

D

Е

CONTENTS

FUNCTION DIAGNOSIS3
BODY CONTROL SYSTEM
COMBINATION SWITCH READING SYSTEM
System Diagram
SIGNAL BUFFER SYSTEM
POWER CONSUMPTION CONTROL SYS-
TEM 10 System Diagram 10 System Description 10 Component Parts Location 11
DIAGNOSIS SYSTEM (BCM)13
COMMON ITEM13 COMMON ITEM : CONSULT-III Function (BCM - COMMON ITEM)13
DOOR LOCK
REAR WINDOW DEFOGGER14 REAR WINDOW DEFOGGER : CONSULT-III Function (BCM - REAR DEFOGGER)14
BUZZER
INT LAMP15 INT LAMP : CONSULT-III Function (BCM - INT LAMP)

HEADLAMP 17 HEADLAMP : CONSULT-III Function (BCM - 17	F
WIPER : CONSULT - III Function (BCM - WIPER)19	G
FLASHER	Н
INTELLIGENT KEY21 INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY)21	I
COMB SW	J
BCM : CONSULT-III Function (BCM - BCM)25	K
IMMU25 IMMU : CONSULT-III Function (BCM - IMMU)25	L
BATTERY SAVER26 BATTERY SAVER : CONSULT-III Function (BCM - BATTERY SAVER)26	BCS
TRUNK27 TRUNK : CONSULT-III Function (BCM - TRUNK)27	N
THEFT ALM27 THEFT ALM : CONSULT-III Function (BCM - THEFT)27	0
RETAIND PWR	Р
SIGNAL BUFFER29 SIGNAL BUFFER : CONSULT-III Function (BCM - SIGNAL BUFFER)29	

AIR PRESSURE MONITOR	Special Repair Requirement	40
AIR PRESSURE MONITOR : Diagnosis Description	Diagnosis Procedure	41
COMPONENT DIAGNOSIS33	ECU DIAGNOSIS	43
U1000 CAN COMM CIRCUIT 33 Description 33 DTC Logic 33 Diagnosis Procedure 33	Reference Value	43 66 71
U1010 CONTROL UNIT (CAN) 34 DTC Logic 34 Diagnosis Procedure 34 Special Repair Requirement 34	SYMPTOM DIAGNOSIS	74
U0415 VEHICLE SPEED SIG 35 Description 35 DTC Logic 35 Diagnosis Procedure 35	Symptom Table	77
B2562 LOW VOLTAGE 36 DTC Logic 36 Diagnosis Procedure 36 Special Repair Requirement 36	Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TEN-	
B2563 HI VOLTAGE 37 DTC Logic 37 Diagnosis Procedure 37 Special Repair Requirement 37	BCM (BODY CONTROL MODULE)	79 79
POWER SUPPLY AND GROUND CIRCUIT 38 Diagnosis Procedure	COMBINATION SWITCH	80
COMBINATION SWITCH INPUT CIRCUIT 39 Diagnosis Procedure		80

BODY CONTROL SYSTEM

< FUNCTION DIAGNOSIS >

FUNCTION DIAGNOSIS

BODY CONTROL SYSTEM

System Description

INFOID:0000000000963861

Α

D

Е

Н

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-5, "System Description"
Signal buffer system	BCS-9, "System Description"
Power consumption control system	BCS-10, "System Description"
Auto light system	EXL-13, "System Description"
Turn signal and hazard warning lamp system	EXL-25, "System Description"
Headlamp system	EXL-9, "System Description"
Front fog lamp system	EXL-23, "System Description"
Exterior lamp battery saver system	EXL-29, "System Description"
Daytime running light system	EXL-16, "System Description"
Interior room lamp control system	INL-6, "System Description"
Step lamp system	INC-0, System Description
Interior room lamp battery saver system	INL-9, "System Description"
Front wiper and washer system	WW-6, "System Description"
Warning chime system	WCS-4, "WARNING CHIME SYSTEM : System Description"
Door lock system	DLK-10, "DOOR LOCK AND UNLOCK SWITCH: System Description"
Trunk open system	DLK-24, "TRUNK LID OPENER SWITCH : System Description"
Infiniti Vehicle Immobilizer System (IVIS) - NATS	SEC-17, "System Description"
Vehicle security system	CEC 22 Cyclere Description
Panic alarm	SEC-23, "System Description"
Automatic drive positioner system	ADP-15, "AUTOMATIC DRIVE POSITIONER SYSTEM: System Description"
Rear window defogger system	DEF-4, "System Description"

BCS

K

Ν

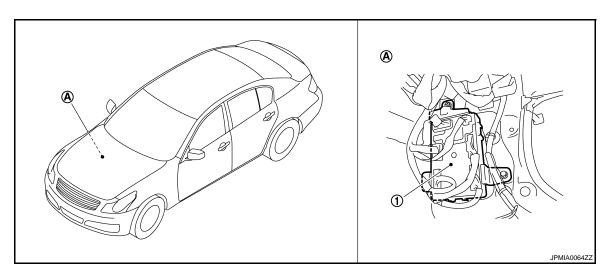
BODY CONTROL SYSTEM

< FUNCTION DIAGNOSIS >

System		Refer to	
	Door lock function	DLK-13, "DOOR REQUEST SWITCH: System Description" (door request switch) DLK-18, "INTELLIGENT KEY: System Description" (Intelligent Key)	
Intelligent Key system/engine start system	Trunk open function	DLK-27, "TRUNK REQUEST SWITCH: System Description" (trunk request switch) DLK-32, "INTELLIGENT KEY: System Description" (Intelligent Key)	
	Warning function	DLK-37, "System Description"	
	Key reminder function	DLK-45, "System Description"	
	Engine start function	SEC-9, "System Description"	
Power window system		PWC-9, "System Description" (front and rear window antipinch) PWC-130, "System Description" (front window anti-pinch)	
Retained accessory power (RAP) system		PWC-9, "System Description"	
Tire pressure monitor system (TPMS) - AIR PRESSURE MONITOR		WT-7, "System Description"	

Component Parts Location

INFOID:0000000000963862

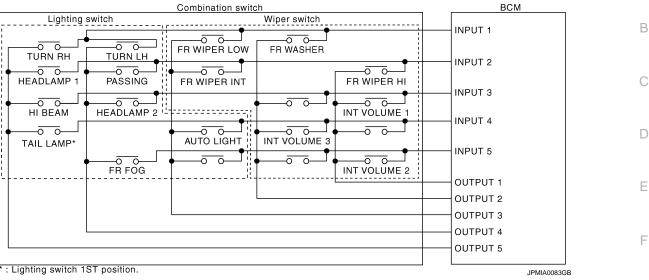


- 1. BCM
- A. Dash side lower (passenger side)

< FUNCTION DIAGNOSIS >

COMBINATION SWITCH READING SYSTEM

System Diagram



System Description

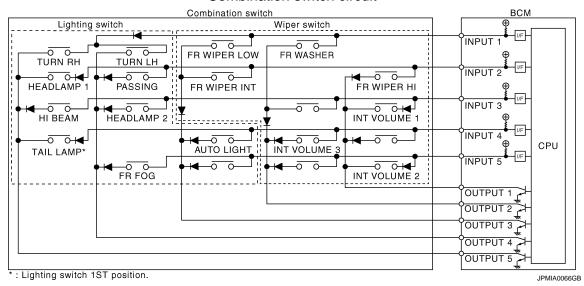
OUTLINE

 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

INFOID:0000000000963863

Α

D

Е

INFOID:0000000000963864

BCS

Ν

Ρ

< FUNCTION DIAGNOSIS >

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	_

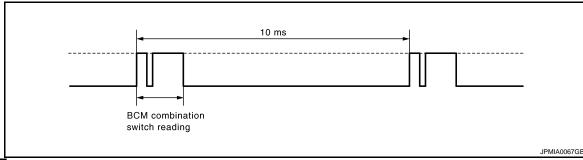
NOTE:

Headlamp has a dual system switch.

COMBINATION SWITCH READING FUNCTION

Description

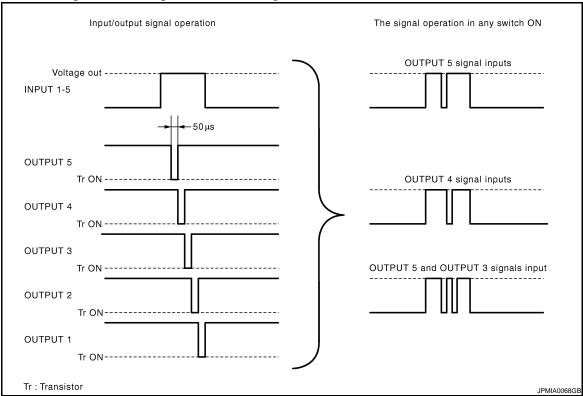
BCM reads the status of the combination switch at 10 ms interval normally.



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.



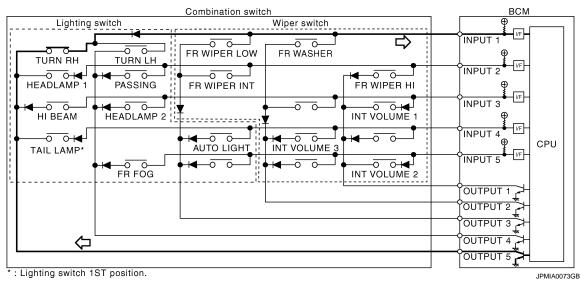
Operation Example

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

< FUNCTION DIAGNOSIS >

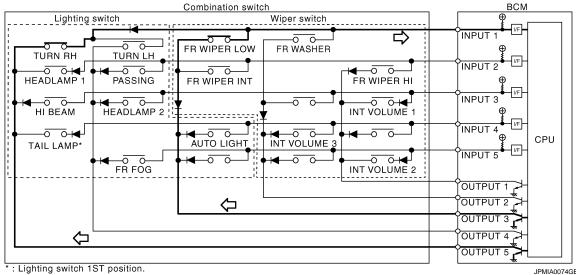
• The circuit between INPUT 1 and OUTPUT 5 is formed when the TURN RH switch is turned ON.



- 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 INTERMITTENT DIAL POSITION SETTING (FRONT WIPER INTERMITTENT OPERATION) BCM judges the wiper intermittent dial 1 - 7 by the status of INT VOLUME 1, 2 and 3 switches.

Α

В

С

D

Е

F

G

Н

|

J

K

L

BCS

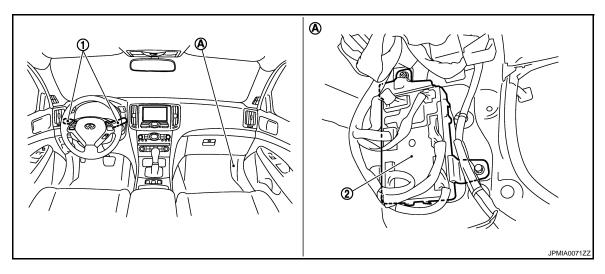
Ν

< FUNCTION DIAGNOSIS >

Wiper intermittent	Intermittent	INT VOLUME switch ON/OFF status			
dial position	operation delay interval	INT VOLUME 1 switch	INT VOLUME 2 switch	INT VOLUME 3 switch	
1	01 1	ON	ON	ON	
2	Short	ON	ON	OFF	
3		ON	OFF	OFF	
4		OFF	OFF	OFF	
5		OFF	OFF	ON	
6	Long	OFF	ON	ON	
7		OFF	ON	OFF	

Component Parts Location

INFOID:0000000000963865

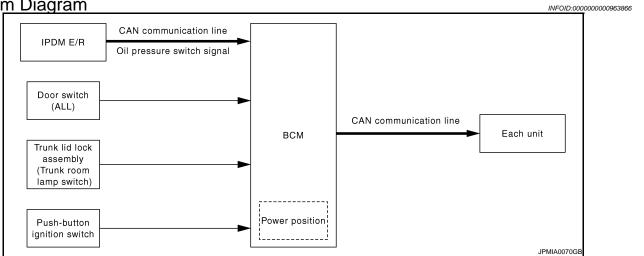


- 1. Combination switch
- 2. BCM
- A. Dash side lower (passenger side)

SIGNAL BUFFER SYSTEM

SIGNAL BUFFER SYSTEM

System Diagram



System Description

INFOID:0000000000963867

Α

В

D

Е

G

Н

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 (via unified meter and A/C amp.) (CAN) IPDM E/R (CAN) Driver seat control unit (CAN) AV control unit (CAN)	Inputs the door switch signal and transmits it via CAN communication.
Trunk switch signal	Trunk room lamp switch	Combination meter (via unified meter and A/C amp.) (CAN) AV control unit (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 (via unified meter and A/C amp.) (CAN)	Transmits the received oil pressure switch signal via CAN communication.

BCS

K

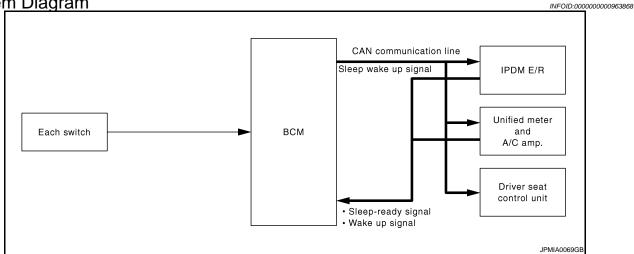
Ν

0

POWER CONSUMPTION CONTROL SYSTEM

POWER CONSUMPTION CONTROL SYSTEM

System Diagram



System Description

INFOID:0000000000963869

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.

POWER CONSUMPTION CONTROL SYSTEM

< FUNCTION DIAGNOSIS >

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 lamp: Not operation Intelligent Key system buzzer: Not operation Trunk room lamp switch status: No change Brake switch: 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 Steering lock operation: Not operation Door switch status: No change Rear window defogger: OFF 	Interior room lamp battery saver: Time out RAP system: OFF 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

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: 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 Rear RH door switch: OFF → ON, ON → OFF Rear LH 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 request switch: OFF → ON Stop lamp switch 2 signal: ON Clutch interlock switch: OFF → ON

Component Parts Location

INFOID:00000000000963870

Ρ

BCS

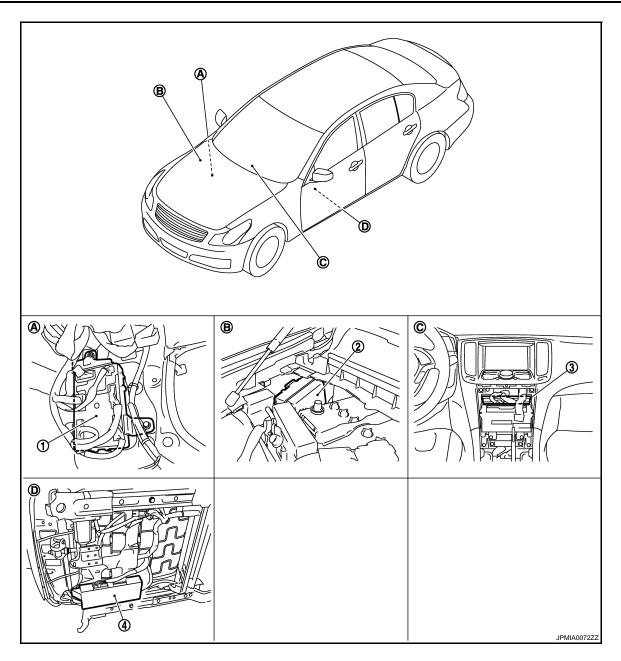
Α

В

D

Е

F



- 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

< FUNCTION DIAGNOSIS >

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

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

INFOID:0000000000963871

Α

В

D

Е

F

BCS

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-DIAG RESULTS	Displays the diagnosis results judged by BCM. Refer to BCS-74, "DTC Index".
CAN DIAG SUPPORT MNTR	Monitors the reception status of CAN communication viewed from BCM.
DATA MONITOR	The BCM input/output signals are displayed.
ACTIVE TEST	The signals used to activate each device are forcibly supplied from BCM.
ECU IDENTIFICATION	The BCM part number is displayed.
CONFIGURATION	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.

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 conditioner*	AIR CONDITONER		×	
Intelligent Key system	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
BCM	BCM	×		
IVIS - NATS	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Trunk open	TRUNK		×	
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	TPMS (AIR PRESSURE MONITOR)	×	×	×

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

DOOR LOCK

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

INFOID:0000000000963872

BCM CONSULT-III FUNCTION

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

< FUNCTION DIAGNOSIS >

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

Monitor item	Description		
DOOR LOCK-UNLOCK SET	Selective unlock function mode can be changed to operate (WITH) or not operate (WITHOUT) with this mode.		
D/LOCK VHCL SPD AJT	Lock with speed customize function mode can be changed to operate (WITH) or not operate (WITHOUT) with this mode.		

DATA MIONITOR

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 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	Indicated [ON/OFF] condition of rear door switch RH.
DOOR SW-RL	Indicated [ON/OFF] condition of rear door switch LH.
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 key cylinder.
KEY CYL UN-SW	Indicated [ON/OFF] condition of unlock signal from 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 "LOCK" 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. The door lock actuator (other) is unlocked when "OTR ULK" on CONSULT-III screen is touched. 		

REAR WINDOW DEFOGGER

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

NEUID-00000000000063873

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

< FUNCTION DIAGNOSIS >

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:0000000000963874

Α

В

D

F

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

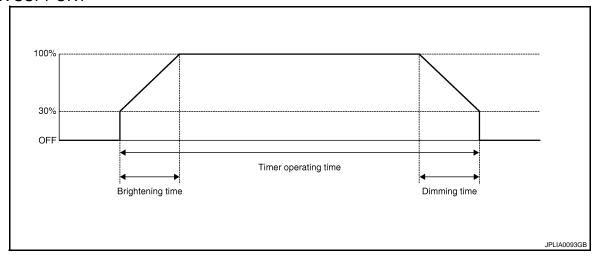
INT LAMP : CONSULT-III Function (BCM - INT LAMP)

INFOID:0000000000963875

Р

0

WORK SUPPORT



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

^{*:} Initial 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]	ACC relay feedback signal status input from ACC relay	
KEY SW-SLOT [ON/OFF]	Key switch status input from key slot	

< FUNCTION DIAGNOSIS >

Monitor item [Unit]	Description	
DOOR SW-DR [ON/OFF]	The switch status input from front door switch (driver side)	
DOOR SW-AS [ON/OFF]	The switch status input from front door switch (passenger side)	
DOOR SW-RR [ON/OFF]	The switch status input from rear door switch RH	
DOOR SW- RL [ON/OFF]	The switch status input from rear door switch LH	
DOOR SW-BK [ON/OFF]	NOTE: The item is indicated, but not monitored.	
CDL LOCK SW [ON/OFF]	Lock switch status received from central door lock switch by power window switch se rial link	
CDL UNLOCK SW [ON/OFF]	Unlock switch status received from central door lock 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 and personal lamp ON (Map lamp switch is in DOOR position).
	OFF	Stops the interior room lamp control signal to turn map lamp and personal 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 step lamp ON.
LUGGAGE LAWIP TEST	OFF	Stops the trunk room lamp control signal to turn step lamp ON.

HEADLAMP

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

INFOID:0000000000963876

WORK SUPPORT

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

Α

В

D

Е

F

Н

BCS

Ν

0

< FUNCTION DIAGNOSIS >

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-	MODE 2	More sensitive setting than normal setting (Turns ON earlier than normal operation.)		
TING	MODE 3	More sensitive setting than MODE 2 (Turns ON earlier than MODE 2.)		
	MODE 4	Less sensitive setting than normal setting (Turns ON later than normal operation.)		

^{*:} Initial 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 front door switch (driver side)
DOOR SW-AS [ON/OFF]	The switch status input from front door switch (passenger side)

< FUNCTION DIAGNOSIS >

Monitor item [Unit]	Description
DOOR SW-RR [ON/OFF]	The switch status input from rear door switch RH
DOOR SW- RL [ON/OFF]	The switch status input from rear door switch LH
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 tail lamp request signal transmission.		
	н	Transmits the high beam request signal with CAN communication to turn the headlamp (HI).		
HEAD LAMP	LO	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 lights request signal to IPDM E/R with CAN communication to turn the front fog lamp ON.		
	OFF	Stops the front fog lights request signal transmission.		
DD 5001 111D	ON	NOTE:		
RR FOG LAMP	OFF	The item is indicated, but cannot be tested.		
DAYTIME RUNNING LIGHT	ON	NOTE:		
DAT TIME RONNING 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 SIGNAL	ON	NOTE:		
ILL DIW SIGNAL	OFF	The item is indicated, but cannot be tested.		

WIPER

WIPER: CONSULT - III Function (BCM - WIPER)

INFOID:0000000000963877

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)
()FF*		Without vehicle speed (Front wiper intermittent time linked with the wiper intermittent dial position)

^{*:}Factory setting

DATA MONITOR

BCS

Ν

0

Р

Κ

Α

В

С

D

Е

F

Н

BCS-19

< FUNCTION DIAGNOSIS >

Monitor Item [Unit]	Description			
PUSH SW	Displays the status of the engine switch (push switch) judged by BCM.			
VEH SPEED 1 [km/h]	Displays the value of the vehicle speed signal received from unified meter and A/C amp. with CAN communication.			
FR WIPER HI [OFF/ON]				
FR WIPER LOW [OFF/ON]				
FR WASHER SW [OFF/ON]	Status of each switch judged by BCM using the combination switch reading funct			
FR WIPER INT [OFF/ON]				
FR WIPER STOP [OFF/ON]	Displays the status of the front wiper auto stop 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		
HI		Transmits the front wiper request signal (HI) to IPDM E/R with CAN communication to operate the front wiper HI operation.		
FRONT WIPER	LO	Transmits the front wiper request signal (LO) to IPDM E/R with CAN communication to operate the front wiper LO operation.		
	INT	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:0000000000963878

WORK SUPPORT

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

^{*:} Initial 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

Α

В

D

Е

F

Н

< FUNCTION DIAGNOSIS >

Monitor item [Unit]	Description
TURN SIGNAL R [ON/OFF]	Each quitch condition that DCM judges from the combination quitch 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

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.
SELF-DIAG RESULTS	Displays the diagnosis results judged by BCM.
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

Monitor item	Description
REMO CONT ID CONFIR	It can be checked whether Intelligent Key ID code is registered or not in this mode.
LOCK/UNLOCK BY I-KEY	Door lock/unlock function by door request switch (driver side, passenger side and trunk) mode can be changed to operate (ON) or not operate (OFF) in this mode.
ENGINE START BY I-KEY	Engine start function mode can be changed to operate (ON) or not operate (OFF) with this mode.
TRUNK/GLASS HATCH OPEN	Buzzer reminder function mode by 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. • 0.5 sec. • 1.5 sec. • OFF: Non-operation
PW DOWN SET	Unlock button pressing time on Intelligent Key button can be selected from the following with this mode. • 3 sec. • 5 sec. • OFF: Non-operation

BCS-21

< FUNCTION DIAGNOSIS >

Monitor item	Description
TRUNK OPEN DELAY	Trunk button pressing time on Intelligent Key button can be selected from the following with this mode. • 0.5 sec. • 1.5 sec. • OFF: Non-operation
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.
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.
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 AND 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.

SELF-DIAG RESULT

Refer to BCS-74, "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.
CLUCH SW	Indicates [ON/OFF] condition of clutch switch.
BRAKE SW 1	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 (LOCK).
S/L -UNLOCK	Indicates [ON/OFF] condition of steering lock (UNLOCK).
S/L RELAY-F/B	Indicates [ON/OFF] condition of ignition switch.
UNLK SEN-DR	Indicates [ON/OFF] condition of driver door UNLOCK status.
PUSH SW -IPDM	Indicates [ON/OFF] condition of push-button ignition switch.
IGN RLY1 F/B	Indicates [ON/OFF] condition of ignition relay 1.
DETE SW -IPDM	Indicates [ON/OFF] condition of P position.
SFT PN -IPDM	Indicates [ON/OFF] condition of P or N position.
SFT P -MET	Indicates [ON/OFF] condition of P position.
SFT N -MET	Indicates [ON/OFF] condition of N position.

< FUNCTION DIAGNOSIS >

Monitor Item	Condition
ENGINE STATE	Indicates [STOP/START/CRANK/RUN] condition of engine states.
S/L LOCK-IPDM	Indicates [ON/OFF] condition of steering lock (LOCK).
S/L UNLOCK-IPDM	Indicates [ON/OFF] condition of steering lock (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 CVT by numerical value [Km/h].
DOOR STAT-DR	Indicates [LOCK/READY/UNLK] condition of driver side door status.
DOOR STAT-AS	Indicates [LOCK/READY/UNLK] condition of passenger side door status.
KEY SW -SLOT	Indicates [ON/OFF] condition of key slot.
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.
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.

ACTIVE TEST

Test item	Description
BATTERY SAVER	This test is able to check interior room lamp operation. The interior room lamp will be activated after "ON" on CONSULT-III screen is touched.
PW REMOTO DOWN SET	This test is able to check power window down operation. The power window down will be activated after "ON" on CONSULT-III screen is touched.
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation. Intelligent Key warning buzzer sounds when "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 WARN" on CONSULT-III screen is touched. • P position warning chime sounds when "P RNG WARN" on CONSULT-III screen is touched. • ACC warning chime sounds when "ACC WARN" on CONSULT-III screen is touched.
INDICATOR	This test is able to check warning lamp operation. • "KEY" Warning lamp illuminates when "KEY IND ON" on CONSULT-III screen is touched. • "KEY" Warning lamp flashes when "KEY IND FSH" on CONSULT-III screen is touched.
INT LAMP	This test is able to check interior room lamp operation. The interior room lamp will be activated after "ON" on CONSULT-III screen is touched.

BCS

Κ

A

В

С

D

Е

F

Н

Ν

 \circ

P

< FUNCTION DIAGNOSIS >

Test item	Description
LCD	 This test is able to check meter display information Engine start information displays when "BRAKE/P" on CONSULT-III screen is touched. Engine start information displays when "BRAKE/P/ON" on CONSULT-III screen is touched. Key ID warning displays when "KEY ID NG" on CONSULT-III screen is touched. Steering lock information displays when "STLCK RELES" on CONSULT-III screen is touched. P position warning displays when "P RNG IND" on CONSULT-III screen is touched. Intelligent Key insert information displays when "INSERT KEY" on CONSULT-III screen is touched. Intelligent Key low battery warning displays when "KEY BAT LOW" on CONSULT-III screen is touched. Take away through window warning displays when "TK AWAY WDW" on CONSULT-III screen is touched. Take away warning display when "TAKE AWAY" on CONSULT-III screen is touched. OFF position warning display when "IGN OFF WARN" 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 "ON" on CONSULT-III screen is touched.
FLASHER	This test is able to check security hazard lamp operation. The hazard lamps will be activated after "ON" on CONSULT-III screen is touched.
HORN	This test is able to check horn operation. The horn will be activated after "ON" on CONSULT-III screen is touched.
IGN CONT2	This test is able to check security hazard lamp operation. The hazard lamps will be activated after "ON" on CONSULT-III screen is touched.
P RANGE	This test is able to check A/T device power supply A/T device 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 INDCATOR	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 INDCATOR	This test is able to check ACC indicator in push-ignition switch operation. LOCK indicator in push-ignition switch illuminates when "ON" on CONSULT-III screen is touched.
IGNITION ON IND	This test is able to check INGITION ON indicator in push-ignition switch operation. LOCK 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 flash when "ON" on CONSULT-III screen is touched.

COMB SW

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

INFOID:000000000096388

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 INT 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 intermittent dial position judged by BCM with the combination switch reading function
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.

< FUNCTION DIAGNOSIS >

Monitor item [UNIT]	Description
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.

BCM

BCM: CONSULT-III Function (BCM - BCM)

INFOID:0000000000963881

Α

В

D

Е

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:0000000000963882

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	
CONFIRM ID1	
TP 4	
TP 3	Indicates the number of ID which has been registered.
TP 2	- malcates the number of the willoff has been registered.
TP 1	
PUSH SW	Indicates [ON/OFF] condition of push-button ignition switch.
KEY SW -SLOT	Indicates [ON/OFF] condition of key slot.

ACTIVE TEST

BCS-25

BCS

K

Ν

0

< FUNCTION DIAGNOSIS >

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:0000000000963883

WORK SUPPORT

Service item	Setting item		Setting		
BATTERY SAVER SET	ON*	With the e	With the exterior lamp battery saver function		
BATTERT SAVER SET	OFF	Without the exterior lamp battery saver function			
ROOM LAMP BAT SAV SET	ON*	With the interior room lamp battery saver function			
ROOM LAWF BAT SAV SET	OFF	Without the interior room lamp battery saver function			
ROOM LAMP TIMER SET	MODE 1*	30 min.	Sets the interior room lamp battery saver timer operating		
ROOM LAWF TIMER SET	MODE 2	60 min.	time.		

^{*:} Initial 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]	ACC relay feedback signal status input from ACC relay
KEY SW-SLOT [ON/OFF]	Key switch status input from key slot
DOOR SW-DR [ON/OFF]	The switch status input from front door switch (driver side)
DOOR SW-AS [ON/OFF]	The switch status input from front door switch (passenger side)
DOOR SW-RR [ON/OFF]	The switch status input from rear door switch RH
DOOR SW- RL [ON/OFF]	The switch status input from rear door switch LH
DOOR SW-BK [ON/OFF]	NOTE: The item is indicated, but not monitored.
CDL LOCK SW [ON/OFF]	Lock switch status received from central door lock switch by power window switch serial link
CDL UNLOCK SW [ON/OFF]	Unlock switch status received from central door lock 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

< FUNCTION DIAGNOSIS >

Monitor item [Unit]	Description
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:0000000000963884

Α

В

D

Е

F

Н

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.	
ACTIVE TEST	The signals used to activate each device are forcibly supplied from BCM.	

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.

ACTIVE TEST

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

THEFT ALM

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

INFOID:0000000000963885

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.

BCS-27

BCS

K

Ν

0

< FUNCTION DIAGNOSIS >

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

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.	

RETAIND PWR

RETAIND PWR : CONSULT-III Function (BCM - RETAINED PWR)

INFOID:0000000000963886

Data monitor

< FUNCTION DIAGNOSIS >

Monitor Item	Description
DOOR SW-DR	Indicates [ON/OFF] condition of driver side door switch.
DOOR SW-AS	Indicates [ON/OFF] condition of passenger side door switch.

SIGNAL BUFFER

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

INFOID:0000000000963887

Α

D

Е

F

Н

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	
	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:0000000000963888

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 warning lamps in the combination meter comes on.

SELF DIAGNOSTIC PROCEDURE (WITH CONSULT-III)

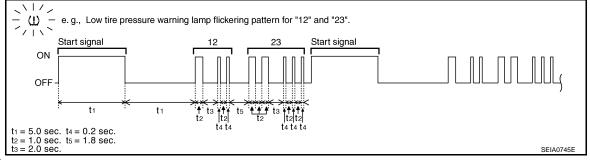
(P) With CONSULT-III

 Touch "SELF-DIAG RESULT" display shows malfunction experienced since the last erasing operation. Refer to <u>WT-74</u>, "<u>DTC Index</u>".

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 warning lamp flashing.



NOTE:

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

L

K

BCS

Ν

0

< FUNCTION DIAGNOSIS >

Flickering pattern	Items	Diagnostic items detected when	Check item
15	Tire pressure value (Front LH)	Front LH tire pressure drops to 181 kPa (1.8 kg/cm ² , 26 psi) or less.	
16	Tire pressure value (Front RH)	Front RH tire pressure drops to 181 kPa (1.8 kg/cm², 26 psi) or less.	
17	Tire pressure value (Rear RH)	Rear RH tire pressure drops to 181 kPa (1.8 kg/cm ² , 26 psi) or less.	_
18	Tire pressure value (Rear LH)	Rear LH tire pressure drops to 181 kPa (1.8 kg/cm ² , 26 psi) or less.	
21	Transmitter no data (Front LH)	Data from front LH transmitter can not be received.	
22	Transmitter no data (Front RH)	Data from front RH transmitter can not be received.) N/T 40
23	Transmitter no data (Rear RH)	Data from Rear RH transmitter can not be received.	<u>WT-16</u>
24	Transmitter no data (Rear LH)	Data from Rear LH transmitter can not be received.	
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-19
33	Transmitter checksum error (Rear RH)	Checksum data from rear RH transmitter is malfunctioning.	<u> </u>
34	Transmitter checksum error (Rear LH)	Checksum data from rear RH transmitter is malfunctioning.	
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 22
37	Transmitter pressure data error (Rear RH) Air pressure data from rear RH transmitter is malfunction.		<u>WT-22</u>
38	Transmitter pressure data error (Rear LH)	Air pressure data from rear LH transmitter is malfunction.	
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.	WT-24
43	Transmitter function code error (Rear RH)	Function code data from rear RH transmitter is malfunction.	<u> </u>
44	Transmitter function code error (Rear LH)	Function code data from rear LH transmitter is malfunction.	
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 27
47	Transmitter battery voltage low (Rear RH)	Battery voltage of rear RH transmitter drops.	<u>WT-27</u>
48	Transmitter battery voltage low (Rear LH)	Battery voltage of rear LH transmitter drops.	
52	Vehicle speed signal error	Speed signal is not detected.	<u>WT-30</u>
53	BCM failure about TPMS	Tire pressure monitoring system malfunction in BCM	<u>WT-31</u>
No flicker- ing	Tire pressure warning check switch	Tire pressure warning switch circuit is open.	-

ERASE SELF-DIAGNOSIS

With CONSULT-III1. Perform applicable inspection of malfunctioning item and then repair or replace.

< FUNCTION DIAGNOSIS >

- 2. Turn ignition switch "ON" and select "SELF-DIAG RESULTS" mode for "AIR PRESSURE MONITOR" with CONSULT-III.
- 3. 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-5, "ID REGISTRATION PROCEDURE: Special Repair Requirement".

SELF-DIAG RESULTS MODE

Operation Procedure

Refer to WT-74, "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.

Display item list

Monitor	Condition	Specification	
VEHICLE SPEED	Drive vehicle.	Vehicle speed (km/h, MPH)	
AIR PRESS FL AIR PRESS FR AIR PRESS RR AIR PRESS RL	 Drive vehicle for a few minutes. or Ignition switch ON and activation tool is transmitting activation signals. 	Tire pressure (kPa or Psi)	
ID REGST FL ID REGST FR ID REGST RR ID REGST RL		Registration ID : DONE No registration : YET	
WARNING LAMP	Ignition switch ON	Low tire pressure warning lamp on: ON Low tire pressure warning lamp off: OFF	
BUZZER		Buzzer in combination meter on: ON Buzzer in combination meter off: OFF	

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 erse 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 make sure that the warning lamp turns on.	
ID REGIST WARNING	This test is able to check to make sure that the buzzer sounds or the warning lamp turns on.	

BCS-31

D

Α

В

Е

F

G

Н

.

K

_

BCS

Ν

< FUNCTION DIAGNOSIS >

Test item	Content
RUN FLAT/T WARN BUZZER	This test is able to check to make sure that the buzzer sounds.
FLASHER	This test is able to check to make sure that each turn signal lamp turns on.
HORN	This test is able to check to make sure that the horn sounds.

U1000 CAN COMM CIRCUIT

< COMPONENT DIAGNOSIS >

COMPONENT DIAGNOSIS

U1000 CAN COMM CIRCUIT

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-28, "CAN Communication Signal Chart".

DTC Logic

DTC DETECTION LOGIC

DTC	CONSULT-III display description	DTC Detection Condition	Possible cause	F
U1000	CAN COMM CIRCUIT	When BCM cannot communicate CAN communication signal continuously for 2 seconds or more.	In CAN communication system, any item (or items) of the following listed below is malfunctioning. Transmission Receiving (ECM) Receiving (VDC/TCS/ABS) Receiving (METER/M&A) Receiving (TCM) Receiving (MULTI AV) Receiving (IPDM E/R)	G

Diagnosis Procedure

INFOID:0000000000963892

1.PERFORM SELF DIAGNOSTIC

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

Is "CAN COMM CIRCUIT" displayed?

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

NO >> Refer to GI-39, "Intermittent Incident".

BCS

K

Α

В

D

Е

Ν

U1010 CONTROL UNIT (CAN)

< COMPONENT DIAGNOSIS >

U1010 CONTROL UNIT (CAN)

DTC Logic

DTC DETECTION LOGIC

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

Diagnosis Procedure

INFOID:0000000000963894

1.REPLACE BCM

When DTC [U1010] is detected, replace BCM.

>> Replace BCM.

Special Repair Requirement

INFOID:0000000000963895

1. REQUIRED WORK WHEN REPLACING BCM

Initialize IVIS by CONSULT-III. For the details of initialization refer to CONSULT-III operation manual NATS-IVIS/NVIS.

>> Work end.

U0415 VEHICLE SPEED SIG

< COMPONENT DIAGNOSIS >

U0415 VEHICLE SPEED SIG

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

DTC DETECTION LOGIC

DTC	CONSULT-III display description	DTC Detection Condition	Probable cause	
U0415	VEHICLE SPEED SIG	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

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

Is any DTC detected?

YES >> Refer to BCS-35, "Diagnosis Procedure".

NO >> INSPECTION END

Diagnosis Procedure

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

Perform "Self-Diag Results" of ABS actuator and electric unit (control unit) with CONSULT-III. Refer to TM-114, "CONSULT-III Function (TRANSMISSION)".

Is any DTC detected?

YES >> Repair or replace the malfunctioning part.

NO >> Replace BCM.

BCS

K

Α

D

Е

F

Н

INFOID:0000000000963898

Ν

B2562 LOW VOLTAGE

< COMPONENT 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 1.5 seconds or more	Harness or connector (power supply circuit)

DTC CONFIRMATION PROCEDURE

1.DTC CONFIRMATION

- 1. Erase DTC.
- 2. Turn ignition switch OFF.
- Perform the "Self-Diag Results" of CONSULT-III, when passed 1.5 seconds or more after the ignition switch is turned ON.

Is any DTC detected?

YES >> Refer to BCS-36, "Diagnosis Procedure".

NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000000963900

1. CHECK POWER SUPPLY CIRCUIT

Check BCM power supply circuit. Refer to BCS-38, "Diagnosis Procedure".

Is the circuit normal?

YES >> Replace BCM.

NO >> Repair the malfunctioning part.

Special Repair Requirement

INFOID:0000000000963901

1. REQUIRED WORK WHEN REPLACING BCM

Initialize IVIS by CONSULT-III. For the details of initialization refer to CONSULT-III operation manual NATS-IVIS/NVIS.

>> Work end.

B2563 HI VOLTAGE

< COMPONENT DIAGNOSIS >

B2563 HI VOLTAGE

DTC Logic

DTC DETECTION LOGIC

DTC	CONSULT-III display description	DTC Detection Condition	Possible cause
B2563	HI VOLTAGE	When the power supply voltage to BCM remains more than 18 V for 90 seconds or more	Harness or connector (power supply circuit)

DTC CONFIRMATION PROCEDURE

1. DTC CONFIRMATION

- 1. Erase DTC.
- 2. Turn ignition switch OFF.
- 3. Perform the "Self-Diag Results" of CONSULT-III, when passed 90 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. CHECK POWER SUPPLY CIRCUIT

Check BCM power supply circuit. Refer to BCS-38, "Diagnosis Procedure".

Is the circuit normal?

YES >> Replace BCM.

NO >> Repair the malfunctioning part.

Special Repair Requirement

1. REQUIRED WORK WHEN REPLACING BCM

Initialize IVIS by CONSULT-III. For the details of initialization refer to CONSULT-III operation manual NATS-IVIS/NVIS.

>> Work end.

BCS

L

Α

В

D

F

Н

INFOID:0000000000963903

INFOID:0000000000963904

Ν

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000000963905

1. CHECK FUSE AND FUSIBLE LINK

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

Terminal No.	Signal name	Fuse and fusible link No.
1	Battery power supply	К
11	Battery power suppry	10

Is the fuse fusing?

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

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

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

	Terminals (+) (-) BCM		
(+)	(-)	Voltage
В	СМ		(Approx.)
Connector	Terminal	Ground	
M118	1	Glound	Battery voltage
M119	11		Ballery Vollage

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	Connector Terminal		Continuity
M119	M119 13		Existed

Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

COMBINATION SWITCH INPUT CIRCUIT

< COMPONENT DIAGNOSIS >

COMBINATION SWITCH INPUT CIRCUIT

Diagnosis Procedure

INFOID:00000000000963906

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	BCM		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	CM		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		43, "Refer-
INPUT 4		108		ence Value".
INPUT 5		87		

Is the measurement value normal?

YES >> GO TO 4.

NO >> Replace BCM.

BCS

K

Α

В

D

Е

Ν

C

COMBINATION SWITCH INPUT CIRCUIT

< COMPONENT DIAGNOSIS >

4. CHECK BCM INPUT SIGNAL

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

System	(+)		(-)	Voltage
	BCM			(Approx.)
	Connector	Terminal		
INPUT 1		107	Ground	
INPUT 2		109		Refer to BCS-
INPUT 3	M122	88		43, "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.

NO >> Replace the combination switch.

Special Repair Requirement

INFOID:0000000000963907

1.REQUIRED WORK WHEN REPLACING BCM

Initialize IVIS by CONSULT-III. For the details of initialization refer to CONSULT-III operation manual NATS-IVIS/NVIS.

>> Work end.

COMBINATION SWITCH OUTPUT CIRCUIT

< COMPONENT DIAGNOSIS >

COMBINATION SWITCH OUTPUT CIRCUIT

Diagnosis Procedure

INFOID:0000000000963908

Α

В

D

Е

F

1. CHECK OUTPUT 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
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 output voltage

- 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.

	Terminals					
System	(+)		(-)	Value (Approx.)		
System	Combination switch			value (Approx.)		
•	Connector	Terminal				
OUTPUT 1		12				
OUTPUT 2		14	0	(V) 15		
OUTPUT 3		5	Ground	10		
OUTPUT 4	M33	2		0		
OUTPUT 5		8		2 ms JPMIA0041GB		

BCS

K

Ν

0

COMBINATION SWITCH OUTPUT CIRCUIT

< COMPONENT DIAGNOSIS >

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

YES >> Replace BCM.

NO >> Replace the combination switch.

Special Repair Requirement

INFOID:0000000000963909

1. REQUIRED WORK WHEN REPLACING BCM

Initialize IVIS by CONSULT-III. For the details of initialization refer to CONSULT-III operation manual NATS-IVIS/NVIS.

>> Work end.

< ECU DIAGNOSIS >

ECU DIAGNOSIS

BCM (BODY CONTROL MODULE)

Reference Value INFOID:0000000000963910 В

Α

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status	
ED W//DED LII	Other than front wiper switch HI	OFF	_
FR WIPER HI	Front wiper switch HI	ON	D
	Other than front wiper switch LO	OFF	
FR WIPER LOW	Front wiper switch LO	ON	
=D \A\A O\ E D O\A\	Front washer switch OFF	OFF	— Е
FR WASHER SW	Front washer switch ON	ON	
ED WIDED INT	Other than front wiper switch INT	OFF	F
FR WIPER INT	Front wiper switch INT	ON	
ED WIDER STOR	Front wiper is not in STOP position	OFF	_
FR WIPER STOP	Front wiper is in STOP position	ON	G
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	Wiper intermittent dial position	
TUDNI CIONIAL D	Other than turn signal switch RH	OFF	— Н
TURN SIGNAL R	Turn signal switch RH	ON	
TURN SIGNAL L	Other than turn signal switch LH	OFF	
TURN SIGNAL L	Turn signal switch LH	ON	
TAIL LAND CVA	Other than lighting switch 1ST and 2ND	OFF	
TAIL LAMP SW	Lighting switch 1ST or 2ND	ON	 .l
LILDEAM CW	Other than lighting switch HI	OFF	
HI BEAM SW	Lighting switch HI	ON	
HEAD LAMB CW/4	Other than lighting switch 2ND	OFF	K
HEAD LAMP SW 1	Lighting switch 2ND	ON	_
LIEAD LAMB CW/ 2	Other than lighting switch 2ND	OFF	_
HEAD LAMP SW 2	Lighting switch 2ND	ON	
DA COINIO OW	Other than lighting switch PASS	OFF	
PASSING SW	Lighting switch PASS	ON	BCS
AUTO LIGHT SW	Other than lighting switch AUTO	OFF	
AUTO LIGHT SW	Lighting switch AUTO	ON	
ED EOC SW	Front fog lamp switch OFF	OFF	- N
FR FOG SW	Front fog lamp switch ON	ON	
RR FOG SW	NOTE: The item is indicated, but not monitored.	OFF	0
DOOD OW DD	Driver door closed	OFF	<u> </u>
DOOR SW-DR	Driver door opened	ON	P
DOOR SW AS	Passenger door closed	OFF	<u> </u>
DOOR SW-AS	Passenger door opened	ON	_
DOOD CW DD	Rear RH door closed	OFF	<u> </u>
DOOR SW-RR	Rear RH door opened	ON	

Monitor Item	Condition	Value/Status
DOOR SW-RL	Rear LH door closed	OFF
	Rear LH door opened	ON
DOOR SW-BK	NOTE: The item is indicated, but not monitored.	OFF
CDL LOCK SW	Other than power door lock switch LOCK	OFF
CDE LOCK SW	Power door lock switch LOCK	ON
CDL UNLOCK SW	Other than power door lock switch UNLOCK	OFF
ODE ONLOCK OW	Power door lock switch UNLOCK	ON
KEY CYL LK-SW	Other than driver door key cylinder LOCK position	OFF
THE FOTE EROW	Driver door key cylinder LOCK position	ON
KEY CYL UN-SW	Other than driver door key cylinder UNLOCK position	OFF
KET OTE ON OW	Driver door key cylinder UNLOCK position	ON
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	OFF
HAZARD SW	Hazard switch is not pressed	OFF
	Hazard switch is pressed	ON
REAR DEF SW	NOTE: The item is indicated, but not monitored.	OFF
H/L WASH SW	NOTE: The item is indicated, but not monitored.	OFF
TR CANCEL SW	Trunk lid opener cancel switch OFF	OFF
TR CANCLE SW	Trunk lid opener cancel switch ON	ON
TR/BD OPEN SW	Trunk lid opener switch OFF	OFF
	While the trunk lid opener switch is turned ON	ON
TRNK/HAT MNTR	Trunk lid closed	OFF
	Trunk lid opened	ON
RKE-LOCK	LOCK button of Intelligent Key is not pressed	OFF
TARE EGGIN	LOCK button of Intelligent Key is pressed	ON
RKE-UNLOCK	UNLOCK button of Intelligent Key is not pressed	OFF
THE ONLOOK	UNLOCK button of Intelligent Key is pressed	ON
RKE-TR/BD	TRUNK OPEN button of Intelligent Key is not pressed	OFF
ICICE-TIVIDO	TRUNK OPEN button of Intelligent Key is pressed	ON
RKE-PANIC	PANIC button of Intelligent Key is not pressed	OFF
TAKE 17440	PANIC button of Intelligent Key is pressed	ON
RKE-P/W OPEN	UNLOCK button of Intelligent Key is not pressed	OFF
KKL-17W OF LIV	UNLOCK button of Intelligent Key is pressed and held	ON
RKE-MODE CHG	LOCK/UNLOCK button of Intelligent Key is not pressed and held simultaneously	OFF
RRE-WODE CHG	LOCK/UNLOCK button of Intelligent Key is pressed and held simultaneously	ON
OPTICAL SENSOR	Outside of the vehicle bright	Close to 5 V
OF HUAL SENSUK	Outside of the vehicle dark	Close to 0 V
DEO SW DD	Driver door request switch is not pressed	OFF
REQ SW-DR	Driver door request switch is pressed	ON
DEO SW AS	Passenger door request switch is not pressed	OFF
REQ SW-AS	Passenger door request switch is pressed	ON

Monitor Item	Condition	Value/Status	
REQ SW-BD/TR	Trunk request switch is not pressed	OFF	_
REQ SW-BD/TR	Trunk request switch is pressed	ON	
PUSH SW	Push-button ignition switch (push switch) is not pressed	OFF	
202H 2W	Push-button ignition switch (push switch) is pressed	ON	
ICN DLVO. E/D	Ignition switch in OFF or ACC position	OFF	
IGN RLY2 -F/B	Ignition switch in ON position	ON	
ACC DLV . E/D	Ignition switch in OFF position	OFF	
ACC RLY -F/B	Ignition switch in ACC or ON position	ON	
	The clutch pedal is not depressed	OFF	
CLUCH SW	The clutch pedal is depressed	ON	
25 41/5 014/4	The brake pedal is not depressed	ON	
BRAKE SW 1	The brake pedal is depressed	OFF	
	Selector lever in P position	OFF	
DETE/CANCL SW	Selector lever in any position other than P	ON	
DET DAIM: O	Selector lever in any position other than P and N	OFF	
SFT PN/N SW	Selector lever in P or N position	ON	
	Steering is locked	OFF	
S/L -LOCK	Steering is unlocked	ON	
	Steering is unlocked	OFF	
S/L -UNLOCK	Steering is locked	ON	
	Ignition switch is OFF or ACC position	OFF	
S/L RELAY-F/B	Ignition switch is ON position	ON	
	Driver door is unlocked	OFF	
JNLK SEN-DR	Driver door is locked	ON	
	Push-button ignition switch (push-switch) is not pressed	OFF	
PUSH SW -IPDM	Push-button ignition switch (push-switch) is pressed	ON	
	Ignition switch is OFF or ACC position	OFF	
GN RLY1 -F/B	Ignition switch is ON position	ON	
	Selector lever in P position	OFF	
DETE SW -IPDM	Selector lever in any position other than P	ON	
	Selector lever in any position other than P and N	OFF	
SFT PN -IPDM	Selector lever in P or N position	ON	
	Selector lever in any position other than P	OFF	
SFT P -MET	Selector lever in P position	ON	
	Selector lever in any position other than N	OFF	
SFT N -MET	Selector lever in N position	ON	
	Engine stopped	STOP	
	While the engine stalls	STALL	
ENGINE STATE		CRANK	
	At engine cranking		
	Engine running	RUN	
S/L LOCK-IPDM	Steering is locked	OFF	
	Steering is unlocked	ON	
S/L UNLK-IPDM	Steering is unlocked	OFF	
	Steering is locked	ON	

Monitor Item	Condition	Value/Status
C/L DELAY DEC	Ignition switch in OFF or ACC position	OFF
S/L RELAY-REQ	Ignition switch in ON position	ON
VEH SPEED 1	While driving	Equivalent to speedometer reading
VEH SPEED 2	While driving	Equivalent to speedometer reading
	Driver door is locked	LOCK
DOOR STAT-DR	Wait with selective UNLOCK operation (5 seconds)	READY
	Driver door is unlocked	UNLK
	Passenger door is locked	LOCK
DOOR STAT-AS	Wait with selective UNLOCK operation (5 seconds)	READY
	Passenger door is unlocked	UNLK
ID OK ELAO	Ignition switch in ACC or ON position	RESET
ID OK FLAG	Ignition switch in OFF position	SET
DDMT FNO OTDT	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
1/E// 0/M/ 01 0T	Intelligent Key is not inserted into key slot	OFF
KEY SW -SLOT	Intelligent Key is inserted into key slot	ON
RKE OPE COUN1	During the operation of Intelligent Key	Operation frequency of Intelligent Key
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	_
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 DECOT ED4	ID of front RH tire transmitter is registered	DONE
ID REGST FR1	ID of front RH tire transmitter is not registered	YET
ID DECOT DD4	ID of rear RH tire transmitter is registered	DONE
ID REGST RR1	ID of rear RH tire transmitter is not registered	YET
ID DECOT St. 4	ID of rear LH tire transmitter is registered	DONE
ID REGST RL1	ID of rear LH tire transmitter is not registered	YET
	Tire pressure indicator OFF	OFF
WARNING LAMP	Tire pressure indicator ON	ON
	Tire pressure warning alarm is not sounding	OFF
BUZZER	Tire pressure warning alarm is sounding	ON

Α

В

C

D

Е

F

G

Н

Κ

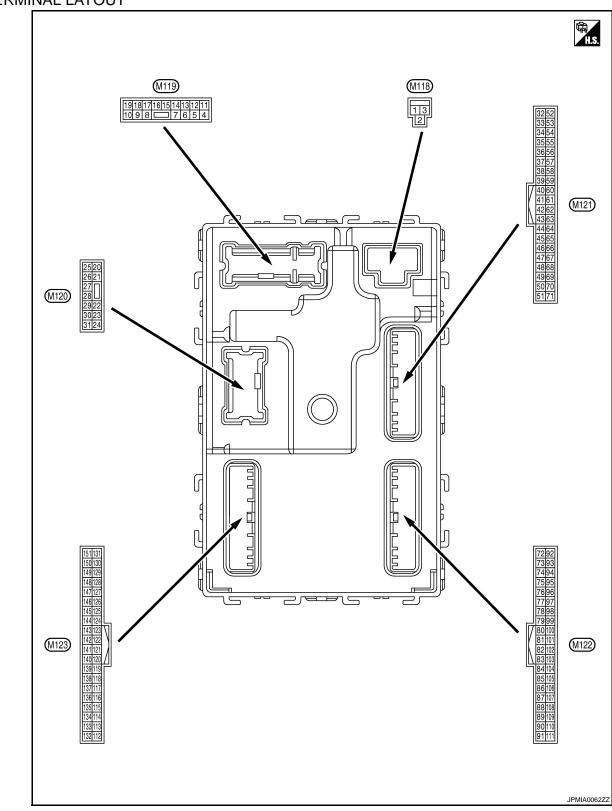
BCS

Ν

0

Ρ

TERMINAL LAYOUT



PHYSICAL VALUES

	inal Na	Description				
	inal No. e color)	Description	l		Condition	Value
+	_	Signal name	Input/ Output		Condition	(Approx.)
1 (W)	Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage
2 (Y)	Ground	P/W power supply (BAT)	Output	Ignition switch OF	F	Battery voltage
3 (O)	Ground	P/W power supply (RAP)	Output	Ignition switch ON		Battery voltage
4		Interior room lamp	•	After passing the ir er operation time	nterior room lamp battery sav-	0 V
(LG)	Ground	power supply	Output	Any other time after lamp battery save	er passing the interior room roperation time	Battery voltage
5		Passenger door UN-	•		UNLOCK (Actuator is activated)	Battery voltage
(V)	Ground	LOCK	Output	Passenger door	Other than UNLOCK (Actuator is not activated)	0 V
7	0	Otan Inno	0	Ctor Ionor	ON	0 V
(Y)	Ground	Step lamp	Output	Step lamp	OFF	Battery voltage
8	Ground	All doors, fuel lid	Output	All doors, fuel lid	LOCK (Actuator is activated)	Battery voltage
(V)	Ordana	LOCK	Odipat	7 45515, 1451	Other than LOCK (Actuator is not activated)	0 V
9	Ground	Driver door, fuel lid	Output	Driver door, fuel	UNLOCK (Actuator is activated)	Battery voltage
(G)	Cround	UNLOCK	Output	lid	Other than UNLOCK (Actuator is not activated)	0 V
10	Ground	Rear RH door and rear LH door UN-	Output	Rear RH door	UNLOCK (Actuator is activated)	Battery voltage
(BR)	Cround	LOCK	Output	and rear LH door	Other than UNLOCK (Actuator is not activated)	0 V
11 (R)	Ground	Battery power supply	Input	Ignition switch OF	F	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 (V) 10 0 JSNIA0010GB
15	Ground	ACC indicator lamp	Output	Ignition switch	OFF	Battery voltage
(Y)	Ground	ACC malcator lamp	Output	iginuon switch	ACC or ON	0 V

	inal No. e color)	Description			0 - 196	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
17 (W)	Ground	Turn signal (front RH)	Output	Ignition switch ON	Turn signal switch OFF Turn signal switch RH	0 V
18 (O)	Ground	Turn signal (front LH)	Output	Ignition switch ON	Turn signal switch OFF Turn signal switch LH	6.5 V O V (V) 15 10 5 PKID0926E 6.5 V
19 (V)	Ground	Room lamp timer control	Output	Interior room lamp	OFF	Battery voltage 0 V
. /				'	ON Turn signal switch OFF	0 V
20 (V)	Ground	Turn signal (rear RH)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 1 s PKID0926E 6.5 V
23 (G)	Ground	Trunk lid opening.	Output	Trunk lid	Open (Trunk lid opener actuator is activated) Close (Trunk lid opener ac-	Battery voltage
					tuator is not activated) Turn signal switch OFF	0 V
25 (G)	Ground	Turn signal (rear LH)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s PKID0926E 6.5 V
30	0	Towns to the second second	Out	Tarrellander	ON	0.3 V
(R)	Ground	Trunk room lamp	Output	Trunk room lamp	OFF	Battery voltage

	ninal No. e color)	Description			Condition	Value
+	_	Signal name	Input/ Output	Condition		(Approx.)
34		Trunk room antenna		Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB
(SB)	Ground	1 (-)	Output	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB
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	1 (+)	Cutput	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 lid request switch	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(B)	Ground	na (-)	Output	lid request switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB

	inal No.	Description				Value			
+	e color)	Signal name	Input/ Output		Condition	(Approx.)			
39		Rear bumper anten-		When the trunk	When Intelligent Key is in the antenna detection area	(V) 15 10 5 1			
(W)	Ground	na (+)	Output	is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 1 s JMKIA0063GB			
47 (Y)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	Battery voltage 0 V			
50 (R)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (Trunk is closed)	(V) 15 10 5 0 10 ms JPMIA0011GB			
					ON (Trunk is open)	0 V			
				Ignition switch OFF (M/T mod-	When the clutch pedal is depressed	Battery voltage			
				els)	When the clutch pedal is not depressed	0 V			
52 (SB)	Ground	Starter relay control	Output	Output	Output	Output	Ignition switch	When selector lever is in P or N position and the brake is depressed	Battery voltage
				ON (A/T models)	When selector lever is in P or N position and the brake is not depressed	0 V			
					ON (Pressed)	0 V			
61 (W)	Ground	Trunk request switch	Input	Trunk request switch	OFF (Not pressed)	(V) 15 10 5 0			
						JPMIA0016GB 1.0 V			
64	Ground	Request switch buzz-	Output	Request switch	Sounding	1.0 V			

	inal No. e color)	Description			Condition	Value
+	-	Signal name	Input/ Output			(Approx.)
67 (GR)	Ground	Trunk lid opener switch	Input	Trunk lid opener switch	Pressed Not pressed	0 V (V) 15 10 5 0 10 ms JPMIA0011GB
68 (BR)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (When rear RH door closes) ON (When rear RH door	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V
69 (R)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (When rear LH door closes) ON (When rear LH door opens)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V
72 (B)	Ground	Room antenna 2 (-)	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB
(R)		(center console)	·	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB

	ninal No. re color)	Description	_		Condition	Value	
+	-	Signal name	Input/ Output		Condition	(Approx.)	-
					When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB	(
73 (G)	Ground	Room antenna 2 (+) (center console)	Output	Ignition switch OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB	1
74	Crown	Passenger door an-	Outout	When the passenger door re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	(
(SB)	Ground	tenna (-)	Output	quest switch is operated with ig- nition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	,
75	0	Passenger door an-	0.4.1	When the passenger door re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	В
(BR)	Ground	tenna (+)	Output	quest switch is operated with ig- nition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	(

	inal No. e color)	Description	lmr::t/		Condition	Value	
+	_	Signal name	Input/ Output		Condition	(Approx.)	
76	Ground	Driver door antenna	Output	When the driver door request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	
(V)	Clound	(-)	Cutput	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	
77	Ground	Driver door antenna	Driver door antenna (+) Output When the driver door request switch is operated with ignition switch OFF	Output	door request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB
(LG)	Glodina	(+)		ed with ignition	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 11 1 s JMKIA0063GB	
78		Room antenna (-) (in-		Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB	
(Y)	Ground	strument panel)	Output	ÖFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB	

< ECU DIAGNOSIS >

	inal No.	Description				Value	٨
+ (Wire	e color) –	Signal name	Input/ Output		Condition	(Approx.)	А
79	Ground	Room antenna (+)	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB	B C D
(BR)	Glound	(instrument panel)	Output	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB	E
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.	G
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.	Н
82 (R)	Ground	Ignition relay (relay box) control	Output	Ignition switch	OFF or ACC	0 V Battery voltage	I
83	O	Remote keyless entry	Input/	During waiting		(V) 15 10 5 0 1 ms JMKIA0064GB	J K L
(Y)	Ground	receiver signal	Output	When operating e	ither button on Intelligent Key	(V) 15 10 5 0 1 ms JMKIA0065GB	BCS N

BCS-55

	inal No.	Description				Value
(Wir	e color)	Signal name	Input/ Output		Condition	(Approx.)
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041
87 (BR)	Ground	Combination switch INPUT 5	Input	Combination switch	Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA00370
					Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7	(V) 15 10 5 0 2 ms JPMIA00400

	inal No.	Description				Value	Λ
(Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)	А
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB	B C
					Lighting switch HI (Wiper intermittent dial 4)	(V) 15 10 5 0	E
88 (V)	Ground	Combination switch INPUT 3	Input	Combination switch		JPMIA0036GB 1.3 V	G
				Lig	Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 10 5 0	Н
							1
					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	J
						JРМIA0040GB 1.3 V	L
89 (BR)	Ground	Push-button ignition switch (push switch)	Input	Push-button ignition switch (push switch)	Pressed Not pressed	0 V Battery voltage	ВС
90 (P)	Ground	CAN - L	Input/ Output		_	_	
91 (L)	Ground	CAN - H	Input/ Output		_	_	Ν
					OFF	0 V	0
92 (LG)	Ground	Key slot illumination	Output	Key slot illumina- tion	Blinking	15 10 5 0 1 s	Р
					ON	6.5 V Battery voltage	

	inal No.	Description				Value
+	e color)	Signal name	Input/ Output		Condition	(Approx.)
93	Ground	ON indicator lamp	Output	Ignition switch	OFF or ACC	0 V
(V)	Ground	ON indicator lamp	Output	igilillori switch	ON	Battery voltage
95	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
(O)	Ordana	-	Catpat	iginiion ownon	ACC or ON	Battery voltage
96 (GR)	Ground	A/T device (detention switch) power supply	Output		_	Battery voltage
97	Ground	Steering lock condi-	Input	Steering lock	LOCK status	0 V
(L)	0.00	tion No. 1		Greening reen	UNLOCK status	Battery voltage
98	Ground	Steering lock condi-	Input	Steering lock	LOCK status	Battery voltage
(P)		tion No. 2			UNLOCK status	0 V
99	Ground	Selector lever P posi-	Input	Selector lever	P position	0 V
(R)		tion switch			Any position other than P	Battery voltage
					ON (Pressed)	0 V
100 (G)	Ground	Passenger door request switch	Input	Passenger door request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB
					ON (Pressed)	0 V
101 (SB)	Ground	Driver door request switch	Input	Driver door request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB
102	Ground	Blower fan motor re-	Output	Ignition switch	OFF or ACC	0 V
(O)	2.34.14	lay control	Carpar	-3	ON	Battery voltage
103 (LG)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OF	F	Battery voltage
106	Ground	Steering wheel lock	Output	Ignition switch	OFF or ACC	Battery voltage
(W)	Ground	unit power supply	Odiput	igilition switch	ON	0 V

	inal No. e color)	Description	1		-	Value
+	e color)	Signal name	Input/ Output		Condition	(Approx.)
					All switch OFF	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V
					Turn signal switch LH	(V) 15 10 5 0 2 ms JPMIA0037GB
107 (LG)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermit- tent 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

	inal No. e color)	Description			0 100	Value	
+	e color)	Signal name	Input/ Output		Condition	(Approx.)	
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB	
108	Ground	Combination switch	Input	t Combination	Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3 V	
(R)	Gigana	INPUT 4	switch	switch	Lightir	Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB
					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	

	ninal No. e color)	Description		t/ Condition Value (Approx.)		Value
+	e color)	Signal name	Input/ Output		Condition	
					All switch OFF	(V) 15 10 5 0 2 ms JPMIA0041GB
					Lighting switch PASS	(V) 15 10 5 0 2 ms JPMIA0037GB
109 (Y)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent dial 4)	Lighting switch 2ND	(V) 15 10 5 0 2 ms JPMIA0036GB
					Front wiper switch INT	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3 V
					Front wiper switch HI	(V) 15 10 5 0 2 ms JPMIA0040GB
					Pressed	0 V
110 (G)	Ground	Hazard switch	Input	Hazard switch	Not pressed	(V) 15 10 5 0 10 ms JPMIA0012GB

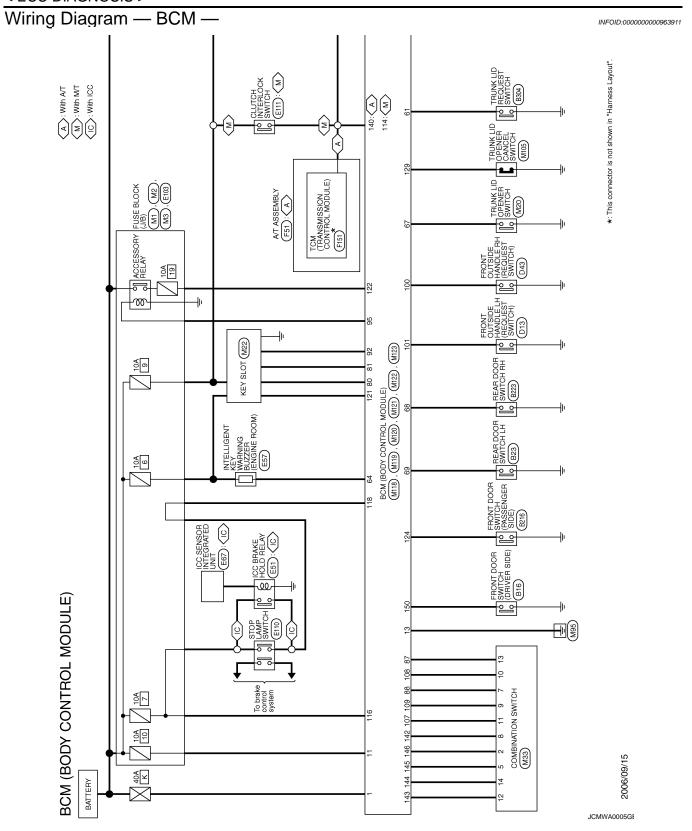
	inal No.	Description				Value
+	e color)	Signal name	Input/ Output		Condition	(Approx.)
			•		LOCK status	Battery voltage
111 (Y)	Ground	Steering lock unit communication	Input/ Output	Steering lock	LOCK or UNLOCK	(V) 15 10 50 ms JMKIA0066GB
					For 15 seconds after UN- LOCK	Battery voltage
					15 seconds or later after UNLOCK	0 V
113	Ground	Optical sensor signal	Input	Ignition switch	When bright outside of the vehicle	Close to 5 V
(P)	Ground	Optical Scrisor signal	прис	ON	When dark outside of the vehicle	Close to 0 V
114	Ground	Clutch interlock	Input	Clutch interlock	OFF (Clutch pedal is not depressed)	0 V
(R)	Ground	switch	прис	switch	ON (Clutch pedal is depressed)	Battery voltage
116 (SB)	Ground	Stop lamp switch 1	Input		_	Battery voltage
				Stop lamp switch	OFF (Brake pedal is not depressed)	0 V
118 (P)	Ground	Stop lamp switch 2	Input	Otop ramp owner	ON (Brake pedal is depressed)	Battery voltage
				ICC brake hold	OFF	0 V
				relay (With ICC)	ON	Battery voltage
119 (SB)	Ground	Front door lock assembly driver side (unlock sensor)	Input	Driver door	LOCK status	(V) 15 10 5 0 10 ms JPMIA0011GB
					UNLOCK status	0 V
121	Ground	Key slot switch	Input	When Intelligent K	ey is inserted into key slot	Battery voltage
(R)	Ground	Ney SIOL SWILCH	input	When Intelligent K	ey is not inserted into key slot	0 V
122	Ground	ACC feedback signal	Input	Ignition switch	OFF	0 V
(V)	Cround	, 100 locubuch signal	"iput	.gori swittori	ACC or ON	Battery voltage
123	Ground	IGN feedback signal	Input	Ignition switch	OFF or ACC	0 V
(W)	2 3 2 3	2 2 2 2 3 3 3 3 3 3 3 5 5 5 5 5 5 5 5 5	r	5 12 2111211	ON	Battery voltage

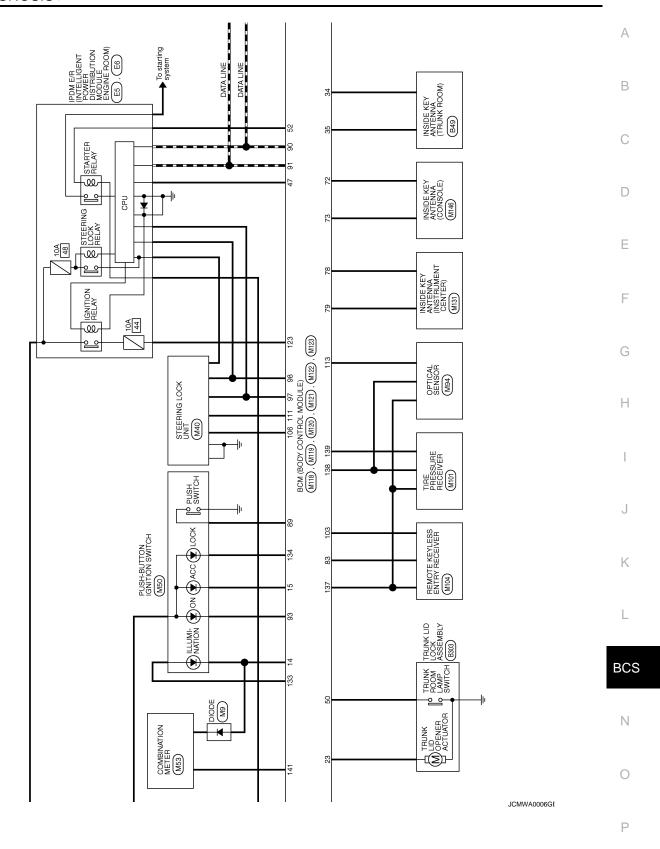
	inal No.	Description	T			Value
+	e color)	Signal name	Input/ Output		Condition	(Approx.)
124 (LG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (When passenger door closes)	(V) 15 10 5 0 10 ms JPMIA0011GB
					ON (When passenger door opens)	11.8 V 0 V
129 (O)	Ground	Trunk lid opener cancel switch	Input	Trunk lid opener cancel switch	CANCEL	(V) 15 10 5 0 10 ms JPMIA0012GB
					ON	1.1 V
132 (V)	Ground	Power window switch communication	Input/ Output	Ignition switch ON		(V) 15 10 5 0 10 ms JPMIA0013GB
				Ignition switch OFF	F or ACC	10.2 V
				·9······	ON (When tail lamps OFF)	5.5 V
					, , , , , , , , , , , , , , , , , , , ,	NOTE: The pulse width of this wave is varied by the illumination brightening/dimming level.
133 (W)	Ground	Push-button ignition switch illumination	Output	Push-button ignition switch illumination	ON (When tail lamps ON)	(V) 15 10 5 0
					OFF	0 V
134	Ground	LOCK indicator lamp	Output	LOCK indicator	ON	0 V
(GR)	Giouna	LOOK indicator lamp	Output	lamp	OFF	Battery voltage
137 (O)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V
138	Ground	Receiver and sensor	Output	Ignition switch	OFF	0 V
(V)	Giouria	power supply output	Output	Ignition switch	ACC or ON	5.0 V

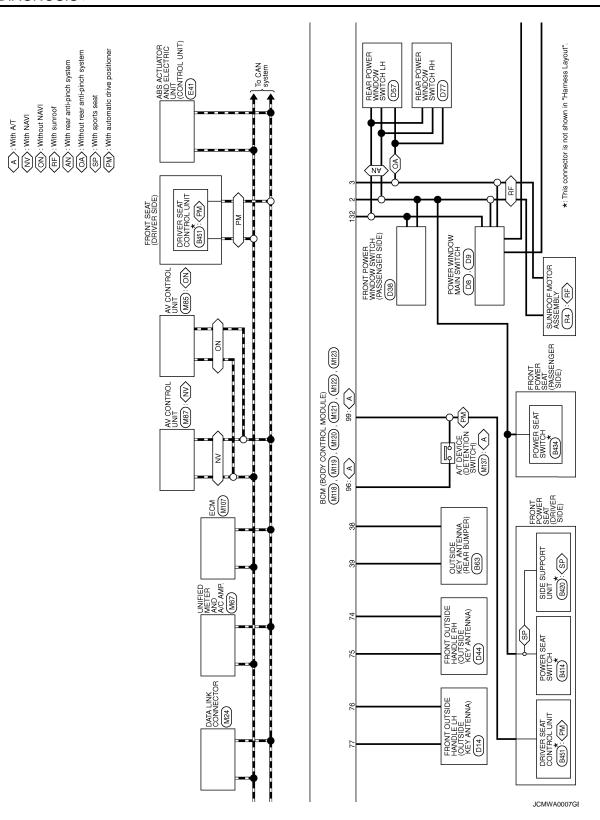
	inal No. e color)	Description	1		Condition	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
139	Ground	Tire pressure receiv-	Input/	Ignition switch	Standby state	(V) 6 4 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
(L)	Clound	er signal	Output	ON	When receiving the signal from the transmitter	(V) 6 4 2 0 ••• 0.2s OCC3880D
140		Selector lever P/N			P or N position	12.0 V
(GR)	Ground	position signal	Input	Selector lever	Except P and N positions	0 V
					ON	0 V
141 (G)	Ground	Security indicator signal	Output	Security indicator	Blinking	(V) 15 10 5 0 1 s JPMIA0014GB
					OFF	Battery voltage
					All switch OFF Lighting switch 1ST Lighting switch HI	0 V
142		Combination switch		Combination switch	Lighting switch 2ND	15
(O)	Ground	OUTPUT 5	Output	(Wiper intermittent dial 4)	Turn signal switch RH	0 2 ms JPMIA0031GB
					All switch OFF	10.7 V
					(Wiper intermittent dial 4)	0 V
					Front wiper switch HI (Wiper intermittent dial 4)	(V)
143 (P)	Ground	Combination switch OUTPUT 1	Output	Combination switch	Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7	15 10 5 0 2 ms JPMIA0032GB

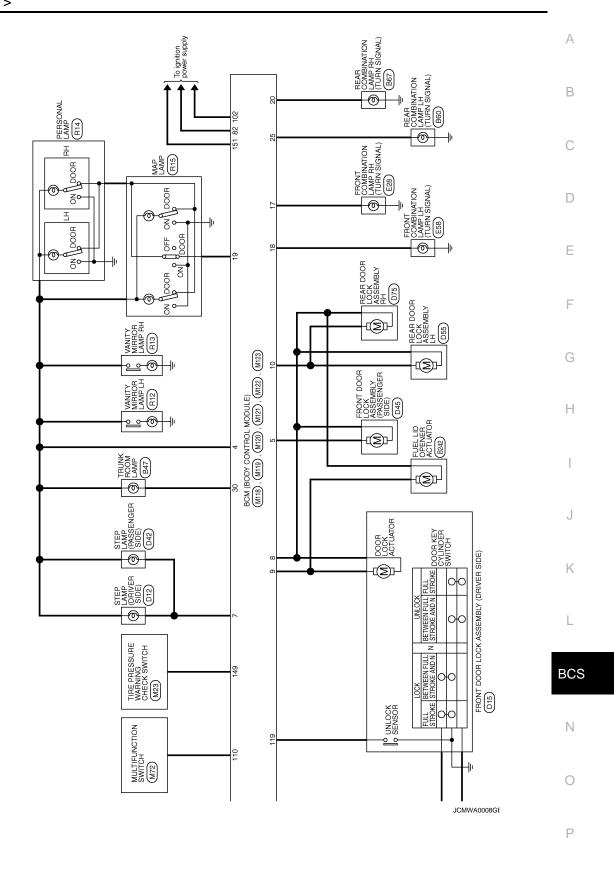
< ECU DIAGNOSIS >

	inal No.	Description				Value
(Wire	e color)	Signal name	Input/ Output		Condition	Value (Approx.)
					All switch OFF (Wiper intermittent dial 4)	0 V
144		Combination switch		Combination	Front washer switch ON (Wiper intermittent dial 4)	(V)
(G)	Ground	OUTPUT 2	Output	switch	Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	10 5 0 2 ms JPMIA0033GB 10.7 V
					All switches OFF	0 V
					Front wiper switch INT	
				Combination	Front wiper switch LO	(V) 15
145 (L)	Ground	Combination switch OUTPUT 3	Output	switch (Wiper intermit- tent dial 4)	Lighting switch AUTO	10 5 0 2 ms JPMIA0034GB
					All switch OFF	10.7 V
					Front fog lamp switch ON	
				Combination	Lighting switch 2ND	(V)
146	Ground	Combination switch OUTPUT 4	Output	switch	Lighting switch PASS	10 5 0
(SB)		0012014		(Wiper intermit- tent dial 4)	Turn signal switch LH	2 ms JPMIA0035GB
140		Tire pressure warn-				10.7 V
149 (W)	Ground	ing check switch	Input		_	5 V
						(V) 15 10
150 (GR)	Ground	Driver door switch	Input	Driver door switch	OFF (When driver door closes)	10 5 0 10 ms
						JPMIA0011GB 11.8 V
					ON (When driver door opens)	0 V
151	Ground	Rear window defog-	Output	Rear window de-	Active	0 V
(G)	2.364	ger relay	2 3.45 3.6	fogger	Not activated	Battery voltage









BCM (BODY CONTROL MODULE) Connector No. M33	Connector No. M118	Connector No. M119	18 O FRONT FLASHER OUTPUT(LEFT)
Connector Name COMBINATION SWITCH Connector Type THI6FW-NIH	Connector Name BCM (BODY CONTROL MODULE) Connector Type M03FB-LC	Connector Name BCM (BODY CONTROL MODULE) Connector Type NS16FW-CS	>
H.S. 12 3 14 5 6 7 8 9 10 11 12 13 14	H.S. 113	HS. 4 5 6 7 6 9 10 11 12 13 14 15 16 17 18 19	
Terminal Color Signal Name No. of Wire Signal Name 2 SE OUTPUT 4 5 L OUTPUT 3 7 V INPUT 3 9 V INPUT 2 10 R INPUT 1 11 LG INPUT 1 12 P OUTPUT 1 13 ER INPUT 5 14 G OUTPUT 5 14 G OUTPUT 5 15 ER INPUT 5 16 OUTPUT 1 17 ER INPUT 5 18 G OUTPUT 2 19 G OUTPUT 2 10 C C C 11 C C C 12 C C C 14 C C C 15 C C C 16 C C C 17 C C C 17 C C C 18 C C C 18 C C C 19 C C C 10 C C C 10 C C C 10 C C C 11 C C C 11 C C C 11 C C C 12 C C C 14 C C C 15 C C C 16 C C C 17 C C C 17 C C C 18 C C C 19 C C C 10 C C C 10 C C C 11 C C C 11 C C C 12 C C C 13 C C C 14 C C C 15 C C C 16 C C C 17 C C C 17 C C C 18 C C C 19 C C C 10 C C C 10 C C C 11 C C C 11 C C C 12 C C C 13 C C C 14 C C C C 15 C C C 16 C C C 17 C C C 17 C C C 18 C C C C 18 C C C C 19 C C C 10 C C C 10 C C C C 11 C C C C 11 C C C C 11 C C C C 12 C C C C 13 C C C C 14 C C C C 15 C C C C 16 C C C C 17 C C C C 18 C C C C 19 C C C C 10 C C C C 11 C C C C C 11 C C C C C 12 C C C C C 13 C C C C C 14 C C C C C 15 C C C C C 15 C C C C C 15 C C C C C C 15 C C C C C C C 10 C C C C C C C C 11 C C C C C C C C C	Terminal Color Signal Name No. of Wire No. of Wi	Terminal Color	
Ocurrector No. MI20 Corrector Name BCM (BODY CONTROL MODULE) Corrector Type NS12FW-CS WS12FW-CS WH.S. ZG Z1 Z Z3 Z4 ZS Z6 Z7 Z8 Z9 Z9 Z4 ZS Z6 Z7 Z8 Z9 Z9 Z4	Connector No. MI21 Connector Type BOM (BODY CONTROL MODULE) Connector Type TH40FGY-NH AS STOLES FINE FINE FINE FINE FINE FINE FINE FINE	69 R DOOR SW (RR LH)	
Territical Color Signal Name Albert Color Signal Name Color Co	Terminal Color Signal Name No. Of Wire Signal Name No. Of Wire Signal Name Signa		

JCMWA0009GE

ER SUPPLY L OUTPUT T 1 T 1 T 1 T 1 T 1 T 1 T 1 T 1 T 1 T		А
EINOC'SWI LED LOCK LED SERISOR ROND SERISOR ROND AUTO LIGHT SERISOR ROND RECEIVER SIGNAL SEQURITY INDICATOR OUTPUT COMBIS SWI OUTPUT 3 COMBIS SWI		В
C C C C C C C C C C		С
251		D
PULE) OR INPUT INBERIMENEE INSU INSU INSU INSU INSU INSU INSU INSU		Е
BOM (BODY CONTROL MODULE) TH40FG-NH Signal Name AUTO LIGHT SENSOR INPUT CLUTCH SW STOP LAMP HIGH DR COMDITION SW KEY SMICH SIGNAL REY SMICH SIGNAL ACC F/B TRUNK CANCEL SW POWER WINDOW SERAL LINK POWER WINDOW SERAL LINK		F
Name BCM (i 17)pe BCM (i 17)p		G
Connector Na Connector Na Connector Na Connector Type Connector		Н
KEYLESS TUNER SIGNAL COMBELSW INPUT 3 ENG SW CAN-L COMBITON 1 S.L. CONDITION 2 S.L. CONDITION 2 S.L. LEV (CPU) COMBIT SW INPUT 1 COMBIT SW INPUT 2 HAZARD SW S.L. (K LINE) S.L. (K LINE)		I
KEYLESS		J
N		K
NOLE (SOLUTION COLUMN)		L
MU22 BOM (BODY CONTROL MODULE) THOFB-NH THOFB-NH Signal Name Signal Name Signal Name ROOM ANT2- ROOM ANT2- ROOM ANT1- DR DOOR ANT1- IMMOBI ANTENNA SIGNAL IMMOBI ANTENNA SIGNAL IGN ELEC CONT		BCS
MY2C GOW (B) BOW (B) B		N
Connector Name Connector Name Connector Name Connector Type Conn	JCMWA0010GE	0
	SOMMANO LOGE	

Fail Safe INFOID:0000000000963912

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 ANTTENA AMP	Inhibit engine cranking	Erase DTC

Display contents of CONSULT	Fail-safe	Cancellation					
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					
B2557: VEHICLE SPEED	Inhibit steering lock	When normal vehicle speed signals have been received from ABS actuator and electric unit (control unit) for 500 ms					
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent • Starter control relay signal • Starter relay status signal					
B2563: HI VOLTAGE	Inhibit engine cranking Inhibit steering lock	500 ms after the power supply voltage decreases to less than 18 V					
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 /h 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 is fulfilled Status 1 Ignition switch is in the ON position Selector lever P/N position signal: P and N position (battery voltage) P range signal or N range signal (CAN): ON Status 2 Ignition switch is in the ON position Selector lever P/N position signal: Except P and N positions (0 V) P range signal and N range signal (CAN): OFF 					
B2605: PNP SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions is fulfilled Ignition switch is in the ON position Power position: IGN Selector lever P/N position signal: Except P and N positions (0 V) Interlock/PNP switch signal (CAN): OFF Status 2 Ignition switch is in the ON position Selector lever P/N position signal: P or N position (battery voltage) PNP switch signal (CAN): ON					
B2606: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent • Steering lock relay signal (Request signal) • Steering lock relay signal (Condition signal)					
B2607: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent • Steering lock relay signal (Request signal) • Steering lock relay signal (Condition signal)					

< ECU DIAGNOSIS >

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

DTC Inspection Priority Chart

INFOID:0000000000963913

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

Priority	DTC
1	B2562: LOW VOLTAGE B2563: HI VOLTAGE
2	U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)
3	B2190: NATS ANTTENA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM

BCS

L

0

< ECU DIAGNOSIS >

Priority	DTC
4	B2013: ID DISCORD BCM-S/L B2014: CHAIN OF S/L-BCM B2553: IGNITION RELAY B2555: STOP LAMP B2555: PUSH-BTN IGN SW B2557: VEHICLE SPEED B2560: STARTER CONT RELAY B2601: SHIFT POSITION B2602: SHIFT POSITION B2603: SHIFT POSITION B2605: PNP SW B2606: PNP SW B2606: SI-RELAY B2606: SI-RELAY B2606: SI-RELAY B2608: STARTER RELAY B2609: SI-STATUS B2609: SI-STATUS B2609: SI-STERING LOCK UNIT B2600: STEERING LOCK UNIT B2600: STEERING LOCK UNIT B2601: STEERING LOCK UN
5	C1704: LOW PRESSURE FL C1705: LOW PRESSURE FR C1706: LOW PRESSURE RR C1707: LOW PRESSURE RR C1708: [NO DATA] FL C1709: [NO DATA] FR C1710: [NO DATA] RR C1711: [NO DATA] RR C1711: [NO DATA] RR C1711: [CHECKSUM ERR] FL C1713: [CHECKSUM ERR] FR C1714: [CHECKSUM ERR] RR C1715: [CHECKSUM ERR] RR C1716: [PRESSDATA ERR] FL C1717: [PRESSDATA ERR] FL C1717: [PRESSDATA ERR] FR C1718: [PRESSDATA ERR] RR C1719: [CODE ERR] RR C1720: [CODE ERR] FL C1721: [CODE ERR] FR C1722: [CODE ERR] RR C1723: [CODE ERR] RR C1724: [BATT VOLT LOW] FL C1725: [BATT VOLT LOW] FR C1727: [BATT VOLT LOW] RR
6	B2621: INSIDE ANTENNA B2622: INSIDE ANTENNA B2623: INSIDE ANTENNA

DTC Index

< ECU DIAGNOSIS >

NOTE:

Details of time display

- CRNT: Displays when there is a malfunction now or after returning to the normal condition until turning ignition switch OFF → ON again.
- 1 39: Displayed if any previous malfunction is present when current condition is normal. It increases like 1
 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. The counter
 remains at 39 even if the number of cycles exceeds it. It is counted from 1 again when turning ignition switch
 OFF → ON after returning to the normal condition if the malfunction is detected again.

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page			
No DTC is detected. further testing may be required.	_	_	_	_			
U1000: CAN COMM CIRCUIT	_	_	_	BCS-33			
U1010: CONTROL UNIT (CAN)	_	_	_	BCS-34			
U0415: VEHICLE SPEED SIG	_	_	_	BCS-35			
B2013: ID DISCORD BCM-S/L	×	_	_	SEC-43			
B2014: CHAIN OF S/L-BCM	×	_	_	SEC-44			
B2190: NATS ANTTENA AMP	×	_	_	SEC-37			
B2191: DIFFERENCE OF KEY	×	_	_	SEC-40			
B2192: ID DISCORD BCM-ECM	×	_	_	SEC-41			
B2193: CHAIN OF BCM-ECM	×	_	_	SEC-42			
B2553: IGNITION RELAY	_	_	_	PCS-48			
B2555: STOP LAMP	_	_	_	SEC-47			
B2556: PUSH-BTN IGN SW	_	×	_	SEC-49			
B2557: VEHICLE SPEED	×	×	_	SEC-51			
B2560: STARTER CONT RELAY	×	×	_	SEC-52			
B2562: LOW VOLTAGE	_	_	_	BCS-36			
B2563: HI VOLTAGE	×	×	_	BCS-37			
B2601: SHIFT POSITION	×	×	_	<u>SEC-53</u>			
B2602: SHIFT POSITION	×	×	_	SEC-56			
B2603: SHIFT POSI STATUS	×	×	_	<u>SEC-58</u>			
B2604: PNP SW	×	×	_	SEC-61			
B2605: PNP SW	×	×	_	SEC-63			
B2606: S/L RELAY	×	×	_	<u>SEC-65</u>			
B2607: S/L RELAY	×	×	_	SEC-66			
B2608: STARTER RELAY	×	×	_	SEC-68			
B2609: S/L STATUS	×	×	_	SEC-70			
B260A: IGNITION RELAY	×	×	_	PCS-50			
B260B: STEERING LOCK VNIT	_	×	_	SEC-74			
B260C: STEERING LOCK VNIT	_	×	_	<u>SEC-75</u>			
B260D: STEERING LOCK VNIT	_	×	_	<u>SEC-76</u>			
B260F: ENG STATE SIG LOST	×	×	_	<u>SEC-77</u>			
B2611: ACC RELAY	_	_	_	PCS-52			
B2612: S/L STATUS	×	×	_	<u>SEC-79</u>			
B2614: ACC RELAY CIRC	_	×	_	PCS-54			
B2615: BLOWER RELAY CIRC	_	×	_	PCS-57			

С

D

Α

В

F

Е

Н

J

K

BCS

Ν

0

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page	
B2616: IGN RELAY CIRC	_	×	_	PCS-60	
B2617: STARTER RELAY CIRC	×	×	_	<u>SEC-83</u>	
B2618: BCM	×	×	_	PCS-63	
B2619: BCM	×	×	_	<u>SEC-85</u>	
B261A: PUSH-BTN IGN SW	_	×	_	<u>SEC-86</u>	
B261E: VEHICLE TYPE	×	× (Turn ON for 15 seconds)	_	SEC-88	
B2621: INSIDE ANTENNA	_	_	_	DLK-58	
B2622: INSIDE ANTENNA	_	_	_	DLK-60	
B2623: INSIDE ANTENNA	_	_	_	<u>DLK-62</u>	
B26E1: ENG STATE NO RES	×	×	_	<u>SEC-78</u>	
C1704: LOW PRESSURE FL	_	_	×	<u>WT-14</u>	
C1705: LOW PRESSURE FR	_	_	×	<u>WT-14</u>	
C1706: LOW PRESSURE RR	_	_	×	<u>WT-14</u>	
C1707: LOW PRESSURE RL	_	_	×	<u>WT-14</u>	
C1708: [NO DATA] FL	_	_	×	<u>WT-16</u>	
C1709: [NO DATA] FR	_	_	×	<u>WT-16</u>	
C1710: [NO DATA] RR	_	_	×	<u>WT-16</u>	
C1711: [NO DATA] RL	_	_	×	<u>WT-16</u>	
C1712: [CHECKSUM ERR] FL	_	_	×	<u>WT-19</u>	
C1713: [CHECKSUM ERR] FR	_	_	×	<u>WT-19</u>	
C1714: [CHECKSUM ERR] RR	_	_	×	<u>WT-19</u>	
C1715: [CHECKSUM ERR] RL	_	_	×	<u>WT-19</u>	
C1716: [PRESSDATA ERR] FL	_	_	×	<u>WT-22</u>	
C1717: [PRESSDATA ERR] FR	_	_	×	<u>WT-22</u>	
C1718: [PRESSDATA ERR] RR	_	_	×	<u>WT-22</u>	
C1719: [PRESSDATA ERR] RL	_	_	×	<u>WT-22</u>	
C1720: [CODE ERR] FL	_	_	×	<u>WT-24</u>	
C1721: [CODE ERR] FR	_	_	×	<u>WT-24</u>	
C1722: [CODE ERR] RR	_	_	×	<u>WT-24</u>	
C1723: [CODE ERR] RL	_	_	×	<u>WT-24</u>	
C1724: [BATT VOLT LOW] FL	_	_	×	<u>WT-27</u>	
C1725: [BATT VOLT LOW] FR	_	_	×	<u>WT-27</u>	
C1726: [BATT VOLT LOW] RR		_	×	<u>WT-27</u>	
C1727: [BATT VOLT LOW] RL		_	×	<u>WT-27</u>	
C1729: VHCL SPEED SIG ERR		_	×	<u>WT-30</u>	
C1734: CONTROL UNIT	_	_	×	<u>WT-31</u>	

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.

Malfunction item: ×

Α

В

D

Е

F

Н

K

BCS

Ν

Р

							Data mo	nitor ite	m					
Malfunction combination	FR WIPER HI	FR WIPER LOW	FR WASHER SW	FR WIPER INT	INT VOLUME	TURN SIGNAL R	TURN SIGNAL L	TAIL LAMP SW	HI BEAM SW	HEAD LAMP SW 1	HEAD LAMP SW 2	PASSING SW	AUTO LIGHT SW	FR FOG SW
А		×	×			×	×							
В	×			×						×		×		
С					×				×		×			
D					×			×					×	
E					×									×
F	×				×									
G			×		×									
Н		×		×									×	
1							×				×	×		×
J						×		×	×	×				
К	All Items													
L	If only one item is detected or the item is not applicable to the combinations 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-39, "Diagnosis Procedure".				
D	Combination switch INPUT 4 circuit	para reason to <u>300 day biagnosia recodura</u> .				
Е	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-41, "Diagnosis Procedure".				
I	Combination switch OUTPUT 4 circuit	ing part 1000 to 200 11 Diagnosic 1 recourse.				
J	Combination switch OUTPUT 5 circuit					
K	ВСМ	Replace BCM.				
L	Combination switch	Replace the combination switch.				

BCS-77

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 and SB section of this Service Manual.

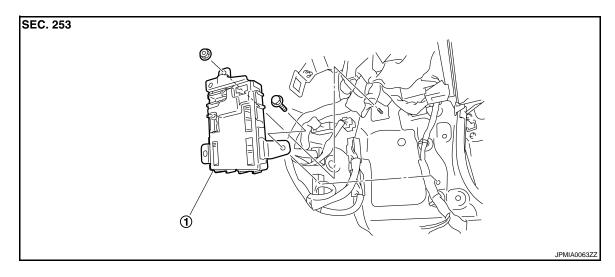
WARNING:

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

ON-VEHICLE REPAIR

BCM (BODY CONTROL MODULE)

Exploded View



1. BCM

Removal and Installation

REMOVAL

- Remove instrument side finisher (RH). Refer to <u>IP-12. "Removal and Installation"</u>.
- 2. Remove dash side finisher (passenger side). Refer to INT-13, "Removal and Installation".
- 3. Remove bolt and nut.
- 4. Remove BCM and disconnect the connector.

INSTALLATION

Install in the reverse order of removal.

BCS

K

Α

В

D

Е

F

Н

INFOID:0000000000963918

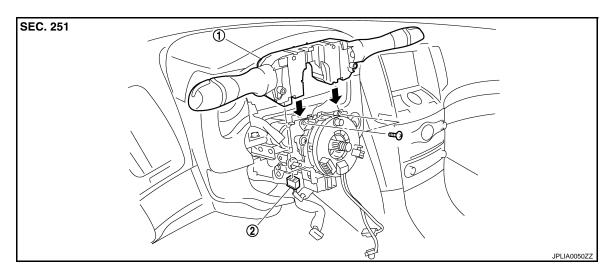
INFOID:0000000000963917

Ν

0

COMBINATION SWITCH

Exploded View



- 1. Combination switch
- 2. Combination switch connector

Removal and Installation

INFOID:0000000000963920

REMOVAL

- 1. Remove steering column cover. Refer to IP-12, "Removal and Installation".
- 2. Remove screws.
- 3. Disconnect the connector.
- 4. Pull up the combination switch to remove it.

INSTALLATION

Install in the reverse order of removal.