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INSPECTION AND ADJUSTMENT

BASIC INSPECTION

INSPECTION AND ADJUSTMENT ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Description

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Perform the system initialization when replacing BCM, replacing Intelligent Key or registering an additional Intelligent Key.

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement

Refer to the CONSULT-III operation manual for the initialization procedure.

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SYSTEM DESCRIPTION

BODY CONTROL SYSTEM

System Description

INFOID:0000000004469828

OUTLINE

- BCM (Body Control Module) controls the various electrical components. It inputs the information required to the control from CAN communication and the signal received from each switch and sensor.
- BCM has combination switch reading function for reading the operation status of combination switches (light, turn signal, wiper and washer) in addition to a function for controlling the operation of various electrical components. It also has the signal transmission function as the passed point of signal and the power saving control function that reduces the power consumption with the ignition switch OFF.
- BCM is equipped with the diagnosis function that performs the diagnosis with CONSULT-III and various settings.

BCM control function list

System		Refer to	
Combination switch reading system		BCS-6, "System Diagram"	
Signal buffer system		BCS-10, "System Diagram"	
Power consumption control system		BCS-11, "System Diagram"	
Auto light system		EXL-12, "System Diagram"	
Turn signal and hazard warning lamp syste	em	EXL-24, "System Diagram"	
Headlamp system		EXL-8, "System Diagram"	
Parking, license plate and tail lamps syster	n	EXL-26, "System Diagram"	
Front fog lamp system		EXL-22, "System Diagram"	
Exterior lamp battery saver system		EXL-29, "System Diagram"	
Daytime running light system		EXL-15, "System Diagram"	
Interior room lamp control system			
Step lamp system		INL-5, "System Diagram"	
Trunk room lamp system			
Interior room lamp battery saver system		INL-9, "System Diagram"	
Front wiper and washer system		WW-5. "System Diagram"	
Warning chime system		WCS-5, "WARNING CHIME SYSTEM : System Diagram"	
Door lock system		DLK-11, "System Diagram"	
Trunk open system		DLK-43, "System Diagram"	
Infiniti Vehicle Immobilizer System (IVIS) - NATS		SEC-17, "System Diagram"	
Vehicle security system		SEC-23, "System Diagram"	
Panic alarm		DLK-28, "REMOTE KEYLESS ENTRY FUNCTION : System Description"	
Automatic drive positioner system		ADP-13, "AUTOMATIC DRIVE POSITIONER SYSTEM: System Diagram"	
Rear window defogger system		DEF-4, "System Diagram"	
	Door lock function		
	Trunk open function		
Intelligent Key system/engine start system	Remote keyless entry function	DLK-15, "INTELLIGENT KEY SYSTEM: System Diagram"	
	Key reminder function		
	Warning function		
	Engine start function		

BODY CONTROL SYSTEM

< SYSTEM DESCRIPTION >

System	Refer to
Power window system	PWC-7, "System Diagram"
Retained accessory power (RAP) system	PWC-7, "System Description"
Tire pressure monitor system (TPMS) - AIR PRESSURE MONITOR	WT-9, "System Diagram"

Component Parts Location

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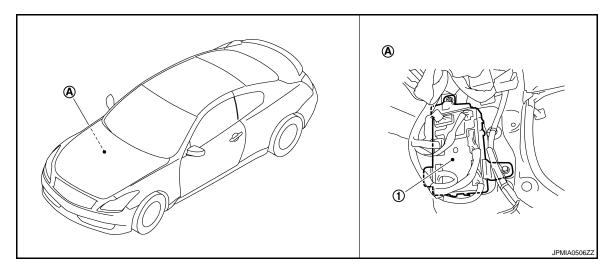
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- 1. BCM
- A. Dash side lower (passenger side)

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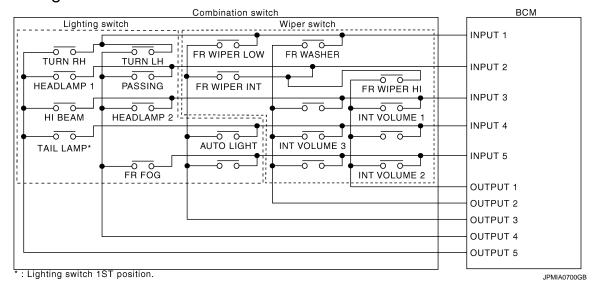
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< SYSTEM DESCRIPTION >

COMBINATION SWITCH READING SYSTEM

System Diagram

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System Description

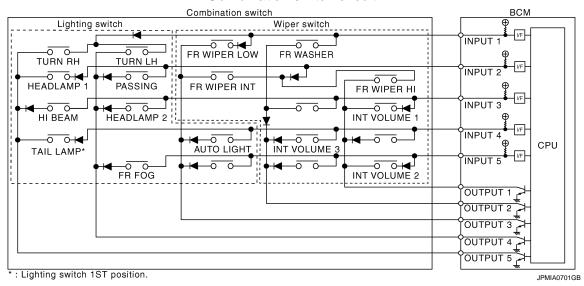
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OUTLINE

- BCM reads the status of the combination switch (light, turn signal, wiper and washer) and recognizes the status of each switch.
- BCM is a combination of 5 output terminals (OUTPUT 1 5) and 5 input terminals (INPUT 1 5). It reads a
 maximum of 20 switch status.

COMBINATION SWITCH MATRIX

Combination switch circuit



Combination switch INPUT-OUTPUT system list

System	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4	OUTPUT 5
INPUT 1	_	FR WASHER	FR WIPER LOW	TURN LH	TURN RH
INPUT 2	FR WIPER HI	_	FR WIPER INT	PASSING	HEADLAMP 1
INPUT 3	INT VOLUME 1	_	_	HEADLAMP 2	HI BEAM

< SYSTEM DESCRIPTION >

System	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4	OUTPUT 5
INPUT 4	_	INT VOLUME 3	AUTO LIGHT	_	TAIL LAMP
INPUT 5	INT VOLUME 2	_		FR FOG	_

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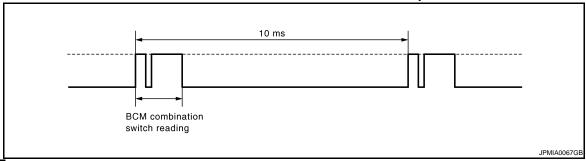
NOTE:

Headlamp has a dual system switch.

COMBINATION SWITCH READING FUNCTION

Description

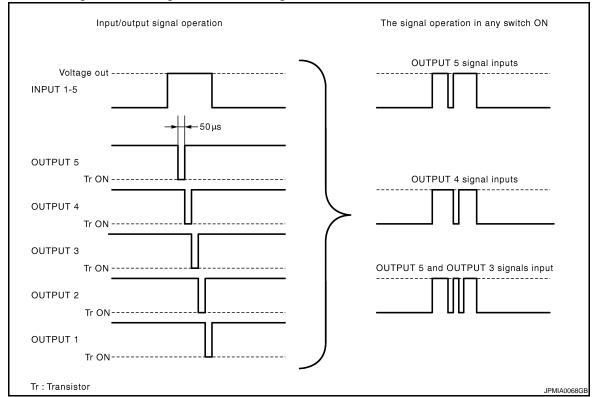
BCM reads the status of the combination switch at 10 ms interval normally.



NOTE:

BCM reads the status of the combination switch at 60 ms interval when BCM is controlled at low power consumption mode.

- BCM operates as follows and judges the status of the combination switch.
- INPUT 1 5 outputs the voltage waveforms of 5 systems simultaneously.
- It operates the transistor on OUTPUT side in the following order: OUTPUT $5 \rightarrow 4 \rightarrow 3 \rightarrow 2 \rightarrow 1$.
- The voltage waveform of INPUT corresponding to the formed circuit changes according to the operation of the transistor on OUTPUT side if any (1 or more) switches are ON.
- It reads this change of the voltage as the status signal of the combination switch.



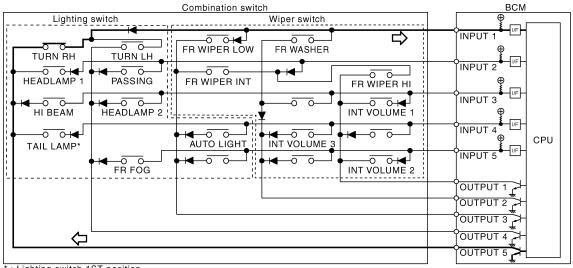
Operation Example

In the following operation example, the combination of the status signals of the combination switch is replaced as follows: INPUT 1 - 5 to "1 - 5" and OUTPUT 1 - 5 to "A - E".

Example 1: When a switch (TURN RH switch) is turned ON

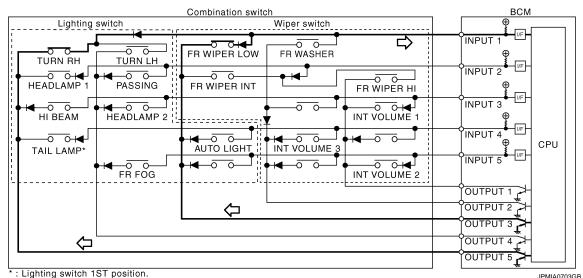
< SYSTEM DESCRIPTION >

The circuit between INPUT 1 and OUTPUT 5 is formed when the TURN RH switch is turned ON.



- : Lighting switch 1ST position.
- BCM detects the combination switch status signal "1E" when the signal of OUTPUT 5 is input to INPUT 1.
- BCM judges that the TURN RH switch is ON when the signal "1E" is detected.

Example 2: When some switches (turn RH switch, front wiper LO switch) are turned ON
• The circuits between INPUT 1 and OUTPUT 5 and between INPUT 1 and OUTPUT 3 are formed when the TURN RH switch and FR WIPER LOW switch are turned ON.



- BCM detects the combination switch status signal "1CE" when the signals of OUTPUT 3 and OUTPUT 5 are input to INPUT 1.
- BCM judges that the TURN RH switch and FR WIPER LOW switch are ON when the signal "1CE" is detected.

WIPER VOLUME DIAL POSITION

BCM judges the wiper intermittent dial 1 - 7 by the status of INT VOLUME 1, 2 and 3 switches.

Winer intermittent dial position		Switch status	
Wiper intermittent dial position	INT VOLUME 1	INT VOLUME 2	INT VOLUME 3
1	ON	ON	ON
2	ON	ON	OFF
3	ON	OFF	OFF
4	OFF	OFF	OFF
5	OFF	OFF	ON

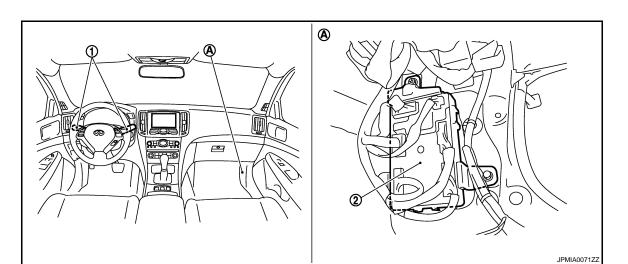
< SYSTEM DESCRIPTION >

Wiper intermittent dial position		Switch status	
wiper intermittent dan position	INT VOLUME 1	INT VOLUME 2	INT VOLUME 3
6	OFF	ON	ON
7	OFF	ON	OFF

NOTE:

For details of wiper intermittent dial position, refer to WW-5, "System Description".

Component Parts Location



- 1. Combination switch
- 2. BCM
- A. Dash side lower (passenger side)

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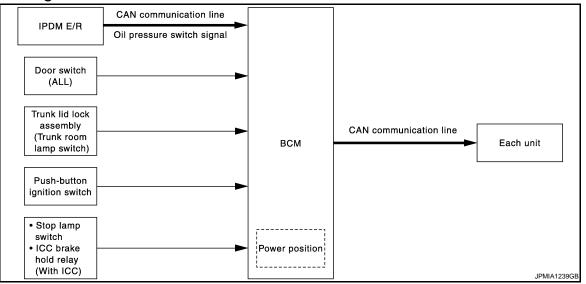
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SIGNAL BUFFER SYSTEM

System Diagram

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System Description

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OUTLINE

BCM has the signal transmission function that outputs/transmits each input/received signal to each unit. Signal transmission function list

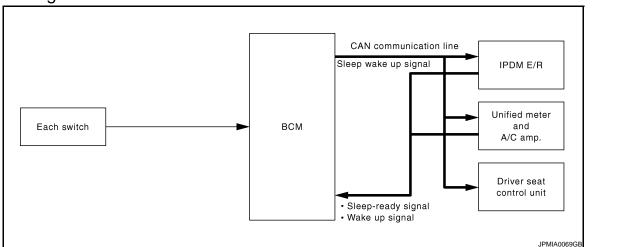
Signal name	Input	Output	Description
 Ignition switch ON signal Ignition switch signal	Push-button ignition switch (push switch)	IPDM E/R (CAN) Driver seat control unit (CAN)	Inputs the push-button ignition switch (push switch) signal and transmits the ignition switch status judged with BCM via CAN communication.
Door switch signal	Any door switch	Combination meter (through unified meter and A/C amp.) (CAN) IPDM E/R (CAN) Driver seat control unit (CAN)	Inputs the door switch signal and transmits it via CAN communication.
Trunk switch signal	Trunk room lamp switch	Combination meter (through unified meter and A/C amp.) (CAN)	Inputs the trunk room lamp switch signal and transmits the trunk switch signal via CAN communication.
Oil pressure switch signal	IPDM E/R (CAN)	Combination meter (through unified meter and A/C amp.) (CAN)	Transmits the received oil pressure switch signal via CAN communication.
Stop lamp switch signal	Stop lamp switch ICC brake hold relay (with ICC)	TCM (CAN)	Inputs the stop lamp switch 1 signal and stop lamp switch 2 signal, and transmits the stop lamp switch signal via CAN communication.

POWER CONSUMPTION CONTROL SYSTEM

< SYSTEM DESCRIPTION >

POWER CONSUMPTION CONTROL SYSTEM

System Diagram



System Description

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OUTLINE

- BCM incorporates a power saving control function that reduces the power consumption according to the vehicle status.
- BCM switches the status (control mode) by itself with the power saving control function. It performs the sleep request to each unit [IPDM E/R, combination meter (unified meter and A/C amp.) and driver seat control unit] that operates with the ignition switch OFF.

Normal mode (wake-up)

- CAN communication is normally performed with other units
- Each control with BCM is operating properly

CAN communication sleep mode (CAN sleep)

- CAN transmission is stopped
- Control with BCM only is operating

Low power consumption mode (BCM sleep)

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

LOW POWER CONSUMPTION CONTROL WITH BCM

BCM reduces the power consumption with the following operation in the low power consumption mode.

The reading interval of the each switches changes from 10 ms interval to 60 ms interval.

Sleep mode activation

- BCM receives the sleep-ready signal (ready) from IPDM E/R and unified meter and A/C amp. via CAN communication.
- BCM transmits the sleep wake up signal (sleep) to each unit when all of the CAN sleep conditions are fulfilled.
- Each unit stops the transmission of CAN communication with the sleep wake up signal. BCM is in CAN communication sleep mode.
- BCM is in the low power consumption mode and perform the low power consumption control when all of the BCM sleep conditions are fulfilled with CAN sleep condition.

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Revision: 2009 October BCS-11 2009 G37 Coupe

POWER CONSUMPTION CONTROL SYSTEM

< SYSTEM DESCRIPTION >

Sleep condition	
CAN sleep condition	BCM sleep condition
Receiving the sleep-ready signal (ready) from all units Ignition switch: OFF Vehicle security system and panic alarm: Not operation Warning chime: Not operation Intelligent Key system buzzer: Not operation Trunk room lamp switch status: No change Stop lamp switch: OFF ICC brake hold relay (with ICC): OFF Key slot (card switch) status: No change Turn signal indicator lamp: Not operation Exterior lamp: OFF Door lock status: No change CONSULT-III communication status: Not communication Meter display signal: Non-transmission Door switch status: No change Rear window defogger: OFF	 Interior room lamp battery saver: Time out Power window switch communication: No transmission Push-button ignition switch illumination: OFF Infiniti Vehicle Immobilizer System (IVIS) - NATS: Not operation Remote keyless entry receiver communication status: No communication Tire pressure monitor system (TPMS) - AIR PRESSURE MONITOR: Stop LOCK indicator lamp: OFF ACC indicator lamp: OFF ON indicator lamp: OFF

Wake-up operation

- BCM changes from the low power consumption mode to the CAN communication sleep mode when the any of the BCM wake-up conditions is fulfilled. Only the control with BCM is activated.
- BCM transmits the sleep wake up signal (wake up) to each unit when any of the CAN wake-up conditions is fulfilled. It changes from the low power consumption mode or the CAN communication sleep mode to the normal mode.
- Each unit starts the transmission of CAN communication with the sleep wake up signal. In addition, the unified meter and A/C amp. transmits the wake up signal to BCM via CAN communication to report the CAN communication start.

Wake-up condition

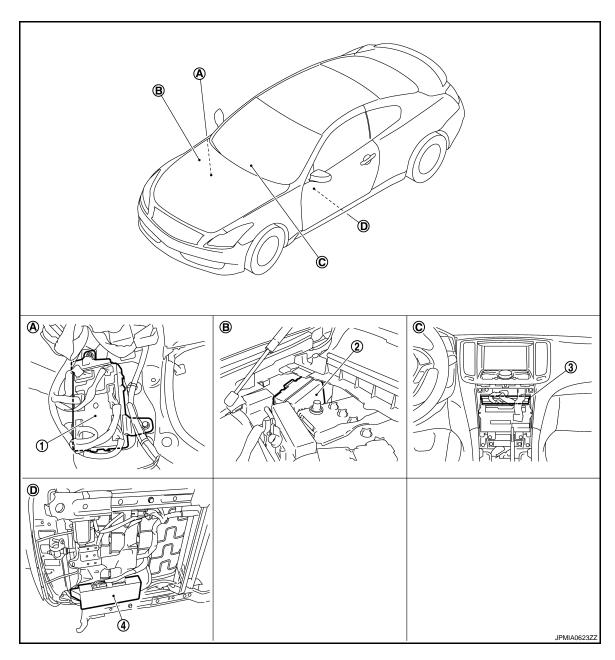
BCM wake-up condition	CAN wake-up condition	
 Trunk lid opener switch: OFF → ON Power window switch communication: Receiving Remote keyless entry receiver communication: Receiving 	 Receiving the sleep-ready signal (Not-ready) from any units Key slot (key switch): OFF → ON, ON → OFF Push-button ignition switch (push switch): OFF→ ON Hazard switch: OFF → ON PASSING switch: OFF → ON, ON → OFF TAIL LAMP switch: OFF → ON, ON → OFF Passenger door switch: OFF → ON, ON → OFF Passenger door switch: OFF → ON, ON → OFF Trunk room lamp switch: OFF → ON, ON → OFF Driver door request switch: OFF → ON Passenger door request switch: OFF → ON Trunk lid opener request switch: OFF → ON Stop lamp switch: ON ICC brake hold relay (with ICC): ON Clutch interlock switch: OFF → ON 	

POWER CONSUMPTION CONTROL SYSTEM

< SYSTEM DESCRIPTION >

Component Parts Location

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

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< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

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

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APPLICATION ITEM

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

Diagnosis mode	Function Description
Work Support	Changes the setting for each system function.
Self Diagnostic Result	Displays the diagnosis results judged by BCM.
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM. Refer to CONSULT-III operation manual.
Data Monitor	The BCM input/output signals are displayed.
Active Test	The signals used to activate each device are forcibly supplied from BCM.
Ecu Identification	The BCM part number is displayed.
Configuration	This function is not used even though it is displayed.

SYSTEM APPLICATION

BCM can perform the following functions for each system.

NOTE:

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

x: Applicable item

System	Sub system selection item		Diagnosis mode	
System	Sub system selection item	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*			
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	×	×	×
Trunk lid open	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR*		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	TPMS (AIR PRESSURE MONITOR)	×	×	×

NOTE

FREEZE FRAME DATA (FFD)

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

^{*:} This item is displayed, but is not used.

< SYSTEM DESCRIPTION >

CONSULT screen item	Indication/Unit	Description		
Vehicle Speed	km/h	Vehicle speed of the moment a particular DTC is detected		
Odo/Trip Meter	km	Total mileage (Odometer value) of the moment a particular DTC is detected		
	SLEEP>LOCK		While turning BCM status from low power consumption mode to normal mode (Power supply position is "LOCK")	
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode (Power supply position is "OFF".)	
	LOCK>ACC		While turning power supply position from "LOCK" to "ACC"	
	ACC>ON		While turning power supply position from "ACC" to "IGN"	
	RUN>ACC		While turning power supply position from "RUN" to "ACC" (Vehicle is stopping and selector lever is except P position.)	
	CRANK>RUN		While turning power supply position from "CRANKING" to "RUN" (From cranking up the engine to run it)	
	RUN>URGENT		While turning power supply position from "RUN" to "ACC" (Emergency stop operation)	
	ACC>OFF		While turning power supply position from "ACC" to "OFF"	
	OFF>LOCK	Power position status of the moment a particular DTC is detected	While turning power supply position from "OFF" to "LOCK"	
Vehicle Condition	OFF>ACC		While turning power supply position from "OFF" to "ACC"	
vernole condition	ON>CRANK		While turning power supply position from "IGN" to "CRANKING"	
	OFF>SLEEP		While turning BCM status from normal mode (Power supply position is "OFF".) to low power consumption mode	
	LOCK>SLEEP		While turning BCM status from normal mode (Power supply position is "LOCK".) to low power consumption mode	
	LOCK		Power supply position is "LOCK" (Ignition switch OFF with steering is locked.)	
	OFF		Power supply position is "OFF" (Ignition switch OFF with steering is unlocked.)	
	ACC		Power supply position is "ACC" (Ignition switch ACC)	
	ON		Power supply position is "IGN" (Ignition switch ON with engine stopped)	
	ENGINE RUN		Power supply position is "RUN" (Ignition switch ON with engine running)	
	CRANKING		Power supply position is "CRANKING" (At engine cranking)	
IGN Counter	0 - 39	The number is 0 wher the number increases whenever ignition swit	It ignition switch is turned ON after DTC is detected a malfunction is detected now. If the sum of	

DOOR LOCK

DOOR LOCK: CONSULT-III Function (BCM - DOOR LOCK)

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BCM CONSULT-III FUNCTION

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

Diagnosis mode	Function Description
WORK SUPPORT	Changes the setting for each system function.
DATA MONITOR	The BCM input/output signals are displayed.
ACTIVE TEST	The signals used to activate each device are forcibly supplied from BCM.

WORK SUPPORT

< SYSTEM DESCRIPTION >

Monitor item	Description
DOOR LOCK-UNLOCK SET	Selective unlock function mode can be changed to operate (ON) or not operate (OFF) with this mode.
AUTOMATIC DOOR LOCK SE- LECT	Automatic door lock function mode can be selected from the following in this mode. VH SPD: All doors are locked when vehicle speed more than 24km/h (15MPH) PRANGE*: All doors are locked when shifting the selector lever from P position to other than the P position
AUTOMATIC DOOR UNLOCK SELECT	 Automatic door unlock function mode can be selected from the following in the mode. MODE 1: All doors are unlocked when the power supply position is changed from ON to OFF MODE 2*: All doors are unlocked when shifting the selector lever from any position other than the P to P position MODE 3: Driver side door is unlocked when the power supply position is changed from ON to OFF MODE 4*: Driver side door is unlocked when shifting the selector lever from any position other than the P to P position
AUTOMATIC LOCK/UNLOCK SET	Automatic door lock/unlock function mode can be selected from the following in this mode. Off: non-operational Unlock Only: door unlock operation only Lock Only: door lock operation only Lock/Unlock: lock/unlock operation

^{*:} P range interlock door lock can be selected for M/T models, but automatic door lock/unlock function does not operate.

DATA MONITOR

Monitor Item	Contents
REQ SW-DR	Indicated [ON/OFF] condition of door request switch (driver side).
REQ SW-AS	Indicated [ON/OFF] condition of door request switch (passenger side).
REQ SW-BD/TR	Indicated [ON/OFF] condition of trunk lid opener request switch.
DOOR SW-DR	Indicated [ON/OFF] condition of front door switch (driver side).
DOOR SW-AS	Indicated [ON/OFF] condition of front door switch (passenger side).
DOOR SW-RR	NOTE: This item is displayed, but cannot be monitored.
DOOR SW-RL	NOTE: This item is displayed, but cannot be monitored.
DOOR SW-BK	NOTE: This item is displayed, but cannot be monitored.
CDL LOCK SW	Indicated [ON/OFF] condition of lock signal from door lock unlock switch.
CDL UNLOCK SW	Indicated [ON/OFF] condition of unlock signal from door lock unlock switch.
KEY CYL LK-SW	Indicated [ON/OFF] condition of lock signal from door key cylinder.
KEY CYL UN-SW	Indicated [ON/OFF] condition of unlock signal from door key cylinder.

ACTIVE TEST

Test item	Description
DOOR LOCK	 This test is able to check door lock/unlock operation. The all door lock actuators are locked when "ALL LCK" on CONSULT-III screen is touched. The all door lock actuators are unlocked when "ALL UNLK" on CONSULT-III screen is touched. The door lock actuator (driver side) is unlocked when "DR UNLK" on CONSULT-III screen is touched. The door lock actuator (passenger side) is unlocked when "AS UNLK" on CONSULT- III screen is touched. "OTR ULK" item is displayed, but cannot be monitored.

REAR WINDOW DEFOGGER

< SYSTEM DESCRIPTION >

REAR WINDOW DEFOGGER: CONSULT-III Function (BCM - REAR DEFOGGER)

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Data monitor

Monitor Item	Description	
REAR DEF SW	This is displayed even when it is not equipped.	
PUSH SW	Indicates [ON/OFF] condition of push switch.	

ACTIVE TEST

Test Item	Description	
REAR DEFOGGER	This test is able to check rear window defogger operation. Rear window defogger operates when "ON" on CONSULT-III screen is touched.	

BUZZER

BUZZER: CONSULT-III Function (BCM - BUZZER)

INFOID:0000000004702189

CONSULT-III APPLICATION ITEMS

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

DATA MONITOR

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

ACTIVE TEST

Display item [Unit]	Description
IGN KEY WARN ALM	The key warning chime operation can be checked by operating the relevant function (On/Off).
SEAT BELT WARN TEST	The seat belt warning chime operation can be checked by operating the relevant function (On/Off).
ID REGIST WARNING	The ID regist warning chime operation can be checked by operating the relevant function (On/Off).
LIGHT WARN ALM	The light warning chime operation can be checked by operating the relevant function (On/Off).
RUN FLAT/T WARN BUZZER	The run-flat tire warning chime operation can be checked by operating the relevant function (On/Off).

INT LAMP

Revision: 2009 October BCS-17 2009 G37 Coupe

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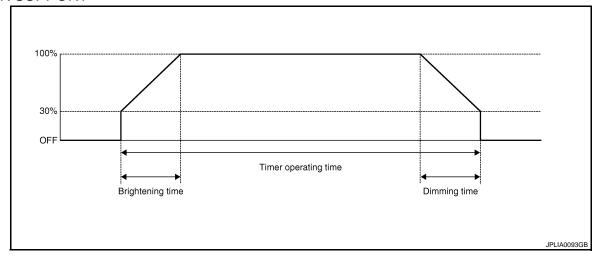
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< SYSTEM DESCRIPTION >

INT LAMP : CONSULT-III Function (BCM - INT LAMP)

INFOID:0000000004702182

WORK SUPPORT



Service item	Setting item		Setting
SET I/L D-UNLCK INTCON	ON*	With the interior room lamp timer function	
SET I/L D-UNLOK INTOON	OFF	Without th	ne interior room lamp timer function
	MODE 2	7.5 sec.	
ROOM LAMP TIMER SET	MODE 3*	15 sec.	Sets the interior room lamp ON time. (Timer operating time)
	MODE 4	30 sec.	
	MODE 1	0.5 sec.	
	MODE 2*	1 sec.	
ROOM LAMP ON TIME SET	MODE 3	2 sec.	Sets the interior room lamp gradual brightening time.
	MODE 4	3 sec.	
	MODE 5	0 sec.	
	MODE 1	0.5 sec.	
ROOM LAMP OFF TIME SET	MODE 2	1 sec.	Sets the interior room lamp gradual dimming time
ROOM LAMP OFF TIME SET	MODE 3	2 sec.	Sets the interior room lamp gradual dimming time.
	MODE 4*	3 sec.	
	MODE 1*	Interior room lamp timer activates with synchronizing all doors.	
R LAMP TIMER LOGIC SET	MODE 2	Interior ro only.	om lamp timer activates with synchronizing the driver door

^{*:} Factory setting

DATA MONITOR

Monitor item [Unit]	Description
REQ SW-DR [On/Off]	The switch status input from request switch (driver side)
REQ SW-AS [On/Off]	The switch status input from front request switch (passenger side)
PUSH SW [On/Off]	The switch status input from push-button ignition switch
ACC RLY-F/B [On/Off]	NOTE: The item is indicated, but not monitored.
KEY SW-SLOT [On/Off]	Key switch status input from key slot

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description
DOOR SW-DR [On/Off]	The switch status input from driver side door switch
DOOR SW-AS [On/Off]	The switch status input from passenger side door switch
DOOR SW-RR [On/Off]	
DOOR SW- RL [On/Off]	NOTE: The item is indicated, but not monitored.
DOOR SW-BK [On/Off]	
CDL LOCK SW [On/Off]	Lock switch status received from the door lock and unlock switch by power window switch serial link
CDL UNLOCK SW [On/Off]	Unlock switch status received from the door lock and unlock switch by power window switch serial link
KEY CYL LK-SW [On/Off]	Lock switch status received from key cylinder switch by power window switch serial link
KEY CYL UN-SW [On/Off]	Unlock switch status received from key cylinder switch by power window switch serial link
TRNK/HAT MNTR [On/Off]	The switch status input from trunk room lamp switch
RKE-LOCK [On/Off]	Lock signal status received from remote keyless entry receiver
RKE-UNLOCK [On/Off]	Unlock signal status received from remote keyless entry receiver

ACTIVE TEST

Test item	Operation	Description
INT LAMP	On	Outputs the interior room lamp control signal to turn map lamp ON (Map lamp switch is in DOOR position).
	Off	Stops the interior room lamp control signal to turn map lamp OFF.
STEP LAMP TEST	On	Outputs the step lamp control signal to turn step lamp ON.
STEF LAWIF TEST	Off	Stops the step lamp control signal to turn step lamp OFF.
LUGGAGE LAMP TEST	On	Outputs the trunk room lamp control signal to turn the trunk room lamp ON.
	Off	Stops the trunk room lamp control signal to turn the trunk room lamp OFF.

HEADLAMP

HEADLAMP : CONSULT-III Function (BCM - HEAD LAMP)

INFOID:0000000004702180

WORK SUPPORT

Service item	Setting item	Setting
BATTERY SAVER SET	On*	With the exterior lamp battery saver function
	Off	Without the exterior lamp battery saver function

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Service item	Setting item		Setting
	MODE 1*	45 sec.	
	MODE 2	Without the function	
	MODE 3	30 sec.	
ILL DELAY SET	MODE 4	60 sec.	Sets delay timer function timer operation time.
	MODE 5	90 sec.	(All doors closed)
	MODE 6	120 sec.	
	MODE 7	150 sec.	
	MODE 8	180 sec.	
	MODE 1*	Normal	
CUSTOM A/LIGHT SET- TING	MODE 2	More sensitive setting than normal setting (Turns ON earlier than normal operation.)	
	MODE 3	More sensitive setting than MODE 2 (Turns ON earlier than MODE 2.)	
	MODE 4	Less sensitive set	ting than normal setting (Turns ON later than normal operation.)

^{*:} Factory setting

DATA MONITOR

Monitor item [Unit]	Description
PUSH SW [On/Off]	The switch status input from push-button ignition switch
ENGINE STATE [Stop/Stall/Crank/Run]	The engine status received from ECM with CAN communication
VEH SPEED 1 [km/h]	The value of the vehicle speed received from unified meter and A/C amp. with CAN communication
KEY SW-SLOT [On/Off]	Key switch status input from key slot
TURN SIGNAL R [On/Off]	
TURN SIGNAL L [On/Off]	
TAIL LAMP SW [On/Off]	
HI BEAM SW [On/Off]	
HEAD LAMP SW1 [On/Off]	Each switch status that BCM judges from the combination switch reading function
HEAD LAMP SW2 [On/Off]	
PASSING SW [On/Off]	
AUTO LIGHT SW [On/Off]	
FR FOG SW [On/Off]	
RR FOG SW [On/Off]	NOTE: The item is indicated, but not monitored.
DOOR SW-DR [On/Off]	The switch status input from driver side door switch
DOOR SW-AS [On/Off]	The switch status input from passenger side door switch

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description
DOOR SW-RR [On/Off]	NOTE: The item is indicated, but not monitored.
DOOR SW- RL [On/Off]	NOTE: The item is indicated, but not monitored.
DOOR SW-BK [On/Off]	NOTE: The item is indicated, but not monitored.
OPTICAL SENSOR [V]	The value of exterior brightness voltage input from the optical sensor

ACTIVE TEST

Test item	Operation	Description
TAIL LAMP	On	Transmits the position light request signal to IPDM E/R with CAN communication to turn the tail lamp ON.
	Off	Stops the position light request signal transmission.
	Hi	Transmits the high beam request signal with CAN communication to turn the headlamp (HI).
HEAD LAMP	Low	Transmits the low beam request signal with CAN communication to turn the headlamp (LO).
	Off	Stops the high & low beam request signal transmission.
FR FOG LAMP	On	Transmits the front fog light request signal to IPDM E/R with CAN communication to turn the front fog lamp ON.
	Off	Stops the front fog light request signal transmission.
DD FOC LAMB	On	NOTE:
RR FOG LAMP	Off	The item is indicated, but cannot be tested.
DAYTIME RUNNING LIGHT	On	NOTE:
DAT TIME RUNNING LIGHT	Off	The item is indicated, but cannot be tested.
	RH	
CORNERING LAMP	LH	NOTE: The item is indicated, but cannot be tested.
	Off	
ILL DIM CICNAL	On	NOTE:
ILL DIM SIGNAL	Off	The item is indicated, but cannot be tested.

WIPER

WIPER: CONSULT-III Function (BCM - WIPER)

WORK SUPPORT

Service item	Setting item	Description
WIPER SPEED	On	With vehicle speed (Front wiper intermittent time linked with the vehicle speed and wiper intermittent dial position)
SETTING Off*	Without vehicle speed (Front wiper intermittent time linked with the wiper intermittent dial position)	

^{*:}Initial setting

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Monitor Item [Unit]	Description
VEH SPEED 1 [km/h]	Displays the value of the vehicle speed signal received from unified meter and A/C amp. with CAN communication.
PUSH SW [Off/On]	The switch status input from push-button ignition switch.
FR WIPER HI [Off/On]	
FR WIPER LOW [Off/On]	Chatter of analysis is alread by DOM union the complication switch and line for ation
FR WASHER SW [Off/On]	Status of each switch judged by BCM using the combination switch reading function
FR WIPER INT [Off/On]	
FR WIPER STOP [Off/On]	Displays the status of the front wiper stop position signal received from IPDM E/R with CAN communication.
INT VOLUME [1 – 7]	Status of each switch judged by BCM using the combination switch reading function

ACTIVE TEST

Test item	Operation	Description
FRONT WIPER INT	Hi	Transmits the front wiper request signal (HI) to IPDM E/R with CAN communication to operate the front wiper HI operation.
	Lo	Transmits the front wiper request signal (LO) to IPDM E/R with CAN communication to operate the front wiper LO operation.
	Transmits the front wiper request signal (INT) to IPDM E/R with CAN communication to operate the front wiper INT operation.	
	Off	Stops transmitting the front wiper request signal to stop the front wiper operation.

FLASHER

FLASHER: CONSULT-III Function (BCM - FLASHER)

INFOID:0000000004702181

WORK SUPPORT

Service item	Setting item		Setting
	Lock Only*	With locking only	
HAZARD ANSWER BACK	Unlk Only	With unlocking only	Sets the hazard warning lamp answer back function when the door is lock/unlock with the request switch or
	Lock/Unlk	With locking/unlocking	the key fob.
	Off	Without the function	

^{*:} Factory setting

DATA MONITOR

Monitor item [Unit]	Description
REQ SW-DR [On/Off]	The switch status input from the request switch (driver side)
REQ SW-AS [On/Off]	The switch status input from the request switch (passenger side)
PUSH SW [On/Off]	The switch status input from the push-button ignition switch

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description
TURN SIGNAL R [On/Off]	Each quitab condition that DCM judges from the combination quitab reading function
TURN SIGNAL L [On/Off]	Each switch condition that BCM judges from the combination switch reading function
HAZARD SW [On/Off]	The switch status input from the hazard switch
RKE-LOCK [On/Off]	Lock signal status received from the remote keyless entry receiver
RKE-UNLOCK [On/Off]	Unlock signal status received from the remote keyless entry receiver
RKE-PANIC [On/Off]	Panic alarm signal status received from the remote keyless entry receiver

ACTIVE TEST

Test item	Operation	Description
	RH	Outputs the voltage to blink the right side turn signal lamps.
FLASHER	LH	Outputs the voltage to blink the left side turn signal lamps.
	Off	Stops the voltage to turn the turn signal lamps OFF.

INTELLIGENT KEY

INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY) INFOID:000000004702175

WORK SUPPORT

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. • 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 and passenger side) mode car 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 trunk opener 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. • 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. • MODE 1: 3 sec. • MODE 2: Non-operation • MODE 3: 5 sec.
TRUNK OPEN DELAY	Trunk button pressing on Intelligent Key button can be selected as per the following in this mode. • MODE 1: Press and hold • MODE 2: Press twice • MODE 3: Press and hold, or press twice

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Monitor item	Description
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. • 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. • 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. • 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.

SELF-DIAG RESULT

Refer to DLK-161, "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 -BD/TR	Indicates [ON/OFF] condition of trunk opener 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.
ACC RLY-FB	NOTE: This item is displayed, but cannot be monitored.
CLUTCH SW*1	Indicates [ON/OFF] condition of clutch switch.
BRAKE SW 1	Indicates [ON/OFF]*2 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	Indicates [ON/OFF] condition of steering lock unit (LOCK).
S/L -UNLOCK	Indicates [ON/OFF] condition of steering lock unit (UNLOCK).
S/L RELAY -F/B	Indicates [ON/OFF] condition of steering lock relay.
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.

< SYSTEM DESCRIPTION >

Monitor Item	Condition
SFT N -MET	Indicates [ON/OFF] condition of N position.
ENGINE STATE	Indicates [STOP/STALL/CRANK/RUN] condition of engine states.
S/L LOCK-IPDM	Indicates [ON/OFF] condition of steering lock unit (LOCK).
S/L UNLK-IPDM	Indicates [ON/OFF] condition of steering lock unit (UNLOCK).
S/L RELAY-REQ	Indicates [ON/OFF] condition of steering lock relay.
VEH SPEED 1	Display the vehicle speed signal received from combination meter by numerical value [Km/h].
VEH SPEED 2	Display the vehicle speed signal received from ABS or VDC or TCM 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.
KEY SW -SLOT	Indicates [ON/OFF] condition of key slot.
TRNK/HAT MNTR	Indicates [ON/OFF] condition of trunk lid.
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	Indicates [ON/OFF] condition of TRUNK OPEN signal from Intelligent Key.
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.

^{*1:} It is displayed but does not operate on M/T models.

ACTIVE TEST

Test item	Description
BATTERY SAVER	This test is able to check interior room lamp operation. The interior room lamp is activated after "ON" on CONSULT-III screen is touched.
PW REMOTO DOWN SET	This test is able to check power window down operation. The power window down is activated after "ON" on CONSULT-III screen is touched.
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation. The Intelligent Key warning buzzer is activated after "ON" on CONSULT-III screen is touched.
INSIDE BUZZER	This test is able to check warning chime in combination meter operation. • Take away warning chime sounds when "TAKE OUT" on CONSULT-III screen is touched. • Key warning chime sounds when "KEY" on CONSULT-III screen is touched. • OFF position warning chime sounds when "KNOB" on CONSULT-III screen is touched.
INDICATOR	This test is able to check warning lamp operation. • "KEY" Warning lamp illuminates when "KEY ON" on CONSULT-III screen is touched. • "KEY" Warning lamp blinks when "KEY IND" on CONSULT-III screen is touched.
INT LAMP	This test is able to check interior room lamp operation. The interior room lamp is activated after "ON" on CONSULT-III screen is touched.

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^{*2:} OFF is displayed when brake pedal is depressed while brake switch power supply is OFF.

< SYSTEM DESCRIPTION >

Test item	Description
LCD	This test is able to check meter display information Engine start information displays when "BP N" on CONSULT-III screen is touched. Engine start information displays when "BP I" on CONSULT-III screen is touched. Key ID warning displays when "ID NG" on CONSULT-III screen is touched. Steering lock information displays when "ROTAT" on CONSULT-III screen is touched. P position warning displays when "SFT P" on CONSULT-III screen is touched. Intelligent Key insert information displays when "INSRT" on CONSULT-III screen is touched. Intelligent Key low battery warning displays when "BATT" on CONSULT-III screen is touched. Take away through window warning displays when "NO KY" on CONSULT-III screen is touched. Take away warning display when "OUTKEY" on CONSULT-III screen is touched. OFF position warning display when "LK WN" on CONSULT-III screen is touched.
TRUNK/GLASS HATCH	This test is able to check trunk lid opener actuator open operation. This actuator opens when "OPEN" on CONSULT-III screen is touched.
FLASHER	This test is able to check security hazard lamp operation. The hazard lamps are activated after "LH/RH/OFF" on CONSULT-III screen is touched.
HORN	This test is able to check horn operation. The horn is activated after "ON" on CONSULT-III 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-III 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-III screen is touched.
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-III screen is touched.
ACC INDICATOR	This test is able to check ACC indicator in push-ignition switch operation. ACC indicator in push-ignition switch illuminates when "ON" on CONSULT-III screen is touched.
IGNITION ON IND	This test is able to check on indicator in push-ignition switch operation. ON indicator in push-ignition switch illuminates when "ON" on CONSULT-III screen is touched.
KEY SLOT ILLUMI	This test is able to check key slot illumination operation. Key slot illumination blinks when "ON" on CONSULT-III screen is touched.
TRUNK/BACK DOOR	This test is able to check trunk lid opener actuator open operation. This actuator opens when "OPEN" on CONSULT-III screen is touched.

COMB SW

COMB SW: CONSULT-III Function (BCM - COMB SW)

INFOID:0000000004469847

DATA MONITOR

Monitor item [UNIT]	Description
FR WIPER HI [Off/On]	Displays the status of the FR WIPER HI switch in combination switch judged by BCM with the combination switch reading function.
FR WIPER LOW [Off/On]	Displays the status of the FR WIPER LOW switch in combination switch judged by BCM with the combination switch reading function.
FR WASHER SW [Off/On]	Displays the status of the FR WASHER switch in combination switch judged by BCM with the combination switch reading function.
FR WIPER INT [Off/On]	Displays the status of the FR WIPER AUTO switch in combination switch judged by BCM with the combination switch reading function.
FR WIPER STOP [Off/On]	Displays the status of the front wiper stop position signal received from IPDM E/R via CAN communication.
INT VOLUME [1 - 7]	Displays the status of wiper volume dial position judged by BCM with the combination switch reading function.

< SYSTEM DESCRIPTION >

Monitor item [UNIT]	Description
TURN SIGNAL R [Off/On]	Displays the status of the TURN RH switch in combination switch judged by BCM with the combination switch reading function.
TURN SIGNAL L [Off/On]	Displays the status of the TURN LH switch in combination switch judged by BCM with the combination switch reading function.
TAIL LAMP SW [Off/On]	Displays the status of the TAIL LAMP switch in combination switch judged by BCM with the combination switch reading function.
HI BEAM SW [Off/On]	Displays the status of the HI BEAM switch in combination switch judged by BCM with the combination switch reading function.
HEAD LAMP SW 1 [Off/On]	Displays the status of the HEADLAMP 1 switch in combination switch judged by BCM with the combination switch reading function.
HEAD LAMP SW 2 [Off/On]	Displays the status of the HEADLAMP 2 switch in combination switch judged by BCM with the combination switch reading function.
PASSING SW [Off/On]	Displays the status of the PASSING switch in combination switch judged by BCM with the combination switch reading function.
AUTO LIGHT SW [Off/On]	Displays the status of the AUTO LIGHT switch in combination switch judged by BCM with the combination switch reading function.
FR FOG SW [Off/On]	Displays the status of the FR FOG switch in combination switch judged by BCM with the combination switch reading function.
RR FOG SW [Off/On]	NOTE: The item is indicated, but not monitored.

BCM

BCM: CONSULT-III Function (BCM - BCM)

INFOID:0000000004469848

WORK SUPPORT

Item	Description
RESET SETTING VALUE	Return a value set with Work Support of each system to a default value in factory shipment.

IMMU

IMMU: CONSULT-III Function (BCM - IMMU)

INFOID:0000000004702194

APPLICATION ITEM

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

Diagnosis mode	Function Description		
DATA MONITOR	The BCM input/output signals are displayed.		
ACTIVE TEST	The signals used to activate each device are forcibly supplied from BCM.		

DATA MONITOR

Monitor item	Content		
CONFRM ID ALL			
CONFIRM ID4			
CONFIRM ID3	Indicates [YET] at all time. Switch to [DONE] when a registered Intelligent Key is inserted into the key slot.		
CONFIRM ID2	- Cinion to [5 Cit2] mon a registered monigent toy to morrod into the key old.		
CONFIRM ID1			
TP 4			
TP 3	ladicates the number of ID which has been registered		
TP 2	Indicates the number of ID which has been registered.		
TP 1			

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Monitor item	Content
PUSH SW	Indicates [ON/OFF] condition of push-button ignition switch.
KEY SW -SLOT	Indicates [ON/OFF] condition of key slot.

ACTIVE TEST

Test item	Description
THEFT IND	This test is able to check security indicator lamp operation. The lamp will be turned on when "ON" on CONSULT-III screen touched.

BATTERY SAVER

BATTERY SAVER : CONSULT-III Function (BCM - BATTERY SAVER)

INFOID:0000000004702185

WORK SUPPORT

Service item	Setting item		Setting
BATTERY SAVER SET	On*	With the exterior lamp battery saver function	
DATTERT SAVER SET	Off	Without the exterior lamp battery saver function	
ROOM LAMP BAT SAV SET	On*	With the in	nterior room lamp battery saver function
ROOM LAWF BAT SAV SET	Off	Without th	ne interior room lamp battery saver function
ROOM LAMP TIMER SET	MODE 1*	30 min.	Sets the interior room lamp battery saver timer operating
NOOM LAWF TIMEN SET	MODE 2	60 min.	time.

^{*:} Factory setting

DATA MONITOR

Monitor item [Unit]	Description	
REQ SW-DR [On/Off]	The switch status input from request switch (driver side)	
REQ SW-AS [On/Off]	The switch status input from front request switch (passenger side)	
REQ SW-RR [On/Off]	NOTE:	
REQ SW-RL [On/Off]	The item is indicated, but not monitored.	
PUSH SW [On/Off]	The switch status input from push-button ignition switch	
ACC RLY-F/B [On/Off]	NOTE: The item is indicated, but not monitored.	
KEY SW-SLOT [On/Off]	Key switch status input from key slot	
UNLK SEN-DR [On/Off]	Driver door unlock status input from unlock sensor	
DOOR SW-DR [On/Off]	The switch status input driver side front door switch	
DOOR SW-AS [On/Off]	The switch status input from passenger side door switch	

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description	
DOOR SW-RR [On/Off]		
DOOR SW- RL [On/Off]	NOTE: The item is indicated, but not monitored.	
DOOR SW-BK [On/Off]		
CDL LOCK SW [On/Off]	Lock switch status received from the door lock and unlock switch by power window switch serial link	
CDL UNLOCK SW [On/Off]	Unlock switch status received from the door lock and unlock switch by power window switch serial link	
KEY CYL LK-SW [On/Off]	Lock switch status received from key cylinder switch by power window switch serial link	
KEY CYL UN-SW [On/Off]	Unlock switch status received from key cylinder switch by power window switch serial link	
TRNK/HAT MNTR [On/Off]	The switch status input from trunk room lamp switch	
RKE-LOCK [On/Off]	Lock signal status received from remote keyless entry receiver	
RKE-UNLOCK [On/Off]	Unlock signal status received from remote keyless entry receiver	

ACTIVE TEST

Test item	Operation	Description
BATTERY SAVER	Off	Cuts the interior room lamp power supply to turn interior room lamp OFF.
	On	Outputs the interior room lamp power supply to turn interior room lamp ON.*

^{*:} Each lamp switch is in ON position.

TRUNK

TRUNK: CONSULT-III Function (BCM - TRUNK)

INFOID:0000000004702177

BCM CONSULT-III FUNCTION

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

Diagnosis mode	Function Description	
DATA MONITOR	The BCM input/output signals are displayed.	

DATA MONITOR

Monitor Item	Contents		
PUSH SW	Indicates [ON/OFF] condition of push switch.		
UNLK SEN -DR	Indicates [ON/OFF] condition of unlock sensor.		
VEH SPEED 1	Indicates [Km/h] condition of vehicle speed signal from combination meter.		
KEY CYL SW-TR	NOTE: This item is displayed, but cannot be monitored.		
TR CANCEL SW	Indicates [ON/OFF] condition of trunk lid opener cancel switch.		
TR/BD OPEN SW	Indicates [ON/OFF] condition of trunk lid opener switch.		
TRNK/HAT MNTR	Indicates [ON/OFF] condition of trunk room lamp switch.		
RKE-TR/BD	Indicates [ON/OFF] condition of trunk open signal from Intelligent Key remote controller button.		
TRUNK/GLASS HATCH	This test is able to check trunk lid opener actuator open operation.		

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ACTIVE TEST

Test item	Description
TRUNK/GLASS HATCH	This test is able to check trunk lid opener actuator open operation. This actuator opens when "OPEN" on CONSULT-III screen is touched.

THEFT ALM

THEFT ALM: CONSULT-III Function (BCM - THEFT)

INFOID:0000000004702193

APPLICATION ITEM

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

Diagnosis mode	Function Description
WORK SUPPORT	Changes the setting for each system function.
DATA MONITOR	The BCM input/output signals are displayed.
ACTIVE TEST	The signals used to activate each device are forcibly supplied from BCM.

DATA MONITOR

Monitored Item	Description
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-BD/TR	Indicates [ON/OFF] condition of trunk opener request switch.
PUSH SW	Indicates [ON/OFF] condition of push-button ignition switch
UNLK SEN-DR	Indicates [ON/OFF] condition of driver door UNLOCK status.
KEY SW -SLOT	Indicates [ON/OFF] condition of key slot.
DOOR SW-DR	Indicates [ON/OFF] condition of front door switch LH.
DOOR SW-AS	Indicates [ON/OFF] condition of front door switch RH.
DOOR SW-RR	Indicates [ON/OFF] condition of rear door switch RH.
DOOR SW-RL	Indicates [ON/OFF] condition of rear door switch LH.
DOOR SW-BK	This is displayed even when it is not equipped.
CDL LOCK SW	Indicates [ON/OFF] condition of lock signal from door lock/unlock switch LH and RH.
CDL UNLOCK SW	Indicates [ON/OFF] condition of unlock signal from door lock/unlock switch LH and RH.
KEY CYL LK-SW	Indicates [ON/OFF] condition of lock signal from front door key cylinder switch.
KEY CYL UN-SW	Indicates [ON/OFF] condition of unlock signal from front door key cylinder switch.
KEY CYL SW-TR	This is displayed even when it is not equipped.
TR/BD OPEN SW	Indicates [ON/OFF] condition of trunk lid opener switch.
TRNK/HAT MNTR	Indicates [ON/OFF] condition of trunk room lamp switch.
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	Indicates [ON/OFF] condition of TRUNK OPEN signal from Intelligent Key.

WORK SUPPORT

Test Item	Description	
SECURITY ALARM SET	This mode is able to confirm and change security alarm ON-OFF setting.	
THEFT ALM TRG	The switch which triggered vehicle security alarm is recorded. This mode is able to confirm and erase the record of vehicle security alarm. The trigger data can be erased by touching "CLEAR" on CONSULT-III screen.	

ACTIVE TEST

< SYSTEM DESCRIPTION >

Test Item	Description	
THEFT IND	This test is able to check security indicator lamp operation. The lamp will be turned on when "ON" on CONSULT-III screen is touched.	
VEHICLE SECURITY HORN	This test is able to check vehicle security horn operation. The horns will be activated for 0.5 seconds after "ON" on CONSULT-III screen is touched.	
HEADLAMP(HI)	This test is able to check vehicle security lamp operation. The headlamps will be activated for 0.5 seconds after "ON" on CONSULT-III screen is touched.	
FLASHER	This test is able to check vehicle security hazard lamp operation. The hazard lamps will be activated after "ON" on CONSULT-III screen is touched.	

SIGNAL BUFFER

SIGNAL BUFFER: CONSULT-III Function (BCM - SIGNAL BUFFER)

INFOID:0000000004469853

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DATA MONITOR

Monitor item [UNIT]	Description
PUSH SW [Off/On]	Displays the status of the push-button ignition switch (push switch) judged by BCM.

ACTIVE TEST

Test item	Opera- tion	Description	
	Off	OFF	
OIL PRESSURE SW	On	BCM transmits the oil pressure switch signal to the unified meter and A/C amp. via CAN communication, which illuminates the oil pressure warning lamp in the combination meter.	

AIR PRESSURE MONITOR

AIR PRESSURE MONITOR: Diagnosis Description

INFOID:0000000004702195

DESCRIPTION

During driving, the TPMS receives the signal transmitted from the transmitter installed in each wheel, when the tire pressure becomes low. The control unit (BCM) of this system has pressure judgment and trouble diagnosis functions.

When the TPMS detects low inflation pressure or another unusual symptom, the low tire pressure warning lamps in the combination meter comes on.

SELF DIAGNOSTIC PROCEDURE (WITH CONSULT-III)

(P) With CONSULT-III

Touch "SELF-DIAG RESULT" display shows malfunction experienced since the last erasing operation. Refer to BCS-76, "DTC Index".

SELF DIAGNOSTIC PROCEDURE (WITHOUT CONSULT-III)

Without CONSULT-III

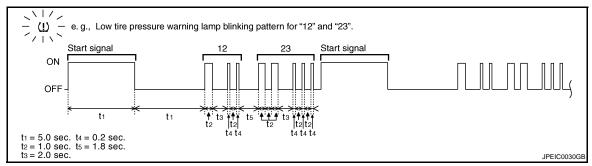
To start the self-diagnostic results mode, ground terminal of the tire pressure warning check connector. The malfunction location is indicated by the low tire pressure warning lamp blinking.

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NOTE:

When the low tire pressure warning lamp blinks 5 Hz and continues repeating it, the system is normal.

Blinking pattern	Items	Diagnostic items detected when···	Check item	
15	Tire pressure value (Front LH)	Front LH tire pressure drops to * kPa (* kg/cm², * psi) or less. [NOTE]		
16	Tire pressure value (Front RH)	Front RH tire pressure drops to * kPa (* kg/cm², * psi) or less. [NOTE]	NAT 47	
17	Tire pressure value (Rear RH)	Rear RH tire pressure drops to * kPa (* kg/cm², * psi) or less. [NOTE]	WT-17	
18	Tire pressure value (Rear LH)	Rear LH tire pressure drops to * kPa (* kg/cm², * psi) or less. [NOTE]		
21	Transmitter no data (Front LH)	Data from front LH transmitter can not be receive.		
22	Transmitter no data (Front RH)	Data from front RH transmitter can not be receive.)MT 40	
23	Transmitter no data (Rear RH)	Data from rear RH transmitter can not be receive.	WT-19	
24	Transmitter no data (Rear LH)	Data from rear LH transmitter can not be receive.		
31	Transmitter checksum error (Front LH)	Checksum data from front LH transmitter is malfunctioning.		
32	Transmitter checksum error (Front RH)	Checksum data from front RH transmitter is malfunctioning.	WT 04	
33	(Rear RH) Transmitter checksum error		WT-21	
34			_	
35	Transmitter pressure data error (Front LH)	Air pressure data from front LH transmitter is malfunction.		
36	Transmitter pressure data error (Front RH)	Air pressure data from front RH transmitter is malfunction.	WT 04	
37	Transmitter pressure data error (Rear RH)	Air pressure data from rear RH transmitter is malfunction.	<u>WT-24</u>	
38	Transmitter pressure data error (Rear LH)	Air pressure data from rear LH transmitter is malfunction.	on.	
41	Transmitter function code error (Front LH)	Function code data from front LH transmitter is malfunction.		
42	Transmitter function code error (Front RH)	Function code data from front RH transmitter is malfunction.)A/T-00	
43	Transmitter function code error (Rear RH)	Function code data from rear RH transmitter is malfunction.	<u>WT-26</u>	
44	Transmitter function code error (Rear LH)	Function code data from rear LH transmitter is malfunction.		

< SYSTEM DESCRIPTION >

Blinking pattern	Items	Diagnostic items detected when	Check item	1
45	Transmitter battery voltage low (Front LH)	Battery voltage of front LH transmitter drops.		
46	Transmitter battery voltage low (Front RH)	Battery voltage of front RH transmitter drops.	WT-29	[
47	Transmitter battery voltage low (Rear RH)	Battery voltage of rear RH transmitter drops.	<u>W1-29</u>	(
48	Transmitter battery voltage low (Rear LH)	Battery voltage of rear LH transmitter drops.		
52	Vehicle speed signal error	Vehicle speed signal error.	<u>WT-32</u>	
53	Control unit	Tire pressure monitoring system malfunction in BCM.	<u>WT-33</u>	
No blinking	Tire pressure warning check switch	Tire pressure warning switch circuit is open.	-	

NOTE:

- 182.7 kPa (1.9 kg/cm², 26 psi): Standard air pressure is for 230 kPa (2.3 kg/cm², 33 psi) vehicles.
- 189.6 kPa (1.9 kg/cm², 27 psi): Standard air pressure is for 240 kPa (2.4 kg/cm², 35 psi) vehicles.

ERASE SELF-DIAGNOSIS

(P)With CONSULT-III

- Perform applicable inspection of malfunctioning item and then repair or replace.
- Turn ignition switch ON and select "SELF-DIAG RESULTS" mode for "AIR PRESSURE MONITOR" with CONSULT-III.
- Touch "ERASE" on CONSULT-III screen to erase memory.

Without CONSULT-III

- In order to make it easier to find the cause of hard-to-duplicate malfunctions, malfunction information is stored into the control unit as necessary during use by the user. This memory is not erased no matter how many times the ignition switch is turned ON and OFF.
- However, this information is erased by turning ignition switch OFF after performing self-diagnostic or by erasing the memory using the CONSULT-III.

AIR PRESSURE MONITOR: CONSULT-III Function (BCM - AIR PRESSURE MONITOR)

WORK SUPPORT MODE

ID Read

The registered ID number is displayed.

ID Regist

Refer to WT-6, "ID REGISTRATION PROCEDURE: Special Repair Requirement".

SELF-DIAG RESULTS MODE

Operation Procedure

Refer to BCS-76, "DTC Index".

DATA MONITOR MODE

Screen of data monitor mode is displayed.

NOTE:

When malfunction is detected, CONSULT-III perform REAL-TIME DIAGNOSIS.

Also, any malfunction detected while in this mode will be displayed at real time.

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< SYSTEM DESCRIPTION >

Monitor item (Unit)	Remark	
AIR PRESS FL (kPa/kg/cm ² /Psi)		
AIR PRESS FR (kPa/kg/cm²/Psi)	Tire pressure	
AIR PRESS RR (kPa/kg/cm²/Psi)	The pressure	
AIR PRESS RL (kPa/kg/cm²/Psi)		
ID REGST FL1 (Green/Red)		
ID REGST FR1 (Green/Red)	Posistration ID	
ID REGST RR1 (Green/Red)	Registration ID	
ID REGST RL1 (Green/Red)		
WARNING LAMP (On/Off)	Low tire pressure warning lamp	
BUZZER (On/Off)	Buzzer in combination meter	

NOTE:

Before performing the self-diagnosis, be sure to register the ID, or erase the actual malfunction location may be different from that displayed on CONSULT-III.

ACTIVE TEST MODE

NOTE:

Before performing the self-diagnosis, be sure to register the ID, or erase the actual malfunction may be different from that displayed on CONSULT-III.

TEST ITEM LIST

Test item	Content	
WARNING LAMP	This test is able to check to check that the low tire pressure warning lamp turns on.	
ID REGIST WARNING	This test is able to check to check that the buzzer sounds or the low tire pressure warning lamp turns on.	
FLASHER	This test is able to check to check that each turn signal lamp turns on.	
HORN	This test is able to check to check that the horn sounds.	

U1000 CAN COMM

< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM

Description INFOID:0000000004469856

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-27, "CAN Communication Signal Chart".

DTC Logic INFOID:0000000004469857

DTC DETECTION LOGIC

DTC	CONSULT-III 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:0000000004469858

1.PERFORM SELF DIAGNOSTIC

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

Is DTC "U1000" displayed?

YES >> Refer to LAN-18, "Trouble Diagnosis Flow Chart".

>> Refer to GI-41, "Intermittent Incident". NO

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U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

U1010 CONTROL UNIT (CAN)

DTC Logic

DTC DETECTION LOGIC

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

Diagnosis Procedure

INFOID:0000000004469860

1.REPLACE BCM

When DTC "U1010" is detected, replace BCM.

>> Replace BCM. Refer to BCS-81, "Exploded View".

U0415 VEHICLE SPEED SIG

< DTC/CIRCUIT DIAGNOSIS >

U0415 VEHICLE SPEED SIG

Description INFOID:0000000004469861

U0415 is displayed if any unusual condition is present in the reception status of the vehicle speed signal from the ABS actuator and electric unit (control unit).

DTC Logic INFOID:0000000004469862

DTC DETECTION LOGIC

DTC	CONSULT-III display description	DTC Detection Condition	Probable cause
U0415	VEHICLE SPEED	When the vehicle speed signal received from the ABS actuator and electric unit (control unit) remains abnormal for 2 seconds or more.	ABS actuator and electric unit (control unit) BCM

DTC CONFIRMATION PROCEDURE

1.DTC CONFIRMATION

- Erase the DTC.
- Turn ignition switch OFF.
- Perform the "Self Diagnostic Result" of CONSULT-III, when passed 2 seconds or more after the ignition switch is turned ON.

Is any DTC detected?

YES >> Refer to BCS-37, "Diagnosis Procedure".

NO >> INSPECTION END

Diagnosis Procedure

1. ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) SELF-DIAG RESULTS

Perform "Self-Diagnostic Result" of ABS actuator and electric unit (control unit) with CONSULT-III. Refer to BRC-26, "CONSULT-III Function".

Is any DTC detected?

YES >> Repair or replace the malfunctioning part.

NO >> Replace BCM. Refer to BCS-81, "Exploded View".

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INFOID:0000000004469863

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B2562 LOW VOLTAGE

< DTC/CIRCUIT DIAGNOSIS >

B2562 LOW VOLTAGE

DTC Logic

DTC DETECTION LOGIC

DTC	CONSULT-III display description	DTC Detection Condition	Possible cause
B2562	LOW VOLTAGE	When the power supply voltage to BCM remains less than 8.8 V for 120 seconds or more	Harness or connector (power supply circuit)

DTC CONFIRMATION PROCEDURE

1. DTC CONFIRMATION

- 1. Erase DTC.
- Turn ignition switch OFF.
- Perform the "Self Diagnostic Result" of CONSULT-III, when passed 120 seconds or more after the ignition switch is turned ON.

Is any DTC detected?

YES >> Refer to BCS-38, "Diagnosis Procedure".

NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000004469865

1. CHECK POWER SUPPLY CIRCUIT

Check BCM power supply circuit. Refer to BCS-39, "Diagnosis Procedure".

Is the circuit normal?

YES >> Replace BCM. Refer to BCS-81, "Exploded View".

NO >> Repair the malfunctioning part.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000004469866

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	К
battery power suppry	10

Is the fuse fusing?

>> 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

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

((-)	Voltage	
В	СМ		(Approx.)
Connector	Connector Terminal		
M118 1		Ground	Battery voltage
M119	11		Battery Voltage

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.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M119	13		Existed

Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector. **BCS**

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COMBINATION SWITCH INPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

COMBINATION SWITCH INPUT CIRCUIT

Diagnosis Procedure

INFOID:0000000004469867

1. CHECK INPUT 1 - 5 SYSTEM CIRCUIT FOR OPEN

- 1. Turn the ignition switch OFF.
- 2. Disconnect the BCM and combination switch connectors.
- 3. Check continuity between BCM harness connector and combination switch harness connector.

System	ВСМ		Combinat	Continuity	
System	Connector	Terminal	Connector	Terminal	Continuity
INPUT 1		107		11	
INPUT 2		109		9	
INPUT 3	M122	88	M33	7	Existed
INPUT 4		108		10	
INPUT 5		87		13	

Does continuity exist?

YES >> GO TO 2.

NO >> Repair the harnesses or connectors.

2. CHECK INPUT 1 - 5 SYSTEM CIRCUIT FOR SHORT

Check for continuity between BCM harness connector and ground.

System	В	СМ		Continuity
System	Connector	Terminal		Continuity
INPUT 1		107		
INPUT 2		109	Ground	
INPUT 3	M122	88		Not existed
INPUT 4		108		
INPUT 5		87		

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> GO TO 3.

3.CHECK BCM OUTPUT VOLTAGE

- 1. Connect the BCM connector.
- 2. Check voltage between BCM harness connector and ground.

		Terminals	3	
System	(+)		(-)	Voltage
System	BCM			(Approx.)
	Connector	Terminal		
INPUT 1		107		
INPUT 2		109	Ground	Refer to BCS-
INPUT 3	M122	88		44, "Refer-
INPUT 4		108		ence Value".
INPUT 5		87		

Is the measurement value normal?

YES >> GO TO 4.

NO >> Replace BCM. Refer to BCS-81, "Exploded View".

COMBINATION SWITCH INPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

4. CHECK BCM INPUT SIGNAL

- 1. Connect the combination switch connector.
- 2. Turn ON any switch in the system that is malfunctioning.
- Check voltage between BCM harness connector and ground.

System	(+)		(-)	Voltage
System	BCM			(Approx.)
	Connector	Terminal		
INPUT 1		107		
INPUT 2		109	Ground	Refer to BCS-
INPUT 3	M122	88		44, "Refer-
INPUT 4		108		ence Value".
INPUT 5		87		

Is the measurement value normal when any of the switches is turned ON?

YES >> Replace BCM. Refer to BCS-81, "Exploded View".

NO >> Replace the combination switch.

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COMBINATION SWITCH OUTPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

COMBINATION SWITCH OUTPUT CIRCUIT

Diagnosis Procedure

INFOID:0000000004469868

1. CHECK OUTPUT 1 - 5 SYSTEM CIRCUIT FOR OPEN

- 1. Turn the ignition switch OFF.
- 2. Disconnect the BCM and combination switch connectors.

NOTE:

- BCM connector disconnects M123 only.
- 3. Check continuity between BCM harness connector and combination switch harness connector.

Cyatam	ВСМ		Combinat	Continuity	
System	Connector	Terminal	Connector	Terminal	Continuity
OUTPUT 1		143		12	
OUTPUT 2		144		14	
OUTPUT 3	M123	145	M33	5	Existed
OUTPUT 4		146		2	
OUTPUT 5		142		8	

Does continuity exist?

YES >> GO TO 2.

NO >> Repair the harnesses or connectors.

2.CHECK OUTPUT 1 - 5 SYSTEM CIRCUIT FOR SHORT

Check for continuity between BCM harness connector and ground.

System	В	CM		Continuity
System	Connector	Terminal		Continuity
OUTPUT 1		143		
OUTPUT 2		144	Ground	
OUTPUT 3	M123	145		Not existed
OUTPUT 4		146		
OUTPUT 5		142		

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> GO TO 3.

3.check combination switch internal circuit

- 1. Connect the combination switch connector.
- 2. Turn ON any switch in the system that is malfunctioning.
- 3. Check voltage between combination switch harness connector and ground.

NOTF:

Check that the combination switch outputs a signal from combination switch input system.

COMBINATION SWITCH OUTPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Terminals				
(+)		(-)	Value (Approx.)	
Combination switch			Value (Approx.)	
Connector	Terminal			
	12			
	14	0	(V) 15	
	5	Ground	10	
M33	2		0	
	8		2 ms JPMIA0041GB	
	Combination Connector	(+) Combination switch Connector Terminal 12 14 5 M33 2	(+) (-) Combination switch Connector Terminal 12 14 5 M33 2	

Is the measurement value normal when any of the switches is turned ON?

YES >> Replace BCM. Refer to BCS-81, "Exploded View".

NO >> Replace the combination switch.

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< ECU DIAGNOSIS INFORMATION >

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

Reference Value

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	Off
FR WIFER HI	Front wiper switch HI	On
ED WIDED I OW	Other than front wiper switch LO	Off
FR WIPER LOW	Front wiper switch LO	On
FR WASHER SW	Front washer switch OFF	Off
FR WASHER SW	Front washer switch ON	On
FR WIPER INT	Other than front wiper switch INT	Off
FR WIFER IN	Front wiper switch INT	On
FR WIPER STOP	Front wiper is not in STOP position	Off
FR WIPER STOP	Front wiper is in STOP position	On
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	Wiper intermittent dia position
TUDNI CICNIAL D	Other than turn signal switch RH	Off
TURN SIGNAL R	Turn signal switch RH	On
TUDNI CICNIAL I	Other than turn signal switch LH	Off
TURN SIGNAL L	Turn signal switch LH	On
TAIL LAMP SW	Other than lighting switch 1ST and 2ND	Off
TAIL LAIVIP SVV	Lighting switch 1ST or 2ND	On
	Other than lighting switch HI	Off
HI BEAM SW	Lighting switch HI	On
LIEAD LAMD CW/4	Other than lighting switch 2ND	Off
HEAD LAMP SW 1	Lighting switch 2ND	On
HEAD LAMB SW 2	Other than lighting switch 2ND	Off
HEAD LAMP SW 2	Lighting switch 2ND	On
DACCING CW	Other than lighting switch PASS	Off
PASSING SW	Lighting switch PASS	On
ALITO LICUT CW	Other than lighting switch AUTO	Off
AUTO LIGHT SW	Lighting switch AUTO	On
FR FOG SW	Front fog lamp switch OFF	Off
FR FOG SW	Front fog lamp switch ON	On
RR FOG SW	NOTE: The item is indicated, but not monitored.	Off
DOOD SW DD	Driver door closed	Off
DOOR SW-DR	Driver door opened	On
DOOD CW AC	Passenger door closed	Off
DOOR SW-AS	Passenger door opened	On
DOOR SW-RR	NOTE: The item is indicated, but not monitored.	Off

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< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
DOOR SW-RL	NOTE: The item is indicated, but not monitored.	Off
DOOR SW-BK	NOTE: The item is indicated, but not monitored.	Off
CDL LOCK SW	Other than power door lock switch LOCK	Off
CDL LOCK SW	Power door lock switch LOCK	On
CDL UNLOCK SW	Other than power door lock switch UNLOCK	Off
CDL UNLOCK SW	Power door lock switch UNLOCK	On
KEY CYL LK-SW	Other than driver door key cylinder LOCK position	Off
RETOTE ER-SW	Driver door key cylinder LOCK position	On
KEY CYL UN-SW	Other than driver door key cylinder UNLOCK position	Off
KET CTL UN-3W	Driver door key cylinder UNLOCK position	On
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off
HAZADD CW	Hazard switch is OFF	Off
HAZARD SW	Hazard switch is ON	On
REAR DEF SW	NOTE: The item is indicated, but not monitored.	Off
H/L WASH SW	NOTE: The item is indicated, but not monitored.	Off
TD CANCEL CW	Trunk lid opener cancel switch OFF	Off
TR CANCEL SW	Trunk lid opener cancel switch ON	On
TD/DD ODEN CW/	Trunk lid opener switch OFF	Off
TR/BD OPEN SW	While the trunk lid opener switch is turned ON	On
TRNK/HAT MNTR	Trunk lid closed	Off
TRINIVITAL WINTER	Trunk lid opened	On
RKE-LOCK	LOCK button of the Intelligent Key is not pressed	Off
- TRE LOOK	LOCK button of the Intelligent Key is pressed	On
RKE-UNLOCK	UNLOCK button of the Intelligent Key is not pressed	Off
THE ONEOOK	UNLOCK button of the Intelligent Key is pressed	On
RKE-TR/BD	TRUNK OPEN button of the Intelligent Key is not pressed	Off
THE THUBB	TRUNK OPEN button of the Intelligent Key is pressed	On
RKE-PANIC	PANIC button of the Intelligent Key is not pressed	Off
	PANIC button of the Intelligent Key is pressed	On
RKE-P/W OPEN	UNLOCK button of the Intelligent Key is not pressed	Off
	UNLOCK button of the Intelligent Key is pressed and held	On
RKE-MODE CHG	LOCK/UNLOCK button of the Intelligent Key is not pressed and held simultaneously	Off
	LOCK/UNLOCK button of the Intelligent Key is pressed and held simultaneously	On
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5 V
OF HOME GENOOR	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

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Monitor Item	Condition	Value/Status
REQ SW -RL	NOTE: The item is indicated, but not monitored.	Off
FO CW DD/TD	Trunk lid opener request switch is not pressed	Off
EQ SW -BD/TR	Trunk lid opener request switch is pressed	On
HCH CW	Push-button ignition switch (push switch) is not pressed	Off
USH SW	Push-button ignition switch (push switch) is pressed	On
ON DIVO E/D	Ignition switch in OFF or ACC position	Off
GN RLY2 -F/B	Ignition switch in ON position	On
CC RLY -F/B	NOTE: The item is indicated, but not monitored.	Off
LUCLICW	The clutch pedal is not depressed	Off
LUCH SW	The clutch pedal is depressed	On
	The brake pedal is depressed when No. 7 fuse is blown	Off
RAKE SW 1	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal	On
DAKE OW O	The brake pedal is not depressed	Off
RAKE SW 2	The brake pedal is depressed	On
SETE/CANCL CW	Selector lever in P position (Except M/T models) The clutch pedal is depressed (M/T models)	Off
DETE/CANCL SW	 Selector lever in any position other than P (Except M/T models) The clutch pedal is not depressed (M/T models) 	On
SFT PN/N SW	Selector lever in any position other than P and N	Off
	Selector lever in P or N position	On
// 1.00/	Steering is unlocked	Off
/L -LOCK	Steering is locked	On
/L -UNLOCK	Steering is locked	Off
/L -UNLOCK	Steering is unlocked	On
/L DELAY E/D	Ignition switch in OFF or ACC position	Off
/L RELAY-F/B	Ignition switch in ON position	On
NLK SEN -DR	Driver door is unlocked	Off
NER SEN -DR	Driver door is locked	On
USH SW -IPDM	Push-button ignition switch (push-switch) is not pressed	Off
	Push-button ignition switch (push-switch) is pressed	On
SN RLY1 -F/B	Ignition switch in OFF or ACC position	Off
JN IXLI I -I /D	Ignition switch in ON position	On
ETE SW -IPDM	Selector lever in any position other than P	Off
	Selector lever in P position	On
FT PN -IPDM	Selector lever in any position other than P and N (Except M/T models) The clutch pedal is not depressed (M/T models)	Off
I FIN -IFUIVI	Selector lever in P or N position The clutch pedal is depressed	On
ET D MET	Selector lever in any position other than P	Off
FT P -MET	Selector lever in P position	On
ET N. MET	Selector lever in any position other than N	Off
FT N -MET	Selector lever in N position	On

Monitor Item	Condition	Value/Status
	Engine stopped	Stop
ENGINE STATE	While the engine stalls	Stall
ENGINE STATE	At engine cranking	Crank
	Engine running	Run
C/L L CCK IDDM	Steering is unlocked	Off
S/L LOCK-IPDM	Steering is locked	On
C/L LINIL K IDDM	Steering is locked	Off
S/L UNLK-IPDM	Steering is unlocked	On
0/L DELAY/DE0	Steering lock system is not the LOCK condition and the changing condition from LOCK to UNLOCK	Off
S/L RELAY-REQ	Steering lock system are not the LOCK condition or the changing condition from LOCK to UNLOCK	On
VEH SPEED 1	While driving	Equivalent to speed- ometer reading
VEH SPEED 2	While driving	Equivalent to speed- ometer reading
	Driver door is locked	LOCK
DOOR STAT-DR	Wait with selective UNLOCK operation (60 seconds)	READY
	Driver door is unlocked	UNLOCK
	Passenger door is locked	LOCK
DOOR STAT-AS	Wait with selective UNLOCK operation (60 seconds)	READY
	Passenger door is unlocked	UNLOCK
	Steering is locked	Reset
ID OK FLAG	Steering is unlocked	Set
DDMT ENG STDT	The engine start is prohibited	Reset
PRMT ENG STRT	The engine start is permitted	Set
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset
KEY OW OLOT	The Intelligent Key is not inserted into key slot	Off
KEY SW -SLOT	The Intelligent Key is inserted into key slot	On
RKE OPE COUN1	During the operation of the Intelligent Key	Operation frequency of the Intelligent Key
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	_
CONEDM ID ALL	The key ID that the key slot receives is not recognized by any key ID registered to BCM.	Yet
CONFRM ID ALL	The key ID that the key slot receives is recognized by any key ID registered to BCM.	Done
CONFIDM ID 4	The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.	Yet
CONFIRM ID4	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done
CONFIDM ID2	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet
CONFIRM ID3	The key ID that the key slot receives is recognized by the third key ID registered to BCM.	Done

Monitor Item	Condition	Value/Status
CONFIRM ID2	The key ID that the key slot receives is not recognized by the second key ID registered to BCM.	Yet
CONFINITIDE	The key ID that the key slot receives is recognized by the second key ID registered to BCM.	Done
CONFIRM ID1	The key ID that the key slot receives is not recognized by the first key ID registered to BCM.	Yet
CONFINITION	The key ID that the key slot receives is recognized by the first key ID registered to BCM.	Done
TD 4	The ID of fourth Intelligent Key is not registered to BCM	Yet
TP 4	The ID of fourth Intelligent Key is registered to BCM	Done
TDO	The ID of third Intelligent Key is not registered to BCM	Yet
TP 3	The ID of third Intelligent Key is registered to BCM	Done
TDO	The ID of second Intelligent Key is not registered to BCM	Yet
TP 2	The ID of second Intelligent Key is registered to BCM	Done
TD 4	The ID of first Intelligent Key is not registered to BCM	Yet
TP 1	The ID of first Intelligent Key is registered to BCM	Done
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire
AIR PRESS RR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear RH tire
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LH tire
ID DECCT EL 4	ID of front LH tire transmitter is registered	Done
ID REGST FL1	ID of front LH tire transmitter is not registered	Yet
ID REGST FR1	ID of front RH tire transmitter is registered	Done
ID REGOT FRI	ID of front RH tire transmitter is not registered	Yet
ID DECCT DD4	ID of rear RH tire transmitter is registered	Done
ID REGST RR1	ID of rear RH tire transmitter is not registered	Yet
ID DECCT DI 4	ID of rear LH tire transmitter is registered	Done
ID REGST RL1	ID of rear LH tire transmitter is not registered	Yet
MADNING LAND	Tire pressure indicator OFF	Off
WARNING LAMP	Tire pressure indicator ON	On
DUZZED	Tire pressure warning alarm is not sounding	Off
BUZZER	Tire pressure warning alarm is sounding	On

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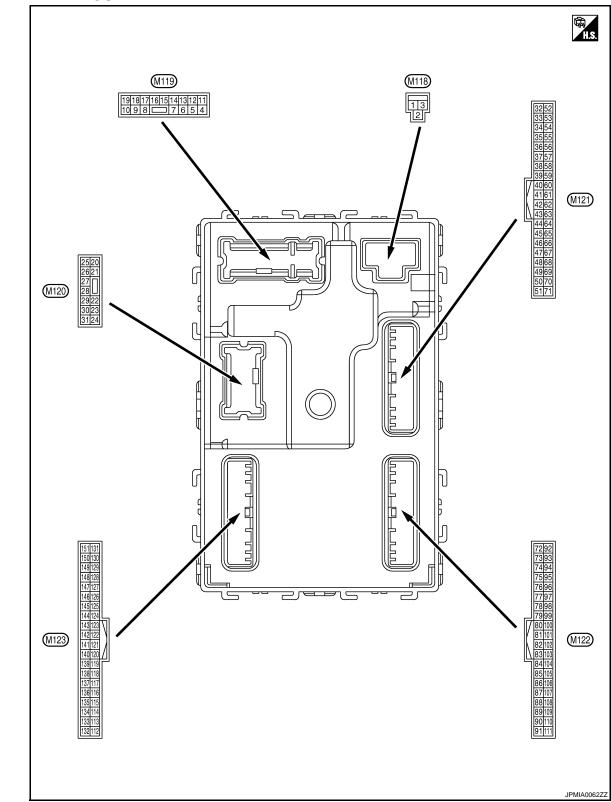
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TERMINAL LAYOUT



PHYSICAL VALUES

Revision: 2009 October BCS-49 2009 G37 Coupe

	nal No. color)	Description			0	Value
+	- COIOT)	Signal name	Input/ Output		Condition	(Approx.)
1 (W)	Ground	Battery power supply	Input	Ignition switch (OFF	Battery voltage
2 (Y)	Ground	P/W power supply (BAT)	Output	Ignition switch (OFF	12 V
3 (O)	Ground	P/W power supply (RAP)	Output	Ignition switch (ON	12 V
					mp battery saver is activated. or room lamp power supply)	0 V
4 (LG)	Ground	Interior room lamp power supply	Output	vated.	mp battery saver is not acti- erior room lamp power sup-	12 V
5	Ground	Passenger door UN-	Output	Passenger	UNLOCK (Actuator is activated)	12 V
(P)	Ground	LOCK	Output	door	Other than UNLOCK (Actuator is not activated)	0 V
7	Ground	Step lamp	Output	Step lamp	ON	0 V
(SB)					OFF	12 V
8	Ground	All doors, fuel lid LOCK	Output	All doors, fuel lid	LOCK (Actuator is activated)	12 V
(V)					Other than LOCK (Actuator is not activated)	0 V
9	Ground	Driver door, fuel lid	Output	Driver door, fuel lid	UNLOCK (Actuator is activated)	12 V
(G)	Ground	UNLOCK			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
					OFF	0 V
14 (W)	Ground	Push-button ignition switch illumination ground	Output	Tail lamp	ON	NOTE: When the illumination brightening/dimming level is in the neutral position.
		3.53.13				0 2 ms JSNIA0010GB
15	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
(O)					ACC	0 V

Terminal No. (Wire color)		Description			O a malitia m	Value	
+	-	Signal name	Input/ Output		Condition	(Approx.)	
					Turn signal switch OFF	0 V	
17 (W) Ground	Ground	Turn signal RH (Front)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 1 s	
					Turn signal switch OFF	6.5 V 0 V	
18 (O)	Ground	Turn signal LH (Front)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s PKID0926E 6.5 V	
19	Ground	Room lamp timer	Output	Interior room	OFF	12 V	
(V)		control		lamp	ON Turn signal switch OFF	0 V 0 V	
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 1 s PKID0926E 6.5 V	
23	One we de	d Trunk lid open	Outrast	utput Trunk lid -	OPEN (Trunk lid opener actuator is activated)	12 V	
(L)	Ground		Output		Other than OPEN (Trunk lid opener actuator is not activated)	0 V	
					Turn signal switch OFF	0 V	
25 (Y)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s PKID0926E 6.5 V	
30			_	Trunk room	ON	0.5 V	
(P)	Ground	Trunk room lamp	Output	lamp	OFF	12 V	

	nal No.	Description				Value	
+ (vvire	color)	Signal name	Input/ Output		Condition	(Approx.)	
34		Trunk room antenna		lanition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 S S S S S S S S S	
(SB)	Ground	(–)	Output	Ignition switch OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 1	
35	Ground	Trunk room antenna	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB	
(V)	Glodina	(+)	Сара	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB	
38	Ground	Rear bumper anten-	Output	When the trunk	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	
(B)	Ground	na (–)	Output	quest switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB	

	nal No. color)	Description			O a sa distinue	Value	
+	-	Signal name	Input/ Output		Condition	(Approx.)	
39	Ground	Rear bumper anten-	Output	When the trunk	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 S S S S S S S S S	
(W)	Glound	na (+)	Output	quest switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	
47	0	Ignition relay (IPDM	Outroit	Lauridian avvitale	OFF or ACC	12 V	
(Y)	Ground	E/R) control	Output	Ignition switch	ON	0 V	
50 (R)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (Trunk lid is closed)	(V) 15 10 5 0 10 ms JPMIA0011GB	
					ON (Trunk lid is opened)	0 V	
				Ignition switch ON (A/T mod-	When selector lever is in P or N position	12 V	
52	Crownd	Ctortor volov control	Outout	els)	When selector lever is not in P or N position	0 V	
(SB)	Ground	Starter relay control	Output	Ignition switch	When the clutch pedal is depressed	Battery voltage	
				ON (M/T mod- els)	When the clutch pedal is not depressed	0 V	
					ON (Pressed)	0 V	
61 (SB)	Ground	Trunk lid opener request switch	Input	Trunk lid open- er request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB	
64		Intelligent Key warn-		Intelligent Key	Sounding	0 V	
(L)	Ground	ing buzzer (Engine room)	Output	warning buzzer (Engine room)	Not sounding	12 V	

	nal No.	Description				Value
+ (vvire	color)	Signal name	Input/ Output	Condition		(Approx.)
67 (GR)	Ground	Trunk lid opener switch	Input	Trunk lid open- er switch	Pressed Not pressed	0 V 15 10 5 0 10 ms JPMIA0011GB
72	Ground	Room antenna 2 (–)		Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 JMKIA0062GB
(R)	Clound	(Center console)		OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 11 1 s JMKIA0063GB
73	Ground	Room antenna 2 (+) (Center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB
(G)					When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB

Terminal No. Description (Wire color)			Condition		Value	А	
+	-	Signal name	Input/ Output		Condition	(Approx.)	
74		Passenger door an-		When the passenger door re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	B C
(SB)	Ground	tenna (-)	Output	quest switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	E
				When the pas-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s	G H
75 (BR)	Ground	Passenger door antenna (+)	Output	senger door request switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 1	J K
76	One	Driver door antenna	0.4.4	When the driver door request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	BC
(V)	Ground	(-)	Output	switch is oper- ated with igni- tion switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s	P

	nal No.	Description				Value
+ (vvire	color)	Signal name	Input/ Output		Condition	(Approx.)
77		Driver door antenna		When the driver door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(LG)	Ground	(+)	Output		When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB
78	Ground	Room antenna 1 (–) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB
(Y)	Clound				When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB
79	Ground	Room antenna 1 (+)	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB
(BR)	Ground	(Instrument panel)	Output	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB

Terminal No. (Wire color)		Description	ı		a 11:1	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
80 (GR)	Ground	NATS antenna amp (Built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
81 (W)	Ground	NATS antenna amp (Built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent 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 12 V
Remo		Remote keyless entry		During waiting		(V) 15 10 5 0 1 ms JMKIA0064GB
83 (Y)	Ground	receiver communica-	Input/ Output	When operating gent Key	either button on the Intelli-	(V) 15 10 5 1 ms JMKIA0065GB
		Combination switch INPUT 5	Input		All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB
87 (Y)	Ground			Combination switch	Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB
					Any of the conditions below with all switches OFF Wiper intermittent dial 1 Wiper intermittent dial 2 Wiper intermittent dial 6 Wiper intermittent dial 7	(V) 15 10 5 0 2 ms JPMIA0040GB

	nal No.	Description				Value
+ (vvire	color)	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF (Wiper intermittent dial 4)	(V) 15 10 2 ms JPMIA0041GB
88	Ground	Combination switch INPUT 3		Combination	Lighting switch HI (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB
(O)			Input	switch	Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB
					Any of the conditions below with all switches OFF Wiper intermittent dial 1 Wiper intermittent dial 2 Wiper intermittent dial 3	(V) 15 10 5 0 2 ms JPMIA0040GB
89		Push-button ignition		Push-button ig-	Pressed	0 V
(BR)	Ground	switch (Push switch)	Input	nition switch (push switch)	Not pressed	Battery voltage
90 (P)	Ground	CAN-L	Input/ Output		_	_
91 (L)	Ground	CAN-H	Input/ Output		_	_
					OFF	0 V
92 (LG)	Ground	Key slot illumination	Output	Key slot illumi- nation	Blinking	(V) 15 10 5 0 1 s JPMIA0015GB
					ON	6.5 V 12 V
						1

	nal No. color)	Description			O Itti	Value	
+	-	Signal name	Input/ Output		Condition	(Approx.)	
93 (Y)	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage	
(1)					ON	0 V	
95	Ground	ACC relay control	Output	Ignition switch	OFF	0 V	
(O)	Ground	ACC relay control	Output	ignition switch	ACC or ON	12 V	
96 (GR)	Ground	A/T shift selector (Detention switch) power supply	Output		_	12 V	
97	Ground	Steering lock condi-	Input	Steering lock	LOCK status	0 V	
(L)		tion No. 1		UNLOCK status		12 V	
98	Ground	Steering lock condi-	Input	Steering lock	LOCK status	12 V	
(P)		tion No. 2			UNLOCK status	0 V	
		Selector lever P posi-		Selector lever	P position	0 V	
	tion switch		22.23.0. 10101	Any position other than P	12 V		
		ASCD clutch switch (M/T models without		ASCD clutch	OFF (Clutch pedal is depressed)	0 V	
99 (R)	Ground	ICC)	Input	switch ICC clutch	ON (Clutch pedal is not depressed)	12 V	
		ICC clutch switch (M/			OFF (Clutch pedal is depressed)	0 V	
		T models with ICC)		switch	ON (Clutch pedal is not depressed)	12 V	
					ON (Pressed)	0 V	
100 (Y)	Ground	Passenger door request switch	Input	Passenger door request switch	OFF (Not pressed)	(V) 15 10 5 10 ms JPMIA0016GB	
					ON (Pressed)	0 V	
					511 (1 15555d)		
101 (P)	Ground	Driver door request switch	Input	Driver door request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB	
102		Blower fan motor re-			OFF or ACC	0 V	
(O)	Ground	lay control	Output	Ignition switch	ON	12 V	
103 (LG)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch C		12 V	
106	<u> </u>	Steering lock unit	_		OFF or ACC	12 V	
(W)	Ground	power supply	Output	Ignition switch	ON	0 V	

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

< ECU DIAGNOSIS INFORMATION >

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

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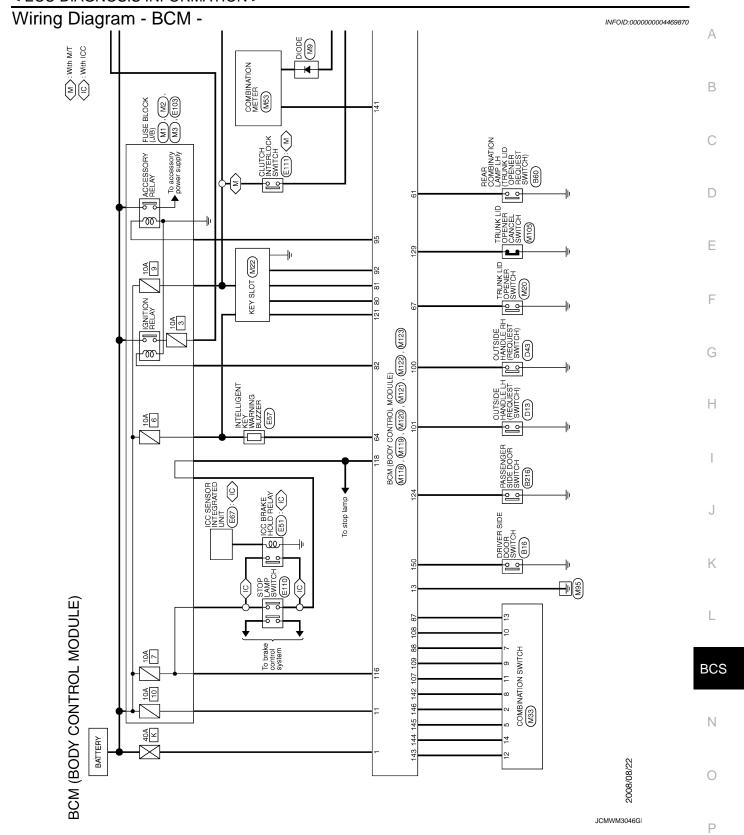
	nal No.	Description				Value
(Wire	color)	Signal name	Input/ Output		Condition	(Approx.)
			· .		All switches OFF	(V) 15 10 0 2 ms JPMIA0041GB
					Lighting switch PASS	(V) 15 10 5 2 ms JPMIA0037GB 1.3 V
109 (W)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermittent dial 4)	Lighting switch 2ND	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V
					Front wiper switch INT	(V) 15 10 5 0 2 ms JPMIA0038GB
					Front wiper switch HI	(V) 15 10 5 0 2 ms JPMIA0040GB 1.3 V
					ON	0 V
110 (G)	Ground	Hazard switch	Input	Hazard switch	OFF	(V) 15 10 5 0 10 ms JPMIA0012GB

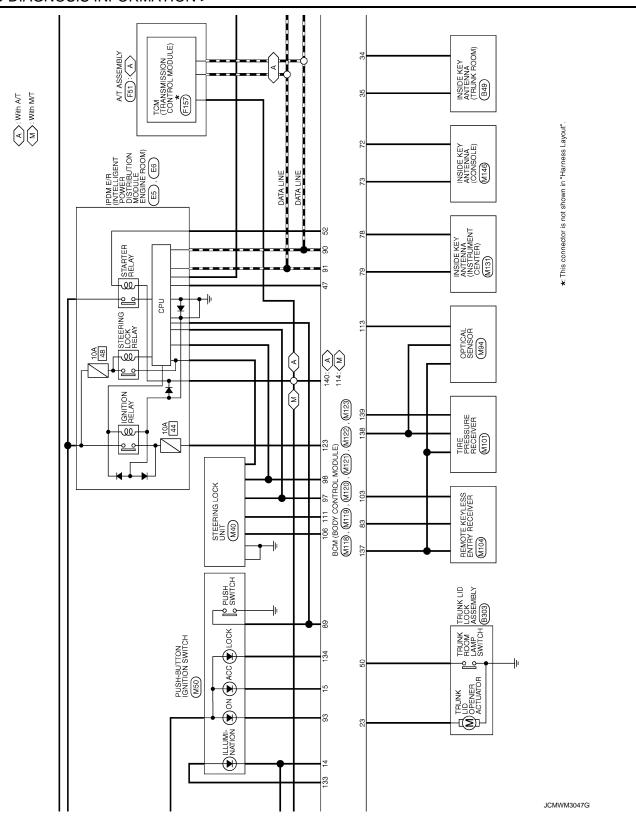
	nal No. color)	Description	Π -		Condition	Value	
+	-	Signal name	Input/ Output		Condition	(Approx.)	
					LOCK status	12 V	
111 (Y)	Ground	Steering lock unit communication	Input/ Output	Steering lock	LOCK or UNLOCK	(V) 15 10 5 0 50 ms JMKIA0066GB	
					For 15 seconds after UN- LOCK	12 V	
					15 seconds or later after UNLOCK	0 V	
113	Ground	Optical sensor	Innut	Ignition switch	When bright outside of the vehicle	Close to 5 V	
(O)	Ground	Optical Serisor	Input	ON	When dark outside of the vehicle	Close to 0 V	
114	Cround	Clutch interlock	Innut	Clutchinterlock	OFF (Clutch pedal is not depressed)	0 V	
(R)	Ground	switch	Input	switch	ON (Clutch pedal is depressed)	Battery voltage	
116 (SB)	Ground	Stop lamp switch 1	Input		_	Battery voltage	
		Stop lamp switch 2	- Input	Stop lamp	OFF (Brake pedal is not depressed)	0 V	
118	Ground	(Without ICC) Stop lamp switch 2		switch	ON (Brake pedal is depressed)	Battery voltage	
(BR)	Ground			Stop lamp switch OFF (Brake pedal is not depressed) and ICC brake hold relay OFF Stop lamp switch ON (Brake pedal is depressed) or ICC brake hold relay ON		0 V	
		(With ICC)				Battery voltage	
119 (SB)	Ground	Driver side door lock assembly (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	(V) 15 10 5 0 10 ms JPMIA0012GB	
					UNLOCK status (Unlock switch sensor ON)	0 V	
121		IZ. Alexandra		When the Intellig	gent Key is inserted into key	12 V	
(SB)	Ground	Key slot switch	Input	When the Intelliq	gent Key is not inserted into	0 V	
123	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V	
(W)	0.50110				ON	Battery voltage	

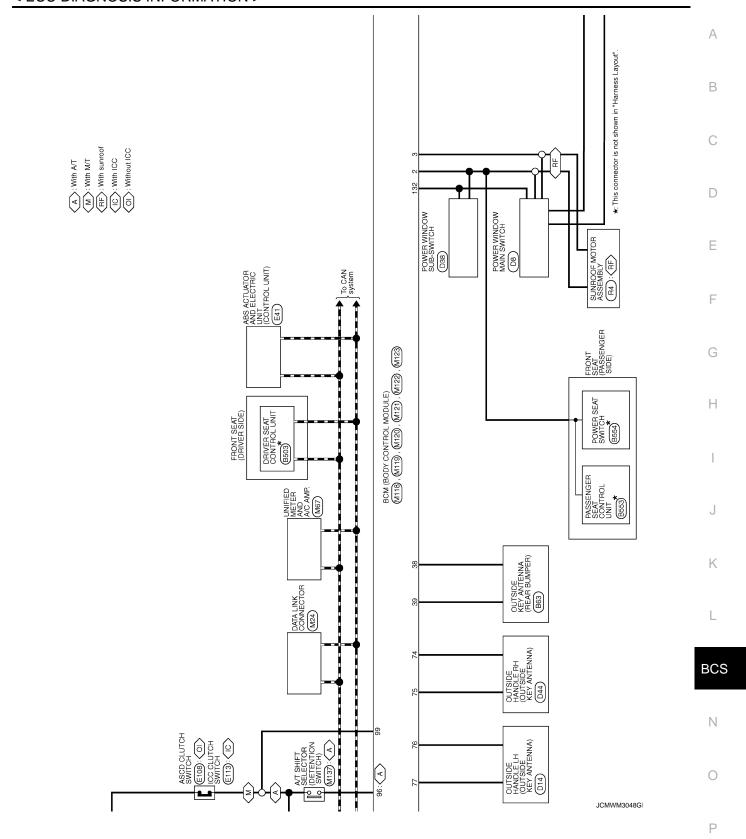
	nal No.	Description				Value
(Wire	color)	Signal name	Input/ Output		Condition	Value (Approx.)
124 (LG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	(V) 15 10 5 0 10 ms JPMIA0011GB
					ON (Door open)	0 V
129 (O)	Ground	Trunk lid opener cancel switch	Input	Trunk lid open- er cancel switch	CANCEL	(V) 15 10 5 0 10 ms JPMIA0012GB
					ON	0 V
132 (V)	Ground	Power window switch communication	Input/ Output	Ignition switch C		(V) 15 10 5 0 10 ms JPMIA0013GB
				Ignition switch C		12 V
					ON (Tail lamps OFF)	9.5 V
133 (L)	Ground	Push-button ignition switch illumination	Output	Push-button ig- nition switch il- lumination	ON (Tail lamps ON)	NOTE: The pulse width of this wave is varied by the illumination brightening/dimming level.
					OFF	JPMIA0159GB
404				1.001/:	OFF	Battery voltage
134 (LG)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	ON	0 V
137 (O)	Ground	Receiver and sensor ground	Input	Ignition switch C		0 V
138	Ground	Receiver and sensor	Output	Ignition switch	OFF	0 V
(V)	Cround	power supply	Juiput	igindon switch	ACC or ON	5.0 V

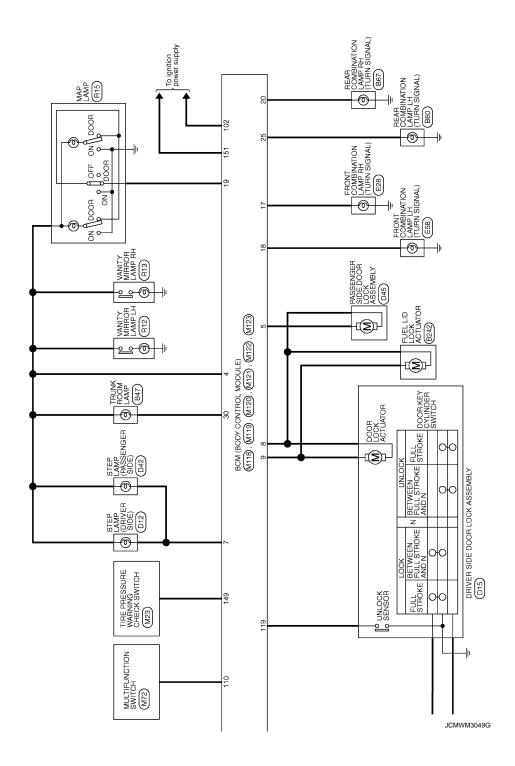
	nal No.	Description	T		0 100	Value	
+ (vvire	e color)	Signal name	Input/ Output		Condition	(Approx.)	
139	Ground	Tire pressure receiv-	Input/	Ignition switch	Standby state	(V) 6 4 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
(L)	Ground	er communication	Output	ON	When receiving the signal from the transmitter	(V) 6 4 2 0 ••• 0.2s OCC3880D	
140	Cround	Selector lever P/N	Innut	Coloctor lover	P or N position	12 V	
(GR)	Ground	position (A/T models)	Input	Selector lever	Except P and N positions	0 V	
					ON	0 V	
141 (R)	Ground	Security indicator	Output	Security indicator	Blinking	(V) 15 10 5 0 1 s JPMIA0014GB	
						11.3 V	
					OFF	12 V	
					All switches OFF	0 V	
					Lighting switch 1ST	(\/)	
				Combination	Lighting switch HI	(V) 15 10	
142 (BR)	Ground	Combination switch OUTPUT 5	Output	switch (Wiper intermit- tent dial 4)	Lighting switch 2ND Turn signal switch RH	2 ms JPMIA0031GB	В
						10.7 V	
					All switches OFF (Wiper intermittent dial 4)	0 V	
					Front wiper switch HI (Wiper intermittent dial 4)	(V)	
143 (V)	Ground	Combination switch OUTPUT 1	Output	Combination switch	Any of the conditions below with all switches OFF Wiper intermittent dial 1	15	
					 Wiper intermittent dial 2 Wiper intermittent dial 3 Wiper intermittent dial 6 Wiper intermittent dial 7 	2 ms JPMIA0032GB	

		515 INFORMATIC						
	nal No. color)	Description			0 1111	Value		
+	-	Signal name	Input/ Output		Condition	(Approx.)		
					All switches OFF (Wiper intermittent dial 4)	0 V		
					Front washer switch ON (Wiper intermittent dial 4)	(<u>v</u>)		
144 (G)	Ground	Combination switch OUTPUT 2	Output	Combination switch	Any of the conditions below with all switches OFF Wiper intermittent dial 1 Wiper intermittent dial 5 Wiper intermittent dial 6	15 10 5 0 2 ms JPMIA0033GB		
					All switches OFF	0 V		
					Front wiper switch INT			
				Combination	Front wiper switch LO	(V)		
145 (L)	Ground	Combination switch OUTPUT 3	Output	switch (Wiper intermit- tent dial 4)	Lighting switch AUTO	10 5 0 2 ms JPMIA0034GB		
					All switches OFF	0 V		
		Combination switch OUTPUT 4			Front fog lamp switch ON			
				Combination	Lighting switch 2ND	(V)		
146 (SB)	Ground		Output	switch (Wiper intermit- tent dial 4)	Lighting switch PASS	10 5 0		
					Turn signal switch LH	JPMIA0035GB		
149 (W)	Ground	Tire pressure warning check switch	Input		_	12 V		
150 (R)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	(V) 15 10 5 0 10 ms JPMIA0011GB		
					ON (Door open)	0 V		
151	Ground	Rear window defog-	Output	Rear window	Active	0 V		
(G)	Ground	ger relay control	Output	defogger	Not activated	Battery voltage		









< ECU DIAGNOSIS INFORMATION >

V ROOM LAMP TIMER CONTROL		Y NEVLESS BITRY RECEIVER COMM Y COMBIS SW INPUT 5 BR PUSH SW CAN-I CAN-I LG CAN-I LG KEY SLOT ILL LG NET SLOT ILL ON IND ON IND T CON STREELECTOR POWER SUPPLY GR AT SHIFT SELECTOR POWER SUPPLY C S/L CONDITION I S/L CONDITION I S/L CONDITION I	P S.CONDITION 2 S.L. CONDITION 2		A B
o -			9 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8		D
L MODULE) 8 9 10 17 18 19	Signal Name [Specification] INTERIOR ROOM LAND POWER SUPPLY PASSENGER DOOR UNLOCK OUTPUT ALL DOOR FUEL LID LOCK OUTPUT DRIVER DOOR FUEL LID LOCK OUTPUT BAT FOODS FUEL LID LOCK OUTPUT BAT FOODS FUEL LID WILCOK OUTPUT BAT FOUR SIGNAL IN (FRONT) TURN SIGNAL IN (FRONT) TURN SIGNAL LIM (FRONT)	MODULE) OF THE SALES TO THE SA	Specification] MATT2- MATT2- DOOR AMT- DOOR AMT- DOOR AMT- OOR AMT- AMTI- AMTI- AMTI- AMTI- MATTI- MATI- MATTI- MATI- MATTI- MATTI- MATTI- MATTI- MATTI- MATTI- MATTI- MATTI- MATI- MATTI- MATI- MA		Е
MI19 ROW (BODY CONTROL MODULE) NSIGNW-CS 5 6 7 8 9 10 12 13 14 15 16 17 18 19	Signal Name (Specification) ITEROR ROWE SUL SENGER DOOR LAULOCK OU SENGER DOOR FUEL LID LOCK OUT TO DOOR FUEL LID LOCK OUT WER DOOR FUEL LID LOCK OUT WER DOOR FUEL LID LOCK OUT BATTON IGNITION SW ILL ACO IND TURN SIGNAL IN (FRONT) TURN SIGNAL LH (FRONT)	M122 BCM (BODY CONTROL MODULE) TH4GFB-NH TH4GFB-NH G S S S S S S S S S S S S S S S S S S S	Signal Name (Specification) ROOM ANT2- ROOM ANT2- ROOM ANT2- PASSENGER DOOR ANT- DASSENGER DOOR ANT- DRIVER DOOR ANT- DRIVER DOOR ANT- ROOM ANT1- ROOM ANT1- ROOM ANT1- IMMOBI ANTENIA SIGNAL IGN RELAY (F/B) CONT		F
No. Name Type	Odlor of Wire LG LG C C C C C C C C C C C C C C C C C	or No. or Type 11 11 11 10 10 10 10 10 10 10 10 10 10 1	C Oolor of O		G
Connector No Connector Na Connector Ta	Terminal No. No. 1 1 2 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Connecta Connecta Connecta	Terminal No. 73 73 74 74 74 74 75 77 76 77 77 78 79 80 80 80 82 82		Н
MITS ROW (BODY CONTROL MODULE) MOSFB-LC 113	Signal Name (Specification) BAT (F/L) POWER WINDOW POWER SUPPLY(BAT) POWER WINDOW POWER SUPPLY(BAT)	MI21 THAGEGY-NH THAGEGY-NH THE SELECTION SOUTH SELECTION SOUTH SELECTION SEL	Signal Name [Specification] TRUNK ROOM ANT- TRUNK ROOM ANT- TRUNK ROOM ANT- REAR BUMPER ANT- REAR BUMPER ANT- REAR BUMPER ANT- TRUNK ROOM LAMP SW STAFTER RELAY CONT TRUNK LID OPERIER REQUEST SW I-KEY WARN BUZZER (ENG ROOM) TRUNK LID OPERIER SW		I
MITS MOSFB-LC MOSFB-LC	Signal N POWER WIND POWER WIND	MI21 TH40FGY-NH TH40FGY-NH TH6FGY-NH TH6FG TH6FG TH7 TH8FG TH7FG T	Signal IN TRU TRACI REAF IGN RELA IGN RELA TRUMK LID HEXY WARP		J
Connector No. Connector Name Connector Type N. H.S.	Color No. Color No. Color No. Color No. Color Colo	Connector No. M121 Connector Name BCM (BOI) Connector Type TH40FGY FINAL	Terminal Color No. 10 Web 34 SB 35 V 38 SB 36 V 4 SB 37 V 4 T 4 T 4 T 6 T 6 T 6 T 6 T 6 T 6 T 6 T 6 T 6 T 6		K
OULE)	[ion]		ion] ARN PPUT PARN PARN		L
SWITCH 11 12 13 14 5 6 11 12 13 14 14 15 14 15 15 15 15	Signal Name [Specification] OUTDUT 4 OUTDUT 3 OUTDUT 3 OUTDUT 5 INPUT 2 INPUT 1 INPUT 1 OUTPUT 1 INPUT 1 OUTPUT 5 OUTPUT 5	MI 20 BCM (BODY CONTROL MODULE) NS12PW-CS 20 21	Signal Name (Specification) TURN SIGNAL EN (FEAR) TURNING LID O'ER OUTPUT TURN SIGNAL LH (FEAR) TRUNK ROOM LAMP		BCS
BCM (BODY CONTROL MODULE) Somector No. M33 Connector Name COMBINATION SWITCH THISTW-NH TI 2 3 4 5 6 T 8 9 10 11 12 13 14		M120 BCM (BODY COI NS12FW-CS 20 21			Ν
BCM (BOI) Connector No. Connector Type	Color Color	Connector No. Connector Name Connector Type	Color Color		0
				JCMWM3050GI	Р
					Γ

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LOCK IND	RECEIVER/SENSOR GND	RECEIVER/SENSOR POWER SUPPLY	TIRE PRESSURE RECEIVER COMM	SHIFT N/P	SECURITY INDICATOR	COMBI SW OUTPUT 5	COMBI SW OUTPUT 1	COMBI SW OUTPUT 2	COMBI SW OUTPUT 3	COMBI SW OUTPUT 4	TIRE PRESSURE WARN CHECK SW	DRIVER DOOR SW	REAR WINDOW DEFOGGER RELAY CONT
LG	0	۸	7	SR	В	BR	۸	5	7	SB	W	В	G
134	137	138	139	140	141	142	143	144	145	146	149	150	121

BCM (BODY CONTROL MODULE)	1	ae BCM (BODY CONTROL MODULE)	e TH40FG-NH	
BCM (BOD	Collinector No.	Connector Name	Connector Type	H.S. Estimates

Signal Name [Specification]	OPTICAL SENSOR	CLUTCH INTERLOCK SW	STOP LAMP SW 1	STOP LAMP SW 2	DR DOOR UNLOCK SENSOR	KEY SLOT SW	IGN F/B	PASSENGER DOOR SW	TRUNK LID OPENER CANCEL SW	POWER WINDOW SW COMM	PUSH-BUTTON IGNITION SWILL POWER
Color of Wire	0	Я	SB	BR	SB	SB	W	57	0	^	٦
Terminal No.	113	114	116	118	119	121	123	124	129	132	133

JCMWM3051G

INFOID:0000000004469871

Fail-safe

FAIL-SAFE CONTROL BY DTC

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

< ECU DIAGNOSIS INFORMATION >

Display contents of CONSULT	Fail-safe	Cancellation
B2013: ID DISCORD BCM-S/L	Inhibit engine cranking	Erase DTC
B2014: CHAIN OF S/L-BCM	Inhibit engine cranking	Erase DTC
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI SCANNING	Inhibit engine cranking	Ignition switch $ON \to OFF$
B2557: VEHICLE SPEED	Inhibit steering lock	When normal vehicle speed signals are received from ABS actuator and electric unit (control unit) for 500 ms
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent • Starter control relay signal • Starter relay status signal
B2601: SHIFT POSITION	Inhibit steering lock	500 ms after the following signal reception status becomes consistent • Selector lever P position switch signal • P range signal (CAN)
B2602: SHIFT POSITION	Inhibit steering lock	5 seconds after the following BCM recognition conditions are fulfilled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (battery voltage) Vehicle speed: 4 km/h (2.5 MPH) or more
B2603: SHIFT POSI STATUS	Inhibit steering lock	 500 ms after the following BCM recognition conditions are fulfilled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (battery voltage) Selector lever P/N position signal: Except P and N positions (0 V)
B2604: PNP SW	Inhibit steering lock	 500 ms after any of the following BCM recognition conditions are fulfilled Status 1 Ignition switch is in the ON position Selector lever P/N position signal: P and N position (battery voltage) P range signal or N range signal (CAN): ON Status 2 Ignition switch is in the ON position Selector lever P/N position signal: Except P and N positions (0 V) P range signal and N range signal (CAN): OFF
B2605: PNP SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions are fulfilled • Status 1 - Ignition switch is in the ON position - Selector lever P/N position signal: Except P and N positions (0 V) - Interlock/PNP switch signal (CAN): OFF • Status 2 - Ignition switch is in the ON position - Selector lever P/N position signal: P or N position (battery voltage) - PNP switch signal (CAN): ON
B2606: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent • Steering lock relay signal (Request signal) • Steering lock relay signal (Condition signal)

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Display contents of CONSULT	Fail-safe	Cancellation					
B2607: S/L RELAY	Inhibit engine cranking	 500 ms after the following CAN signal communication status has becomes consistent Steering lock relay signal (Request signal) Steering lock relay signal (Condition signal) 					
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent Starter motor relay control signal Starter relay status signal (CAN)					
B2609: S/L STATUS	Inhibit engine cranking Inhibit steering lock	When the following steering lock conditions agree BCM steering lock control status Steering lock condition No. 1 signal status Steering lock condition No. 2 signal status					
B260A: IGNITION RELAY	Inhibit engine cranking	 500 ms after the following conditions are fulfilled IGN relay (IPDM E/R) control signal: OFF (Battery voltage) Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal) 					
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection						
B2612: S/L STATUS • Inhibit engine cranking • Inhibit steering lock		When any of the following conditions are fulfilled Steering lock unit status signal (CAN) is received normally The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R)					
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becom- normal					
B2618: BCM Inhibit engine cranking		1 second after the ignition relay (IPDM E/R) control inside BCM to comes normal					
B2619: BCM Inhibit engine cranking		1 second after the steering lock unit power supply output control inside BCM becomes normal					
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization					
B26E8: CLUTCH SW	Inhibit engine cranking	When any of the following BCM recognition conditions are fulfilled Status 1 Clutch switch signal (CAN from ECM): ON Clutch interlock switch signal: OFF (0 V) Status 2 Clutch switch signal (CAN from ECM): OFF Clutch interlock switch signal: ON (Battery voltage)					
B26E9: S/L STATUS	Inhibit engine cranking Inhibit steering lock	When BCM transmits the LOCK request signal to steering lock unit and receives LOCK response signal from steering lock unit, the fo lowing conditions are fulfilled • Steering condition No. 1 signal: LOCK (0 V) • Steering condition No. 2 signal: LOCK (Battery voltage)					

HIGH FLASHER OPERATION

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

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

NOTE:

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

DTC Inspection Priority Chart

INFOID:0000000004469872

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

< ECU DIAGNOSIS INFORMATION >

Priority	DTC	
1	B2562: LOW VOLTAGE	
2	U1000: CAN COMM U1010: CONTROL UNIT(CAN)	
3	B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI SCANNING	
	B2013: ID DISCORD BCM-S/L B2014: CHAIN OF S/L-BCM 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	
	B2606: S/L RELAYB2607: S/L RELAYB2608: STARTER RELAY	
4	 B2609: S/L STATUS B260A: IGNITION RELAY B260B: STEERING LOCK UNIT B260C: STEERING LOCK UNIT 	
	 B260D: STEERING LOCK UNIT B260F: ENG STATE SIG LOST B2612: S/L STATUS B2614: ACC RELAY CIRC 	
	 B2615: BLOWER RELAY CIRC B2616: IGN RELAY CIRC B2617: STARTER RELAY CIRC 	
	 B2618: BCM B2619: BCM B261A: PUSH-BTN IGN SW B261E: VEHICLE TYPE 	
	 B26E8: CLUTCH SW B26E9: S/L STATUS B26EA: KEY REGISTRATION C1729: VHCL SPEED SIG ERR 	
	U0415: VEHICLE SPEED SIG	

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< ECU DIAGNOSIS INFORMATION >

Priority	DTC
5	 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] FR C1711: [NO DATA] RR C1711: [NO DATA] RR C1712: [CHECKSUM ERR] FL C1713: [CHECKSUM ERR] FR C1714: [CHECKSUM ERR] RR C1715: [CHECKSUM ERR] RR C1716: [PRESSDATA ERR] FL C1717: [PRESSDATA ERR] FR C1718: [PRESSDATA ERR] FR C1719: [PRESSDATA ERR] RR C1720: [CODE ERR] FR C1721: [CODE ERR] FR C1722: [CODE ERR] RR C1723: [CODE ERR] RR C1724: [BATT VOLT LOW] FL C1725: [BATT VOLT LOW] FR C1726: [BATT VOLT LOW] RR C1727: [BATT VOLT LOW] RL C1727: [BATT VOLT LOW] RL C1727: [BATT VOLT LOW] RR
6	B2621: INSIDE ANTENNA B2622: INSIDE ANTENNA B2623: INSIDE ANTENNA

DTC Index

NOTE:

The details of time display are as follows.

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

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to <u>BCS-14, "COMMON ITEM".</u>

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer- ence page
No DTC is detected. further testing may be required.	_	_	_	_	_
U1000: CAN COMM	_	_	_	_	BCS-35
U1010: CONTROL UNIT(CAN)	_	_	_	_	BCS-36
U0415: VEHICLE SPEED SIG	_	_	_	_	BCS-37
B2013: ID DISCORD BCM-S/L	×	×	_	_	SEC-55
B2014: CHAIN OF S/L-BCM	×	×	_	_	SEC-56
B2190: NATS ANTENNA AMP	×	_	_	_	SEC-47
B2191: DIFFERENCE OF KEY	×	_	_	_	SEC-50
B2192: ID DISCORD BCM-ECM	×	_	_	_	SEC-51
B2193: CHAIN OF BCM-ECM	×	_	_	_	SEC-53
B2195: ANTI SCANNING	×	_	_	_	SEC-54
B2553: IGNITION RELAY	_	×	_	_	PCS-48
B2555: STOP LAMP	_	×	_	_	SEC-59

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer- ence page
B2556: PUSH-BTN IGN SW	_	×	×	_	<u>SEC-61</u>
B2557: VEHICLE SPEED	×	×	×	_	SEC-63
B2560: STARTER CONT RELAY	×	×	×	_	SEC-64
B2562: LOW VOLTAGE	_	×	_	_	BCS-38
B2601: SHIFT POSITION	×	×	×	_	SEC-65
B2602: SHIFT POSITION	×	×	×	_	SEC-68
B2603: SHIFT POSI STATUS	×	×	×	_	SEC-70
B2604: PNP SW	×	×	×	_	SEC-73
B2605: PNP SW	×	×	×	_	SEC-75
B2606: S/L RELAY	×	×	×	_	<u>SEC-77</u>
B2607: S/L RELAY	×	×	×	_	<u>SEC-78</u>
B2608: STARTER RELAY	×	×	×	_	<u>SEC-80</u>
B2609: S/L STATUS	×	×	×	_	<u>SEC-82</u>
B260A: IGNITION RELAY	×	×	×	_	PCS-50
B260B: STEERING LOCK UNIT	_	×	×	_	SEC-86
B260C: STEERING LOCK UNIT	_	×	×	_	SEC-87
B260D: STEERING LOCK UNIT	_	×	×	_	SEC-88
B260F: ENG STATE SIG LOST	×	×	×	_	SEC-89
B2612: S/L STATUS	×	×	×	_	<u>SEC-94</u>
B2614: ACC RELAY CIRC	_	×	×	_	PCS-52
B2615: BLOWER RELAY CIRC	_	×	×	_	PCS-54
B2616: IGN RELAY CIRC	_	×	×	_	PCS-56
B2617: STARTER RELAY CIRC	×	×	×	_	<u>SEC-98</u>
B2618: BCM	×	×	×	_	PCS-58
B2619: BCM	×	×	×	_	SEC-100
B261A: PUSH-BTN IGN SW	_	×	×	_	PCS-59
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	_	SEC-101
B2621: INSIDE ANTENNA	_	×	_	_	<u>DLK-55</u>
B2622: INSIDE ANTENNA		×			<u>DLK-57</u>
B2623: INSIDE ANTENNA		×			<u>DLK-59</u>
B26E8: CLUTCH SW	×	×	×	_	<u>SEC-90</u>
B26E9: S/L STATUS	×	×	× (Turn ON for 15 seconds)	_	SEC-92
B26EA: KEY REGISTRATION	_	×	× (Turn ON for 15 seconds)	_	SEC-93
C1704: LOW PRESSURE FL	_	_	_	×	
C1705: LOW PRESSURE FR	_	_	_	×	\//T 17
C1706: LOW PRESSURE RR	_	_	_	×	WT-17
C1707: LOW PRESSURE RL	_	_	_	×	1

CONSULT display	Fail-safe	Freeze Frame Data	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer- ence page
C1708: [NO DATA] FL	_	_	_	×	
C1709: [NO DATA] FR	_	_	_	×	W/T 40
C1710: [NO DATA] RR	_	_	_	×	<u>WT-19</u>
C1711: [NO DATA] RL	_	_	_	×	
C1712: [CHECKSUM ERR] FL	_	_	_	×	
C1713: [CHECKSUM ERR] FR	_	_	_	×	M/T 04
C1714: [CHECKSUM ERR] RR	_	_	_	×	<u>WT-21</u>
C1715: [CHECKSUM ERR] RL	_	_	_	×	
C1716: [PRESSDATA ERR] FL	_	_	_	×	
C1717: [PRESSDATA ERR] FR	_	_	_	×	VACT OA
C1718: [PRESSDATA ERR] RR	_	_	_	×	<u>WT-24</u>
C1719: [PRESSDATA ERR] RL	_	_	_	×	
C1720: [CODE ERR] FL	_	_	_	×	
C1721: [CODE ERR] FR	_	_	_	×	WT-26
C1722: [CODE ERR] RR	_	_	_	×	<u>VV 1-20</u>
C1723: [CODE ERR] RL	_	_	_	×	
C1724: [BATT VOLT LOW] FL	_	_	_	×	
C1725: [BATT VOLT LOW] FR	_	_	_	×	WT 20
C1726: [BATT VOLT LOW] RR	_	_	_	×	<u>WT-29</u>
C1727: [BATT VOLT LOW] RL	_	_	_	×	1
C1729: VHCL SPEED SIG ERR	_	_	_	×	<u>WT-32</u>
C1734: CONTROL UNIT	_	_	_	×	WT-33

COMBINATION SWITCH SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

COMBINATION SWITCH SYSTEM SYMPTOMS

Symptom Table

- 1. Perform "Data Monitor" of CONSULT-III to check for any malfunctioning item.
- 2. Check the malfunction combinations.

Passing Sw Pas													<u> </u>	Malfuncti	on item: \times
C								Data mo	nitor iten	n					
B ×			FR WIPER LOW		FR WIPER INT	INT VOLUME		SIGNAL	TAIL LAMP SW	HI BEAM SW		LAMP SW	PASSING SW	AUTO LIGHT SW	FR FOG SW
C X X X D X X X E X X X F X X X G X X X	А		×	×			×	×							
D x x x E x x x F x x x G x x x	В	×			×						×		×		
E	С					×				×		×			
F × X X X X	D					×			×					×	
G × ×	E					×									×
	F	×				×									
	G			×		×									
	Н		×		×									×	
1 × × ×	1							×				×	×		×
J × × × ×	J						×		×	×	×				
K All Items	К		•		•		•	All I	tems	•	•	•	•		•
L If only one item is detected or the item is not applicable to the combinations A to K	L			If only	one item	is detec	ted or th	e item is	not appl	licable to	the com	bination	s A to K		

3. Identify the malfunctioning part from the agreed combination and repair or replace the part.

Malfunction combination	Malfunctioning part	Repair or replace
Α	Combination switch INPUT 1 circuit	
В	Combination switch INPUT 2 circuit	
С	Combination switch INPUT 3 circuit	Inspect the combination switch input circuit applicable to the malfunctioning part. Refer to BCS-40, "Diagnosis Procedure".
D	Combination switch INPUT 4 circuit	part. Note: to boo 40, biagnosis i roccadio.
E	Combination switch INPUT 5 circuit	
F	Combination switch OUTPUT 1 circuit	
G	Combination switch OUTPUT 2 circuit	
Н	Combination switch OUTPUT 3 circuit	Inspect the combination switch output circuit applicable to the malfunctioning part. Refer to BCS-42, "Diagnosis Procedure".
I	Combination switch OUTPUT 4 circuit	ing part. Rolor to <u>Dog 72, Diagnosio i roccadio</u> .
J	Combination switch OUTPUT 5 circuit	
K	ВСМ	Replace BCM. Refer to BCS-81, "Exploded View"
L	Combination switch	Replace the combination switch.

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PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS

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

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. 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:

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

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

WARNING:

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the
 ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s)
 with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly
 causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

Precaution for Battery Service

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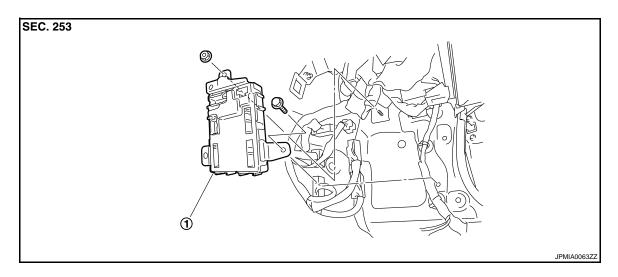
Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference.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

< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION

BCM (BODY CONTROL MODULE)

Exploded View



1. BCM

Removal and Installation

REMOVAL

- Remove dash side finisher (passenger side). Refer to <u>INT-14, "Exploded View"</u>.
- 2. Remove bolt and nut.
- 3. Remove BCM and disconnect the connector.

INSTALLATION

Install in the reverse order of removal.

BCS

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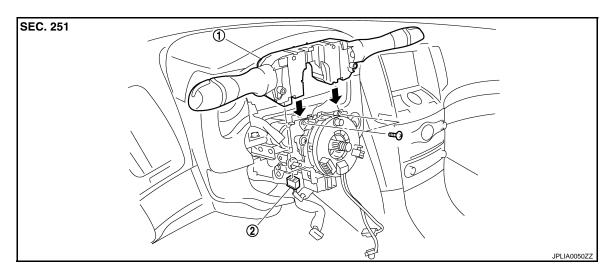
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Revision: 2009 October BCS-81 2009 G37 Coupe

COMBINATION SWITCH

Exploded View



- 1. Combination switch
- 2. Combination switch connector

Removal and Installation

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REMOVAL

- 1. Remove steering column cover. Refer to IP-11, "Exploded View".
- 2. Remove screws.
- 3. Disconnect the connector.
- 4. Pull up the combination switch to remove it.

INSTALLATION

Install in the reverse order of removal.