

SECTION **BCS**

BODY CONTROL SYSTEM

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

CONTENTS

WITH INTELLIGENT KEY SYSTEM	
BASIC INSPECTION	5
INSPECTION AND ADJUSTMENT	5
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM)	5
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Description	5
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Special Repair Requirement	5
CONFIGURATION (BCM)	5
CONFIGURATION (BCM) : Description	5
CONFIGURATION (BCM) : Special Repair Requirement	6
CONFIGURATION (BCM) : Configuration list	6
SYSTEM DESCRIPTION	8
BODY CONTROL SYSTEM	8
System Description	8
Component Parts Location	9
COMBINATION SWITCH READING SYSTEM	10
System Diagram	10
System Description	10
SIGNAL BUFFER SYSTEM	14
System Diagram	14
System Description	14
POWER CONSUMPTION CONTROL SYSTEM	15
System Diagram	15
System Description	15
Component Parts Location	17
DIAGNOSIS SYSTEM (BCM)	18
COMMON ITEM	18
COMMON ITEM : CONSULT-III Function (BCM - COMMON ITEM)	18
DOOR LOCK	19
DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK)	19
REAR WINDOW DEFOGGER	20
REAR WINDOW DEFOGGER : CONSULT-III Function (BCM - REAR DEFOGGER)	21
BUZZER	21
BUZZER : CONSULT-III Function (BCM - BUZZER)	21
INT LAMP	21
INT LAMP : CONSULT-III Function (BCM - INT LAMP)	22
HEADLAMP	23
HEADLAMP : CONSULT-III Function (BCM - HEAD LAMP)	23
WIPER	26
WIPER : CONSULT-III Function (BCM - WIPER).....	26
FLASHER	27
FLASHER : CONSULT-III Function (BCM - FLASHER)	27
AIR CONDITIONER	28
AIR CONDITIONER : CONSULT-III Function (BCM - AUTO AIR CONDITIONER)	28
INTELLIGENT KEY	28
INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY)	28
COMB SW	31
COMB SW : CONSULT-III Function (BCM - COMB SW)	31
BCM	32

BCS

BCM : CONSULT-III Function (BCM - BCM)	32	Wiring Diagram - BCM -	69
IMMU	32	Fail-safe	73
IMMU : CONSULT-III Function (BCM - IMMU)	32	DTC Inspection Priority Chart	75
BATTERY SAVER	32	DTC Index	77
BATTERY SAVER : CONSULT-III Function (BCM - BATTERY SAVER)	33	SYMPTOM DIAGNOSIS	80
TRUNK	34	COMBINATION SWITCH SYSTEM SYMP- TOMS	80
TRUNK : CONSULT-III Function (BCM - TRUNK)..	34	Symptom Table	80
THEFT ALM	34	PRECAUTION	81
THEFT ALM : CONSULT-III Function (BCM - THEFT)	34	PRECAUTIONS	81
RETAIND PWR	35	Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TEN- SIONER"	81
RETAIND PWR : CONSULT-III Function (BCM - RETAINED PWR)	35	REMOVAL AND INSTALLATION	82
SIGNAL BUFFER	35	BCM (BODY CONTROL MODULE)	82
SIGNAL BUFFER : CONSULT-III Function (BCM - SIGNAL BUFFER)	35	Exploded View	82
AIR PRESSURE MONITOR	36	Removal and Installation	82
AIR PRESSURE MONITOR : Diagnosis Descrip- tion	36	COMBINATION SWITCH	83
AIR PRESSURE MONITOR : CONSULT-III Func- tion	37	Exploded View	83
DTC/CIRCUIT DIAGNOSIS	39	Removal and Installation	83
U1000 CAN COMM	39	WITHOUT INTELLIGENT KEY SYSTEM	
Description	39	BASIC INSPECTION	84
DTC Logic	39	INSPECTION AND ADJUSTMENT	84
Diagnosis Procedure	39	ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM)	84
U1010 CONTROL UNIT (CAN)	40	ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Description	84
DTC Logic	40	ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Special Repair Require- ment	84
Diagnosis Procedure	40	CONFIGURATION (BCM)	84
U0415 VEHICLE SPEED	41	CONFIGURATION (BCM) : Description	84
Description	41	CONFIGURATION (BCM) : Special Repair Re- quirement	85
DTC Logic	41	CONFIGURATION (BCM) : Configuration list	85
Diagnosis Procedure	41	SYSTEM DESCRIPTION	87
B2562 LOW VOLTAGE	42	BODY CONTROL SYSTEM	87
DTC Logic	42	System Description	87
Diagnosis Procedure	42	Component Parts Location	88
POWER SUPPLY AND GROUND CIRCUIT	43	COMBINATION SWITCH READING SYSTEM	
Diagnosis Procedure	43	89
COMBINATION SWITCH OUTPUT CIRCUIT ...	44	System Diagram	89
Diagnosis Procedure	44	System Description	89
COMBINATION SWITCH INPUT CIRCUIT	46	SIGNAL BUFFER SYSTEM	93
Diagnosis Procedure	46	System Diagram	93
ECU DIAGNOSIS INFORMATION	48	System Description	93
BCM (BODY CONTROL MODULE)	48		
Reference Value	48		

POWER CONSUMPTION CONTROL SYSTEM	94	THEFT ALM	111	
System Diagram	94	THEFT ALM : CONSULT-III Function (BCM -		A
System Description	94	THEFT ALM)	111	
Component Parts Location	96	RETAINED PWR	112	B
DIAGNOSIS SYSTEM (BCM)	97	RETAINED PWR : CONSULT-III Function (BCM -		
COMMON ITEM	97	RETAINED PWR)	112	
COMMON ITEM : CONSULT-III Function (BCM -		SIGNAL BUFFER	112	C
COMMON ITEM)	97	SIGNAL BUFFER : CONSULT-III Function (BCM		
DOOR LOCK	97	- SIGNAL BUFFER)	112	
DOOR LOCK : CONSULT-III Function (BCM -		AIR PRESSURE MONITOR	112	D
DOOR LOCK)	98	AIR PRESSURE MONITOR : Diagnosis Descrip-		
REAR WINDOW DEFOGGER	99	tion	112	E
REAR WINDOW DEFOGGER : CONSULT-III		AIR PRESSURE MONITOR : CONSULT-III Func-		
Function (BCM - REAR DEFOGGER)	99	tion	114	
BUZZER	99	PANIC ALARM	115	F
BUZZER : CONSULT-III Function (BCM - BUZZ-		PANIC ALARM : CONSULT-III Function (BCM -		
ER)	99	PANIC ALARM)	115	
INT LAMP	100	DTC/CIRCUIT DIAGNOSIS	116	G
INT LAMP : CONSULT-III Function (BCM - INT		U1000 CAN COMM	116	
LAMP)	100	Description	116	H
MULTI REMOTE ENT	102	DTC Logic	116	
MULTI REMOTE ENT : CONSULT-III Function		Diagnosis Procedure	116	
(BCM - MULTI REMOTE ENT)	102	U1010 CONTROL UNIT (CAN)	117	I
HEADLAMP	103	DTC Logic	117	
HEADLAMP : CONSULT-III Function (BCM -		Diagnosis Procedure	117	
HEAD LAMP)	103	C1735 IGN CIRCUIT OPEN	118	J
WIPER	106	DTC Logic	118	
WIPER : CONSULT-III Function (BCM - WIPER).	106	Diagnosis Procedure	118	
FLASHER	107	POWER SUPPLY AND GROUND CIRCUIT ..	119	K
FLASHER : CONSULT-III Function (BCM -		Diagnosis Procedure	119	
FLASHER)	107	COMBINATION SWITCH OUTPUT CIRCUIT .	120	L
AIR CONDITIONER	107	Diagnosis Procedure	120	
AIR CONDITIONER : CONSULT-III Function		COMBINATION SWITCH INPUT CIRCUIT	122	
(BCM - AUTO AIR CONDITIONER)	107	Diagnosis Procedure	122	BCS
AIR CONDITIONER : CONSULT-III Function	108	ECU DIAGNOSIS INFORMATION	124	
COMB SW	108	BCM (BODY CONTROL MODULE)	124	N
COMB SW : CONSULT-III Function (BCM -		Reference Value	124	
COMB SW)	108	Wiring Diagram - BCM -	139	O
BCM	109	Fail-safe	142	
BCM : CONSULT-III Function (BCM - BCM)	109	DTC Inspection Priority Chart	143	
IMMU	109	DTC Index	144	P
IMMU : CONSULT-III Function (BCM - IMMU)	109	PRECAUTION	146	
BATTERY SAVER	109	PRECAUTIONS	146	
BATTERY SAVER : CONSULT-III Function (BCM		Precaution for Supplemental Restraint System		
- BATTERY SAVER)	109	(SRS) "AIR BAG" and "SEAT BELT PRE-TEN-		
TRUNK	110	SIONER"	146	
TRUNK : CONSULT-III Function (BCM - TRUNK).	110	SYMPTOM DIAGNOSIS	147	

COMBINATION SWITCH SYSTEM SYMP-		Exploded View	148
TOMS	147	Removal and Installation	148
Symptom Table	147		
REMOVAL AND INSTALLATION	148	COMBINATION SWITCH	149
BCM (BODY CONTROL MODULE)	148	Exploded View	149
		Removal and Installation	149

BASIC INSPECTION

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM)

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Description

INFOID:000000005151606

BEFORE REPLACEMENT

When replacing BCM, save or print current vehicle specification with CONSULT-III configuration before replacement.

NOTE:

If "READ CONFIGURATION" can not be used, use the "WRITE CONFIGURATION - Manual selection" after replacing BCM.


AFTER REPLACEMENT

CAUTION:

- When replacing BCM, you must perform "WRITE CONFIGURATION" with CONSULT-III.
- Complete the procedure of "WRITE CONFIGURATION" in order.
- If you set incorrect "WRITE CONFIGURATION", incidents might occur.
- Configuration is different for each vehicle model. Confirm configuration of each vehicle model.
- When replacing BCM, perform the system initialization (NATS).

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Special Repair Requirement

INFOID:000000005151607

1. SAVING VEHICLE SPECIFICATION CONSULT-III Configuration

Perform "READ CONFIGURATION" to save or print current vehicle specification. Refer to [BCS-5, "CONFIGURATION \(BCM\) : Description"](#).

NOTE:


If "READ CONFIGURATION" can not be used, use the "WRITE CONFIGURATION - Manual selection" after replacing BCM.

>> GO TO 2.

2. REPLACE BCM

Replace BCM. Refer to [BCS-82, "Exploded View"](#).

>> GO TO 3.

3. WRITING VEHICLE SPECIFICATION CONSULT-III Configuration

Perform "WRITE CONFIGURATION - Config file" or "WRITE CONFIGURATION - Manual selection" to write vehicle specification. Refer to [BCS-6, "CONFIGURATION \(BCM\) : Special Repair Requirement"](#).

>> GO TO 4.

4. INITIALIZE BCM (NATS)

Perform BCM initialization. (NATS)

>> WORK END

CONFIGURATION (BCM)**CONFIGURATION (BCM) : Description**

INFOID:000000005151608

Vehicle specification needs to be written with CONSULT-III because it is not written after replacing BCM.

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[WITH INTELLIGENT KEY SYSTEM]

Configuration has three functions as follows

Function	Description
READ CONFIGURATION	<ul style="list-style-type: none">• Reads the vehicle configuration of current BCM.• Saves the read vehicle configuration.
WRITE CONFIGURATION - Manual selection	Writes the vehicle configuration with manual selection.
WRITE CONFIGURATION - Config file	Writes the vehicle configuration with saved data.

CAUTION:

- When replacing BCM, you must perform “WRITE CONFIGURATION” with CONSULT-III.
- Complete the procedure of “WRITE CONFIGURATION” in order.
- If you set incorrect “WRITE CONFIGURATION”, incidents might occur.
- Configuration is different for each vehicle model. Confirm configuration of each vehicle model.
- Never perform “WRITE CONFIGURATION” except for new BCM.

CONFIGURATION (BCM) : Special Repair Requirement

INFOID:000000005151609

1. WRITING MODE SELECTION

ⓅCONSULT-III Configuration
Select “CONFIGURATION” of BCM.

When writing saved data>>GO TO 2.
When writing manually>>GO TO 3.

2. PERFORM “WRITE CONFIGURATION - CONFIG FILE”

ⓅCONSULT-III Configuration
Perform “WRITE CONFIGURATION - Config file”.

>> WORK END

3. PERFORM “WRITE CONFIGURATION - MANUAL SELECTION”

- ⓅCONSULT-III Configuration
1. Select “WRITE CONFIGURATION - Manual selection”.
 2. Identify the correct model and configuration list. Refer to [BCS-6. “CONFIGURATION \(BCM\) : Configuration list”](#).
 3. Confirm and/or change setting value for each item.
CAUTION:
Thoroughly read and understand the vehicle specification. Incorrect settings may result in abnormal control of ECU.
 4. Select “SETTING”.
CAUTION:
Make sure to select “SETTING” even if the indicated configuration of brand new BCM is same as the desirable configuration. If not, configuration which is set automatically by selecting vehicle model can not be memorized.
 5. When “COMMAND FINISHED”, select “END”.

>> GO TO 4.

4. OPERATION CHECK

Confirm that each function controlled by BCM operates normally.

>> WORK END

CONFIGURATION (BCM) : Configuration list

INFOID:000000005151610

CAUTION:

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[WITH INTELLIGENT KEY SYSTEM]

Thoroughly read and understand the vehicle specification. Incorrect settings may result in abnormal control of ECU.

SETTING ITEM		NOTE
Items	Setting value	
DTRL	WITH ⇔ WITHOUT	<ul style="list-style-type: none">• WITH: With daytime running light system• WITHOUT: Without daytime running light system
TRANSMISSION	AT with ABS ⇔ MT with ABS	<ul style="list-style-type: none">• AT with ABS: Except M/T models• MT with ABS: M/T models

⇔: Items which confirm vehicle specifications

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

BCS

BODY CONTROL SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION

BODY CONTROL SYSTEM

System Description

INFOID:000000005061902

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	Reference	
Combination switch reading system	BCS-10, "System Diagram"	
Signal buffer system	BCS-14, "System Diagram"	
Power consumption control system	BCS-15, "System Diagram"	
Auto light system	EXL-11, "System Diagram"	
Turn signal and hazard warning lamp system	EXL-16, "System Diagram"	
Headlamp system	EXL-7, "System Diagram"	
Parking, license plate, side maker and tail lamps system	EXL-18, "System Diagram"	
Front fog lamp system	EXL-14, "System Diagram"	
Exterior lamp battery saver system	EXL-20, "System Diagram"	
Daytime running light system	EXL-9, "System Diagram"	
Interior room lamp control system	INL-5, "System Diagram"	
Interior room lamp battery saver system	INL-8, "System Diagram"	
Front wiper and washer system	WW-6, "System Diagram"	
Rear wiper and washer system	WW-10, "System Diagram"	
Automatic air conditioner	HAC-16, "System Diagram"	
Warning chime system	WCS-5, "WARNING CHIME SYSTEM : System Diagram"	
Power door lock system	DLK-13, "System Diagram"	
Nissan Vehicle Immobilizer System (NVIS) - NATS	SEC-15, "System Diagram"	
Vehicle security system	SEC-20, "System Diagram"	
Panic alarm	SEC-20, "System Description"	
Rear window defogger system	DEF-5, "System Diagram"	
Intelligent Key system/engine start system	Door lock function	
	Remote keyless entry function	
	Key reminder function	DLK-16, "INTELLIGENT KEY SYSTEM : System Diagram"
	Warning function	
	Engine start function	
Power window system	PWC-6, "System Diagram"	
Retained accessory power (RAP) system	PWC-6, "System Description"	
Tire pressure monitor system (TPMS) - AIR PRESSURE MONITOR	WT-9, "System Diagram"	

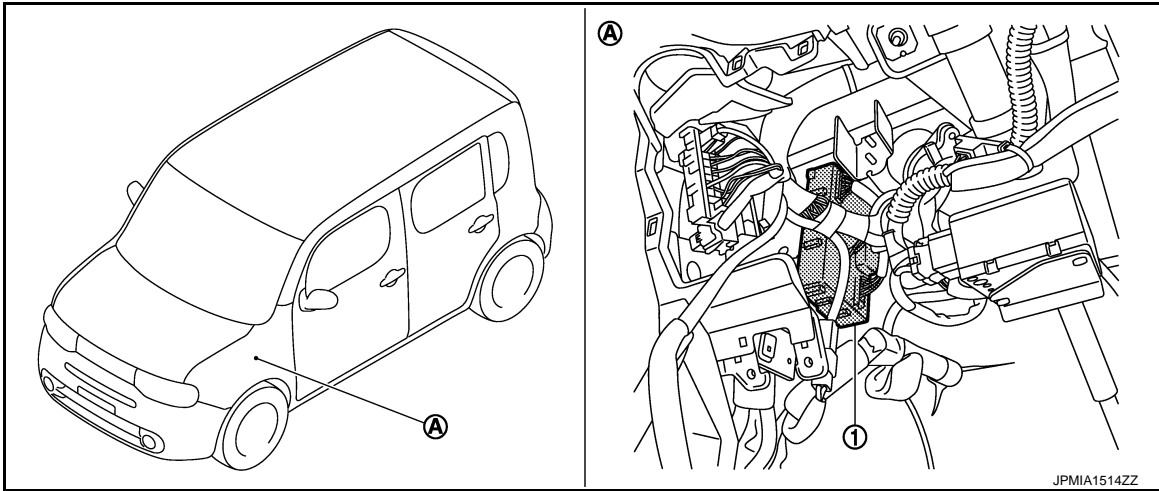
BODY CONTROL SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Component Parts Location

INFOID:000000005061903



- 1. BCM
- A. Behind of instrument lower panel LH
(Left side)

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

BCS

COMBINATION SWITCH READING SYSTEM

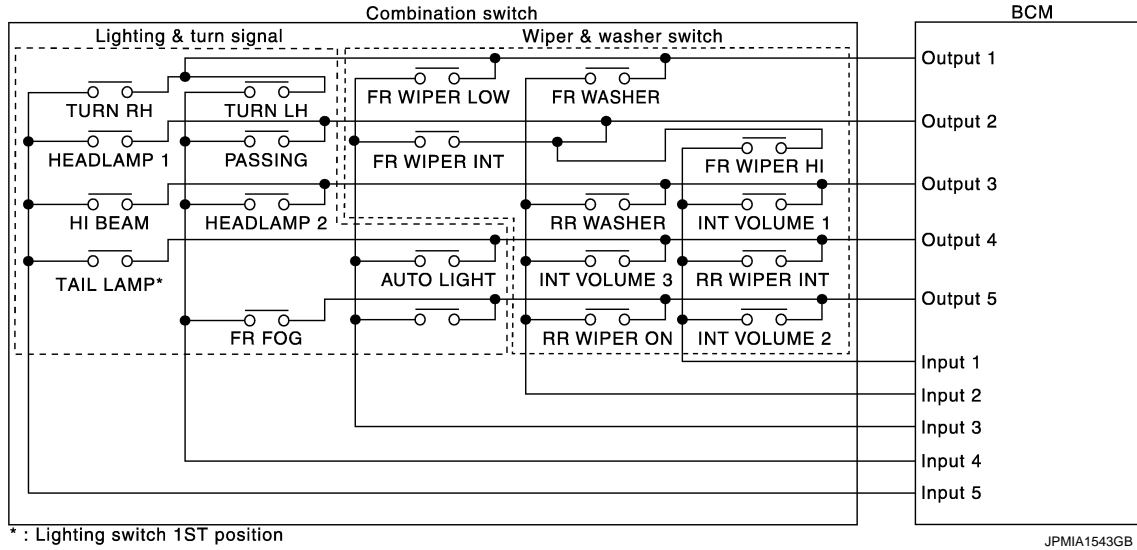
< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

COMBINATION SWITCH READING SYSTEM

System Diagram

INFOID:000000005151613



System Description

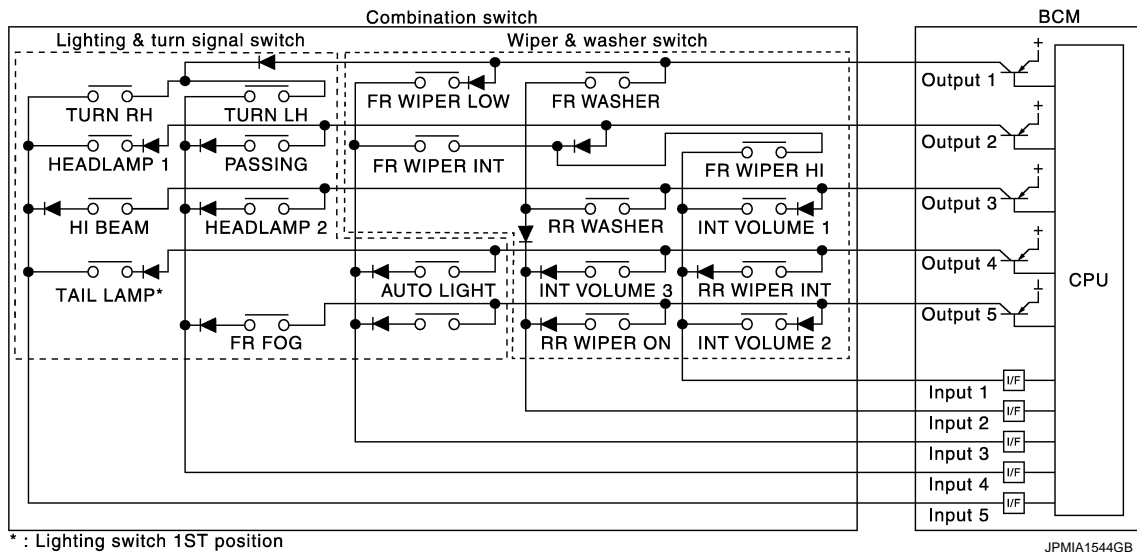
INFOID:000000005151614

OUTLINE

- BCM reads the status of the combination switch (light, turn signal, wiper and washer) and recognizes the status of each switch.
- BCM has 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	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5
OUTPUT 1	—	FR WASHER	FR WIPER LOW	TURN LH	TURN RH
OUTPUT 2	FR WIPER HI	—	FR WIPER INT	PASSING	HEADLAMP 1
OUTPUT 3	INT VOLUME 1	RR WASHER	—	HEADLAMP 2	HI BEAM

COMBINATION SWITCH READING SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

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

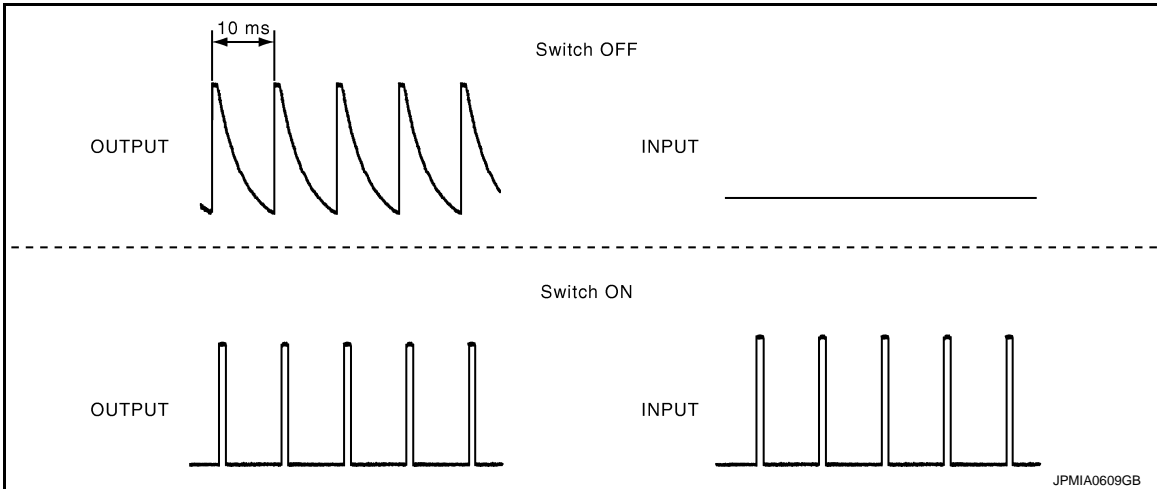
NOTE:

Headlamp has a dual system switch.

COMBINATION SWITCH READING FUNCTION

Description

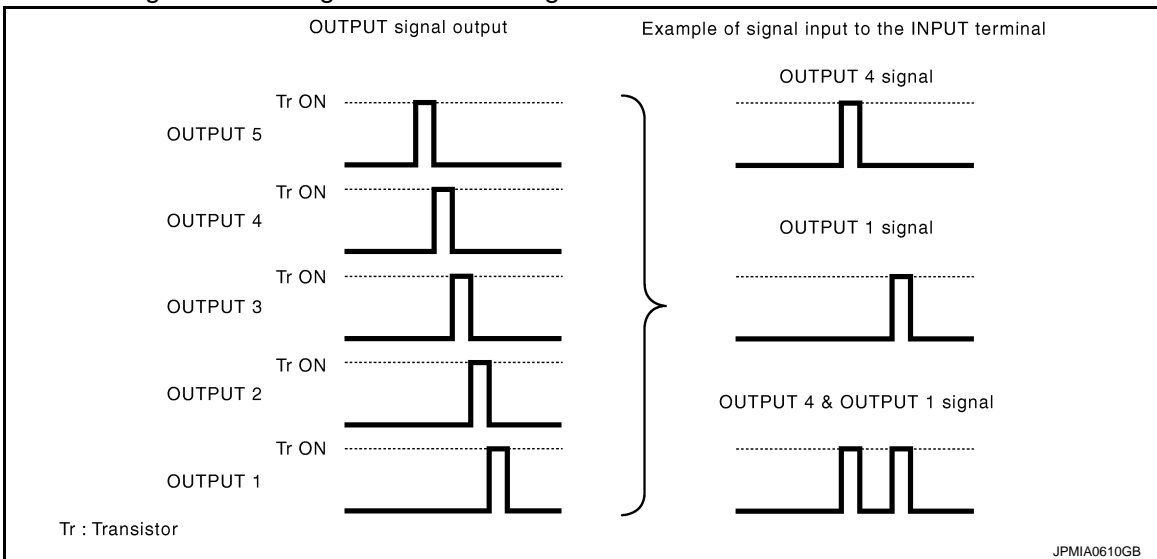
- BCM reads the status of the combination switch at 10 ms interval normally.



NOTE:

BCM reads the status of the combination switch at 65 ms interval when BCM is controlled at low power consumption control mode.

- BCM operates as follows and judges the status of the combination switch.
 - It operates the transistor on OUTPUT side in the following order: OUTPUT 5 → 4 → 3 → 2 → 1, and outputs voltage waveform.
 - The voltage waveform of OUTPUT corresponding to the formed circuit is input into the interface on INPUT 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 (TAIL LAMP switch) is turned ON

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

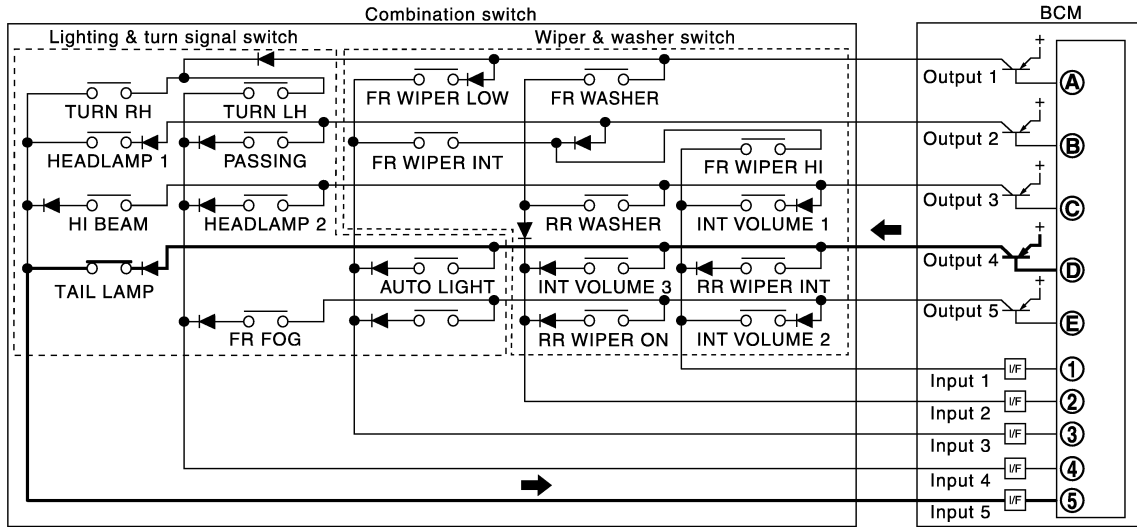
BCS

COMBINATION SWITCH READING SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

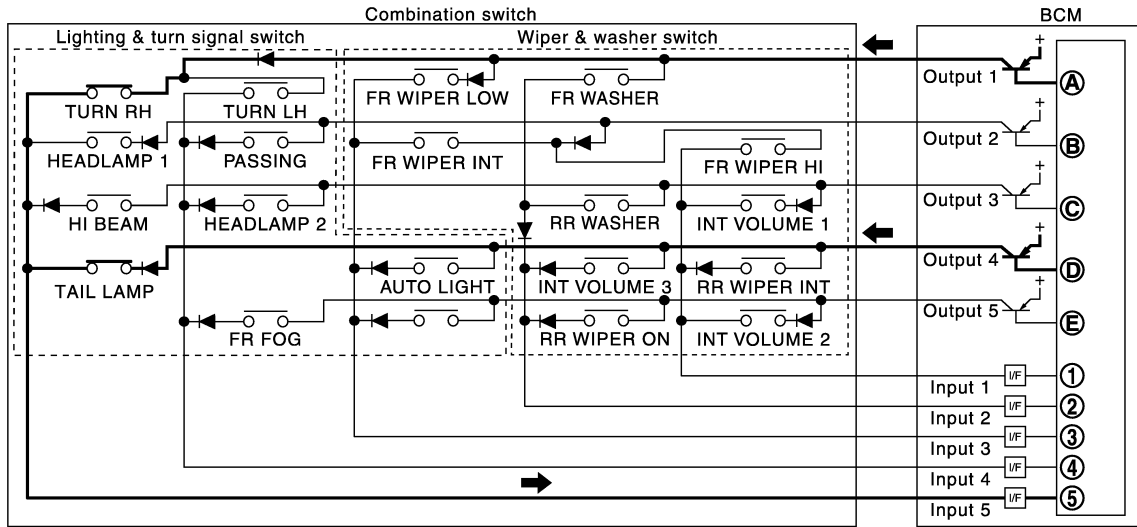
- The circuit between OUTPUT 4 and INPUT 5 is formed when the TAIL LAMP switch is turned ON.



- BCM detects the combination switch status signal "5D" when the signal of OUTPUT 4 is input to INPUT 5.
- BCM judges that the TAIL LAMP switch is ON when the signal "5D" is detected.

Example 2: When some switches (TURN RH switch, TAIL LAMP switch) are turned ON

- The circuits between OUTPUT 1 and INPUT 5 and between OUTPUT 4 and INPUT 5 are formed when the TURN RH switch and TAIL LAMP switch are turned ON.



- BCM detects the combination switch status signal "5AD" when the signals of OUTPUT 1 and OUTPUT 4 are input to INPUT 5.
- BCM judges that the TURN RH switch and TAIL LAMP switch are ON when the signal "5AD" is detected.

WIPER INTERMITTENT DIAL POSITION

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

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

COMBINATION SWITCH READING SYSTEM

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

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

NOTE:

For details of wiper intermittent dial position, refer to [WW-6. "System Description"](#).

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

BCS

SIGNAL BUFFER SYSTEM

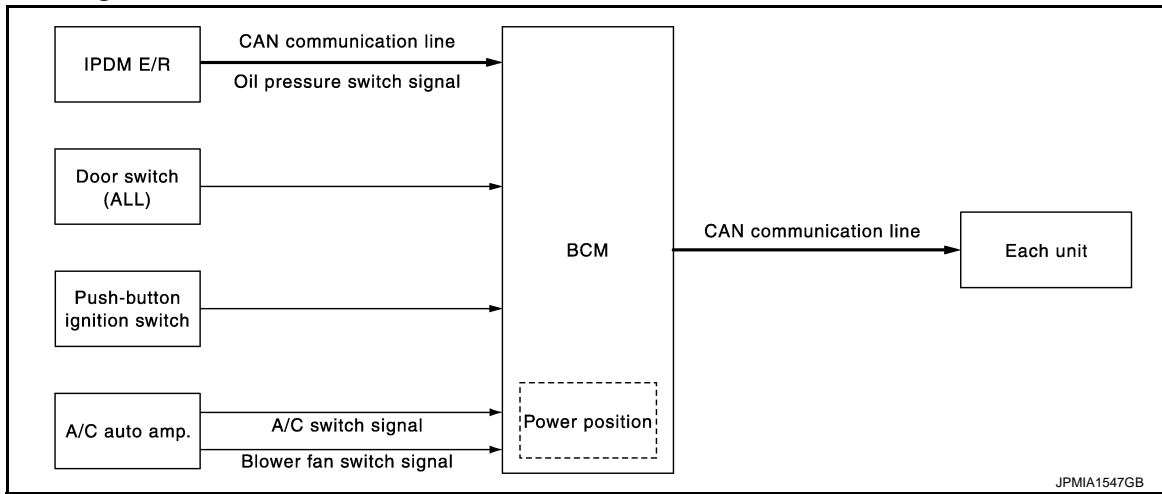
< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

SIGNAL BUFFER SYSTEM

System Diagram

INFOID:000000005061907



System Description

INFOID:000000005061908

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	Push-button ignition switch (Push switch)	IPDM E/R (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	<ul style="list-style-type: none"> Combination meter (CAN) IPDM E/R (CAN) 	Inputs the door switch signal and transmits it via CAN communication.
Blower fan on signal	A/C auto amp.	ECM (CAN)	Input each signals, and transmit the blower fan on signal and A/C on signal via CAN communication.
A/C on signal			
Oil pressure switch signal	IPDM E/R (CAN)	Combination meter (CAN)	Transmits the received oil pressure switch signal via CAN communication.

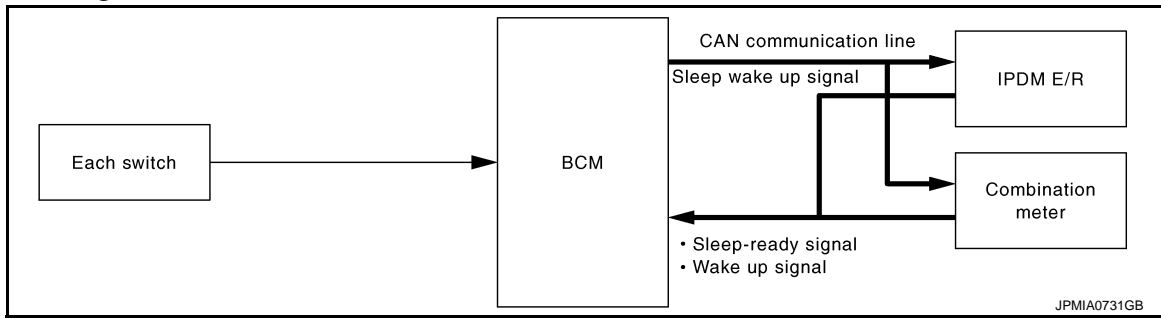
POWER CONSUMPTION CONTROL SYSTEM

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

POWER CONSUMPTION CONTROL SYSTEM

System Diagram



System Description

INFOID:000000005061910

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 and combination meter) 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 combination meter 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.

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

BCS

POWER CONSUMPTION CONTROL SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Sleep condition

CAN sleep condition	BCM sleep condition
<ul style="list-style-type: none"> • Receiving the sleep-ready signal (ready) from all units • Ignition switch: OFF • Vehicle security system and panic alarm: Not operation • Warning chime: Not operation • Intelligent Key system buzzer: Not operation • Stop lamp switch: OFF • Turn signal indicator lamp: Not operation • Exterior lamp: OFF • Door lock status: No change • CONSULT-III communication status: Not communication • Meter display signal: Non-transmission • Door switch status: No change • Rear window defogger: OFF • Driver door lock status: No change 	<ul style="list-style-type: none"> • Interior room lamp battery saver: Time out • RAP system: OFF • Nissan Vehicle Immobilizer System (NVIS) - NATS: Not operation • Remote keyless entry receiver communication status: No communication • Tire pressure monitor system (TPMS) - AIR PRESSURE MONITOR: Stop • ACC/ON indicator lamp: Not operation

Wake-up operation

- BCM transmits sleep wake up signal (wake up) to each unit when any condition listed below is established, and then goes into normal mode from low power consumption mode.
- Each unit starts transmissions with CAN communication by receiving sleep wake up signals. Each unit transmit wake up signals to BCM with CAN communication to convey the start of CAN communication.

Wake-up condition

Wake-up condition
<ul style="list-style-type: none"> • Receiving the sleep-ready signal (Not-ready) from any units • Push-button ignition switch (push switch): OFF → ON • Hazard switch: ON • HI BEAM switch: OFF → ON, ON → OFF • PASSING switch: OFF → ON, ON → OFF • HEADLAMP 1 switch: OFF → ON, ON → OFF • HEADLAMP 2 switch: OFF → ON, ON → OFF • TAIL LAMP switch: OFF → ON • FR FOG switch: OFF → ON, ON → OFF • TURN RH: OFF → ON, ON → OFF • TURN LH: OFF → ON, ON → OFF • Driver door 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 • Back door switch: OFF → ON, ON → OFF • Driver door request switch: OFF → ON • Passenger door request switch: OFF → ON • Back door request switch: OFF → ON • Stop lamp switch: ON • Door lock and unlock switch: NEUTRAL → LOCK, NEUTRAL → UNLOCK • Front door lock assembly (driver side) (door key cylinder switch): NEUTRAL → LOCK, NEUTRAL → UNLOCK • Remote keyless entry receiver communication: Receiving • Front door lock assembly (driver side) (unlock sensor): OFF → ON, ON → OFF

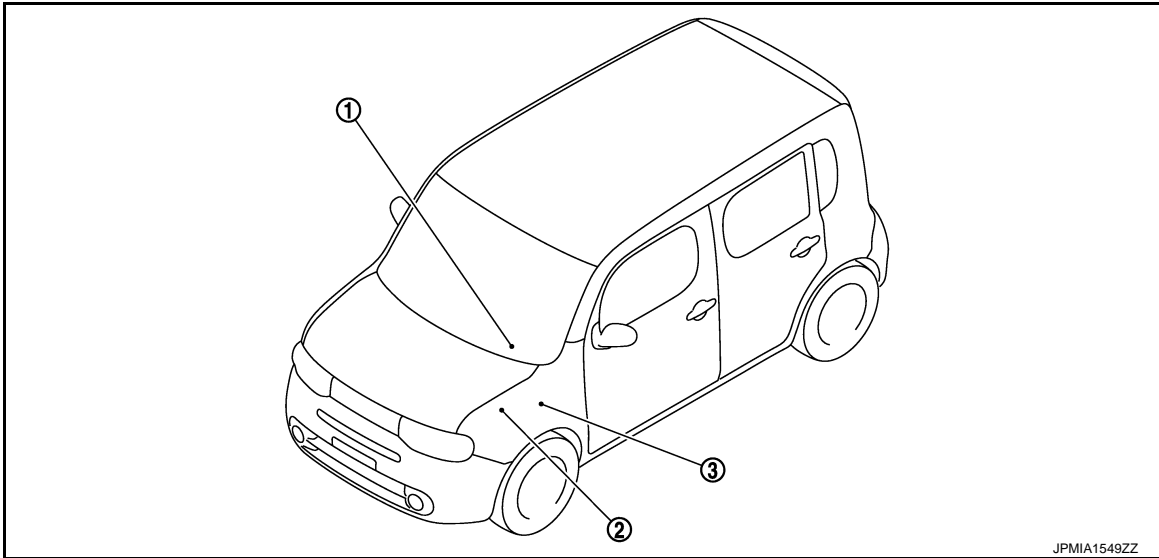
POWER CONSUMPTION CONTROL SYSTEM

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Component Parts Location

INFOID:000000005061911



1. Combination meter

2. IPDM E/R
Refer to [PCS-6. "Component Parts Location"](#).

3. BCM
Refer to [BCS-9. "Component Parts Location"](#).

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

BCS

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

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

INFOID:000000005061912

APPLICATION ITEM

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

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

SYSTEM APPLICATION

BCM can perform the following functions for each system.

NOTE:

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

×: Applicable item

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

FREEZE FRAME DATA (FFD)

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

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

CONSULT screen item	Indication/Unit	Description	
Vehicle Speed	km/h	Vehicle speed of the moment a particular DTC is detected	
Odo/Trip Meter	km	Total mileage (Odometer value) of the moment a particular DTC is detected	
Vehicle Condition	SLEEP>LOCK	Power position status of the moment a particular DTC is detected	While turning BCM status from low power consumption mode to normal mode (Power supply position is "LOCK")
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode (Power supply position is "OFF".)
	LOCK>ACC		While turning power supply position from "LOCK" to "ACC"
	ACC>ON		While turning power supply position from "ACC" to "IGN"
	RUN>ACC		While turning power supply position from "RUN" to "ACC" (Vehicle is stopping and selector lever is except P position.)
	CRANK>RUN		While turning power supply position from "CRANKING" to "RUN" (From cranking up the engine to run it)
	RUN>URGENT		While turning power supply position from "RUN" to "ACC" (Emergency stop operation)
	ACC>OFF		While turning power supply position from "ACC" to "OFF"
	OFF>LOCK		While turning power supply position from "OFF" to "LOCK"
	OFF>ACC		While turning power supply position from "OFF" to "ACC"
	ON>CRANK		While turning power supply position from "IGN" to "CRANKING"
	OFF>SLEEP		While turning BCM status from normal mode (Power supply position is "OFF".) to low power consumption mode
	LOCK>SLEEP		While turning BCM status from normal mode (Power supply position is "LOCK".) to low power consumption mode
	LOCK		Power supply position is "LOCK" (Ignition switch OFF with steering is locked.)
	OFF		Power supply position is "OFF" (Ignition switch OFF with steering is unlocked.)
	ACC		Power supply position is "ACC" (Ignition switch ACC)
ON	Power supply position is "IGN" (Ignition switch ON with engine stopped)		
ENGINE RUN	Power supply position is "RUN" (Ignition switch ON with engine running)		
CRANKING	Power supply position is "CRANKING" (At engine cranking)		
IGN Counter	0 - 39	<p>The number of times that ignition switch is turned ON after DTC is detected</p> <ul style="list-style-type: none"> • The number is 0 when a malfunction is detected now. • The number increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. • The number is fixed to 39 until the self-diagnosis results are erased if it is over 39. 	

DOOR LOCK

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

INFOID:000000005183458

BCM CONSULT-III FUNCTION

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

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

WORK SUPPORT

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor item	Description
DOOR LOCK-UNLOCK SET	Selective unlock function mode can be changed to operation with this mode <ul style="list-style-type: none"> • On: Operate • Off: Non-operation
AUTOMATIC DOOR LOCK SELECT	Automatic door lock function mode can be selected from the following in this mode <ul style="list-style-type: none"> • VH SPD: All doors are locked when vehicle speed more than 24km/h (15MPH) • P RANGE*: All doors are locked when shifting the selector lever from P position to other than the P position
AUTOMATIC DOOR UNLOCK SELECT	Automatic door unlock function mode can be selected from the following in the mode <ul style="list-style-type: none"> • MODE 1: All doors are unlocked when the power supply position is changed from ON to OFF • MODE 2*: All doors are unlocked when shifting the selector lever from any position other than the P to P position • MODE 3: Driver side door is unlocked when the power supply position is changed from ON to OFF • MODE 4*: Driver side door is unlocked when shifting the selector lever from any position other than the P to P position • MODE 5: This item is displayed, but cannot be monitored • MODE 6: This item is displayed, but cannot be monitored
AUTOMATIC LOCK/UNLOCK SET	Automatic door lock/unlock function mode can be selected from the following in this mode. <ul style="list-style-type: none"> • Off: non-operational • Unlock Only: door unlock operation only • Lock Only: door lock operation only • Lock/Unlock: lock/unlock operation

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

DATA MONITOR

Monitor Item	Contents
REQ SW-DR	Indicated [On/Off] condition of door request switch (driver side)
REQ SW-AS	Indicated [On/Off] condition of door request switch (passenger side)
REQ SW-BD/TR	Indicated [On/Off] condition of back door 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	Indicated [On/Off] condition of back door switch
CDL LOCK SW	Indicated [On/Off] condition of lock signal from door lock unlock switch
CDL UNLOCK SW	Indicated [On/Off] condition of unlock signal from door lock unlock switch
KEY CYL LK-SW	Indicated [On/Off] condition of lock signal from door key cylinder
KEY CYL UN-SW	Indicated [On/Off] condition of unlock signal from door key cylinder

ACTIVE TEST

Test item	Description
DOOR LOCK	This test is able to check door lock/unlock operation <ul style="list-style-type: none"> • The all door lock actuators are locked when "ALL 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

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

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

INFOID:000000005183472

DATA MONITOR

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

ACTIVE TEST

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

BUZZER

BUZZER : CONSULT-III Function (BCM - BUZZER)

INFOID:000000005183474

CONSULT-III APPLICATION ITEMS

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

DATA MONITOR

Display item [Unit]	Description
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.
VEH SPEED 1 [km/h]	Value of vehicle speed signal received from combination meter with CAN communication line.
TAIL LAMP SW [On/Off]	Status of lighting switch judged by BCM using the combination switch readout function.
FR FOG SW [On/Off]	Status of front fog lamp switch judged by BCM using the combination switch readout function.
DOOR SW-DR [On/Off]	Status of driver side door switch judged by BCM.
CDL LOCK SW [On/Off]	Status of door lock unlock switch judged by BCM.

ACTIVE TEST

Display item [Unit]	Description
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).

INT LAMP

DIAGNOSIS SYSTEM (BCM)

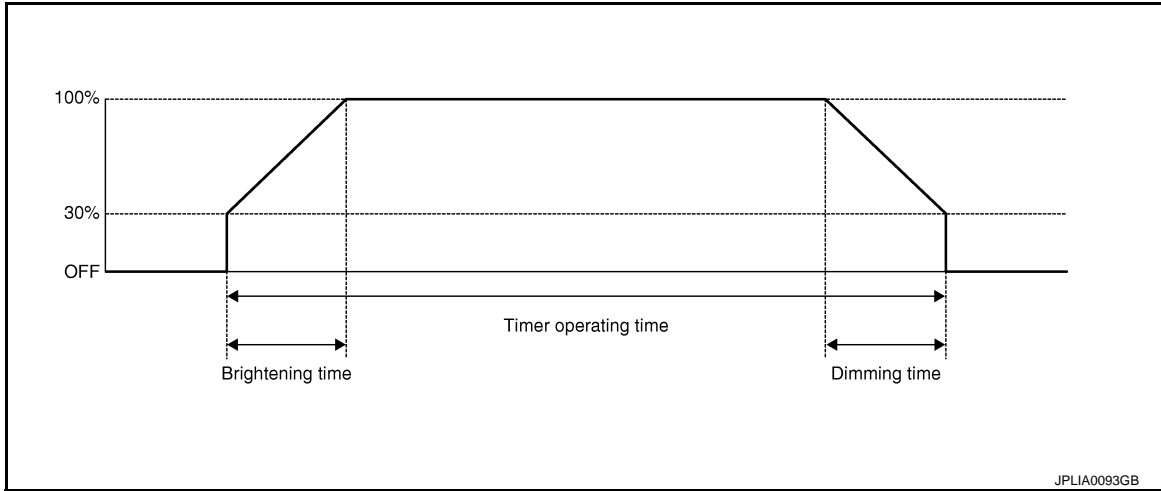
[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

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

INFOID:000000005183468

WORK SUPPORT



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

*: Factory setting

DATA MONITOR

Monitor item [Unit]	Description
REQ SW-DR [On/Off]	The switch status input from request switch (driver side)
REQ SW-AS [On/Off]	The switch status input from request switch (passenger side)
REQ SW-RR [On/Off]	NOTE: The item is indicated, but not monitored.
REQ SW-RL [On/Off]	

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description
PUSH SW [On/Off]	Push switch status received from Intelligent Key unit by CAN communication
UNLK SEN -DR [On/Off]	Driver door unlock status input from unlock sensor
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]	The switch status input from back door switch
CDL LOCK SW [On/Off]	Lock switch status input from door lock and unlock switch
CDL UNLOCK SW [On/Off]	Unlock switch status input from door lock and unlock switch
KEY CYL LK-SW [On/Off]	Lock switch status received from key cylinder lock/unlock switch
KEY CYL UN-SW [On/Off]	Unlock switch status received from key cylinder lock/unlock switch
TRNK/HAT MNTR [On/Off]	NOTE: The item is indicated, but not monitored.
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 the interior room lamps ON. [Map lamp, personal lamp, room lamp, luggage room lamp (when applicable lamps switch is in DOOR position.)]
	Off	Stops the interior room lamp control signal to turn the interior room lamps.

HEADLAMP

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

INFOID:000000005183466

WORK SUPPORT

For USA

Service item	Setting item	Setting
AUTO LIGHT LOGIC SET	MODE 1*	With twilight ON custom & with wiper INT, LO and HI
	MODE 2	With twilight ON custom & with wiper LO and HI
	MODE 3	With twilight ON custom & without
	MODE 4	Without twilight ON custom & with wiper INT, LO and HI
	MODE 5	Without twilight ON custom & with wiper LO and HI
	MODE 6	Without twilight ON custom & without

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Service item	Setting item	Setting
CUSTOM A/LIGHT SETTING	MODE 1 [*]	Normal
	MODE 2	More sensitive setting than normal setting (Turns ON earlier than normal operation.)
	MODE 3	More sensitive setting than MODE 2 (Turns ON earlier than MODE 2.)
	MODE 4	Without twilight ON custom & less sensitive setting than normal setting (Turns ON later than normal operation.)
BATTERY SAVER SET	On [*]	With the exterior lamp battery saver function
	Off	Without the exterior lamp battery saver function
ILL DELAY SET	MODE 1 [*]	45 sec.
	MODE 2	Without the function
	MODE 3	30 sec.
	MODE 4	60 sec.
	MODE 5	90 sec.
	MODE 6	120 sec.
	MODE 7	150 sec.
	MODE 8	180 sec.
		Sets delay timer function timer operation time. (All doors closed)

*: Factory setting

For CANADA

Service item	Setting item	Setting
AUTO LIGHT LOGIC SET	MODE 1	NOTE: The item is indicated, but not operated.
	MODE 2	
	MODE 3	
	MODE 4	
	MODE 5	
	MODE 6	
CUSTOM A/LIGHT SETTING	MODE 1 [*]	Normal
	MODE 2	More sensitive setting than normal setting (Turns ON earlier than normal operation.)
	MODE 3	More sensitive setting than MODE 2 (Turns ON earlier than MODE 2.)
	MODE 4	Less sensitive setting than normal setting (Turns ON later than normal operation.)
BATTERY SAVER SET	On [*]	With the exterior lamp battery saver function
	Off	Without the exterior lamp battery saver function
ILL DELAY SET	MODE 1 [*]	45 sec.
	MODE 2	Without the function
	MODE 3	30 sec.
	MODE 4	60 sec.
	MODE 5	90 sec.
	MODE 6	120 sec.
	MODE 7	150 sec.
	MODE 8	180 sec.
		Sets delay timer function timer operation time. (All doors closed)

*: Factory setting

DATA MONITOR

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description	A
PUSH SW [On/Off]	The switch status input from push-button ignition switch	B
ENGINE STATE [Stop/Stall/Crank/Run]	The engine status received from ECM with CAN communication	C
VEH SPEED 1 [km/h]	The value of the vehicle speed received from combination meter with CAN communication	D
HI BEAM SW [On/Off]	Each switch status that BCM judges from the combination switch reading function	E
HEAD LAMP SW1 [On/Off]		F
HEAD LAMP SW2 [On/Off]		G
LIGHT SW 1ST [On/Off]		H
PASSING SW [On/Off]		I
FR FOG SW [On/Off]		J
AUTO LIGHT SW [On/Off]		K
DOOR SW-DR [On/Off]	The switch status input from front door switch (driver side)	L
DOOR SW-AS [On/Off]	The switch status input from front door switch (passenger side)	M
DOOR SW-RR [On/Off]	The switch status input from rear door switch RH	N
DOOR SW- RL [On/Off]	The switch status input from rear door switch LH	O
BACK DOOR SW [On/Off]	The switch status input from back door switch	P
TURN SIGNAL R [On/Off]	Each switch status that BCM judges from the combination switch reading function	Q
TURN SIGNAL L [On/Off]		R
TAIL LAMP SW [On/Off]		S
OPTICAL SENSOR [On/Off]	The sensor status input from optical sensor	T
OPTI SEN (DTCT) [V]	The value of outside brightness voltage input from the optical sensor	U
OPTI SEN (FILT) [V]	The value of outside brightness voltage filtered by BCM	V

BCS

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.

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Test item	Operation	Description
HEAD LAMP	Hi	Transmits the high beam request signal with CAN communication to turn the headlamp (HI).
	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.
ILL DIM SIGNAL	On	NOTE: The item is indicated, but cannot be tested.
	Off	

WIPER

WIPER : CONSULT-III Function (BCM - WIPER)

INFOID:000000005183470

WORK SUPPORT

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

*:Factory setting

DATA MONITOR

Monitor Item [Unit]	Description
PUSH SW [Off/On]	The switch status input from push-button ignition switch.
VEH SPEED 1 [km/h]	The value of the vehicle speed signal received from combination meter with CAN communication.
FR WIPER HI [Off/On]	Each switch status that BCM judges from the combination switch reading function.
FR WIPER LOW [Off/On]	
FR WASHER SW [Off/On]	
FR WIPER INT [Off/On]	
FR WIPER STOP [Off/On]	Front wiper motor (stop position) status received from IPDM E/R with CAN communication.
INT VOLUME [1 - 7]	Each switch status that BCM judges from the combination switch reading function.
RR WIPER ON [Off/On]	Each switch status that BCM judges from the combination switch reading function.
RR WIPER INT [Off/On]	
RR WASHER SW [Off/On]	

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor Item [Unit]	Description
RR WIPER STOP [Off/On]	Rear wiper motor (stop position) status input from the rear wiper motor.
RAIN SENSOR [Off/On]	NOTE: The item is indicated, but not monitored.

ACTIVE TEST

Test item	Operation	Description
FR WIPER	Hi	Transmits the front wiper request signal (HI) to IPDM E/R with CAN communication to operate the front wiper HI operation.
	Lo	Transmits the front wiper request signal (LO) to IPDM E/R with CAN communication to operate the front wiper LO operation.
	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.
RR WIPER	On	Outputs the voltage to operate the rear wiper motor.
	Off	Stops the voltage to stop.

FLASHER

FLASHER : CONSULT-III Function (BCM - FLASHER)

INFOID:000000005183467

WORK SUPPORT

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

*: Factory setting

DATA MONITOR

Monitor item [Unit]	Description
REQ SW-DR [On/Off]	The switch status input from the request switch (driver side)
REQ SW-AS [On/Off]	The switch status input from the request switch (passenger side)
PUSH SW [On/Off]	The switch status input from the push-button ignition switch
TURN SIGNAL R [On/Off]	Each switch status that BCM detects from the combination switch reading function
TURN SIGNAL L [On/Off]	
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

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

BCS

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description
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
FLASHER	RH	Outputs the voltage to blink the right side turn signal lamps.
	LH	Outputs the voltage to blink the left side turn signal lamps.
	Off	Stops the voltage to turn the turn signal lamps OFF.

AIR CONDITIONER

AIR CONDITIONER : CONSULT-III Function (BCM - AUTO AIR CONDITIONER)

INFOID:000000005183473

DATA MONITOR

Display Item List

Monitor Item [Unit]	Contents
FAN ON SIG [On/Off]	Displays the blower fan status as judged from the A/C auto amp.
AIR COND SW [On/Off]	Displays [COMP (On)/COMP (Off)] status as judged from the A/C auto amp.

INTELLIGENT KEY

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

INFOID:000000005183459

WORK SUPPORT

Monitor item	Description
CONFIRM KEY FOB ID	It can be checked whether Intelligent Key ID code is registered or not in this mode
AUTO LOCK SET	Auto door lock time can be changed in this mode <ul style="list-style-type: none">• MODE 1: OFF• MODE 2: 30 sec• MODE 3: 1 minute• MODE 4: 2 minutes• MODE 5: 3 minutes• MODE 6: 4 minutes• MODE 7: 5 minutes
LOCK/UNLOCK BY I-KEY	Door lock/unlock function by door request switch mode can be changed to operation in this mode <ul style="list-style-type: none">• On: Operate• Off: Non-operation
ENGINE START BY I-KEY	Engine start function mode can be changed to operation with this mode <ul style="list-style-type: none">• On: Operate• Off: Non-operation
TRUNK/GLASS HATCH OPEN	NOTE: This item is displayed, but cannot be monitored
PANIC ALARM SET	Panic alarm button pressing time on Intelligent Key remote control button can be selected from the following with this mode <ul style="list-style-type: none">• MODE 1: 0.5 sec• MODE 2: Non-operation• MODE 3: 1.5 sec
TRUNK OPEN DELAY	NOTE: This item is displayed, but cannot be monitored

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor item	Description
LO- BATT OF KEY FOB WARN	Intelligent Key low battery warning mode can be changed to operation with this mode <ul style="list-style-type: none"> • On: Operate • Off: Non-operation
ANTI KEY LOCK IN FUNCTI	Key reminder function mode can be changed to operation with this mode <ul style="list-style-type: none"> • On: Operate • Off: Non-operation
HAZARD ANSWER BACK	Hazard reminder function mode by door request switch and Intelligent Key button can be selected from the following with this mode <ul style="list-style-type: none"> • Lock Only: Door lock operation only • Unlock Only: Door unlock operation only • Lock/Unlock: Lock/unlock operation • Off: Non-operation
ANS BACK I-KEY LOCK	Buzzer reminder function (lock operation) mode by door request switch (driver side and passenger side) can be selected from the following with this mode <ul style="list-style-type: none"> • Horn Chirp: Sound horn • Buzzer: Sound Intelligent Key warning buzzer • Off: Non-operation
ANS BACK I-KEY UNLOCK	Buzzer reminder function (unlock operation) mode by door request switch can be changed to operation with this mode <ul style="list-style-type: none"> • On: Operate • Off: Non-operation
SHORT CRANKING OUTPUT	Starter motor can operate during the times below
INSIDE ANT DIAGNOSIS	This function allows inside key antenna self-diagnosis
HORN WITH KEYLESS LOCK	Horn reminder function mode by Intelligent Key button can be changed to operate (ON) or not operate (OFF) with this mode <ul style="list-style-type: none"> • On: Operate • Off: Non-operation

SELF-DIAG RESULT

Refer to [DLK-138, "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 back door request switch
PUSH SW	Indicates [On/Off] condition of push-button ignition switch
CLUTCH SW*1	Indicates [On/Off] condition of clutch switch
BRAKE SW 1	Indicates [On/Off]*2 condition of brake switch power supply
BRAKE SW 2	Indicates [On/Off] condition of brake switch
DETE/CANCL SW	Indicates [On/Off] condition of P position
SFT PN/N SW	Indicates [On/Off] condition of P or N position
S/L -LOCK	Indicates [On/Off] condition of steering lock unit (LOCK)
S/L -UNLOCK	Indicates [On/Off] condition of steering lock unit (UNLOCK)
S/L RELAY -F/B	Indicates [On/Off] condition of steering lock relay
UNLK SEN -DR	Indicates [On/Off] condition of driver door UNLOCK status
PUSH SW -IPDM	Indicates [On/Off] condition of push-button ignition switch
IGN RLY1 -F/B	Indicates [On/Off] condition of ignition relay 1
DETE SW -IPDM	Indicates [On/Off] condition of P position
SFT PN -IPDM	Indicates [On/Off] condition of P or N position
SFT P -MET	Indicates [On/Off] condition of P position

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor Item	Condition
SFT N -MET	Indicates [On/Off] condition of N position
ENGINE STATE	Indicates [Stop/Stall/Crank/Run] condition of engine states
S/L LOCK-IPDM	Indicates [On/Off] condition of steering lock unit (LOCK)
S/L UNLK-IPDM	Indicates [On/Off] condition of steering lock unit (UNLOCK)
S/L RELAY-REQ	Indicates [On/Off] condition of steering lock relay
VEH SPEED 1	Display the vehicle speed signal received from combination meter by numerical value [Km/h]
VEH SPEED 2	Display the vehicle speed signal received from ABS or VDC or TCM by numerical value [Km/h]
DOOR STAT-DR	Indicates [LOCK/READY/UNLK] condition of driver side door status
DOOR STAT-AS	Indicates [LOCK/READY/UNLK] condition of passenger side door status
ID OK FLAG	Indicates [Set/Reset] condition of key ID
PRMT ENG STRT	Indicates [Set/Reset] condition of engine start possibility
PRMT RKE STRT	NOTE: This item is displayed, but cannot be monitored
TRNK/HAT MNTR	NOTE: This item is displayed, but cannot be monitored
RKE-LOCK	Indicates [On/Off] condition of LOCK signal from Intelligent Key
RKE-UNLOCK	Indicates [On/Off] condition of UNLOCK signal from Intelligent Key
RKE-TR/BD	NOTE: This item is displayed, but cannot be monitored
RKE-PANIC	Indicates [On/Off] condition of PANIC button of Intelligent Key
RKE-MODE CHG	Indicates [On/Off] condition of MODE CHANGE signal from Intelligent Key
RKE OPE COUN1	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing
RKE OPE COUN2	NOTE: This item is displayed, but cannot be monitored

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

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

ACTIVE TEST

Test item	Description
BATTERY SAVER	This test is able to check interior room lamp operation <ul style="list-style-type: none"> • On: Operate • Off: Non-operation
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation <ul style="list-style-type: none"> • On: Operate • Off: Non-operation
INSIDE BUZZER	This test is able to check warning chime in combination meter operation <ul style="list-style-type: none"> • Take out: Take away warning chime sounds when CONSULT-III screen is touched • Key: Key warning chime sounds when CONSULT-III screen is touched • Knob: OFF position warning chime sounds when CONSULT-III screen is touched
INDICATOR	This test is able to check warning lamp operation <ul style="list-style-type: none"> • KEY ON: "KEY" Warning lamp illuminates when CONSULT-III screen is touched • "KEY" Warning lamp blinks when CONSULT-III screen is touched
INT LAMP	This test is able to check interior room lamp operation <ul style="list-style-type: none"> • On: Operate • Off: Non-operation

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Test item	Description
LCD	This test is able to check meter display information <ul style="list-style-type: none"> • BP N: Engine start operation indicator lamp indicate when CONSULT-III screen is touched • BP I: Engine start operation indicator lamp indicate when CONSULT-III screen is touched • ID NG: This item is displayed, but cannot be monitored • ROTAT: This item is displayed, but cannot be monitored • SFT P: Shift P warning lamp indicate when CONSULT-III screen is touched • INSRT: This item is displayed, but cannot be monitored • BATT: Key warning lamp indicator when CONSULT-III screen is touched • NO KY: This item is displayed, but cannot be monitored • OUTKEY: Engine start operation indicator lamp indicate when CONSULT-III screen is touched • LK WN: Engine start operation indicator lamp indicate when CONSULT-III screen is touched
FLASHER	This test is able to check security hazard lamp operation The hazard lamps are activated after "LH/RH/Off" on CONSULT-III screen is touched
HORN	This test is able to check horn operation The horn is activated after "ON" on CONSULT-III screen is touched
P RANGE	This test is able to check CVT shift selector power supply <ul style="list-style-type: none"> • On: Operate • Off: Non-operation
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
PUSH SWITCH INDICATOR	This test is able to check LOCK indicator in push-ignition switch operation LOCK indicator in push-ignition switch illuminates when "ON" on CONSULT-III screen is touched
TRUNK/BACK DOOR	NOTE: This item is displayed, but cannot be monitored

COMB SW

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

INFOID:000000005061922

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.
INT VOLUME [1 - 7]	Displays the status of wiper intermittent dial position judged by BCM with the combination switch reading function.
RR WIPER ON [Off/On]	Displays the status of the RR WIPER ON switch in combination switch judged by BCM with the combination switch reading function.
RR WIPER INT [Off/On]	Displays the status of the RR WIPER INT switch in combination switch judged by BCM with the combination switch reading function.
RR WASHER SW [Off/On]	Displays the status of the RR WASHER switch in combination switch 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.
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.

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor item [UNIT]	Description
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:000000005061923

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:000000005183464

DATA MONITOR

Monitor item	Content
CONFIRM ID ALL	Indicates [YET] at all time. Switches to [DONE] when a registered Intelligent Key backside is contacted to push-button ignition switch.
CONFIRM ID4	
CONFIRM ID3	
CONFIRM ID2	
CONFIRM ID1	
NOT REGISTERED	Indicates [ID OK] when key ID that is registered is received or is not yet received. Indicates [ID NG] when key ID that is not registered is received.
TP 4	Indicates the number of IDs that are registered.
TP 3	
TP 2	
TP 1	
PUSH SW	Indicates [ON/OFF] condition of push-button ignition switch.

ACTIVE TEST

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

WORK SUPPORT

Service item	Description
CONFIRM DONGLE ID	It is possible to check that dongle unit is applied to the vehicle.

BATTERY SAVER

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

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

INFOID:000000005183469

WORK SUPPORT

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

*:Factory setting

DATA MONITOR

Monitor item [Unit]	Description
REQ SW-DR [On/Off]	The switch status input from request switch (driver side)
REQ SW-AS [On/Off]	The switch status input from front request switch (passenger side)
REQ SW-RR [On/Off]	NOTE: The item is indicated, but not monitored.
REQ SW-RL [On/Off]	
PUSH SW [On/Off]	Push switch status received from Intelligent Key unit by CAN communication
UNLK SEN-DR [On/Off]	Driver door unlock status input from unlock sensor
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]	The switch status input from back door switch
CDL LOCK SW [On/Off]	Lock switch status input from door lock and unlock switch
CDL UNLOCK SW [On/Off]	Unlock switch status input from door lock and unlock switch
KEY CYL LK-SW [On/Off]	Lock switch status received from key cylinder lock/unlock switch
KEY CYL UN-SW [On/Off]	Unlock switch status received from key cylinder lock/unlock switch
TRNK/HAT MNTR [On/Off]	NOTE: The item is indicated, but not monitored.
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

A

B

C

D

E

F

G

H

I

J

K

L

BCS

N

O

P

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

ACTIVE TEST

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

*: Each lamp switch is in ON position.

TRUNK

TRUNK : CONSULT-III Function (BCM - TRUNK)

INFOID:000000005183460

BCM CONSULT-III FUNCTION

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

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

DATA MONITOR

Monitor Item	Contents
PUSH SW	Indicates [On/Off] condition of push switch
UNLK SEN -DR	Indicates [On/Off] condition of unlock sensor
VEH SPEED 1	Indicates [Km/h] condition of vehicle speed signal from combination meter
TR/BD OPEN SW	NOTE: This item is displayed, but cannot be monitored
TRNK/HAT MNTR	NOTE: This item is displayed, but cannot be monitored
RKE-TR/BD	NOTE: This item is displayed, but cannot be monitored

ACTIVE TEST

Test item	Description
TRUNK/GLASS HATCH	NOTE: This item is displayed, but cannot be monitored

THEFT ALM

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

INFOID:000000005183463

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 -RR	NOTE: This is displayed even when it is not equipped.
REQ SW -RL	NOTE: This is displayed even when it is not equipped.
REQ SW -BD/TR	Indicates [ON/OFF] condition of back door 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.
DOOR SW-DR	Indicates [ON/OFF] condition of front door switch (driver side).
DOOR SW-AS	Indicates [ON/OFF] condition of front door switch (passenger side).

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitored Item	Description
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	Indicates [ON/OFF] condition of back door switch.
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 door key cylinder.
KEY CYL UN-SW	Indicates [ON/OFF] condition of unlock signal from door key cylinder.
TR/BD OPEN SW	NOTE: This is displayed even when it is not equipped.
TRNK/HAT MNTR	NOTE: This is displayed even when it is not equipped.
RKE-LOCK	Indicates [ON/OFF] condition of LOCK signal from Intelligent Key.
RKE-UNLOCK	Indicates [ON/OFF] condition of UNLOCK signal from Intelligent Key.
RKE-TR/BD	NOTE: This is displayed even when it is not equipped.

WORK SUPPORT

Service 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. Security indicator lamp is turned on when "ON" on CONSULT-III screen is touched.
VEHICLE SECURITY HORN	This test is able to check horn operation. Horn is activated for 0.5 seconds after "ON" on CONSULT-III screen is touched.
HEADLAMP(HI)	This test is able to check headlamp operation. Headlamps are activated for 0.5 seconds after "ON" on CONSULT-III screen is touched.
FLASHER	This test is able to check hazard warning lamp operation. Hazard warning lamps are activated after "ON" on CONSULT-III screen is touched.

RETAINED PWR

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

INFOID:000000005183465

Data monitor

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:000000005061929

DATA MONITOR

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

BCS

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

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	Operation	Description
OIL PRESSURE SW	Off	OFF
	On	BCM transmits the oil pressure switch signal to the combination meter via CAN communication, which illuminates the oil pressure warning lamp in the combination meter.

AIR PRESSURE MONITOR

AIR PRESSURE MONITOR : Diagnosis Description

INFOID:000000005183461

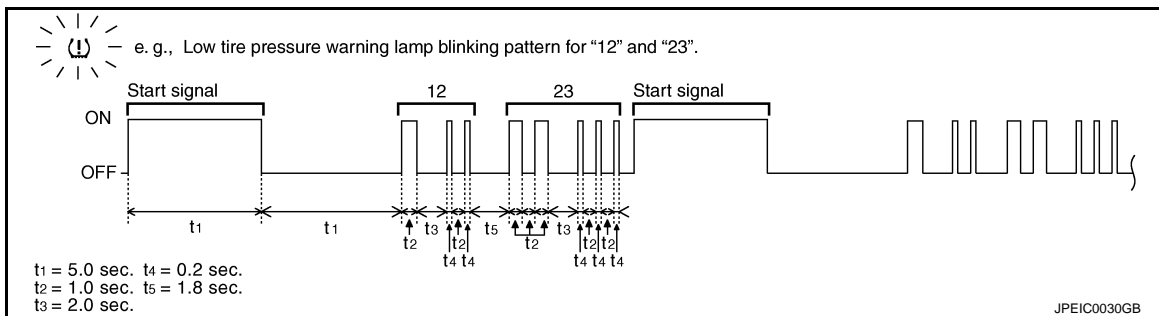
DESCRIPTION

During driving, the transmitter installed at each road wheel transmits the tire pressure information signal to the receiver. The receiver receives the tire pressure signal and transmits it to the BCM. The BCM judges whether or not the tire pressure is OK based on the tire pressure information signal, and if it judges that the tire pressure is low, it transmits the information via CAN communication to the combination meter.

After receiving the tire pressure information via CAN communication from the BCM, the combination meter illuminates the low tire pressure warning lamp and displays.

SELF DIAGNOSTIC PROCEDURE

- Initiate diagnosis mode by short-circuiting the low tire pressure warning check switch to the ground.
- The blinking pattern of the low tire pressure warning lamp indicates the conditions of the malfunction.



NOTE:

If the low tire pressure warning lamp is blinking repeatedly at 5 Hz, there is no malfunction occurring in the system.

Blinking pattern	Items	Diagnostic items detected when...	Check item
15	Tire pressure value (Front LH)	Front LH tire pressure drops to 182.7 kPa (1.9 kg/cm ² , 26 psi) or less.	WT-16
16	Tire pressure value (Front RH)	Front RH tire pressure drops to 182.7 kPa (1.9 kg/cm ² , 26 psi) or less.	
17	Tire pressure value (Rear RH)	Rear RH tire pressure drops to 182.7 kPa (1.9 kg/cm ² , 26 psi) or less.	
18	Tire pressure value (Rear LH)	Rear LH tire pressure drops to 182.7 kPa (1.9 kg/cm ² , 26 psi) or less.	
21	Transmitter no data (Front LH)	Data from front LH transmitter cannot be received.	WT-18
22	Transmitter no data (Front RH)	Data from front RH transmitter cannot be received.	
23	Transmitter no data (Rear RH)	Data from rear RH transmitter cannot be received.	
24	Transmitter no data (Rear LH)	Data from rear LH transmitter cannot be received.	

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Blinking pattern	Items	Diagnostic items detected when...	Check item	
31	Transmitter checksum error (Front LH)	Checksum data from front LH transmitter is malfunctioning.		A
32	Transmitter checksum error (Front RH)	Checksum data from front RH transmitter is malfunctioning.	WT-21	B
33	Transmitter checksum error (Rear RH)	Checksum data from rear RH transmitter is malfunctioning.		C
34	Transmitter checksum error (Rear LH)	Checksum data from rear LH transmitter is malfunctioning.		
35	Transmitter pressure data error (Front LH)	Air pressure data from front LH transmitter is malfunction.	WT-24	D
36	Transmitter pressure data error (Front RH)	Air pressure data from front RH transmitter is malfunction.		E
37	Transmitter pressure data error (Rear RH)	Air pressure data from rear RH transmitter is malfunction.		F
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.	WT-26	G
42	Transmitter function code error (Front RH)	Function code data from front RH transmitter is malfunction.		H
43	Transmitter function code error (Rear RH)	Function code data from rear RH transmitter is malfunction.		I
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.	WT-29	J
46	Transmitter battery voltage low (Front RH)	Battery voltage of front RH transmitter drops.		K
47	Transmitter battery voltage low (Rear RH)	Battery voltage of rear RH transmitter drops.		
48	Transmitter battery voltage low (Rear LH)	Battery voltage of rear LH transmitter drops.		
52	Vehicle speed signal error	Vehicle speed signal error.	WT-32	L
53	Control unit	Tire pressure monitoring system malfunction in BCM.	WT-34	
No blinking	Tire pressure warning check switch	Tire pressure warning switch circuit is open.	-	BCS

ERASE SELF-DIAGNOSIS

After performing self-diagnosis by short-circuiting the tire pressure warning check switch to the body, turn the ignition switch OFF.

AIR PRESSURE MONITOR : CONSULT-III Function

INFOID:000000005183462

FUNCTION

The diagnosis functions (main functions) include the following: "WORK SUPPORT", "SELF DIAGNOSTIC RESULT", "DATA MONITOR" and "ACTIVE TEST".

Diagnostic test mode	Function
Work support	In this mode, it is possible to make quick and accurate adjustments by following the instructions on the CONSULT-III display.
Self diagnostic result	Receives self-diagnosis results from the low tire pressure warning control unit, and indicates DTCs and the number of malfunctions.

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Diagnostic test mode	Function
Data monitor	Receives input/output signals from the low tire pressure warning control unit and indicates and stores them to facilitate locating the causes of malfunctions.
Active test	Transmits command to the low tire pressure warning control unit to change output signals and check operation of output system.

WORK SUPPORT MODE

Refer to [WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement"](#).

SELF-DIAG RESULTS MODE

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.

Monitor item (Unit)	Remark
AIR PRESS FL (kPa), (kg/cm ²), (Psi)	Air pressure of tires
AIR PRESS FR (kPa), (kg/cm ²), (Psi)	
AIR PRESS RR (kPa), (kg/cm ²), (Psi)	
AIR PRESS RL (kPa), (kg/cm ²), (Psi)	
ID REGST FL1	ID is registered: Done ID is not registered: Yet
ID REGST FR1	
ID REGST RR1	
ID REGST RL1	
WARNING LAMP	Low tire pressure warning lamp ON: On Low tire pressure warning lamp OFF: Off
BUZZER	Combination meter buzzer ON: On Combination meter buzzer 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 erase the actual malfunction may be different from that displayed on CONSULT-III.

TEST ITEM LIST

Test item	Content
WARNING LAMP	This test is able to check to check that the low tire pressure warning lamp turns on.
ID REGIST WARNING	This test is able to check to check that the buzzer sounds or the low tire pressure warning lamp turns on.
RUN FLAT TIRE W/L	NOTE: This item is displayed, but cannot be use this item.
FLASHER	This test is able to check to check that each turn signal lamp turns on.
HORN	This test is able to check to check that the horn sounds.

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM

Description

INFOID:000000005061932

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-23, "CAN Communication Signal Chart"](#).

DTC Logic

INFOID:000000005061933

DTC DETECTION LOGIC

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

Diagnosis Procedure

INFOID:000000005061934

1.PERFORM SELF DIAGNOSTIC

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

Is DTC "U1000" displayed?

- YES >> Refer to [LAN-14, "Trouble Diagnosis Flow Chart"](#).
- NO >> Refer to [GI-34, "Intermittent Incident"](#).

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

BCS

U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

U1010 CONTROL UNIT (CAN)

DTC Logic

INFOID:000000005061935

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:000000005061936

1. REPLACE BCM

When DTC "U1010" is detected, replace BCM.

>> Replace BCM. Refer to [BCS-82. "Exploded View"](#).

U0415 VEHICLE SPEED

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

U0415 VEHICLE SPEED

Description

INFOID:000000005061937

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

DTC Logic

INFOID:000000005061938

DTC DETECTION LOGIC

DTC	CONSULT-III display description	DTC Detection Condition	Probable cause
U0415	VEHICLE SPEED	When the vehicle speed signal received from the ABS actuator and electric unit (control unit) remains abnormal for 2 seconds or more.	<ul style="list-style-type: none">• ABS actuator and electric unit (control unit)• BCM

DTC CONFIRMATION PROCEDURE

1. DTC CONFIRMATION

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

Is any DTC detected?

- YES >> Refer to [BCS-41, "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000005061939

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

Perform "Self-Diagnostic Result" of ABS actuator and electric unit (control unit) with CONSULT-III. Refer to [BRC-22, "CONSULT-III Function"](#).

Is any DTC detected?

- YES >> Repair or replace the malfunctioning part.
NO >> Replace BCM. Refer to [BCS-82, "Exploded View"](#).

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

BCS

N
O
P

B2562 LOW VOLTAGE

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

B2562 LOW VOLTAGE

DTC Logic

INFOID:000000005061940

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1. DTC CONFIRMATION

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

Is any DTC detected?

- YES >> Refer to [BCS-42, "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000005061941

1. CHECK POWER SUPPLY CIRCUIT

Check BCM power supply circuit. Refer to [BCS-43, "Diagnosis Procedure"](#).

Is the circuit normal?

- YES >> Replace BCM. Refer to [BCS-82, "Exploded View"](#).
NO >> Repair the malfunctioning part.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:000000005061942

1.CHECK FUSE AND FUSIBLE LINK

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

Signal name	Fuse and fusible link No.
Battery power supply	G
	8

Is the fuse fusing?

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

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

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

Terminals		Voltage (Approx.)
(+)	(-)	
BCM		Ground
Connector	Terminal	
M70	70	
	57	
		Battery voltage

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M70	67		Existed

Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

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

BCS

COMBINATION SWITCH OUTPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

COMBINATION SWITCH OUTPUT CIRCUIT

Diagnosis Procedure

INFOID:000000005151617

1. CHECK OUTPUT 1 - 5 CIRCUIT FOR OPEN

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

System	BCM		Combination switch		Continuity
	Connector	Terminal	Connector	Terminal	
OUTPUT 1	M68	36	M27	11	Existed
OUTPUT 2		35		9	
OUTPUT 3		34		7	
OUTPUT 4		33		10	
OUTPUT 5		32		13	

Does continuity exist?

YES >> GO TO 2.

NO >> Repair harnesses or connectors.

2. CHECK OUTPUT 1 - 5 CIRCUIT FOR SHORT

Check for continuity between BCM harness connector and ground.

System	BCM		Ground	Continuity
	Connector	Terminal		
OUTPUT 1	M68	36	Ground	Not existed
OUTPUT 2		35		
OUTPUT 3		34		
OUTPUT 4		33		
OUTPUT 5		32		

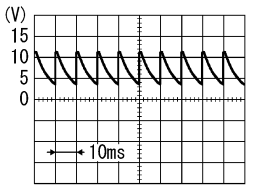
Does continuity exist?

YES >> Repair harnesses or connectors.

NO >> GO TO 3.

3. CHECK BCM OUTPUT VOLTAGE

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

System	Terminals		Ground	Voltage (Approx.)	
	(+)				(-)
	BCM				
	Connector	Terminal			
OUTPUT 1	M68	36	Ground	 <p>7.0 - 8.0 V</p>	
OUTPUT 2		35			
OUTPUT 3		34			
OUTPUT 4		33			
OUTPUT 5		32			

Is the measurement value normal?

COMBINATION SWITCH OUTPUT CIRCUIT

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

- YES >> Replace combination switch.
- NO >> Replace BCM. Refer to [BCS-82, "Exploded View"](#).

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

BCS

COMBINATION SWITCH INPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

COMBINATION SWITCH INPUT CIRCUIT

Diagnosis Procedure

INFOID:000000005151618

1. CHECK INPUT 1 - 5 CIRCUIT FOR OPEN

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

System	BCM		Combination switch		Continuity
	Connector	Terminal	Connector	Terminal	
INPUT 1	M68	6	M27	12	Existed
INPUT 2		5		14	
INPUT 3		4		5	
INPUT 4		3		2	
INPUT 5		2		8	

Does continuity exist?

YES >> GO TO 2.

NO >> Repair harnesses or connectors.

2. CHECK INPUT 1 - 5 CIRCUIT FOR SHORT

Check for continuity between BCM harness connector and ground.

System	BCM		Ground	Continuity
	Connector	Terminal		
INPUT 1	M68	6	Ground	Not existed
INPUT 2		5		
INPUT 3		4		
INPUT 4		3		
INPUT 5		2		

Does continuity exist?

YES >> Repair harnesses or connectors.

NO >> GO TO 3.

3. CHECK BCM INPUT SIGNAL

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

System	Terminals		Voltage (Approx.)
	(+)	(-)	
	BCM		
Connector	Terminal	Ground	Refer to BCS-48. "Reference Value" .
INPUT 1	6		
INPUT 2	5		
INPUT 3	4		
INPUT 4	3		
INPUT 5	2		

Is the measurement value normal?

Yes >> Replace BCM. Refer to [BCS-82. "Exploded View"](#).

COMBINATION SWITCH INPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

No >> Replace combination switch.

A

B

C

D

E

F

G

H

I

J

K

L

BCS

N

O

P

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000005061945

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Value/Status	
DOOR SW-DR	Driver door closed	Off	A
	Driver door opened	On	
DOOR SW-AS	Passenger door closed	Off	B
	Passenger door opened	On	
DOOR SW-RR	Rear RH door closed	Off	C
	Rear RH door opened	On	
DOOR SW-RL	Rear LH door closed	Off	D
	Rear LH door opened	On	
DOOR SW-BK	Back door closed	Off	E
	Back door opened	On	
CDL LOCK SW	Other than power door lock switch LOCK	Off	E
	Power door lock switch LOCK	On	
CDL UNLOCK SW	Other than power door lock switch UNLOCK	Off	F
	Power door lock switch UNLOCK	On	
KEY CYL LK-SW	Other than driver door key cylinder LOCK position	Off	G
	Driver door key cylinder LOCK position	On	
KEY CYL UN-SW	Other than driver door key cylinder UNLOCK position	Off	H
	Driver door key cylinder UNLOCK position	On	
HAZARD SW	Hazard switch is OFF	Off	H
	Hazard switch is ON	On	
REAR DEF SW	Rear window defogger switch OFF	Off	I
	Rear window defogger switch ON	On	
TR/BD OPEN SW	NOTE: The item is indicated, but not monitored.	Off	J
TRNK/HAT MNTR	NOTE: The item is indicated, but not monitored.	Off	K
FAN ON SIG	Blower fan OFF	Off	K
	Blower fan ON	On	
AIR COND SW	Air conditioner OFF (A/C switch indicator OFF)	Off	L
	Air conditioner ON (A/C switch indicator ON)	On	
RKE-LOCK	LOCK button of the key is not pressed	Off	BCS
	LOCK button of the key is pressed	On	
RKE-UNLOCK	UNLOCK button of the key is not pressed	Off	N
	UNLOCK button of the key is pressed	On	
RKE-TR/BD	BACK DOOR OPEN button of the key is not pressed	Off	O
	BACK DOOR OPEN button of the key is pressed	On	
RKE-PANIC	PANIC button of the key is not pressed	Off	O
	PANIC button of the key is pressed	On	
RKE-MODE CHG	LOCK/UNLOCK button of the key is not pressed and held simultaneously	Off	P
	LOCK/UNLOCK button of the key is pressed and held simultaneously	On	
OPTI SEN (DTCT)	Bright outside of the vehicle	Close to 5 V	
	Dark outside of the vehicle	Close to 0 V	
OPTI SEN (FILT)	Bright outside of the vehicle (Lighting switch AUTO)	Close to 5 V	
	Dark outside of the vehicle (Lighting switch AUTO)	Close to 1.50 V	

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Value/Status	
SFT N -MET	Selector lever in any position other than N	Off	A
	Selector lever in N position	On	
ENGINE STATE	Engine stopped	Stop	B
	While the engine stalls	Stall	
	At engine cranking	Crank	C
	Engine running	Run	
S/L LOCK-IPDM	Steering is locked	Off	
	Steering is unlocked	On	D
S/L UNLK-IPDM	Steering is unlocked	Off	
	Steering is locked	On	E
S/L RELAY-REQ	Steering is unlocked	Off	
	Steering is locked	On	F
VEH SPEED 1	While driving	Equivalent to speedometer reading	
VEH SPEED 2	While driving	Equivalent to speedometer reading	
DOOR STAT-DR	Driver door is locked	LOCK	G
	Wait with selective UNLOCK operation (5 seconds)	READY	
	Driver door is unlocked	UNLOCK	H
DOOR STAT-AS	Passenger door is locked	LOCK	
	Wait with selective UNLOCK operation (5 seconds)	READY	I
	Passenger door is unlocked	UNLOCK	
ID OK FLAG	Steering is locked	Reset	J
	Steering is unlocked	Set	
PRMT ENG STRT	The engine start is prohibited	Reset	
	The engine start is permitted	Set	K
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset	
RKE OPE COUN1	During the operation of the key	Operation frequency of the key	L
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	—	
CONFIRM ID ALL	The key ID that the key slot receives is not recognized by any key ID registered to BCM.	Yet	BCS
	The key ID that the key slot receives is recognized by any key ID registered to BCM.	Done	N
CONFIRM ID4	The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.	Yet	
	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done	O
CONFIRM ID3	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet	
	The key ID that the key slot receives is recognized by the third key ID registered to BCM.	Done	P
CONFIRM ID2	The key ID that the key slot receives is not recognized by the second key ID registered to BCM.	Yet	
	The key ID that the key slot receives is recognized by the second key ID registered to BCM.	Done	

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

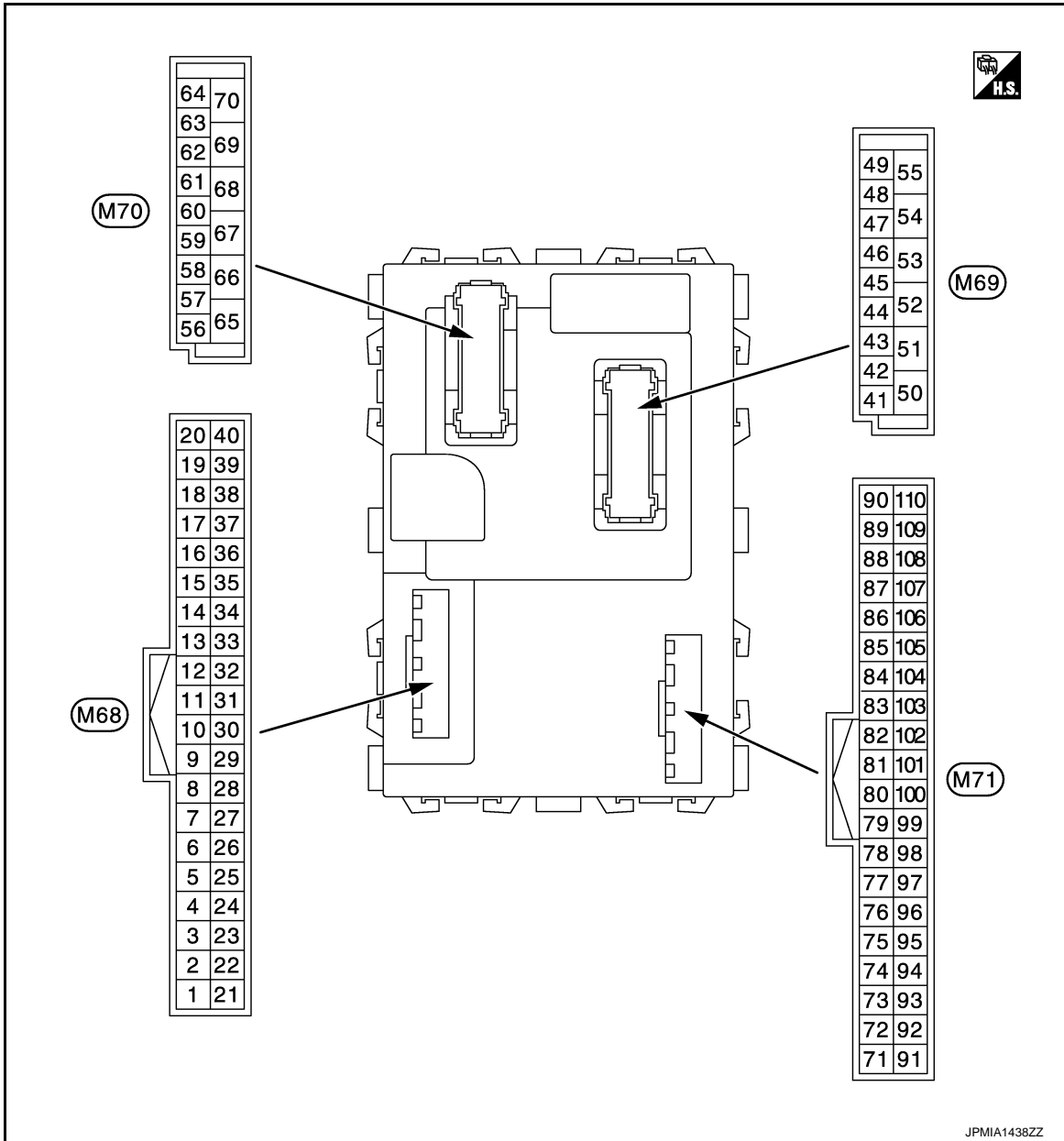
Monitor Item	Condition	Value/Status
CONFIRM ID1	The key ID that the key slot receives is not recognized by the first key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the first key ID registered to BCM.	Done
NOT REGISTERED	BCM detects registered key ID, or BCM does not detect key ID.	ID OK
	BCM detects non-registration key ID.	ID NG
TP 4	The ID of fourth key is not registered to BCM	Yet
	The ID of fourth key is registered to BCM	Done
TP 3	The ID of third key is not registered to BCM	Yet
	The ID of third key is registered to BCM	Done
TP 2	The ID of second key is not registered to BCM	Yet
	The ID of second key is registered to BCM	Done
TP 1	The ID of first key is not registered to BCM	Yet
	The ID of first key is registered to BCM	Done
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire
AIR PRESS RR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear RH tire
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LH tire
ID REGST FL1	ID of front LH tire transmitter is registered	Done
	ID of front LH tire transmitter is not registered	Yet
ID REGST FR1	ID of front RH tire transmitter is registered	Done
	ID of front RH tire transmitter is not registered	Yet
ID REGST RR1	ID of rear RH tire transmitter is registered	Done
	ID of rear RH tire transmitter is not registered	Yet
ID REGST RL1	ID of rear LH tire transmitter is registered	Done
	ID of rear LH tire transmitter is not registered	Yet
WARNING LAMP	Tire pressure indicator OFF	Off
	Tire pressure indicator ON	On
BUZZER	Tire pressure warning alarm is not sounding	Off
	Tire pressure warning alarm is sounding	On

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

TERMINAL LAYOUT



NOTE:

- Connector color
- M68, M70: Black
- M69, M71: White

PHYSICAL VALUES

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

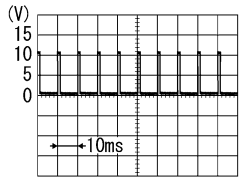
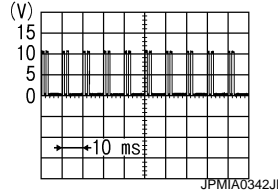
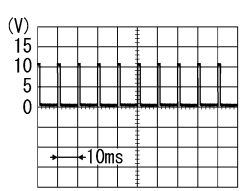
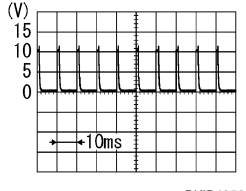
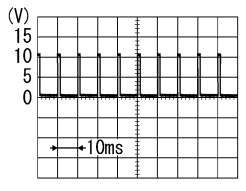
BCS

N
O
P

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

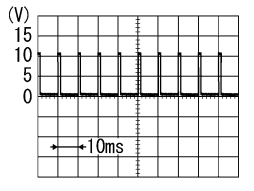
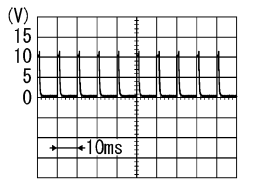
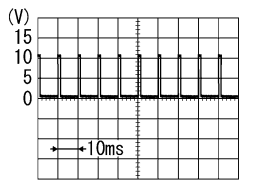
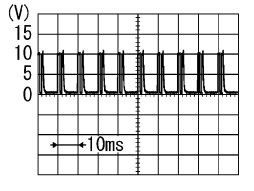
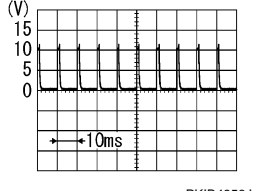
[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)		
		Signal name	Input/ Output				
+	-						
2 (BR/W)	Ground	Combination switch INPUT 5	Input	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	0 V	
					Turn signal switch RH		
					Lighting switch HI		
					Lighting switch 1ST		1.0 V
					Lighting switch 2ND		2.0 V
3 (GR)	Ground	Combination switch INPUT 4	Input	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	0 V	
					Turn signal switch LH		
					Lighting switch PASS		
					Lighting switch 2ND		1.0 V
					Front fog lamp switch ON		0.8 V
4 (L/Y)	Ground	Combination switch INPUT 3	Input	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	0 V	
					Front wiper switch LO		
					Front wiper switch MIST		
					Front wiper switch INT		
					Lighting switch AUTO		1.0 V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)		
+	-	Signal name	Input/ Output				
5 (G)	Ground	Combination switch INPUT 2	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	0 V	
					Front washer switch (Wiper intermittent dial 4)		
					Rear washer ON (Wiper intermittent dial 4)		
					Any of the condition below with all switch OFF <ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6 		1.0 V
					Rear wiper switch ON (Wiper intermittent dial 4)		0.8 V
6 (L/R)	Ground	Combination switch INPUT 1	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	0 V	
					Front wiper switch HI (Wiper intermittent dial 4)		
					Rear wiper switch INT (Wiper intermittent dial 4)		
					Wiper intermittent dial 3 (All switch OFF)	1.0 V	
					Any of the condition below with all switch OFF <ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 2 		1.9 V
					Any of the condition below with all switch OFF <ul style="list-style-type: none"> • Wiper intermittent dial 6 • Wiper intermittent dial 7 		0.8 V

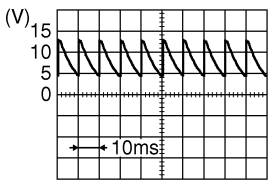
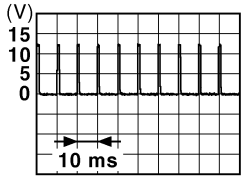
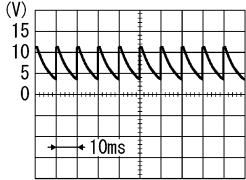
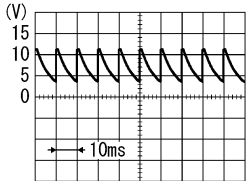
A
B
C
D
E
F
G
H
I
J
K
L
N
O
P

BCS

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

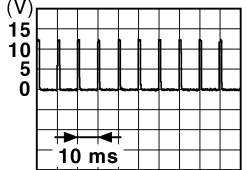
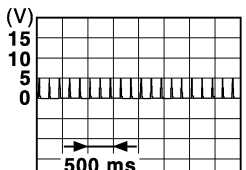
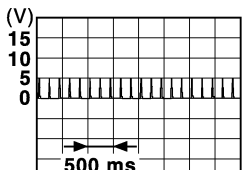
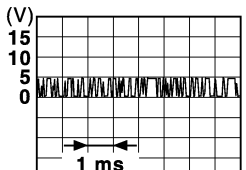
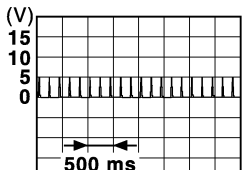
[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
7 (W/R)	Ground	Door key cylinder switch UNLOCK	Input	Door key cylin- der switch	NEUTRAL position	 <p style="text-align: right; font-size: small;">JPMIA0587GB</p>
					UNLOCK position	0 V
8 (W/B)	Ground	Door key cylinder switch LOCK	Input	Door key cylin- der switch	NEUTRAL position	12 V
					LOCK position	0 V
9 (R)	Ground	Stop lamp switch 1	Input	Stop lamp switch	OFF (Brake pedal is not depressed)	0 V
					ON (Brake pedal is de- pressed)	Battery voltage
10 (V/W)	Ground	Tire pressure warn- ing check switch	Input	Ignition switch OFF	OFF	 <p style="text-align: right; font-size: small;">JPMIA0012GB</p>
					ON	Battery voltage
11 (L/Y)	Ground	ACC feedback	Input	Ignition switch OFF	0 V	
				Ignition switch ACC or ON	Battery voltage	
12 (SB)	Ground	Passenger door switch	Input	Passenger door switch	OFF (When passenger door closed)	 <p style="text-align: right; font-size: small;">PKIB4960J</p>
					ON (When passenger door opened)	0 V
13 (GR/L)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (When rear RH door closed)	 <p style="text-align: right; font-size: small;">PKIB4960J</p>
					ON (When rear RH door opened)	0 V
14 (L/B)	Ground	Optical sensor	Input	Ignition switch ON	When bright outside of the vehicle	Close to 5 V
					When dark outside of the vehicle	Close to 0 V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
15 (W/L)	Ground	Rear window defogger switch	Input	Rear window defogger switch	Not pressed	 <small>JPMIA0012GB</small> 1.0 - 1.5 V
				Rear window defogger switch	Pressed	0 V
17 (R/G)	Ground	Optical sensor power supply	Output	Ignition switch	OFF, ACC	0 V
					ON	5 V
18 (V)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V
19 (BR)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OFF		 <small>JMKIA3838GB</small>
20 (G/Y)	Ground	Remote keyless entry receiver communication	Input	Waiting		 <small>JMKIA3838GB</small>
				Signal receiving		 <small>JMKIA3841GB</small>
21 (P/L)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
22 (W/G)	Ground	Remote keyless entry receiver RSSI	Input	Waiting		0 V
				Signal receiving		 <small>JMKIA3838GB</small>

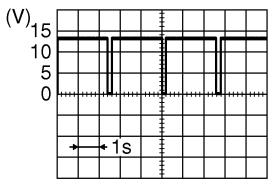
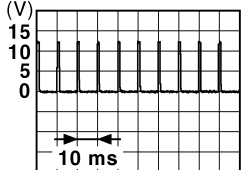
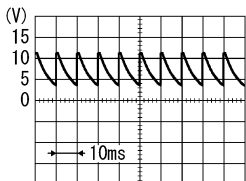
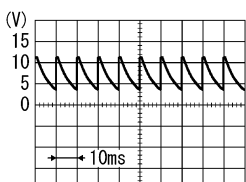
A
B
C
D
E
F
G
H
I
J
K
L
N
O
P

BCS

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

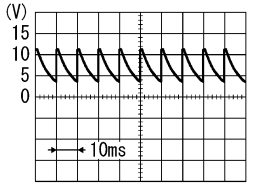
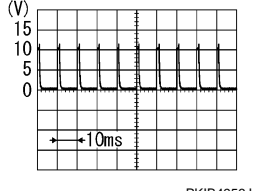
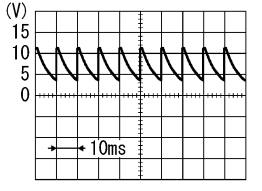
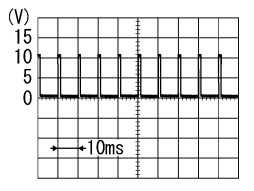
[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)		
+	-	Signal name	Input/ Output				
23 (R/Y)	Ground	Security indicator lamp	Output	Security indicator	ON	0 V	
				Blinking (Ignition switch OFF)	 <p style="text-align: right; font-size: small;">JPMIA0590GB</p>		
				OFF	Battery voltage		
24* (GR/R)	Ground	Dongle link	Input/ Output	Ignition switch OFF		5 V	
25 (LG)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.	
27 (Y/G)	Ground	A/C switch	Input	Air conditioner	OFF (A/C switch indicator: OFF)	 <p style="text-align: right; font-size: small;">JPMIA0012GB</p>	
				ON (A/C switch indicator: ON)	0 V		
28 (G/W)	Ground	Blower fan switch	Input	Blower fan	OFF	0 V	
				ON	 <p style="text-align: right; font-size: small;">PKIB4960J</p>		
				ON	7.0 - 8.0 V		
29 (L/W)	Ground	Hazard switch	Input	Hazard switch	OFF	12 V	
				ON	0 V		
31 (G/B)	Ground	Front door lock assembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	 <p style="text-align: right; font-size: small;">PKIB4960J</p>	
				UNLOCK status (Unlock sensor switch ON)	0 V		
				UNLOCK status (Unlock sensor switch ON)	7.0 - 8.0 V		

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
32 (LG)	Ground	Combination switch OUTPUT 5	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">7.0 - 8.0 V</p>
					Front fog lamp switch ON (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">PKIB4966J</p> <p style="text-align: center;">1.0 V</p>
					Rear wiper switch ON (Wiper intermittent dial 4)	
					Any of the condition below with all switch OFF	
33 (Y/L)	Ground	Combination switch OUTPUT 4	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">7.0 - 8.0 V</p>
					Lighting switch 1ST (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">PKIB4958J</p> <p style="text-align: center;">1.2 V</p>
					Lighting switch AUTO (Wiper intermittent dial 4)	
					Rear wiper switch INT (Wiper intermittent dial 4)	
Any of the condition below with all switch OFF						
<ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6 						

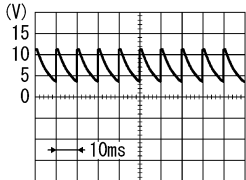
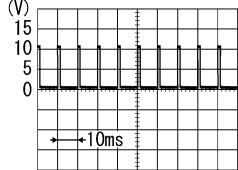
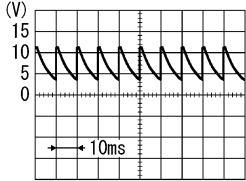
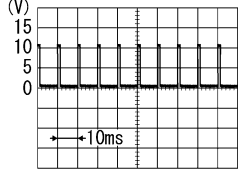
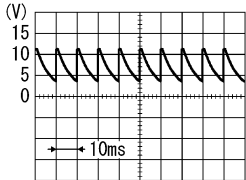
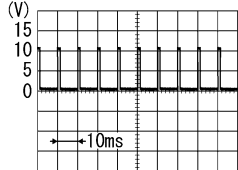
A
B
C
D
E
F
G
H
I
J
K
L
N
O
P

BCS

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

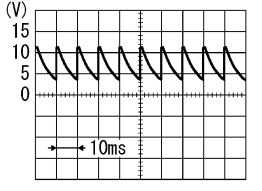
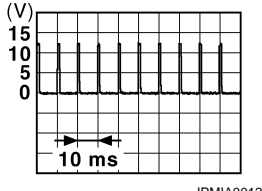
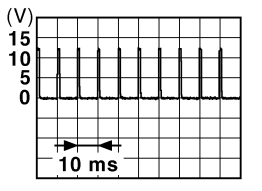
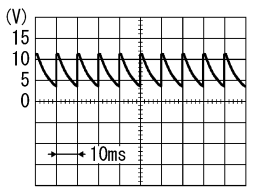
[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
34 (W)	Ground	Combination switch OUTPUT 3	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">7.0 - 8.0 V</p>
					Lighting switch 2ND (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">PKIB4958J</p> <p style="text-align: center;">1.2 V</p>
					Lighting switch HI (Wiper intermittent dial 4)	
					Rear washer switch ON (Wiper intermittent dial 4)	
Any of the condition below with all switch OFF						
<ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 						
35 (R/L)	Ground	Combination switch OUTPUT 2	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	 <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">7.0 - 8.0 V</p>
					Lighting switch 2ND	 <p style="text-align: right; font-size: small;">PKIB4958J</p> <p style="text-align: center;">1.2 V</p>
					Lighting switch PASS	
					Front wiper switch INT	
Front wiper switch HI						
36 (L/O)	Ground	Combination switch OUTPUT 1	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	 <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">7.0 - 8.0 V</p>
					Turn signal switch RH	 <p style="text-align: right; font-size: small;">PKIB4958J</p> <p style="text-align: center;">1.2 V</p>
					Turn signal switch LH	
					Front wiper switch LO (Front wiper switch MIST)	
Front washer switch ON						

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	-					
37 (G/O)	Ground	Selector lever P position switch	Input	Selector lever	P position	0 V
					Any position other than P	12 V
38 (O)	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage
39 (L)	Ground	CAN-H	Input/ Output	—	—	
40 (P)	Ground	CAN-L	Input/ Output	—	—	
43 (W)	Ground	Back door switch	Input	Back door switch	OFF (When back door closed)	 <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">9.5 - 10.0 V</p>
					ON (When back door opened)	0 V
44 (LG)	Ground	Rear wiper stop position	Input	Ignition switch ON	Rear wiper stop position	12 V
					Any position other than rear wiper stop position	0 V
45 (GR)	Ground	Door lock and unlock switch LOCK	Input	Door lock and unlock switch	NEUTRAL position	 <p style="text-align: right; font-size: small;">JPMIA0012GB</p> <p style="text-align: center;">1.0 - 1.5 V</p>
					LOCK position	0 V
46 (BR)	Ground	Door lock and unlock switch UNLOCK	Input	Door lock and unlock switch	NEUTRAL position	 <p style="text-align: right; font-size: small;">JPMIA0012GB</p> <p style="text-align: center;">1.0 - 1.5 V</p>
					UNLOCK position	0 V
47 (BR/Y)	Ground	Driver door switch	Input	Driver door switch	OFF (When driver door closed)	 <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">7.0 - 8.0 V</p>
					ON (When driver door opened)	0 V

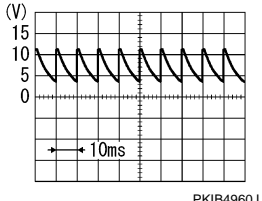
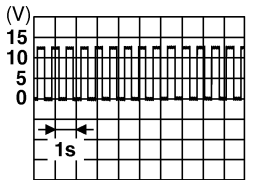
A
B
C
D
E
F
G
H
I
J
K
L
N
O
P

BCS

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

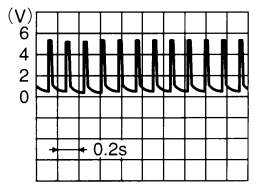
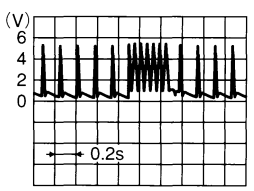
[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
48 (W/G)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (When rear LH door closed)	 7.0 - 8.0 V
					ON (When rear door LH opened)	0 V
49 (Y)	Ground	Luggage room lamp	Output	Luggage room lamp switch DOOR position	Back door is closed (Back door lamp turns OFF)	12 V
					Back door is opened (Back door lamp turns ON)	0 V
54 (L/W)	Ground	Rear wiper	Output	Rear wiper	OFF (Stopped)	0 V
					ON (Activated)	12 V
55 (G)	Ground	Rear door UNLOCK	Output	Rear door	UNLOCK (Actuator is activated)	12 V
					Other then UNLOCK (Actuator is not activated)	0 V
56 (L)	Ground	Interior room lamp power supply	Output		Interior room lamp battery saver is activated. (Cuts the interior room lamp power supply)	0 V
					Interior room lamp battery saver is not activated. (Outputs the interior room lamp power supply)	12 V
57 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	Battery voltage	
59 (G)	Ground	Passenger door UNLOCK	Output	Passenger door	UNLOCK (Actuator is activated)	12 V
					Other then UNLOCK (Actuator is not activated)	0 V
60 (W/B)	Ground	Turn signal LH	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	 6.0 V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
61 (W/L)	Ground	Turn signal RH	Output	Ignition switch OFF	0 V
				Ignition switch ON	Turn signal switch RH
63 (BR)	Ground	Interior room lamp timer control	Output	Interior room lamp OFF	12 V
				Interior room lamp ON	0 V
65 (V)	Ground	All doors LOCK	Output	All doors LOCK (Actuator is activated)	12 V
				All doors Other than LOCK (Actuator is not activated)	0 V
66 (L/B)	Ground	Driver door UN-LOCK	Output	Driver door UNLOCK (Actuator is activated)	12 V
				Driver door Other than UNLOCK (Actuator is not activated)	0 V
67 (B)	Ground	Ground	Output	Ignition switch ON	0 V
68 (L)	Ground	P/W power supply (IGN)	Output	Ignition switch ON	12 V
69 (L/W)	Ground	P/W power supply (BAT)	Output	Ignition switch OFF	12 V
70 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	Battery voltage
71 (R)	Ground	Tire pressure receiver communication	Input/ Output	Ignition switch ON Standby state	 OCC3881D
				Ignition switch ON When receiving the signal from the transmitter	 OCC3880D
72 (R/W)	Ground	Back door lock actuator relay control	Output	Back door LOCK (Actuator is activated)	0 V
				Back door Other than LOCK (Actuator is not activated)	Battery voltage
75 (SB)	Ground	Driver door request switch	Input	Driver door request switch ON (Pressed)	0 V
				Driver door request switch OFF (Not pressed)	12 V

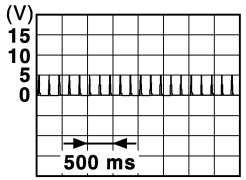
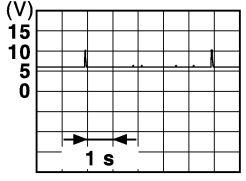
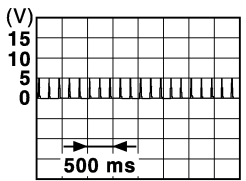
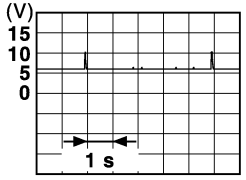
A
B
C
D
E
F
G
H
I
J
K
L
N
O
P

BCS

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

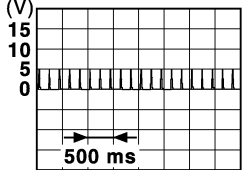
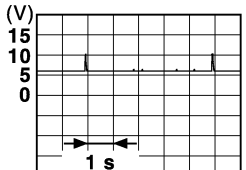
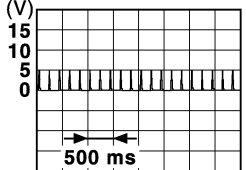
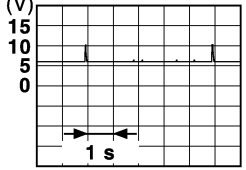
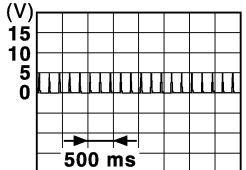
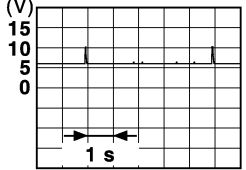
[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
76 (G)	Ground	Passenger door re- quest switch	Input	Passenger door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	12 V
77 (W)	Ground	Back door request switch	Input	Back door re- quest switch	ON (Pressed)	0 V
					OFF (Not pressed)	12 V
78 (LG)	Ground	Driver door antenna (+)	Output	When the driver door request switch is operat- ed with ignition switch OFF	When Intelligent Key is not in the antenna detec- tion area	 <small>JMKIA3838GB</small>
					When Intelligent Key is in the antenna detection area	 <small>JMKIA3839GB</small>
79 (V)	Ground	Driver door antenna (-)	Output	When the driver door request switch is operat- ed with ignition switch OFF	When Intelligent Key is not in the antenna detec- tion area	 <small>JMKIA3838GB</small>
					When Intelligent Key is in the antenna detection area	 <small>JMKIA3839GB</small>

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
80 (BR/Y)	Ground	Passenger door antenna (+)	Output	When Intelligent Key is not in the antenna detection area	 <p style="text-align: right; font-size: small;">JMkia3838GB</p>
				When the passenger door request switch is operated with ignition switch OFF	 <p style="text-align: right; font-size: small;">JMkia3839GB</p>
81 (L/Y)	Ground	Passenger door antenna (-)	Output	When Intelligent Key is not in the antenna detection area	 <p style="text-align: right; font-size: small;">JMkia3838GB</p>
				When the passenger door request switch is operated with ignition switch OFF	 <p style="text-align: right; font-size: small;">JMkia3839GB</p>
82 (W/B)	Ground	Back door antenna (+)	Output	When Intelligent Key is not in the antenna detection area	 <p style="text-align: right; font-size: small;">JMkia3838GB</p>
				When the back door request switch is operated with ignition switch OFF	 <p style="text-align: right; font-size: small;">JMkia3839GB</p>

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

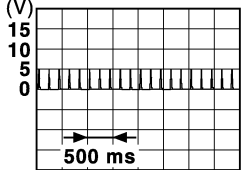
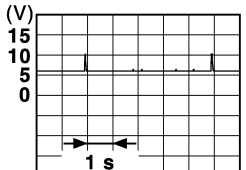
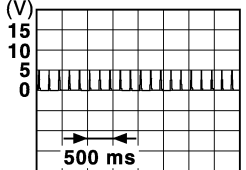
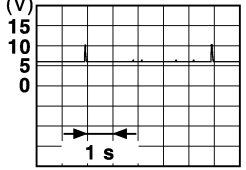
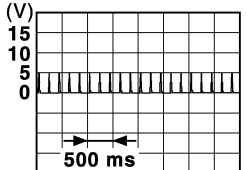
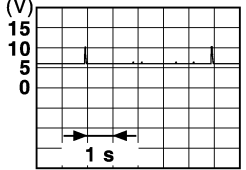
BCS

N
O
P

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

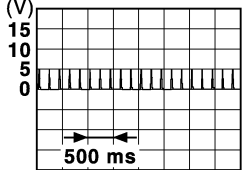
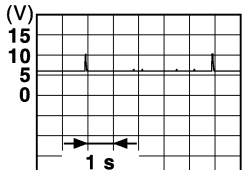
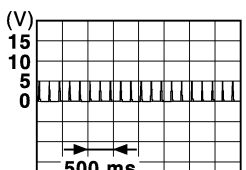
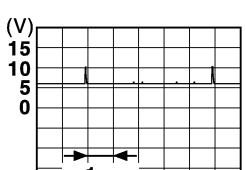
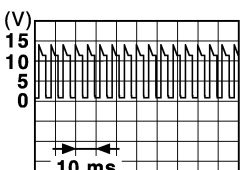
[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
83 (B/W)	Ground	Back door antenna (-)	Output	When the back door request switch is operated with ignition switch OFF	 <p style="text-align: right; font-size: small;">JMkia3838GB</p>
				When Intelligent Key is in the antenna detection area	 <p style="text-align: right; font-size: small;">JMkia3839GB</p>
84 (Y/G)	Ground	Room antenna (+) (Instrument panel)	Output	When Intelligent Key is not in the antenna detection area	 <p style="text-align: right; font-size: small;">JMkia3838GB</p>
				When Intelligent Key is in the antenna detection area	 <p style="text-align: right; font-size: small;">JMkia3839GB</p>
85 (Y/L)	Ground	Room antenna (-) (Instrument panel)	Output	When Intelligent Key is not in the antenna detection area	 <p style="text-align: right; font-size: small;">JMkia3838GB</p>
				When Intelligent Key is in the antenna detection area	 <p style="text-align: right; font-size: small;">JMkia3839GB</p>

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
86 (P)	Ground	Luggage room antenna (+)	Output	Ignition switch OFF	 <p style="text-align: right; font-size: small;">JMKIA3838GB</p>
				When Intelligent Key is in the antenna detection area	 <p style="text-align: right; font-size: small;">JMKIA3839GB</p>
87 (L)	Ground	Luggage room antenna (-)	Output	Ignition switch OFF	 <p style="text-align: right; font-size: small;">JMKIA3838GB</p>
				When Intelligent Key is in the antenna detection area	 <p style="text-align: right; font-size: small;">JMKIA3839GB</p>
90 (W/L)	Ground	Push-button ignition switch illumination	Output	Push-button ignition switch illumination ON	12 V
				Push-button ignition switch illumination OFF	0 V
91 (Y)	Ground	ACC/ON indicator lamp	Output	Ignition switch OFF	Battery voltage
				Ignition switch ACC or ON	0.5 V
92 (BR/R)	Ground	Push-button ignition switch illumination ground	Output	Tail lamp OFF	0 V
				Tail lamp ON	<p style="text-align: center;">NOTE: When the illumination brightening/dimming level is in the neutral position</p>  <p style="text-align: right; font-size: small;">JPMIA1554GB</p> <p style="text-align: center;">6.0 - 7.0 V</p>

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

BCS

N
O
P

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
+	-					
93 (GR/W)	Ground	Intelligent Key warn- ing buzzer	Output	Intelligent Key warning buzzer	Sounding	0 V
					Not sounding	12 V
94 (Y/R)	Ground	Steering lock unit communication	Input/ Output	Steering lock	LOCK status	12 V
					LOCK or UNLOCK	
					For 15 seconds after UN- LOCK	12 V
					15 seconds or later after UNLOCK	0 V
95 (W/G)	Ground	Steering lock unit power supply	Output	Ignition switch	OFF or ACC	12 V
					ON	0 V
96 (BR/W)	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
					ACC or ON	12 V
97 (L/R)	Ground	Starter relay control	Output	Ignition switch ON	When selector lever is in P or N position	Battery voltage
					When selector lever is not in P or N position	0 V
98 (BR)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	12 V
					ON	0 V
99 (W/R)	Ground	Ignition relay control	Output	Ignition switch	OFF or ACC	0 V
					ON	12 V
100 (L/O)	Ground	Push-button ignition switch (push switch)	Input	Push-button ig- nition switch (push switch)	Pressed	0 V
					Not pressed	12 V
102 (G)	Ground	Selector lever P/N position	Input	Selector lever	P or N position	Battery voltage
					Except P and N positions	0 V
104 (Y/R)	Ground	CVT shift selector (detention switch) power supply	Output	Ignition switch ON	12 V	
105 (B/O)	Ground	Stop lamp switch 2	Input	Ignition switch OFF	Battery voltage	
106 (Y/B)	Ground	Blower fan motor re- lay control	Output	Ignition switch	OFF or ACC	0 V
					ON	12 V
107 (L/W)	Ground	Steering lock condi- tion No. 1	Input	Steering lock	LOCK status	0 V
					UNLOCK status	12 V
108 (P/L)	Ground	Steering lock condi- tion No. 2	Input	Steering lock	LOCK status	12 V
					UNLOCK status	0 V
110 (BR/W)	Ground	Tire pressure receiv- er power supply	Output	Ignition switch	OFF or ACC	0 V
					ON	5 V

*: For Canada

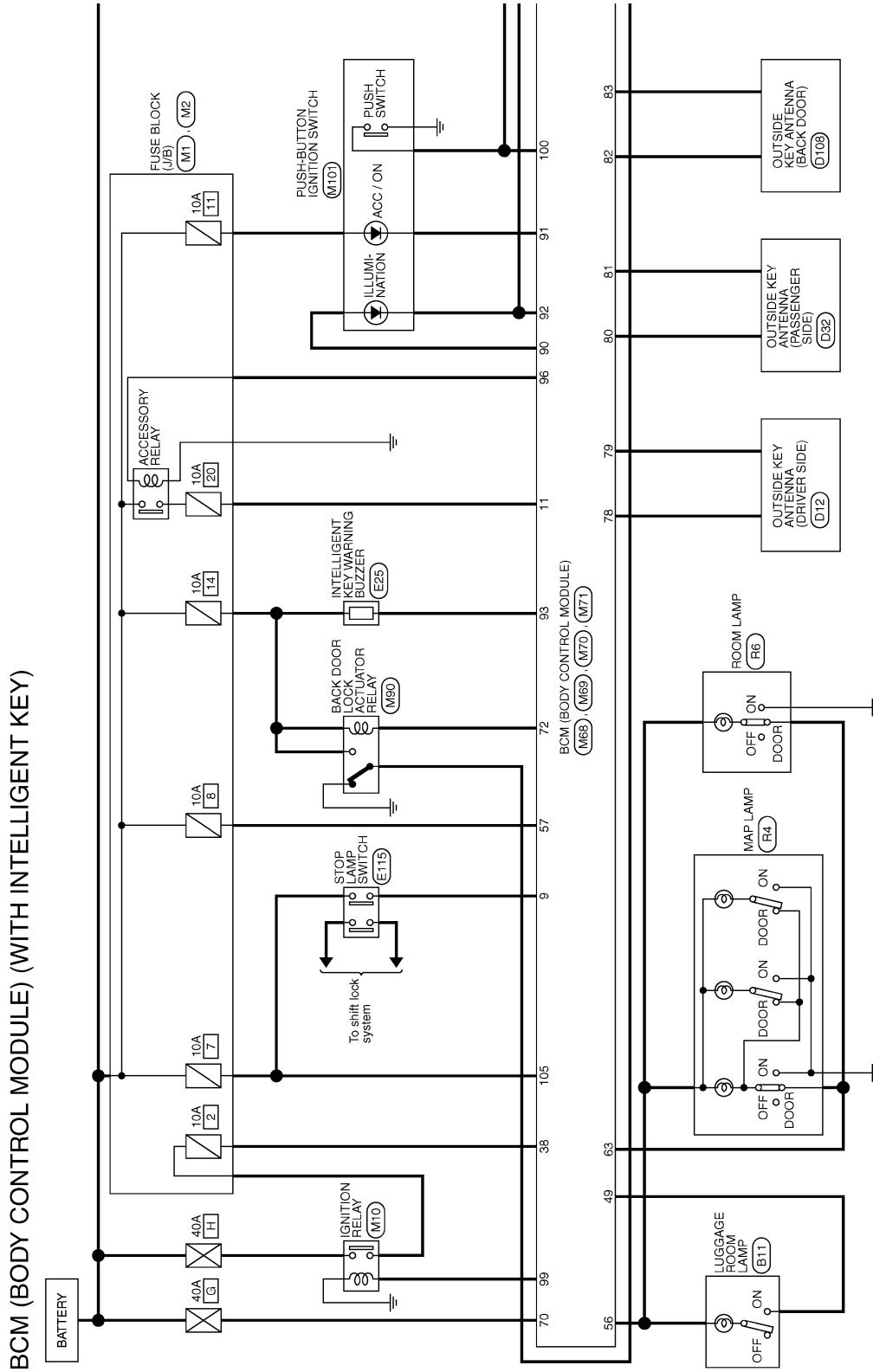
BCM (BODY CONTROL MODULE)

[WITH INTELLIGENT KEY SYSTEM]

< ECU DIAGNOSIS INFORMATION >

Wiring Diagram - BCM -

INFOID:000000005061946



BCM (BODY CONTROL MODULE) (WITH INTELLIGENT KEY)

JCMWM4068GB

2009/02/27

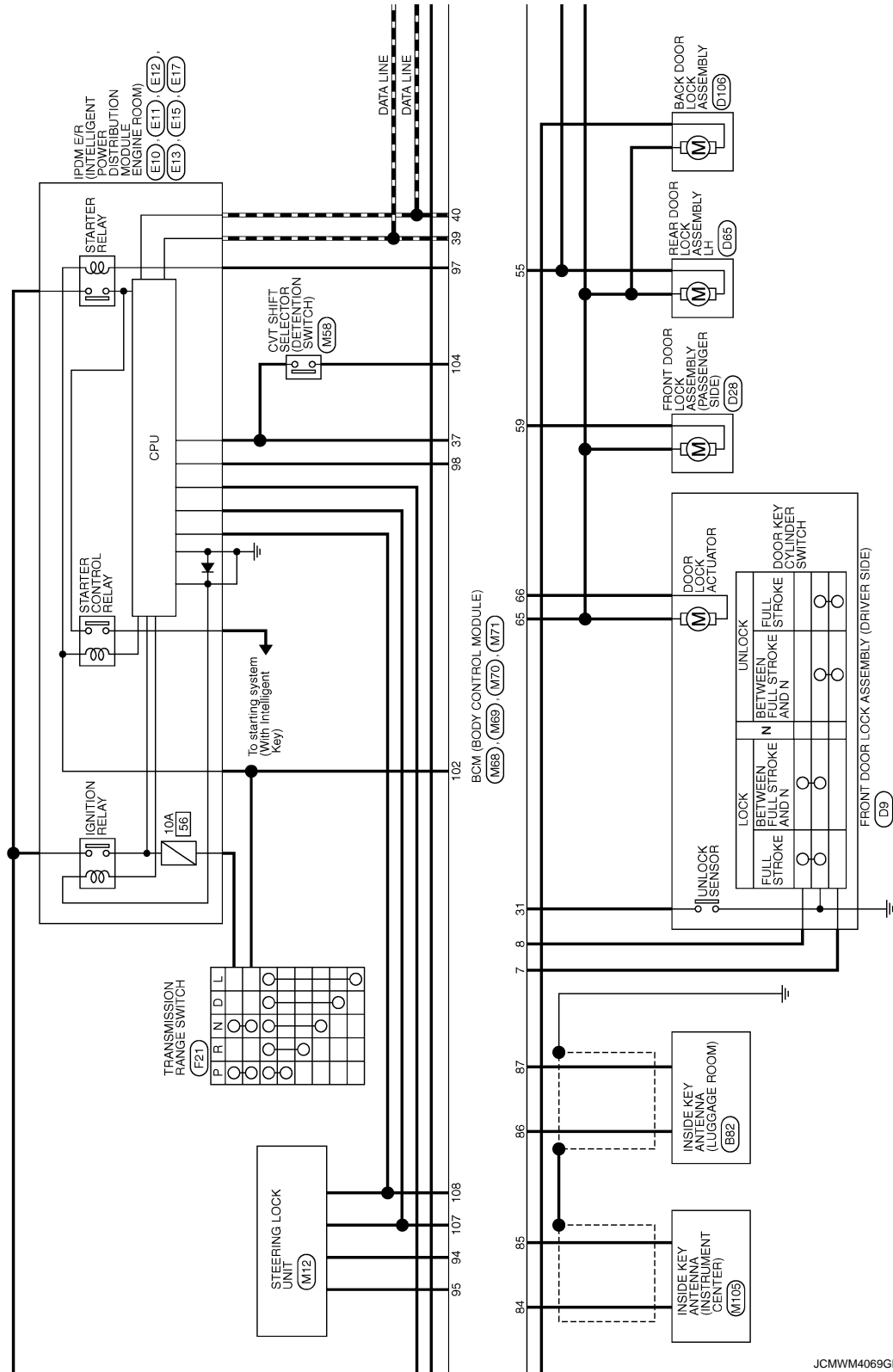
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P

BCS

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]



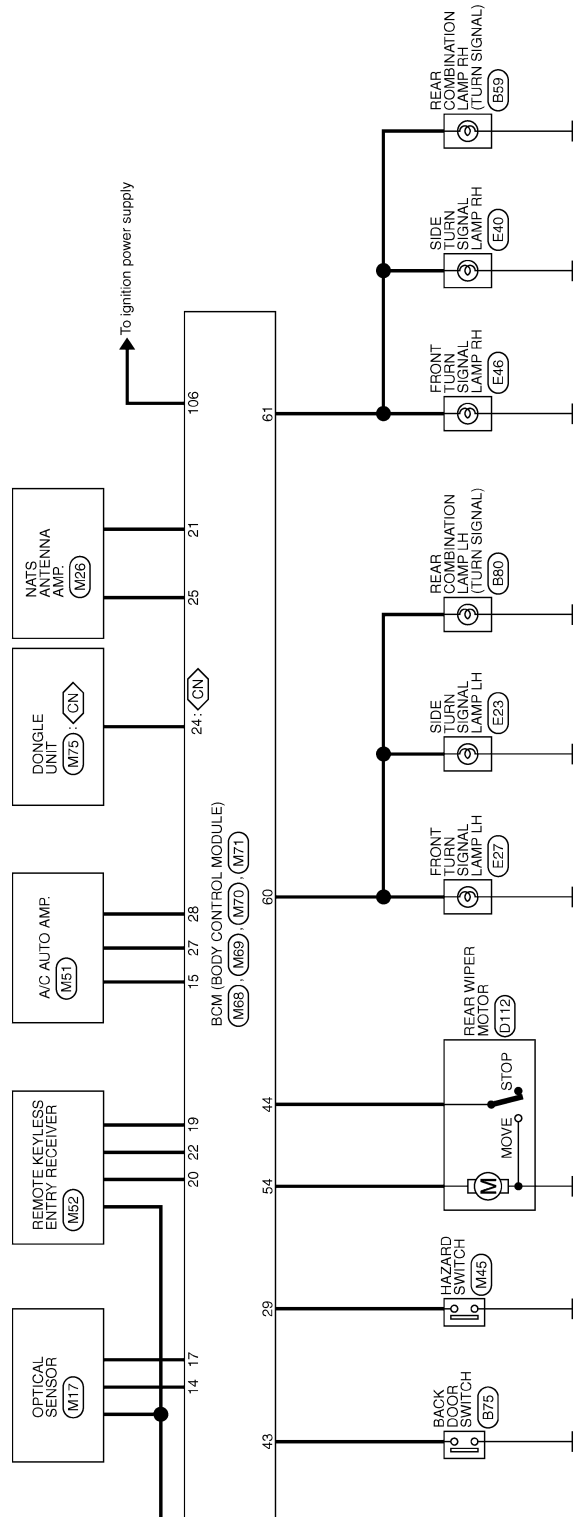
JCMWM4069GB

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

For Canada



JCMWM4071GB

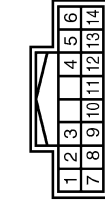
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

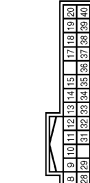
[WITH INTELLIGENT KEY SYSTEM]

BCM (BODY CONTROL MODULE) (WITH INTELLIGENT KEY)

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TH16FW-NH



Connector No.	M68
Connector Name	BCM (BODY CONTROL MODULE) (WITH INTELLIGENT KEY)
Connector Type	TH4QFB-NH



Terminal No.	Color of Wire	Signal Name [Specification]
2	GR	INPUT 4
3	L/Y	INPUT 3
4	L/Y	INPUT 3
5	GR	INPUT 5
6	BR/W	INPUT 2
7	BR/W	INPUT 2
8	BR/W	INPUT 2
9	L/R	OUTPUT 4
10	Y/L	OUTPUT 1
11	L/O	OUTPUT 1
12	L/R	INPUT 1
13	LG	OUTPUT 5
14	G	INPUT 2

Terminal No.	Color of Wire	Signal Name [Specification]
2	BR/W	COMBI SW INPUT 5
3	GR	COMBI SW INPUT 4
4	L/Y	COMBI SW INPUT 3
5	G	COMBI SW INPUT 2
6	L/R	COMBI SW INPUT 1
7	W/R	KEY CYL UNLOCK SW
8	W/B	KEY CYL LOCK SW
9	R	STOP LAMP SW 1
10	V/W	TIRE PRESS WARNING CHECK SW
11	L/Y	ACC F/B
12	SB	PASSENGER DOOR SW

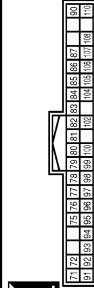
Connector No.	M70
Connector Name	BCM (BODY CONTROL MODULE) (WITH INTELLIGENT KEY)
Connector Type	FEA09FW-FHA6-SA



Terminal No.	Color of Wire	Signal Name [Specification]
56	L	INTERIOR ROOM LAMP POWER SUPPLY
57	Y	BAT (FUSE)
58	G	PASSENGER DOOR UNLOCK OUTPUT
60	W/B	TURN SIGNAL LH OUTPUT
61	W/L	TURN SIGNAL RH OUTPUT
63	BR	ROOM LAMP TIMER CONTROL
65	V	ALL DOOR LOCK OUTPUT
66	L/B	DRIVER DOOR UNLOCK OUTPUT
67	B	GND
68	L	POWER WINDOW POWER SUPPLY(GN)
69	L/W	POWER WINDOW POWER SUPPLY(BAT)

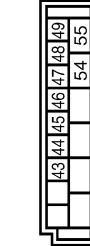
Terminal No.	Color of Wire	Signal Name [Specification]
13	GR/L	REAR RH DOOR SW
14	L/B	OPTICAL SENSOR
15	W/L	REAR WINDOW DEFROGGER SW
17	R/G	OPTICAL SENSOR POWER SUPPLY
18	V	RECEIVER SENSOR GND
19	BR	KEYLESS ENTRY RECEIVER POWER SUPPLY
20	G/Y	KEYLESS ENTRY RECEIVER COMM
21	P/L	NATS ANTENNA AMP
22	W/G	KEYLESS ENTRY RECEIVER RSSI
23	R/Y	SECURITY INDICATOR LAMP
24	GR/R	DOUBLE LINK
25	LG	NATS ANTENNA AMP
27	Y/G	A/C SW
28	G/W	BLOWER FAN SW
29	L/W	HAZARD SW
31	G/B	DR DOOR UNLOCK SENSOR
32	LG	COMBI SW OUTPUT 5
33	Y/L	COMBI SW OUTPUT 4
34	W	COMBI SW OUTPUT 3
35	R/L	COMBI SW OUTPUT 2
36	L/O	COMBI SW OUTPUT 1
37	G/O	SHIFT P
38	O	IGN F/B
39	L	CAN-H
40	P	CAN-L

Connector No.	M71
Connector Name	BCM (BODY CONTROL MODULE) (WITH INTELLIGENT KEY)
Connector Type	TH4QFW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
71	R	TIRE PRESS RECEIVER COMM
72	R/W	BK DR LOCK ACT RELAY CONT
75	SB	DRIVER DOOR REQUEST SW
76	G	PASSENGER DOOR REQUEST SW
77	W	BACK DOOR REQUEST SW
78	LG	DRIVER DOOR ANT+
79	V	DRIVER DOOR ANT-
80	BR/Y	PASSENGER DOOR ANT-
81	L/Y	PASSENGER DOOR ANT-
82	W/B	BACK DOOR ANT-
83	B/W	BACK DOOR ANT-

Connector No.	M69
Connector Name	BCM (BODY CONTROL MODULE) (WITH INTELLIGENT KEY)
Connector Type	FEA09FW-FHA6-SA



Terminal No.	Color of Wire	Signal Name [Specification]
43	W	BACK DOOR SW
44	LG	REAR WIPER STOP POSITION
45	GR	CENTRAL DOOR LOCK SW
46	BR	CENTRAL DOOR UNLOCK SW
47	BR/Y	DRIVER DOOR SW
48	W/G	REAR LH DOOR SW
49	Y	LUGGAGE ROOM LAMP OUTPUT
50	L/W	REAR WIPER OUTPUT
51	G	REAR DOOR UNLOCK OUTPUT

Terminal No.	Color of Wire	Signal Name [Specification]
84	Y/G	ROOM ANT-
85	Y/L	ROOM ANT-
86	P	LUGGAGE ROOM ANT-
87	L	LUGGAGE ROOM ANT-
90	W/L	PUSH-BUTTON IGNITION SW ILL POWER
91	Y	ACC/GN IND
92	BR/R	PUSH-BUTTON IGNITION SW ILL GND
93	GR/W	T-KEY WARN BUZZER
94	Y/R	S/L UNIT COMM
95	W/G	S/L UNIT POWER SUPPLY
96	BR/W	ACC RELAY CONT
97	L/R	STARTER RELAY CONT
98	BR	IGN RELAY CONT
99	W/R	IGN RELAY (UP/DOWN) CONT
100	L/O	PUSH SW
102	G	SHIFT N/P
104	Y/R	CVT SHIFT SELECTOR POWER SUPPLY
105	B/O	STOP LAMP SW 2
106	Y/B	BLOWER FAN MOTOR RELAY CONT
107	L/W	S/L CONDITION 1
108	P/L	S/L CONDITION 2
110	BR/W	TIRE PRESS POWER SUPPLY

Fail-safe

FAIL-SAFE CONTROL BY DTC

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

JCMWMM4072GB

INFOID:000000005061947

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



BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Display contents of CONSULT	Fail-safe	Cancellation
B2013: ID DISCORD BCM-S/L	Inhibit engine cranking	When communication between BCM and steering lock unit are communicated normally.
B2014: CHAIN OF S/L-BCM	Inhibit engine cranking	When communication between BCM and steering lock unit are communicated normally.
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI-SCANNING	Inhibit engine cranking	Ignition switch ON → OFF
B2196: DONGLE NG	Inhibit engine cranking	Erase DTC
B2198: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2557: VEHICLE SPEED	Inhibit steering lock	When the following CAN signal status (vehicle speed signal) becomes consistent <ul style="list-style-type: none"> • Vehicle speed signal (ABS) • Vehicle speed signal (Meter)
B2601: SHIFT POSITION	Inhibit steering lock	500 ms after the following signal reception status becomes consistent <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • Ignition switch is in the ON position • Selector lever P position switch signal: Except P position (battery voltage) • Vehicle speed: 4 km/h (2.5 MPH) or more
B2603: SHIFT POSI STATUS	Inhibit steering lock	500 ms after any of the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> • Status 1 <ul style="list-style-type: none"> - Ignition switch is in the ON position - Selector lever P position switch signal: Except P position (12 V) - Selector lever P/N position signal: Except P and N positions (0 V) • Status 2 <ul style="list-style-type: none"> - Ignition switch is in the ON position - Selector lever P position switch signal: P position (0 V) - Selector lever P/N position signal: P or N positions (12 V)
B2604: PNP/CLUTCH SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> • Status 1 <ul style="list-style-type: none"> - Ignition switch is in the ON position - Selector lever P/N position signal: P or N position (12 V) - Shift position signal (CAN): P or N position • Status 2 <ul style="list-style-type: none"> - Ignition switch is in the ON position - Selector lever P/N position signal: Except P and N positions (0 V) - Shift position signal (CAN): Except P and N position
B2605: PNP/CLUTCH SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> • Status 1 <ul style="list-style-type: none"> - Power position: IGN - Selector lever P/N position signal: Except P and N positions (0 V) - Interlock/PNP switch signal (CAN): OFF • Status 2 <ul style="list-style-type: none"> - Ignition switch is in the ON position - Selector lever P/N position signal: P or N position (12 V) - Interlock/PNP switch signal (CAN): ON
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent <ul style="list-style-type: none"> • Starter motor relay control signal • Starter relay status signal (CAN)
B2609: S/L STATUS	<ul style="list-style-type: none"> • Inhibit engine cranking • Inhibit steering lock 	When the following steering lock conditions agree <ul style="list-style-type: none"> • BCM steering lock control status • Steering lock condition No. 1 signal status • Steering lock condition No. 2 signal status
B260B: STEERING LOCK UNIT	Inhibit steering lock	Erase DTC

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Display contents of CONSULT	Fail-safe	Cancellation
B260D: STEERING LOCK UNIT	Inhibit steering lock	Erase DTC
B260F: ENG STATE SIG LOST	Inhibit engine cranking	When any of the following conditions are fulfilled • Power position changes to ACC • Receives engine status signal (CAN)
B2612: S/L STATUS	<ul style="list-style-type: none"> Inhibit engine cranking Inhibit steering lock 	When any of the following conditions are fulfilled • Steering lock unit status signal (CAN) is received normally • The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R)
B2619: BCM	Inhibit engine cranking	1 second after the steering lock unit power supply output control inside BCM becomes normal
B26EF: STRG LCK RELAY OFF	Inhibit engine cranking	When the following conditions are fulfilled • Steering lock relay signal (CAN): ON • Steering lock unit status signal (CAN): ON
B26F0: STRG LCK RELAY ON	Inhibit engine cranking	When the following conditions are fulfilled • Steering lock relay signal (CAN): OFF • Steering lock unit status signal (CAN): OFF
B26F1: IGN RELAY OFF	Inhibit engine cranking	When the following conditions are fulfilled • Ignition switch ON signal (CAN: Transmitted from BCM): ON • Ignition switch ON signal (CAN: Transmitted from IPDM E/R): ON
B26F2: IGN RELAY ON	Inhibit engine cranking	When the following conditions are fulfilled • Ignition switch ON signal (CAN: Transmitted from BCM): OFF • Ignition switch ON signal (CAN: Transmitted from IPDM E/R): OFF
B26F3: START CONT RLY ON	Inhibit engine cranking	When the following conditions are fulfilled • Starter control relay signal (CAN: Transmitted from BCM): OFF • Starter control relay signal (CAN: Transmitted from IPDM E/R): OFF
B26F4: START CONT RLY OFF	Inhibit engine cranking	When the following conditions are fulfilled • Starter control relay signal (CAN: Transmitted from BCM): ON • Starter control relay signal (CAN: Transmitted from IPDM E/R): ON
B26F7: BCM	Inhibit engine cranking by Intelligent Key system	When room antenna and luggage room antenna functions normally
U0415: VEHICLE SPEED	Inhibit steering lock	When vehicle speed signal (Meter) (CAN) is received normally

HIGH FLASHER OPERATION

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

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

NOTE:

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

REAR WIPER MOTOR PROTECTION

BCM detects the rear wiper stopping position according to the rear wiper stop position signal.

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

Condition of cancellation

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

DTC Inspection Priority Chart

INFOID:000000005061948

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Priority	DTC
1	B2562: LOW VOLTAGE
2	<ul style="list-style-type: none">• U1000: CAN COMM CIRCUIT• U1010: CONTROL UNIT (CAN)
3	<ul style="list-style-type: none">• B2192: ID DISCORD BCM-ECM• B2193: CHAIN OF BCM-ECM• B2195: ANTI-SCANNING• B2196: DONGLE NG• B2198: NATS ANTENNA AMP
4	<ul style="list-style-type: none">• B2013: ID DISCORD BCM-S/L• B2014: CHAIN OF S/L-BCM• B2553: IGNITION RELAY• B2555: STOP LAMP• B2556: PUSH-BTN IGN SW• B2557: VEHICLE SPEED• B2601: SHIFT POSITION• B2602: SHIFT POSITION• B2603: SHIFT POSI STATUS• B2604: PNP/CLUTCH SW• B2605: PNP/CLUTCH SW• B2608: STARTER RELAY• B2609: S/L STATUS• B260B: STEERING LOCK UNIT• B260C: STEERING LOCK UNIT• B260D: STEERING LOCK UNIT• B260F: ENG STATE SIG LOST• B2612: S/L STATUS• B2614: BCM• B2615: BCM• B2616: BCM• B2618: BCM• B2619: BCM• B261A: PUSH-BTN IGN SW• B26E9: LOCK MALFUNCTION• B26EF: STRG LCK RELAY OFF• B26F0: STRG LCK RELAY ON• B26F1: IGN RELAY OFF• B26F2: IGN RELAY ON• B26F3: START CONT RLY ON• B26F4: START CONT RLY OFF• B26F5: STRG LCK STS SW• B26F6: BCM• B26F7: BCM• B26F8: BCM• B26FC: KEY REGISTRATION• C1729: VHCL SPEED SIG ERR• U0415: VEHICLE SPEED

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Priority	DTC	
5	<ul style="list-style-type: none"> • C1704: LOW PRESSURE FL • C1705: LOW PRESSURE FR • C1706: LOW PRESSURE RR • C1707: LOW PRESSURE RL • C1708: [NO DATA] FL • C1709: [NO DATA] FR • C1710: [NO DATA] RR • C1711: [NO DATA] RL • C1712: [CHECKSUM ERR] FL • C1713: [CHECKSUM ERR] FR • C1714: [CHECKSUM ERR] RR • C1715: [CHECKSUM ERR] RL • C1716: [PRESSDATA ERR] FL • C1717: [PRESSDATA ERR] FR • C1718: [PRESSDATA ERR] RR • C1719: [PRESSDATA ERR] RL • C1720: [CODE ERR] FL • C1721: [CODE ERR] FR • C1722: [CODE ERR] RR • C1723: [CODE ERR] RL • C1724: [BATT VOLT LOW] FL • C1725: [BATT VOLT LOW] FR • C1726: [BATT VOLT LOW] RR • C1727: [BATT VOLT LOW] RL • C1734: CONTROL UNIT 	A B C D E F G
6	<ul style="list-style-type: none"> • B2621: INSIDE ANTENNA • B2622: INSIDE ANTENNA 	H
7	<ul style="list-style-type: none"> • B2626: OUTSIDE ANTENNA • B2627: OUTSIDE ANTENNA • B2628: OUTSIDE ANTENNA 	I

DTC Index

INFOID:000000005061949

NOTE:

The details of time display are as follows.

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

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to [BCS-18, "COMMON ITEM : CONSULT-III Function \(BCM - COMMON ITEM\)"](#).

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
No DTC is detected. further testing may be required.	—	—	—	—	—
U1000: CAN COMM	—	—	—	—	BCS-39
U1010: CONTROL UNIT (CAN)	—	—	—	—	BCS-40
U0415: VEHICLE SPEED	×	—	×	—	BCS-41
B2013: ID DISCORD BCM-S/L	×	×	×	—	SEC-45
B2014: CHAIN OF S/L-BCM	×	×	×	—	SEC-46
B2192: ID DISCORD BCM-ECM	×	—	—	—	SEC-35
B2193: CHAIN OF BCM-ECM	×	—	—	—	SEC-37
B2195: ANTI-SCANNING	×	—	—	—	SEC-38
B2196: DONGLE NG	×	—	—	—	SEC-39

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
B2198: NATS ANTENNA AMP	×	—	—	—	SEC-41
B2553: IGNITION RELAY	—	×	×	—	PCS-78
B2555: STOP LAMP	—	×	×	—	SEC-49
B2556: PUSH-BTN IGN SW	—	×	×	—	SEC-51
B2557: VEHICLE SPEED	×	×	×	—	SEC-53
B2562: LOW VOLTAGE	—	×	—	—	BCS-42
B2601: SHIFT POSITION	×	×	×	—	SEC-54
B2602: SHIFT POSITION	×	×	×	—	SEC-57
B2603: SHIFT POSI STATUS	×	×	×	—	SEC-60
B2604: PNP/CLUTCH SW	×	×	×	—	SEC-65
B2605: PNP/CLUTCH SW	×	×	×	—	SEC-68
B2608: STARTER RELAY	×	×	×	—	SEC-70
B2609: S/L STATUS	×	×	×	—	SEC-72
B260B: STEERING LOCK UNIT	×	×	×	—	SEC-75
B260C: STEERING LOCK UNIT	—	×	×	—	SEC-76
B260D: STEERING LOCK UNIT	×	×	×	—	SEC-77
B260F: ENG STATE SIG LOST	×	×	×	—	SEC-78
B2612: S/L STATUS	×	×	×	—	SEC-79
B2614: BCM	—	×	×	—	PCS-80
B2615: BCM	—	×	×	—	PCS-83
B2616: BCM	—	×	×	—	PCS-86
B2618: BCM	—	×	×	—	PCS-89
B2619: BCM	×	×	×	—	SEC-82
B261A: PUSH-BTN IGN SW	—	×	×	—	PCS-90
B2621: INSIDE ANTENNA	—	×	—	—	DLK-44
B2622: INSIDE ANTENNA	—	×	—	—	DLK-46
B2626: OUTSIDE ANTENNA	—	×	—	—	DLK-48
B2627: OUTSIDE ANTENNA	—	×	—	—	DLK-50
B2628: OUTSIDE ANTENNA	—	×	—	—	DLK-52
B26E9: LOCK MALFUNCTION	—	×	× (Turn ON for 15 seconds)	—	SEC-83
B26EF: STRG LCK RELAY OFF	×	×	×	—	SEC-84
B26F0: STRG LCK RELAY ON	×	×	×	—	SEC-86
B26F1: IGN RELAY OFF	×	×	×	—	PCS-92
B26F2: IGN RELAY ON	×	×	×	—	PCS-95
B26F3: START CONT RLY ON	×	×	×	—	SEC-87
B26F4: START CONT RLY OFF	×	×	×	—	SEC-88
B26F5: STRG LCK STS SW	—	×	×	—	SEC-90
B26F6: BCM	—	×	×	—	PCS-98
B26F7: BCM	×	×	×	—	SEC-93
B26F8: BCM	—	×	×	—	SEC-94

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
B26FC: KEY REGISTRATION	—	×	×	—	SEC-95
C1704: LOW PRESSURE FL	—	—	—	×	WT-16
C1705: LOW PRESSURE FR	—	—	—	×	
C1706: LOW PRESSURE RR	—	—	—	×	
C1707: LOW PRESSURE RL	—	—	—	×	
C1708: [NO DATA] FL	—	—	—	×	WT-18
C1709: [NO DATA] FR	—	—	—	×	
C1710: [NO DATA] RR	—	—	—	×	
C1711: [NO DATA] RL	—	—	—	×	
C1712: [CHECKSUM ERR] FL	—	—	—	×	WT-21
C1713: [CHECKSUM ERR] FR	—	—	—	×	
C1714: [CHECKSUM ERR] RR	—	—	—	×	
C1715: [CHECKSUM ERR] RL	—	—	—	×	
C1716: [PRESSDATA ERR] FL	—	—	—	×	WT-24
C1717: [PRESSDATA ERR] FR	—	—	—	×	
C1718: [PRESSDATA ERR] RR	—	—	—	×	
C1719: [PRESSDATA ERR] RL	—	—	—	×	
C1720: [CODE ERR] FL	—	—	—	×	WT-26
C1721: [CODE ERR] FR	—	—	—	×	
C1722: [CODE ERR] RR	—	—	—	×	
C1723: [CODE ERR] RL	—	—	—	×	
C1724: [BATT VOLT LOW] FL	—	—	—	×	WT-29
C1725: [BATT VOLT LOW] FR	—	—	—	×	
C1726: [BATT VOLT LOW] RR	—	—	—	×	
C1727: [BATT VOLT LOW] RL	—	—	—	×	
C1729: VHCL SPEED SIG ERR	—	—	—	×	WT-32
C1734: CONTROL UNIT	—	—	—	×	WT-34

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

BCS

COMBINATION SWITCH SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

SYMPTOM DIAGNOSIS

COMBINATION SWITCH SYSTEM SYMPTOMS

Symptom Table

INFOID:000000005061950

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

Malfunction item: ×

Data monitor item																	Malfunction combination
FR WIPER HI	FR WIPER LOW	FR WASHER SW	FR WIPER INT	RR WIPER ON	RR WIPER INT	RR WASHER SW	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	
	×	×						×	×								A
×			×									×		×			B
						×	×				×		×				C
					×		×			×					×		D
				×			×									×	E
×					×		×										F
		×		×		×	×										G
	×		×												×		H
									×				×	×		×	I
								×		×	×	×					J
All Items																	K
If only one item is detected or the item is not applicable to the combinations A to K																	L

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

Malfunction combination	Malfunctioning part	Repair or replace
A	Combination switch OUTPUT 1 circuit	Inspect the combination switch output circuit applicable to the malfunctioning part. Refer to BCS-44, "Diagnosis Procedure" .
B	Combination switch OUTPUT 2 circuit	
C	Combination switch OUTPUT 3 circuit	
D	Combination switch OUTPUT 4 circuit	
E	Combination switch OUTPUT 5 circuit	
F	Combination switch INPUT 1 circuit	Inspect the combination switch input circuit applicable to the malfunctioning part. Refer to BCS-46, "Diagnosis Procedure" .
G	Combination switch INPUT 2 circuit	
H	Combination switch INPUT 3 circuit	
I	Combination switch INPUT 4 circuit	
J	Combination switch INPUT 5 circuit	
K	BCM	Replace BCM. Refer to BCS-82, "Exploded View" .
L	Combination switch	Replace combination switch.

PRECAUTION

PRECAUTIONS

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

INFOID:000000005061951

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

WARNING:

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

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

WARNING:

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

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

BCS

N
O
P

BCM (BODY CONTROL MODULE)

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

REMOVAL AND INSTALLATION

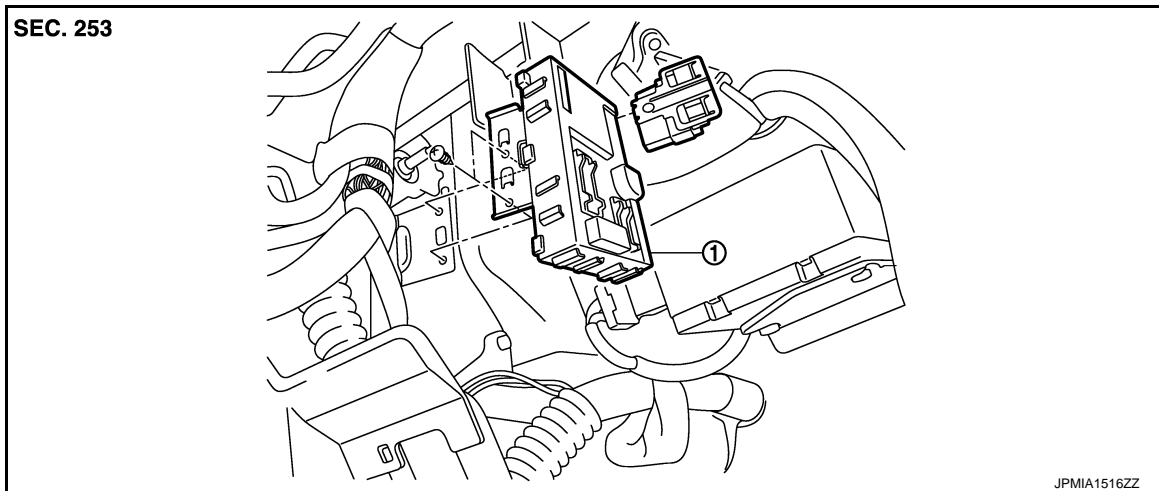
BCM (BODY CONTROL MODULE)

Exploded View

INFOID:000000005061952

CAUTION:

Before replacing BCM, perform "READ CONFIGURATION" to save or print current vehicle specification. Refer to [BCS-5, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT \(BCM\) : Description"](#).



1. BCM

Removal and Installation

INFOID:000000005061953

CAUTION:

Before replacing BCM, perform "READ CONFIGURATION" to save or print current vehicle specification. Refer to [BCS-5, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT \(BCM\) : Description"](#).

REMOVAL

1. Remove knee protector. Refer to [JP-12, "Exploded View"](#).
2. Remove fuse block (J/B).
3. Remove harness clip.
4. Remove screws.
5. Remove BCM and disconnect the connector.
6. Remove the ignition relay and back door lock actuator relay.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

- Be sure to perform "WRITE CONFIGURATION" when replacing BCM.
- Be sure to perform the system initialization (NATS) when replacing BCM. Refer to [BCS-5, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT \(BCM\) : Special Repair Requirement"](#).

COMBINATION SWITCH

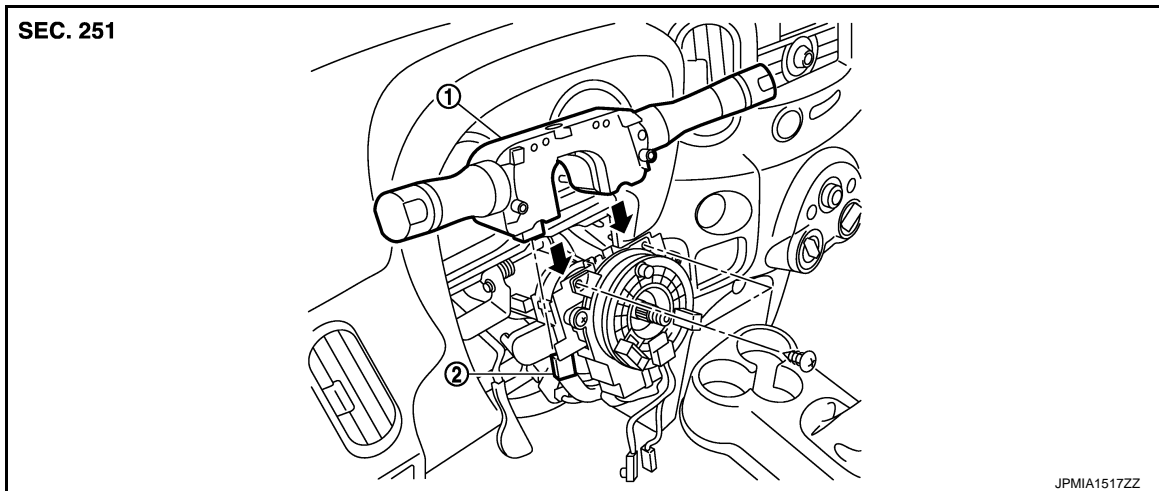
< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

COMBINATION SWITCH

Exploded View

INFOID:000000005061954



1. Combination switch

2. Combination switch connector

Removal and Installation

INFOID:000000005061955

REMOVAL

1. Remove steering column cover. Refer to [IP-12. "Exploded View"](#).
2. Remove screws.
3. Disconnect the connector.
4. Pull up the combination switch to remove it.

INSTALLATION

Install in the reverse order of removal.

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

BCS

N
O
P

BASIC INSPECTION

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM)

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Description

INFOID:000000005152131

BEFORE REPLACEMENT

When replacing BCM, save or print current vehicle specification with CONSULT-III configuration before replacement.

NOTE:

If "READ CONFIGURATION" can not be used, use the "WRITE CONFIGURATION - Manual selection" after replacing BCM.

AFTER REPLACEMENT

CAUTION:

- When replacing BCM, you must perform "WRITE CONFIGURATION" with CONSULT-III.
- Complete the procedure of "WRITE CONFIGURATION" in order.
- If you set incorrect "WRITE CONFIGURATION", incidents might occur.
- Configuration is different for each vehicle model. Confirm configuration of each vehicle model.
- When replacing BCM, perform the system initialization (NATS).

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Special Repair Requirement

INFOID:000000005152132

1. SAVING VEHICLE SPECIFICATION

CONSULT-III Configuration

Perform "READ CONFIGURATION" to save or print current vehicle specification. Refer to [BCS-84, "CONFIGURATION \(BCM\) : Description"](#).

NOTE:

If "READ CONFIGURATION" can not be used, use the "WRITE CONFIGURATION - Manual selection" after replacing BCM.

>> GO TO 2.

2. REPLACE BCM

Replace BCM. Refer to [BCS-148, "Exploded View"](#).

>> GO TO 3.

3. WRITING VEHICLE SPECIFICATION

CONSULT-III Configuration

Perform "WRITE CONFIGURATION - Config file" or "WRITE CONFIGURATION - Manual selection" to write vehicle specification. Refer to [BCS-85, "CONFIGURATION \(BCM\) : Special Repair Requirement"](#).

>> GO TO 4.

4. INITIALIZE BCM (NATS)

Perform BCM initialization. (NATS)

>> WORK END

CONFIGURATION (BCM)

CONFIGURATION (BCM) : Description

INFOID:000000005152133

Vehicle specification needs to be written with CONSULT-III because it is not written after replacing BCM.

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Configuration has three functions as follows

Function	Description
READ CONFIGURATION	<ul style="list-style-type: none">• Reads the vehicle configuration of current BCM.• Saves the read vehicle configuration.
WRITE CONFIGURATION - Manual selection	Writes the vehicle configuration with manual selection.
WRITE CONFIGURATION - Config file	Writes the vehicle configuration with saved data.

CAUTION:

- When replacing BCM, you must perform "WRITE CONFIGURATION" with CONSULT-III.
- Complete the procedure of "WRITE CONFIGURATION" in order.
- If you set incorrect "WRITE CONFIGURATION", incidents might occur.
- Configuration is different for each vehicle model. Confirm configuration of each vehicle model.
- Never perform "WRITE CONFIGURATION" except for new BCM.

CONFIGURATION (BCM) : Special Repair Requirement

INFOID:000000005152134

1. WRITING MODE SELECTION

ⓂCONSULT-III Configuration
Select "CONFIGURATION" of BCM.

When writing saved data>>GO TO 2.
When writing manually>>GO TO 3.

2. PERFORM "WRITE CONFIGURATION - CONFIG FILE"

ⓂCONSULT-III Configuration
Perform "WRITE CONFIGURATION - Config file".

>> WORK END

3. PERFORM "WRITE CONFIGURATION - MANUAL SELECTION"

- ⓂCONSULT-III Configuration
1. Select "WRITE CONFIGURATION - Manual selection".
 2. Identify the correct model and configuration list. Refer to [BCS-85, "CONFIGURATION \(BCM\) : Configuration list"](#).
 3. Confirm and/or change setting value for each item.
CAUTION:
Thoroughly read and understand the vehicle specification. Incorrect settings may result in abnormal control of ECU.
 4. Select "SETTING".
CAUTION:
Make sure to select "SETTING" even if the indicated configuration of brand new BCM is same as the desirable configuration. If not, configuration which is set automatically by selecting vehicle model can not be memorized.
 5. When "COMMAND FINISHED", select "END".

>> GO TO 4.

4. OPERATION CHECK

Confirm that each function controlled by BCM operates normally.

>> WORK END

CONFIGURATION (BCM) : Configuration list

INFOID:000000005152916

CAUTION:

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Thoroughly read and understand the vehicle specification. Incorrect settings may result in abnormal control of ECU.

SETTING ITEM		NOTE
Items	Setting value	
CAN CONNECTION UNIT	MODE4 ⇔ WITHOUT	<ul style="list-style-type: none">• MODE4: M/T models• WITHOUT: Except M/T models
AUTO LIGHT	WITH ⇔ WITHOUT	—
DTRL	WITH ⇔ WITHOUT	<ul style="list-style-type: none">• WITH: With daytime running light system• WITHOUT: Without daytime running light system
AIR COND	MANUAL A/C ⇔ AUTO A/C	<ul style="list-style-type: none">• MANUAL A/C: Except automatic air conditioner models• AUTO A/C: Automatic air conditioner models

⇔: Items which confirm vehicle specifications

BODY CONTROL SYSTEM

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION

BODY CONTROL SYSTEM

System Description

INFOID:000000005061966

OUTLINE

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

BCM FUNCTION LIST

System	Reference page
Combination switch reading system	BCS-89, "System Diagram"
Signal buffer system	BCS-93, "System Diagram"
Power consumption control system	BCS-94, "System Diagram"
Headlamp system	EXL-7, "System Diagram"
Daytime running light system	EXL-9, "System Diagram"
Auto light system	EXL-11, "System Diagram"
Front fog lamp system	EXL-14, "System Diagram"
Turn signal and hazard warning lamp system	EXL-16, "System Diagram"
Parking, license plate, side maker and tail lamps system	EXL-18, "System Diagram"
Exterior lamp battery saver system	EXL-20, "System Diagram"
Interior room lamp control system	INL-5, "System Diagram"
Interior room lamp battery saver system	INL-8, "System Diagram"
Front wiper and washer system	WW-6, "System Diagram"
Rear wiper and washer system	WW-10, "System Diagram"
Automatic air conditioner system	HAC-16, "System Diagram"
Manual air conditioner system	HAC-162, "System Diagram"
Warning chime system	WCS-5, "WARNING CHIME SYSTEM : System Diagram"
Power door lock system	DLK-229, "System Diagram"
Nissan vehicle immobilizer system-NATS (NVIS)	SEC-201, "System Diagram"
Vehicle security system	SEC-203, "System Diagram"
Panic alarm	SEC-203, "System Description"
Rear window defogger system	DEF-5, "System Diagram"
Remote keyless entry system	DLK-232, "System Diagram"
Power window system	PWC-6, "System Diagram"
Retained accessory power (RAP) system	PWC-6, "System Description"
Tire pressure monitor system (TPMS) - AIR PRESSURE MONITOR	WT-9, "System Diagram"

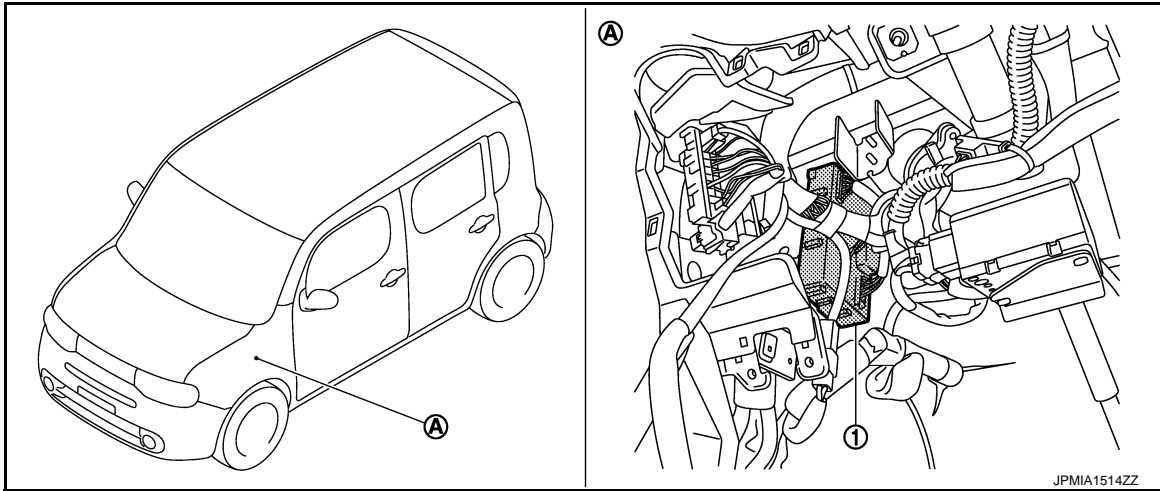
BODY CONTROL SYSTEM

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Component Parts Location

INFOID:000000005152136



- 1. BCM
- A. Behind of instrument lower panel LH
(Left side)

COMBINATION SWITCH READING SYSTEM

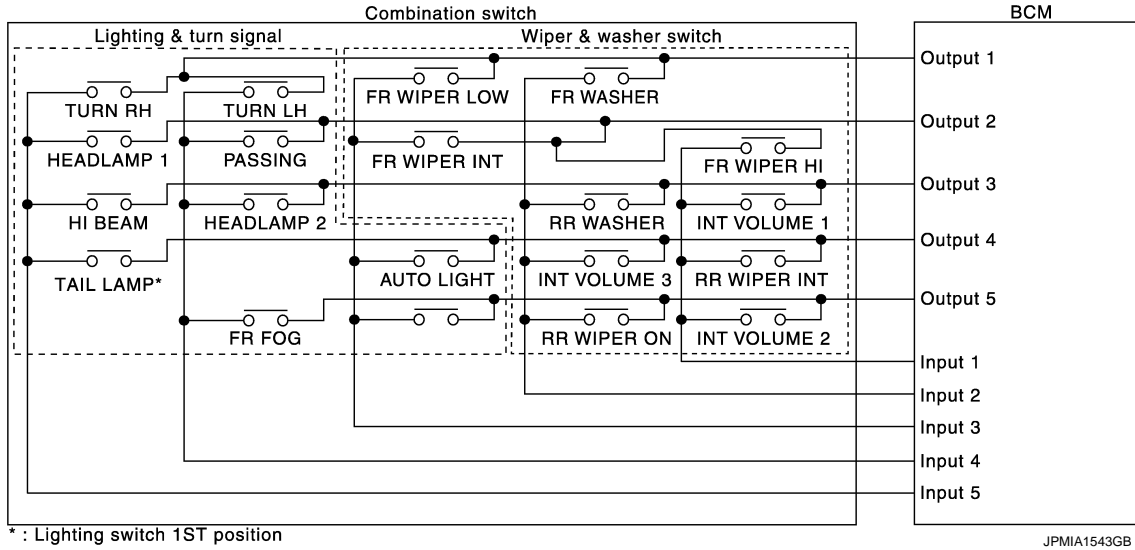
< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

COMBINATION SWITCH READING SYSTEM

System Diagram

INFOID:000000005152843



System Description

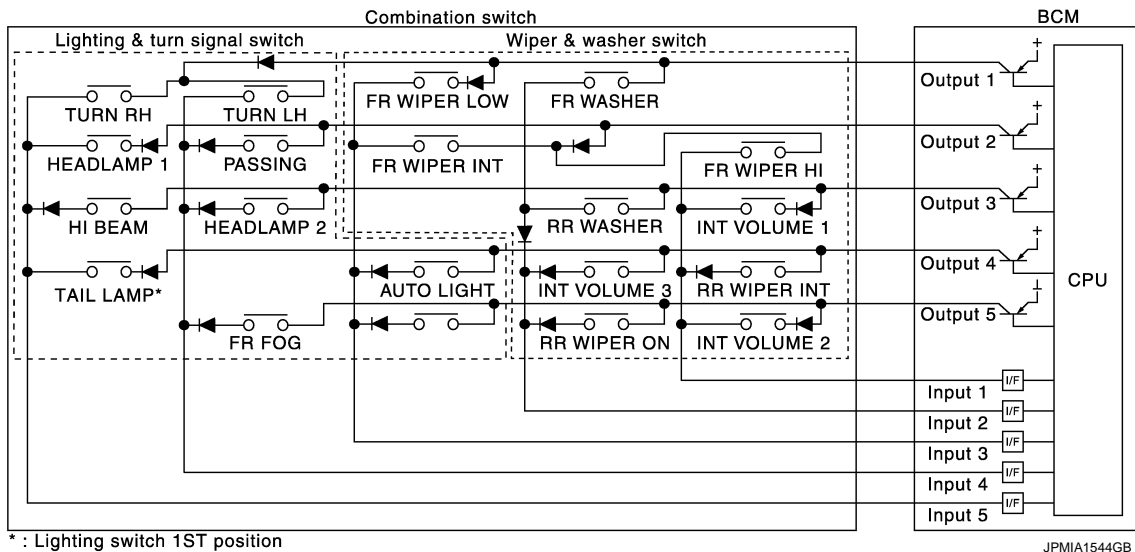
INFOID:000000005152844

OUTLINE

- BCM reads the status of the combination switch (light, turn signal, wiper and washer) and recognizes the status of each switch.
- BCM has 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	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5
OUTPUT 1	—	FR WASHER	FR WIPER LOW	TURN LH	TURN RH
OUTPUT 2	FR WIPER HI	—	FR WIPER INT	PASSING	HEADLAMP 1
OUTPUT 3	INT VOLUME 1	RR WASHER	—	HEADLAMP 2	HI BEAM

COMBINATION SWITCH READING SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

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

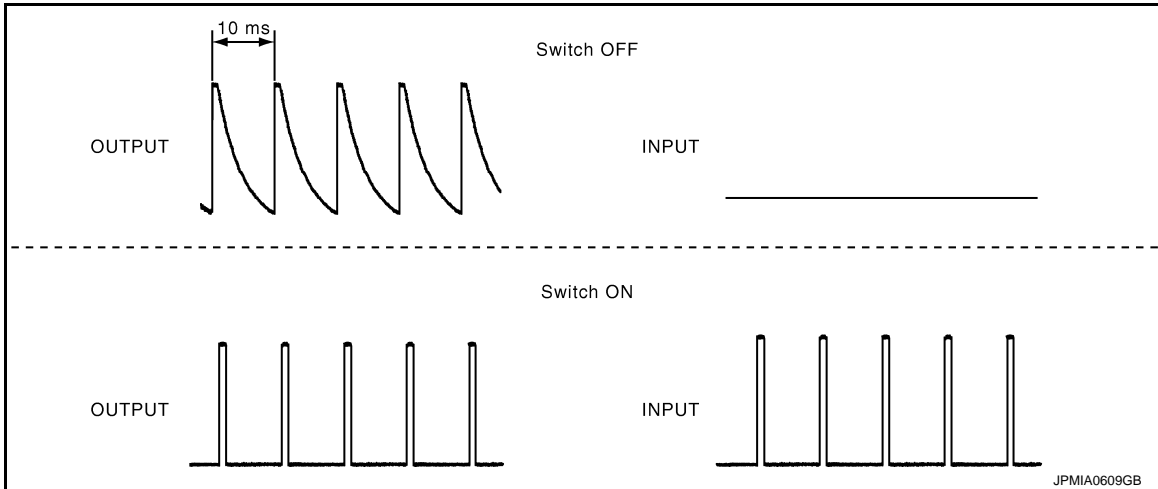
NOTE:

Headlamp has a dual system switch.

COMBINATION SWITCH READING FUNCTION

Description

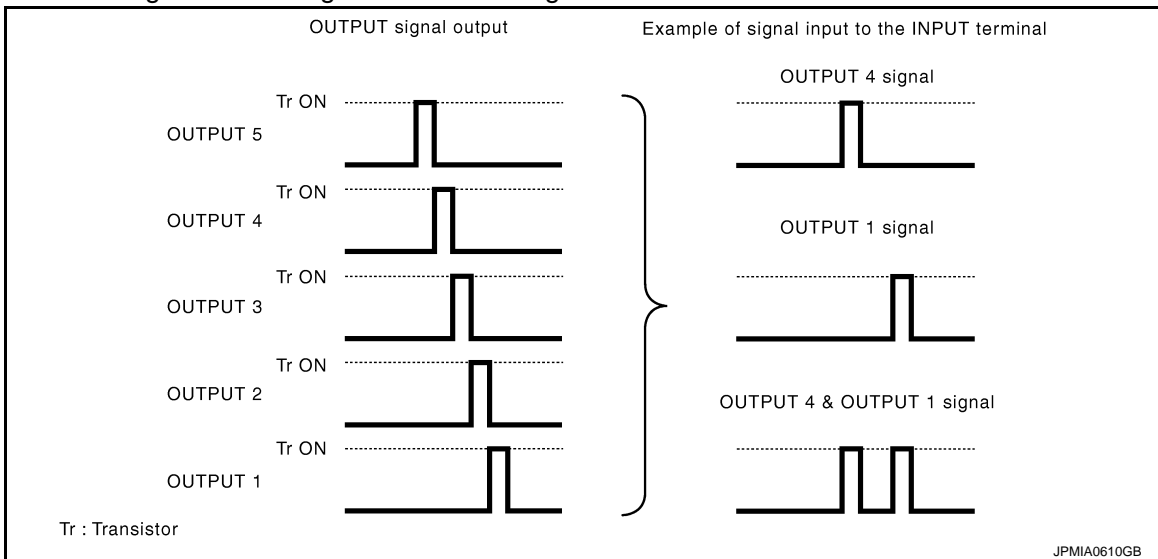
- BCM reads the status of the combination switch at 10 ms interval normally.



NOTE:

BCM reads the status of the combination switch at 65 ms interval when BCM is controlled at low power consumption control mode.

- BCM operates as follows and judges the status of the combination switch.
 - It operates the transistor on OUTPUT side in the following order: OUTPUT 5 → 4 → 3 → 2 → 1, and outputs voltage waveform.
 - The voltage waveform of OUTPUT corresponding to the formed circuit is input into the interface on INPUT 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".

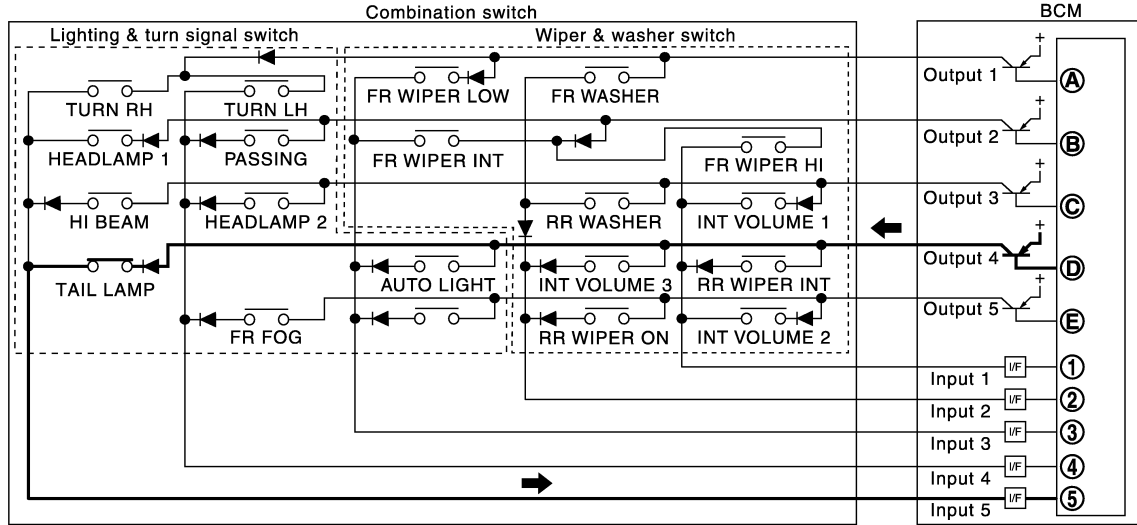
Example 1: When a switch (TAIL LAMP switch) is turned ON

COMBINATION SWITCH READING SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

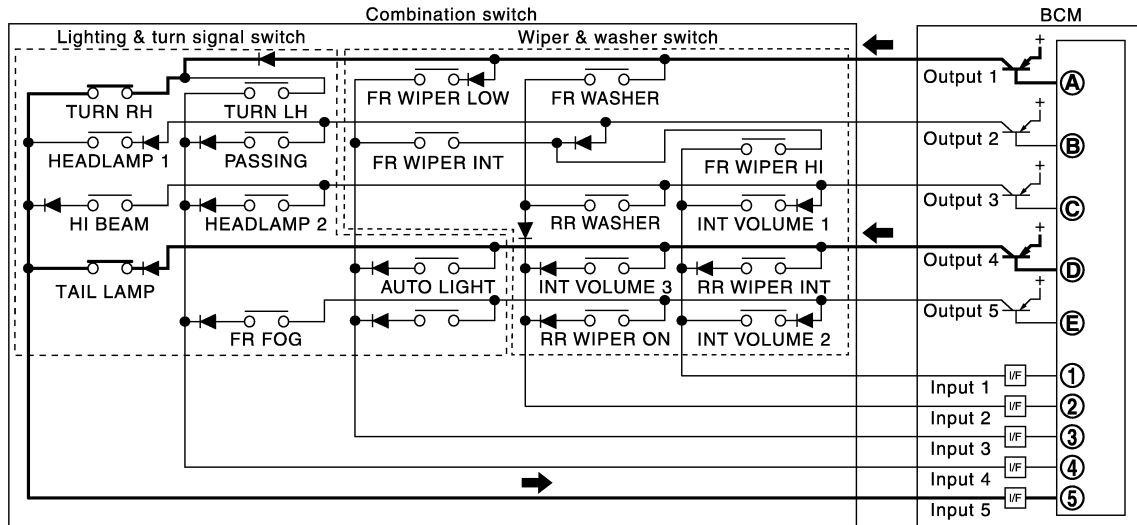
- The circuit between OUTPUT 4 and INPUT 5 is formed when the TAIL LAMP switch is turned ON.



- BCM detects the combination switch status signal "5D" when the signal of OUTPUT 4 is input to INPUT 5.
- BCM judges that the TAIL LAMP switch is ON when the signal "5D" is detected.

Example 2: When some switches (TURN RH switch, TAIL LAMP switch) are turned ON

- The circuits between OUTPUT 1 and INPUT 5 and between OUTPUT 4 and INPUT 5 are formed when the TURN RH switch and TAIL LAMP switch are turned ON.



- BCM detects the combination switch status signal "5AD" when the signals of OUTPUT 1 and OUTPUT 4 are input to INPUT 5.
- BCM judges that the TURN RH switch and TAIL LAMP switch are ON when the signal "5AD" is detected.

WIPER INTERMITTENT DIAL POSITION

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

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

COMBINATION SWITCH READING SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

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

NOTE:

For details of wiper intermittent dial position, refer to [WW-6. "System Description"](#).

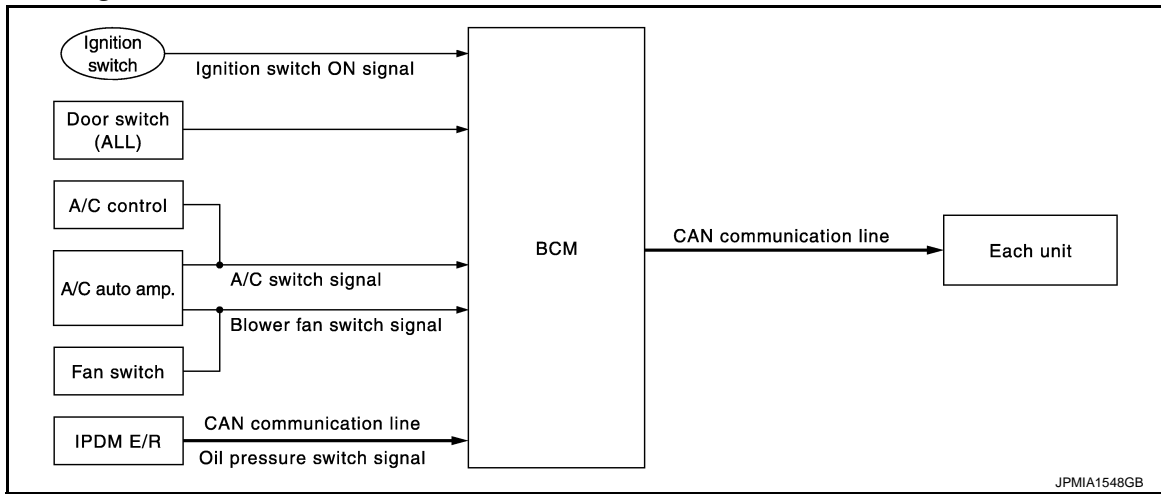
SIGNAL BUFFER SYSTEM

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

SIGNAL BUFFER SYSTEM

System Diagram



System Description

INFOID:000000005061972

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	IPDM E/R (CAN)	Inputs the ignition switch signal and transmits it with CAN communication.
Door switch signal	Any door switch	<ul style="list-style-type: none"> Combination meter (CAN) IPDM E/R (CAN) 	Inputs the door switch signal and transmits it with CAN communication.
Blower fan on signal	<ul style="list-style-type: none"> A/C auto amp. Fan switch 	ECM (CAN)	Inputs each signals, and transmits the blower fan on signal and A/C on signal via CAN communication.
A/C on signal	<ul style="list-style-type: none"> A/C auto amp. A/C control 		
Oil pressure switch signal	IPDM E/R (CAN)	Combination meter (CAN)	Transmits the received oil pressure switch signal with CAN communication.

BCS

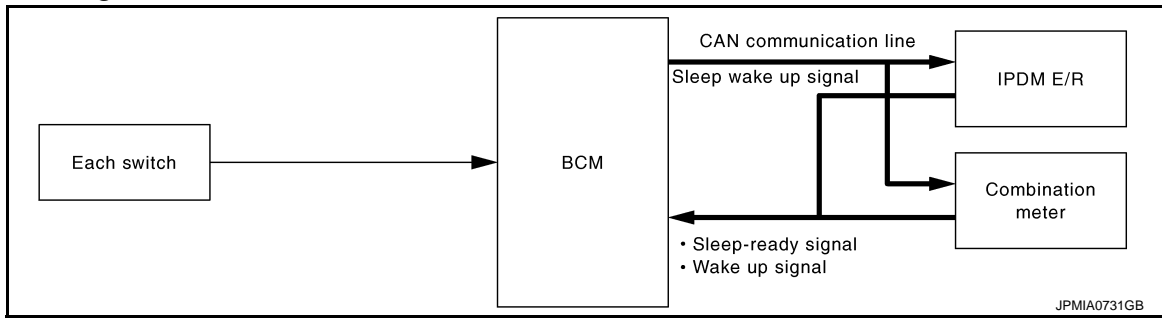
POWER CONSUMPTION CONTROL SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

POWER CONSUMPTION CONTROL SYSTEM

System Diagram



System Description

INFOID:000000005152840

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 and combination meter) 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 combination meter 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

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Sleep condition

CAN sleep condition	BCM sleep condition	
<ul style="list-style-type: none"> • Receiving the sleep-ready signal (ready) from all units • Ignition switch: OFF • Vehicle security system and panic alarm: Not operation • Warning chime: Not operation • Stop lamp switch: OFF • Turn signal indicator lamp: Not operation • Exterior lamp: OFF • Door lock status: No change • CONSULT-III communication status: Not communication • Door switch status: No change • Rear window defogger: OFF • Driver door lock status: No change • Key switch status: No change 	<ul style="list-style-type: none"> • Interior room lamp battery saver: Time out • RAP system: OFF • Nissan Vehicle Immobilizer System (NVIS) - NATS: Not operation • Remote keyless entry receiver communication status: No communication • Tire pressure monitor system (TPMS) - AIR PRESSURE MONITOR: Stop 	<p>A</p> <p>B</p> <p>C</p> <p>D</p>

Wake-up operation

- BCM transmits sleep wake up signal (wake up) to each unit when any condition listed below is established, and then goes into normal mode from low power consumption mode.
- Each unit starts transmissions with CAN communication by receiving sleep wake up signals. Each unit transmit wake up signals to BCM with CAN communication to convey the start of CAN communication.

Wake-up condition

Wake-up condition	
<ul style="list-style-type: none"> • Receiving the sleep-ready signal (Not-ready) from any units • Hazard switch: ON • HI BEAM switch: OFF → ON, ON → OFF • PASSING switch: OFF → ON, ON → OFF • HEADLAMP 1 switch: OFF → ON, ON → OFF • HEADLAMP 2 switch: OFF → ON, ON → OFF • TAIL LAMP switch: OFF → ON • FR FOG switch: OFF → ON, ON → OFF • TURN RH: OFF → ON, ON → OFF • TURN LH: OFF → ON, ON → OFF • Driver door 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 • Back door switch: OFF → ON, ON → OFF • Stop lamp switch: ON • Door lock and unlock switch: NEUTRAL → LOCK, NEUTRAL → UNLOCK • Front door lock assembly (driver side) (door key cylinder switch): NEUTRAL → LOCK, NEUTRAL → UNLOCK • Remote keyless entry receiver communication: Receiving 	<p>H</p> <p>I</p> <p>J</p> <p>K</p> <p>L</p> <p>BCS</p>

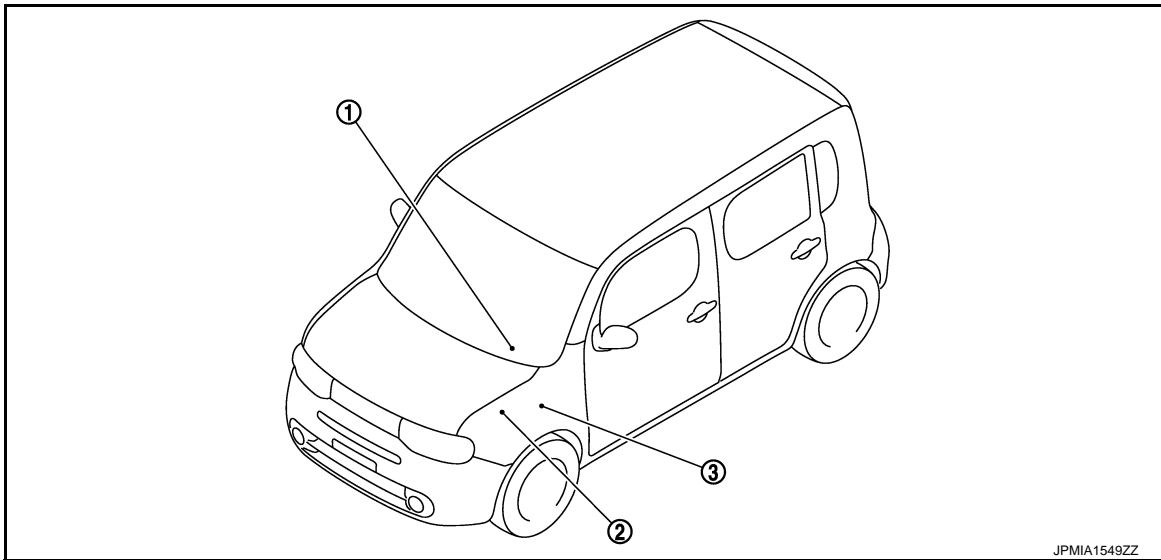
POWER CONSUMPTION CONTROL SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Component Parts Location

INFOID:000000005152841



1. Combination meter

2. IPDM E/R
Refer to [PCS-37, "Component Parts Location"](#).

3. BCM
Refer to [BCS-88, "Component Parts Location"](#).

JPMIA1549ZZ

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

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

INFOID:000000005061976

APPLICATION ITEM

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

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

SYSTEM APPLICATION

BCM can perform the following functions for each system.

NOTE:

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

x: Applicable item

System	Sub system selection item	Diagnosis mode		
		Work Support	Data Monitor	Active Test
Door lock	DOOR LOCK	x	x	x
Rear window defogger	REAR DEFOGGER		x	x
Warning chime	BUZZER		x	x
Interior room lamp control	INT LAMP	x	x	x
Remote keyless entry system	MULTI REMOTE ENT	x	x	x
Exterior lamp	HEAD LAMP	x	x	x
Wiper and washer	WIPER	x	x	x
Turn signal and hazard warning lamps	FLASHER		x	x
<ul style="list-style-type: none"> • Automatic air conditioner • Manual air conditioner 	AIR CONDITONER		x	x
Combination switch	COMB SW		x	
Body control system	BCM	x		
NVIS - NATS	IMMU	x	x	x
Interior room lamp battery saver	BATTERY SAVER	x	x	x
Back door	TRUNK		x	
Vehicle security system	THEFT ALM	x	x	x
RAP system	RETAINED PWR		x	x
Signal buffer system	SIGNAL BUFFER		x	x
TPMS	TPMS (AIR PRESSURE MONITOR)	x	x	x
Panic alarm system	PANIC ALARM			x

DOOR LOCK

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

BCS

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

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

INFOID:000000005183479

BCM CONSULT-III FUNCTION

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

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

WORK SUPPORT

Monitor item	Description
DOOR LOCK-UNLOCK SET	Selective unlock function mode can be changed to operate with this mode <ul style="list-style-type: none"> On: Operate Off: Non-operation
AUTOMATIC DOOR LOCK SELECT	Automatic door lock function mode can be selected from the following in this mode <ul style="list-style-type: none"> VH SPD: All doors are locked when vehicle speed more than 24km/h (15MPH) P RANGE: All doors are locked when shifting the selector lever from P position to other than the P position
AUTOMATIC DOOR UNLOCK SELECT	Automatic door unlock function mode can be selected from the following in the mode <ul style="list-style-type: none"> MODE 1: All doors are unlocked when the power supply position is changed from ON to OFF MODE 2: All doors are unlocked when shifting the selector lever from any position other than the P to P position MODE 3: Driver side door is unlocked when the power supply position is changed from ON to OFF MODE 4: Driver side door is unlocked when shifting the selector lever from any position other than the P to P position MODE 5: Driver side door is unlocked when key out of key switch MODE 6: All doors are unlocked when key out of key switch
AUTOMATIC LOCK/UNLOCK SET	Automatic door lock/unlock function mode can be selected from the following in this mode <ul style="list-style-type: none"> Off: Non-operation Unlock Only: door unlock operation only Lock Only: door lock operation only Lock/Unlock: lock/unlock operation

DATA MONITOR

Monitor Item	Contents
IGN ON SW	Indicated [On/Off] condition of ignition switch in ON position
KEY ON SW	Indicated [On/Off] condition of key 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
BACK DOOR SW	Indicated [On/Off] condition of back door switch
LOCK STATUS	Indicated [On/Off] condition of driver side door
ACC ON SW	Indicated [On/Off] condition of ignition switch in ACC position
KEYLESS LOCK	Indicated [On/Off] condition of lock signal from key fob
KEYLESS UNLOCK	Indicated [On/Off] condition of unlock signal from key fob
SHOCK SENSOR	NOTE: This item is displayed, but cannot be supported
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

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor Item	Contents
KEY CYL LK-SW	Indicated [On/Off] condition of lock signal from door key cylinder
KEY CYL UN-SW	Indicated [On/Off] condition of unlock signal from door key cylinder
VEHICLE SPEED	Display the vehicle speed signal received from combination meter by numerical value [Km/h]

ACTIVE TEST

Test item	Description
DOOR LOCK	This test is able to check door lock/unlock operation <ul style="list-style-type: none">• The all door lock actuators are locked when "ALL LCK" on CONSULT-III screen is touched• The all door lock actuators are unlocked when "ALL UNLK" on CONSULT-III screen is touched• The door lock actuator (driver side) is unlocked when "DR UNLK" on CONSULT-III screen is touched• The door lock actuator (other) is unlocked when "OTR ULK" on CONSULT-III screen is touched

REAR WINDOW DEFOGGER

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

INFOID:000000005183492

DATA MONITOR

Monitor Item	Description
IGN ON SW	Indicates [ON/OFF] condition of ignition switch in ON position.
ACC ON SW	Indicates [ON/OFF] condition of ignition switch in ACC position.
REAR DEF SW	Displays "Press (ON)/other (OFF)" status determined with the rear window defogger switch.

ACTIVE TEST

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

BUZZER

BUZZER : CONSULT-III Function (BCM - BUZZER)

INFOID:000000005183495

CONSULT-III APPLICATION ITEMS

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

DATA MONITOR

Display item [Unit]	Description
IGN ON SW [On/Off]	Status of ignition switch judged by BCM.
KEY ON SW [On/Off]	Status of key switch judged by BCM.
DOOR SW-DR [km/h]	Status of driver side door switch judged by BCM.
REVERSE SW CAN [On/Off]	This item is displayed, but cannot be monitored.

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Display item [Unit]	Description
TAIL LAMP SW [On/Off]	Status of lighting switch judged by BCM using the combination switch readout function.
FR FOG SW [On/Off]	Status of front fog lamp switch judged by BCM using the combination switch readout function.
BUCKLE SW [On/Off]	Status of seatbelt buckle switch (driver side) received from combination meter with CAN communication line.
VEHICLE SPEED [km/h]	Value of vehicle speed signal received from combination meter with CAN communication line.

ACTIVE TEST

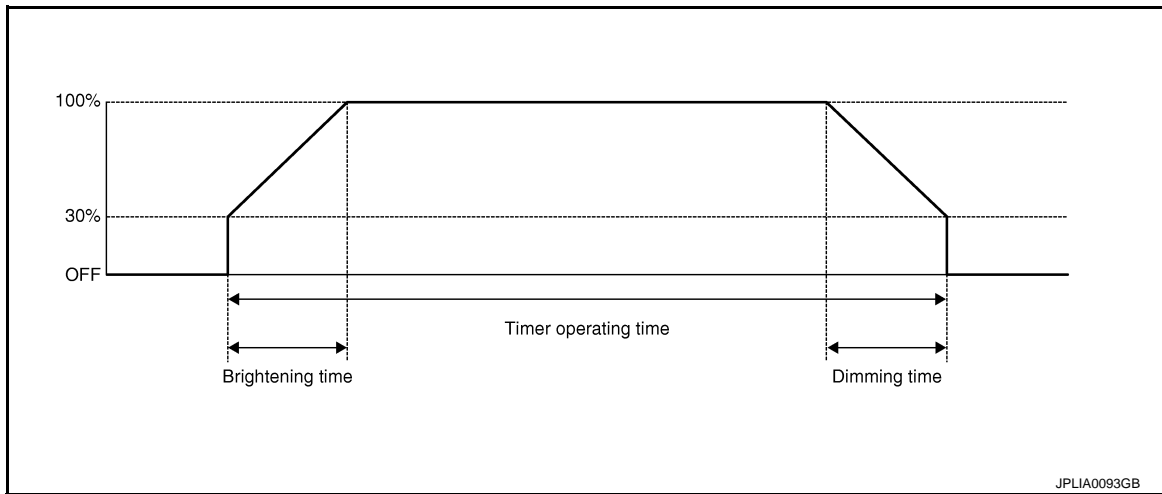
Display item [Unit]	Description
IGN KEY WARN ALM	The key warning chime operation can be checked by operating the relevant function (On/Off).
SEAT BELT WARN TEST	The seat belt warning chime operation can be checked by operating the relevant function (On/Off).
LIGHT WARN ALM	The light warning chime operation can be checked by operating the relevant function (On/Off).

INT LAMP

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

INFOID:000000005183489

WORK SUPPORT



Service item	Setting item	Setting
ROOM LAMP TIMER SET	MODE 1*	0 sec.
	MODE 2	7.5 sec.
	MODE 3	15 sec.
	MODE 4	30 sec.
		Sets the interior room lamp ON time. (Timer operating time)
SET I/L D-UNLCK INTCON	On*	With the interior room lamp timer function
	Off	Without the interior room lamp timer function

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Service item	Setting item	Setting	
ROOM LAMP ON TIME SET	MODE 1	0.5 sec.	Sets the interior room lamp gradual brightening time.
	MODE 2*	1 sec.	
	MODE 3	2 sec.	
	MODE 4	3 sec.	
	MODE 5	4 sec.	
	MODE 6	5 sec.	
	MODE 7	0 sec.	
ROOM LAMP OFF TIME SET	MODE 1	0.5 sec.	Sets the interior room lamp gradual dimming time.
	MODE 2*	1 sec.	
	MODE 3	2 sec.	
	MODE 4	3 sec.	
	MODE 5	4 sec.	
	MODE 6	5 sec.	
	MODE 7	0 sec.	
R LAMP TIMER LOGIC SET	MODE 1*	Interior room lamp timer activates with synchronizing all doors.	
	MODE 2	Interior room lamp timer activates with synchronizing the driver door only.	

*: Factory setting

DATA MONITOR

Monitor item [Unit]	Description	
IGN ON SW [On/Off]	The switch status input from request switch (driver side)	I
ACC SW [On/Off]	Ignition switch (ACC) status judges from ACC signal (ACC power supply)	J
KEY ON SW [On/Off]	The switch status input from request switch (passenger side)	K
DOOR SW-DR [On/Off]	The switch status input from front door switch (driver side)	L
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	BCS
DOOR SW- RL [On/Off]	The switch status input from rear door switch LH	
BACK DOOR SW [On/Off]	The switch status input from back door switch	N
LOCK STATUS [On/Off]	The switch status input from door lock status switch (driver side)	O
CDL LOCK SW [On/Off]	Lock switch status input from door lock and unlock switch	
CDL UNLOCK SW [On/Off]	Unlock switch status input from door lock and unlock switch	P
KEYLESS LOCK [On/Off]	Lock signal status received from remote keyless entry receiver	
KEYLESS UNLOCK [On/Off]	Unlock signal status received from remote keyless entry receiver	
KEY CYL LK-SW [On/Off]	Lock switch status received from key cylinder lock/unlock switch	

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description
KEY CYL UN-SW [On/Off]	Unlock switch status received from key cylinder lock/unlock switch
TRNK/HAT MNTR [On/Off]	NOTE: The item is indicated, but not monitored.

ACTIVE TEST

Test item	Operation	Description
INT LAMP	On	Outputs the interior room lamp control signal to turn the interior room lamps ON. [Map lamp, personal lamp, room lamp, luggage room lamp (when applicable lamps switch is in DOOR position.)]
	Off	Stops the interior room lamp control signal to turn the interior room lamps.

MULTI REMOTE ENT

MULTI REMOTE ENT : CONSULT-III Function (BCM - MULTI REMOTE ENT)

INFOID:000000005183480

BCM CONSULT-III FUNCTION

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

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

DATA MONITOR

Monitor Item	Condition
IGN ON SW	Indicates [On/Off] condition of ignition switch in ON position
KEY ON SW	Indicates [On/Off] condition of key switch
ACC ON SW	Indicates [On/Off] condition of ignition switch in ACC position
KEYLESS LOCK	Indicates [On/Off] condition of lock signal from keyfob
KEYLESS UNLOCK	Indicates [On/Off] condition of unlock signal from keyfob
KYLS TRNK/HAT	NOTE: This item is displayed, but cannot be tested
DOOR SW-DR	Indicates [On/Off] condition of front door switch (driver side)
DOOR SW-AS	Indicates [On/Off] condition of front door switch (passenger side)
DOOR SW-RR	Indicates [On/Off] condition of rear door switch RH
DOOR SW-RL	Indicates [On/Off] condition of rear door switch LH
BACK DOOR SW	Indicates [On/Off] condition of back door switch
TRNK/HAT MNTR	NOTE: This item is displayed, but cannot be tested
CDL LOCK SW	Indicates [On/Off] condition of door lock and unlock switch
CDL UNLOCK SW	Indicates [On/Off] condition of door lock and unlock switch
KEYLESS PANIC	Indicates [On/Off] condition of PANIC button of keyfob

ACTIVE TEST

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Test item	Description
INT LAMP	This test is able to check interior room lamp operation <ul style="list-style-type: none"> • On: Operate • Off: Non-operation
FLASHER	This test is able to check flasher operation [LH/RH/Off]
HORN	This test is able to check horn operation <ul style="list-style-type: none"> • On: Operate

WORK SUPPORT

Test item	Description
REMO CONT IN REGIST	Keyfob ID code can be registered
REMO CONT IN ERASUR	Keyfob ID code can be erased
REMO CONT IN CONFIR	It can be checked whether Intelligent Key ID code is registered or not in this mode
MULTI ANSWER BACK SET	NOTE: This item is displayed, but cannot be tested
HORN CHIRP SET	Hazard and horn reminder function (horn operation) mode can be changed in this mode <ul style="list-style-type: none"> • On: Operate • Off: Non-operation
HAZARD LAMP SET	Hazard and horn reminder function (hazard operation) mode can be changed in this mode <ul style="list-style-type: none"> • MODE1: Non-operation • MODE2: Unlock operation only • MODE3: Lock operation only • MODE4: Lock and unlock operation
AUTO LOCK SET	Auto door lock time can be changed in this mode <ul style="list-style-type: none"> • MODE 1: Non-operation • MODE 2: 30 sec • MODE 3: 1 minute • MODE 4: 2 minute • MODE 5: 3 minute • MODE 6: 4 minute • MODE 7: 5 minute
PANIC ALARM SET	Panic alarm button pressing time on keyfob remote control button can be selected from the following with this mode <ul style="list-style-type: none"> • MODE1: 0.5 sec • MODE2: Non-operation • MODE3: 1.5 sec
TRUNK OPEN SET	NOTE: This item is displayed, but cannot be tested

HEADLAMP

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

INFOID:000000005183487

WORK SUPPORT

For USA

Service item	Setting item	Setting
AUTO LIGHT LOGIC SET	MODE 1 [*]	With twilight ON custom & with wiper INT, LO and HI
	MODE 2	With twilight ON custom & with wiper LO and HI
	MODE 3	With twilight ON custom & without
	MODE 4	Without twilight ON custom & with wiper INT, LO and HI
	MODE 5	Without twilight ON custom & with wiper LO and HI
	MODE 6	Without twilight ON custom & without

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

BCS

N
O
P

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Service item	Setting item	Setting	
BATTERY SAVER SET	On*	With the exterior lamp battery saver function	
	Off	Without the exterior lamp battery saver function	
ILL DELAY SET	MODE 1*	45 sec.	Sets delay timer function timer operation time. (All doors closed)
	MODE 2	Without the function	
	MODE 3	30 sec.	
	MODE 4	60 sec.	
	MODE 5	90 sec.	
	MODE 6	120 sec.	
	MODE 7	150 sec.	
	MODE 8	180 sec.	

*: Factory setting

For CANADA

Service item	Setting item	Setting	
AUTO LIGHT LOGIC SET	MODE 1	NOTE: The item is indicated, but not operated.	
	MODE 2		
	MODE 3		
	MODE 4		
	MODE 5		
	MODE 6		
BATTERY SAVER SET	On*	With the exterior lamp battery saver function	
	Off	Without the exterior lamp battery saver function	
ILL DELAY SET	MODE 1*	45 sec.	Sets delay timer function timer operation time. (All doors closed)
	MODE 2	Without the function	
	MODE 3	30 sec.	
	MODE 4	60 sec.	
	MODE 5	90 sec.	
	MODE 6	120 sec.	
	MODE 7	150 sec.	
	MODE 8	180 sec.	

*: Factory setting

DATA MONITOR

Monitor item [Unit]	Description
IGN ON SW [On/Off]	Ignition switch (ON) status judged from IGN signal (ignition power supply)
ACC SW [On/Off]	Ignition switch (ACC) status judged from ACC signal (ACC power supply)
VEH SPEED [km/h]	The value of the vehicle speed received from combination meter with CAN communication

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description
HI BEAM SW [On/Off]	Each switch status that BCM judges from the combination switch reading function
HEAD LAMP SW1 [On/Off]	
HEAD LAMP SW2 [On/Off]	
PASSING SW [On/Off]	
FR FOG SW [On/Off]	
AUTO LIGHT 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)
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
BACK DOOR SW [On/Off]	The switch status input from back door switch
TURN SIGNAL R [On/Off]	Each switch status that BCM judges from the combination switch reading function
TURN SIGNAL L [On/Off]	
TAIL LAMP SW [On/Off]	
KEY ON SW [On/Off]	The switch status input from key on switch
KEYLESS LOCK [On/Off]	Lock signal status received from remote keyless entry receiver (integrated in the BCM)
PKB SW [On/Off]	The parking brake switch status received from combination meter with CAN communication
ENGINE RUN [On/Off]	The engine status received from ECM with CAN communication
LIG SEN COND [On/Off]	The sensor condition received from light sensor
OPTI SEN (DTCT) [V]	The value of outside brightness voltage input from the optical sensor
OPTI SEN (FILT) [V]	The value of outside brightness voltage filtered by BCM

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.

BCS

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

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Test item	Operation	Description
HEAD LAMP	Hi	Transmits the high beam request signal with CAN communication to turn the headlamp (HI).
	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.
ILL DIM SIGNAL	On	NOTE: The item is indicated, but cannot be tested.
	Off	

WIPER

WIPER : CONSULT-III Function (BCM - WIPER)

INFOID:000000005183491

WORK SUPPORT

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

*:Factory setting

DATA MONITOR

Monitor Item [Unit]	Description
IGN ON SW [On/Off]	Ignition switch ON status judged from ignition power supply.
IGN SW CAN [On/Off]	Ignition switch ON status received from IPDM E/R with CAN communication.
FR WIPER HI [On/Off]	Each switch status that BCM judges from the combination switch reading function.
FR WIPER LOW [On/Off]	
FR WIPER INT [On/Off]	
FR WASHER SW [On/Off]	
INT VOLUME [1 - 7]	Each switch status that BCM judges from the combination switch reading function.
FR WIPER STOP [On/Off]	Front wiper motor (stop position) status received from IPDM E/R with CAN communication.
VEHICLE SPEED [km/h]	The value of the vehicle speed signal received from combination meter with CAN communication.
RR WIPER ON [On/Off]	Each switch status that BCM judges from the combination switch reading function.
RR WIPER INT [On/Off]	
RR WASHER SW [On/Off]	

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor Item [Unit]	Description
REVERSE SW CAN [On/Off]	NOTE: The item is indicated, but not monitored.
RAIN SENSOR [On/Off]	

ACTIVE TEST

Test item	Operation	Description
FR WIPER	Hi	Transmits the front wiper request signal (HI) to IPDM E/R with CAN communication to operate the front wiper HI operation.
	Lo	Transmits the front wiper request signal (LO) to IPDM E/R with CAN communication to operate the front wiper LO operation.
	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.
RR WIPER	On	Outputs the voltage to operate the rear wiper motor.
	Off	Stops the voltage to stop.

FLASHER

FLASHER : CONSULT-III Function (BCM - FLASHER)

INFOID:000000005183488

DATA MONITOR

Monitor item [Unit]	Description
IGN ON SW [On/Off]	Ignition switch (ON) status judged from IGN signal (ignition power supply)
TURN SIGNAL R [On/Off]	Each switch status that BCM detects from the combination switch reading function
TURN SIGNAL L [On/Off]	
HAZARD SW [On/Off]	The switch status input from the hazard switch

ACTIVE TEST

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

AIR CONDITIONER

AIR CONDITIONER : CONSULT-III Function (BCM - AUTO AIR CONDITIONER)

INFOID:000000005183493

DATA MONITOR

Display Item List

Monitor Item [Unit]	Contents
IGN SW [On/Off]	Displays ignition switch position status as judged from ignition switch signal.

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor Item [Unit]	Contents
FAN ON SIG [On/Off]	Displays the blower fan status as judged from the A/C auto amp.
AIR COND SW [On/Off]	Displays [COMP (On)/COMP (Off)] status as judged from the A/C auto amp.

AIR CONDITIONER : CONSULT-III Function

INFOID:000000005183494

DATA MONITOR

Display Item List

Monitor Item [Unit]	Contents
IGN SW [On/Off]	Displays ignition switch position status as judged form ignition switch signal.
FAN ON SIG [On/Off]	Displays the blower fan status as judged form blower fan motor switch signal.
AIR COND SW [On/Off]	Displays [COMP (On)/COMP (Off)] status as judged form air conditioner switch signal.
THERMO AMP [On/Off]	Displays the thermo control amp. status as judged form thermo control amp. signal.
FR DEF SW [On/Off]	Displays the DEF status as judged from defroster position switch signal.

COMB SW

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

INFOID:000000005061986

DATA MONITOR

Monitor item [UNIT]	Description
TURN SIGNAL R [Off/On]	Displays the status of TURN RH switch in combination switch judged by the combination switch reading function.
TURN SIGNAL L [Off/On]	Displays the status of the TURN LH switch in combination switch judged by the combination switch reading function.
HI BEAM SW [Off/On]	Displays the status of HI BEAM switch in combination switch judged by the combination switch reading function.
HEAD LAMP SW 1 [Off/On]	Displays the status of HEADLAMP 1 switch in combination switch judged by the combination switch reading function.
HEAD LAMP SW 2 [Off/On]	Displays the status of HEADLAMP 2 switch in combination switch judged by the combination switch reading function.
TAIL LAMP SW [Off/On]	Displays the status of TAIL LAMP switch in combination switch judged by the combination switch reading function.
PASSING SW [Off/On]	Displays the status of PASSING switch in combination switch judged by 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 FR FOG switch in combination switch judged by the combination switch reading function.
RR FOG SW [Off/On]	NOTE: The item is indicated, but not monitored.
FR WIPER HI [Off/On]	Displays the status of FR WIPER HI switch in combination switch judged by the combination switch reading function.
FR WIPER LOW [Off/On]	Displays the status of FR WIPER LOW switch in combination switch judged by the combination switch reading function.
FR WIPER INT [Off/On]	Displays the status of FR WIPER INT switch in combination switch judged by the combination switch reading function.
FR WASHER SW [Off/On]	Displays the status of FR WASHER switch in combination switch judged by the combination switch reading function.
INT VOLUME [1 - 7]	Displays the status of wiper intermittent dial position judged by the combination switch reading function.

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor item [UNIT]	Description
RR WIPER ON [Off/On]	Displays the status of RR WIPER switch in combination switch judged by the combination switch reading function.
RR WIPER INT [Off/On]	Displays the status of RR WIPER INT switch in combination switch judged by the combination switch reading function.
RR WASHER SW [Off/On]	Displays the status of RR WASHER switch in combination switch judged by the combination switch reading function.

BCM

BCM : CONSULT-III Function (BCM - BCM)

INFOID:000000005061987

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:000000005183482

DATA MONITOR

Monitor item	Content
IGN ON SW	Indicates [ON/OFF] condition of ignition switch in ON position.
KEY ON SW	Indicates [ON/OFF] condition of key switch.

ACTIVE TEST

Test item	Description
THEFT IND	This test is able to check security indicator lamp operation [ON/OFF].

BATTERY SAVER

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

INFOID:000000005183490

WORK SUPPORT

Service item	Setting item	Setting
ROOM LAMP TIMER SET	MODE 1*	30 min.
	MODE 2	60 min.
		Sets the interior room lamp battery saver timer operating time.

*:Factory setting

DATA MONITOR

Monitor item [Unit]	Description
IGN ON SW [On/Off]	The switch status input from request switch (driver side)
ACC SW [On/Off]	Ignition switch (ACC) status judges from ACC signal (ACC power supply)
KEY ON SW [On/Off]	The switch status input from front request switch (passenger side)
DOOR SW-DR [On/Off]	The switch status input from front door switch (driver side)

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

BCS

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description
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
BACK DOOR SW [On/Off]	The switch status input from back door switch
LOCK STATUS [On/Off]	The switch status input from door lock status switch (driver side)
CDL LOCK SW [On/Off]	Lock switch status input from door lock and unlock switch
CDL UNLOCK SW [On/Off]	Unlock switch status input from door lock and unlock switch
KEY CYL LK-SW [On/Off]	Lock switch status received from key cylinder lock/unlock switch
KEY CYL UN-SW [On/Off]	Unlock switch status received from key cylinder lock/unlock switch
TRNK/HAT MNTR [On/Off]	NOTE: The item is indicated, but not monitored.
KEYLESS LOCK [On/Off]	Lock signal status received from remote keyless entry receiver
KEYLESS 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 lamps OFF.
	On	Outputs the interior room lamp power supply to turn interior room lamps ON.*

*: Each lamp switch is in ON position.

TRUNK

TRUNK : CONSULT-III Function (BCM - TRUNK)

INFOID:000000005183481

BCM CONSULT-III FUNCTION

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

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

DATA MONITOR

Monitor Item	Contents
KEY ON SW	Indicates [On/Off] condition of key switch.
LOCK STATUS	NOTE: This item is displayed, but cannot be monitored.
VEHICLE SPEED	Indicates [Km/h] condition of vehicle speed signal from combination meter.
IGN ON SW	Indicates [On/Off] condition of ignition switch.

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor Item	Contents
TRNK OPNR SW	NOTE: This item is displayed, but cannot be monitored.
KYLS TRNK/HAT	NOTE: This item is displayed, but cannot be monitored.

THEFT ALM

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

INFOID:000000005183483

DATA MONITOR

Monitor Item	Condition
IGN ON SW	Indicates [ON/OFF] condition of ignition switch in ON position.
ACC ON SW	Indicates [ON/OFF] condition of ignition switch in ACC position.
KEY ON SW	Indicates [ON/OFF] condition of key switch.
KEYLESS LOCK	Indicates [ON/OFF] condition of lock signal from keyfob.
KEYLESS UNLOCK	Indicates [ON/OFF] condition of unlock signal from keyfob.
TRUNK OPNR SW	NOTE: The item is indicated, but not monitored.
TRNK OPNR MNTR	NOTE: The item is indicated, but not monitored.
HOOD SW	NOTE: The item is indicated, but not monitored.
DOOR SW-DR	Indicates [ON/OFF] condition of front door switch (driver side).
DOOR SW-AS	Indicates [ON/OFF] condition of front door switch (passenger side).
DOOR SW-RR	Indicates [ON/OFF] condition of rear door switch RH.
DOOR SW-RL	Indicates [ON/OFF] condition of rear door switch LH.
BACK DOOR SW	Indicates [ON/OFF] condition of back door switch.
KEY CYL LK-SW	Indicates [ON/OFF] condition of door key cylinder switch.
KEY CYL UN-SW	Indicates [ON/OFF] condition of door key cylinder switch.
CDL LOCK SW	Indicates [ON/OFF] condition of door lock and unlock switch.
CDL UNLOCK SW	Indicates [ON/OFF] condition of door lock and unlock switch.
TRANSPONDER	Indicates key ID verification results by [ON/OFF].
INTELLI KEY	NOTE: The item is indicated, but not monitored.
LOCK STATUS	NOTE: The item is indicated, but not monitored.
AUTO RELOCK	NOTE: The item is indicated, but not monitored.

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

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

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Test Item	Description
THEFT IND	This test is able to check security indicator lamp operation. Security indicator lamp will be turned on when "ON" on CONSULT-III screen is touched.
VEHICLE SECURITY HORN	This test is able to check horn operation. Horn will be activated for 0.5 seconds after "ON" on CONSULT-III screen is touched.
HEADLAMP (HI)	This test is able to check headlamp (HI) operation. Headlamps (HI) will be activated for 0.5 seconds after "ON" on CONSULT-III screen is touched.
FLASHER	This test is able to check hazard warning lamp operation. Hazard warning lamps will be activated after "LH" or "RH" on CONSULT-III screen is touched.

RETAINED PWR

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

INFOID:000000005183485

Data monitor

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:000000005061993

DATA MONITOR

Monitor item [UNIT]	Description
OIL PRESS SW [Off/On]	Displays the status of oil pressure switch received from IPDM E/R with CAN communication.
BRAKE SW [Off/On]	Displays the switch status input from stop lamp switch.

ACTIVE TEST

Test item	Operation	Description
OIL PRESSURE SW	On	Transmits the oil pressure switch signal with CAN communication to illuminate the oil pressure warning lamp in the combination meter.
	Off	Stops the oil pressure switch signal transmission.

AIR PRESSURE MONITOR

AIR PRESSURE MONITOR : Diagnosis Description

INFOID:000000005183476

DESCRIPTION

During driving, the transmitter installed at each road wheel transmits the tire pressure information signal to the receiver. The receiver receives the tire pressure signal and transmits it to the BCM. The BCM judges whether or not the tire pressure is OK based on the tire pressure information signal, and if it judges that the tire pressure is low, it transmits the information via CAN communication to the combination meter.

After receiving the tire pressure information via CAN communication from the BCM, the combination meter illuminates the low tire pressure warning lamp and displays.

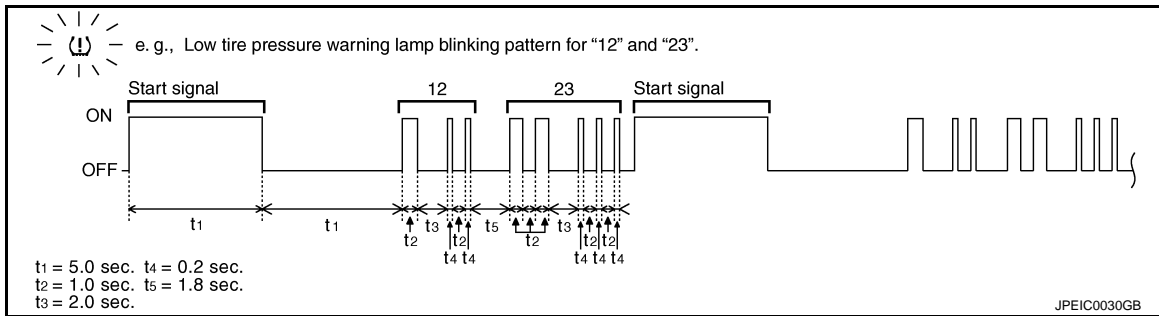
SELF DIAGNOSTIC PROCEDURE

1. Initiate diagnosis mode by short-circuiting the low tire pressure warning check switch to the ground.
2. The blinking pattern of the low tire pressure warning lamp indicates the conditions of the malfunction.

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >



NOTE:

If the low tire pressure warning lamp is blinking repeatedly at 5 Hz, there is no malfunction occurring in the system.

Blinking pattern	Items	Diagnostic items detected when...	Check item
15	Tire pressure value (Front LH)	Front LH tire pressure drops to 182.7 kPa (1.9 kg/cm ² , 26 psi) or less.	WT-16
16	Tire pressure value (Front RH)	Front RH tire pressure drops to 182.7 kPa (1.9 kg/cm ² , 26 psi) or less.	
17	Tire pressure value (Rear RH)	Rear RH tire pressure drops to 182.7 kPa (1.9 kg/cm ² , 26 psi) or less.	
18	Tire pressure value (Rear LH)	Rear LH tire pressure drops to 182.7 kPa (1.9 kg/cm ² , 26 psi) or less.	
21	Transmitter no data (Front LH)	Data from front LH transmitter cannot be received.	WT-18
22	Transmitter no data (Front RH)	Data from front RH transmitter cannot be received.	
23	Transmitter no data (Rear RH)	Data from rear RH transmitter cannot be received.	
24	Transmitter no data (Rear LH)	Data from rear LH transmitter cannot be received.	
31	Transmitter checksum error (Front LH)	Checksum data from front LH transmitter is malfunctioning.	WT-21
32	Transmitter checksum error (Front RH)	Checksum data from front RH transmitter is malfunctioning.	
33	Transmitter checksum error (Rear RH)	Checksum data from rear RH transmitter is malfunctioning.	
34	Transmitter checksum error (Rear LH)	Checksum data from rear LH transmitter is malfunctioning.	
35	Transmitter pressure data error (Front LH)	Air pressure data from front LH transmitter is malfunction.	WT-24
36	Transmitter pressure data error (Front RH)	Air pressure data from front RH transmitter is malfunction.	
37	Transmitter pressure data error (Rear RH)	Air pressure data from rear RH transmitter is malfunction.	
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.	WT-26
42	Transmitter function code error (Front RH)	Function code data from front RH transmitter is malfunction.	
43	Transmitter function code error (Rear RH)	Function code data from rear RH transmitter is malfunction.	
44	Transmitter function code error (Rear LH)	Function code data from rear LH transmitter is malfunction.	

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

BCS

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Blinking pattern	Items	Diagnostic items detected when...	Check item
45	Transmitter battery voltage low (Front LH)	Battery voltage of front LH transmitter drops.	WT-29
46	Transmitter battery voltage low (Front RH)	Battery voltage of front RH transmitter drops.	
47	Transmitter battery voltage low (Rear RH)	Battery voltage of rear RH transmitter drops.	
48	Transmitter battery voltage low (Rear LH)	Battery voltage of rear LH transmitter drops.	
52	Vehicle speed signal error	Vehicle speed signal error.	WT-32
53	Control unit	Tire pressure monitoring system malfunction in BCM.	WT-34
No blinking	Tire pressure warning check switch	Tire pressure warning switch circuit is open.	-

ERASE SELF-DIAGNOSIS

After performing self-diagnosis by short-circuiting the tire pressure warning check switch to the body, turn the ignition switch OFF.

AIR PRESSURE MONITOR : CONSULT-III Function

INFOID:000000005183477

FUNCTION

The diagnosis functions (main functions) include the following: "WORK SUPPORT", "SELF DIAGNOSTIC RESULT", "DATA MONITOR" and "ACTIVE TEST".

Diagnostic test mode	Function
Work support	In this mode, it is possible to make quick and accurate adjustments by following the instructions on the CONSULT-III display.
Self diagnostic result	Receives self-diagnosis results from the low tire pressure warning control unit, and indicates DTCs and the number of malfunctions.
Data monitor	Receives input/output signals from the low tire pressure warning control unit and indicates and stores them to facilitate locating the causes of malfunctions.
Active test	Transmits command to the low tire pressure warning control unit to change output signals and check operation of output system.

WORK SUPPORT MODE

Refer to [WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement"](#).

SELF-DIAG RESULTS MODE

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.

Monitor item (Unit)	Remark
AIR PRESS FL (kPa), (kg/cm ²), (Psi)	Air pressure of tires
AIR PRESS FR (kPa), (kg/cm ²), (Psi)	
AIR PRESS RR (kPa), (kg/cm ²), (Psi)	
AIR PRESS RL (kPa), (kg/cm ²), (Psi)	

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor item (Unit)	Remark
ID REGST FL1	ID is registered: Done ID is not registered: Yet
ID REGST FR1	
ID REGST RR1	
ID REGST RL1	
WARNING LAMP	Low tire pressure warning lamp ON: On Low tire pressure warning lamp OFF: Off
BUZZER	Combination meter buzzer ON: On Combination meter buzzer 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 erase the actual malfunction may be different from that displayed on CONSULT-III.

TEST ITEM LIST

Test item	Content
WARNING LAMP	This test is able to check to check that the low tire pressure warning lamp turns on.
ID REGIST WARNING	This test is able to check to check that the buzzer sounds or the low tire pressure warning lamp turns on.
RUN FLAT TIRE W/L	NOTE: This item is displayed, but cannot be use this item.
FLASHER	This test is able to check to check that each turn signal lamp turns on.
HORN	This test is able to check to check that the horn sounds.

PANIC ALARM

PANIC ALARM : CONSULT-III Function (BCM - PANIC ALARM)

INFOID:000000005183484

ACTIVE TEST

Test item	Description
VEHICLE SECURITY HORN	This test is able to check horn operation. Horn is activated for 0.5 seconds after "ON" on CONSULT-III screen touched.
HEAD LAMP (HI)	This test is able to check headlamp (HI) operation. Headlamps (HI) will be activated after "ON" on CONSULT-III screen touched.

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



DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM

Description

INFOID:000000005061995

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-23, "CAN Communication Signal Chart"](#).

DTC Logic

INFOID:000000005061996

DTC DETECTION LOGIC

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

Diagnosis Procedure

INFOID:000000005061997

1. PERFORM SELF DIAGNOSTIC

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

Is "CAN COMM CIRCUIT" displayed?

- YES >> Refer to [LAN-14, "Trouble Diagnosis Flow Chart"](#).
- NO >> Refer to [GI-34, "Intermittent Incident"](#).

U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

U1010 CONTROL UNIT (CAN)

DTC Logic

INFOID:000000005152810

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:000000005152811

1. REPLACE BCM

When DTC "U1010" is detected, replace BCM.

>> Replace BCM. Refer to [BCS-148. "Exploded View"](#).

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

BCS

N
O
P

C1735 IGN CIRCUIT OPEN

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

C1735 IGN CIRCUIT OPEN

DTC Logic

INFOID:000000005153079

DTC DETECTION LOGIC

DTC	CONSULT-III display description	DTC Detection Condition	Possible cause
C1735	IGN CIRCUIT OPEN	Detected following signals are different for 2 seconds; <ul style="list-style-type: none"> Ignition switch ON signal inputted from ignition switch Ignition relay status signal received from IPDM E/R with CAN communication 	<ul style="list-style-type: none"> Harness or connector (Ignition power supply circuit) BCM IPDM E/R

NOTE:

BCM may detect that ignition switch is OFF when IGN power supply voltage is low.

DTC CONFIRMATION PROCEDURE

1. DTC CONFIRMATION

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

Is any DTC detected?

YES >> Refer to [BCS-118, "Diagnosis Procedure"](#).

NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000005153080

1. CHECK BCM IGNITION POWER SUPPLY CIRCUIT

Check BCM ignition power supply circuit. Refer to [BCS-119, "Diagnosis Procedure"](#).

Is the circuit normal?

YES >> GO TO 2.

NO >> Repair the malfunctioning part.

2. CHECK IPDM E/R POWER SUPPLY CIRCUIT

Check IPDM E/R power supply circuit. Refer to [PCS-50, "Diagnosis Procedure"](#).

Is the circuit normal?

YES >> GO TO 3.

NO >> Repair the malfunctioning part.

3. CHECK IPDM E/R IGNITION RELAY STATUS

Ⓟ CONSULT-III DATA MONITOR

- Select "IGN RLY" of IPDM E/R data monitor item.
- With operating the ignition switch, check the monitor status.

Monitor item	Condition	Monitor status
IGN RLY	Ignition switch	OFF
		ON

Is the item status normal?

YES >> Replace BCM. Refer to [BCS-148, "Exploded View"](#).

NO >> Replace IPDM E/R. Refer to [PCS-65, "Exploded View"](#).

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:000000005061998

1. CHECK FUSES AND FUSIBLE LINK

Check that the following fuses and fusible link are not fusing.

Signal name	Fuses and fusible link No.
Battery power supply	8
	G
ACC power supply	20
Ignition power supply	2

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		(-)	Ignition switch position		
(+)	BCM		OFF	ACC	ON
Connector	Terminal	Ground	OFF	ACC	ON
M67	70		Battery voltage	Battery voltage	Battery voltage
	57		Battery voltage	Battery voltage	Battery voltage
M65	11		Approx. 0 V	Battery voltage	Battery voltage
	38	Approx. 0 V	Approx. 0 V	Battery voltage	

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3. CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M67	67		Existed

Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

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

BCS

COMBINATION SWITCH OUTPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

COMBINATION SWITCH OUTPUT CIRCUIT

Diagnosis Procedure

INFOID:000000005061999

1. CHECK OUTPUT 1 - 5 CIRCUIT FOR OPEN

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

System	BCM		Combination switch		Continuity
	Connector	Terminal	Connector	Terminal	
OUTPUT 1	M65	36	M27	11	Existed
OUTPUT 2		35		9	
OUTPUT 3		34		7	
OUTPUT 4		33		10	
OUTPUT 5		32		13	

Does continuity exist?

YES >> GO TO 2.

NO >> Repair harnesses or connectors.

2. CHECK OUTPUT 1 - 5 CIRCUIT FOR SHORT

Check for continuity between BCM harness connector and ground.

System	BCM		Ground	Continuity
	Connector	Terminal		
OUTPUT 1	M65	36	Ground	Not existed
OUTPUT 2		35		
OUTPUT 3		34		
OUTPUT 4		33		
OUTPUT 5		32		

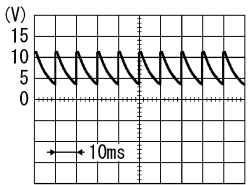
Does continuity exist?

YES >> Repair harnesses or connectors.

NO >> GO TO 3.

3. CHECK BCM OUTPUT VOLTAGE

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

System	Terminals		Ground	Voltage (Approx.)	
	(+)				(-)
	BCM				
	Connector	Terminal			
OUTPUT 1	M65	36	Ground	 <p>7.0 - 8.0 V</p>	
OUTPUT 2		35			
OUTPUT 3		34			
OUTPUT 4		33			
OUTPUT 5		32			

Is the measurement value normal?

COMBINATION SWITCH OUTPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

- YES >> Replace combination switch.
- NO >> Replace BCM. Refer to [BCS-148, "Exploded View"](#).

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

BCS

COMBINATION SWITCH INPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

COMBINATION SWITCH INPUT CIRCUIT

Diagnosis Procedure

INFOID:000000005062000

1. CHECK INPUT 1 - 5 CIRCUIT FOR OPEN

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

System	BCM		Combination switch		Continuity
	Connector	Terminal	Connector	Terminal	
INPUT 1	M65	6	M27	12	Existed
INPUT 2		5		14	
INPUT 3		4		5	
INPUT 4		3		2	
INPUT 5		2		8	

Does continuity exist?

YES >> GO TO 2.

NO >> Repair harnesses or connectors.

2. CHECK INPUT 1 - 5 CIRCUIT FOR SHORT

Check for continuity between BCM harness connector and ground.

System	BCM		Ground	Continuity
	Connector	Terminal		
INPUT 1	M65	6	Ground	Not existed
INPUT 2		5		
INPUT 3		4		
INPUT 4		3		
INPUT 5		2		

Does continuity exist?

YES >> Repair harnesses or connectors.

NO >> GO TO 3.

3. CHECK BCM INPUT SIGNAL

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

System	Terminals		Voltage (Approx.)
	(+)	(-)	
	BCM		
Connector	Terminal	Ground	Refer to BCS-124 . "Reference Value".
INPUT 1	6		
INPUT 2	5		
INPUT 3	4		
INPUT 4	3		
INPUT 5	2		

Is the measurement value normal?

Yes >> Replace BCM. Refer to [BCS-148](#). "Exploded View".

COMBINATION SWITCH INPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

No >> Replace combination switch.

A

B

C

D

E

F

G

H

I

J

K

L

BCS

N

O

P

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000005062003

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
IGN ON SW	Ignition switch OFF or ACC	Off
	Ignition switch ON	On
KEY ON SW	Mechanical key is removed from key cylinder	Off
	Mechanical key is inserted to key cylinder	On
CDL LOCK SW	Door lock/unlock switch does not operate	Off
	Press door lock/unlock switch to the lock side	On
CDL UNLOCK SW	Door lock/unlock switch does not operate	Off
	Press door lock/unlock switch to the unlock side	On
DOOR SW-DR	Driver's door closed	Off
	Driver's door opened	On
DOOR SW-AS	Passenger door closed	Off
	Passenger door opened	On
DOOR SW-RR	Rear RH door closed	Off
	Rear RH door opened	On
DOOR SW-RL	Rear LH door closed	Off
	Rear LH door opened	On
BACK DOOR SW	Back door closed	Off
	Back door opened	On
LOCK STATUS	NOTE: The item is indicated, but not monitored.	Off
ACC ON SW	Ignition switch OFF	Off
	Ignition switch ACC or ON	On
KEYLESS LOCK	"LOCK" button of key fob is not pressed	Off
	"LOCK" button of key fob is pressed	On
KEYLESS UNLOCK	"UNLOCK" button of key fob is not pressed	Off
	"UNLOCK" button of key fob is pressed	On
SHOCK SENSOR	NOTE: The item is indicated, but not monitored.	NORMAL
KEY CYL LK-SW	Other than driver door key cylinder LOCK position	Off
	Driver door key cylinder LOCK position	On
KEY CYL UN-SW	Other than driver door key cylinder UNLOCK position	Off
	Driver door key cylinder UNLOCK position	On
VEHICLE SPEED	While driving	Equivalent to speedometer reading
REAR DEF SW	Rear window defogger switch OFF	Off
	Rear window defogger switch ON	On
REVERSE SW CAN	NOTE: The item is indicated, but not used.	Off
		On

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Value/Status
TAIL LAMP SW	Lighting switch OFF	Off
	Lighting switch 1ST	On
FR FOG SW	Front fog lamp switch OFF	Off
	Front fog lamp switch ON	On
BUCKLE SW	The seat belt (driver side) is fastened. [Seat belt switch (driver side) OFF]	Off
	The seat belt (driver side) is unfastened. [Seat belt switch (driver side) ON]	On
TRNK/HAT MNTR	NOTE: The item is indicated, but not monitored.	Off
ACC SW	Ignition switch OFF	Off
	Ignition switch ACC or ON	On
KYLS TRNK/HAT	NOTE: The item is indicated, but not monitored.	Off
KEYLESS PANIC	PANIC button of key fob is not pressed	Off
	PANIC button of key fob is pressed	On
HI BEAM SW	Lighting switch OFF	Off
	Lighting switch HI	On
HEAD LAMP SW 1	Lighting switch OFF	Off
	Lighting switch 2ND	On
HEAD LAMP SW 2	Lighting switch OFF	Off
	Lighting switch 2ND	On
AUTO LIGHT SW	Lighting switch OFF	Off
	Lighting switch AUTO	On
PASSING SW	Other than lighting switch PASS	Off
	Lighting switch PASS	On
RR FOG SW	NOTE: The item is indicated, but not monitored.	Off
TURN SIGNAL R	Turn signal switch OFF	Off
	Turn signal switch RH	On
TURN SIGNAL L	Turn signal switch OFF	Off
	Turn signal switch LH	On
PKB SW	Parking brake switch is OFF	Off
	Parking brake switch is ON	On
ENGINE RUN	Engine stopped	Off
	Engine running	On
OPTI SEN (DTCT)	Bright outside of the vehicle	Close to 5 V
	Dark outside of the vehicle	Close to 0 V
OPTI SEN (FILT)	Bright outside of the vehicle (Lighting switch AUTO)	Close to 5 V
	Dark outside of the vehicle (Lighting switch AUTO)	Close to 1.50 V
LIG SEN COND	NOTE: The item is indicated, but not monitored.	OFF
IGN SW CAN	Ignition switch OFF or ACC	Off
	Ignition switch ON	On
FR WIPER HI	Front wiper switch OFF	Off
	Front wiper switch HI	On
FR WIPER LOW	Front wiper switch OFF	Off
	Front wiper switch LO	On

A

B

C

D

E

F

G

H

I

J

K

L

BCS

N

O

P

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Value/Status
FR WIPER INT	Front wiper switch OFF	Off
	Front wiper switch INT	On
FR WASHER SW	Front washer switch OFF	Off
	Front washer switch ON	On
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1 - 7
FR WIPER STOP	Any position other than front wiper stop position	Off
	Front wiper stop position	On
RR WIPER ON	Rear wiper switch OFF	Off
	Rear wiper switch ON	On
RR WIPER INT	Rear wiper switch OFF	Off
	Rear wiper switch INT	On
RR WASHER SW	Rear washer switch OFF	Off
	Rear washer switch ON	On
RR WIPER STOP	Rear wiper stop position	Off
	Other than rear wiper stop position	On
RAIN SENSOR	NOTE: The item is indicated, but not monitored.	Off
HAZARD SW	Hazard switch OFF	Off
	Hazard switch ON	On
FAN ON SIG	Blower control dial OFF	Off
	Other than blower control dial OFF	On
AIR COND SW	<ul style="list-style-type: none"> • Air conditioner OFF (A/C switch indicator OFF) (Automatic air conditioner) • A/C switch OFF (Manual air conditioner) 	Off
	<ul style="list-style-type: none"> • Air conditioner ON (A/C switch indicator ON) (Automatic air conditioner) • A/C switch ON (Manual air conditioner) 	On
THERMO AMP NOTE: At models with automatic air conditioner this item is not monitored.	Ignition switch ON	Off
	Evaporator is extremely low temperature	On
FR DEF SW	Other than A/C mode defroster ON position	Off
	A/C mode defroster ON position	On
KEYLESS TRUNK	NOTE: The item is indicated, but not monitored.	Off
TRNK OPNR SW	NOTE: The item is indicated, but not monitored.	Off
TRNK OPN MNTR	NOTE: The item is indicated, but not monitored.	Off
HOOD SW	Close the hood	Off
	Open the hood	On
TRANSPONDER	Other than the ignition switch is ON by key registered to BCM.	Off
	The ignition switch is ON by key registered to BCM.	On
INTELLI KEY	NOTE: The item is indicated, but not used.	Off
AUTO RELOCK	NOTE: The item is indicated, but not monitored.	Off

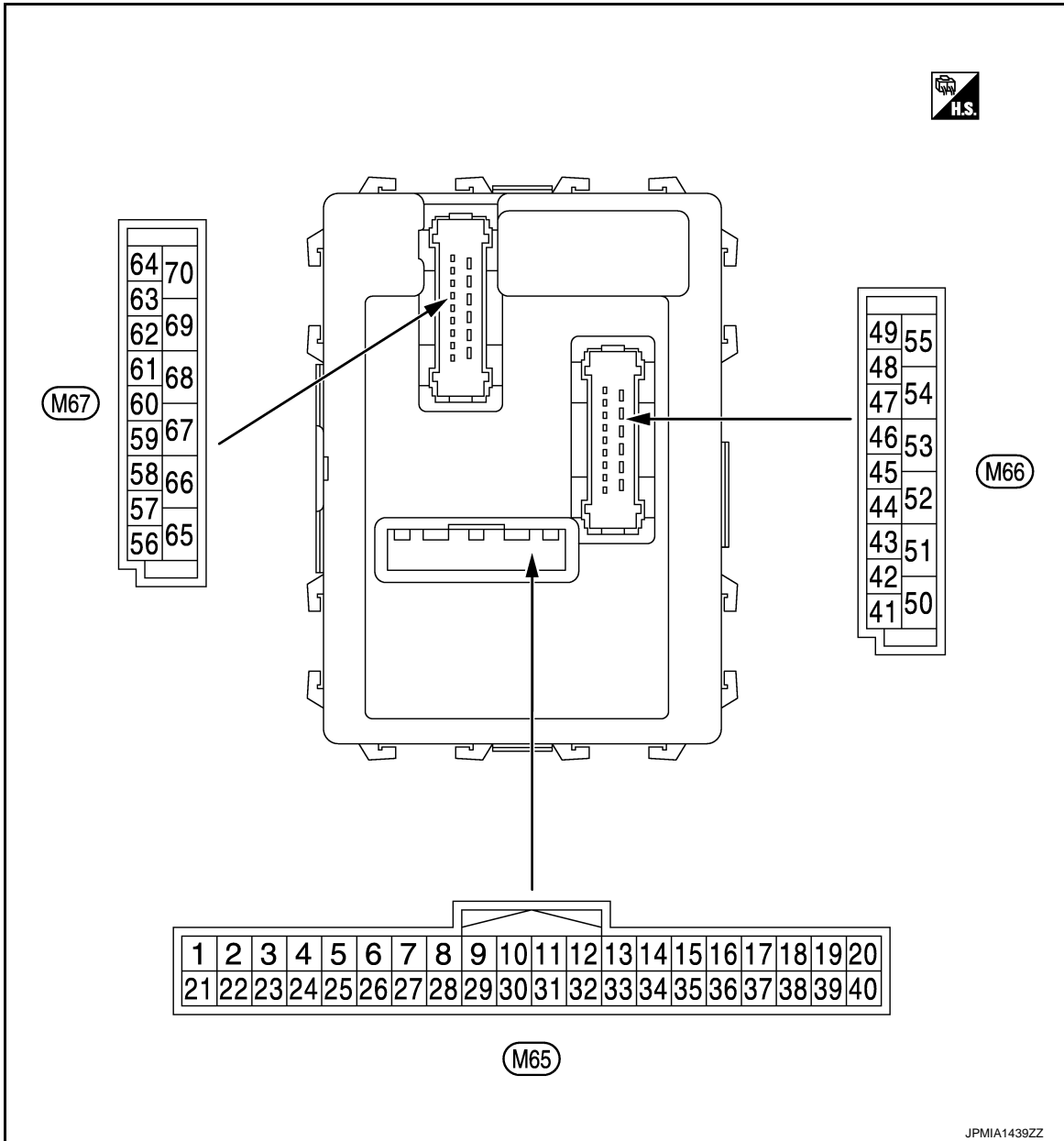
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Value/Status
OIL PRESS SW	<ul style="list-style-type: none"> Ignition switch OFF or ACC Engine running 	Off
	Ignition switch ON	On
BRAKE SW	Brake pedal is not depressed	Off
	Brake pedal is depressed	On

TERMINAL LAYOUT



NOTE:

- M65, M66: White
- M67: Black

PHYSICAL VALUES

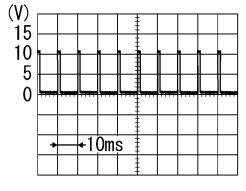
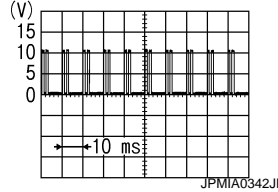
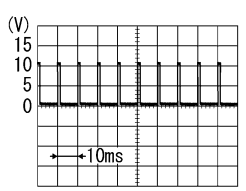
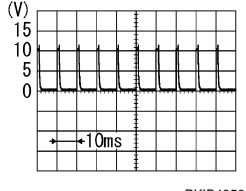
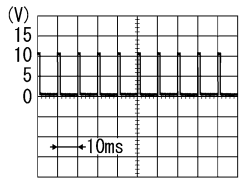
A
B
C
D
E
F
G
H
I
J
K
L
N
O
P

BCS

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
2 (BR/W)	Ground	Combination switch INPUT 5	Input	All switch OFF	0 V
				Turn signal switch RH	
				Lighting switch HI	
				Lighting switch 1ST	
				Lighting switch 2ND	 2.0 V
3 (GR)	Ground	Combination switch INPUT 4	Input	All switch OFF	0 V
				Turn signal switch LH	
				Lighting switch PASS	
				Lighting switch 2ND	
				Front fog lamp switch ON	 0.8 V
4 (L/Y)	Ground	Combination switch INPUT 3	Input	All switch OFF	0 V
				Front wiper switch LO	
				Front wiper switch MIST	
				Front wiper switch INT	
				Lighting switch AUTO	

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
5 (G)	Ground	Combination switch INPUT 2	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	0 V
					Front washer switch (Wiper intermittent dial 4)	
					Rear washer switch ON (Wiper intermittent dial 4)	
					Any of the condition below with all switch OFF <ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6 	
				Rear wiper switch ON (Wiper intermittent dial 4)		0.8 V
6 (L/R)	Ground	Combination switch INPUT 1	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	0 V
					Front wiper switch HI (Wiper intermittent dial 4)	
					Rear wiper switch INT (Wiper intermittent dial 4)	
					Wiper intermittent dial 3 (All switch OFF)	
				Any of the condition below with all switch OFF <ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 2 		1.9 V
				Any of the condition below with all switch OFF <ul style="list-style-type: none"> • Wiper intermittent dial 6 • Wiper intermittent dial 7 		0.8 V

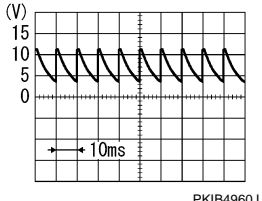
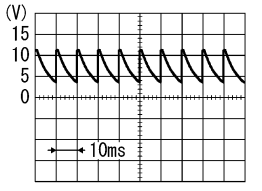
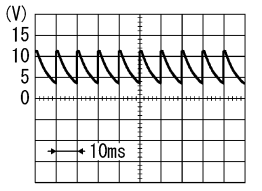
A
B
C
D
E
F
G
H
I
J
K
L
N
O
P

BCS

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

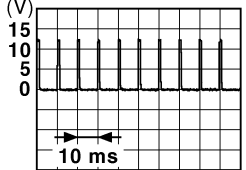
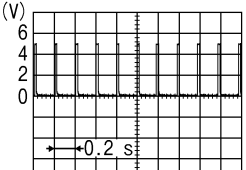
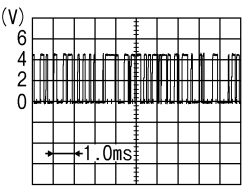
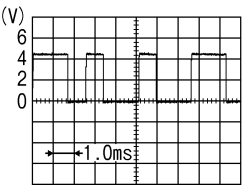
[WITHOUT INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
7 (W/R)	Ground	Door key cylinder switch UNLOCK	Input	Door key cylin- der switch	NEUTRAL position	 7.0 - 8.0 V
					UNLOCK position	0 V
8 (W/B)	Ground	Door key cylinder switch LOCK	Input	Door key cylin- der switch	NEUTRAL position	12 V
					LOCK position	0 V
9 (R)	Ground	Stop lamp switch	Input	Stop lamp switch	OFF (Brake pedal is not depressed)	0 V
					ON (Brake pedal is de- pressed)	Battery voltage
10 (W/L)	Ground	Rear window defog- ger switch	Input	Rear window defogger switch	OFF (Not pressed)	12 V
					ON (Pressed)	0 V
11 (L/Y)	Ground	Ignition switch ACC	Input	Ignition switch OFF		0 V
				Ignition switch ACC or ON		Battery voltage
12 (SB)	Ground	Passenger door switch	Input	Passenger door switch	OFF (When passenger door closed)	 7.0 - 8.0 V
					ON (When passenger door opened)	0 V
13 (GR/L)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (When rear RH door closed)	 7.0 - 8.0 V
					ON (When rear RH door opened)	0 V
14 (L/B)	Ground	Optical sensor	Input	Ignition switch ON	When bright outside of the vehicle	Close to 5 V
					When dark outside of the vehicle	Close to 0 V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
15 (V/W)	Ground	Tire pressure warning check switch	Input	Ignition switch OFF		 1.0 - 1.5 V
17 (R/G)	Ground	Optical sensor power supply	Output	Ignition switch	OFF, ACC	0 V
					ON	5 V
18 (V)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V
19 (BR)	Ground	Remote keyless entry receiver power supply	Input	Ignition switch OFF	Insert mechanical key into ignition key cylinder	0 V
					Remove mechanical key from ignition key cylinder (Any door opened)	5 V
					Remove mechanical key from ignition key cylinder (Any door closed)	
20 (G/Y)	Ground	Remote keyless entry receiver communication	Input	Ignition switch OFF	Insert mechanical key into ignition key cylinder	0 V
					Waiting	
					Signal receiving	
21 (P/L)	Ground	Immobilizer antenna (Clock)	Input/ Output	During waiting	Ignition switch is pressed while inserting the key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.

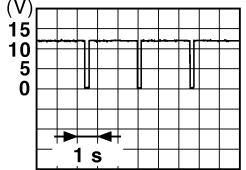
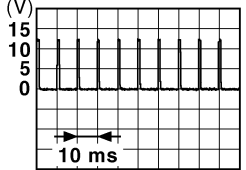
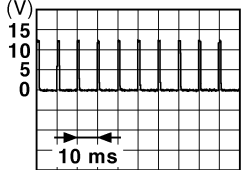
A
B
C
D
E
F
G
H
I
J
K
L
N
O
P

BCS

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

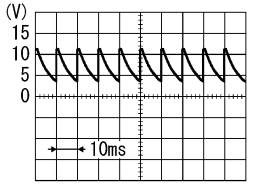
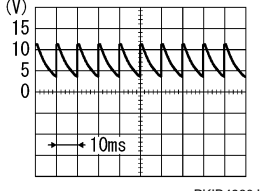
[WITHOUT INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
23 (R/Y)	Ground	Security indicator	Input	Security indicator	ON	0 V
					Blinking (Ignition switch OFF)	 <p style="text-align: right; font-size: small;">JPMIA0014GB</p>
					OFF	12 V
24 (GR/R)	Ground	Dongle link	Input/ Output	Ignition switch OFF		5 V
25 (LG)	Ground	Immobilizer antenna (Rx, Tx)	Input/ Output	During waiting	Ignition switch is pressed while inserting the key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
26*1 (GR)	Ground	Thermo control amp.	Input	Ignition switch ON		0 V
				Evaporator is extremely low temperature		12 V
27 (Y/G)*2 (Y/R)*3	Ground	A/C switch (Automatic air conditioner)	Input	A/C	OFF (A/C switch indicator: OFF)	 <p style="text-align: right; font-size: small;">JPMIA0012GB</p>
		ON (A/C switch indicator: ON)			0 V	
		A/C switch (Manual air conditioner)	Input	A/C switch	OFF	 <p style="text-align: right; font-size: small;">JPMIA0012GB</p>
		ON			0 V	

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
28 (G/W)	Ground	Blower fan switch (Automatic air conditioner)	Input	Blower fan switch OFF	0 V
				Blower fan switch ON	 7.0 - 8.0 V
		Blower fan switch (Manual air conditioner)	Fan switch	Blower fan switch OFF	 7.0 - 8.0 V
		Blower fan switch ON		0 V	
29 (L/W)	Ground	Hazard switch	Input	Hazard switch	OFF
				Hazard switch	ON
31 (G/Y)	Ground	Front defroster switch	Input	Ignition switch	ON
				Ignition switch	ON
32 (LG)	Ground	Combination switch OUTPUT 5	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)
				Combination switch	Front fog lamp switch ON (Wiper intermittent dial 4)
				Combination switch	Rear wiper switch ON (Wiper intermittent dial 4)
				Any of the condition below with all switch OFF	<ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7

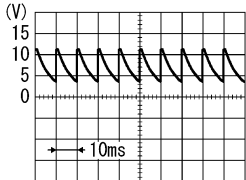
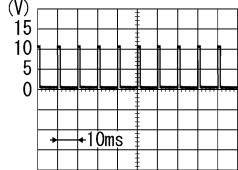
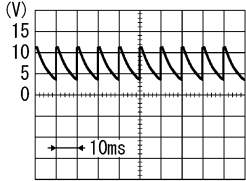
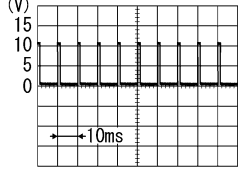
A
B
C
D
E
F
G
H
I
J
K
L
N
O
P

BCS

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

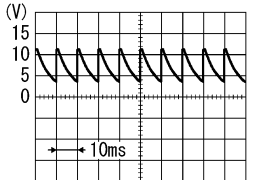
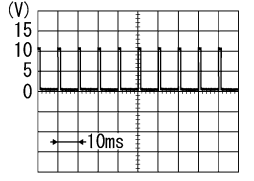
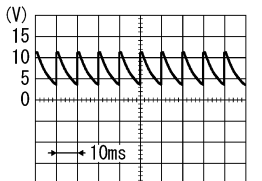
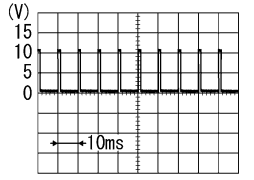
[WITHOUT INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
33 (Y/L)	Ground	Combination switch OUTPUT 4	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">7.0 - 8.0 V</p>
					Lighting switch 1ST (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">PKIB4958J</p> <p style="text-align: center;">1.2 V</p>
					Lighting switch AUTO (Wiper intermittent dial 4)	
					Rear wiper switch INT (Wiper intermittent dial 4)	
Any of the condition below with all switch OFF <ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6 						
34 (W)	Ground	Combination switch OUTPUT 3	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">7.0 - 8.0 V</p>
					Lighting switch 2ND (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">PKIB4958J</p> <p style="text-align: center;">1.2 V</p>
					Lighting switch HI (Wiper intermittent dial 4)	
					Rear washer switch ON (Wiper intermittent dial 4)	
Any of the condition below with all switch OFF <ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 						

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
+	-					
35 (R/L)	Ground	Combination switch OUTPUT 2	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	 <p style="text-align: center;">7.0 - 8.0 V</p>
					Lighting switch 2ND	 <p style="text-align: center;">1.2 V</p>
					Lighting switch PASS	
					Front wiper switch INT	
Front wiper switch HI						
36 (L/O)	Ground	Combination switch OUTPUT 1	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	 <p style="text-align: center;">7.0 - 8.0 V</p>
					Turn signal switch RH	 <p style="text-align: center;">1.2 V</p>
					Turn signal switch LH	
					Front wiper switch LO (Front wiper switch MIST)	
Front washer switch ON						
37 (R/W)	Ground	Key switch	Input	Insert mechanical key into ignition key cylinder	Battery voltage	
				Remove mechanical key from ignition key cylinder	0 V	
38 (O)	Ground	Ignition switch ON	Input	Ignition switch OFF or ACC	0 V	
				Ignition switch ON	Battery voltage	
39 (L)	Ground	CAN-H	Input/ Output	—	—	
40 (P)	Ground	CAN-L	Input/ Output	—	—	

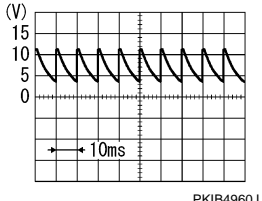
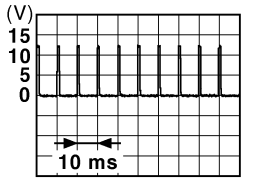
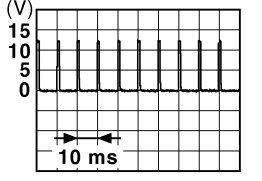
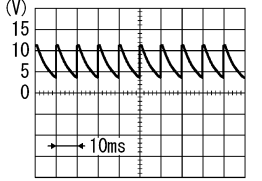
A
B
C
D
E
F
G
H
I
J
K
L
N
O
P

BCS

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

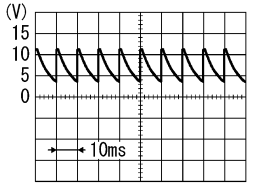
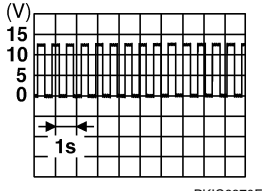
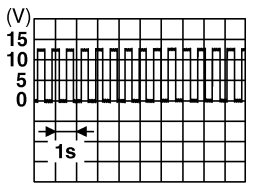
[WITHOUT INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
43 (W)	Ground	Back door switch	Input	Back door switch	OFF (When back door closed)	 <p style="text-align: center;">7.0 - 8.0 V</p>
				ON (When back door opened)	0 V	
44 (LG)	Ground	Rear wiper stop position	Input	Ignition switch ON	Rear wiper stop position	12 V
				Any position other than rear wiper stop position	0 V	
45 (GR)	Ground	Door lock and unlock switch LOCK	Input	Door lock and unlock switch	NEUTRAL position	 <p style="text-align: center;">1.0 - 1.5 V</p>
				LOCK position	0 V	
46 (BR)	Ground	Door lock and unlock switch UNLOCK	Input	Door lock and unlock switch	NEUTRAL position	 <p style="text-align: center;">1.0 - 1.5 V</p>
				UNLOCK position	0 V	
47 (BR/Y)	Ground	Driver door switch	Input	Driver door switch	OFF (When driver door closed)	 <p style="text-align: center;">7.0 - 8.0 V</p>
				ON (When driver door opened)	0 V	

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
+	-					
48 (W/G)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (When rear LH door closed)	 7.0 - 8.0 V
				Rear LH door switch	ON (When rear LH door opened)	0 V
49 (Y)	Ground	Luggage room lamp	Output	Luggage room lamp switch DOOR position	Back door is closed (Back door lamp turns OFF)	12 V
				Luggage room lamp switch DOOR position	Back door is opened (Back door lamp turns ON)	0 V
50*1 (SB)	Ground	A/C indicator	Output	A/C indicator	OFF	12 V
				A/C indicator	ON	0 V
54 (L/W)	Ground	Rear wiper	Output	Ignition switch ON	Rear wiper switch OFF	0 V
				Ignition switch ON	Rear wiper switch ON	12 V
56 (L)	Ground	Interior room lamp power supply	Output	Interior room lamp battery saver is activated. (Cuts the interior room lamp power supply)	0 V	
				Interior room lamp battery saver is not activated. (Outputs the interior room lamp power supply)	12 V	
57 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	Battery voltage	
59 (L/B)	Ground	Driver door UNLOCK	Output	Driver door	UNLOCK (Actuator is activated)	12 V
				Driver door	Other than UNLOCK (Actuator is not activated)	0 V
60 (W/B)	Ground	Turn signal LH	Output	Ignition switch ON	Turn signal switch OFF	0 V
				Ignition switch ON	Turn signal switch LH	 6.0 V
61 (W/L)	Ground	Turn signal RH	Output	Ignition switch ON	Turn signal switch OFF	0 V
				Ignition switch ON	Turn signal switch RH	 6.0 V

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

BCS

N
O
P

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	-					
63 (BR)	Ground	Interior room lamp timer control	Output	Interior room lamp	OFF	12 V
					ON	0 V
65 (V)	Ground	All doors LOCK	Output	All doors	LOCK (Actuator is activated)	12 V
					Other then LOCK (Actuator is not activated)	0 V
66 (G)	Ground	Passenger door and rear door UNLOCK	Output	Passenger door and rear door	UNLOCK (Actuator is activated)	12 V
					Other then UNLOCK (Actuator is not activated)	0 V
67 (B)	Ground	Ground	Output	Ignition switch ON		0 V
68 (L)	Ground	P/W power supply (IGN)	Output	Ignition switch ON		12 V
69 (L/W)	Ground	P/W power supply (BAT)	Output	Ignition switch OFF		12 V
70 (Y)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage

- *1: Only manual air conditioner
- *2: Automatic air conditioner
- *3: Manual air conditioner

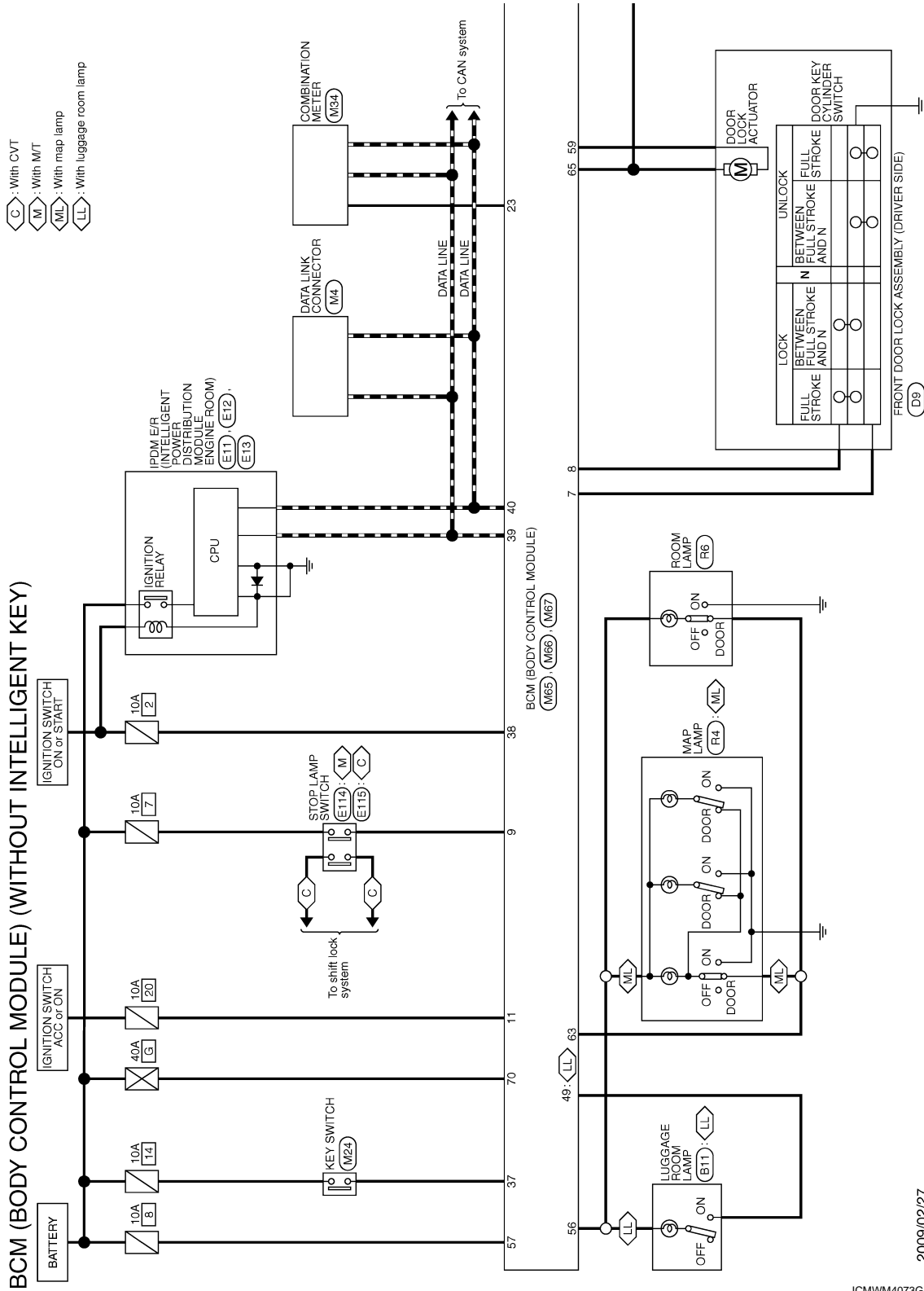
BCM (BODY CONTROL MODULE)

[WITHOUT INTELLIGENT KEY SYSTEM]

< ECU DIAGNOSIS INFORMATION >

Wiring Diagram - BCM -

INFOID:000000005062004



2009/02/27

JCMWM4073GB

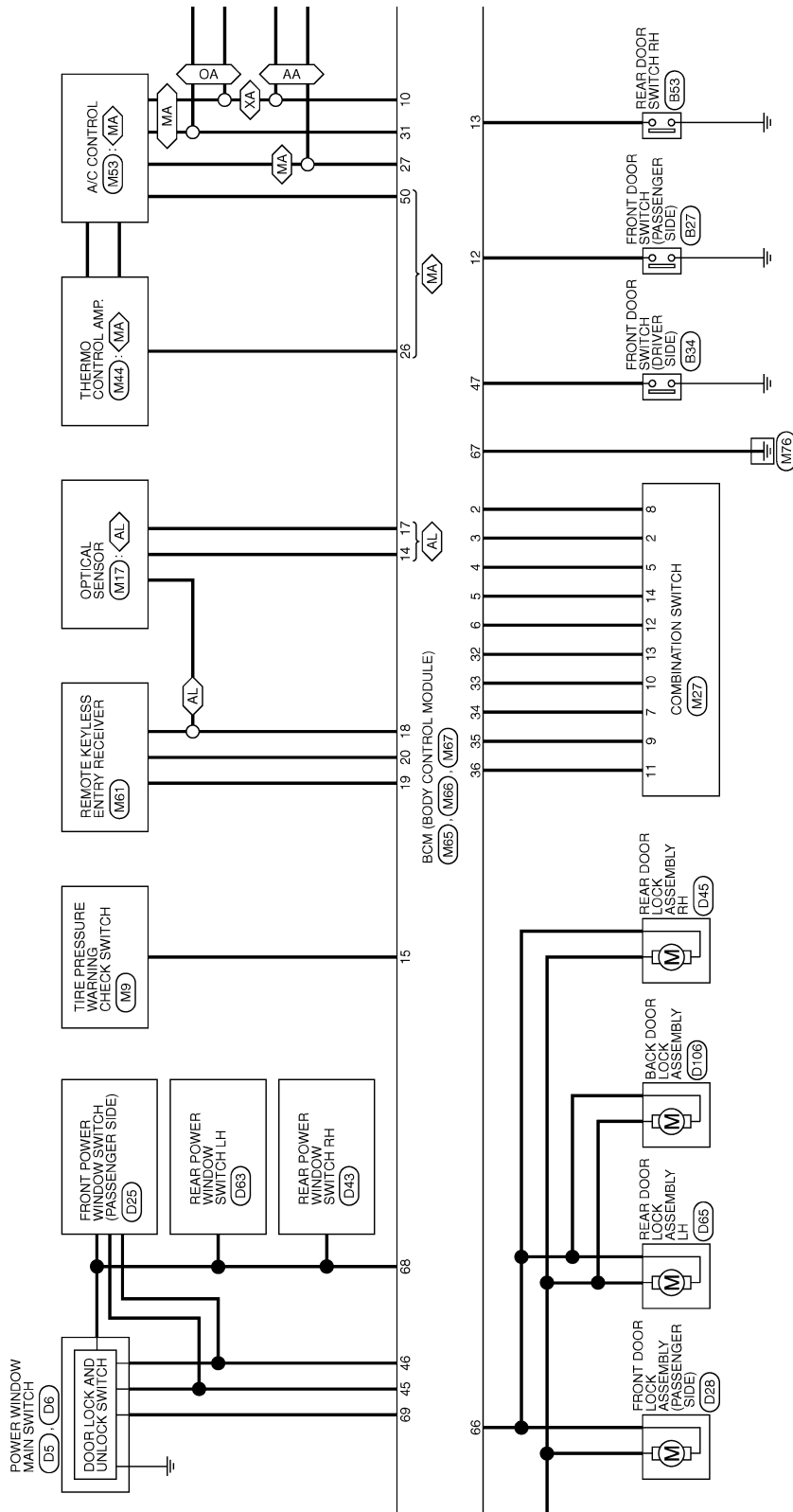
BCS

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

- AA: With auto A/C
- MA: With manual A/C
- OA: Without A/C
- XA: Except with auto A/C
- AL: With auto light system



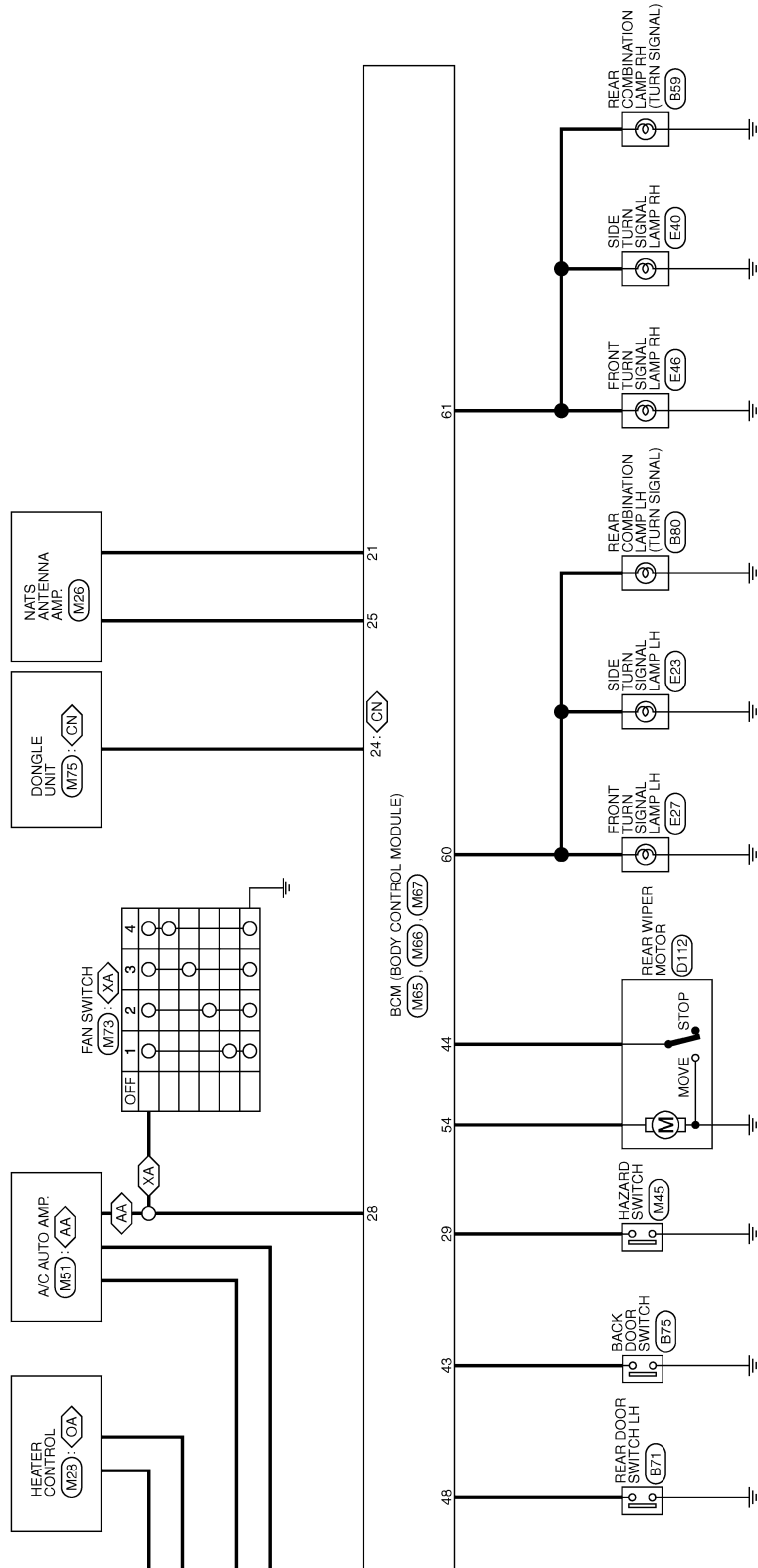
JCMWM4074GB

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

- : For Canada
- : With auto A/C
- : Without A/C
- : Except with auto A/C



JCMWM4075GB

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

BCS

BCM (BODY CONTROL MODULE)

[WITHOUT INTELLIGENT KEY SYSTEM]

< ECU DIAGNOSIS INFORMATION >

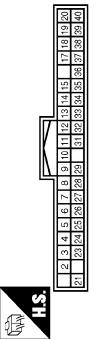
40	P	CAN-L
----	---	-------

13	GR/L	REAR RH DOOR SW
14	L/B	OPTICAL SENSOR
15	V/W	TIRE PRESS WARNING CHECK SW
17	R/G	OPTICAL SENSOR POWER SUPPLY
18	V	RECEIVER SENSOR GND
19	BR	KEYLESS ENTRY RECEIVER POWER SUPPLY
20	G/Y	KEYLESS ENTRY RECEIVER COMM
21	P/L	NATS ANTENNA AMP
23	R/Y	SECURITY INDICATOR LAMP
24	GR/R	DOUBLE LINK
25	LG	NATS ANTENNA AMP
26	GR	THERMO CONTROL AMP
27	Y/G	A/C SW(With auto A/C)
27	Y/R	A/C SW(With manual A/C)
28	G/W	BLOWER FAN SW
29	L/W	HAZARD SW
31	G/Y	FR DEFROSTER SW
32	LG	COMBI SW OUTPUT 5
33	Y/L	COMBI SW OUTPUT 4
34	W	COMBI SW OUTPUT 3
35	R/L	COMBI SW OUTPUT 2
36	L/O	COMBI SW OUTPUT 1
37	R/W	KEY SWITCH
38	O	IGN
39	L	CAN-H

70	Y	BAT (F/L)
----	---	-----------

BCM (BODY CONTROL MODULE) (WITHOUT INTELLIGENT KEY)

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE) (WITHOUT INTELLIGENT KEY)
Connector Type	TH46FW-NH



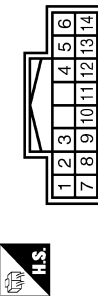
Terminal No.	Color of Wire	Signal Name [Specification]
2	BR/W	COMBI SW INPUT 5
3	GR	COMBI SW INPUT 4
4	L/Y	COMBI SW INPUT 3
5	G	COMBI SW INPUT 2
6	L/R	COMBI SW INPUT 1
7	W/R	KEY CYL UNLOCK SW
8	W/B	KEY CYL LOCK SW
9	R	STOP LAMP SW
10	W/L	REAR WINDOW DEFROGGER SW
11	L/Y	ACC
12	SB	PASSENGER DOOR SW

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE) (WITHOUT INTELLIGENT KEY)
Connector Type	FEA09FB-FHA6-SA



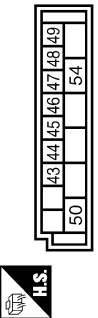
Terminal No.	Color of Wire	Signal Name [Specification]
56	L	INTERIOR ROOM LAMP POWER SUPPLY
57	Y	BAT FUSE
59	L/B	DRIVER DOOR UNLOCK OUTPUT
60	W/B	TURN SIGNAL LH OUTPUT
61	W/L	TURN SIGNAL RH OUTPUT
63	BR	ROOM LAMP TIMER CONTROL
65	V	ALL DOOR LOCK OUTPUT
66	G	PASSENGER DOOR REAR DOOR UNLOCK OUTPUT
67	B	GND
68	L	POWER WINDOW POWER SUPPLY (IGN)
69	L/W	POWER WINDOW POWER SUPPLY (BAT)

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
2	GR	INPUT 4
5	L/Y	INPUT 3
7	W	OUTPUT 3
8	BR/W	INPUT 5
9	R/L	OUTPUT 2
10	Y/L	OUTPUT 4
11	L/O	OUTPUT 1
12	L/R	INPUT 1
13	LG	OUTPUT 5
14	G	INPUT 2

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE) (WITHOUT INTELLIGENT KEY)
Connector Type	FEA09FW-FHA6-SA



Terminal No.	Color of Wire	Signal Name [Specification]
43	W	BACK DOOR SW
44	LG	REAR WIPER STOP POSITION
45	GR	CENTRAL DOOR LOCK SW
46	BR	CENTRAL DOOR UNLOCK SW
47	BR/Y	DRIVER DOOR SW
48	W/G	REAR LH DOOR SW
49	Y	LUGGAGE ROOM LAMP
50	SB	A/C INDICATOR OUTPUT
54	L/W	REAR WIPER OUTPUT

JCMWM4076GB

Fail-safe

FAIL-SAFE CONTROL BY DTC

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Display contents of CONSULT	Fail-safe	Cancellation
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI SCANNING	Inhibit engine cranking	Ignition switch ON → OFF
B2196: DONGLE NG	Inhibit engine cranking	Erase DTC

REAR WIPER MOTOR PROTECTION

BCM detects the rear wiper stopping position according to the rear wiper auto stop signal.

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

Condition of cancellation

1. Pass more than 1 minute after the rear wiper stop.
2. Turn rear wiper switch OFF.
3. Operate the rear wiper switch or rear washer switch.

HIGH FLASHER OPERATION

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

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

NOTE:

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

DTC Inspection Priority Chart

INFOID:000000005152812

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

Priority	DTC
1	<ul style="list-style-type: none">• U1000: CAN COMM• U1010: CONTROL UNIT (CAN)
2	<ul style="list-style-type: none">• B2190: NATS ANTENNA AMP• B2191: DIFFERENCE OF KEY• B2192: ID DISCORD BCM-ECM• B2193: CHAIN OF BCM-ECM• B2195: ANTI SCANNING• B2196: DONGLE NG

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

BCS

N
O
P

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Priority	DTC
3	C1735: IGN CIRCUIT OPEN
4	<ul style="list-style-type: none"> • C1704: LOW PRESSURE FL • C1705: LOW PRESSURE FR • C1706: LOW PRESSURE RR • C1707: LOW PRESSURE RL • C1708: [NO DATA] FL • C1709: [NO DATA] FR • C1710: [NO DATA] RR • C1711: [NO DATA] RL • C1712: [CHECKSUM ERR] FL • C1713: [CHECKSUM ERR] FR • C1714: [CHECKSUM ERR] RR • C1715: [CHECKSUM ERR] RL • C1716: [PRESSDATA ERR] FL • C1717: [PRESSDATA ERR] FR • C1718: [PRESSDATA ERR] RR • C1719: [PRESSDATA ERR] RL • C1720: [CODE ERR] FL • C1721: [CODE ERR] FR • C1722: [CODE ERR] RR • C1723: [CODE ERR] RL • C1724: [BATT VOLT LOW] FL • C1725: [BATT VOLT LOW] FR • C1726: [BATT VOLT LOW] RR • C1727: [BATT VOLT LOW] RL • C1729: VHCL SPEED SIG ERR • C1734: CONTROL UNIT

DTC Index

INFOID:000000005062006

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	Tire pressure monitor warning lamp ON	Reference
U1000: CAN COMM	—	—	BCS-116
U1010: CONTROL UNIT (CAN)	—	—	BCS-117
B2190: NATS ANTENNA AMP	×	—	SEC-217
B2191: DIFFERENCE OF KEY	×	—	SEC-220
B2192: ID DISCORD BCM-ECM	×	—	SEC-221
B2193: CHAIN OF BCM-ECM	×	—	SEC-223
B2195: ANTI SCANNING	×	—	SEC-224
B2196: DONGLE NG	×	—	SEC-225
C1704: LOW PRESSURE FL	—	×	WT-16
C1705: LOW PRESSURE FR	—	×	
C1706: LOW PRESSURE RR	—	×	
C1707: LOW PRESSURE RL	—	×	

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

CONSULT display	Fail-safe	Tire pressure monitor warn- ing lamp ON	Reference
C1708: [NO DATA] FL	—	×	WT-18
C1709: [NO DATA] FR	—	×	
C1710: [NO DATA] RR	—	×	
C1711: [NO DATA] RL	—	×	WT-21
C1712: [CHECKSUM ERR] FL	—	×	
C1713: [CHECKSUM ERR] FR	—	×	
C1714: [CHECKSUM ERR] RR	—	×	
C1715: [CHECKSUM ERR] RL	—	×	WT-24
C1716: [PRESS DATA ERR] FL	—	×	
C1717: [PRESS DATA ERR] FR	—	×	
C1718: [PRESS DATA ERR] RR	—	×	
C1719: [PRESS DATA ERR] RL	—	×	WT-26
C1720: [CODE ERR] FL	—	×	
C1721: [CODE ERR] FR	—	×	
C1722: [CODE ERR] RR	—	×	
C1723: [CODE ERR] RL	—	×	WT-29
C1724: [BATT VOLT LOW] FL	—	×	
C1725: [BATT VOLT LOW] FR	—	×	
C1726: [BATT VOLT LOW] RR	—	×	
C1727: [BATT VOLT LOW] RL	—	×	WT-32
C1729: VHCL SPEED SIG ERR	—	×	
C1734: CONTROL UNIT	—	×	WT-34
C1735: IGN CIRCUIT OPEN	—	—	BCS-118

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

BCS

PRECAUTION

PRECAUTIONS

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

INFOID:000000005183997

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

WARNING:

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

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

WARNING:

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

COMBINATION SWITCH SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

SYMPTOM DIAGNOSIS

COMBINATION SWITCH SYSTEM SYMPTOMS

Symptom Table

INFOID:000000005153085

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

Malfunction item: x

Data monitor item																	Malfunction combination
FR WIPER HI	FR WIPER LOW	FR WASHER SW	FR WIPER INT	RR WIPER ON	RR WIPER INT	RR WASHER SW	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	
	x	x						x	x								A
x			x									x		x			B
						x	x				x		x				C
					x		x			x					x		D
				x			x									x	E
x					x		x										F
		x		x		x	x										G
	x		x												x		H
									x				x	x		x	I
								x		x	x	x					J
All Items																	K
If only one item is detected or the item is not applicable to the combinations A to K																	L

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

Malfunction combination	Malfunctioning part	Repair or replace
A	Combination switch OUTPUT 1 circuit	Inspect the combination switch output circuit applicable to the malfunctioning part. Refer to BCS-120, "Diagnosis Procedure" .
B	Combination switch OUTPUT 2 circuit	
C	Combination switch OUTPUT 3 circuit	
D	Combination switch OUTPUT 4 circuit	
E	Combination switch OUTPUT 5 circuit	
F	Combination switch INPUT 1 circuit	Inspect the combination switch input circuit applicable to the malfunctioning part. Refer to BCS-122, "Diagnosis Procedure" .
G	Combination switch INPUT 2 circuit	
H	Combination switch INPUT 3 circuit	
I	Combination switch INPUT 4 circuit	
J	Combination switch INPUT 5 circuit	
K	BCM	Replace BCM. Refer to BCS-148, "Exploded View" .
L	Combination switch	Replace combination switch.

BCM (BODY CONTROL MODULE)

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

REMOVAL AND INSTALLATION

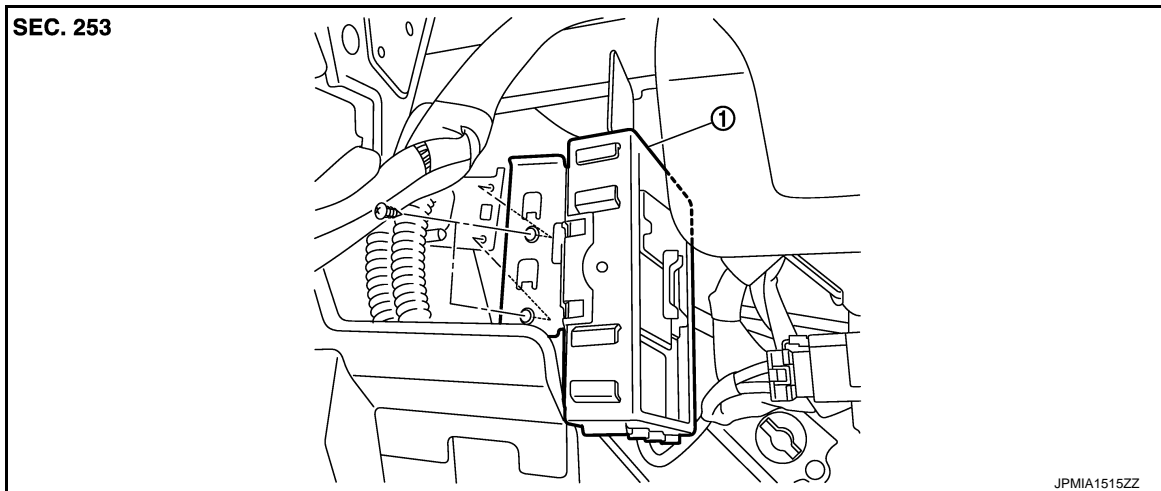
BCM (BODY CONTROL MODULE)

Exploded View

INFOID:000000005148286

CAUTION:

Before replacing BCM, perform "READ CONFIGURATION" to save or print current vehicle specification. Refer to [BCS-84, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT \(BCM\) : Description"](#).



1. BCM

Removal and Installation

INFOID:000000005148287

CAUTION:

Before replacing BCM, perform "READ CONFIGURATION" to save or print current vehicle specification. Refer to [BCS-84, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT \(BCM\) : Description"](#).

REMOVAL

1. Remove knee protector. Refer to [JP-12, "Exploded View"](#).
2. Remove fuse block (J/B).
3. Remove harness clip.
4. Remove screws.
5. Remove BCM and disconnect the connector.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

- Be sure to perform "WRITE CONFIGURATION" when replacing BCM.
- Be sure to perform the system initialization (NATS) when replacing BCM. Refer to [BCS-84, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT \(BCM\) : Special Repair Requirement"](#).

COMBINATION SWITCH

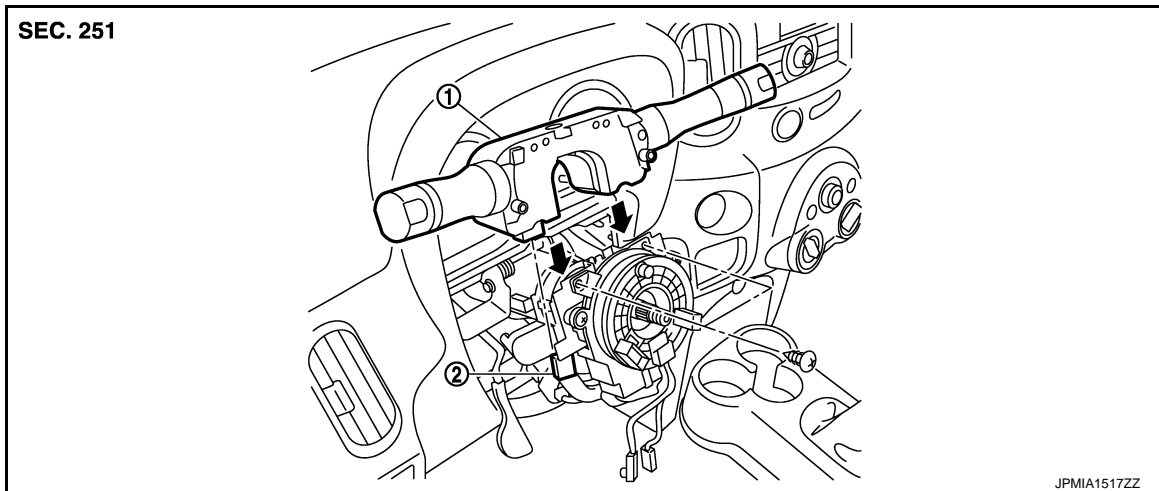
< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

COMBINATION SWITCH

Exploded View

INFOID:000000005149621



1. Combination switch

2. Combination switch connector

Removal and Installation

INFOID:000000005149622

REMOVAL

1. Remove steering column cover. Refer to [IP-12. "Exploded View"](#).
2. Remove screws.
3. Disconnect the connector.
4. Pull up the combination switch to remove it.

INSTALLATION

Install in the reverse order of removal.

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

BCS

N
O
P