

SECTION

PCS

POWER CONTROL SYSTEM

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B

C

CONTENTS

E

IPDM E/R			
SYSTEM DESCRIPTION	3	Diagnosis Procedure	16
RELAY CONTROL SYSTEM	3	POWER SUPPLY AND GROUND CIRCUIT	17
System Diagram	3	Diagnosis Procedure	17
System Description	3	ECU DIAGNOSIS INFORMATION	18
Component Parts Location	4	IPDM E/R (INTELLIGENT POWER DISTRI- BUTION MODULE ENGINE ROOM)	18
POWER CONTROL SYSTEM	5	Reference Value	18
System Diagram	5	Wiring Diagram - IPDM E/R -	25
System Description	5	Fail-safe	28
SIGNAL BUFFER SYSTEM	6	DTC Index	30
System Diagram	6	PRECAUTION	31
System Description	6	PRECAUTIONS	31
POWER CONSUMPTION CONTROL SYS- TEM	7	Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TEN- SIONER"	31
System Diagram	7	Precaution for Procedure without Cowl Top Cover....	31
System Description	7	REMOVAL AND INSTALLATION	32
Component Parts Location	8	IPDM E/R (INTELLIGENT POWER DISTRI- BUTION MODULE ENGINE ROOM)	32
DIAGNOSIS SYSTEM (IPDM E/R)	9	Exploded View	32
Diagnosis Description	9	Removal and Installation	32
CONSULT Function (IPDM E/R)	11	POWER DISTRIBUTION SYSTEM	
DTC/CIRCUIT DIAGNOSIS	14	BASIC INSPECTION	34
U1000 CAN COMM CIRCUIT	14	DIAGNOSIS AND REPAIR WORK FLOW	34
Description	14	Work Flow	34
DTC Logic	14	SYSTEM DESCRIPTION	37
Diagnosis Procedure	14	POWER DISTRIBUTION SYSTEM	37
B2098 IGNITION RELAY ON STUCK	15	System Description	37
Description	15	Component Parts Location	38
DTC Logic	15	Component Description	39
Diagnosis Procedure	15	DIAGNOSIS SYSTEM (BCM)	40
B2099 IGNITION RELAY OFF STUCK	16		
Description	16		
DTC Logic	16		

COMMON ITEM	40	POWER SUPPLY AND GROUND CIRCUIT	64
COMMON ITEM : CONSULT Function (BCM -		BCM	64
COMMON ITEM)	40	BCM : Diagnosis Procedure	64
INTELLIGENT KEY	41	PUSH-BUTTON IGNITION SWITCH	65
INTELLIGENT KEY : CONSULT Function (BCM -		Description	65
INTELLIGENT KEY)	41	Component Function Check	65
DTC/CIRCUIT DIAGNOSIS	46	Diagnosis Procedure	65
U1000 CAN COMM	46	Component Inspection	66
Description	46	PUSH-BUTTON IGNITION SWITCH POSI-	
DTC Logic	46	TION INDICATOR	67
Diagnosis Procedure	46	Description	67
U1010 CONTROL UNIT (CAN)	47	Component Function Check	67
DTC Logic	47	Diagnosis Procedure	67
Diagnosis Procedure	47	POWER DISTRIBUTION SYSTEM	69
B2553 IGNITION RELAY	48	Wiring Diagram - PDS (POWER DISTRIBUTION	
Description	48	SYSTEM) -	69
DTC Logic	48	ECU DIAGNOSIS INFORMATION	76
Diagnosis Procedure	48	BCM (BODY CONTROL MODULE)	76
B260A IGNITION RELAY	50	Reference Value	76
Description	50	Wiring Diagram - BCM -	100
DTC Logic	50	Fail-safe	114
Diagnosis Procedure	50	DTC Inspection Priority Chart	115
B2614 ACC RELAY	52	DTC Index	116
Description	52	PRECAUTION	119
DTC Logic	52	PRECAUTIONS	119
Diagnosis Procedure	52	Precaution for Supplemental Restraint System	
Component Inspection	53	(SRS) "AIR BAG" and "SEAT BELT PRE-TEN-	
B2615 BLOWER RELAY CIRCUIT	55	SIONER"	119
Description	55	Precautions Necessary for Steering Wheel Rota-	
DTC Logic	55	tion After Battery Disconnection	119
Diagnosis Procedure	55	Precaution for Procedure without Cowl Top Cover.	120
Component Inspection	56	SYMPTOM DIAGNOSIS	121
B2616 IGNITION RELAY CIRCUIT	58	PUSH-BUTTON IGNITION SWITCH DOES	
Description	58	NOT OPERATE	121
DTC Logic	58	Description	121
Diagnosis Procedure	58	Diagnosis Procedure	121
Component Inspection	59	PUSH-BUTTON IGNITION SWITCH POSI-	
B2618 BCM	61	TION INDICATOR DOES NOT ILLUMINATE ..	122
Description	61	Description	122
DTC Logic	61	Diagnosis Procedure	122
Diagnosis Procedure	61	REMOVAL AND INSTALLATION	123
B261A PUSH-BUTTON IGNITION SWITCH	62	PUSH-BUTTON IGNITION SWITCH	123
Description	62	Removal and Installation	123
DTC Logic	62		
Diagnosis Procedure	62		

RELAY CONTROL SYSTEM

< SYSTEM DESCRIPTION >

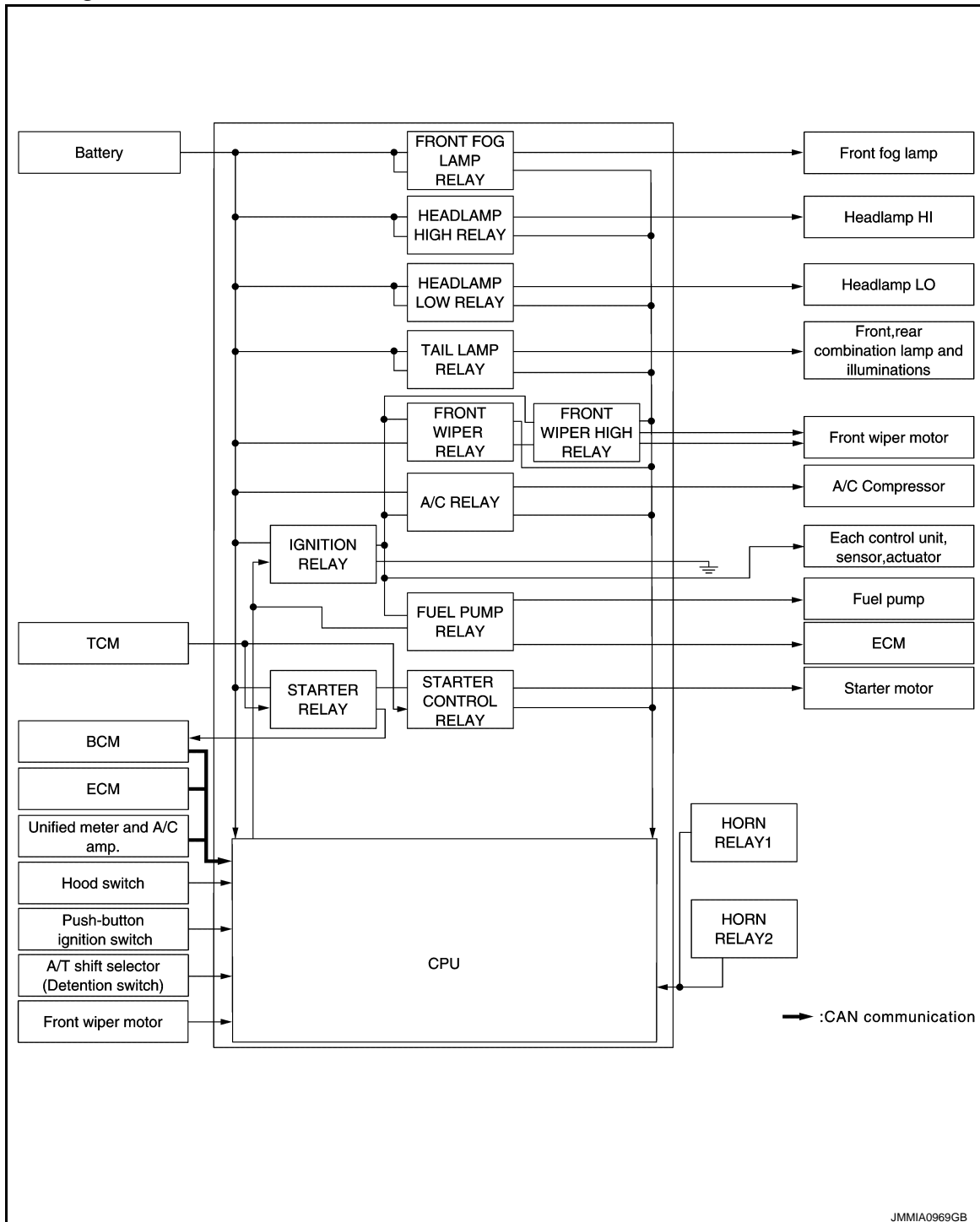
[IPDM E/R]

SYSTEM DESCRIPTION

RELAY CONTROL SYSTEM

System Diagram

INFOID:000000007458079



System Description

INFOID:000000007458080

IPDM E/R activates the internal control circuit to perform the relay ON-OFF control according to the input signals from various sensors and the request signals received from control units via CAN communication.

CAUTION:

IPDM E/R integrated relays cannot be removed.

RELAY CONTROL SYSTEM

< SYSTEM DESCRIPTION >

[IPDM E/R]

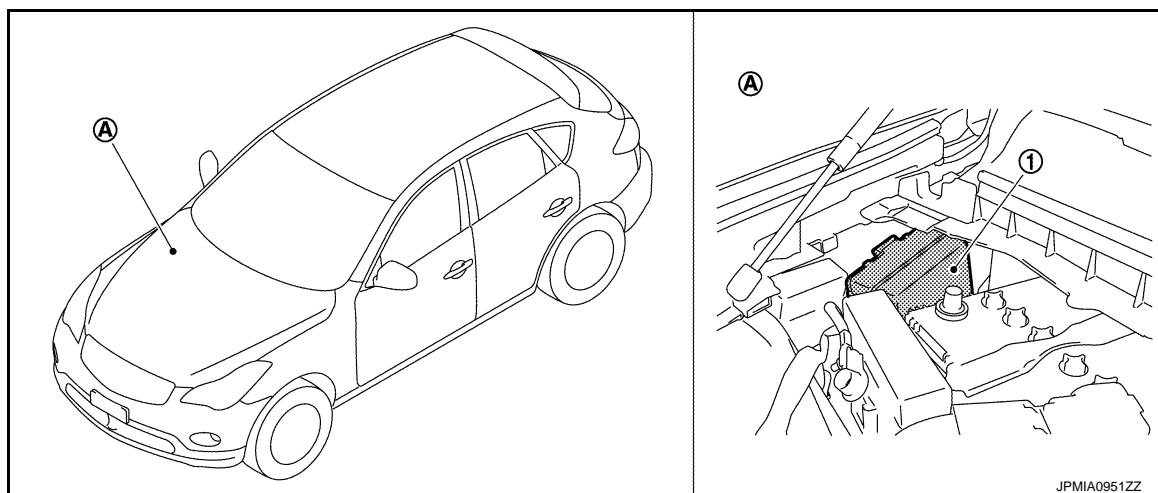
Control relay	Input/output	Transmit unit	Control part	Reference page
<ul style="list-style-type: none"> Headlamp low relay Headlamp high relay 	<ul style="list-style-type: none"> Low beam request signal High beam request signal 	BCM (CAN)	<ul style="list-style-type: none"> Headlamp low Headlamp high 	<ul style="list-style-type: none"> EXL-12 (Xenon headlamp) EXL-229 (Halogen headlamp)
Front fog lamp relay	Front fog light request signal	BCM (CAN)	Front fog lamp	<ul style="list-style-type: none"> EXL-25 (Xenon headlamp) EXL-229 (Halogen headlamp)
Tail lamp relay	Position light request signal	BCM (CAN)	<ul style="list-style-type: none"> Parking lamp Side marker lamp License plate lamp Tail lamp 	<ul style="list-style-type: none"> EXL-29 (Xenon headlamp) EXL-242 (Halogen headlamp)
			Illuminations	INL-13
<ul style="list-style-type: none"> Front wiper relay Front wiper high relay 	Front wiper request signal Front wiper stop position signal	BCM (CAN) Front wiper motor	Front wiper	WW-6
<ul style="list-style-type: none"> Horn relay 1 Horn relay 2 	<ul style="list-style-type: none"> Theft warning horn request signal Horn reminder signal 	BCM (CAN)	<ul style="list-style-type: none"> Horn (low) Horn (high) 	SEC-18
<ul style="list-style-type: none"> Starter relay^{NOTE} Starter control relay 	Starter control relay signal Steering lock unit condition signal Starter relay control signal	BCM (CAN) Steering lock unit TCM	Starter motor	SEC-79 SEC-77
A/C relay	A/C compressor request signal	ECM (CAN)	A/C compressor (magnet clutch)	HAC-42
Ignition relay	Ignition switch ON signal Vehicle speed signal Push-button ignition switch signal	BCM (CAN) Unified meter and A/C amp. (CAN) Push-button ignition switch	Ignition relay	PCS-15

NOTE:

BCM controls the starter relay.

Component Parts Location

INFOID:000000007458081



1. IPDM E/R

A. Engine room dash panel (RH)

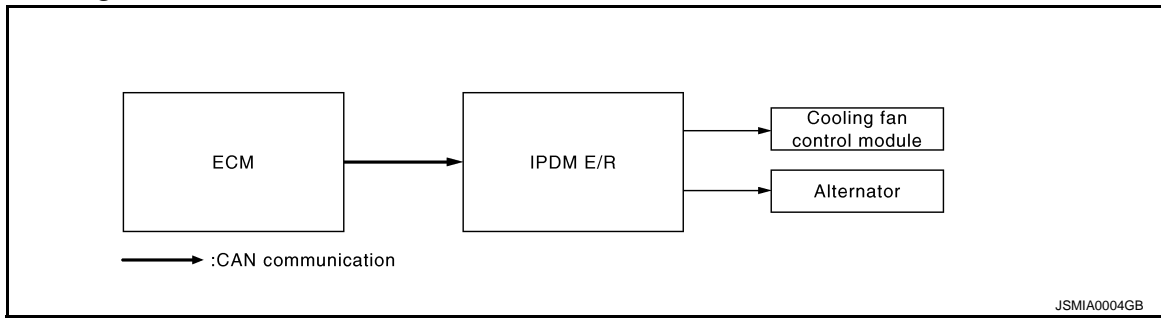
POWER CONTROL SYSTEM

< SYSTEM DESCRIPTION >

[IPDM E/R]

POWER CONTROL SYSTEM

System Diagram



System Description

INFOID:000000007458083

COOLING FAN CONTROL

IPDM E/R outputs pulse duty signal (PWM signal) to the cooling fan control module according to the status of the cooling fan speed request signal received from ECM via CAN communication. Refer to [EC-83, "System Diagram"](#).

ALTERNATOR CONTROL

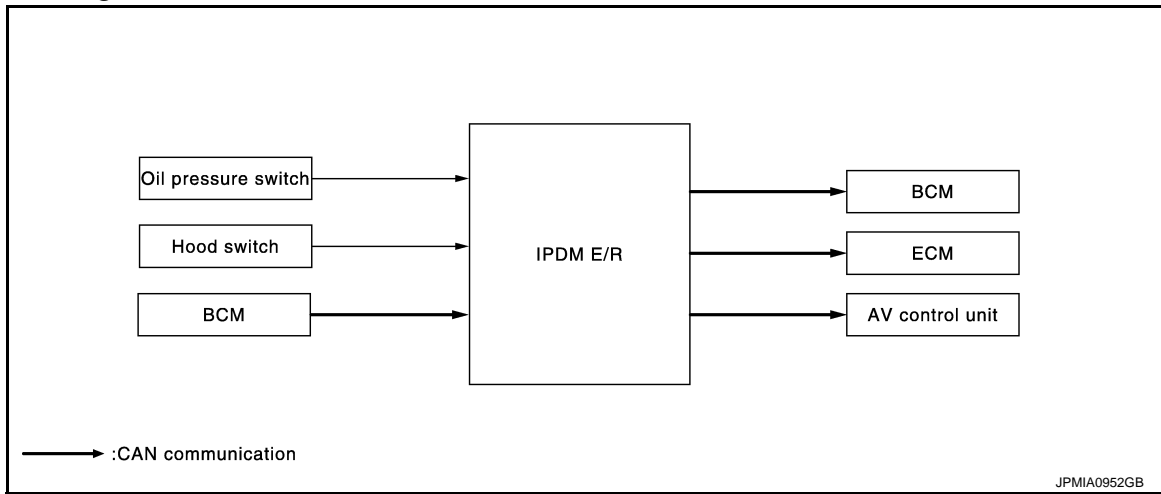
IPDM E/R outputs power generation command signal (PWM signal) to the alternator according to the status of the power generation command value signal received from ECM via CAN communication. Refer to [CHG-12, "System Diagram"](#).

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SIGNAL BUFFER SYSTEM

System Diagram

INFOID:000000007458084



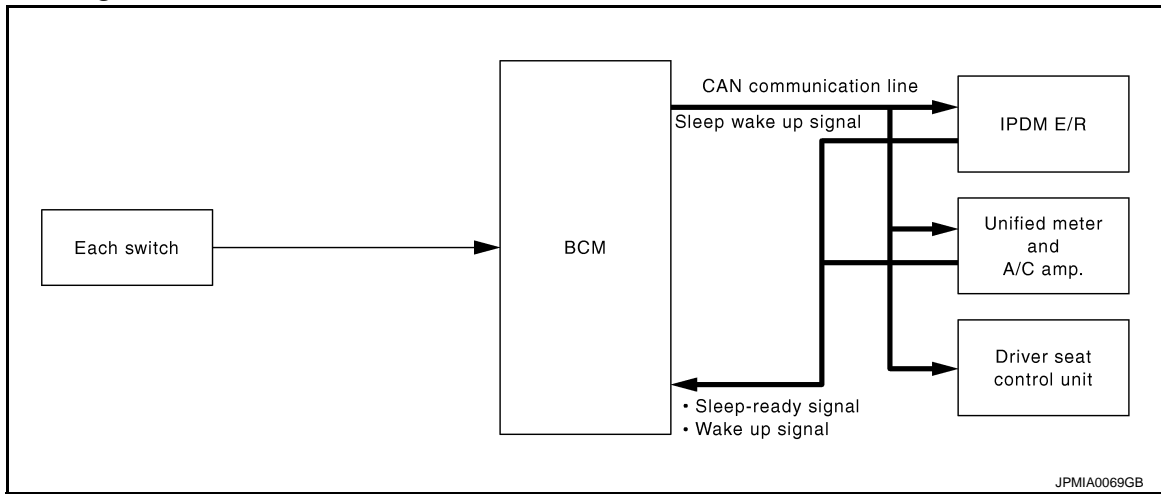
System Description

INFOID:000000007458085

- IPDM E/R reads the status of the oil pressure switch and transmits the oil pressure switch signal to BCM via CAN communication. Refer to [MWI-25, "WARNING LAMPS/INDICATOR LAMPS : System Diagram"](#).
- IPDM E/R reads the status of the hood switch and transmits the hood switch signal to BCM via CAN communication. Refer to [SEC-88, "Description"](#).
- IPDM E/R receives the rear window defogger control signal from BCM via CAN communication and transmits it to ECM and AV control unit via CAN communication. Refer to [DEF-4, "System Diagram"](#).

POWER CONSUMPTION CONTROL SYSTEM

System Diagram



System Description

INFOID:000000007458087

OUTLINE

- IPDM E/R incorporates a power consumption control function that reduces the power consumption according to the vehicle status.
- IPDM E/R changes its status (control mode) with the sleep wake up signal received from BCM via CAN communication.

Normal mode (wake-up)

- CAN communication is normally performed with other control units.
- Individual unit control by IPDM E/R is normally performed.

Low power consumption mode (sleep)

- Low power consumption control is active.
- CAN transmission is stopped.

SLEEP MODE ACTIVATION

- IPDM E/R judges that the sleep-ready conditions are fulfilled when the ignition switch is OFF and none of the conditions below are present. Then it transmits a sleep-ready signal (ready) to BCM via CAN communication.
- Outputting signals to actuators
- Switches or relays operating
- Hood switch status is kept 50 ms or less.
- Output requests are being received from control units via CAN communication.
- IPDM E/R stops CAN communication and enters the low power consumption mode when it receives a sleep wake up signal (sleep) from BCM and the sleep-ready conditions are fulfilled.

WAKE-UP OPERATION

- IPDM E/R changes from the low power consumption mode to the normal mode when it receives a sleep wake-up signal (wake up) from BCM or any of the following conditions is fulfilled. In addition, it transmits a sleep-ready signal (not-ready) to BCM via CAN communication to report the CAN communication start.
- Ignition switch ON
- The hood switch status changes.
- An output request is received from a control unit via CAN communication.

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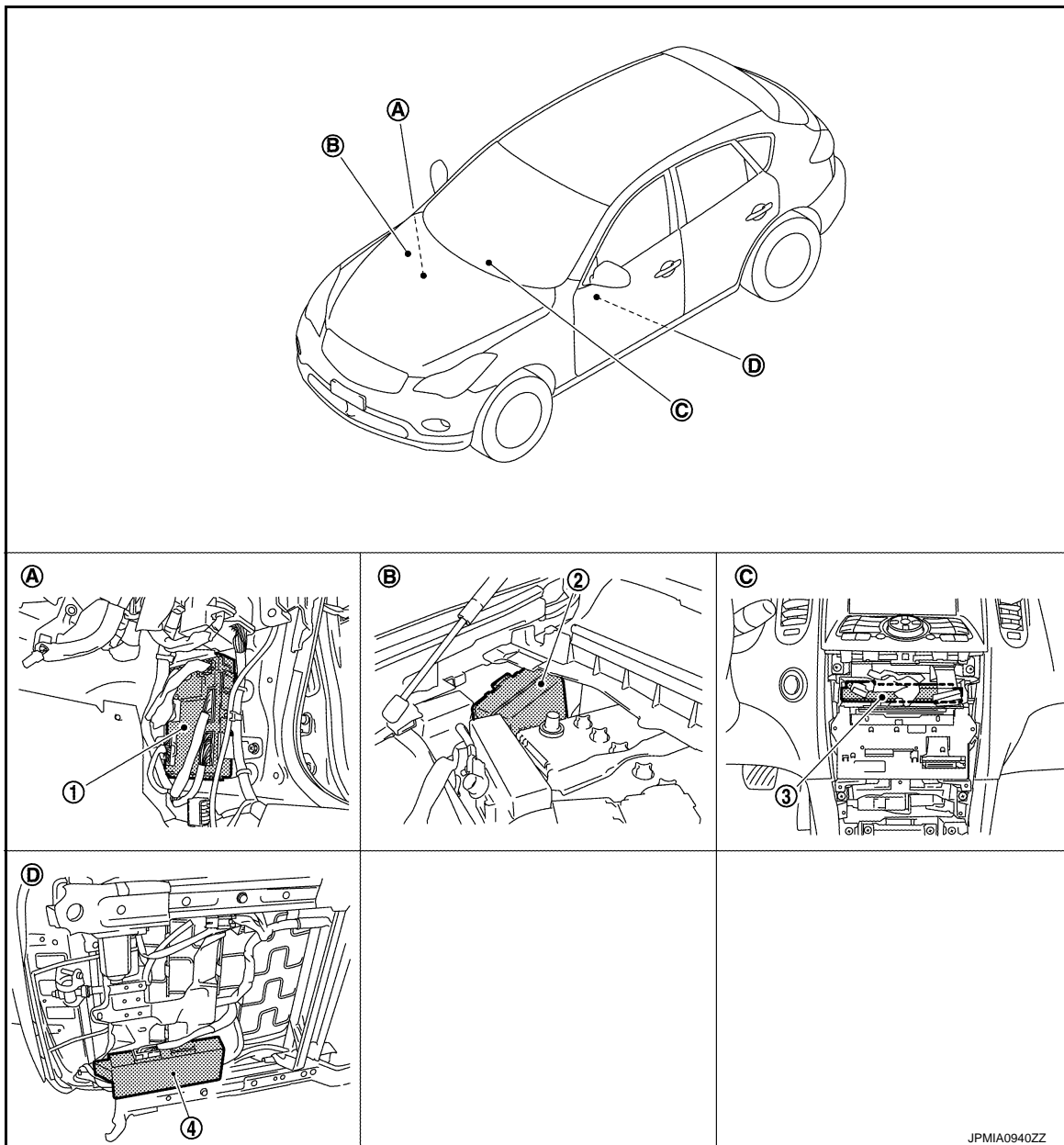
POWER CONSUMPTION CONTROL SYSTEM

< SYSTEM DESCRIPTION >

[IPDM E/R]

Component Parts Location

INFOID:000000007458088



- | | | |
|---|--------------------------------|-------------------------------|
| 1. BCM | 2. IPDM E/R | 3. Unified meter and A/C amp. |
| 4. Driver seat control unit | | |
| A. Dash side lower (passenger side) | B. Engine room dash panel (RH) | C. Behind cluster lid C |
| D. Backside of the seat cushion (driver seat) | | |

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DIAGNOSIS SYSTEM (IPDM E/R)

Diagnosis Description

INFOID:000000007458089

AUTO ACTIVE TEST

Description

In auto active test mode, the IPDM E/R sends a drive signal to the following systems to check their operation.

- Oil pressure warning lamp
- Front wiper (LO, HI)
- Parking lamps
- License plate lamps
- Side maker lamps
- Tail lamps
- Front fog lamps
- Headlamps (LO, HI)
- A/C compressor (magnet clutch)
- Cooling fan (cooling fan control module)

Operation Procedure

1. Close the hood and lift the wiper arms from the windshield. (Prevent windshield damage due to wiper operation)
NOTE:
When auto active test is performed with hood opened, sprinkle water on windshield beforehand.
2. Turn the ignition switch OFF.
3. Turn the ignition switch ON, and within 20 seconds, press the front door switch (driver side) 10 times. Then turn the ignition switch OFF.

CAUTION:

Close passenger door.

4. Turn the ignition switch ON within 10 seconds. After that the horn sounds once and the auto active test starts.
5. The oil pressure warning lamp starts blinking when the auto active test starts.
6. After a series of the following operations is repeated 3 times, auto active test is completed.

NOTE:

When auto active test mode has to be cancelled halfway through test, turn the ignition switch OFF.

CAUTION:

- If auto active test mode cannot be actuated, check door switch system. Refer to [DLK-67, "Component Function Check"](#).
- Do not start the engine.

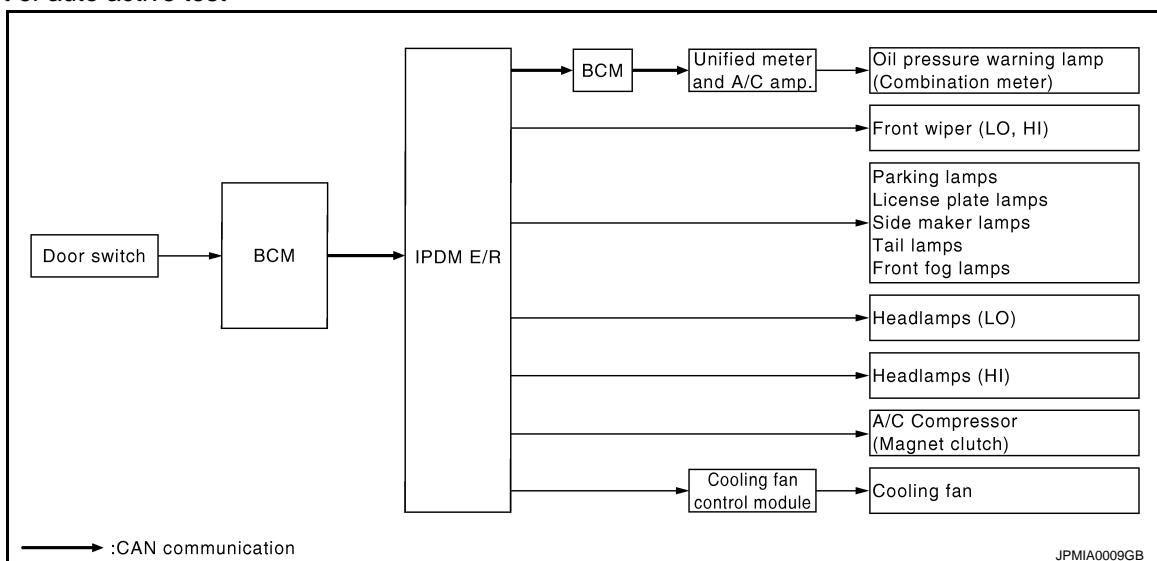
Inspection in Auto Active Test Mode

When auto active test mode is actuated, the following 6 steps are repeated 3 times.

Operation sequence	Inspection location	Operation
1	Oil pressure warning lamp	Blinks continuously during operation of auto active test
2	Front wiper	LO for 5 seconds → HI for 5 seconds
3	<ul style="list-style-type: none"> • Parking lamps • License plate lamps • Side maker lamps • Tail lamps • Front fog lamps 	10 seconds
4	Headlamps	<ul style="list-style-type: none"> • LO 10 seconds • HI ON ⇔ OFF 5 times
5	A/C compressor (magnet clutch)	ON ⇔ OFF 5 times
6*	Cooling fan	MID for 5 seconds → HI for 5 seconds

*: Outputs duty ratio of 50% for 5 seconds → duty ratio of 100% for 5 seconds on the cooling fan control module.

Concept of auto active test



- IPDM E/R starts the auto active test with the door switch signals transmitted by BCM via CAN communication. Therefore, the CAN communication line between IPDM E/R and BCM is considered normal if the auto active test starts successfully.
- The auto active test facilitates troubleshooting if any systems controlled by IPDM E/R cannot be operated.

Diagnosis chart in auto active test mode

Symptom	Inspection contents	Possible cause
Any of the following components do not operate <ul style="list-style-type: none"> • Parking lamps • License plate lamps • Side marker lamps • Tail lamps • Front fog lamps • Headlamp (HI, LO) • Front wiper (HI, LO) 	Perform auto active test. Does the applicable system operate?	YES BCM signal input circuit
		NO <ul style="list-style-type: none"> • Lamp or motor • Lamp or motor ground circuit • Harness or connector between IPDM E/R and applicable system • IPDM E/R
A/C compressor does not operate	Perform auto active test. Does the magnet clutch operate?	YES <ul style="list-style-type: none"> • Unified meter and A/C amp. signal input circuit • CAN communication signal between unified meter and A/C amp. and ECM • CAN communication signal between ECM and IPDM E/R
		NO <ul style="list-style-type: none"> • Magnet clutch • Harness or connector between IPDM E/R and magnet clutch • IPDM E/R
Oil pressure warning lamp does not operate	Perform auto active test. Does the oil pressure warning lamp blink?	YES <ul style="list-style-type: none"> • Harness or connector between IPDM E/R and oil pressure switch • Oil pressure switch • IPDM E/R
		NO <ul style="list-style-type: none"> • CAN communication signal between IPDM E/R and BCM • CAN communication signal between BCM and unified meter and A/C amp. • Combination meter

DIAGNOSIS SYSTEM (IPDM E/R)

< SYSTEM DESCRIPTION >

[IPDM E/R]

Symptom	Inspection contents		Possible cause
Cooling fan does not operate	Perform auto active test. Does the cooling fan operate?	YES	<ul style="list-style-type: none"> ECM signal input circuit CAN communication signal between ECM and IPDM E/R
		NO	<ul style="list-style-type: none"> Cooling fan Harness or connector between cooling fan and cooling fan control module Cooling fan control module Harness or connector between IPDM E/R and cooling fan control module Cooling fan relay Harness or connector between IPDM E/R and cooling fan relay IPDM E/R

CONSULT Function (IPDM E/R)

INFOID:000000007458090

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with IPDM E/R.

Diagnosis mode	Description
Ecu Identification	Allows confirmation of IPDM E/R part number.
Self Diagnostic Result	Displays the diagnosis results judged by IPDM E/R.
Data Monitor	Displays the real-time input/output data from IPDM E/R input/output data.
Active Test	IPDM E/R can provide a drive signal to electronic components to check their operations.
CAN Diag Support Monitor	The results of transmit/receive diagnosis of CAN communication can be read.

SELF DIAGNOSTIC RESULT

Refer to [PCS-30, "DTC Index"](#).

DATA MONITOR

Monitor item

Monitor Item [Unit]	MAIN SIG- NALS	Description
RAD FAN REQ [%]	×	Displays the value of the cooling fan speed signal received from ECM via CAN communication.
AC COMP REQ [Off/On]	×	Displays the status of the A/C compressor request signal received from ECM via CAN communication.
TAIL&CLR REQ [Off/On]	×	Displays the status of the position light request signal received from BCM via CAN communication.
HL LO REQ [Off/On]	×	Displays the status of the low beam request signal received from BCM via CAN communication.
HL HI REQ [Off/On]	×	Displays the status of the high beam request signal received from BCM via CAN communication.
FR FOG REQ [Off/On]	×	Displays the status of the front fog light request signal received from BCM via CAN communication.
FR WIP REQ [Stop/1LOW/Low/Hi]	×	Displays the status of the front wiper request signal received from BCM via CAN communication.
WIP AUTO STOP [STOP P/ACT P]	×	Displays the status of the front wiper auto stop signal judged by IPDM E/R.
WIP PROT [Off/BLOCK]	×	Displays the status of the front wiper fail-safe operation judged by IPDM E/R.

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DIAGNOSIS SYSTEM (IPDM E/R)

< SYSTEM DESCRIPTION >

[IPDM E/R]

Monitor Item [Unit]	MAIN SIG- NALS	Description
IGN RLY1 -REQ [Off/On]		Displays the status of the ignition switch ON signal received from BCM via CAN communication.
IGN RLY [Off/On]	×	Displays the status of the ignition relay judged by IPDM E/R.
PUSH SW [Off/On]		Displays the status of the push-button ignition switch judged by IPDM E/R.
INTER/NP SW [Off/On]		Displays the status of the shift position judged by IPDM E/R.
ST RLY CONT [Off/On]		Displays the status of the starter relay status signal received from BCM via CAN communication.
IHBT RLY -REQ [Off/On]		Displays the status of the starter control relay signal received from BCM via CAN communication.
ST/INHI RLY [Off/ ST ON/INHI ON/UNKWN]		Displays the status of the starter relay and starter control relay judged by IPDM E/R.
DETENT SW [Off/On]		Displays the status of the A/T shift selector (detention switch) judged by IPDM E/R.
S/L RLY -REQ [Off/On]		Displays the status of the steering lock relay request received from BCM via CAN communication. NOTE: For models without steering lock unit, this item is not monitored.
S/L STATE [LOCK/UNLOCK/UNKWN]		Displays the status of the steering lock judged by IPDM E/R. NOTE: For models without steering lock unit, this item is not monitored.
DTRL REQ [Off/On]		NOTE: The item is indicated, but not monitored.
OIL P SW [Open/Close]		Displays the status of the oil pressure switch judged by IPDM E/R.
HOOD SW [Off/On]		Displays the status of the hood switch judged by IPDM E/R.
HL WASHER REQ [Off/On]		NOTE: The item is indicated, but not monitored.
THFT HRN REQ [Off/On]		Displays the status of the theft warning horn request signal received from BCM via CAN communication.
HORN CHIRP [Off/On]		Displays the status of the horn reminder signal received from BCM via CAN communication.
CRNRNG LMP REQ [Off/On]		NOTE: The item is indicated, but not monitored.

ACTIVE TEST

Test item

Test item	Operation	Description
CORNERING LAMP	Off	NOTE: The item is indicated, but cannot be tested.
	LH	
	RH	
HORN	On	Operates horn relay 1 and horn relay 2 for 20 ms.
FRONT WIPER	Off	OFF
	Lo	Operates the front wiper relay.
	Hi	Operates the front wiper relay and front wiper high relay.

DIAGNOSIS SYSTEM (IPDM E/R)

< SYSTEM DESCRIPTION >

[IPDM E/R]

Test item	Operation	Description
MOTOR FAN	1	OFF
	2	Outputs 50% pulse duty signal (PWM signal) to the cooling fan control module.
	3	Outputs 80% pulse duty signal (PWM signal) to the cooling fan control module.
	4	Outputs 100% pulse duty signal (PWM signal) to the cooling fan control module.
HEAD LAMP WASHER	On	NOTE: The item is indicated, but cannot be tested.
EXTERNAL LAMPS	Off	OFF
	TAIL	Operates the tail lamp relay.
	Lo	Operates the headlamp low relay.
	Hi	Operates the headlamp low relay and ON/OFF the headlamp high relay at 1 second intervals.
	Fog	Operates the front fog lamp relay.

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DTC/CIRCUIT DIAGNOSIS**U1000 CAN COMM CIRCUIT****Description**

INFOID:000000007458091

CAN (Controller Area Network) is a serial communication line for real time applications. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Modern vehicle is equipped with many electronic control unit, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN-H line, CAN-L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

CAN Communication Signal Chart. Refer to [LAN-25, "CAN Communication Signal Chart"](#).

DTC Logic

INFOID:000000007458092

DTC DETECTION LOGIC

DTC	CONSULT display description	DTC Detection Condition	Possible cause
U1000	CAN COMM CIRCUIT	When IPDM E/R cannot communicate CAN communication signal continuously for 2 seconds or more	CAN communication system

Diagnosis Procedure

INFOID:000000007458093

1.PERFORM SELF DIAGNOSTIC

1. Turn the ignition switch ON and wait for 2 seconds or more.
2. Check "Self Diagnostic Result" of IPDM E/R.

Is DTC "U1000" displayed?

- YES >> Refer to [LAN-16, "Trouble Diagnosis Flow Chart"](#).
- NO >> Refer to [GI-42, "Intermittent Incident"](#).

B2098 IGNITION RELAY ON STUCK

< DTC/CIRCUIT DIAGNOSIS >

[IPDM E/R]

B2098 IGNITION RELAY ON STUCK

Description

INFOID:000000007458094

- IPDM E/R operates the ignition relay when it receives an ignition switch ON signal from BCM via CAN communication.
- Turn the ignition relay OFF by pressing the push-button ignition switch once when the vehicle speed is 4 km/h (2.5 MPH) or less.
- Turn the ignition relay OFF with the following operation when the vehicle speed is more than 4 km/h (2.5 MPH) or when an abnormal condition occurs in CAN communication from the unified meter and A/C amp.(Emergency OFF)
 - Press and hold the push-button ignition switch for 2 seconds or more.
 - Press the push-button ignition switch 3 times within 1.5 seconds.

NOTE:

The ignition relay does not turn ON for 3 seconds after emergency OFF even if the push-button ignition switch is pressed.

DTC Logic

INFOID:000000007458095

DTC DETECTION LOGIC

DTC	CONSULT display description	DTC Detection Condition	Possible causes
B2098	IGN RELAY ON	The ignition relay ON is detected for 1 second at ignition switch OFF (CPU monitors the status at the contact and excitation coil circuits of the ignition relay inside it)	Ignition relay malfunction

Diagnosis Procedure

INFOID:000000007458096

1.PERFORM SELF DIAGNOSIS

1. Turn the ignition switch ON.
2. Erase "Self Diagnostic Result" of IPDM E/R.
3. Turn the ignition switch OFF, and wait for 1 second or more.
4. Turn the ignition switch ON. Check "Self Diagnostic Result" again.

Is DTC "B2098" displayed?

- YES >> Replace IPDM E/R.
NO >> Refer to [GI-42, "Intermittent Incident"](#).

PCS

B2099 IGNITION RELAY OFF STUCK

< DTC/CIRCUIT DIAGNOSIS >

[IPDM E/R]

B2099 IGNITION RELAY OFF STUCK

Description

INFOID:000000007458097

- IPDM E/R operates the ignition relay when it receives an ignition switch ON signal from BCM via CAN communication.
- Turn the ignition relay OFF by pressing the push-button ignition switch once when the vehicle speed is 4 km/h (2.5 MPH) or less.
- Turn the ignition relay OFF with the following operation when the vehicle speed is more than 4 km/h (2.5 MPH) or when an abnormal condition occurs in CAN communication from the unified meter and A/C amp.(Emergency OFF)
 - Press and hold the push-button ignition switch for 2 seconds or more.
 - Press the push-button ignition switch 3 times within 1.5 seconds.

NOTE:

The ignition relay does not turn ON for 3 seconds after emergency OFF even if the push-button ignition switch is pressed.

DTC Logic

INFOID:000000007458098

DTC DETECTION LOGIC

DTC	CONSULT display description	DTC Detection Condition	Possible causes
B2099	IGN RELAY OFF	The ignition relay OFF is detected for 1 second at ignition switch ON (CPU monitors the status at the contact and excitation coil circuits of the ignition relay inside it)	Ignition relay malfunction

NOTE:

When IPDM E/R power supply voltage is low (Approx. 7 - 8 V for about 1 second), the "DTC: B2099" may be detected.

Diagnosis Procedure

INFOID:000000007458099

1.PERFORM SELF DIAGNOSIS

1. Turn the ignition switch ON.
2. Erase "Self Diagnostic Result".
3. Turn the ignition switch OFF.
4. Turn the ignition switch ON. Check "Self Diagnostic Result" again.

Is DTC "B2099" displayed?

- YES >> Replace IPDM E/R.
- NO >> Refer to [GI-42, "Intermittent Incident"](#).

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[IPDM E/R]

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:000000007458100

1.CHECK FUSES AND FUSIBLE LINK

Check that the following IPDM E/R fuses or fusible links are not blown.

Signal name	Fuses and fusible link No.
Battery power supply	C
	50
	51

Is the fuse fusing?

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

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check voltage between IPDM E/R harness connector and the ground.

Terminals		Voltage (Approx.)
(+)	(-)	
IPDM E/R		Ground
Connector	Terminal	
E4	1	
		Battery voltage

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair the harness or connector.

3.CHECK GROUND CIRCUIT

Check continuity between IPDM E/R harness connectors and the ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		
E5	12		Existed
E6	41		

Does continuity exist?

YES >> INSPECTION END

NO >> Repair the harness or connector.

ECU DIAGNOSIS INFORMATION

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

Reference Value

INFOID:000000007458101

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition		Value/Status
RAD FAN REQ	Engine idle speed	Changes depending on engine coolant temperature, air conditioner operation status, vehicle speed, etc.	0 – 100 %
AC COMP REQ	Engine running	A/C switch OFF	Off
		A/C switch ON (Compressor is operating)	On
TAIL&CLR REQ	Lighting switch OFF		Off
	Lighting switch 1ST, 2ND, HI or AUTO (Light is illuminated)		On
HL LO REQ	Lighting switch OFF		Off
	Lighting switch 2ND HI or AUTO (Light is illuminated)		On
HL HI REQ	Lighting switch OFF		Off
	Lighting switch HI		On
FR FOG REQ	Lighting switch 2ND or AUTO (Light is illuminated)	Front fog lamp switch OFF	Off
		<ul style="list-style-type: none"> Front fog lamp switch ON Daytime running light activated (Only for Canada) 	On
FR WIP REQ	Ignition switch ON	Front wiper switch OFF	Stop
		Front wiper switch INT	1LOW
		Front wiper switch LO	Low
		Front wiper switch HI	Hi
WIP AUTO STOP	Ignition switch ON	Front wiper stop position	STOP P
		Any position other than front wiper stop position	ACT P
WIP PROT	Ignition switch ON	Front wiper operates normally	Off
		Front wiper stops at fail-safe operation	BLOCK
IGN RLY1 -REQ	Ignition switch OFF or ACC		Off
	Ignition switch ON		On
IGN RLY	Ignition switch OFF or ACC		Off
	Ignition switch ON		On
PUSH SW	Release the push-button ignition switch		Off
	Press the push-button ignition switch		On
INTER/NP SW	Ignition switch ON	Selector lever in any position other than P or N	Off
		Selector lever in P or N position	On
ST RLY CONT	Ignition switch ON		Off
	At engine cranking		On
IHBT RLY -REQ	Ignition switch ON		Off
	At engine cranking		On

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION > [IPDM E/R]

Monitor Item	Condition		Value/Status
ST/INHI RLY	Ignition switch ON		Off
	At engine cranking		INHI ON → ST ON
	The status of starter relay or starter control relay cannot be recognized by the battery voltage malfunction, etc. when the starter relay is ON and the starter control relay is OFF		UNKWN
DETENT SW	Ignition switch ON	<ul style="list-style-type: none"> Press the selector button with selector lever in P position Selector lever in any position other than P 	Off
		Release the selector button with selector lever in P position	On
S/L RLY -REQ	NOTE: The item is indicated, but not monitored.		Off
S/L STATE	NOTE: The item is indicated, but not monitored.		UNLOCK
DTRL REQ	NOTE: The item is indicated, but not monitored.		Off
OIL P SW	Ignition switch OFF, ACC or engine running		Open
	Ignition switch ON		Close
HOOD SW	Close the hood		Off
	Open the hood		On
HL WASHER REQ	NOTE: The item is indicated, but not monitored.		Off
THFT HRN REQ	Not operation		Off
	<ul style="list-style-type: none"> Panic alarm is activated Horn is activated with VEHICLE SECURITY (THEFT WARNING) SYSTEM 		On
HORN CHIRP	Not operating		Off
	Door locking with Intelligent Key (horn chirp mode)		On
CRNRNG LMP REQ	NOTE: The item is indicated, but not monitored.		Off

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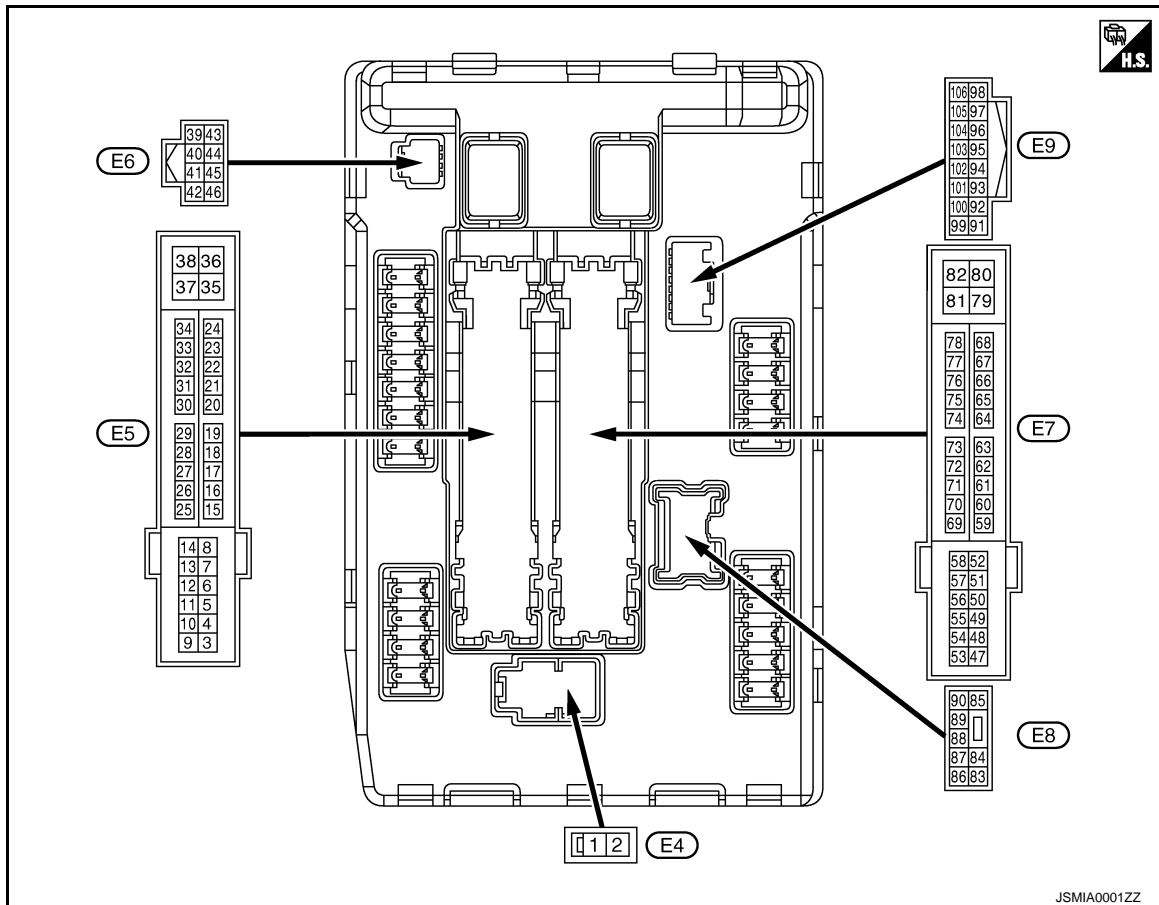
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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

[IPDM E/R]

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
1 (W)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (L)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
4 (V)	Ground	Front wiper LO	Output	Ignition switch ON	Front wiper switch OFF	0 V
					Front wiper switch LO	Battery voltage
5 (L)	Ground	Front wiper HI	Output	Ignition switch ON	Front wiper switch OFF	0 V
					Front wiper switch HI	Battery voltage
7 (R)	Ground	Tail, license plate lamps & interior lamps	Output	Ignition switch ON	Lighting switch OFF	0 V
					Lighting switch 1ST	Battery voltage
12 (B/W)	Ground	Ground	—	Ignition switch ON		0 V
13 (Y)	Ground	Fuel pump power supply	Output	Approximately 1 second or more after turning the ignition switch ON		0 V
				<ul style="list-style-type: none"> Approximately 1 second after turning the ignition switch ON Engine running 		Battery voltage
16 (LG)	Ground	Front wiper auto stop	Input	Ignition switch ON	Front wiper stop position	0 V
					Any position other than front wiper stop position	Battery voltage

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

[IPDM E/R]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)	
+	—	Signal name	Input/ Output				
19 (W)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V	A
				Ignition switch ON		Battery voltage	B
25 (G)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V	C
				Ignition switch ON		Battery voltage	C
26* (R)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V	D
				Ignition switch ON		Battery voltage	D
27 (BG)	Ground	Ignition relay monitor	Input	Ignition switch OFF or ACC		Battery voltage	E
				Ignition switch ON		0 V	E
28 (L)	Ground	Push-button ignition switch	Input	Press the push-button ignition switch		0 V	F
				Release the push-button ignition switch		Battery voltage	F
30 (GR)	Ground	Starter relay control	Input	Ignition switch ON	Selector lever in any position other than P or N	0 V	G
					Selector lever P or N	Battery voltage	G
36 (G)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage	H
39 (P)	—	CAN-L	Input/ Output	—		—	I
40 (L)	—	CAN-H	Input/ Output	—		—	I
41 (B/W)	Ground	Ground	—	Ignition switch ON		0 V	J
42 (Y)	Ground	Cooling fan relay control	Input	Ignition switch OFF or ACC		0 V	K
				Ignition switch ON		0.7 V	K
43 (SB)	Ground	A/T shift selector (Detention switch)	Input	Ignition switch ON	• Press the selector button (Selector lever P) • Selector lever in any position other than P	Battery voltage	L
					Release the selector button (selector lever P)	0 V	L
44 (BR)	Ground	Horn relay control	Input	The horn is deactivated		Battery voltage	M
				The horn is activated		0 V	M
45 (G)	Ground	Anti theft horn relay control	Input	The horn is deactivated		Battery voltage	N
				The horn is activated		0 V	N
46 (R)	Ground	Starter relay control	Input	Ignition switch ON	Selector lever in any position other than P or N	0 V	O
					Selector lever P or N	Battery voltage	O
48 (L)	Ground	A/C relay power supply	Output	Engine running	A/C switch OFF	0 V	P
					A/C switch ON (A/C compressor is operating)	Battery voltage	P
49 (BG)	Ground	ECM relay power supply	Output	Ignition switch OFF (More than a few seconds after turning ignition switch OFF)		0 V	Q
				• Ignition switch ON • Ignition switch OFF (For a few seconds after turning ignition switch OFF)		Battery voltage	Q

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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

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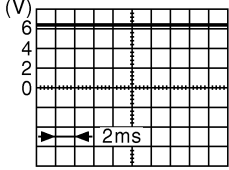
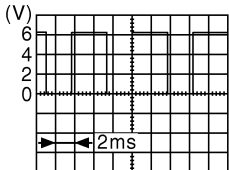
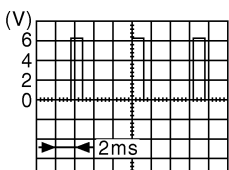
[IPDM E/R]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
51 (Y)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
53 (W)	Ground	ECM relay power supply	Output	Ignition switch OFF (More than a few seconds after turning ignition switch OFF)		0 V
				<ul style="list-style-type: none"> Ignition switch ON Ignition switch OFF (For a few seconds after turning igni- tion switch OFF) 		Battery voltage
54 (P)	Ground	Throttle control motor re- lay power supply	Output	Ignition switch OFF (More than a few seconds after turning ignition switch OFF)		0 V
				<ul style="list-style-type: none"> Ignition switch ON Ignition switch OFF (For a few seconds after turning igni- tion switch OFF) 		Battery voltage
55 (SB)	Ground	ECM power supply	Output	Ignition switch OFF		Battery voltage
56 (LG)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
57 (G)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
58 (V)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
69 (BR)	Ground	ECM relay control	Output	Ignition switch OFF (More than a few seconds after turning ignition switch OFF)		Battery voltage
				<ul style="list-style-type: none"> Ignition switch ON Ignition switch OFF (For a few seconds after turning igni- tion switch OFF) 		0 – 1.5 V
70 (BG)	Ground	Throttle control motor re- lay control	Output	Ignition switch ON → OFF		0 – 1.0 V ↓ Battery voltage ↓ 0 V
				Ignition switch ON		0 – 1.0 V
74 (P)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
75 (SB)	Ground	Oil pressure switch	Input	Ignition switch ON	Engine stopped	0 V
					Engine running	Battery voltage

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

[IPDM E/R]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
76 (Y)	Ground	Power generation command signal	Output	Ignition switch ON		 <p>JPMIA0001GB 6.3 V</p>
				40% is set on "ACTIVE TEST", "ALTERNATOR DUTY" of "ENGINE"		 <p>JPMIA0002GB 3.8 V</p>
				80% is set on "ACTIVE TEST", "ALTERNATOR DUTY" of "ENGINE"		 <p>JPMIA0003GB 1.4 V</p>
77 (R)	Ground	Fuel pump relay control	Output	<ul style="list-style-type: none"> Approximately 1 second after turning the ignition switch ON Engine running 		0 – 1.0 V
				Approximately 1 second or more after turning the ignition switch ON		Battery voltage
80 (W)	Ground	Starter motor	Output	At engine cranking		Battery voltage
83 (BG)	Ground	Headlamp LO (RH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					Lighting switch 2ND	Battery voltage
84 (V)	Ground	Headlamp LO (LH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					Lighting switch 2ND	Battery voltage
86 (W)	Ground	Front fog lamp (RH)	Output	Lighting switch 2ND	Front fog lamp switch OFF	0 V
					<ul style="list-style-type: none"> Front fog lamp switch ON Daytime running light activated (Only for Canada) 	Battery voltage
87 (L)	Ground	Front fog lamp (LH)	Output	Lighting switch 2ND	Front fog lamp switch OFF	0 V
					<ul style="list-style-type: none"> Front fog lamp switch ON Daytime running light activated (Only for Canada) 	Battery voltage
88 (GR)	Ground	Washer pump power supply	Output	Ignition switch ON		Battery voltage

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PCS

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P

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

[IPDM E/R]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
89 (BR)	Ground	Headlamp HI (RH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					<ul style="list-style-type: none"> • Lighting switch HI • Lighting switch PASS 	Battery voltage
90 (P)	Ground	Headlamp HI (LH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					<ul style="list-style-type: none"> • Lighting switch HI • Lighting switch PASS 	Battery voltage
91 (P)	Ground	Parking lamp (RH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					Lighting switch 1ST	Battery voltage
92 (BG)	Ground	Parking lamp (LH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					Lighting switch 1ST	Battery voltage
97 (V)	Ground	Cooling fan control	Output	Engine idling		0 – 5 V
104 (LG)	Ground	Hood switch	Input	Close the hood		Battery voltage
				Open the hood		0 V

*: Only for the models with ICC system

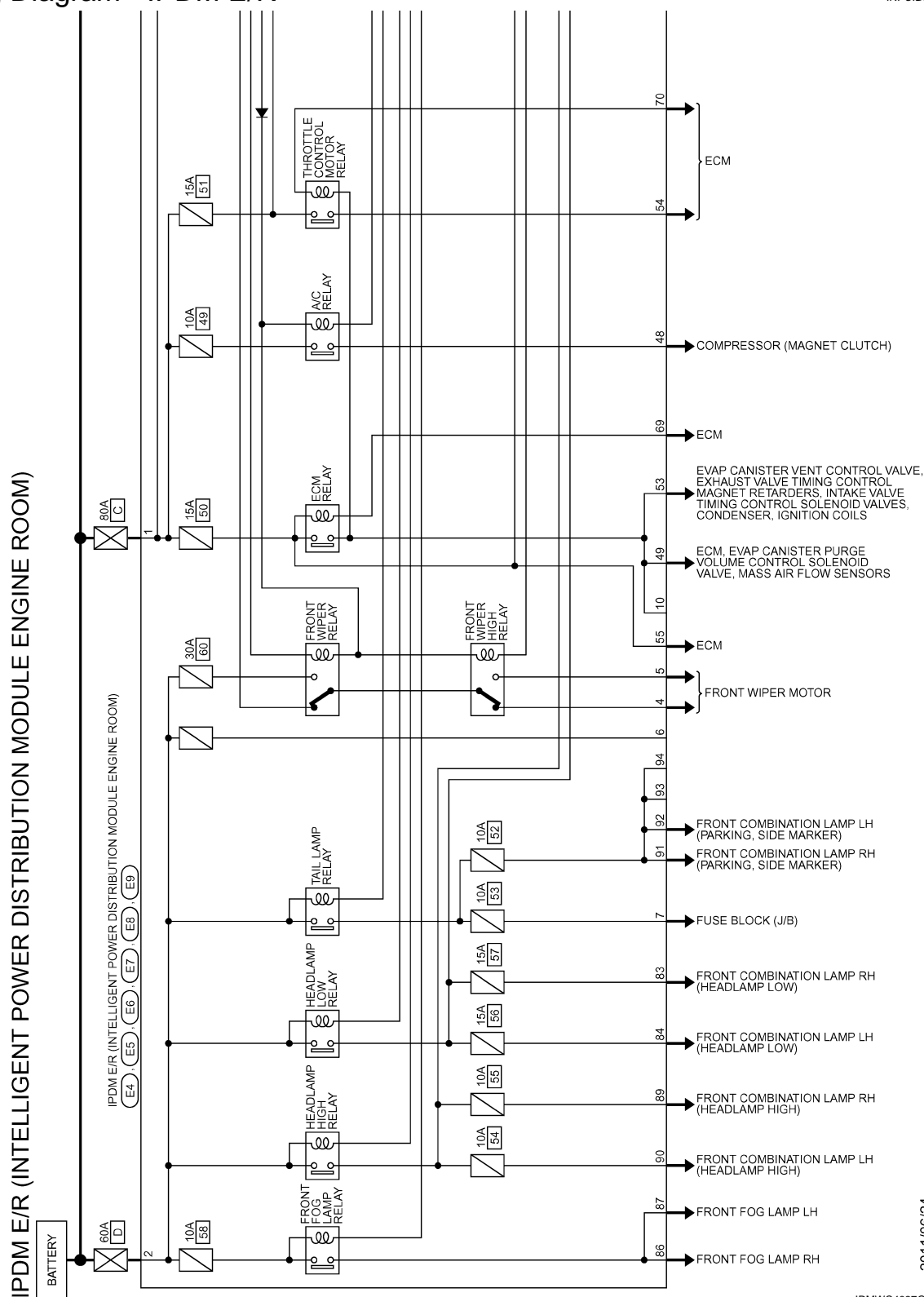
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

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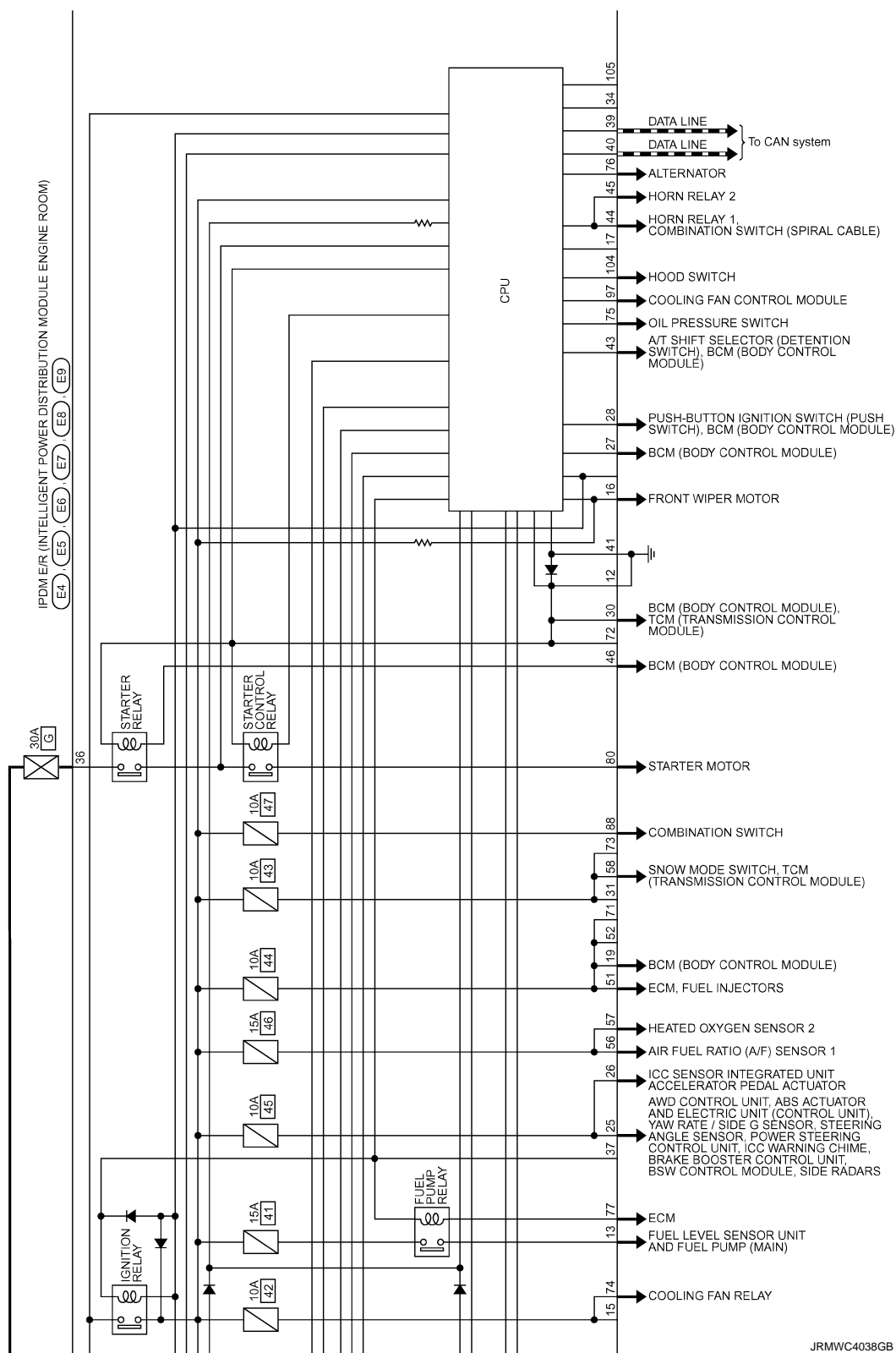
[IPDM E/R]

Wiring Diagram - IPDM E/R -

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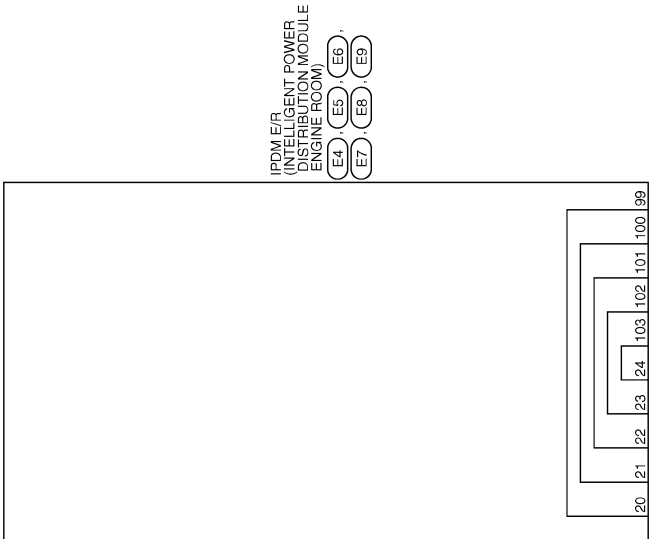
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< ECU DIAGNOSIS INFORMATION >

Connector No.	E4
Connector Name	IPDOW LYN INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	L02FB-MC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	L	-

Connector No.	E5
Connector Name	IP0V_E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH20FW-CS12-M4-1V




Terminal	Color Of Wire	Signal Name (Specification)
60	White	-
5	White	-
5	White	-
7	R	-
12	6W	-
13	Y	-
16	LG	-
19	W	-
25	G	-
26	R	-
27	BG	-
28	L	-
30	GN	-
36	-	-

Connector No.	E6
Connector Name	IPDM (L/R) INTELLIGENT POWER DISTRIBUTION (MODULE ENGINE ROOM)
Connector Type	TH08FW-NH




Terminal No.	Color Of Wire	Signal Name [Specification]
39	P	-
40	L	-
41	B/W	-
43	SB	-
44	BR	-
45	G	-
46	R	-

Connector No.	E7
Connector Name	IPDM E/R INTELLIGENT POWER DISTRIBUTION (MODULE ENGINE ROOM)
Connector Type	TH20FW-CS12-M4




53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
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Terminal No.	Color of Wire	Signal Name (Specification)
48	L	-
49	BG	-
51	Y	-
53	W	-
54	P	-
55	B	-
56	LG	-
57	G	-
58	M	-
69	BR	-
70	RG	-

75	SB	-
76	Y	-
77	R	-
80	W	-

Connector No.	E8
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	N508FW-CS

													
	<table><tr><td></td><td></td><td>84</td><td>83</td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td>90</td><td>89</td><td>88</td><td>87 86</td></tr></table>			84	83					90	89	88	87 86
		84	83										
90	89	88	87 86										

Terminal No.	Color Of Wire	Signal Name [Specification]
83	BG	-
84	V	-
85	W	-
86	L	-
88	GR	-
89	BR	-
90	P	-

Connector No.	E9
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH16EJAH

Terminal No.	Color Of Wire	Signal Name [Specification]
91	P	-
92	BG	-
97	V	-
104	JG	-

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If No CAN Communication Is Available With ECM

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

[IPDM E/R]

Control part	Fail-safe operation
Cooling fan	<ul style="list-style-type: none"> Outputs the pulse duty signal (PWM signal) 100% when the ignition switch is turned ON Outputs the pulse duty signal (PWM signal) 0% when the ignition switch is turned OFF
A/C compressor	A/C relay OFF
Alternator	Outputs the power generation command signal (PWM signal) 0%

If No CAN Communication Is Available With BCM

Control part	Fail-safe operation
Headlamp	<ul style="list-style-type: none"> Turns ON the headlamp low relay when the ignition switch is turned ON Turns OFF the headlamp low relay when the ignition switch is turned OFF Headlamp high relay OFF
<ul style="list-style-type: none"> Parking lamps License plate lamps Side marker lamps Illuminations Tail lamps 	<ul style="list-style-type: none"> Turns ON the tail lamp relay when the ignition switch is turned ON Turns OFF the tail lamp relay when the ignition switch is turned OFF
Front wiper	<ul style="list-style-type: none"> The status just before activation of fail-safe control is maintained until the ignition switch is turned OFF while the front wiper is operating at LO or HI speed. The wiper is operated at LO speed until the ignition switch is turned OFF if the fail-safe control is activated while the front wiper is set in the INT mode and the front wiper motor is operating.
Front fog lamps	Front fog lamp relay OFF
Horn	Horn relay OFF
Ignition relay	The status just before activation of fail-safe is maintained.
Starter motor	Starter control relay OFF

IGNITION RELAY MALFUNCTION DETECTION FUNCTION

- IPDM E/R monitors the voltage at the contact circuit and excitation coil circuit of the ignition relay inside it.
- IPDM E/R judges the ignition relay error if the voltage differs between the contact circuit and the excitation coil circuit.
- If the ignition relay cannot turn OFF due to contact seizure, it activates the tail lamp relay for 10 minutes to alert the user to the ignition relay malfunction when the ignition switch is turned OFF.

Voltage judgment		IPDM E/R judgment	Operation
Ignition relay contact side	Ignition relay excitation coil side		
ON	ON	Ignition relay ON normal	—
OFF	OFF	Ignition relay OFF normal	—
ON	OFF	Ignition relay ON stuck	<ul style="list-style-type: none"> Detects DTC "B2098: IGN RELAY ON" Turns ON the tail lamp relay for 10 minutes
OFF	ON	Ignition relay OFF stuck	Detects DTC "B2099: IGN RELAY OFF"

FRONT WIPER CONTROL

IPDM E/R detects front wiper stop position by a front wiper stop position signal.

When a front wiper stop position signal is in the conditions listed below, IPDM E/R stops power supply to wiper after repeating a front wiper 10 seconds activation and 20 seconds stop five times.

Ignition switch	Front wiper switch	Front wiper stop position signal
ON	OFF	The front wiper stop position signal (stop position) cannot be input for 10 seconds.
	ON	The front wiper stop position signal does not change for 10 seconds.

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

[IPDM E/R]

NOTE:

This operation status can be confirmed on the IPDM E/R “Data Monitor” that displays “BLOCK” for the item “WIP PROT” while the wiper is stopped.

STARTER MOTOR PROTECTION FUNCTION

IPDM E/R turns OFF the starter control relay to protect the starter motor when the starter control relay remains active for 90 seconds.

DTC Index

INFOID:000000007458104

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 FFD (Freeze Frame data).
 - The number is 0 when is detected now.
 - The number increases like 1 → 2 ... 38 → 39 after returning to the normal condition whenever IGN OFF → ON.
 - The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.

×: Applicable

CONSULT display	Fail-safe	Reference
No DTC is detected. further testing may be required.	—	—
U1000: CAN COMM CIRCUIT	×	PCS-14
B2098: IGN RELAY ON	×	PCS-15
B2099: IGN RELAY OFF	—	PCS-16
B210B: START CONT RLY ON	—	SEC-77
B210C: START CONT RLY OFF	—	SEC-78
B210D: STARTER RELAY ON	—	SEC-79
B210E: STARTER RELAY OFF	—	SEC-80
B210F: INTRLCK/PNP SW ON	—	SEC-82
B2110: INTRLCK/PNP SW OFF	—	SEC-84

PRECAUTION

PRECAUTIONS

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

INFOID:000000007582523

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:

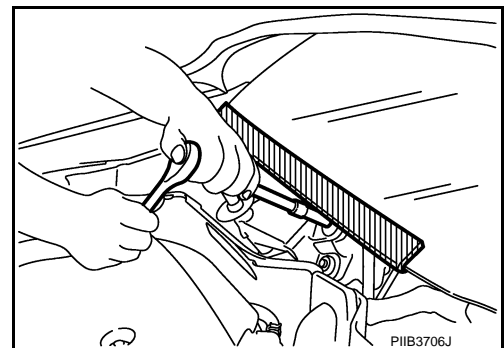
Always observe the following items for preventing accidental activation.

- 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 Procedure without Cowl Top Cover

INFOID:000000007582685

When performing the procedure after removing cowl top cover, cover the lower end of windshield with urethane, etc to prevent damage to windshield.



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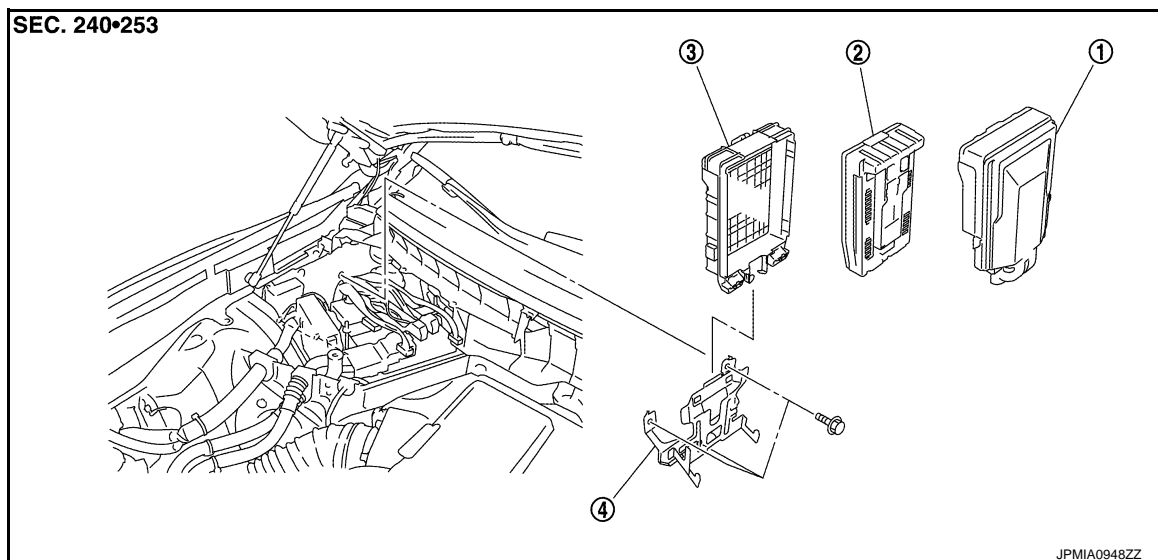
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REMOVAL AND INSTALLATION

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

Exploded View

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1. IPDM E/R cover A

2. IPDM E/R

3. IPDM E/R cover B

4. Bracket

Removal and Installation

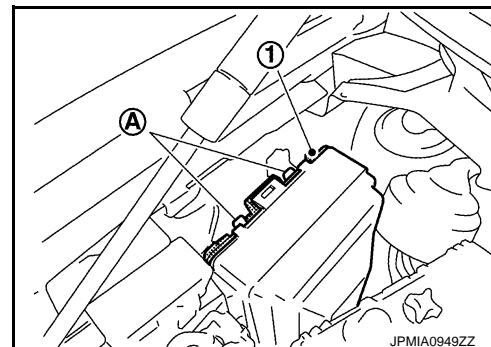
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CAUTION:

IPDM E/R integrated relays are not serviceable parts, and must not be removed from the unit.

REMOVAL

1. Disconnect the battery cable from the negative terminal.
2. Remove the cowl top cover (RH). Refer to [EXT-22, "Exploded View"](#).
3. Pull up the IPDM E/R assembly while pressing the pawls (A) on the back of the IPDM E/R cover B (1).

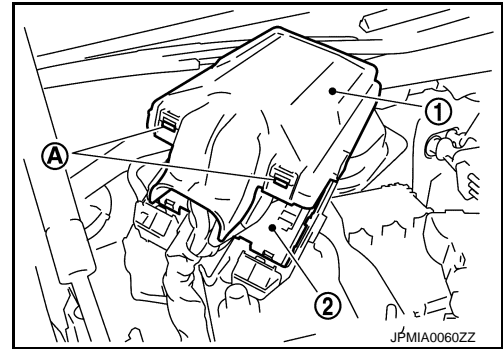


IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

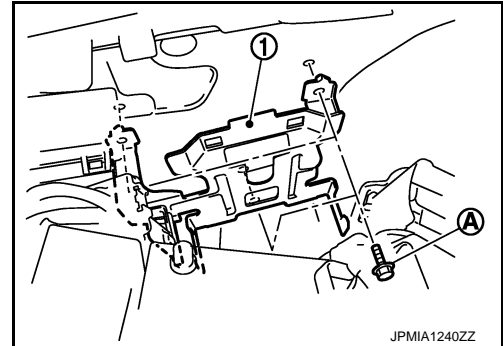
< REMOVAL AND INSTALLATION >

[IPDM E/R]

4. Remove the IPDM E/R cover A (1) while pressing the pawls (A) at the lower end of the IPDM E/R cover A.
5. Disconnect the harness connector and remove the IPDM E/R (2).



6. Remove the bolts (A) and remove the bracket (1) from the vehicle.



INSTALLATION

Install in the reverse order of removal.

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PCS

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[POWER DISTRIBUTION SYSTEM]

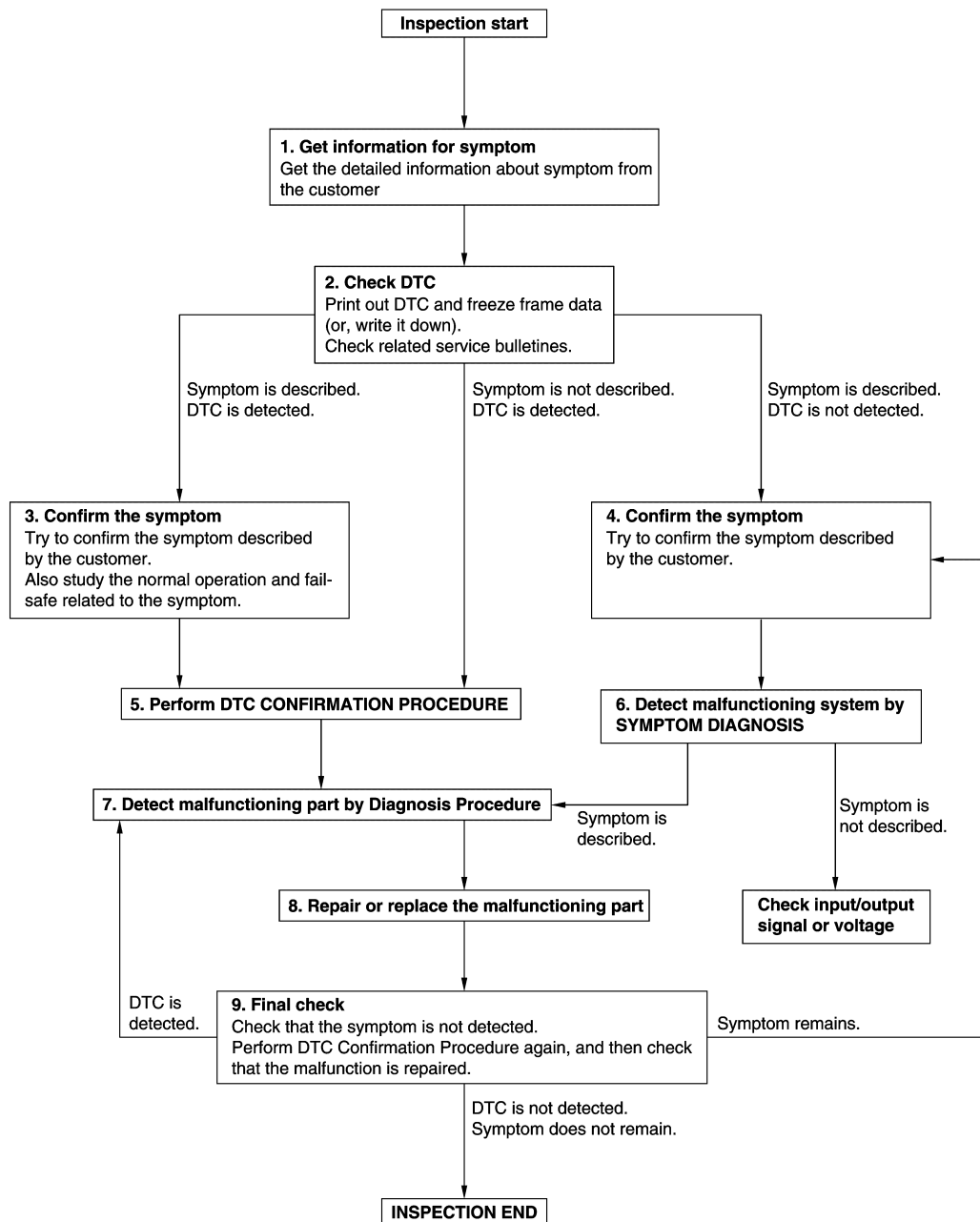
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:000000007583988

OVERALL SEQUENCE



JMKIA8652GB

DETAILED FLOW

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[POWER DISTRIBUTION SYSTEM]

1.GET INFORMATION FOR SYMPTOM

1. Get detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurs).
2. Check operation condition of the function that is malfunctioning.

>> GO TO 2.

2.CHECK DTC

1. Check DTC.
2. Perform the following procedure if DTC is detected.
 - Record DTC and freeze frame data (Print them out using CONSULT.)
 - Erase DTC.
 - Study the relationship between the cause detected by DTC and the symptom described by the customer.
3. Check related service bulletins for information.

Are any symptoms described and any DTC detected?

Symptom is described, DTC is detected>>GO TO 3.

Symptom is described, DTC is not detected>>GO TO 4.

Symptom is not described, DTC is detected>>GO TO 5.

3.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

Also study the normal operation and fail-safe related to the symptom.

Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 5.

4.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 6.

5.PERFORM DTC CONFIRMATION PROCEDURE

Perform DTC CONFIRMATION PROCEDURE for the detected DTC, and then check that DTC is detected again. At this time, always connect CONSULT to the vehicle, and check self diagnostic results in real time.

If two or more DTCs are detected, refer to [BCS-85. "DTC Inspection Priority Chart"](#) (BCM) or [PCS-30. "DTC Index"](#) (IPDM E/R), and determine trouble diagnosis order.

NOTE:

- Freeze frame data is useful if the DTC is not detected.
- Perform Component Function Check if DTC CONFIRMATION PROCEDURE is not included on Service Manual. This simplified check procedure is an effective alternative though DTC cannot be detected during this check.

If the result of Component Function Check is NG, it is the same as the detection of DTC by DTC CONFIRMATION PROCEDURE.

Is DTC detected?

YES >> GO TO 7.

NO >> Check according to [GI-42. "Intermittent Incident"](#).

6.DETECT MALFUNCTIONING SYSTEM BY SYMPTOM DIAGNOSIS

Detect malfunctioning system according to SYMPTOM DIAGNOSIS based on the confirmed symptom in step 4, and determine the trouble diagnosis order based on possible causes and symptom.

Is the symptom described?

YES >> GO TO 7.

NO >> Monitor input data from related sensors or check voltage of related module terminals using CONSULT.

7.DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[POWER DISTRIBUTION SYSTEM]

Inspect according to Diagnostic Procedure of the system.

Is malfunctioning part detected?

YES >> GO TO 8.

NO >> Check according to [GI-42, "Intermittent Incident"](#).

8. REPAIR OR REPLACE THE MALFUNCTIONING PART

1. Repair or replace the malfunctioning part.
2. Reconnect parts or connectors disconnected during Diagnostic Procedure again after repair and replacement.
3. Check DTC. If DTC is detected, erase it.

>> GO TO 9.

9. FINAL CHECK

When DTC is detected in step 2, perform DTC CONFIRMATION PROCEDURE again, and then check that the malfunction is repaired securely.

When symptom is described by the customer, refer to confirmed symptom in step 3 or 4, and check that the symptom is not detected.

Is DTC detected and does symptom remain?

YES-1 >> DTC is detected: GO TO 7.

YES-2 >> Symptom remains: GO TO 4.

NO >> Before returning the vehicle to the customer, always erase DTC.

SYSTEM DESCRIPTION

POWER DISTRIBUTION SYSTEM

System Description

INFOID:000000007458110

SYSTEM DESCRIPTION

- PDS (POWER DISTRIBUTION SYSTEM) is the system that BCM controls with the operation of the push-button ignition switch and performs the power distribution to each power circuit. This system is used instead of the mechanical power supply changing mechanism with the operation of the conventional key cylinder.
- The push-button ignition switch can be operated when Intelligent Key is in the following condition. Refer to Engine Start Function for details.
 - Intelligent Key is in the detection area of the inside key antenna
 - Insert Intelligent Key into the key slot
- The push-button ignition switch operation is input to BCM as a signal. BCM changes the power supply position according to the status and operates the following relays to supply power to each power circuit.
 - Ignition relay (built into IPDM E/R)
 - Ignition relay (inserted into fuse block)
 - ACC relay
 - Blower relay
- The power supply position changes due to the conditions of push-button ignition switch operation, brake pedal, selector lever and vehicle speed.

NOTE:

- The power supply position can be confirmed with the lighting of the indicators near the push-button ignition switch.
- For models without steering lock unit, power supply position changes from "OFF" to "LOCK" when steering lock conditions are satisfied.

BATTERY SAVER SYSTEM

When all the following conditions are met for 60 minutes, the battery saver system will cut off the power supply to prevent battery discharge.

- The ignition switch is in the ACC position
- All doors are closed
- Selector lever is in the P position

Reset Condition of Battery Saver System

In order to prevent the battery from discharging, the battery saver system will cut off the power supply when all doors are closed, the selector lever is on P position and the ignition switch is left on ACC position for 60 minutes. If any of the following conditions are met the battery saver system is released and the steering will change automatically to lock position from OFF position.

- Opening any door
- Operating with door key cylinder on door lock
- Operating with request switch on door lock
- Operating with Intelligent Key on door lock

Press push-button ignition switch and ignition switch will change to ACC position from OFF position.

POWER SUPPLY POSITION CHANGE TABLE BY PUSH-BUTTON IGNITION SWITCH OPERATION

The power supply position changing operation can be performed with the following operations.

NOTE:

- When an Intelligent Key is within the detection area of inside key antenna and when it is inserted to the key slot, it is equivalent to the operations below.
- When starting the engine, the BCM monitors under the engine start conditions,
 - Brake pedal operating condition
 - Selector lever position
 - Vehicle speed

Vehicle speed: less than 4 km/h (2.5 MPH)

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POWER DISTRIBUTION SYSTEM

< SYSTEM DESCRIPTION >

[POWER DISTRIBUTION SYSTEM]

Power supply position	Engine start/stop condition		Push-button ignition switch operation frequency
	Selector lever position	Brake pedal operation condition	
LOCK → ACC	—	Not depressed	1
LOCK → ACC → ON	—	Not depressed	2
LOCK → ACC → ON → OFF	—	Not depressed	3
LOCK → START ACC → START ON → START	P or N position	Depressed	1
Engine is running → OFF	—	—	1

Vehicle speed: 4 km/h (2.5 MPH) or more

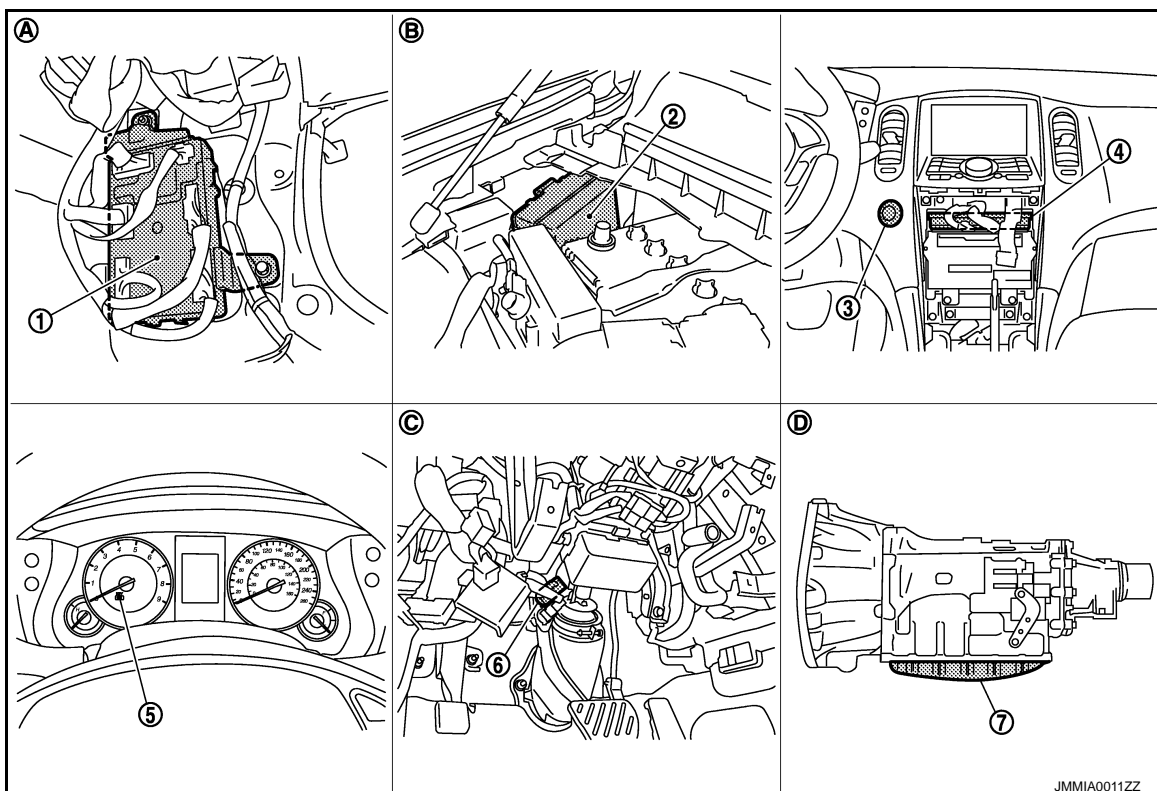
Power supply position	Engine start/stop condition		Push-button ignition switch operation frequency
	Selector lever position	Brake pedal operation condition	
Engine is running → ACC	—	—	Emergency stop operation
Engine stall return operation while driving	N position	Not depressed	1

Emergency stop operation

- Press and hold the push-button ignition switch for 2 seconds or more.
- Press the push-button ignition switch 3 times or more within 1.5 seconds.

Component Parts Location

INFOID:000000007458111



1. BCM M118, M119, M121, M122, M123
2. IPDM E/R E5, E6, E7
3. Push-button ignition switch M50
4. Unified meter and A/C amp. M66, M67
5. Combination meter (Key warning lamp) M53
6. Stop lamp switch E110
7. TCM F151 (built into A/T assembly)

JMMIA0011ZZ

POWER DISTRIBUTION SYSTEM

< SYSTEM DESCRIPTION >

[POWER DISTRIBUTION SYSTEM]

A. Dash side lower (passenger side)

B. Engine room dash panel (RH)

C. Behind the instrument driver lower panel

D. A/T assembly

Component Description

INFOID:000000007458112

Component	Reference
IPDM E/R	PCS-5
Ignition relay (Built-in IPDM E/R)	PCS-50
Ignition relay (Built-in fuse block)	PCS-48
Accessory relay	PCS-52
Blower relay	PCS-55
Stop lamp switch	SEC-47
Transmission range switch	SEC-62
Push-button ignition switch	PCS-65

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DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[POWER DISTRIBUTION SYSTEM]

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:000000007582805

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
Work Support	Changes the setting for each system function.
Self Diagnostic Result	Displays the diagnosis results judged by BCM.
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM.
Data Monitor	The BCM input/output signals are displayed.
Active Test	The signals used to activate each device are forcibly supplied from BCM.
Ecu Identification	The BCM part number is displayed.
Configuration	<ul style="list-style-type: none"> Read and save the vehicle specification. Write the vehicle specification when replacing BCM.

SYSTEM APPLICATION

BCM can perform the following functions for each system.

NOTE:

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

×: Applicable item

System	Sub system selection item	Diagnosis mode		
		Work Support	Data Monitor	Active Test
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER		×	×
Warning chime	BUZZER		×	×
Interior room lamp timer	INT LAMP	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER	×	×	×
—	AIR CONDITONER*			
<ul style="list-style-type: none"> Intelligent Key system Engine start system 	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
Body control system	BCM	×		
IVIS - NATS	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door open system	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	AIR PRESSURE MONITOR	×	×	×

NOTE:

*: This item is displayed, but is not used.

FREEZE FRAME DATA (FFD)

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

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[POWER DISTRIBUTION SYSTEM]

CONSULT screen item	Indication/Unit	Description		
Vehicle Speed	km/h	Vehicle speed of the moment a particular DTC is detected		A
Odo/Trip Meter	km	Total mileage (Odometer value) of the moment a particular DTC is detected		
Vehicle Condition	SLEEP>LOCK	Power supply position status of the moment a particular DTC is detected*	While turning BCM status from low power consumption mode to normal mode (Power supply position is "LOCK"*)	B
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode (Power supply position is "OFF".)	C
	LOCK>ACC		While turning power supply position from "LOCK" to "ACC"	
	ACC>ON		While turning power supply position from "ACC" to "IGN"	D
	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)	E
	RUN>URGENT		While turning power supply position from "RUN" to "ACC" (Emergency stop operation)	
	ACC>OFF		While turning power supply position from "ACC" to "OFF"	F
	OFF>LOCK		While turning power supply position from "OFF" to "LOCK"*	
	OFF>ACC		While turning power supply position from "OFF" to "ACC"	G
	ON>CRANK		While turning power supply position from "IGN" to "CRANKING"	
	OFF>SLEEP		While turning BCM status from normal mode (Power supply position is "OFF".) to low power consumption mode	H
	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"*	I
	OFF		Power supply position is "OFF" (Ignition switch OFF)	
	ACC		Power supply position is "ACC" (Ignition switch ACC)	J
	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)	K
	CRANKING		Power supply position is "CRANKING" (At engine cranking)	
IGN Counter	0 - 39	The number of times that ignition switch is turned ON after DTC is detected <ul style="list-style-type: none"> • The number is 0 when a malfunction is detected now. • The number increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. • The number is fixed to 39 until the self-diagnosis results are erased if it is over 39. 		L

NOTE:

*: Power supply position shifts to "LOCK" from "OFF", when ignition switch is in the OFF position, selector lever is in the P position, and any of the following conditions are met.

- Closing door
- Opening door
- Door is locked using door request switch
- Door is locked using Intelligent Key

The power supply position shifts to "ACC" when the push-button ignition switch (push switch) is pushed at "LOCK".

INTELLIGENT KEY

INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)

INFOID:000000007582806

WORK SUPPORT

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[POWER DISTRIBUTION SYSTEM]

Monitor item	Description
CONFIRM KEY FOB ID	It can be checked whether Intelligent Key ID code is registered or not in this mode.
AUTO LOCK SET	Auto door lock time can be changed in this mode. <ul style="list-style-type: none"> • MODE 1: 1 minute • MODE 2: 5 minutes • MODE 3: 30 seconds • MODE 4: 2 minutes
LOCK/UNLOCK BY I-KEY	Door lock/unlock function by door request switch (driver side, passenger side and back door) mode can be changed to operate (ON) or not operate (OFF) in this mode.
ENGINE START BY I-KEY	Engine start function mode can be changed to operate (ON) or not operate (OFF) with this mode.
TRUNK/GLASS HATCH OPEN	Buzzer reminder function mode by back door request switch can be changed to operate (ON) or not operate (OFF) with this mode.
PANIC ALARM SET	Panic alarm button pressing time on Intelligent Key remote control button can be selected from the following with this mode. <ul style="list-style-type: none"> • MODE 1: 0.5 sec. • MODE 2: Non-operation • MODE 3: 1.5 sec.
PW DOWN SET	Unlock button pressing time on Intelligent Key button can be selected from the following with this mode. <ul style="list-style-type: none"> • MODE 1: 3 sec. • MODE 2: Non-operation • MODE 3: 5 sec.
TAKE OUT FROM WIN WARN	NOTE: This item is displayed, but cannot be supported.
TRUNK OPEN DELAY	NOTE: This item is displayed, but cannot be supported.
LO- BATT OF KEY FOB WARN	Intelligent Key low battery warning mode can be changed to operate (ON) or not operate (OFF) with this mode.
ANTI KEY LOCK IN FUNCTI	Key reminder function mode can be changed to operate (ON) or not operate (OFF) with this mode.
HAZARD ANSWER BACK	Hazard reminder function mode can be selected from the following with this mode. <ul style="list-style-type: none"> • LOCK ONLY: Door lock operation only • UNLOCK ONLY: Door unlock operation only • LOCK/UNLOCK: Lock/unlock operation • OFF: Non-operation
ANS BACK I-KEY LOCK	Buzzer reminder function (lock operation) mode by door request switch (driver side and passenger side) can be selected from the following with this mode. <ul style="list-style-type: none"> • Horn chirp: Sound horn • Buzzer: Sound Intelligent Key warning buzzer • OFF: Non-operation
ANS BACK I-KEY UNLOCK	Buzzer reminder function (unlock operation) mode by door request switch can be changed to operate (ON) or not operate (OFF) with this mode.
SHORT CRANKING OUTPUT	Starter motor can operate during the times below. <ul style="list-style-type: none"> • 70 msec. • 100 msec. • 200 msec.
INSIDE ANT DIAGNOSIS	This function allows inside key antenna self-diagnosis.
HORN WITH KEYLESS LOCK	Horn reminder function mode by Intelligent Key button can be changed to operate (ON) or not operate (OFF) with this mode.
WELCOME LIGHT OP SET	Welcome light function mode can be changed to operate (WITH) or not operate (WITHOUT) with this mode.
WELCOME LIGHT SELECT	Welcome light function mode can be selected from the following with this mode. <ul style="list-style-type: none"> • Without room lamp • With room lamp • Without paddle lamp • With paddle lamp

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[POWER DISTRIBUTION SYSTEM]

SELF-DIAG RESULT

Refer to [BCS-86. "DTC Index"](#).

DATA MONITOR

Monitor Item	Condition
REQ SW -DR	Indicates [ON/OFF] condition of door request switch (driver side).
REQ SW -AS	Indicates [ON/OFF] condition of door request switch (passenger side).
REQ SW -RR	NOTE: This item is displayed, but cannot be monitored.
REQ SW -RL	NOTE: This item is displayed, but cannot be monitored.
REQ SW -BD/TR	Indicates [ON/OFF] condition of back door request switch.
PUSH SW	Indicates [ON/OFF] condition of push-button ignition switch.
IGN RLY2 -F/B	Indicates [ON/OFF] condition of ignition relay 2.
CLUCH SW	NOTE: This item is displayed, but cannot be monitored.
BRAKE SW 1	Indicates [ON/OFF] condition of brake switch power supply.
BRAKE SW 2	Indicates [ON/OFF] condition of brake switch.
DETE/CANCL SW	Indicates [ON/OFF] condition of P position.
SFT PN/N SW	Indicates [ON/OFF] condition of P or N position.
S/L -LOCK	NOTE: This item is displayed, but cannot be monitored.
S/L -UNLOCK	NOTE: This item is displayed, but cannot be monitored.
S/L RELAY -F/B	NOTE: This item is displayed, but cannot be monitored.
UNLK SEN -DR	Indicates [ON/OFF] condition of driver door UNLOCK status.
PUSH SW -IPDM	Indicates [ON/OFF] condition of push-button ignition switch.
IGN RLY1 -F/B	Indicates [ON/OFF] condition of ignition relay 1.
DETE SW -IPDM	Indicates [ON/OFF] condition of P position.
SFT PN -IPDM	Indicates [ON/OFF] condition of P or N position.
SFT P -MET	Indicates [ON/OFF] condition of P position.
SFT N -MET	Indicates [ON/OFF] condition of N position.
ENGINE STATE	Indicates [STOP/START/CRANK/RUN] condition of engine states.
S/L LOCK-IPDM	NOTE: This item is displayed, but cannot be monitored.
S/L UNLK-IPDM	NOTE: This item is displayed, but cannot be monitored.
S/L RELAY-REQ	NOTE: This item is displayed, but cannot be monitored.
VEH SPEED 1	Display the vehicle speed signal received from unified meter and A/C amp. by numerical value [Km/h].
VEH SPEED 2	Display the vehicle speed signal received from ABS or VDC or CVT by numerical value [Km/h].
DOOR STAT-DR	Indicates [LOCK/READY/UNLOCK] condition of driver side door status.
DOOR STAT-AS	Indicates [LOCK/READY/UNLOCK] condition of passenger side door status.
ID OK FLAG	Indicates [SET/RESET] condition of key ID.
PRMT ENG STRT	Indicates [SET/RESET] condition of engine start possibility.
PRMT RKE STRT	NOTE: This item is displayed, but cannot be monitored.

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[POWER DISTRIBUTION SYSTEM]

Monitor Item	Condition
KEY SW -SLOT	Indicates [ON/OFF] condition of key slot.
TRNK/HAT MNTR	NOTE: This item is displayed, but cannot be monitored.
RKE-LOCK	Indicates [ON/OFF] condition of LOCK signal from Intelligent Key.
RKE-UNLOCK	Indicates [ON/OFF] condition of UNLOCK signal from Intelligent Key.
RKE-TR/BD	NOTE: This item is displayed, but cannot be monitored.
RKE-PANIC	Indicates [ON/OFF] condition of PANIC button of Intelligent Key.
RKE-P/W OPEN	Indicates [ON/OFF] condition of P/W DOWN signal from Intelligent Key.
RKE-MODE CHG	Indicates [ON/OFF] condition of MODE CHANGE signal from Intelligent Key.
RKE OPE COUN1	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.
RKE OPE COUN2	NOTE: This item is displayed, but cannot be monitored.

ACTIVE TEST

Test item	Description
BATTERY SAVER	This test is able to check interior room lamp operation. The interior room lamp will be activated after "ON" on CONSULT screen is touched.
PW REMOTO DOWN SET	This test is able to check power window down operation. The power window down will be activated after "ON" on CONSULT screen is touched.
INSIDE BUZZER	This test is able to check warning chime in combination meter operation. <ul style="list-style-type: none"> Take away warning chime sounds when "TAKE OUT" on CONSULT screen is touched. Key warning chime sounds when "KEY WARN" on CONSULT screen is touched. P position warning chime sounds when "P RNG WARN" on CONSULT screen is touched. ACC warning chime sounds when "ACC WARN" on CONSULT screen is touched.
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation. The Intelligent Key warning buzzer will be activated after "ON" on CONSULT screen is touched.
INDICATOR	This test is able to check warning lamp operation. <ul style="list-style-type: none"> "KEY" Warning lamp illuminates when "KEY ON" on CONSULT screen is touched. "KEY" Warning lamp flashes when "KEY IND" on CONSULT screen is touched.
INT LAMP	This test is able to check interior room lamp operation. The interior room lamp will be activated after "ON" on CONSULT screen is touched.
LCD	This test is able to check meter display information <ul style="list-style-type: none"> Engine start information displays when "BP N" on CONSULT screen is touched. Engine start information displays when "BP I" on CONSULT screen is touched. Key ID warning displays when "ID NG" on CONSULT screen is touched. ROTAT: This item is displayed, but cannot be tested. P position warning displays when "SFT P" on CONSULT screen is touched. Intelligent Key insert information displays when "INSRT" on CONSULT screen is touched. Intelligent Key low battery warning displays when "BATT" on CONSULT screen is touched. Take away through window warning displays when "NO KY" on CONSULT screen is touched. Take away warning display when "OUTKY" on CONSULT screen is touched. OFF position warning display when "LK WN" on CONSULT screen is touched.
TRUNK/GLASS HATCH	This test is able to check back door opener actuator open operation. This actuator opens when "ON" on CONSULT screen is touched.
FLASHER	This test is able to check hazard warning lamp operation. The hazard warning lamps will be activated after "ON" on CONSULT screen is touched.
HORN	This test is able to check horn operation. The horn will be activated after "ON" on CONSULT screen is touched.
P RANGE	This test is able to check A/T shift selector power supply A/T shift selector power is supplied when "ON" on CONSULT screen is touched.
ENGINE SW ILLUMI	This test is able to check push-ignition switch illumination operation. Push-ignition switch illumination illuminates when "ON" on CONSULT screen is touched.

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[POWER DISTRIBUTION SYSTEM]

Test item	Description
LOCK INDICATOR	This test is able to check LOCK indicator in push-ignition switch operation. LOCK indicator in push-ignition switch illuminates when "ON" on CONSULT screen is touched;
ACC INDICATOR	This test is able to check ACC indicator in push-ignition switch operation. Indicator in push-ignition switch illuminates when "ON" on CONSULT screen is touched.
IGNITION ON IND	This test is able to check ON indicator in push-ignition switch operation. Indicator in push-ignition switch illuminates when "ON" on CONSULT screen is touched.
KEY SLOT ILLUMI	This test is able to check key slot illumination operation. Key slot illumination flash when "ON" on CONSULT screen is touched.
TRUNK/BACK DOOR	NOTE: This item is displayed, but cannot be tested.

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DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM

Description

INFOID:000000007458115

CAN (Controller Area Network) is a serial communication line for real time applications. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Modern vehicle is equipped with many electronic control unit, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H-line, CAN L-line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

CAN Communication Signal Chart. Refer to [LAN-25, "CAN Communication Signal Chart"](#).

DTC Logic

INFOID:000000007458116

DTC DETECTION LOGIC

DTC	CONSULT display description	DTC Detection Condition	Possible cause
U1000	CAN COMM	When BCM cannot communicate CAN communication signal continuously for 2 seconds or more.	CAN communication system

Diagnosis Procedure

INFOID:000000007458117

1.PERFORM SELF DIAGNOSTIC

1. Turn ignition switch ON and wait for 2 seconds or more.
2. Check "Self Diagnostic Result".

Is DTC "U1000" displayed?

- YES >> Refer to [LAN-16, "Trouble Diagnosis Flow Chart"](#).
NO >> Refer to [GI-42, "Intermittent Incident"](#).

U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

[POWER DISTRIBUTION SYSTEM]

U1010 CONTROL UNIT (CAN)

DTC Logic

INFOID:0000000007458118

DTC DETECTION LOGIC

DTC	CONSULT display de- scription	DTC Detection Condition	Possible cause
U1010	CONTROL UNIT(CAN)	BCM detected internal CAN communication circuit malfunction.	BCM

Diagnosis Procedure

INFOID:0000000007458119

1.REPLACE BCM

When DTC "U1010" is detected, replace BCM.

>> Replace BCM. Refer to [BCS-92. "Exploded View"](#).

PCS

B2553 IGNITION RELAY

< DTC/CIRCUIT DIAGNOSIS >

[POWER DISTRIBUTION SYSTEM]

B2553 IGNITION RELAY

Description

INFOID:000000007458120

BCM turns ON the following relays to ignition power supply to each ECU when the ignition switch is turned ON.

- Ignition relay (inserted into fuse block)
- Ignition relay (built into IPDM E/R)
- Blower relay

BCM checks any ignition relay ON request for consistency with the actual ignition relay operation status.

DTC Logic

INFOID:000000007458121

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2553	IGN POWER CIRCUIT	BCM detects a difference of signal for 2 seconds or more between the following information. <ul style="list-style-type: none">• Ignition relay ON/OFF operation• Ignition relay (IPDM E/R) feedback.	<ul style="list-style-type: none">• Harness or connectors (Ignition relay feedback circuit is open or short)• BCM• IPDM E/R

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions (start the engine), and wait for at least 2 seconds.
 - Selector lever is in the P or N position.
 - Do not depress brake pedal.
2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

- YES >> Go to [PCS-48, "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000007458122

1.CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT. Refer to [PCS-30, "DTC Index"](#).

Is the inspection result normal?

- YES >> GO TO 2.
NO >> Repair or replace malfunctioning parts.

2.CHECK IGNITION RELAY FEEDBACK INPUT SIGNAL

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

(+)		(-)	Condition		Voltage (V) (Approx.)
BCM					
Connector	Terminal				
M123	123	Ground	Ignition switch	OFF	0
				ON	Battery voltage

Is the inspection result normal?

- YES >> GO TO 4.
NO >> GO TO 3.

3.CHECK IGNITION RELAY FEEDBACK CIRCUIT

B2553 IGNITION RELAY

< DTC/CIRCUIT DIAGNOSIS >

[POWER DISTRIBUTION SYSTEM]

1. Disconnect IPDM E/R connector.
2. Check continuity between BCM harness connector and IPDM E/R harness connector.

BCM		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
M123	123	E5	19	Existed

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M123	123		Not existed

Is the inspection result normal?

- YES >> Replace IPDM E/R. Refer to [PCS-32. "Removal and Installation"](#).
NO >> Repair or replace harness or connector.

4.CHECK INTERMITTENT INCIDENT

Refer to [GI-42. "Intermittent Incident"](#).

>> INSPECTION END

PCS

B260A IGNITION RELAY**Description**

INFOID:000000007458123

BCM turns ON the following relays to ignition power supply to each ECU when the ignition switch is turned ON.

- Ignition relay (inserted into fuse block)
- Ignition relay (built into IPDM E/R)
- Blower fan motor relay

BCM checks any ignition relay ON request for consistency with the actual ignition relay operation status.

DTC Logic

INFOID:000000007458124

DTC DETECTION LOGIC**NOTE:**

- If DTC B260A is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [PCS-46, "DTC Logic"](#).
- If DTC B260A is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [PCS-47, "DTC Logic"](#).
- If DTC B260A is displayed with DTC B261A, first perform the trouble diagnosis for DTC B261A. Refer to [PCS-62, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B260A	IGNITION RELAY	BCM detects a difference of signal for 2 second or more between the following information. <ul style="list-style-type: none"> • Ignition relay (IPDM E/R) operation request • Ignition relay feedback from IPDM E/R (CAN). 	<ul style="list-style-type: none"> • Harness or connectors (Ignition relay operation circuit is open or shorted.) • BCM • IPDM E/R

DTC CONFIRMATION PROCEDURE**1.PERFORM DTC CONFIRMATION PROCEDURE**

1. Turn ignition switch ON under the following conditions, and wait for at least 2 seconds.
 - Selector lever is in the P or N position.
 - Do not depress brake pedal.
2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to [PCS-50, "Diagnosis Procedure"](#).

NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000007458125

1.CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT. Refer to [PCS-30, "DTC Index"](#).

Is DTC detected?

YES >> Repair or replace the malfunctioning parts.

NO >> GO TO 2.

2.CHECK IGNITION RELAY INPUT SIGNAL

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

(+)		(-)	Voltage (V) (Approx.)
BCM			
Connector	Terminal		
M121	47	Ground	Battery voltage

B260A IGNITION RELAY

< DTC/CIRCUIT DIAGNOSIS >

[POWER DISTRIBUTION SYSTEM]

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

3.CHECK IGNITION RELAY (IPDM E/R) CIRCUIT

1. Disconnect IPDM E/R connector.
2. Check continuity between IPDM E/R harness connector and BCM harness connector.

IPDM E/R		BCM		Continuity
Connector	Terminal	Connector	Terminal	
E5	27	M121	47	Existed

3. Check continuity between IPDM E/R harness connector and ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		
E5	27		Not existed

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-32. "Removal and Installation"](#).

NO >> Repair or replace harness or connector.

4.CHECK INTERMITTENT INCIDENT

Refer to [GI-42. "Intermittent Incident"](#).

>> INSPECTION END

PCS

B2614 ACC RELAY

< DTC/CIRCUIT DIAGNOSIS >

[POWER DISTRIBUTION SYSTEM]

B2614 ACC RELAY

Description

INFOID:000000007458126

BCM controls the various electrical components and simultaneously supplies power according to the power supply position.

BCM checks the power supply position internally.

DTC Logic

INFOID:000000007458127

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2614	ACC RELAY CIRC	An immediate operation of accessory relay is requested by BCM, but there is no response for more than 1 second.	<ul style="list-style-type: none">• Harness or connectors (Accessory relay circuit is open or shorted)• Accessory relay

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn the power supply position to ACC under the following conditions, and wait for at least 1 second.
 - Selector lever is in the P or N position.
 - Do not depress brake pedal.
2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to [PCS-52, "Diagnosis Procedure"](#).

NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000007458128

1.CHECK ACCESSORY RELAY POWER SUPPLY

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

(+)	(-)	Condition		Voltage (V) (Approx.)
Accessory relay				
Terminal				
1	Ground	Ignition switch	OFF	0
			ACC	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK ACCESSORY RELAY POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Check continuity between accessory relay harness connector and BCM harness connector.

Accessory relay	BCM		Continuity
Terminal	Connector	Terminal	
1	M122	95	Existed

4. Check continuity between accessory relay harness connector and ground.

B2614 ACC RELAY

< DTC/CIRCUIT DIAGNOSIS >

[POWER DISTRIBUTION SYSTEM]

Accessory relay	Ground	Continuity
Terminal		
1		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-92, "Removal and Installation"](#).

NO >> Repair or replace harness or connector.

3.CHECK ACCESSORY RELAY GROUND CIRCUIT

Check continuity between accessory relay harness connector and ground.

Accessory relay	Ground	Continuity
Terminal		
2		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair accessory relay ground circuit.

4.CHECK ACCESSORY RELAY POWER SUPPLY CIRCUIT-2

1. Turn ignition switch ACC.
2. Check voltage between accessory relay harness connector and ground.

(+)	(-)	Voltage (V) (Approx.)
Accessory		
Terminal		
5	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 5.

NO >> Check continuity open or short between accessory relay and battery.

5.CHECK ACCESSORY RELAY

Refer to [PCS-53, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace accessory relay.

6.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> INSPECTION END

Component Inspection

INFOID:000000007458129

1.CHECK ACCESSORY RELAY

1. Turn ignition switch OFF.
2. Remove accessory relay.

B2614 ACC RELAY

< DTC/CIRCUIT DIAGNOSIS >

[POWER DISTRIBUTION SYSTEM]

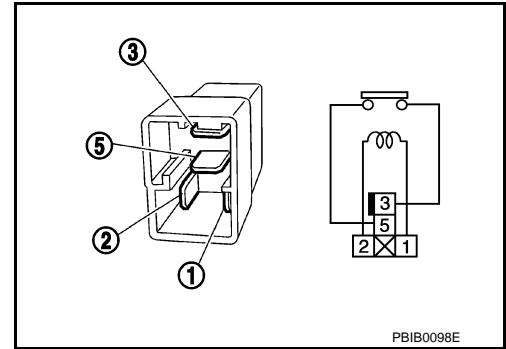
3. Check the continuity between accessory relay terminals.

Terminals	Condition	Continuity
3 and 5	12 V direct current supply between terminals 1 and 2	Existed
	No current supply	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace accessory relay.



B2615 BLOWER RELAY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[POWER DISTRIBUTION SYSTEM]

B2615 BLOWER RELAY CIRCUIT

Description

INFOID:000000007458130

BCM controls the various electrical components and simultaneously supplies power according to the power supply position.

BCM checks the power supply position internally.

DTC Logic

INFOID:000000007458131

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2615	BLOWER RELAY CIRC	BCM detects a difference of signal for 1 second or more between the following information. <ul style="list-style-type: none">Blower relay ON/OFF requestBlower relay inside feedback	<ul style="list-style-type: none">Harness or connectors (Blower relay circuit is open or shorted)Blower relay

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON under the following conditions, and wait for at least 1 second.
 - Selector lever is in the P or N position
 - Do not depress brake pedal
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to [PCS-55. "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000007458132

1.CHECK BLOWER RELAY POWER SUPPLY

- Turn ignition switch OFF.
- Disconnect blower relay.
- Check voltage between blower relay harness connector and ground.

(+)	(-)	Condition		Voltage (V) (Approx.)
Blower relay				
Terminal				
1	Ground	Ignition switch	OFF or ACC	0
			ON	Battery voltage

Is the inspection result normal?

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

2.CHECK BLOWER RELAY POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- Disconnect BCM connector.
- Check continuity between blower relay harness connector and BCM harness connector.

Blower relay	BCM		Continuity
Terminal	Connector	Terminal	
1	M122	102	
			Existed

- Check continuity between blower relay harness connector and ground.

B2615 BLOWER RELAY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[POWER DISTRIBUTION SYSTEM]

Blower relay	Ground	Continuity
Terminal		
1		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-92, "Removal and Installation"](#).

NO >> Repair or replace harness or connector.

3.CHECK BLOWER RELAY GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between blower relay harness connector and ground.

Blower relay	Ground	Continuity
Terminal		
2		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair blower relay ground circuit.

4.CHECK BLOWER RELAY POWER SUPPLY CIRCUIT-2

1. Turn ignition switch ON or ACC.
2. Check voltage between blower relay harness connector and ground.

(+)	(-)	Voltage (V) (Approx.)
Blower relay		
Terminal		
5	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 5.

NO >> Check continuity open or short between blower relay and battery.

5.CHECK BLOWER RELAY

Refer to [PCS-56, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace blower relay.

6.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> INSPECTION END

Component Inspection

INFOID:000000007458133

1.CHECK BLOWER RELAY

1. Turn ignition switch OFF.
2. Remove blower relay.

B2615 BLOWER RELAY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

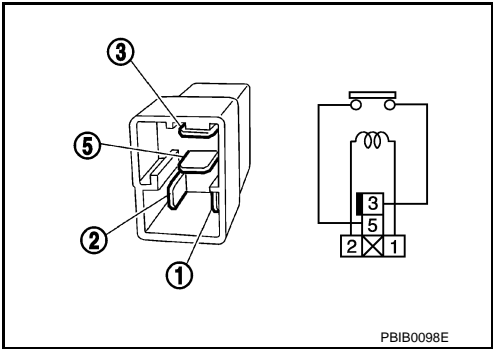
[POWER DISTRIBUTION SYSTEM]

3. Check the continuity between blower relay terminals.

Terminals	Condition	Continuity
3 and 5	12 V direct current supply between terminals 1 and 2	Existed
	No current supply	Not existed

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace blower relay.



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PCS

B2616 IGNITION RELAY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[POWER DISTRIBUTION SYSTEM]

B2616 IGNITION RELAY CIRCUIT

Description

INFOID:000000007458134

BCM controls the various electrical components and simultaneously supplies power according to the power supply position.

BCM checks the power supply position internally.

DTC Logic

INFOID:000000007458135

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2616	IGN RELAY CIRC	An immediate operation of ignition relay (fuse block) is requested by BCM, but there is no response for more than 1 second	<ul style="list-style-type: none">• Harness or connectors (Ignition relay circuit is open or shorted)• Ignition relay (fuse block)

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions, and wait for at least 1 second.
 - Selector lever is in the P or N position.
 - Do not depress brake pedal.
2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to [PCS-58, "Diagnosis Procedure"](#).

NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000007458136

1.CHECK IGNITION RELAY POWER SUPPLY

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

(+)	(-)	Condition		Voltage (V) (Approx.)
Ignition relay				
Terminal				
1	Ground	Ignition switch	OFF or ACC	0
			ON	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK IGNITION RELAY POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Check continuity between ignition relay harness connector and BCM harness connector.

Ignition relay	BCM		Continuity
Terminal	Connector	Terminal	
1	M122	82	Existed

4. Check continuity between ignition relay harness connector and ground.

B2616 IGNITION RELAY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[POWER DISTRIBUTION SYSTEM]

Ignition relay	Ground	Continuity
Terminal		
1		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-92, "Removal and Installation"](#).

NO >> Repair or replace harness or connector.

3.CHECK IGNITION RELAY GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between ignition relay harness connector and ground.

Ignition relay	Ground	Continuity
Terminal		
2		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair ignition relay ground circuit.

4.CHECK IGNITION RELAY POWER SUPPLY CIRCUIT-2

1. Turn ignition switch ON.
2. Check voltage between ignition relay harness connector and ground.

(+)	(-)	Voltage (V) (Approx.)
Ignition relay		
Terminal		
5	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 5.

NO >> Check continuity open or short between ignition relay and battery.

5.CHECK IGNITION RELAY

Refer to [PCS-59, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace ignition relay.

6.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> INSPECTION END

Component Inspection

INFOID:000000007458137

1.CHECK IGNITION RELAY

1. Turn ignition switch OFF.
2. Remove ignition relay.

B2616 IGNITION RELAY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[POWER DISTRIBUTION SYSTEM]

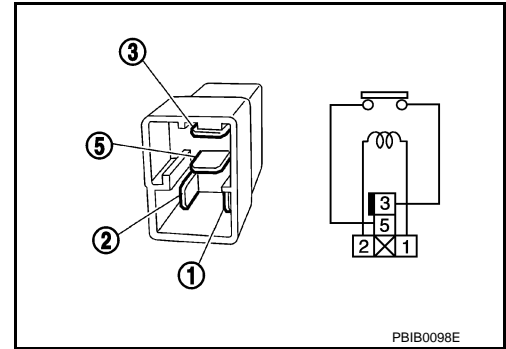
3. Check the continuity between ignition relay terminals.

Terminals	Condition	Continuity
3 and 5	12 V direct current supply between terminals 1 and 2	Existed
	No current supply	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace Ignition relay.



B2618 BCM

Description

INFOID:000000007458138

BCM controls the various electrical components and simultaneously supplies power according to the power supply position.
BCM checks the power supply position internally.

DTC Logic

INFOID:000000007458139

DTC DETECTION LOGIC

NOTE:

- If DTC B2618 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [PCS-46, "DTC Logic"](#).
- If DTC B2618 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [PCS-47, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2618	BCM	An immediate operation of ignition relay (IPDM E/R) is requested by BCM, but there is no response for more than 1 second	BCM

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions, and wait for at least 1 second.
 - Selector lever is in the P or N position.
 - Do not depress brake pedal.
2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

- YES >> Go to [PCS-61, "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000007458140

1.INSPECTION START

1. Turn ignition switch ON.
2. Select "Self diagnostic result" mode with CONSULT.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**
See [PCS-61, "DTC Logic"](#).

Is the 1st trip DTC B2618 displayed again?

- YES >> Replace BCM. Refer to [BCS-92, "Removal and Installation"](#)
NO >> INSPECTION END

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PCS

B261A PUSH-BUTTON IGNITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[POWER DISTRIBUTION SYSTEM]

B261A PUSH-BUTTON IGNITION SWITCH

Description

INFOID:000000007458141

BCM transmits the change in the power supply position with the push-button ignition switch to IPDM E/R via the CAN communication line. IPDM E/R transmits the power supply position status via CAN communication line to BCM.

DTC Logic

INFOID:000000007458142

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B261A	PUSH-BTN IGN SW	BCM detects a difference of signal for 1 second or more between the following information. <ul style="list-style-type: none">• Push-button ignition switch (push switch) signal• Push-button ignition switch status signal from IPDM E/R (CAN)	<ul style="list-style-type: none">• Harness or connectors (Push-button ignition switch circuit is open or shorted.)• BCM• IPDM E/R

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Press the push-button ignition switch under the following conditions, and wait for 1 second or more.
 - Selector lever is in the P or N position.
 - Do not depress brake pedal.
2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

- YES >> Go to [PCS-62. "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000007458143

1.CHECK BCM OUTPUT

1. Turn ignition switch OFF.
2. Disconnect push-button ignition switch connector and IPDM E/R connector.
3. Check voltage between IPDM E/R harness connector and ground.

(+)		(-)	Voltage (V) (Approx.)
IPDM E/R			
Connector	Terminal		
E5	28	Ground	Battery voltage

Is the inspection result normal?

- YES >> GO TO 2.
NO >> Replace IPDM E/R. Refer to [PCS-32. "Removal and Installation"](#).

2.CHECK PUSH-BUTTON IGNITION SWITCH CIRCUIT (IPDM E/R)

1. Disconnect IPDM E/R connector and BCM connector.
2. Check continuity between IPDM E/R harness connector and push-button ignition switch harness connector.

IPDM E/R		Push-button ignition switch		Continuity
Connector	Terminal	Connector	Terminal	
E5	28	M50	4	Existed

3. Check continuity between IPDM E/R harness connector and ground.

B261A PUSH-BUTTON IGNITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[POWER DISTRIBUTION SYSTEM]

IPDM E/R		Ground	Continuity
Connector	Terminal		
E5	28		Not existed

Is the inspection result normal?

- YES >> Replace BCM. Refer to [BCS-92, "Removal and Installation"](#).
- NO >> Repair or replace harness or connector.

PCS

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[POWER DISTRIBUTION SYSTEM]

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM : Diagnosis Procedure

INFOID:000000007585261

1.CHECK FUSE AND FUSIBLE LINK

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

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

Is the fuse fusing?

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

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

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

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

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M119	13		Existed

Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

PUSH-BUTTON IGNITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[POWER DISTRIBUTION SYSTEM]

PUSH-BUTTON IGNITION SWITCH

Description

INFOID:000000007458145

BCM transmits the change in the power supply position with the push-button ignition switch to IPDM E/R via the CAN communication line. IPDM E/R transmits the power supply position status via CAN communication line to BCM.

Component Function Check

INFOID:000000007458146

1.CHECK FUNCTION

1. Select "PUSH SW" in "Data Monitor" mode with CONSULT.
2. Check the push-button ignition switch signal under the following condition.

Test item	Condition	Status
PUSH SW	Push-button ignition switch is pressed	ON
	Push-button ignition switch is not pressed	OFF

Is the indication normal?

YES >> INSPECTION END

NO >> Go to [PCS-65, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000007458147

1.CHECK PUSH-BUTTON IGNITION SWITCH OUTPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect push-button ignition switch connector and IPDM E/R connector.
3. Check voltage between push-button ignition switch harness connector and ground.

(+)		(-)	Voltage (V) (Approx.)
Push-button ignition switch			
Connector	Terminal		
M50	4	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK PUSH-BUTTON IGNITION SWITCH CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM harness connector and push-button ignition switch harness connector.

With steering lock unit

BCM		Push-button ignition switch		Continuity
Connector	Terminal	Connector	Terminal	
M122	89	M50	4	Existed

Without steering lock unit

BCM		Push-button ignition switch		Continuity
Connector	Terminal	Connector	Terminal	
M121	60	M50	4	Existed

3. Check continuity between BCM harness connector and ground.

With steering lock unit

BCM		Ground	Continuity
Connector	Terminal		
M122	89		Not existed

PUSH-BUTTON IGNITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[POWER DISTRIBUTION SYSTEM]

Without steering lock unit

BCM		Ground	Continuity
Connector	Terminal		
M121	60		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-92, "Removal and Installation"](#).

NO >> Repair or replace harness.

3.CHECK PUSH-BUTTON IGNITION SWITCH GROUND CIRCUIT

Check continuity between push-button ignition switch harness connector and ground.

Push-button ignition switch		Ground	Continuity
Connector	Terminal		
M50	1		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4.CHECK PUSH-BUTTON IGNITION SWITCH

Refer to [PCS-66, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace push-button ignition switch. Refer to [PCS-123, "Removal and Installation"](#).

5.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> INSPECTION END

Component Inspection

INFOID:000000007458148

1.CHECK PUSH-BUTTON IGNITION SWITCH

1. Turn ignition switch OFF.
2. Disconnect push-button ignition switch connector.
3. Check continuity between push-button ignition switch terminals.

Push-button ignition switch		Condition		Continuity
Terminal				
1	4	Push-button ignition switch	Pressed	Existed
			Not pressed	Not existed

Is the inspection result normal?

YES >> INSPECTION END.

NO >> Replace push-button ignition switch. Refer to [PCS-123, "Removal and Installation"](#).

PUSH-BUTTON IGNITION SWITCH POSITION INDICATOR

< DTC/CIRCUIT DIAGNOSIS >

[POWER DISTRIBUTION SYSTEM]

PUSH-BUTTON IGNITION SWITCH POSITION INDICATOR

Description

INFOID:0000000007458149

The switch that changes the power supply position.

BCM maintains the power supply position status.

BCM changes the power supply position with the operation of the push-button ignition switch.

Component Function Check

INFOID:0000000007458150

1.CHECK FUNCTION

Check push-button ignition switch ("LOCK INDICATOR", "ACC INDICATOR" and "IGNITION ON IND") in Active Test Mode with CONSULT.

Test item		Description	
LOCK INDICATOR ACC INDICATOR IGNITION ON IND	ON	Position indicator	Illuminate
	OFF		Not illuminate

Is the inspection result normal?

YES >> INSPECTION END

NO >> Refer to [PCS-67, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000007458151

1.CHECK PUSH-BUTTON IGNITION SWITCH INPUT SIGNAL

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

(+)		(-)	Voltage (V) (Approx.)
Push-button ignition switch			
Connector	Terminal		
M50	8	Ground	Battery voltage

Is the inspection normal?

YES >> GO TO 2.

NO-1 >> Check 10 A fuse [No. 9, located in fuse block (J/B)].

NO-2 >> Check harness for open or short between push-button ignition switch and fuse.

2.CHECK BCM INPUT

1. Connect push-button ignition switch connector.
2. Disconnect BCM connector.
3. Check voltage between BCM connector and ground.

(+)		(-)	Voltage (V) (Approx.)
BCM			
Connector	Terminal		
M119	15	Ground	Battery voltage
M122	93		
M123	134		

Is the inspection normal?

YES >> Replace BCM. Refer to [BCS-92, "Removal and Installation"](#).

NO >> GO TO 3.

3.CHECK PUSH-BUTTON IGNITION SWITCH CIRCUIT

1. Disconnect push-button ignition switch connector.

PUSH-BUTTON IGNITION SWITCH POSITION INDICATOR

< DTC/CIRCUIT DIAGNOSIS >

[POWER DISTRIBUTION SYSTEM]

2. Check continuity between BCM harness connector and push-button ignition switch harness connector.

Indicator	BCM		Push-button ignition switch		Continuity
	Connector	Terminal	Connector	Terminal	
LOCK	M123	134	M50	5	Existed
ACC	M119	15		6	
ON	M122	93		7	

3. Check continuity between BCM harness connector and ground.

Indicator	BCM		Ground	Continuity
	Connector	Terminal		
LOCK	M123	134		Not existed
ACC	M119	15		
ON	M122	93		

Is the inspection normal?

- YES >> Replace push-button ignition switch. Refer to [PCS-123, "Removal and Installation"](#).
NO >> Repair or replace harness.

[POWER DISTRIBUTION SYSTEM]

POWER DISTRIBUTION SYSTEM

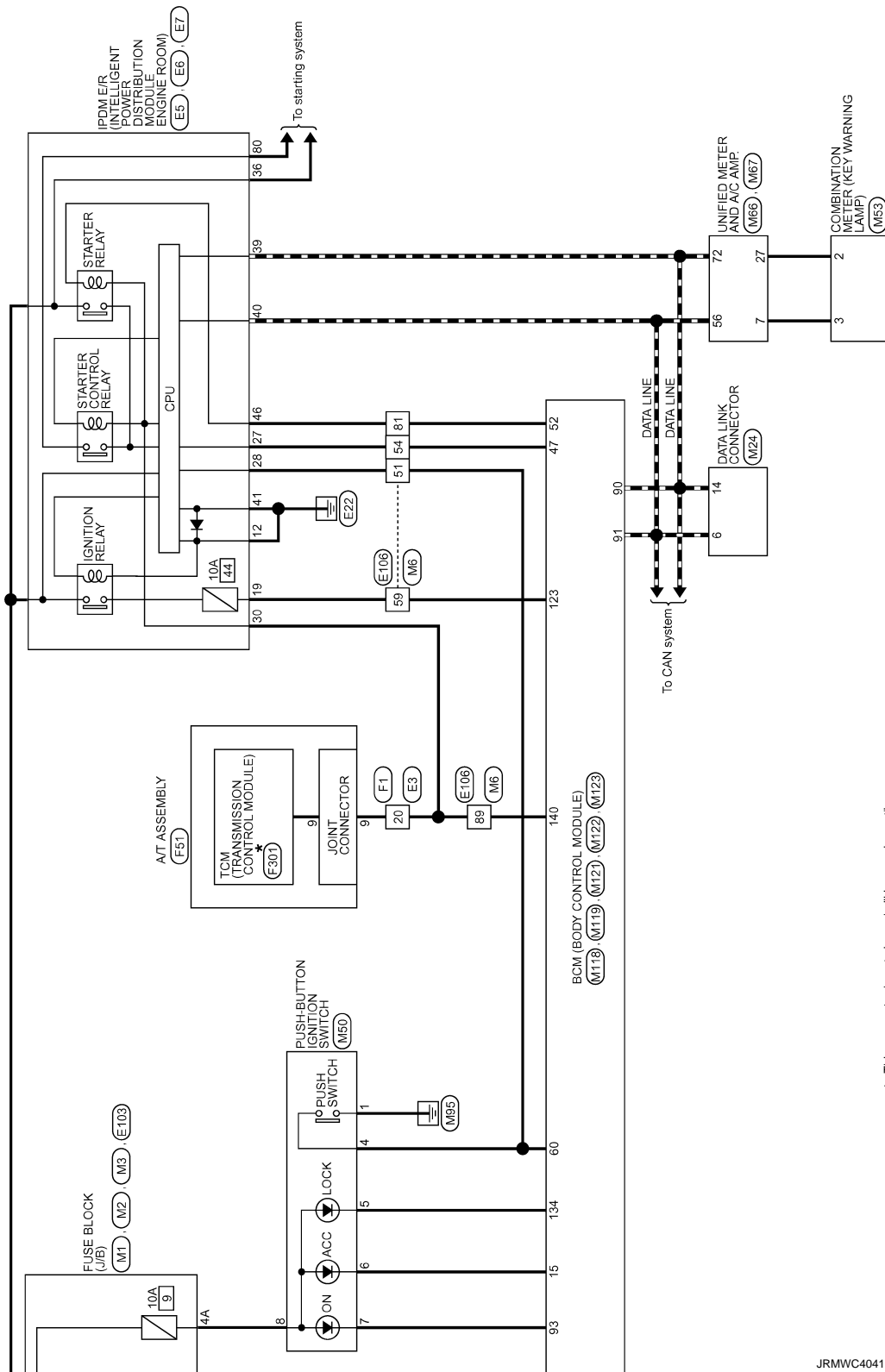
INFOID:0000000007458152



POWER DISTRIBUTION SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[POWER DISTRIBUTION SYSTEM]



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

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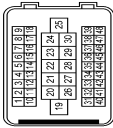
POWER DISTRIBUTION SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[POWER DISTRIBUTION SYSTEM]

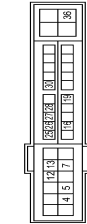
PDS (POWER DISTRIBUTION SYSTEM)

Connector No.	E3
Connector Name	WIRE TO WIRE
Connector Type	SAA35MB-PS10-S12



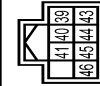
Terminal No.	Color Of Wire	Signal Name [Specification]
19	W	-
20	GR	-
21	Y	-
22	G	-
23	W	-
25	SB	-
26	R	-
28	P	-
30	LG	-
31	LG	-
32	R	-
33	P	-
34	W	-
35	SB	-
40	BG	-
41	G	-
42	Y	-
43	BR	-
44	BG	-

Connector No.	E5
Connector Name	POWER UP INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TH20PW-CS12-M4-1V



Terminal No.	Color Of Wire	Signal Name [Specification]
4	V	-
5	L	-
7	R	-
12	B/W	-
13	Y	-
15	LG	-
19	W	-
25	G	-
27	BG	-
28	L	-
30	GR	-
36	G	-

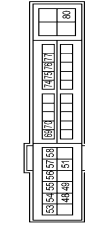
Connector No.	E6
Connector Name	POWER UP INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TH08FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
39	P	-
40	L	-
41	B/W	-
43	SB	-
44	BR	-
45	G	-

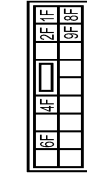
46	R	-
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Connector No.	E7
Connector Name	POWER UP INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TH20PW-CS12-M4



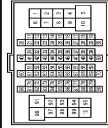
Terminal No.	Color Of Wire	Signal Name [Specification]
48	L	-
49	BG	-
51	Y	-
53	W	-
54	SB	-
56	LG	-
57	G	-
58	V	-
69	BR	-
70	BG	-
74	P	-
75	SB	-
76	Y	-
77	R	-
80	W	-

Connector No.	E103
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1F	SB	-
2F	W	-
4F	G	-
6F	BR	-
8F	L	-
9F	R	-

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH08PW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	B	-
4	GR	-
5	GR	-
8	Y	-
9	BR	-
10	BG	-
11	SB	-
12	BG	-
13	L	-
14	R	-
15	P	-

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PCS

POWER DISTRIBUTION SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[POWER DISTRIBUTION SYSTEM]

PDS (POWER DISTRIBUTION SYSTEM)

16	V	-
17	S8	-
18	V	-
20	B6	-
21	L	-
22	G	-
23	V	-
24	P	-
25	Y	-
26	V	-
27	W	-
28	G	-
31	B6	-
32	W	-
33	B	-
34	R	-
35	G	-
36	SHIELD	-
37	V	-
38	BR	-
39	B6	-
41	G	-
42	G	-
43	BR	-
44	W	-
45	L	-
49	L	-
50	P	-
51	L	-
54	B6	-
57	BR	-
59	W	-
60	LG	-
61	G	-
62	S8	-
63	W	-
64	B	-
65	G	-
66	R	-
67	SHIELD	-
68	Y	-
69	LG	-
70	W	-
71	R	-
72	Y	-
73	B	-
74	BR	-
74	L	-
75	G	-
76	W	-

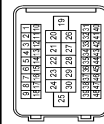
76	Y	- [Without LCC]
77	P	- [Without LCC]
77	R	- [With LCC]
78	BR	- [Without LCC]
78	L	- [With LCC]
79	L	- [Without LCC]
79	Y	- [With LCC]
80	S8	-
81	R	-
82	S8	-
83	B6	-
84	G	-
85	L	-
86	P	-
87	V	-
89	GR	-
90	SHIELD	-
91	W	-
92	V	-
93	L	-
94	LG	-
95	B6	-
96	P	-
97	R	-
98	SHIELD	-
99	L	-
100	P	-

Connector No.	E110
Connector Name	STOP LAMP SWITCH
Connector Type	MOSEF-W-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	W	-
3	V	-
4	S8	-

Connector No.	F1
Connector Name	WIRE TO WIRE
Connector Type	SAA36FB-RS10-S422



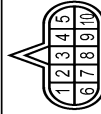
Terminal No.	Color Of Wire	Signal Name [Specification]
19	W	-
20	GR	-
21	P	-
22	G	-
23	W	-
24	V	-
25	BR	-
26	BR	-
29	L	-
30	V	-
31	V	-
32	LG	-
33	GR	-
34	G	-
35	Y	-
40	B6	-
41	S8	-
42	P	-
43	BR	-
44	B6	-

Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK1DFG-DGY



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	BR	-
3	L	-
4	V	-
5	B	-
6	R	-
8	P	-
9	GR	-
10	B	-

Connector No.	F301
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	SF1DFG



Terminal No.	Color Of Wire	Signal Name [Specification]
1	-	VIGN
2	-	BATT
3	-	CAN-H
4	-	CAN-L
5	-	GROUND
6	-	VIGN
7	-	RES LAMP RV
8	-	CAN-LV
10	-	GROUND

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POWER DISTRIBUTION SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[POWER DISTRIBUTION SYSTEM]

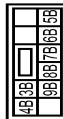
PDS (POWER DISTRIBUTION SYSTEM)

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS506FW-A2



Terminal No.	Color Of Wire	Signal Name [Specification]
1A	GR	-
2A	G	-
3A	L	-
4A	P	-
5A	V	-
6A	Y	-
7A	R	-
8A	L	-

Connector No.	M2
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS10PW-CS



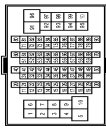
Terminal No.	Color Of Wire	Signal Name [Specification]
3B	P	-
4B	G	-
5B	BG	-
6B	Y	-
7B	P	-
8B	R	-
9B	SB	-

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



Terminal No.	Color Of Wire	Signal Name [Specification]
10C	L	-
11C	R	-
12C	BG	-
6C	R	-
7C	B	-
9C	BG	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80XW-CS16-TM4

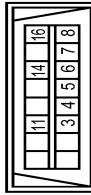


Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	R	-
3	B	-
4	SHIELD	-
5	G	-
8	Y	-
9	BR	-
10	R	-
11	BR	-
12	BG	-
13	L	-
14	R	-
15	P	-
16	V	-

17	SB	-
18	V	-
20	BG	-
21	L	-
22	W	-
23	P	-
24	BR	-
25	SB	-
26	V	-
27	G	-
28	G	-
31	L	-
32	G	-
33	B	-
34	W	-
35	R	-
36	SHIELD	-
37	V	-
38	BG	-
39	BR	-
41	W	-
42	BG	-
43	W	-
45	W	-
46	L	-
49	L	-
50	P	-
51	BR	-
54	Y	-
57	G	-
59	W	-
60	L	-
61	G	-
62	SB	-
63	G	-
64	B	-
65	W	-
66	R	-
67	SHIELD	-
68	Y	-
69	GR	-
70	LG	-
71	LG	-
72	Y	-
73	SB	-
74	BR	-
74	L	-
75	G	-
76	GR	-
76	W	-
77	P	-

77	R	- [With LCC]
78	L	- [With LCC]
78	R	- [Without LCC]
79	W	- [Without LCC]
79	Y	- [With LCC]
80	SB	-
81	SB	-
82	SB	-
83	V	-
84	G	-
85	L	-
86	P	-
87	W	-
89	GR	-
90	SHIELD	-
91	W	-
92	Y	-
93	BR	-
94	P	-
95	GR	-
96	W	-
98	SHIELD	-
99	V	-
100	SB	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	-
4	B	-
5	B	-
6	L	-
7	V	-
8	G	-
11	SB	-
14	P	-
16	Y	-

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PCS

POWER DISTRIBUTION SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[POWER DISTRIBUTION SYSTEM]

PDS (POWER DISTRIBUTION SYSTEM)

Connector No.	M60
Connector Name	PUSH-BUTTON (IGNITION SWITCH)
Connector Type	TK08FBK



1	2	3
4	5	6
7	8	

Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	W	-
3	W	-
4	BR	-
5	GR	-
6	V	-
8	P	-

Connector No.	M63
Connector Name	COMBINATION METER
Connector Type	TH40PW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	BATTERY POWER SUPPLY
2	LG	COMMUNICATION SIGNAL (METER->AMP.)
3	GR	COMMUNICATION SIGNAL (AMP->METER)
5	B	GROUND
6	P	ALTERNATOR SIGNAL
7	BR	AIR BAG SIGNAL
10	G	SECURITY SIGNAL
15	B	GROUND
16	B	METER CONTROL SWITCH GROUND
19	B	ILL GND
20	B	ILL GND
21	BG	IGNITION SIGNAL

Terminal No.	Color Of Wire	Signal Name [Specification]
22	B	GROUND
24	BR	COMMUNICATION SIGNAL (LCD->AMP.)
25	Y	COMMUNICATION SIGNAL (AMP->LCD)
26	R	VEHICLE SPEED SIGNAL (8-PULSE)
27	V	PARKING BRAKE SWITCH SIGNAL
28	W	BRAKE FLUID LEVEL SWITCH SIGNAL
29	SB	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
30	G	SEAT BELT BUCKLE SWITCH SIGNAL (PASSENGER SIDE)
31	L	WASHER LEVEL SWITCH SIGNAL
33	B	ILLUMINATION CONTROL SIGNAL
36	LG	SELECT SWITCH SIGNAL
37	SB	ENTER SWITCH SIGNAL
38	L	TRIP A/R RESET SWITCH SIGNAL
39	P	ILLUMINATION CONTROL SWITCH SIGNAL (-)
40	BG	ILLUMINATION CONTROL SWITCH SIGNAL (+)

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40PW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color Of Wire	Signal Name [Specification]
5	L	MANUAL MODE SHIFT UP SIGNAL
7	GR	COMMUNICATION SIGNAL (AMP->METER)
8	L	VEHICLE SPEED SIGNAL (2-PULSE)
9	SB	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
10	W	MANUAL MODE SIGNAL
11	G	NON-MANUAL MODE SIGNAL
14	BR	COMMUNICATION SIGNAL (LCD->AMP.)
20	L	IGN ON/OFF SIGNAL
23	Y	AT SNOW SWITCH SIGNAL
25	V	MANUAL MODE SHIFT DOWN SIGNAL
27	LG	COMMUNICATION SIGNAL (METER->AMP.)
28	R	VEHICLE SPEED SIGNAL (8-PULSE)
30	V	PARKING BRAKE SWITCH SIGNAL
34	Y	COMMUNICATION SIGNAL (AMP->LCD)
38	P	BLOWER MOTOR CONTROL SIGNAL

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH32PW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color Of Wire	Signal Name [Specification]
41	V	ACC POWER SUPPLY
42	Y	FUEL LEVEL SENSOR SIGNAL
43	R	INTAKE SENSOR SIGNAL
44	LG	IN-VEHICLE SENSOR SIGNAL
45	P	AMBIENT SENSOR SIGNAL
46	BG	SUNLOAD SENSOR SIGNAL
49	G	REAR WIPER MOTOR SIGNAL
52	G	IGNITION POWER SUPPLY
54	V	BATTERY POWER SUPPLY
55	B	GROUND
56	L	CAN-H
57	W	BRAKE FLUID LEVEL SWITCH SIGNAL
58	BR	FUEL LEVEL SENSOR GROUND
59	GR	INTAKE SENSOR GROUND
60	L	IN-VEHICLE SENSOR GROUND
61	BR	AMBIENT SENSOR GROUND
62	SB	SUNLOAD SENSOR GROUND
63	R	-
65	BG	ECU SIGNAL
69	L	A/C LAM SIGNAL
70	R	EACH DOOR MOTOR POWER SUPPLY
71	B	GROUND
72	P	CAN-L



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

Terminal No.	Color Of Wire	Signal Name [Specification]
4	LG	INTERIOR ROOM LAMP POWER SUPPLY
5	L	PASSENGER DOOR UNLOCK OUTPUT
7	Y	STEP LAMP CONT
8	V	ALL DOOR FUEL LID LOCK OUTPUT
9	G	DRIVER DOOR UNLOCK OUTPUT
10	BR	REAR DOOR UNLOCK OUTPUT
11	R	BAT (FUSE)
13	B	GROUND
14	W	PUSH-BUTTON (IGNITION SW) L1 GND
15	Y	ACC IND
17	W	TURN SIGNAL RH (FRONT)
18	BG	TURN SIGNAL LH (FRONT)
19	V	INT ROOM LAMP CONT

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



1	2	3
4	5	6
7	8	9

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

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16PW-CS



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

JRMWG8120GB

POWER DISTRIBUTION SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[POWER DISTRIBUTION SYSTEM]

PDS (POWER DISTRIBUTION SYSTEM)

Connector No.	M121
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH



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Terminal No.	Color Of Wire	Signal Name [Specification]
34	SB	LUGGAGE ROOM ANT-
35	V	LUGGAGE ROOM ANT+
38	B	BACK DOOR ANT-
39	W	BACK DOOR ANT+
47	Y	IGN RELAY (IPM) ENY CONT
52	SB	STARTER RELAY CONT
60	BR	POSH SW
61	Y	BACK DOOR OUTER REQUEST SW
62	V	FAST MANNER STOP (HSG DOOR)
65	RG	REAR WIPER STOP POSITION
66	R	BACK DOOR SW
67	GR	BACK DOOR OUTER SW
68	BR	REAR RH DOOR SW
69	R	REAR LH DOOR SW

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



91	90	89	87							83	82	81	80	79	78	77	76	75	74	73	72
11	10	9	8	7	6	5	4	3	2	1	0	9	8	7	6	5	4	3	2	1	0

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000007582749

VALUES ON THE DIAGNOSIS TOOL

CONSULT MONITOR ITEM

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]

Monitor Item	Condition	Value/Status
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	Rear RH door closed	Off
	Rear RH door opened	On
DOOR SW-RL	Rear LH door closed	Off
	Rear LH door opened	On
DOOR SW-BK	Back door closed	Off
	Back door opened	On
CDL LOCK SW	Other than power door lock switch LOCK	Off
	Power door lock switch LOCK	On
CDL UNLOCK SW	Other than power door lock switch UNLOCK	Off
	Power door lock switch UNLOCK	On
KEY CYL LK-SW	Other than driver door key cylinder LOCK position	Off
	Driver door key cylinder LOCK position	On
KEY CYL UN-SW	Other than driver door key cylinder UNLOCK position	Off
	Driver door key cylinder UNLOCK position	On
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off
HAZARD SW	Hazard switch is OFF	Off
	Hazard switch is ON	On
REAR DEF SW	NOTE: The item is indicated, but not monitored.	Off
TR CANCEL SW	NOTE: The item is indicated, but not monitored.	Off
TR/BD OPEN SW	Back door opener switch OFF	Off
	While the back door opener switch is turned ON	On
TRNK/HAT MNTR	NOTE: The item is indicated, but not monitored.	Off
REVERSE SW	NOTE: The item is indicated, but not monitored.	Off
RKE-LOCK	LOCK button of the key is not pressed	Off
	LOCK button of the key is pressed	On
RKE-UNLOCK	UNLOCK button of the key is not pressed	Off
	UNLOCK button of the key is pressed	On
RKE-TR/BD	NOTE: The item is indicated, but not monitored.	Off
RKE-PANIC	PANIC button of the key is not pressed	Off
	PANIC button of the key is pressed	On
RKE-P/W OPEN	UNLOCK button of the key is not pressed	Off
	UNLOCK button of the key is pressed and held	On
RKE-MODE CHG	LOCK/UNLOCK button of the key is not pressed and held simultaneously	Off
	LOCK/UNLOCK button of the key is pressed and held simultaneously	On

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]

Monitor Item	Condition	Value/Status
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5 V
	Dark outside of the vehicle	Close to 0 V
REQ SW -DR	Driver door request switch is not pressed	Off
	Driver door request switch is pressed	On
REQ SW -AS	Passenger door request switch is not pressed	Off
	Passenger door request switch is pressed	On
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off
REQ SW -RL	NOTE: The item is indicated, but not monitored.	Off
REQ SW -BD/TR	Back door request switch is not pressed	Off
	Back door request switch is pressed	On
PUSH SW	Push-button ignition switch (push switch) is not pressed	Off
	Push-button ignition switch (push switch) is pressed	On
IGN RLY2 -F/B	NOTE: The item is indicated, but not monitored.	Off
ACC RLY -F/B	NOTE: The item is indicated, but not monitored.	Off
CLUCH SW	NOTE: The item is indicated, but not monitored.	Off
BRAKE SW 1	The brake pedal is depressed when No. 7 fuse is blown	Off
	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal	On
BRAKE SW 2	The brake pedal is not depressed	Off
	The brake pedal is depressed	On
DETE/CANCL SW	Selector lever in P position	Off
	Selector lever in any position other than P	On
SFT PN/N SW	Selector lever in any position other than P and N	Off
	Selector lever in P or N position	On
S/L -LOCK	NOTE: The item is indicated, but not monitored.	Off
S/L -UNLOCK	NOTE: The item is indicated, but not monitored.	Off
S/L RELAY-F/B	NOTE: The item is indicated, but not monitored.	Off
UNLK SEN -DR	Driver door is unlocked	Off
	Driver door is locked	On
PUSH SW -IPDM	Push-button ignition switch (push-switch) is not pressed	Off
	Push-button ignition switch (push-switch) is pressed	On
IGN RLY1 -F/B	Ignition switch in OFF or ACC position	Off
	Ignition switch in ON position	On
DETE SW -IPDM	Selector lever in any position other than P	Off
	Selector lever in P position	On
SFT PN -IPDM	Selector lever in any position other than P and N	Off
	Selector lever in P or N position	On
SFT P -MET	Selector lever in any position other than P	Off
	Selector lever in P position	On

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]

Monitor Item	Condition	Value/Status
SFT N -MET	Selector lever in any position other than N	Off
	Selector lever in N position	On
ENGINE STATE	Engine stopped	Stop
	While the engine stalls	Stall
	At engine cranking	Crank
	Engine running	Run
S/L LOCK-IPDM	NOTE: The item is indicated, but not monitored.	Off
S/L UNLK-IPDM	NOTE: The item is indicated, but not monitored.	Off
S/L RELAY-REQ	NOTE: The item is indicated, but not monitored.	Off
VEH SPEED 1	While driving	Equivalent to speedometer reading
VEH SPEED 2	While driving	Equivalent to speedometer reading
DOOR STAT-DR	Driver door is locked	LOCK
	Wait with selective UNLOCK operation (5 seconds)	READY
	Driver door is unlocked	UNLOCK
DOOR STAT-AS	Passenger door is locked	LOCK
	Wait with selective UNLOCK operation (5 seconds)	READY
	Passenger door is unlocked	UNLOCK
ID OK FLAG	Driver side door is open after ignition switch is turned OFF (Shift position is in the P position)	Reset
	Ignition switch ON	Set
PRMT ENG STRT	The engine start is prohibited	Reset
	The engine start is permitted	Set
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset
KEY SW -SLOT	The key is not inserted into key slot	Off
	The key is inserted into key slot	On
RKE OPE COUN1	During the operation of the key	Operation frequency of the key
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	—
CONFIRM ID ALL	The key ID that the key slot receives does not accord with any key ID registered to BCM.	Yet
	The key ID that the key slot receives accords with any key ID registered to BCM.	Done
CONFIRM ID4	The key ID that the key slot receives does not accord with the fourth key ID registered to BCM.	Yet
	The key ID that the key slot receives accords with the fourth key ID registered to BCM.	Done
CONFIRM ID3	The key ID that the key slot receives does not accord with the third key ID registered to BCM.	Yet
	The key ID that the key slot receives accords with the third key ID registered to BCM.	Done

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]

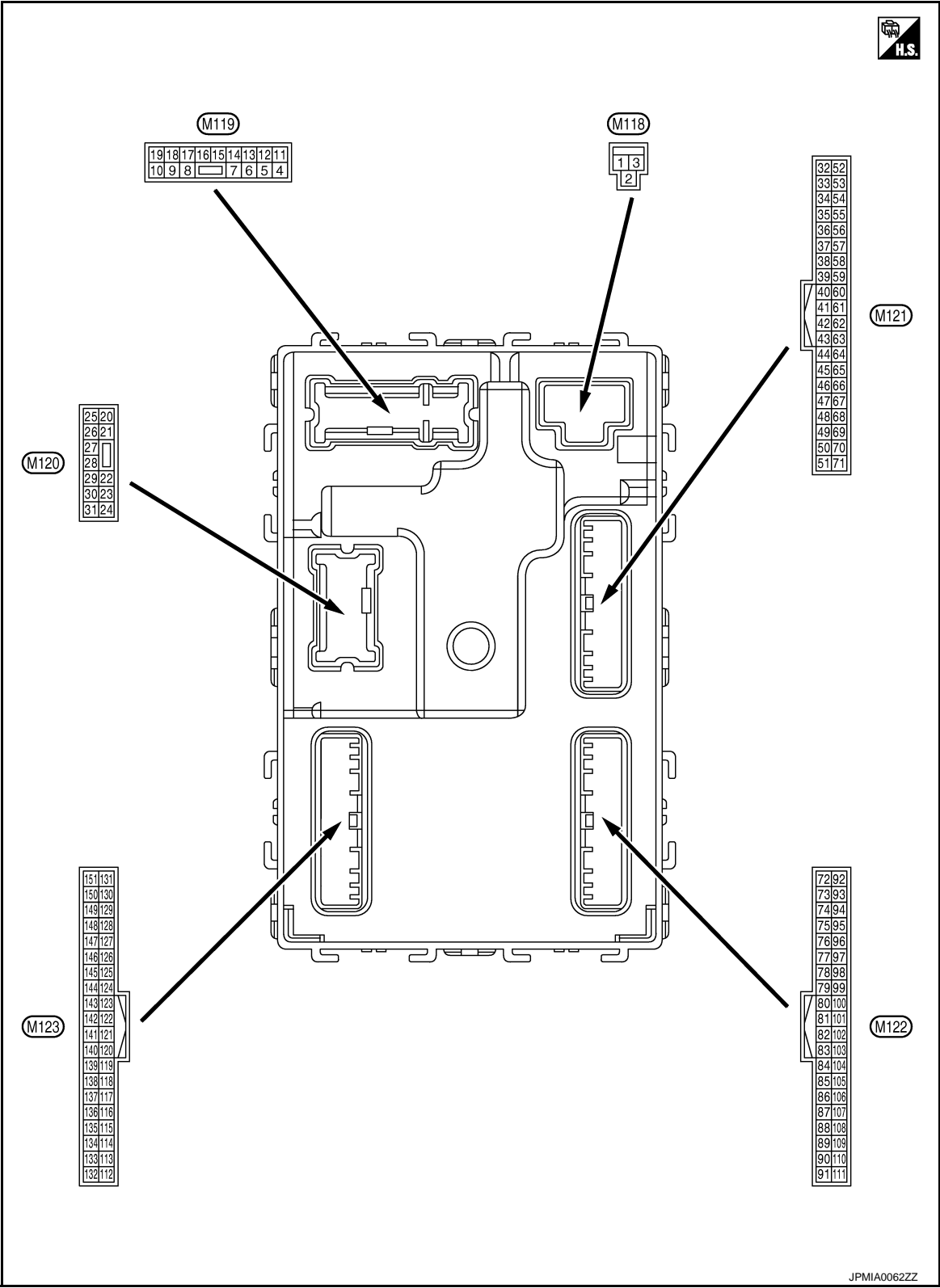
Monitor Item	Condition	Value/Status
CONFIRM ID2	The key ID that the key slot receives does not accord with the second key ID registered to BCM.	Yet
	The key ID that the key slot receives accords with the second key ID registered to BCM.	Done
CONFIRM ID1	The key ID that the key slot receives does not accord with the first key ID registered to BCM.	Yet
	The key ID that the key slot receives accords with the first key ID registered to BCM.	Done
TP 4	The ID of fourth key is not registered to BCM	Yet
	The ID of fourth key is registered to BCM	Done
TP 3	The ID of third key is not registered to BCM	Yet
	The ID of third key is registered to BCM	Done
TP 2	The ID of second key is not registered to BCM	Yet
	The ID of second key is registered to BCM	Done
TP 1	The ID of first key is not registered to BCM	Yet
	The ID of first 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
WARNING LAMP	Tire pressure indicator OFF	Off
	Tire pressure indicator ON	On
BUZZER	Tire pressure warning alarm is not sounding	Off
	Tire pressure warning alarm is sounding	On

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]

TERMINAL LAYOUT

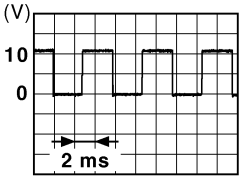


PHYSICAL VALUES

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

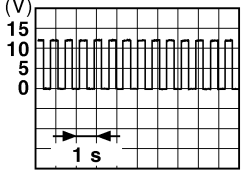
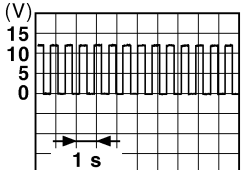
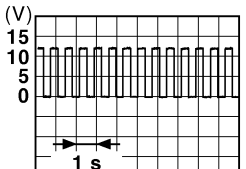
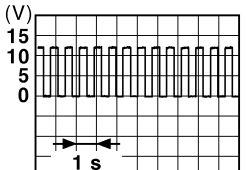
[POWER DISTRIBUTION SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
1 (W)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (W)	Ground	P/W power supply (BAT)	Output	Ignition switch OFF		Battery voltage
3 (Y)	Ground	P/W power supply (RAP)	Output	Ignition switch ON		Battery voltage
4 (LG)	Ground	Interior room lamp power supply	Output	Interior room lamp battery saver is activated. (Cuts the interior room lamp power supply)		0 V
				Interior room lamp battery saver is not activated. (Outputs the interior room lamp power supply)		Battery voltage
5 (L)	Ground	Passenger door UN- LOCK	Output	Passenger door	UNLOCK (Actuator is activated)	Battery voltage
					Other than UNLOCK (Actuator is not activated)	0 V
7 (Y)	Ground	Step lamp	Output	Step lamp	ON	0 V
					OFF	Battery voltage
8 (V)	Ground	All doors, fuel lid LOCK	Output	All doors	LOCK (Actuator is activated)	Battery voltage
					Other than LOCK (Actuator is not activated)	0 V
9 (G)	Ground	Driver door, fuel lid UNLOCK	Output	Driver door	UNLOCK (Actuator is activated)	Battery voltage
					Other than UNLOCK (Actuator is not activated)	0 V
10 (BR)	Ground	Rear RH door and rear LH door UN- LOCK	Output	Rear RH door and rear LH door	UNLOCK (Actuator is activated)	Battery voltage
					Other than UNLOCK (Actuator is not activated)	0 V
11 (R)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
13 (B)	Ground	Ground	—	Ignition switch ON		0 V
14 (W)	Ground	Push-button ignition switch illumination ground	Output	Tail lamp	OFF	0 V
					ON	<p>NOTE: When the illumination brightening/dimming level is in the neutral position</p>  <p>JSNIA0010GB</p>
15 (Y)	Ground	ACC indicator lamp	Output	Ignition switch	OFF or ON	Battery voltage
					ACC	0 V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
17 (W)	Ground	Turn signal RH (Front)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	
18 (BG)	Ground	Turn signal LH (Front)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	
19 (V)	Ground	Room lamp timer control	Output	Interior room lamp	OFF	Battery voltage
					ON	0 V
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	
23 (G)	Ground	Back door open	Output	Back door	OPEN (Back door opener actuator is activated)	Battery voltage
					Other than OPEN (Back door opener actuator is not activated)	0 V
25 (G)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	
26 (G)	Ground	Rear wiper	Output	Rear wiper	OFF (Stopped)	0 V
					ON (Operated)	Battery voltage

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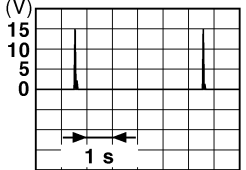
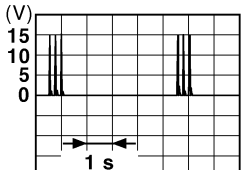
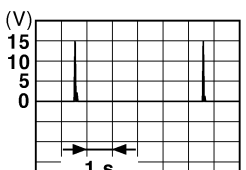
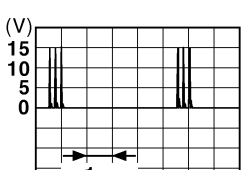
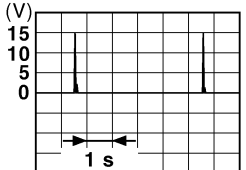
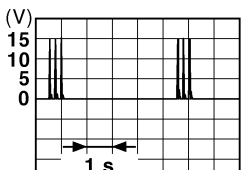
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

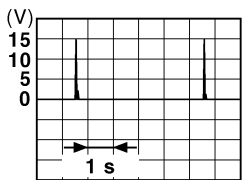
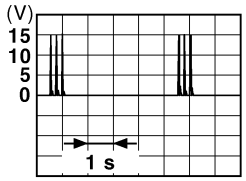
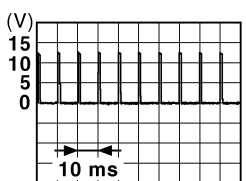
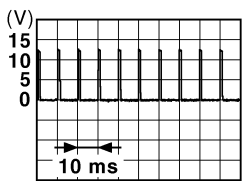
[POWER DISTRIBUTION SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
34 (SB)	Ground	Luggage room antenna (-)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 <p>JMKIA0062GB</p>
					When Intelligent Key is not in the passenger compartment	 <p>JMKIA0063GB</p>
35 (V)	Ground	Luggage room antenna (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 <p>JMKIA0062GB</p>
					When Intelligent Key is not in the passenger compartment	 <p>JMKIA0063GB</p>
38 (B)	Ground	Back door antenna (-)	Output	When the back door opener request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 <p>JMKIA0062GB</p>
					When Intelligent Key is not in the antenna detection area	 <p>JMKIA0063GB</p>

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
39 (W)	Ground	Back door antenna (+)	Output	When the back door opener request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
				When the back door opener request switch is operated with ignition switch ON	When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
47 (Y)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	Battery voltage
					ON	0 V
52 (SB)	Ground	Starter relay control	Output	Ignition switch ON	When selector lever is in P or N position	Battery voltage
					When selector lever is not in P or N position	0 V
60 (BR)	Ground	Push-button ignition switch (Push switch)	Input	Push-button ignition switch (push switch)	Pressed	0 V
					Not pressed	Battery voltage
61 (W)	Ground	Back door opener request switch	Input	Back door opener request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 JPMIA0016GB 1.0 V
64 (V)	Ground	Intelligent Key warning buzzer (Engine room)	Output	Intelligent Key warning buzzer (Engine room)	Sounding	0 V
					Not sounding	Battery voltage
65 (BG)	Ground	Rear wiper stop position	Input	Rear wiper	In stop position	 JPMIA0016GB 1.0 V
					Not in stop position	0 V

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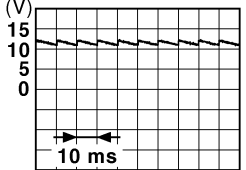
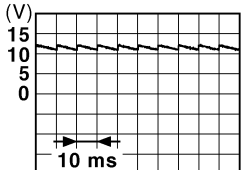
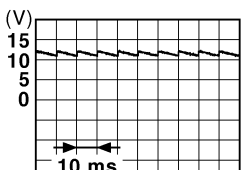
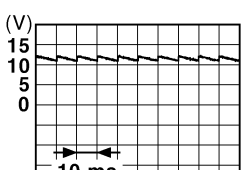
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BCM (BODY CONTROL MODULE)

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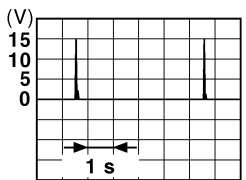
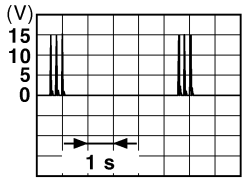
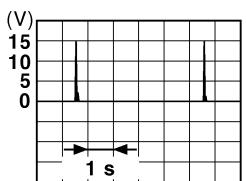
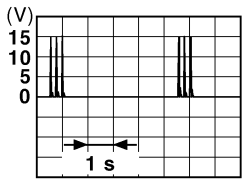
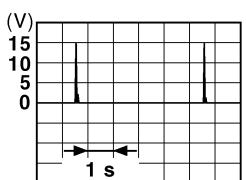
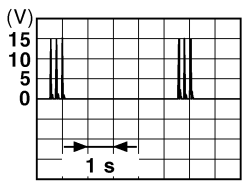
[POWER DISTRIBUTION SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
66 (R)	Ground	Back door switch	Input	Back door switch	OFF (Door close)	 11.8 V
					ON (Door open)	0 V
67 (GR)	Ground	Back door opener switch	Input	Back door opener switch	Pressed	0 V
					Not pressed	 11.8 V
68 (BR)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (Door close)	 11.8 V
					ON (Door open)	0 V
69 (R)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (Door close)	 11.8 V
					ON (Door open)	0 V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
72 (R)	Ground	Room antenna 2 (-) (Center console)	Output	Ignition switch OFF	 <p>JMKIA0062GB</p>
				When Intelligent Key is not in the passenger compart- ment	 <p>JMKIA0063GB</p>
73 (G)	Ground	Room antenna 2 (+) (Center console)	Output	Ignition switch OFF	 <p>JMKIA0062GB</p>
				When Intelligent Key is not in the passenger compart- ment	 <p>JMKIA0063GB</p>
74 (SB)	Ground	Passenger door an- tenna (-)	Output	When the pas- senger door re- quest switch is operated with ig- nition switch OFF	 <p>JMKIA0062GB</p>
				When Intelligent Key is not in the antenna detection area	 <p>JMKIA0063GB</p>

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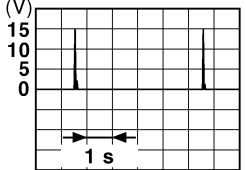
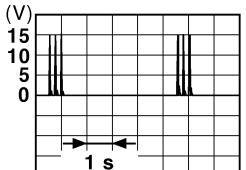
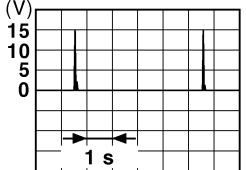
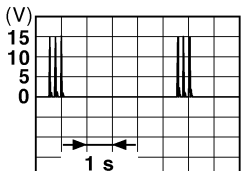
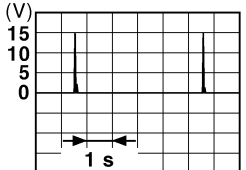
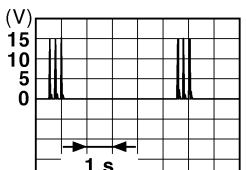
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BCM (BODY CONTROL MODULE)

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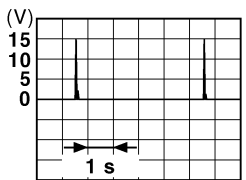
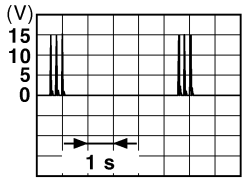
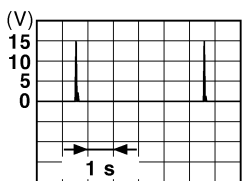
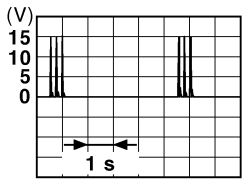
[POWER DISTRIBUTION SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
75 (GR)	Ground	Passenger door antenna (+)	Output	When the passenger door request switch is operated with ignition switch OFF	 <p>JMKIA0062GB</p>
				When Intelligent Key is not in the antenna detection area	 <p>JMKIA0063GB</p>
76 (V)	Ground	Driver door antenna (-)	Output	When the driver door request switch is operated with ignition switch OFF	 <p>JMKIA0062GB</p>
				When Intelligent Key is not in the antenna detection area	 <p>JMKIA0063GB</p>
77 (LG)	Ground	Driver door antenna (+)	Output	When the driver door request switch is operated with ignition switch OFF	 <p>JMKIA0062GB</p>
				When Intelligent Key is not in the antenna detection area	 <p>JMKIA0063GB</p>

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
78 (Y)	Ground	Room antenna 1 (-) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compart- ment	 JMKIA0063GB
79 (BR)	Ground	Room antenna 1 (+) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compart- ment	 JMKIA0063GB
80 (GR)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
81 (W)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
82 (R)	Ground	Ignition relay [Fuse block (J/B)] control	Output	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage

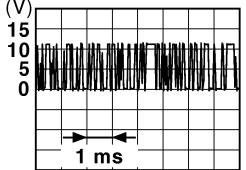
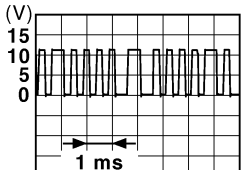

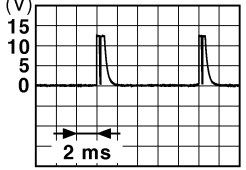
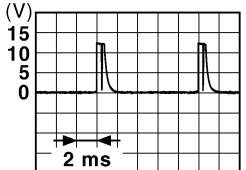
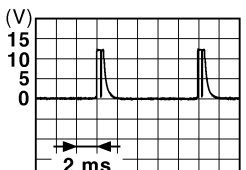
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BCM (BODY CONTROL MODULE)

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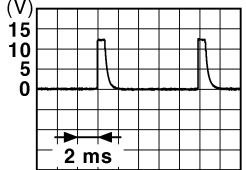
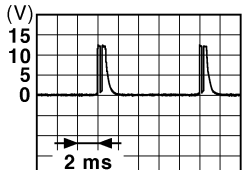

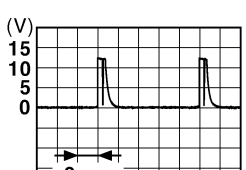

[POWER DISTRIBUTION SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
83 (Y)	Ground	Remote keyless entry receiver communica- tion	Input/ Output	During waiting	 JMKIA0064GB
				When operating either button on the key	 JMKIA0065GB
87 (BR)	Ground	Combination switch INPUT 5	Input	Combination switch	
				All switches OFF (Wiper intermittent dial 4)	 JPMIA0041GB 1.4 V
				Front fog lamp switch ON (Wiper intermittent dial 4)	 JPMIA0037GB 1.3 V
				Rear wiper switch ON (Wiper intermittent dial 4)	 JPMIA0039GB 1.3 V
				Any of the conditions below with all switches OFF <ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7 	 JPMIA0040GB 1.3 V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
88 (V)	Ground	Combination switch INPUT 3	Input	Combination switch	All switches OFF (Wiper intermittent dial 4)  1.4 V
					Lighting switch HI (Wiper intermittent dial 4)  1.3 V
					Lighting switch 2ND (Wiper intermittent dial 4)  1.3 V
					Rear washer switch ON (Wiper intermittent dial 4)  1.3 V
					Any of the conditions below with all switches OFF <ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3  1.3 V
90 (P)	Ground	CAN-L	Input/ Output	—	—
91 (L)	Ground	CAN-H	Input/ Output	—	—

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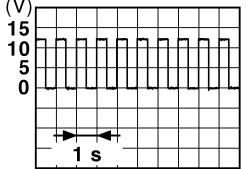
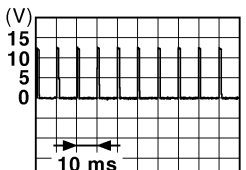
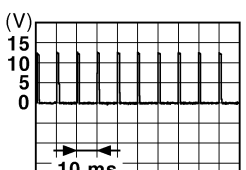
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BCM (BODY CONTROL MODULE)

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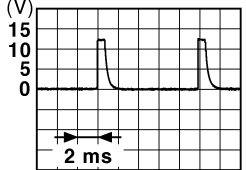
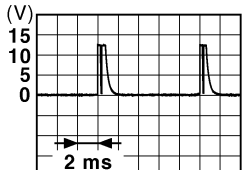

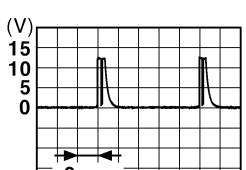

[POWER DISTRIBUTION SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
92 (LG)	Ground	Key slot illumination	Output	Key slot illumination	OFF	Battery voltage
					Blinking	 <p>JPMIA0015GB</p> <p>6.5 V</p>
					ON	0 V
93 (V)	Ground	ON indicator lamp	Output	Ignition switch	OFF or ACC	Battery voltage
					ON	0 V
94 (Y)	Ground	Puddle lamp control	Output	Puddle lamp	OFF	Battery voltage
					ON	0 V
95 (BG)	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
					ACC or ON	Battery voltage
96 (GR)	Ground	A/T shift selector (Detention switch) power supply	Output	—		Battery voltage
99 (R)	Ground	Selector lever P position switch	Input	Selector lever	P position	0 V
					Any position other than P	Battery voltage
100 (G)	Ground	Passenger door request switch	Input	Passenger door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 <p>JPMIA0016GB</p> <p>1.0 V</p>
101 (SB)	Ground	Driver door request switch	Input	Driver door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 <p>JPMIA0016GB</p> <p>1.0 V</p>
102 (BG)	Ground	Blower fan motor relay control	Output	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage
103 (LG)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OFF		Battery voltage

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]

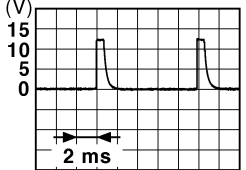
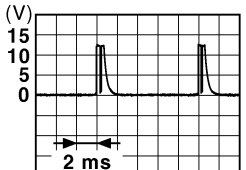
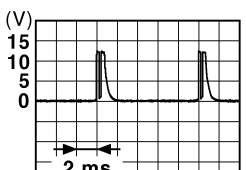
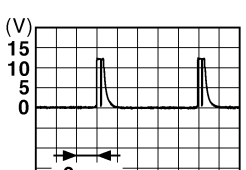
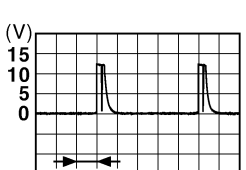
Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
107 (LG)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermit- tent dial 4)	 <p>1.4 V</p>
				Turn signal switch LH	 <p>1.3 V</p>
				Turn signal switch RH	 <p>1.3 V</p>
				Front wiper switch LO	 <p>1.3 V</p>
				Front washer switch ON	 <p>1.3 V</p>

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

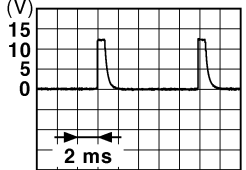
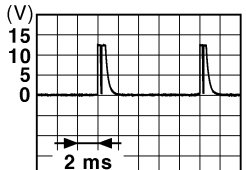

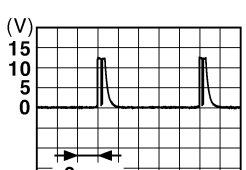

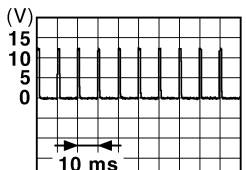
[POWER DISTRIBUTION SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
108 (R)	Ground	Combination switch INPUT 4	Input	Combination switch	<p>All switches OFF (Wiper intermittent dial 4)</p>  <p>JPMIA0041GB</p> <p>1.4 V</p>
					<p>Lighting switch AUTO (Wiper intermittent dial 4)</p>  <p>JPMIA0038GB</p> <p>1.3 V</p>
					<p>Lighting switch 1ST (Wiper intermittent dial 4)</p>  <p>JPMIA0036GB</p> <p>1.3 V</p>
					<p>Rear wiper switch INT (Wiper intermittent dial 4)</p>  <p>JPMIA0040GB</p> <p>1.3 V</p>
					<p>Any of the conditions below with all switches OFF</p> <ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6  <p>JPMIA0039GB</p> <p>1.3 V</p>

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]

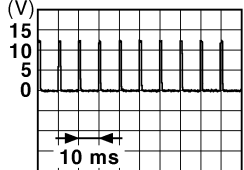
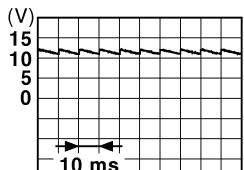
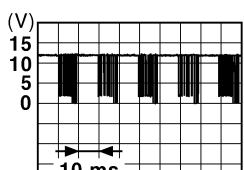
Terminal No. (Wire color)		Description		Condition		Value (Approx.)	
+	-	Signal name	Input/ Output				
109 (Y)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent dial 4)	All switches OFF	 <p>1.4 V</p>	A
					Lighting switch PASS	 <p>1.3 V</p>	B
					Lighting switch 2ND	 <p>1.3 V</p>	C
					Front wiper switch INT	 <p>1.3 V</p>	D
					Front wiper switch HI	 <p>1.3 V</p>	E
110 (G)	Ground	Hazard switch	Input	Hazard switch	ON	0 V	F
					OFF	 <p>1.1 V</p>	G

PCS

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

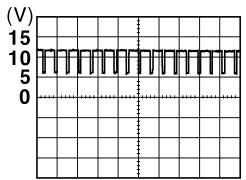
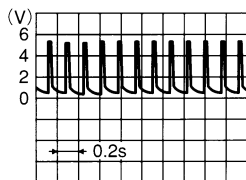
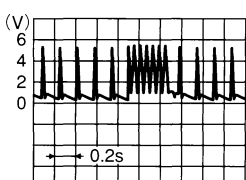
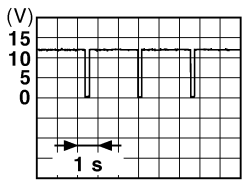
[POWER DISTRIBUTION SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	—	Signal name	Input/ Output			
113 (P)	Ground	Optical sensor	Input	Ignition switch ON	When bright outside of the vehicle	Close to 5 V
					When dark outside of the vehicle	Close to 0 V
116 (SB)	Ground	Stop lamp switch 1	Input	—		Battery voltage
118 (P)	Ground	Stop lamp switch 2 (Without ICC)	Input	Stop lamp switch	OFF (Brake pedal is not depressed)	0 V
					ON (Brake pedal is de- pressed)	Battery voltage
		Stop lamp switch 2 (With ICC)		Stop lamp switch OFF (Brake pedal is not de- pressed) and ICC brake hold relay OFF		0 V
				Stop lamp switch ON (Brake pedal is de- pressed) or ICC brake hold relay ON		Battery voltage
119 (SB)	Ground	Front door lock as- sembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	 JPMIA0012GB 1.1 V
					UNLOCK status (Unlock switch sensor ON)	0 V
121 (BR)	Ground	Key slot switch	Input	When the key is inserted into key slot		Battery voltage
				When the key is not inserted into key slot		0 V
123 (W)	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage
124 (LG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	 JPMIA0011GB 11.8 V
					ON (Door open)	0 V
132 (BR)	Ground	Power window switch communication	Input/ Output	Ignition switch ON		 JPMIA0013GB 10.2 V
				Ignition switch OFF or ACC		Battery voltage

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]

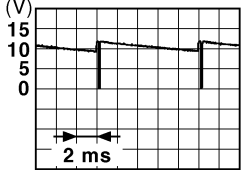
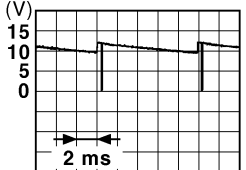
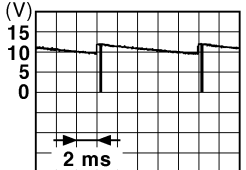
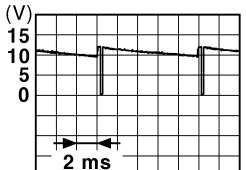
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
133 (W)	Ground	Push-button ignition switch illumination	Output	Push-button ignition switch illumination	ON (Tail lamps OFF)	9.5 V
					ON (Tail lamps ON)	NOTE: The pulse width of this wave is varied by the illumination bright- ening/dimming level. 
					OFF	0 V
134 (GR)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF	Battery voltage
					ON	0 V
137 (BG)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V
138 (Y)	Ground	Receiver and sensor power supply	Output	Ignition switch	OFF	0 V
					ACC or ON	5.0 V
139 (L)	Ground	Tire pressure receiv- er communication	Input/ Output	Ignition switch ON	Standby state	
					When receiving the signal from the transmitter	
140 (GR)	Ground	Selector lever P/N position	Input	Selector lever	P or N position	Battery voltage
					Except P and N positions	0 V
141 (G)	Ground	Security indicator	Output	Security indicator	ON	0 V
					Blinking	
					OFF	Battery voltage

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

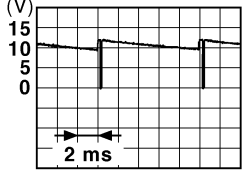
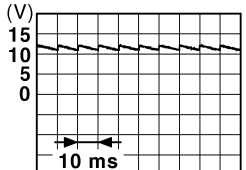
[POWER DISTRIBUTION SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
142 (BG)	Ground	Combination switch OUTPUT 5	Output	All switches OFF	0 V
				Lighting switch 1ST	
				Lighting switch HI	
				Lighting switch 2ND	
				Turn signal switch RH	10.7 V
143 (P)	Ground	Combination switch OUTPUT 1	Output	All switches OFF (Wiper intermittent dial 4)	0 V
				Front wiper switch HI (Wiper intermittent dial 4)	
				Rear wiper switch INT (Wiper intermittent dial 4)	
				Any of the conditions below with all switches OFF	
				<ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7 	10.7 V
144 (G)	Ground	Combination switch OUTPUT 2	Output	All switches OFF (Wiper intermittent dial 4)	0 V
				Front washer switch ON (Wiper intermittent dial 4)	
				Rear wiper switch ON (Wiper intermittent dial 4)	
				Rear washer switch ON (Wiper intermittent dial 4)	
				Any of the conditions below with all switches OFF	10.7 V
				<ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6 	
145 (L)	Ground	Combination switch OUTPUT 3	Output	All switches OFF	0 V
				Front wiper switch INT	
				Front wiper switch LO	
				Lighting switch AUTO	10.7 V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
146 (SB)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper intermit- tent dial 4)	All switches OFF	0 V
					Front fog lamp switch ON	
					Lighting switch 2ND	
					Lighting switch PASS	
					Turn signal switch LH	
150 (LG)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	 11.8 V
					ON (Door open)	0 V
151 (G)	Ground	Rear window defog- ger relay control	Output	Rear window de- fogger	Active	0 V
					Not activated	Battery voltage

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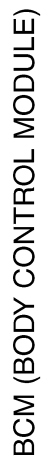
PCS

[POWER DISTRIBUTION SYSTEM]

Wiring Diagram - BCM -

2011/06/24

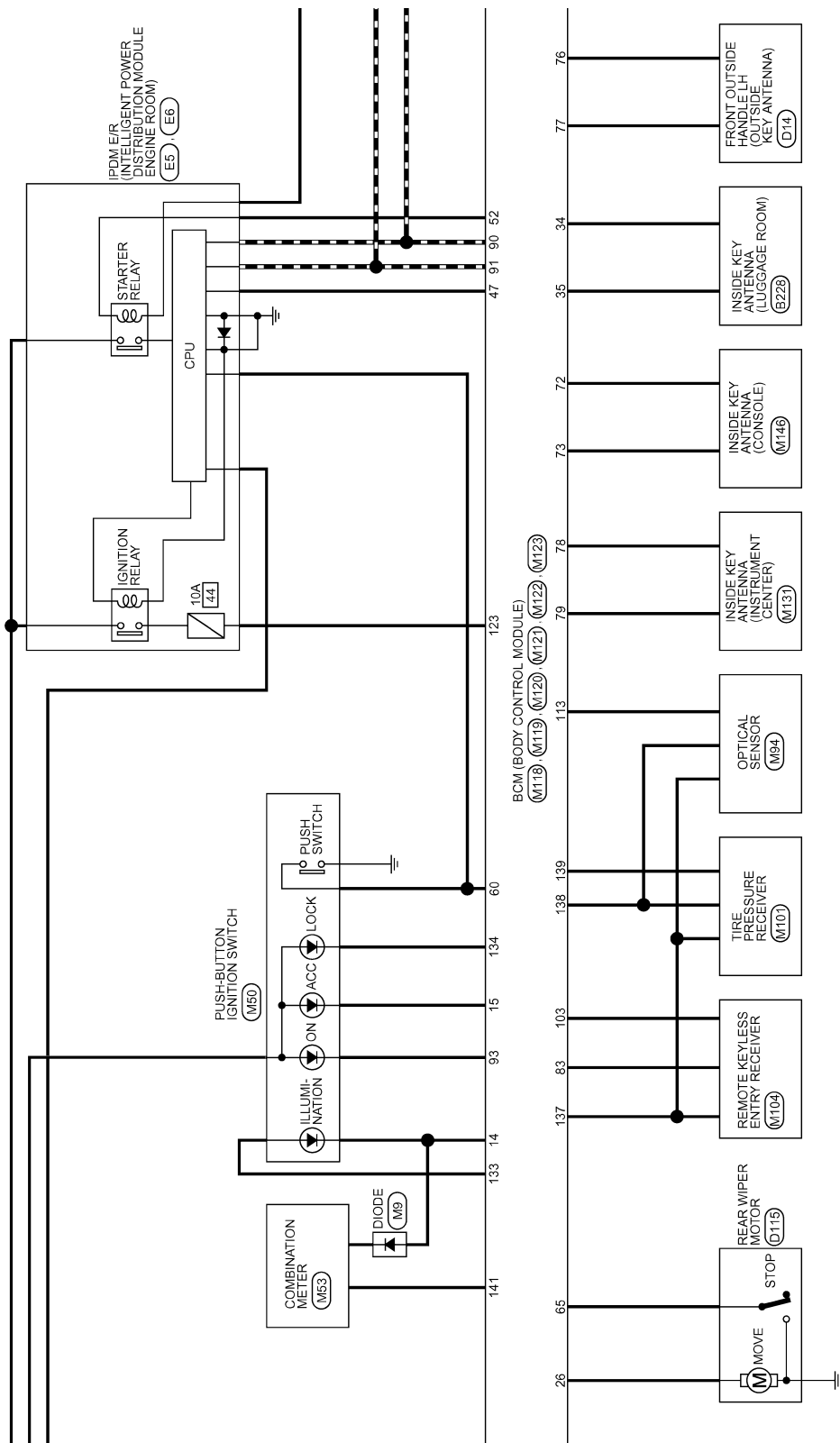
JRMWC4032GB



BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]



JRMWC4033GB

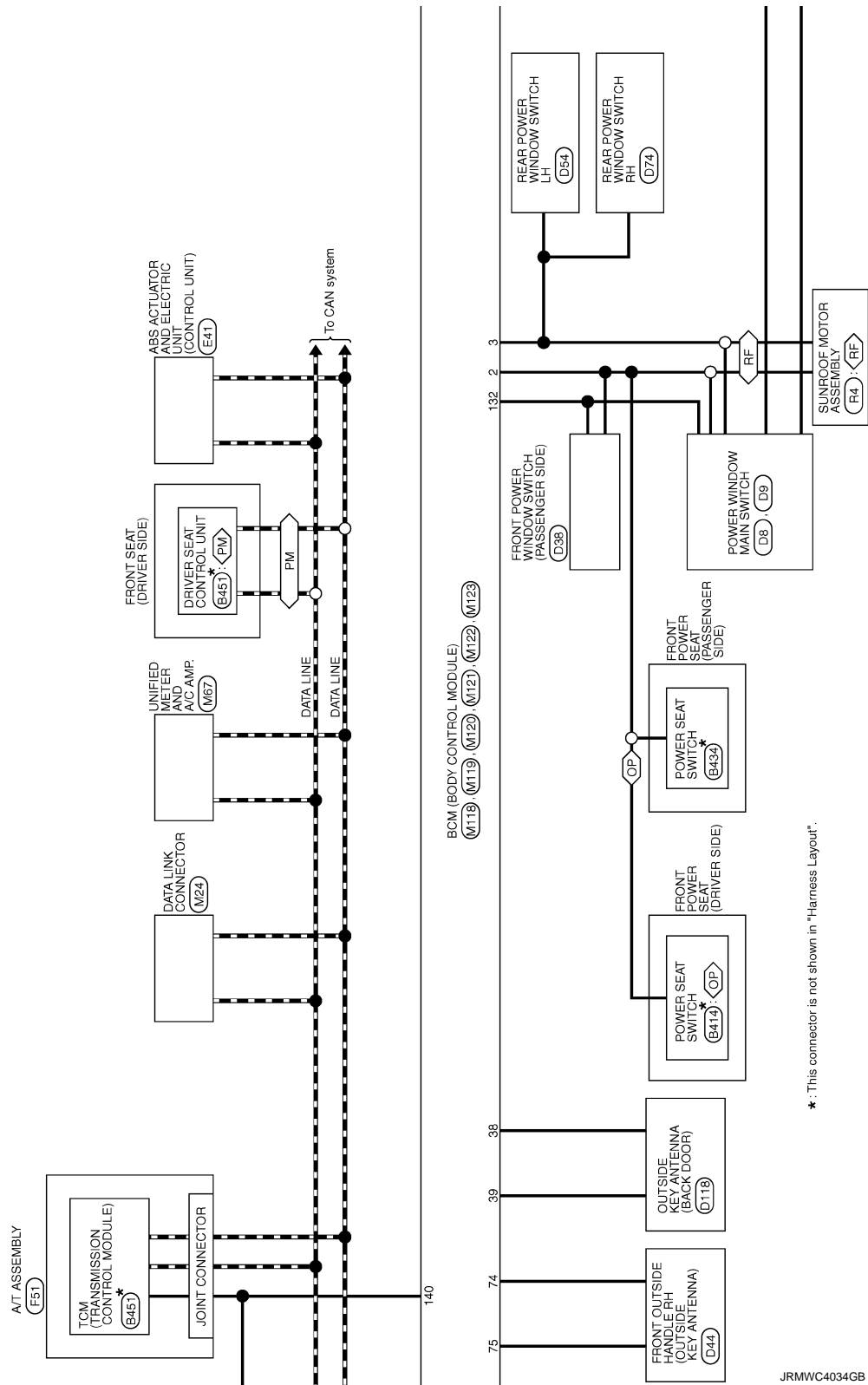
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]

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

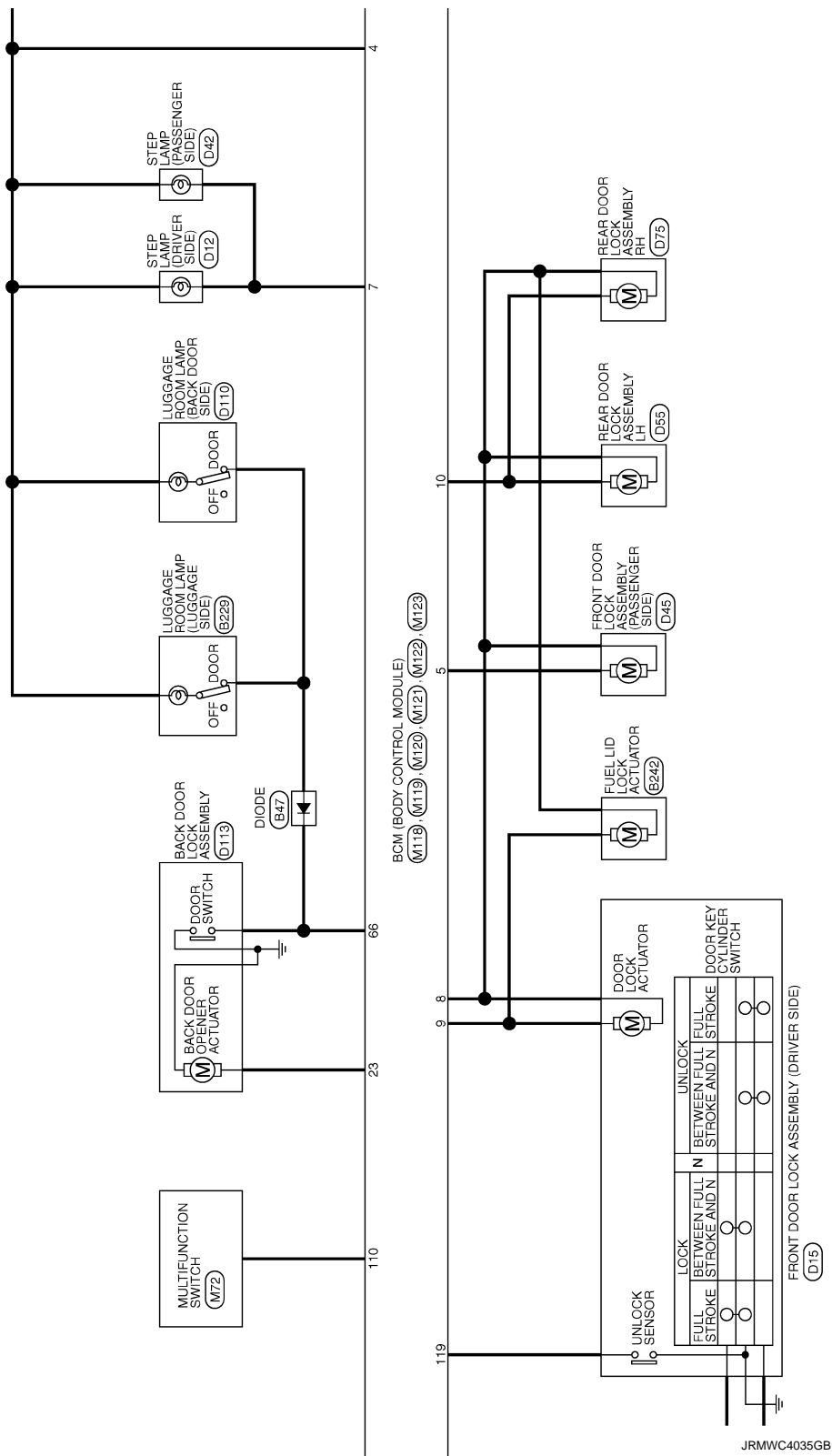


JRMWC4034GB

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]

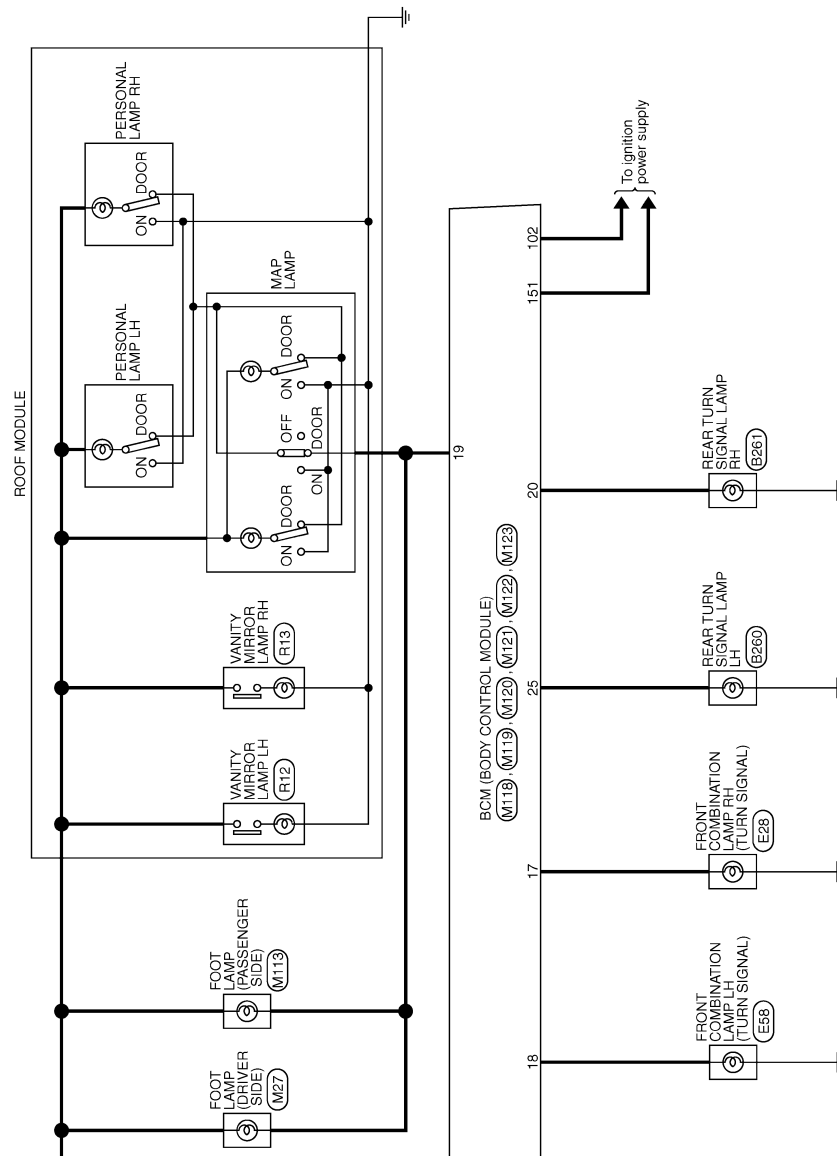


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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]



JRMWC4036GB

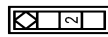
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]

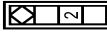
BCM (BODY CONTROL MODULE)

Connector No.	B16
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)
Connector Type	A03FW



Terminal No.	2
Color Of Wire	V
Signal Name [Specification]	-

Connector No.	B23
Connector Name	REAR DOOR SWITCH LH
Connector Type	A03FW

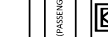


Terminal No.	2
Color Of Wire	LG
Signal Name [Specification]	-

Connector No.	B47
Connector Name	DIODE
Connector Type	24335_C9000



Terminal No.	1
Color Of Wire	B
Signal Name [Specification]	-



Terminal No.	2
Color Of Wire	L
Signal Name [Specification]	-

Connector No.	B215
Connector Name	FRONT DOOR SWITCH (PASSENGER SIDE)
Connector Type	A03FW



Terminal No.	2
Color Of Wire	L
Signal Name [Specification]	-

Terminal No.	2
Color Of Wire	BR
Signal Name [Specification]	-

Connector No.	B228
Connector Name	INSIDE KEY ANTENNA (LUGGAGE ROOM)
Connector Type	RK02EGY



Terminal No.	1
Color Of Wire	V
Signal Name [Specification]	-

Connector No.	B229
Connector Name	LUGGAGE ROOM LAMP (LUGGAGE SIDE)
Connector Type	T03FW



Terminal No.	1
Color Of Wire	GR
Signal Name [Specification]	-

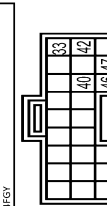
Terminal No.	2
Color Of Wire	L
Signal Name [Specification]	-

Connector No.	B242
Connector Name	FUEL LID LOCK ACTUATOR
Connector Type	MC4FW-LC



Terminal No.	1
Color Of Wire	R
Signal Name [Specification]	-

Terminal No.	2
Color Of Wire	V
Signal Name [Specification]	-



Terminal No.	33
Color Of Wire	BR
Signal Name [Specification]	IGNITION
Terminal No.	40
Color Of Wire	S8
Signal Name [Specification]	IBAOFF SW
Terminal No.	42
Color Of Wire	G
Signal Name [Specification]	IGNITION
Terminal No.	46
Color Of Wire	B
Signal Name [Specification]	GROUND
Terminal No.	47
Color Of Wire	V
Signal Name [Specification]	BRAKE HOLD REY DRIVE SIGNAL

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]

BCM (BODY CONTROL MODULE)

Connector No.	B260
Connector Name	REAR TURN SIGNAL LAMP LH
Connector Type	HS02FG-W



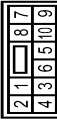
Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	B	-

Connector No.	B261
Connector Name	REAR TURN SIGNAL LAMP RH
Connector Type	HS02FG-W



Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	-
2	B	-

Connector No.	B414
Connector Name	POWER SEAT SWITCH
Connector Type	NS10FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	B	-
3	G/Y	-
4	P	-
5	W	-
6	W	-
7	U/Y	-
8	U/R	-
9	U/R	-
10	G/W	-

Connector No.	B434
Connector Name	POWER SEAT SWITCH
Connector Type	NS10FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	B	-
3	G/Y	-
4	P	-
5	W	-
6	V	-
7	U/Y	-
8	U/R	-
9	U/R	-
10	G/W	-

Connector No.	B451
Connector Name	DRIVER SEAT CONTROL UNIT
Connector Type	TH32FW



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L/W	RX
3	R/Y	CAH-H
9	W/G	PULSE (RECLINING)
10	P/B	PULSE (RL LIFTING)
11	BR	SLIDING SW (BACKWARD)
12	BR	RECLINING SW (BACKWARD)
13	BR	RECLINING SW (FORWARD)
14	G/R	FRONT LIFTING SW (DOWNWARD)
15	G/B	REAR LIFTING SW (DOWNWARD)
16	O	ACC
17	V/R	TX
19	V	CAHL
21	L/Y	P RANGE SW
24	R	PULSE (SLIDING)
25	V/B	PULSE (FL LIFTING)
26	Y	SLIDING SW (FORWARD)
27	R/G	RECLINING SW (FORWARD)
28	W/B	FRONT LIFTING SW (UPWARD)
29	P/L	REAR LIFTING SW (UPWARD)
31	GR	SENSOR GND
32	B/W	GND SIGNAL

Connector No.	D3
Connector Name	DOOR MIRROR (DRIVER SIDE)
Connector Type	TH42MW-RH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	O	-
2	B	-
3	B	SIDE CAMERA LH COMM
5	Y	SIDE CAMERA LH IMAGE SIGNAL
6	R	SIDE CAMERA LH POWER SUPPLY
7	W	-
10	G	-
11	S	-
12	O	-
13	G	-
14	LS	-
17	G	SIDE CAMERA LH IMAGE GND
18	W	-
19	B	-
21	GR	-
22	BR	-
23	Y	-
24	V	-

Connector No.	DS
Connector Name	POWER WINDOW MAIN SWITCH
Connector Type	NS16FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	GR	-
3	GR	-
4	V	-

JRMWGB099GB

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]

BCM (BODY CONTROL MODULE)

Terminal No.	Color Of Wire	Signal Name [Specification]
5	O	-
6	Y	-
7	BR	-
8	L	-
9	O	-
10	Y	-
11	G	-
13	P	-
14	V	-
15	B	-

Connector No.	Color Of Wire	Signal Name [Specification]
D9	-	-
Connector Name	-	-
Connector Type	-	-



Terminal No.	Color Of Wire	Signal Name [Specification]
17	B	-
19	W	-

Connector No.	Color Of Wire	Signal Name [Specification]
D12	-	-
Connector Name	-	-
Connector Type	-	-



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	SB	-

Connector No.	Color Of Wire	Signal Name [Specification]
D13	-	-
Connector Name	-	-
Connector Type	-	-



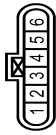
Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	B	-

Connector No.	Color Of Wire	Signal Name [Specification]
D14	-	-
Connector Name	-	-
Connector Type	-	-



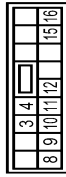
Terminal No.	Color Of Wire	Signal Name [Specification]
1	O	-
2	SB	-

Connector No.	Color Of Wire	Signal Name [Specification]
D15	-	-
Connector Name	-	-
Connector Type	-	-



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	P	-
3	L	-
4	B	-
5	Y	-
6	V	-

Connector No.	Color Of Wire	Signal Name [Specification]
D18	-	-
Connector Name	-	-
Connector Type	-	-



Terminal No.	Color Of Wire	Signal Name [Specification]
3	L	-
4	G	-
8	W	-
9	G	-
10	W	-
11	B	-
12	R	-
15	O	-
16	V	-

Connector No.	Color Of Wire	Signal Name [Specification]
D42	-	-
Connector Name	-	-
Connector Type	-	-



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	SB	-

Connector No.	Color Of Wire	Signal Name [Specification]
D43	-	-
Connector Name	-	-
Connector Type	-	-



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	B	-

JRMWG8100GB

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]

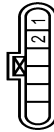
BCM (BODY CONTROL MODULE)

Connector No.	D44
Connector Name	FRONT OUTSIDE HANDLE RH (OUTSIDE KEY ANTENNA)
Connector Type	RK02MGT



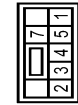
Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	-
2	V	-

Connector No.	D45
Connector Name	FRONT DOOR LOCK ASSEMBLY (PASSENGER SIDE)
Connector Type	ES05GY-RS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	-
2	LG	-

Connector No.	D54
Connector Name	REAR POWER WINDOW SWITCH LH
Connector Type	NS08PW-CS



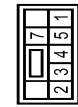
Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	V	-
3	G	-
4	L	-
5	W	-
7	B	-

Connector No.	D55
Connector Name	REAR DOOR LOCK ASSEMBLY LH
Connector Type	ES05GY-RS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	-
2	G	-

Connector No.	D74
Connector Name	REAR POWER WINDOW SWITCH RH
Connector Type	NS08PW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	V	-
3	G	-
4	P	-
5	O	-
7	B	-

Connector No.	D75
Connector Name	REAR DOOR LOCK ASSEMBLY RH
Connector Type	ES05GY-RS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	V	-

Connector No.	D110
Connector Name	LOGGAGE ROOM LAMP (BACK DOOR SIDE)
Connector Type	TK03FW



Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	-
2	P	-

Connector No.	D113
Connector Name	BACK DOOR LOCK ASSEMBLY
Connector Type	NS04PW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	B	-
3	V	-
4	B	-

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]

BCM (BODY CONTROL MODULE)

Connector No.	D114
Connector Name	BACK DOOR OPENER SWITCH
Connector Type	1K02M08P



Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	-
2	B	-

Connector No.	D115
Connector Name	REAR WIPER MOTOR
Connector Type	C04FW-1V



Terminal No.	Color Of Wire	Signal Name [Specification]
2	G	-
3	O	-
4	B	-

Connector No.	D116
Connector Name	BACK DOOR OPENER REQUEST SWITCH
Connector Type	1K02M08P



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	B	-

Connector No.	D118
Connector Name	OUTSIDE KEY ANTENNA (BACK DOOR)
Connector Type	R02FGY



Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	-
2	R	-

Connector No.	E5
Connector Name	POWER/LAN INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	1H20PW-CSI2-M4-1V



Terminal No.	Color Of Wire	Signal Name [Specification]
4	V	-
5	L	-
7	R	-
12	B/W	-
13	Y	-
16	LG	-
19	W	-
22	G	-
27	RG	-
28	L	-
30	GR	-
36	G	-

Connector No.	E6
Connector Name	POWER/LAN INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	1H08FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
39	P	-
40	L	-
41	B/W	-
43	SB	-
44	BR	-
45	G	-
46	R	-

Connector No.	E28
Connector Name	FRONT COMBINATION LAMP RH
Connector Type	1SC08F-P



Terminal No.	Color Of Wire	Signal Name [Specification]
2	B	-
3	B/Y	-
4	B/W	-
5	RG	-
6	V	-
7	BR	-
8	P	-

Connector No.	E41
Connector Name	ABS ACTUATOR AND ELECTRIC ANTICONTROL UNIT
Connector Type	1BA02FB-AN24-H



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
2	G	UBMR
3	R	UBVR
4	B	GROUND
5	Y	DSFL
6	RG	DPRL
7	BR	DPRL
9	B	DPFR
10	W	DSFR
14	P	CAN-L
25	Y	ABS-L
26	LG	DPFL
27	GR	DSRL

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]

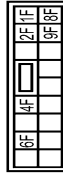
BCM (BODY CONTROL MODULE)

Connector No.	ES8
Connector Name	FRONT COMBINATION LAMP LH
Connector Type	RS08FB-PR



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	B	-
3	BY	-
4	BY	-
5	V	-
6	G	-
7	G	-
8	BG	-

Connector No.	E103
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1F	SB	-
2F	W	-
4F	G	-
6F	BR	-
8F	L	-
9F	R	-

Connector No.	E110
Connector Name	STOP LAMP SWITCH
Connector Type	MS04FW-LC



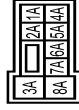
Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	W	-
3	Y	-
4	SB	-

Connector No.	FS1
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DOY



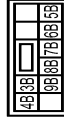
Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	BR	-
3	L	-
4	V	-
5	B	-
6	Y	-
7	R	-
8	P	-
9	GR	-
10	B	-

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-M2



Terminal No.	Color Of Wire	Signal Name [Specification]
1A	GR	-
2A	G	-
3A	L	-
4A	P	-
5A	V	-
6A	Z	-
7A	R	-
8A	L	-

Connector No.	M2
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS10FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
3B	P	-
4B	G	-
5B	BG	-
6B	Y	-
7B	P	-
8B	R	-
9B	SB	-

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[POWER DISTRIBUTION SYSTEM]

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Terminal	Color	Signal Name (Specification)
No. 1	GR	BATTERY POWER SUPPLY
2	GR	COMMUNICATION SIGNAL (AMP->AMP)
3	GR	COMMUNICATION SIGNAL (AMP->METER)
5	B	GROUND
6	P	ALTERNATOR SIGNAL
7	GR	AIR BAG SIGNAL
10	G	SECURITY SIGNAL
15	B	GROUND
16	B	METER CONTROL SWITCH GROUND
19	B	ILL GND
20	R	ILL
21	GR	GROUND

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]

BCM (BODY CONTROL MODULE)

Terminal No.	Color Of Wire	Signal Name [Specification]
22	B	GROUND
24	BR	COMMUNICATION SIGNAL (LCD →AMP.)
25	Y	COMMUNICATION SIGNAL (AMP.→LCD)
26	R	VEHICLE SPEED SIGNAL (8 PULSES)
27	V	PARKING BRAKE SWITCH SIGNAL
28	SB	BRAKE FLUID LEVEL SWITCH SIGNAL
29	SB	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
30	G	SEAT BELT BUCKLE SWITCH SIGNAL (PASSENGER SIDE)
31	L	WASHER LEVEL SWITCH SIGNAL
33	B	ILLUMINATION CONTROL SIGNAL
36	LG	SELECT SWITCH SIGNAL
37	SB	ENTER SWITCH SIGNAL
38	L	TRIP A/R RESET SWITCH SIGNAL
39	P	ILLUMINATION CONTROL SWITCH SIGNAL (-)
40	BS	ILLUMINATION CONTROL SWITCH SIGNAL (+)

Connector No.	Connector Name	Connector Type
M67	UNIFIED METER AND A/C AMP.	TH32FW-NH



41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72
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Terminal No.	Color Of Wire	Signal Name [Specification]
41	V	A/C POWER SUPPLY
42	Y	FUEL LEVEL SENSOR SIGNAL
43	R	INTAKE SENSOR SIGNAL
44	LG	IN-VEHICLE SENSOR SIGNAL
45	P	AMBIENT SENSOR SIGNAL
46	BS	SUNLOAD SENSOR SIGNAL
47	G	EXHAUST GAS / OUTSIDE OXYGEN DETECTING SENSOR SIGNAL
53	G	IGNITION POWER SUPPLY
54	Y	BATTERY POWER SUPPLY
55	B	GROUND
56	L	CAN-H
57	W	BRAKE FLUID LEVEL SWITCH SIGNAL
58	BR	FUEL LEVEL SENSOR GROUND
59	GR	INTAKE SENSOR GROUND
60	L	IN-VEHICLE SENSOR GROUND
61	BR	AMBIENT SENSOR GROUND
62	SB	SUNLOAD SENSOR GROUND
63	L	ECU SIGNAL
65	BS	

Terminal No.	Color Of Wire	Signal Name [Specification]
69	L	A/C LAMP SIGNAL
70	R	EACH DOOR MOTOR POWER SUPPLY
71	B	GROUND
72	P	CAN-L

Connector No.	Connector Name	Connector Type
M72	MULTI FUNCTION SWITCH	TH16FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72
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Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	GROUND
2	R	A/C
3	B	ILL
4	R	ILL CONT
5	Y	ILL
6	SB	AV COMM (H)
8	LG	AV COMM (L)
9	B	SW GND
14	Y	DISK EJECT SIGNAL
16	G	HAZARD ON

Connector No.	Connector Name	Connector Type
M84	OPTICAL SENSOR	TK03FW



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72
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Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	POWER
2	P	OUTPUT
3	B	GROUND

Connector No.	Connector Name	Connector Type
M101	TIRE PRESSURE RECEIVER	TK04FW



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72
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Terminal No.	Color Of Wire	Signal Name [Specification]
1	BG	GROUND
2	L	SIGNAL
4	Y	BATTERY

Connector No.	Connector Name	Connector Type
M104	REMOTE KEYLESS ENTRY RECEIVER	JAB04FB



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72
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Terminal No.	Color Of Wire	Signal Name [Specification]
1	BG	GROUND
2	Y	SIGNAL OUTPUT
4	LG	BATTERY

Connector No.	Connector Name	Connector Type
M113	FOOT LAMP (PASSENGER SIDE)	AD2FW



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72
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Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	
2	BR	

Connector No.	Connector Name	Connector Type
M118	BCM (BODY CONTROL MODULE)	MG32P-LC



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72
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Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	BAT (F/L)
2	W	POWER WINDOW POWER SUPPLY (BAT)
3	Y	POWER WINDOW POWER SUPPLY (RAP)

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]

BCM (BODY CONTROL MODULE)

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FW-C5



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

Terminal No.	Color Of Wire	Signal Name [Specification]
4	LG	INTERIOR ROOM LAMP POWER SUPPLY
5	L	PASSENGER DOOR UNLOCK OUTPUT
7	Y	STEP LAMP CONT
8	V	ALL DOOR FUEL LOCK OUTPUT
9	G	DRIVER DOOR FUEL LOCK OUTPUT
10	BR	REAR DOOR UNLOCK OUTPUT
11	R	BAT (FUSE)
13	B	GROUND
14	V	PUSH-BUTTON (DRIVER DOOR SW I/L GND)
15	V	ACC INDO
17	W	TURN SIGNAL RH (FRONT)
18	UG	TURN SIGNAL LH (FRONT)
19	V	INT ROOM LAMP CONT

Connector No.	M120
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS12FW-C5



20	23
25	26

Terminal No.	Color Of Wire	Signal Name [Specification]
20	V	TURN SIGNAL RH (REAR)
23	G	BACK DOOR OPEN OUTPUT
25	G	TURN SIGNAL LH (REAR)
26	G	REAR WIPER OUTPUT

Connector No.	M121
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH



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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]

BCM (BODY CONTROL MODULE)			
5	G	-	
7	R	-	
8	SB	-	
9	B	-	
10	GR	-	
11	R	-	

Connector No.	M146
Connector Name	INSIDE KEY ANTENNA (CONSOLE)
Connector Type	RK02FGY

Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	R	-

Connector No.	R4
Connector Name	SUNROOF MOTOR ASSEMBLY
Connector Type	YEA10GY

Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	R	-

Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	SW-BIT1
5	P	SW-BIT0
7	BR	+B
8	L	SPEED SENSOR(2P)
9	Y	TIMER(+5V)
10	G	GROUND

Connector No.	R12
Connector Name	VANITY MIRROR LAMP LH
Connector Type	MCAD2FW



Terminal No.	Color Of Wire	Signal Name [Specification]
1	-	-
2	-	-

Connector No.	R13
Connector Name	VANITY MIRROR LAMP RH
Connector Type	MCAD2FW



Terminal No.	Color Of Wire	Signal Name [Specification]
1	-	-
2	-	-

Fail-safe

FAIL-SAFE CONTROL BY DTC

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

JRMWGB107GB

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]

Display contents of CONSULT	Fail-safe	Cancellation
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 → OFF
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent <ul style="list-style-type: none"> Starter control relay signal Starter relay status signal
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent <ul style="list-style-type: none"> Starter motor relay control signal Starter relay status signal (CAN)
B260A: IGNITION RELAY	Inhibit engine cranking	500 ms after the following conditions are fulfilled <ul style="list-style-type: none"> IGN relay (IPDM E/R) control signal: OFF (Battery voltage) Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions are fulfilled <ul style="list-style-type: none"> Power position changes to ACC Receives engine status signal (CAN)
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization

REAR WIPER MOTOR PROTECTION

BCM detects the rear wiper stopping position according to the rear wiper stop position signal. When the rear wiper stop position signal does not change for more than 5 seconds while driving the rear wiper, BCM stops power supply to protect the rear wiper motor.

Condition of cancellation

1. More than 1 minute is passed after the rear wiper stops.
2. Turn rear wiper switch OFF.
3. Operate the rear wiper switch or rear washer switch.

DTC Inspection Priority Chart

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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	<ul style="list-style-type: none"> U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)
3	<ul style="list-style-type: none"> B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI SCANNING

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]

Priority	DTC
4	<ul style="list-style-type: none"> • B2553: IGNITION RELAY • B2555: STOP LAMP • B2556: PUSH-BTN IGN SW • B2557: VEHICLE SPEED • B2560: STARTER CONT RELAY • B2601: SHIFT POSITION • B2602: SHIFT POSITION • B2603: SHIFT POSI STATUS • B2604: PNP SW • B2605: PNP SW • B2608: STARTER RELAY • B260A: IGNITION RELAY • B260F: ENG STATE SIG LOST • B2614: ACC RELAY CIRC • B2615: BLOWER RELAY CIRC • B2616: IGN RELAY CIRC • B2617: STARTER RELAY CIRC • B2618: BCM • B261A: PUSH-BTN IGN SW • B261E: VEHICLE TYPE • B26EA: KEY REGISTRATION • C1729: VHCL SPEED SIG ERR • U0415: VEHICLE SPEED SIG
5	<ul style="list-style-type: none"> • C1704: LOW PRESSURE FL • C1705: LOW PRESSURE FR • C1706: LOW PRESSURE RR • C1707: LOW PRESSURE RL • C1708: [NO DATA] FL • C1709: [NO DATA] FR • C1710: [NO DATA] RR • C1711: [NO DATA] RL • C1716: [PRESSDATA ERR] FL • C1717: [PRESSDATA ERR] FR • C1718: [PRESSDATA ERR] RR • C1719: [PRESSDATA ERR] RL • C1734: CONTROL UNIT
6	<ul style="list-style-type: none"> • B2621: INSIDE ANTENNA • B2622: INSIDE ANTENNA • B2623: INSIDE ANTENNA

DTC Index

INFOID:000000007582753

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 [BCS-18. "COMMON ITEM : CONSULT Function \(BCM - COMMON ITEM\)"](#).

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	Reference page
No DTC is detected. further testing may be required.	—	—	—	—	—
U1000: CAN COMM CIRCUIT	—	—	—	—	BCS-37
U1010: CONTROL UNIT (CAN)	—	—	—	—	BCS-38
U0415: VEHICLE SPEED SIG	—	—	—	—	BCS-39

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]

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	Reference page
B2190: NATS ANTENNA AMP	×	—	—	—	SEC-40
B2191: DIFFERENCE OF KEY	×	—	—	—	SEC-43
B2192: ID DISCORD BCM-ECM	×	—	—	—	SEC-44
B2193: CHAIN OF BCM-ECM	×	—	—	—	SEC-45
B2195: ANTI SCANNING	×	—	—	—	SEC-46
B2553: IGNITION RELAY	—	×	—	—	PCS-48
B2555: STOP LAMP	—	×	—	—	SEC-47
B2556: PUSH-BTN IGN SW	—	×	×	—	SEC-49
B2557: VEHICLE SPEED	×	×	×	—	SEC-51
B2560: STARTER CONT RELAY	×	×	×	—	SEC-52
B2562: LOW VOLTAGE	—	×	—	—	BCS-40
B2601: SHIFT POSITION	×	×	×	—	SEC-53
B2602: SHIFT POSITION	×	×	×	—	SEC-56
B2603: SHIFT POSI STATUS	×	×	×	—	SEC-59
B2604: PNP SW	×	×	×	—	SEC-62
B2605: PNP SW	×	×	×	—	SEC-64
B2608: STARTER RELAY	×	×	×	—	SEC-66
B260A: IGNITION RELAY	×	×	×	—	PCS-50
B260F: ENG STATE SIG LOST	×	×	×	—	SEC-68
B2614: ACC RELAY CIRC	—	×	×	—	PCS-52
B2615: BLOWER RELAY CIRC	—	×	×	—	PCS-55
B2616: IGN RELAY CIRC	—	×	×	—	PCS-58
B2617: STARTER RELAY CIRC	×	×	×	—	SEC-71
B2618: BCM	×	×	×	—	PCS-61
B261A: PUSH-BTN IGN SW	—	×	×	—	SEC-73
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	—	SEC-76
B2621: INSIDE ANTENNA	—	×	—	—	DLK-60
B2622: INSIDE ANTENNA	—	×	—	—	DLK-62
B2623: INSIDE ANTENNA	—	×	—	—	DLK-64
B26E1: ENG STATE NO RES	×	×	×	—	SEC-69
B26EA: KEY REGISTRATION	—	×	× (Turn ON for 15 seconds)	—	SEC-70
C1704: LOW PRESSURE FL	—	—	—	×	WT-23
C1705: LOW PRESSURE FR	—	—	—	×	
C1706: LOW PRESSURE RR	—	—	—	×	
C1707: LOW PRESSURE RL	—	—	—	×	
C1708: [NO DATA] FL	—	—	—	×	WT-25
C1709: [NO DATA] FR	—	—	—	×	
C1710: [NO DATA] RR	—	—	—	×	
C1711: [NO DATA] RL	—	—	—	×	

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[POWER DISTRIBUTION SYSTEM]

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	Reference page
C1716: [PRESSDATA ERR] FL	—	—	—	×	WT-28
C1717: [PRESSDATA ERR] FR	—	—	—	×	
C1718: [PRESSDATA ERR] RR	—	—	—	×	
C1719: [PRESSDATA ERR] RL	—	—	—	×	
C1729: VHCL SPEED SIG ERR	—	—	—	×	WT-30
C1734: CONTROL UNIT	—	—	—	×	WT-32

PRECAUTION

PRECAUTIONS

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

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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.

Precautions Necessary for Steering Wheel Rotation After Battery Disconnection

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CAUTION:

Comply with the following cautions to prevent any error and malfunction.

- Before removing and installing any control units, first turn the ignition switch to the LOCK position, then disconnect both battery cables.
- After finishing work, confirm that all control unit connectors are connected properly, then re-connect both battery cables.
- Always use CONSULT to perform self-diagnosis as a part of each function inspection after finishing work. If a DTC is detected, perform trouble diagnosis according to self-diagnosis results.

For vehicle with steering lock unit, if the battery is disconnected or discharged, the steering wheel will lock and cannot be turned.

If turning the steering wheel is required with the battery disconnected or discharged, follow the operation procedure below before starting the repair operation.

OPERATION PROCEDURE

1. Connect both battery cables.

NOTE:

Supply power using jumper cables if battery is discharged.

2. Turn the ignition switch to ACC position.
(At this time, the steering lock will be released.)
3. Disconnect both battery cables. The steering lock will remain released with both battery cables disconnected and the steering wheel can be turned.

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PRECAUTIONS

[POWER DISTRIBUTION SYSTEM]

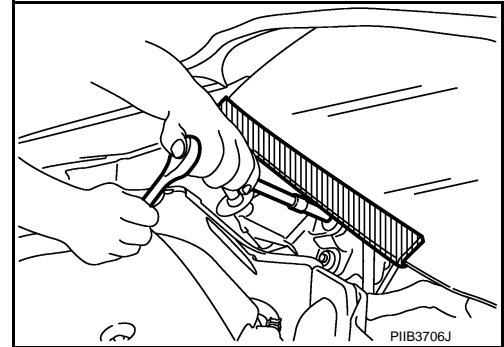
< PRECAUTION >

4. Perform the necessary repair operation.
5. When the repair work is completed, re-connect both battery cables. With the brake pedal released, turn the ignition switch from ACC position to ON position, then to LOCK position. (The steering wheel will lock when the ignition switch is turned to LOCK position.)
6. Perform self-diagnosis check of all control units using CONSULT.

Precaution for Procedure without Cowl Top Cover

INFOID:000000007458160

When performing the procedure after removing cowl top cover, cover the lower end of windshield with urethane, etc to prevent damage to windshield.



PUSH-BUTTON IGNITION SWITCH DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[POWER DISTRIBUTION SYSTEM]

SYMPTOM DIAGNOSIS

PUSH-BUTTON IGNITION SWITCH DOES NOT OPERATE

Description

INFOID:000000007458161

Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

NOTE:

The engine start function, door lock function, power distribution system, and NATS-IVIS/NVIS in the Intelligent Key system are closely related to each other regarding control. The vehicle security function can operate only when the door lock and power distribution system are operating normally.

Conditions of Vehicle (Operating Conditions)

- "ENGINE START BY I-KEY" in "WORK SUPPORT" is ON when setting on CONSULT.
- Intelligent Key is not inserted in key slot.
- One or more of Intelligent Keys with registered Intelligent Key ID is in the vehicle.

Diagnosis Procedure

INFOID:000000007458162

1.CHECK INTELLIGENT KEY SYSTEM (DOOR LOCK FUNCTION)

Lock/unlock door with door request switch.

Refer to [DLK-19. "DOOR LOCK FUNCTION : System Description"](#).

Is the operation normal?

YES >> GO TO 2.

NO >> Check Intelligent Key system (door lock function). Refer to [DLK-186. "ALL DOOR : Diagnosis Procedure"](#).

2.PERFORM WORK SUPPORT

Perform "INSIDE ANT DIAGNOSIS" on Work Support of "INTELLIGENT KEY".

Refer to [DLK-53. "INTELLIGENT KEY : CONSULT Function \(BCM - INTELLIGENT KEY\)"](#).

>> GO TO 3.

3.PERFORM SELF-DIAGNOSTIC RESULT

Perform Self-Diagnostic Result of "BCM".

Is DTC detected?

YES >> Refer to [DLK-60. "DTC Logic"](#) (instrument center), [DLK-62. "DTC Logic"](#) (console) or [DLK-64. "DTC Logic"](#) (trunk room).

NO >> GO TO 4.

4.CHECK PUSH-BUTTON IGNITION SWITCH

Check push-button ignition switch.

Refer to [PCS-65. "Component Function Check"](#).

Is the operation normal?

YES >> GO TO 5.

NO >> Repair or replace malfunctioning parts.

5.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection normal?

YES >> Check intermittent incident. Refer to [GI-42. "Intermittent Incident"](#).

NO >> GO TO 1.

A

B

C

D

E

F

G

H

I

J

K

L

PCS

N

O

P

PUSH-BUTTON IGNITION SWITCH POSITION INDICATOR DOES NOT ILLUMINATE

< SYMPTOM DIAGNOSIS >

[POWER DISTRIBUTION SYSTEM]

PUSH-BUTTON IGNITION SWITCH POSITION INDICATOR DOES NOT ILLUMINATE

Description

INFOID:000000007458163

- Before performing the diagnosis in the following table, check “Work Flow”. Refer to [PCS-34, "Work Flow"](#).
- Check that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- “ENGINE START BY I-KEY” in “WORK SUPPORT” is ON when setting on CONSULT.
- One or more of Intelligent Keys with registered Intelligent Key ID is in the vehicle.

Diagnosis Procedure

INFOID:000000007458164

1.CHECK PUSH-BUTTON IGNITION SWITCH INDICATOR

Check push-button ignition switch indicator.

Refer to [PCS-67, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-42, "Intermittent Incident"](#).

NO >> GO TO 1.

REMOVAL AND INSTALLATION

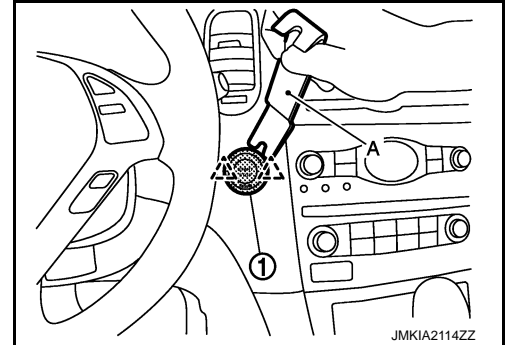
PUSH-BUTTON IGNITION SWITCH

Removal and Installation

INFOID:000000007458165

REMOVAL

Remove the push-button ignition switch fixing pawl using a remover tool (A), and then remove push-button ignition switch (1).



INSTALLATION

Install in the reverse order of removal.

A
B
C
D
E
F
G
H
I
J
K
L
N
O
P

PCS