TEMP [°F or °C]		Displays the ambient air temperature which is input from the ambient sensor.
FUEL LOW SIG [On/Off]		Displays [ON/OFF] condition of low-fuel warning signal.
STRG SW INPUT [SW 1-SW 10, NOT INPUT]		Displays [SW 1-SW 10, NOT INPUT] condition of steering switches.
BUZZER [On/Off]	Х	Buzzer status (in the combination meter) is detected from the buzzer output signal received from each unit via CAN communication and the warning output condition of the combination meter.
BSW IND [On/Off]		Displays [ON/OFF] condition of blind spot warning indicator.
BSW W/L [On/Off]		Displays [ON/OFF] condition of blind spot warning message in the information display.

# WORK SUPPORT

Work support item	Description
Outside air temperature diagnosis	
Fuel meter diagnosis (Analog pointer)	A possible malfunction can be narrowed down by following the displayed instructions.
Warning/Indicator lamp diagnosis	

### WARNING HISTORY

Special menu

#### < SYSTEM DESCRIPTION >

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

#### W/L ON HISTORY

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

#### NOTE:

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

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### **DIAGNOSIS SYSTEM (BCM) (WITH INTELLIGENT KEY SYSTEM)**

< SYSTEM DESCRIPTION >

# DIAGNOSIS SYSTEM (BCM) (WITH INTELLIGENT KEY SYSTEM) COMMON ITEM

COMMON ITEM: CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000012572224

#### APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Direct Diagnostic Mode	Description
Ecu Identification	The BCM part number is displayed.
Self Diagnostic Result	The BCM self diagnostic results are displayed.
Data Monitor	The BCM input/output data is displayed in real time.
Active Test	The BCM activates outputs to test components.
Work support	The settings for BCM functions can be changed.
Configuration	<ul> <li>The vehicle specification can be read and saved.</li> <li>The vehicle specification can be written when replacing BCM.</li> </ul>
CAN Diag Support Mntr	The result of transmit/receive diagnosis of CAN communication is displayed.

#### SYSTEM APPLICATION

BCM can perform the following functions.

				Direct [	Diagnosti	c Mode		
System	Sub System	Ecu Identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN Diag Support Mntr
Door lock	DOOR LOCK		×	×	×	×		
Rear window defogger	REAR DEFOGGER			×	×	×		
Warning chime	BUZZER			×	×			
Interior room lamp timer	INT LAMP			×	×	×		
Exterior lamp	HEADLAMP			×	×	×		
Wiper and washer	WIPER			×	×	×		
Turn signal and hazard warning lamps	FLASHER			×	×			
Intelligent Key system	INTELLIGENT KEY		×	×	×	×		
Combination switch	COMB SW			×				
BCM	BCM	×	×			×	×	×
Immobilizer	IMMU		×	×	×			
Interior room lamp battery saver	BATTERY SAVER			×	×			
Back door open	TRUNK			×				
Vehicle security system	THEFT ALM			×	×	×		
RAP system	RETAINED PWR			×				
Signal buffer system	SIGNAL BUFFER			×				
Air conditioner	AIR CONDITIONER				×			

BUZZER

### **DIAGNOSIS SYSTEM (BCM) (WITH INTELLIGENT KEY SYSTEM)**

< SYSTEM DESCRIPTION >

# BUZZER: CONSULT Function (BCM - BUZZER)

INFOID:0000000012572225

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#### **DATA MONITOR**

Monitor Item [Unit]	itor Item [Unit] Description	
PUSH -SW [On/Off]	Indicates condition of push-button ignition switch.	
VEH SPEED 1 [km/h]	Indicates vehicle speed signal received from ABS on CAN communication line.	
TAIL LAMP SW [On/Off]	Indicates condition of combination switch.	
FR FOG SW [On/Off]	Indicates condition of front fog lamp switch.	
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.	
CDL LOCK SW [On/Off]	Indicates condition of lock signal from door lock and unlock switch.	

#### **ACTIVE TEST**

Test Item	Description
SEAT BELT WARN TEST	This test is able to check seat belt warning chime operation [On/Off].
LIGHT WARN ALM	This test is able to check light warning chime operation [On/Off].
REVERSE WARNING	This test is able to check reverse warning chime operation [On/Off].

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### **DIAGNOSIS SYSTEM (BCM) (WITHOUT INTELLIGENT KEY SYSTEM)**

< SYSTEM DESCRIPTION >

# DIAGNOSIS SYSTEM (BCM) (WITHOUT INTELLIGENT KEY SYSTEM) COMMON ITEM

COMMON ITEM: CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000012572227

#### **APPLICATION ITEM**

CONSULT performs the following functions via CAN communication with BCM.

Direct Diagnostic Mode	Description			
Ecu Identification	The BCM part number is displayed.			
Self Diagnostic Result				
Data Monitor	The BCM input/output data is displayed in real time.			
Active Test	The BCM activates outputs to test components.			
Work support	The settings for BCM functions can be changed.			
Configuration	<ul> <li>The vehicle specification can be read and saved.</li> <li>The vehicle specification can be written when replacing BCM.</li> </ul>			
CAN Diag Support Mntr	The result of transmit/receive diagnosis of CAN communication is displayed.			

#### SYSTEM APPLICATION

BCM can perform the following functions.

				Direct Diagnostic Mode				
System	Sub System	Ecu Identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN Diag Support Mntr
Door lock	DOOR LOCK			×	×	×		
Rear window defogger	REAR DEFOGGER			×	×	×		
Warning chime	BUZZER			×	×			
Interior room lamp timer	INT LAMP			×	×	×		
Remote keyless entry system	MULTI REMOTE ENT					×		
Exterior lamp	HEADLAMP			×	×			
Wiper and washer	WIPER			×	×	×		
Turn signal and hazard warning lamps	FLASHER			×	×			
Combination switch	COMB SW			×				
BCM	BCM	×	×			×	×	×
Immobilizer	IMMU		×		×			
Interior room lamp battery saver	BATTERY SAVER			×	×			
Back door open	TRUNK			×				
Vehicle security system	THEFT ALM			×	×	×		
RAP system	RETAINED PWR			×				
TPMS	AIR PRESSURE MONITOR		×	×	×	×		

**BUZZER** 

BUZZER: CONSULT Function (BCM - BUZZER)

INFOID:0000000012572228

**DATA MONITOR** 

Revision: September 2015 WCS-20 2016 Rogue NAM

# DIAGNOSIS SYSTEM (BCM) (WITHOUT INTELLIGENT KEY SYSTEM)

### < SYSTEM DESCRIPTION >

Monitor Item [Unit]	Description	Α
TAIL LAMP SW [On/Off]	Indicates condition of combination switch.	
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.	
CDL LOCK SW [On/Off]	Indicates condition of lock signal from door lock and unlock switch.	В

#### **ACTIVE TEST**

Test Item Description			
SEAT BELT WARN TEST	This test is able to check seat belt warning chime operation [On/Off].		
LIGHT WARN ALM	This test is able to check light warning chime operation [On/Off].		
REVERSE WARNING	This test is able to check reverse warning chime operation [On/Off].		
ID REGIST WARNING	This test is able to check TPMS sensor ID regist warning chime operation [On/Off].		

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### < ECU DIAGNOSIS INFORMATION >

# **ECU DIAGNOSIS INFORMATION**

### **COMBINATION METER**

Reference Value

### VALUES ON THE DIAGNOSIS TOOL

Monitor Item		Condition	Value/Status
SPEED METER [mph or km/h]	Ignition switch ON	While driving.	Input value of vehicle speed signal (CAN communication signal).
SPEED OUTPUT [mph or km/h]	Ignition switch ON	While driving.	Output value of vehicle speed signal (CAN communication signal).
ODO OUTPUT [mph or km/h]	Ignition switch ON	_	Output value of odometer signal (CAN communication signal).
TACHO METER [rpm]	Ignition switch ON	Engine running.	Input value of engine speed signal (CAN communication signal).
FUEL METER [L]	Ignition switch ON	_	Input value of fuel level sensor signal.
W TEMP METER [°F] or [°C]	Ignition switch ON	_	Input value of engine coolant temperature signal (CAN communication signal).
ABS W/L	Ignition switch ON	ABS warning lamp ON.	On
ABS W/L	Ignition switch ON	ABS warning lamp OFF.	Off
VDC/TCS IND	Ignition quitab ON	VDC OFF indicator lamp ON.	On
VDC/TCS IND	Ignition switch ON	VDC OFF indicator lamp OFF.	Off
CLIDIND	Ignition switch ON	VDC warning lamp ON.	On
SLIP IND		VDC warning lamp OFF.	Off
	Ignition switch ON	Brake warning lamp ON.	On <sup>*1</sup>
BRAKE W/L		Brake warning lamp OFF.	Off
	Ignition switch ON	Door or lift gate open warning displayed.	On
DOOR W/L		Other than the above	Off
		High beam indicator lamp ON.	On
HI-BEAM IND	Ignition switch ON	High beam indicator lamp OFF.	Off
TUDNIND	Ignition switch ON	Turn signal indicator lamp ON.	On
TURN IND		Turn signal indicator lamp OFF.	Off
ED EGG IND	La all'a ca a l'Itala ONI	Front fog lamp indicator lamp ON.	On
FR FOG IND	Ignition switch ON	Front fog lamp indicator lamp OFF.	Off
LIGHTIND	Leaving and the ON	Position lamp indicator lamp ON.	On
LIGHT IND	Ignition switch ON	Position lamp indicator lamp OFF.	Off
OH 14//	Leaving and the ON	Engine oil pressure warning displayed.	On
OIL W/L	Ignition switch ON	Other than the above.	Off
0/D 0FF IND	Leaving and Make ON	O/D OFF indicator lamp ON.	On
O/D OFF IND	Ignition switch ON	Other than the above	Off
DD0.14//		Hill descent warning indicator ON.	On
DDS W/L	Ignition switch ON	Other than the above.	Off
	1	Malfunction indicator lamp ON.	On
MIL	Ignition switch ON	Malfunction indicator lamp OFF.	Off
4) 4/ 10 ) 4// 1	Indition of the ON	AWD warning displayed.	On
4WD W/L	Ignition switch ON	Other than the above.	Off

### < ECU DIAGNOSIS INFORMATION >

Monitor Item		Condition	Value/Status
4WD LOCK IND	Ignition switch CNI	AWD LOCK indicator lamp ON.	On
4WD LOCK IND	Ignition switch ON	Other than the above.	Off
	Ignition quitab ON	Low fuel warning displayed.	On
FUEL W/L	Ignition switch ON	Low fuel warning lamp OFF.	Off
MACHED M//I	Ignition quitab ON	Low washer fluid warning displayed.	On
WASHER W/L	Ignition switch ON	Other than the above.	Off
AID DDEC W/I	Ignitian quitab ON	Low tire pressure warning lamp ON.	On
AIR PRES W/L	Ignition switch ON	Low tire pressure warning lamp OFF.	Off
KEY OW W/I	Ignitian quitab ON	Intelligent Key system warning indication.	On
KEY G/Y W/L	Ignition switch ON	Other than the above.	Off
EDO MIII	La disa da Mala ON	Power steering warning lamp ON.	On
EPS W/L	Ignition switch ON	Power steering warning lamp OFF.	Off
ODODT IND	Leading and Male ON	Sport mode indicator ON.	On
SPORT IND	Ignition switch ON	Sport mode indicator OFF.	Off
500 MODE IND		ECO mode indicator ON.	On
ECO MODE IND	Ignition switch ON	ECO mode indicator OFF.	Off
		Charge warning lamp ON.	On
CHAGE W/L	Ignition switch ON	Charge warning lamp OFF.	Off
SHIFT IND	Ignition switch ON	Shift position indicator displayed.	[P, R, N, D, L]
	Ignition switch ON	Fuel filler cap warning displayed.	On
FUEL CAP W/L		Other than the above.	Off
	Ignition switch ON	O/D off switch ON.	On
O/D OFF SW		O/D off switch OFF.	Off
	Ignition switch ON	Parking brake switch ON.	On
PKB SW		Parking brake switch OFF.	Off
		Driver seat belt not fastened.	On
BUCKLE SW	Ignition switch ON	Driver seat belt fastened.	Off
		ECO mode switch ON.	On
ECO MODE SW	Ignition switch ON	ECO mode switch OFF.	Off
PASS BUCKLE		Passenger seat belt not fastened.	On
SW	Ignition switch ON	Passenger seat belt fastened.	Off
		Brake fluid level switch ON.	On
BRAKE OIL SW	Ignition switch ON	Brake fluid level switch OFF.	Off
DISTANCE [mi] or [km]	Ignition switch ON	_	Distance to empty .
OUTSIDE TEMP [°F] or [°C]	Ignition switch ON	_	Displays the ambient air temperature which is input from the ambient sensor.
FUEL LOW SIG		Low fuel level warning.	On
FUEL LOW SIG	_	Except during low fuel level warning.	Off
DU177ED		Buzzer ON.	On
BUZZER	Ignition switch ON	Buzzer OFF.	Off
LCD	Ignition switch ON	Engine start information.	B&P

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### < ECU DIAGNOSIS INFORMATION >

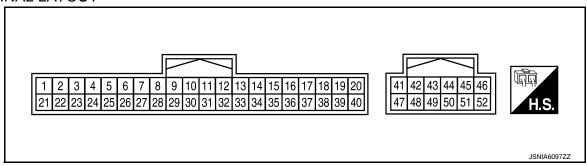
Monitor Item		Condition	Value/Status
		BACK switch is pressed.	SW1
		MENU UP switch is pressed.	SW2
		MENU DOWN switch is pressed.	SW3
		Voice recognition switch is pressed.	SW4
		MENU OK switch is pressed.	SW5
STRG SW INPUT	PUT Ignition switch ON	VOL DOWN switch is pressed.	SW6
		VOL UP switch is pressed.	SW7
		TEL switch is pressed.	SW8
		Display back switch is pressed.	SW9
		Display next switch is pressed.	SW10
		Other than above.	NO INPUT
BSW IND	Ignition switch ON	Blind spot warning lamp ON.	On
DOW IND	Ignition switch ON	Blind spot warning lamp OFF.	Off
BSW W/I	Ignition switch ON	Blind spot warning displayed.	On
DOVV VV/L	Ignition switch ON	Other than above.	Off

<sup>\*:</sup> DDS (hill descent control)

#### NOTE:

Some items are not available according to vehicle specification.

#### **TERMINAL LAYOUT**



#### PHYSICAL VALUES

	ninal No. re color)	Description				Value	
+	_	Signal name	Input/ Out- put		Condition	(Approx.)	
1 (B)	Ground	Ground	_	_	_	0 V	
7				Ignition	Security indicator ON.	0 V	
(BG)	Ground	Security signal	Input	switch OFF	Security indicator OFF.	Battery voltage	
9 (GR)	Ground	ECO mode switch	_	_	_	_	
10 (P)	Ground	O/D OFF switch	_		_	_	

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### < ECU DIAGNOSIS INFORMATION >

	ninal No. e color)	Description				Value
+	-	Signal name	Input/ Out- put		Condition	Value (Approx.)
15 (L)	Ground	Ambient sensor signal	Input	Ignition switch ON	_	(V) 4 3 2 1 0 -10 0 10 20 30 40 ['C] (14) (32) (50) (68) (86) (104) ['F] JSNIA0014GB
17 (BG)	Ground	Meter control switch ground	_	_	_	0 V
40				Ignition	Trip/Reset switch is pressed.	0 V
18 (SB)	Ground	Trip/reset signal	Input	switch OFF or ON	Other than the above.	5.0 V
20 (Y)	Ground	Ambient sensor ground	_	_	_	0 V
21 (L)	Ground	Steering switch ground	_	_	_	0 V
22 (Y)	Ground	Steering switch output 1	_	_	_	_
23 (GR)	Ground	Steering switch output 2	_	_	_	_
24		Washer fluid level		Ignition	Washer fluid level switch ON.	0 V
(BR)	Ground	switch signal	Input	switch ON	Washer fluid level switch OFF.	Battery voltage
25	01	Brake fluid level switch	11	Ignition	Brake fluid level low.	0 V
(V)	Ground	signal	Input	switch ON	Brake fluid level normal.	Battery voltage
26	0	Parking brake switch	lat	Ignition	Parking brake applied.	0 V
(G)	Ground	signal	Input	switch ON	Parking brake released.	Battery voltage
28		Seat belt buckle switch		Ignition	When driver seat belt is fastened.	Battery voltage
(Y)	Ground	signal LH	Input	switch ON	When driver seat belt is unfastened.	0 V
29 (R)	Ground	Sport mode switch signal	_	_	_	
36	Ground	Illumination control	Input	Ignition switch	When illumination control switch (+) is pressed.	0 V
(GR)		switch signal (+)	F	OFF or ON	Other than the above.	5.0 V
37	Ground	Illumination control	Input	Ignition switch	When illumination control switch (-) is pressed.	0 V
(V)		switch signal (-)	-	OFF or ON	Other than the above.	5.0 V

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### < ECU DIAGNOSIS INFORMATION >

	ninal No. re color)	Description				Velve
+	-	Signal name	Input/ Out- put		Condition	Value (Approx.)
38 (G)	Ground	Vehicle speed signal (8-pulse)	Out- put	lgnition switch ON	Speedometer operated [When vehicle speed is approx. 25 MPH (40 km/h)].	NOTE: The maximum voltage varies depending on the specification (destination unit).
39 (W)	Ground	Vehicle speed signal (2-pulse)	Out- put	Ignition switch ON	Speedometer operated [When vehicle speed is approx. 25 MPH (40 km/h)].	NOTE: The maximum voltage varies depending on the specification (destination unit).
41 (L)	Ground	CAN high	_	_	_	_
42 (P)	Ground	CAN low	_	_	_	_
					Lighting switch 1st position     When meter illumination is minimum.	(V) 15 10 5 0 
43 (W)	Ground	Illumination control signal	Out- put	Ignition switch ON	Lighting switch 1st position     When meter illumination is step     11.	(V) 15 10 5 0 2.5 ms JPNIA16B6GB
					Lighting switch 1st position     When meter illumination is maximum.	0 V
44 (LA/ B)	Ground	Fuel level sensor ground	_	Ignition switch ON	_	0 V
45 (LA/ G)	Ground	Battery power supply	_	_	_	Battery voltage

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### < ECU DIAGNOSIS INFORMATION >

	ninal No. re color)	Description				Value
+	_	Signal name	Input/ Out- put		Condition	(Approx.)
46 (LA/ BR)	Ground	Ignition signal	_	Ignition switch ON or START	_	Battery voltage
47 (SB)	Ground	M CAN high	_	_	_	_
48 (LG)	Ground	M CAN low	_	_	_	_
51 (LA/ L)	Ground	Fuel level sensor signal	_	Ignition switch ON	Fuel gauge indication position.	Battery voltage
52 (B)	Ground	Ground	_	_	_	0 V

Fail-safe

The combination meter activates the fail-safe control if the CAN communication lines between each unit are malfunctioning.

	Function	Specifications
Speedometer		
Tachometer		Reset to zero by suspending communication.
Engine coolant temperat	ure gauge	
Meter illumination contro	I	When suspending communication, changes to nighttime mode
Buzzer		Turns OFF by suspending communication.
	Current fuel consumption	
	Average fuel consumption	
	Average vehicle speed	The last result calculated during normal condition is indicated.
	Range (Distance to empty)	
	Driving distance	
	Door open warning	
	Lift gate open warning	
Information display	Low tire pressure warning	
	Parking brake release warning	The display turns OFF by evenending communication
	Fuel filler cap warning	The display turns OFF by suspending communication.
	Oil pressure warning	
	CVT warning	
	BSW warning	
	Odo/trip meter	An indicated value is maintained at communications blackout.
	Shift position indicator	The indicator turns OFF by suspending communication.

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# < ECU DIAGNOSIS INFORMATION >

F	unction	Specifications
	ABS warning lamp	
	Brake warning lamp	
	EPS warning lamp	
	VDC warning lamp	Turns ON by suspending communication.
	AWD warning lamp	Turns ON by suspending communication.
	Malfunction indicator lamp	
	Airbag warning lamp	
	Charge warning lamp	
	VDC OFF indicator lamp	
Warning lamp/indicator lamp	SPORT mode indicator lamp	
warning lamp/indicator lamp	AWD LOCK indicator lamp	
	High beam indicator lamp	
	Turn signal indicator lamp	
	Position lamp indicator lamp	Turns OFF by suspending communication.
	OD OFF indicator lamp	
	BSW indicator lamp	
	ECO mode indicator lamp	
	Front fog lamp indicator lamp	
	Hill descent control indicator lamp	
	Low tire pressure warning lamp	After blinking for 1 minute, the lamp remains ON.

DTC Index

Display contents of CONSULT	Diagnostic item is detected when	Refer to
CAN COMM CIRCUIT [U1000]	Combination meter is not transmitting or receiving CAN communication signal for 2 seconds or more.	<u>MWI-55</u>
CONTROL UNIT (CAN) [U1010]	Detecting error during the initial diagnosis of CAN controller of combination meter.	<u>MWI-56</u>
VEHICLE SPEED [B2205]	The abnormal vehicle speed signal is input from ABS actuator and electric unit (control unit) for 2 seconds or more.	<u>MWI-57</u>
ENGINE SPEED [B2267]	ECM continuously transmits abnormal engine speed signals for 2 seconds or more.	<u>MWI-58</u>
WATER TEMP [B2268]	ECM continuously transmits abnormal engine coolant temperature signals for 60 seconds or more.	<u>MWI-59</u>

# **BCM (BODY CONTROL MODULE)**

### < ECU DIAGNOSIS INFORMATION >

# BCM (BODY CONTROL MODULE)

### List of ECU Reference

INFOID:00000000124	22037

ECU	Reference	В
	BCS-29. "Reference Value"	
DCM (with Intelligent Key eyetem)	BCS-47, "Fail Safe"	С
BCM (with Intelligent Key system)	BCS-47, "DTC Inspection Priority Chart"	
	BCS-48. "DTC Index"	
	BCS-97, "Reference Value"	D
DCM (without Intelligent Key eyetem)	BCS-108, "Fail Safe"	
BCM (without Intelligent Key system)	BCS-109. "DTC Inspection Priority Chart"	E
	BCS-109, "DTC Index"	

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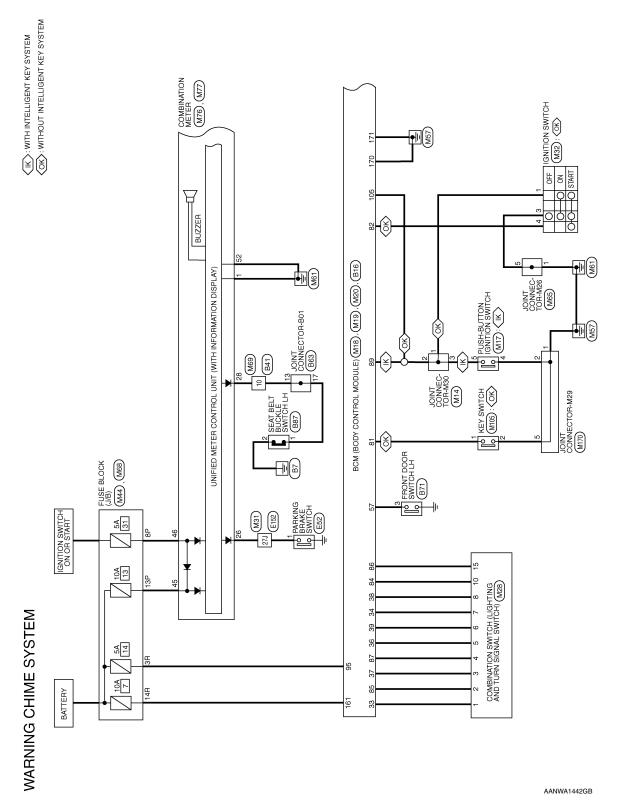
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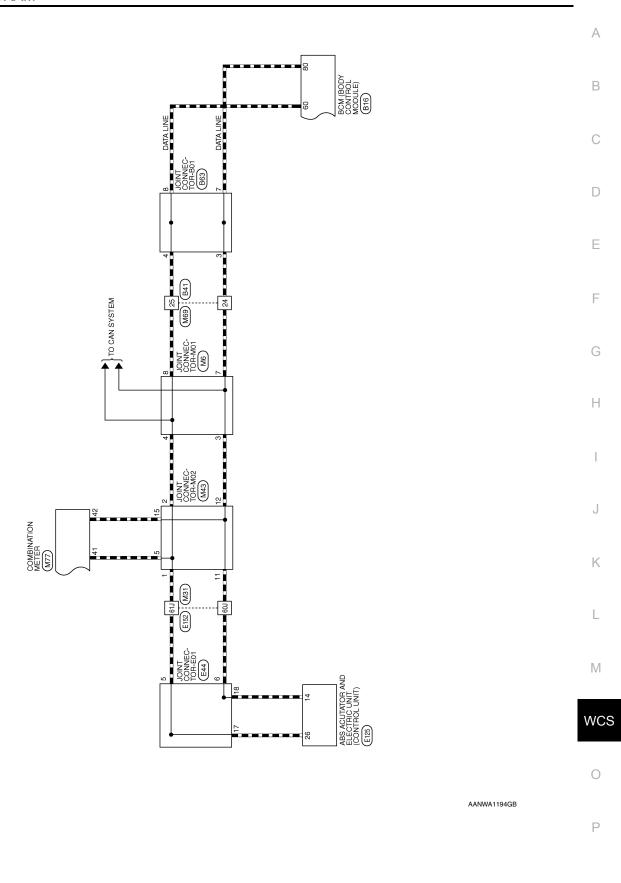
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# WIRING DIAGRAM

### WARNING CHIME SYSTEM

Wiring Diagram





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### **WARNING CHIME SYSTEM**

### < WIRING DIAGRAM >

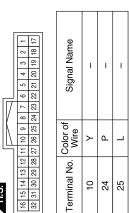
HIME SYSTEM CONNECTORS	M6 Connector No. M14 Connector No.	Connector Name JOINT CONNECTOR-M01 Connector Name JOINT CONNECTOR-M30 Connector Name PUSH-BUTTON IGNITION IGNIT		H.S. (4 3 2 1)  (4 3 2 1)  (8 7 6 5)  (9 10 9)  (9 10 10 11 11 11 11 11 11 11 11 11 11 11	Terminal No. Color of Signal Name Terminal No. Wire Signal Name Terminal No. Color of Signal Name		2 Y - 5 Y	- X &		Connector No.         M19         Connector No.         M20	Connector Name BCM (BODY CONTROL Connector Name BCM (BODY CONTROL MODULE)  MODULE)	Connector Color GRAY Connector Color BLACK	19	Z H.S.	17 16 15 14 13 12 11 10 9 8 7 6 5 4 2 2 2 2 2 3 3 3 2 3 1 3 0 29 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Terminal No. Color of Signal Name	LG         I CSW 5         81         L         I KEY SW         161         W         I PWR ECU	Y O CSW 5 1A/P I STARTER SW 170 B I GND1	i i	GR 1CSW4 84 BR 0CSW2	1CSW 1	- Bg	Y I STAR	
CHIME S		_	_	4 3	Color of Wire	۵	_	<u>a</u>	7			$\overline{}$			15 14 13 12 11 35 34 33 32 31		re	>	g	GR	>	<b>X</b>		

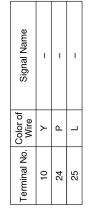
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Signal Name	ı	ı										M44	FUSE BLOCK (J/B)	WHITE	7P   6P   5P   4P     3P   2P   1P   16P   15P   14P   13P   12P   11P   10P   9P   8P		of Signal Name	1	1						
Terminal No. Color of Wire 27J G		61J L										Connector No.	Connector Name Fl	Connector Color W	(18P15P14 H.S.		Terminal No. Color of Wire	8P LA/BR	13P LA/G						
			[ <del>-</del>		Tata Cara	52/ 51/		72J 71J 32J					22								T				
1 RE TO WIRE			100 90 80 72 80 90 90 90 90 90 90 90 90 90 90 90 90 90	30. 299. 289. 277. 280. 257. 244. 233. 222. 349. 359. 359. 359. 359. 359. 359. 359. 35	50, 49, 48, 47, 46, 45, 44, 43, 42,	61 60 59 58 57 56 55 54 54 53 51	70   69   68   67   66   65   64   63   62	81.1 80.0 75.0 77.8 77.0 75.0 75.0 77.0 77.0 77.0 77.0 77.0	95J 94J 93J 97J 96J				NT CONNECTOR-MO	E	6 5 4 3 2 1 16 15 14 13 12 11 10		Signal Name	1	ı	ı	I	I	ı		
			F=	<del>,   -</del>							1	ლ	I = I	ı⊃ı	1   /   4	111				- 1	- 1		- 1		
Connector Name WIF			oj.	30/0	200	613 600		81.180				Sonnector No. M43	Connector Name JOII	Connector Color BLUE	H.S. 20 19 18 17		Color of Wire	1	2 L				15 P		
Connector Name WIRE TO WIRE			oj.	TOE   TOE	000	09 (19		106   108   108				Connector No. M43	Connector Name JOINT CONNECTOR-M02	Connector Color BLU	9 8		Terminal No. Color of Wire								
	SWITCH)		H.S.	Signal Name	88	00 [19]			1	1				Connector Color	3 4 H.S.		Signal Name Terminal No. Wire								
Connector No. MZ8  COMBINATION SWITCH  Connector Name   WIF	SIGNAL SWITCH)	Connector Color   WHITE	H.S.		1			1		BB	I a.		Connector Name IGNITION SWITCH Connector Name JOII		4 H.S.		Terminal No.	-	2	ις.					

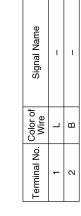
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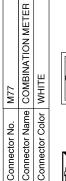


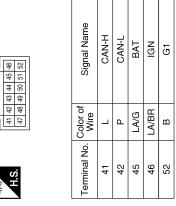


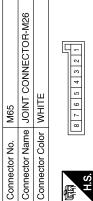




Signal Name	ı	ı	
Color of Wire	>	×	
Terminal No.	3R	14R	

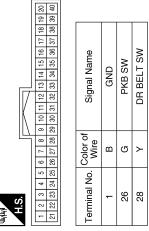






Signal Name	1	-
Color of Wire	В	В
Terminal No. Color of Wire	1	2

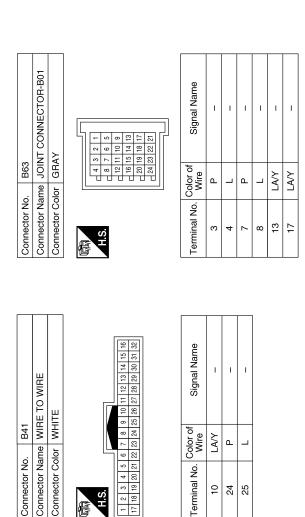
Connector No. M76 Connector Name COMBINATION METER
Connector Color   WHITE
Connector Name   COMBINATION METER



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Connector Name PARKING BRAKE SWITCH Connector Color BLACK  H.S.	Signal Name	Signal Name	
me PARKING or BLACK	Color of Wire G	Color of Wire	
Connector No. E52 Connector Name PARKIN Connector Color BLACK H.S.	Terminal No.	27.0 60.0 61.0 61.0 61.0 61.0 61.0 61.0 61	
	<u> </u>		
Connector No. E44  Connector Name JOINT CONNECTOR-E01  Connector Color WHITE  H.S.   4   3   2   1   1   1   1   1   1   1   1   1	Signal Name	11.   22   33   44,   43   43   44,   43   44,	
MHITE  WHITE  WHITE  WAS 2 1 1 1 10 9 1 11 11 10 9 1 11 11 10 9 1 11 11 11 11 11 11 11 11 11 11 11 11		E152 WHITE  NHITE  11 2 11 2 11 2 12 133 144 155 122 133 144 155 123 133 144 155 123 133 144 155 123 133 144 155 123 133 144 155 123 133 144 155 123 133 144 155 123 133 144 155 123 133 144 155 123 133 144 155 123 133 144 155 123 133 144 155 123 133 144 155 123 133 144 155 134 144 155 134 144 145 134 144 145 134 144 145 134 144 145 134 144 145 134 144 145 134 144 145 134 144 1	
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Connector Name JOINT Connector Color WHITE  H.S.  H.S.  124  125  126  126  126  127  128  128  128  128  128  128  128	Terminal No. 5 6 17 17 18	Connector No.   E152	
Connector No. M170 Connector Name JOINT CONNECTOR-M29 Connector Color WHITE  H.S.	Signal Name	## Signal Name    ABS ACTUATOR AND ABS ACTUATOR AND CONTROL UNIT)   CONTROL CO	
M170 JOINT COI WHITE	<b>J</b> G	BLACK BLACK BLACK Signal I is 14   15   14   12   15   14   15   15	
N170 M170 M170 M170 M170 M1170	Color of Wire B	actor No. E12.  ABS actor Name ELE (CO actor Color BLA actor Color BLA actor Color BLA actor Color BLA actor Color of BLA actor	
Connector No. Connector Color Connector Color H.S.	Terminal No. 1 2 2 5	Connector Name Connector Color  Connector Color  H.S.  H.S.  Terminal No. Color  26 1 6	
		AANIA3284GB	

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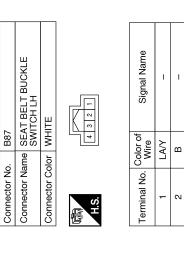


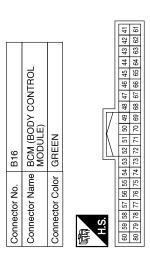
24 25 2

Color of Wire LΑΥ

> Terminal No. 10 24 25

┙



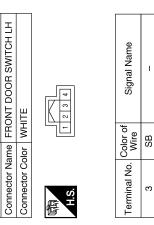


Connector Color WHITE

B41

Connector No.





B71

Connector No.

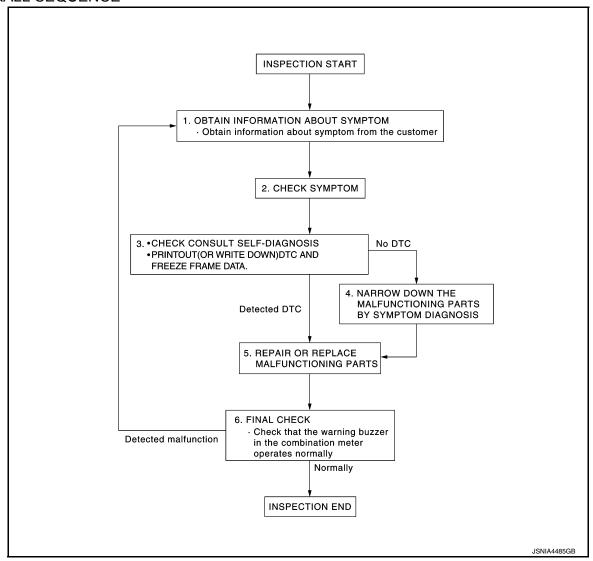
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# **BASIC INSPECTION**

## DIAGNOSIS AND REPAIR WORK FLOW

Work Flow | INFOID:0000000012422039 | B

#### **OVERALL SEQUENCE**



#### **DETAILED FLOW**

## 1. OBTAIN INFORMATION ABOUT SYMPTOM

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

>> GO TO 2.

## 2. CHECK SYMPTOM

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

>> GO TO 3.

# 3. CHECK CONSULT SELF-DIAGNOSIS RESULTS

Connect CONSULT and perform "self-diagnosis". Refer to <u>MWI-31, "DTC Index"</u>.

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#### **DIAGNOSIS AND REPAIR WORK FLOW**

#### < BASIC INSPECTION >

- 2. When DTC is detected, follow the instructions below:
- Record DTC and Freeze Frame Data.

#### Are self-diagnosis results normal?

YES >> GO TO 4. NO >> GO TO 5.

## 4. NARROW DOWN MALFUNCTIONING PARTS BY SYMPTOM DIAGNOSIS

Perform symptom diagnosis and narrow down the malfunctioning parts.

>> GO TO 5.

# 5.REPAIR OR REPLACE MALFUNCTIONING PARTS

Repair or replace malfunctioning parts.

NOTE:

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

>> GO TO 6.

## 6. FINAL CHECK

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

## Does it operate normally?

YES >> Inspection End.

NO >> GO TO 1.

#### POWER SUPPLY AND GROUND CIRCUIT

#### < DTC/CIRCUIT DIAGNOSIS >

## DTC/CIRCUIT DIAGNOSIS

## POWER SUPPLY AND GROUND CIRCUIT COMBINATION METER

COMBINATION METER: Diagnosis Procedure

INFOID:0000000012572223

Regarding Wiring Diagram information, refer to MWI-33, "Wiring Diagram".

## 1.CHECK FUSES

Check that the following fuses are not blown.

Unit	Power source	Fuse No.
Combination meter	Battery	13
	Ignition switch ON or START	31

#### Is the fuse blown?

>> Replace the blown fuse after repairing the affected circuit.

NO >> GO TO 2.

# 2.CHECK POWER SUPPLY CIRCUIT

- Disconnect combination meter connector.
- Check voltage between combination meter harness connector M77 terminals 45, 46 and ground.

Combination meter		Cround		Ignition switch position	
Connector	Terminal	Ground	OFF	ON	START
M77	45	( )	Battery voltage	Battery voltage	Battery voltage
IVI <i>T T</i>	46	(-)	0V	Battery voltage	Battery voltage

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

## 3.CHECK GROUND CIRCUIT

- Turn ignition switch OFF.
- Check continuity between combination meter harness connector and ground.

Combin	ation meter	Ground	Continuity	
Connector	Terminal	Giodila		
M76	1	(–)	Yes	
M77	52		ies	

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connector.

BCM (BODY CONTROL SYSTEM) (WITH INTELLIGENT KEY SYSTEM)

BCM (BODY CONTROL SYSTEM) (WITH INTELLIGENT KEY SYSTEM): Diagnosis Procedure INFOID:0000000012572226

Regarding Wiring Diagram information, refer to BCS-51, "Wiring Diagram".

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**WCS-39** Revision: September 2015 2016 Rogue NAM

#### POWER SUPPLY AND GROUND CIRCUIT

#### < DTC/CIRCUIT DIAGNOSIS >

## 1. CHECK FUSE

Check that the following fuse is not blown.

Terminal No.	Terminal No. Signal name Fuse No.	
161	BCM power supply	7 (10A)

#### Is the fuse blown?

YES >> Replace the blown fuse after repairing the affected circuit.

NO >> GO TO 2.

# 2. CHECK POWER SUPPLY CIRCUIT

- Disconnect BCM connector M20.
- 2. Check voltage between BCM connector M20 and ground.

BCM		Ground	Voltage	
Connector	Terminal	Ordana	(Approx.)	
M20	161	_	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

## 3. CHECK GROUND CIRCUIT

Check continuity between BCM connector M20 and ground.

BCM		Ground	Continuity
Connector	Terminal	Giodila	Continuity
M20	170		Yes
MZU	171	_	165

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connectors.

BCM (BODY CONTROL SYSTEM) (WITHOUT INTELLIGENT KEY SYSTEM)

BCM (BODY CONTROL SYSTEM) (WITHOUT INTELLIGENT KEY SYSTEM) : Diagnosis Procedure

Regarding Wiring Diagram information, refer to BCS-112, "Wiring Diagram".

# 1. CHECK FUSE

Check that the following fuse is not blown.

Terminal No.	Signal name	Fuse No.
161	BCM power supply	7 (10A)

#### Is the fuse blown?

YES >> Replace the blown fuse after repairing the affected circuit.

NO >> GO TO 2.

## 2. CHECK POWER SUPPLY CIRCUIT

- 1. Disconnect BCM connector M20.
- Check voltage between BCM connector M20 and ground.

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## **POWER SUPPLY AND GROUND CIRCUIT**

#### < DTC/CIRCUIT DIAGNOSIS >

BCM		Ground	Voltage
Connector	Terminal	Ordana	(Approx.)
M20	161	_	Battery voltage

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Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3. CHECK GROUND CIRCUIT

Check continuity between BCM connector M20 and ground.

BCM		Ground	Continuity
Connector	Terminal	Giodila	Continuity
M20	170		Yes
	171	_	165

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connectors.

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#### **METER BUZZER CIRCUIT**

#### < DTC/CIRCUIT DIAGNOSIS >

## METER BUZZER CIRCUIT

Description INFOID:000000012422043

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

## Component Function Check

INFOID:0000000012422044

# 1. CHECK OPERATION OF METER BUZZER

- 1. Select "BUZZER" of "BCM" using CONSULT.
- 2. Perform "LIGHT WARN ALM" or "SEAT BELT WARN TEST" in "Active Test".

#### Does meter buzzer activate?

YES >> Inspection End.

NO >> Refer to WCS-42, "Diagnosis Procedure".

## Diagnosis Procedure

INFOID:0000000012422045

## 1. CHECK COMBINATION METER INPUT SIGNAL

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

Monitor item	Condition	Status
BUZZER	Under the condition of buzzer input	On
	Except above	Off

#### Is the inspection result normal?

YES >> Replace combination meter. Refer to MWI-84, "Removal and Installation".

NO >> Replace BCM. Refer to <u>BCS-76</u>, "Removal and Installation" (with Intelligent Key system) or <u>BCS-137</u>, "Removal and Installation" (without Intelligent Key system).

#### SEAT BELT BUCKLE SWITCH SIGNAL CIRCUIT

## < DTC/CIRCUIT DIAGNOSIS >

## SEAT BELT BUCKLE SWITCH SIGNAL CIRCUIT

Description INFOID:0000000012422046

Transmits a seat belt buckle switch signal to the combination meter.

## Component Function Check

#### INFOID:0000000012422047

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# 1. CHECK COMBINATION METER INPUT SIGNAL

- 1. Ignition ON.
- 2. Monitor seat belt warning lamp while fastening and unfastening the driver seat belt buckle.

Condition	Warning lamp status
When driver seat belt buckle is unfastened	ON
When driver seat belt buckle is fastened	OFF

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Refer to WCS-43, "Diagnosis Procedure".

## Diagnosis Procedure

INFOID:0000000012422048

Regarding Wiring Diagram information, refer to WCS-30, "Wiring Diagram".

# 1. CHECK COMBINATION METER INPUT SIGNAL

- 1. Turn ignition switch ON.
- 2. Check voltage between combination meter harness connector M76 terminal 28 and ground.

	Combination meter			
Connector	Terminals		Condition	Voltage (Approx.)
Connector	(+)	(-)		( 4-1)
M76	28	Ground	When seat belt LH is fastened	Battery voltage
WITO	20	Ground	When seat belt LH is unfastened	0 V

#### Is the inspection result normal?

YES >> Replace combination meter. Refer to MWI-84, "Removal and Installation".

NO >> GO TO 2.

# $oldsymbol{2}$ . CHECK SEAT BELT BUCKLE SWITCH LH CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect combination meter harness connector M76 and seat belt buckle switch LH harness connector B87.
- Check continuity between combination meter harness connector M76 terminal 28 and seat belt buckle switch LH harness connector B87 terminal 1.

Combina	tion meter	Seat belt buckle switch LH		Continuity
Connector	Terminal	Connector Terminal		Continuity
M76	28	B87	1	Yes

Check continuity between combination meter harness connector M76 terminal 28 and ground.

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#### SEAT BELT BUCKLE SWITCH SIGNAL CIRCUIT

#### < DTC/CIRCUIT DIAGNOSIS >

Combination meter			Continuity	
Connector	Connector Terminal		Continuity	
M76	28		No	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

# ${f 3}.$ CHECK SEAT BELT BUCKLE SWITCH LH GROUND CIRCUIT

Check continuity between seat belt buckle switch LH harness connector B87 terminal 2 and ground.

Seat belt buckle switch LH			Continuity
Connector	Terminal	Ground	Continuity
B87	2		Yes

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connector.

## Component Inspection

INFOID:0000000012422049

# 1. CHECK SEAT BELT BUCKLE SWITCH LH

- 1. Turn ignition switch OFF.
- 2. Disconnect the seat belt buckle switch LH connector.
- 3. Check continuity between the seat belt buckle switch LH terminals 1 and 2.

Seat belt buckle switch LH	Condition	Continuity	
Terminals	Condition		
1– 2	When seat belt buckle LH is fastened	No	
1-2	When seat belt buckle LH is unfastened	Yes	

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace the seat belt buckle switch LH. Refer to <u>SR-29</u>, "Removal and Installation".

#### PARKING BRAKE SWITCH SIGNAL CIRCUIT

#### < DTC/CIRCUIT DIAGNOSIS >

## PARKING BRAKE SWITCH SIGNAL CIRCUIT

## Component Function Check

#### INFOID:0000000012422050

# 1. CHECK PARKING BRAKE SWITCH OPERATION

Α

Check that brake warning lamp in combination meter turns ON/OFF when parking brake is actuated.

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Proceed to diagnosis procedure. Refer to WCS-45, "Diagnosis Procedure".

## Diagnosis Procedure

INFOID:0000000012422051

Regarding Wiring Diagram information, refer to WCS-30, "Wiring Diagram".

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## 1. CONNECTOR INSPECTION

Turn ignition switch OFF.

- 2. Disconnect combination meter and parking brake switch connectors.
- 3. Check connectors and terminals for deformation, disconnection, looseness or damage.

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace as necessary.

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## 2.CHECK PARKING BRAKE SWITCH

Check parking brake switch. Refer to WCS-46, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace parking brake switch. Refer to PB-11, "Removal and Installation".

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## 3.CHECK PARKING BRAKE SWITCH SIGNAL

#### (P)With CONSULT.

- 1. Connect combination meter connector and parking brake switch connectors.
- 2. Turn ignition switch ON.
- Select "METER/M&A".
- 4. Monitor "PKB SW" in "Data Monitor" while applying and releasing the parking brake.

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Monitor item	Condition	Status
PKB SW	When parking brake is applied.	ON
	When parking brake is released.	OFF

#### Is the inspection result normal?

YES >> Refer to WCS-37, "Work Flow".

NO >> GO TO 4.

# 4. CHECK PARKING BRAKE SWITCH CIRCUIT

Turn ignition switch OFF.

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- 2. Disconnect combination meter and parking brake switch connectors.
- Check continuity between combination meter connector M76 terminal 26 and parking brake switch connector E52 terminal 1.

Combina	tion meter	Parking brake switch		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
M76	26	E52	1	Yes	

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<sup>4.</sup> Check continuity between combination meter connector and ground.

#### PARKING BRAKE SWITCH SIGNAL CIRCUIT

#### < DTC/CIRCUIT DIAGNOSIS >

Combination meter  Connector Terminal			Continuity
		_	Continuity
M76	26	Ground	No

#### Is the inspection result normal?

YES >> Replace combination meter. Refer to MWI-84. "Removal and Installation".

NO >> Repair or replace malfunctioning components.

## Component Inspection

INFOID:0000000012422052

# 1. CHECK PARKING BRAKE SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect parking brake switch connector.
- 3. Check continuity between parking brake switch terminal 1 and ground.

Parking brake switch	Ground	Condition	Continuity	
Terminal	Ground	Condition	Continuity	
1		Parking brake actuated	Yes	
	_	Parking brake released	Continuity  Yes  No	

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace parking brake switch. Refer to PB-11, "Removal and Installation".

## **KEY SWITCH SIGNAL CIRCUIT (WITHOUT INTELLIGENT KEY)**

#### < DTC/CIRCUIT DIAGNOSIS >

# KEY SWITCH SIGNAL CIRCUIT (WITHOUT INTELLIGENT KEY)

Description INFOID:0000000012422053

Transmits a key switch signal to the BCM.

## Component Function Check

#### INFOID:0000000012422054

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## CHECK BCM INPUT SIGNAL

Select "Data Monitor" of "BCM" using CONSULT and check the "KEY SW" monitor value.

Monitor Item	Condition	Status
KEY SW	When key is removed from key cylinder	OFF
	When key is inserted into key cylinder	ON

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Refer to WCS-47, "Diagnosis Procedure".

## Diagnosis Procedure

INFOID:0000000012422055

Regarding Wiring Diagram information, refer to WCS-30, "Wiring Diagram".

## 1. CHECK BCM INPUT SIGNAL

Check voltage between BCM harness connector M19 terminal 81 and ground.

ВСМ		Ground	Condition	Voltage
Connector	Terminal	Ground	Condition	(Approx.)
M19 81		Key is inserted	Battery voltage	
10119	81	_	Key is removed	0V

#### Is the inspection result normal?

YES >> Inspection End.

NO >> GO TO 2.

# 2. CHECK KEY SWITCH CIRCUIT

- Disconnect BCM connector M19 and key switch connector M105.
- Check continuity between BCM harness connector M19 terminal 81 and key switch harness connector M105 terminal 1.

В	BCM Key switch Continuity		Key switch	
Connector	Terminal	Connector	Terminal	Continuity
M19	81	M105	1	Yes

Check continuity between BCM harness connector M19 terminal 81 and ground.

BCM		Ground	Continuity
Connector	Terminal	Oround	Continuity
M19	81	_	No

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

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## **KEY SWITCH SIGNAL CIRCUIT (WITHOUT INTELLIGENT KEY)**

#### < DTC/CIRCUIT DIAGNOSIS >

# 3. CHECK KEY SWITCH POWER SUPPLY CIRCUIT

Check voltage between key switch harness connector M105 terminal 1 and ground.

Key switch		Ground	Voltage
Connector	Terminal	Ground	(Approx.)
M105	1	_	Battery voltage

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness or connector.

## 4. CHECK KEY SWITCH GROUND CIRCUIT

Check continuity between key switch harness connector M105 terminal 2 and ground.

Key switch		Ground	Continuity
Connector	Terminal	Giodila	Continuity
M105	2	_	Yes

#### Is the inspection result normal?

YES >> Replace key switch. Refer to <a href="SEC-201">SEC-201</a>, "Removal and Installation".

NO >> Repair or replace harness or connector.

# Component Inspection

INFOID:0000000012422056

## 1. CHECK KEY SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect key switch.
- 3. Check continuity between key switch terminals 1 and 2.

Key switch		Condition	Continuity	
Terr	minal	Condition	Continuity	
1	2	When key is removed from key cylinder	No	
1 2	When key is inserted into key cylinder	Yes		

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace key switch. Refer to <u>SEC-201, "Removal and Installation"</u>.

## **WARNING CHIME SYSTEM SYMPTOMS**

< SYMPTOM DIAGNOSIS >

# SYMPTOM DIAGNOSIS

## WARNING CHIME SYSTEM SYMPTOMS

Symptom Table

#### **CAUTION:**

Perform the self-diagnosis with CONSULT before the symptom diagnosis. Perform the trouble diagnosis if any DTC is detected.

Symptom	Possible cause	Inspection item
The light reminder warning does not sound.	Harness between BCM and front door switch LH.     Front door switch LH     BCM     Combination meter	Refer to WCS- 52.
The parking brake release warning continues sounding or does not sound.	<ul> <li>Harness between combination meter and parking brake switch.</li> <li>Parking brake switch</li> <li>BCM</li> <li>Combination meter</li> </ul>	Refer to WCS-50.
The seat belt warning continues sounding or does not sound.	<ul> <li>Harness between combination meter and seat belt buckle switch LH.</li> <li>Seat belt buckle switch LH</li> <li>BCM</li> <li>Combination meter</li> </ul>	Refer to WCS- 51.
Warning chime does not sound at all.	BCM     Combination meter	Refer to WCS- 42.

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

#### < SYMPTOM DIAGNOSIS >

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

Description INFOID:0000000012422058

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

#### Diagnosis Procedure

INFOID:0000000012422059

## 1. CHECK PARKING BRAKE WARNING LAMP

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

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

#### Is the inspection result normal?

YES >> Replace the combination meter. Refer to MWI-84, "Removal and Installation".

NO >> GO TO 2.

# 2. CHECK PARKING BRAKE SWITCH SIGNAL CIRCUIT

Check the parking brake switch signal circuit. Refer to WCS-45, "Diagnosis Procedure".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

## 3. CHECK PARKING BRAKE SWITCH UNIT

Check the parking brake switch. Refer to WCS-46, "Component Inspection".

#### Is the inspection result normal?

YES >> Replace the combination meter. Refer to MWI-84, "Removal and Installation".

NO >> Replace the parking brake switch. Refer to PB-11, "Removal and Installation".

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

#### < SYMPTOM DIAGNOSIS >

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

Description INFOID:0000000012422060

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

#### Diagnosis Procedure

## 1. CHECK WARNING CHIME OPERATION

- 1. Select "BUZZER" of "BCM" using CONSULT.
- Perform "SEAT BELT WARN TEST" in "Active Test".

Component	CONSULT	Condition
Buzzer	SEAT BELT WARN TEST	ON
		OFF

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace combination meter. Refer to MWI-84, "Removal and Installation".

# 2.CHECK COMBINATION METER INPUT SIGNAL

Check the combination meter input signal. Refer to WCS-43, "Component Function Check".

#### Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-76</u>, "Removal and Installation" (with Intelligent Key system) or <u>BCS-137</u>, "Removal and Installation" (without Intelligent Key system).

NO >> GO TO 3.

## 3.CHECK SEAT BELT BUCKLE SWITCH LH CIRCUIT

Check the seat belt buckle switch LH circuit. Refer to WCS-43, "Diagnosis Procedure".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness or connector.

#### 4. CHECK SEAT BELT BUCKLE SWITCH LH

Check the seat belt buckle switch LH. Refer to WCS-44, "Component Inspection".

#### Is the inspection result normal?

YES >> Replace the combination meter. Refer to MWI-84, "Removal and Installation".

NO >> Replace the seat belt buckle switch LH. Refer to <u>SR-29</u>, "Removal and Installation".

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#### THE LIGHT REMINDER WARNING DOES NOT SOUND

#### < SYMPTOM DIAGNOSIS >

## THE LIGHT REMINDER WARNING DOES NOT SOUND

Description INFOID:000000012422062

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

## Diagnosis Procedure

INFOID:0000000012422063

## 1. CHECK COMBINATION METER INPUT SIGNAL

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

Monitor item	Condition	Status
BUZZER	Under the condition of buzzer input	On
	Except above	Off

#### Is the inspection result normal?

YES >> Replace combination meter. Refer to MWI-84, "Removal and Installation".

NO >> GO TO 2.

## 2.CHECK FRONT DOOR SWITCH LH SIGNAL CIRCUIT

Check the front door switch LH signal circuit. Refer to <u>DLK-160, "Diagnosis Procedure"</u> (with Intelligent Key system) or <u>DLK-335, "Diagnosis Procedure"</u> (without Intelligent Key system).

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

# 3.CHECK FRONT DOOR SWITCH LH

Check the front door switch LH. Refer to <u>DLK-161</u>, "<u>Component Inspection</u>" (with Intelligent Key system) or <u>DLK-336</u>, "<u>Component Inspection</u>" (without Intelligent Key system).

#### Is the inspection result normal?

- YES >> Replace the BCM. Refer to <u>BCS-76</u>, "<u>Removal and Installation</u>" (with Intelligent Key system) or <u>BCS-137</u>, "<u>Removal and Installation</u>" (without Intelligent Key system).
- NO >> Replace the front door switch LH. Refer to <u>DLK-280</u>, "<u>Removal and Installation</u>" (with Intelligent Key system) or <u>DLK-398</u>, "<u>Removal and Installation</u>" (without Intelligent Key system).

## THE KEY WARNING DOES NOT SOUND (WITHOUT INTELLIGENT KEY)

< SYMPTOM DIAGNOSIS >

# THE KEY WARNING DOES NOT SOUND (WITHOUT INTELLIGENT KEY)

Description INFOID:000000012422064

The key warning chime does not sound, when all of the following conditions are fulfilled:

- · Key inserted into the key cylinder (key switch signal ON).
- Ignition switch is in OFF position (ignition switch signal OFF).
- Driver side door is open (front door switch LH ON)

#### Diagnosis Procedure

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## 1. CHECK BCM INPUT SIGNAL

- Connect CONSULT.
- 2. Select the "Data Monitor" of "BCM (BUZZER)" and check the "KEY SW" monitor value.

Monitor item	Condition	Status
KEY SW	Under the condition of buzzer input	On
	Except above	Off

#### Is the inspection result normal?

YES >> Replace the BCM. Refer to BCS-137, "Removal and Installation".

NO >> GO TO 2.

## 2.CHECK KEY SWITCH SIGNAL CIRCUIT

Check the key switch signal circuit. Refer to WCS-47, "Diagnosis Procedure".

## Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

## 3. CHECK KEY SWITCH

Check the key switch. Refer to WCS-48, "Component Inspection".

#### Is the inspection result normal?

YES >> Replace the BCM. Refer to BCS-137, "Removal and Installation".

NO >> Replace key switch. Refer to SEC-201, "Removal and Installation".

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