

SECTION **BCS**

BODY CONTROL SYSTEM

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PRECAUTION

PRECAUTIONS

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

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

The vehicle may be equipped with a passenger air bag deactivation switch. The switch is designed to turn off the passenger air bag so that a rear-facing child restraint can be used in the front passenger seat, since no rear seat exists where a rear-facing child restraint can be placed. The switch is located in the center of the instrument panel, near the ashtray. When the switch is turned to the ON position, the passenger air bag is enabled and could inflate for certain types of collision. When the switch is turned to the OFF position, the passenger air bag is disabled and does not inflate. A passenger air bag OFF indicator on the instrument panel illuminates when the passenger air bag is switched OFF. The driver air bag always remains enabled and is not affected by the passenger air bag deactivation switch.

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 "SRS AIR BAG".
- Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.
- The vehicle may be equipped with a passenger air bag deactivation switch which can be operated by the customer. When the passenger air bag is switched OFF, the passenger air bag is disabled and does not inflate. When the passenger air bag is switched ON, the passenger air bag is enabled and could inflate for certain types of collision. After SRS maintenance or repair, check that the passenger air bag deactivation switch is in the same position (ON or OFF) as when the vehicle arrived for service.

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, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

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COMPONENT PARTS

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

SYSTEM DESCRIPTION

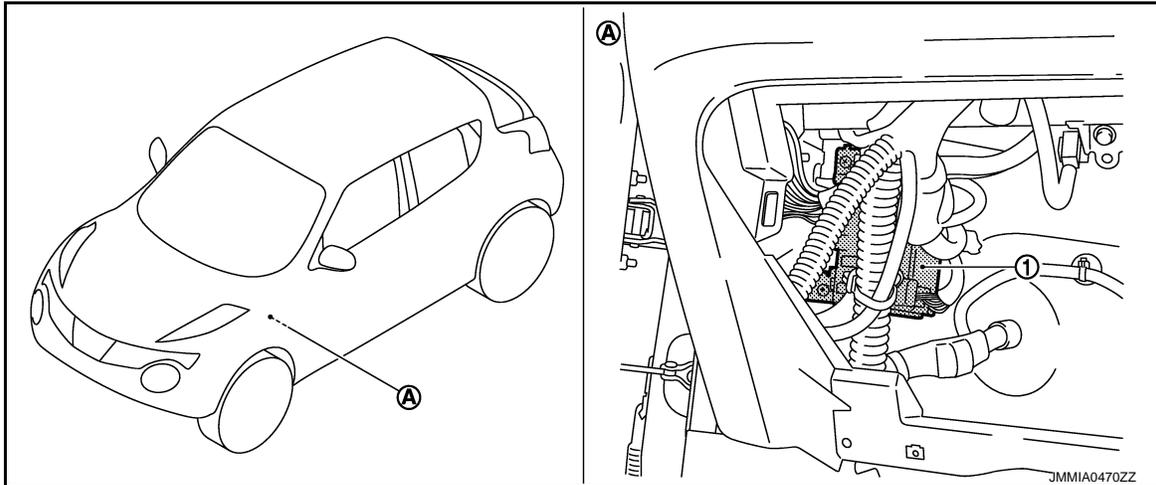
COMPONENT PARTS

BODY CONTROL SYSTEM

BODY CONTROL SYSTEM : Component Parts Location

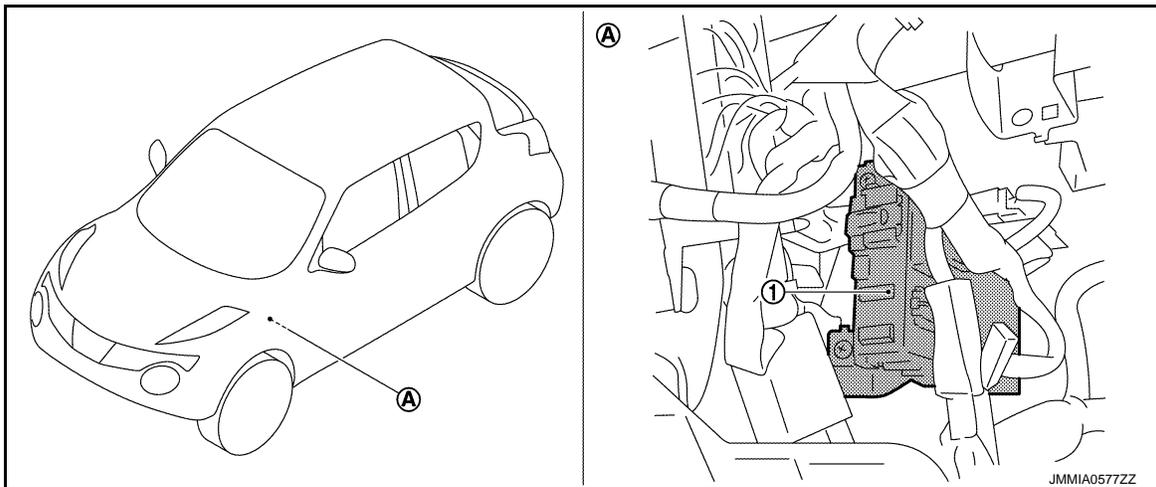
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RHD MODELS



- 1. BCM
- A. Behind of glove box (Left side)

LHD MODELS



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

POWER CONSUMPTION CONTROL SYSTEM

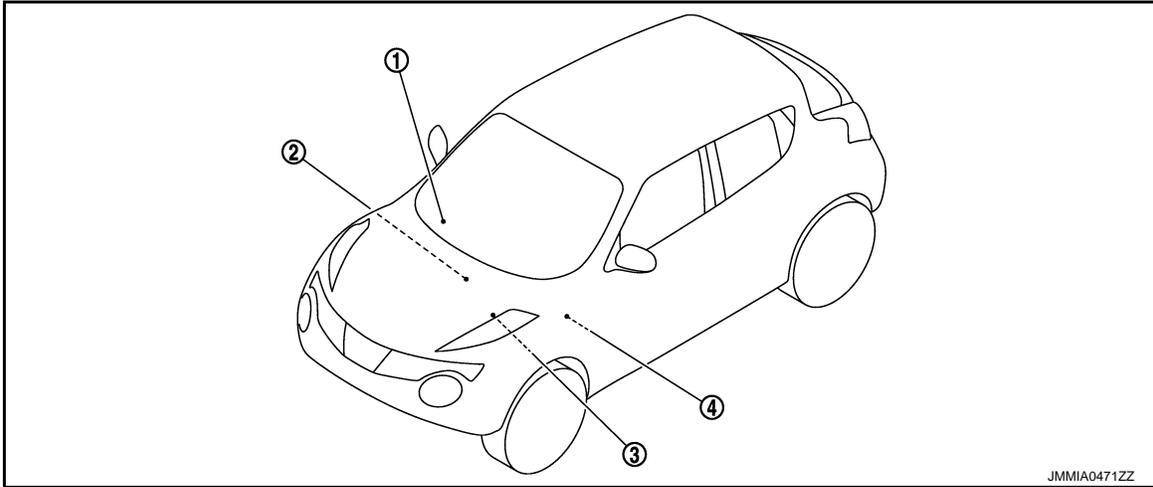
COMPONENT PARTS

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

POWER CONSUMPTION CONTROL SYSTEM : Component Parts Location

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1. Combination meter

2. Multi display unit
Refer to [AV-96. "Component Parts Location"](#).

3. IPDM E/R
Refer to [PCS-5. "Component Parts Location"](#).

4. BCM
Refer to [BCS-6. "BODY CONTROL SYSTEM : Component Parts Location"](#).

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SYSTEM

BODY CONTROL SYSTEM

BODY CONTROL SYSTEM : System Description

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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-9, "COMBINATION SWITCH READING SYSTEM : System Diagram"
Signal buffer system	BCS-13, "SIGNAL BUFFER SYSTEM : System Diagram"
Power consumption control system	BCS-14, "POWER CONSUMPTION CONTROL SYSTEM : System Diagram"
Auto light system	<ul style="list-style-type: none"> • EXL-10, "AUTO LIGHT SYSTEM (WITHOUT DTRL) : System Diagram" (Without daytime running light system) • EXL-11, "AUTO LIGHT SYSTEM (WITH DTRL) : System Diagram" (With daytime running light system)
Turn signal and hazard warning lamp system	EXL-14, "TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM : System Diagram"
Headlamp system	EXL-9, "HEADLAMP SYSTEM : System Diagram"
Parking, license plate, side maker and tail lamps system	<ul style="list-style-type: none"> • EXL-15, "PARKING, LICENSE PLATE AND TAIL LAMP SYSTEM (WITHOUT DTRL) : System Diagram" (Without daytime running light system) • EXL-16, "PARKING, LICENSE PLATE AND TAIL LAMP SYSTEM (WITH DTRL) : System Diagram" (With daytime running light system)
Front fog lamp system	EXL-13, "FRONT FOG LAMP SYSTEM : System Diagram"
Rear fog lamp system	EXL-14, "REAR FOG LAMP SYSTEM : System Diagram"
Exterior lamp battery saver system	<ul style="list-style-type: none"> • EXL-17, "EXTERIOR LAMP BATTERY SAVER SYSTEM (WITHOUT DTRL) : System Diagram" (Without daytime running light system) • EXL-18, "EXTERIOR LAMP BATTERY SAVER SYSTEM (WITH DTRL) : System Diagram" (With daytime running light system)
Daytime running light system	EXL-12, "DAYTIME RUNNING LIGHT SYSTEM : System Diagram"
Interior room lamp control system	INL-6, "INTERIOR ROOM LAMP CONTROL SYSTEM : System Diagram"
Interior room lamp battery saver system	INL-8, "INTERIOR ROOM LAMP BATTERY SAVER SYSTEM : System Diagram"
Front wiper and washer system	<ul style="list-style-type: none"> • WW-8, "FRONT WIPER AND WASHER SYSTEM (WITH LIGHT & RAIN SENSOR) : System Diagram" (With light and rain sensor) • WW-11, "FRONT WIPER AND WASHER SYSTEM (WITHOUT LIGHT & RAIN SENSOR) : System Diagram" (Without light and rain sensor)

SYSTEM

< SYSTEM DESCRIPTION >

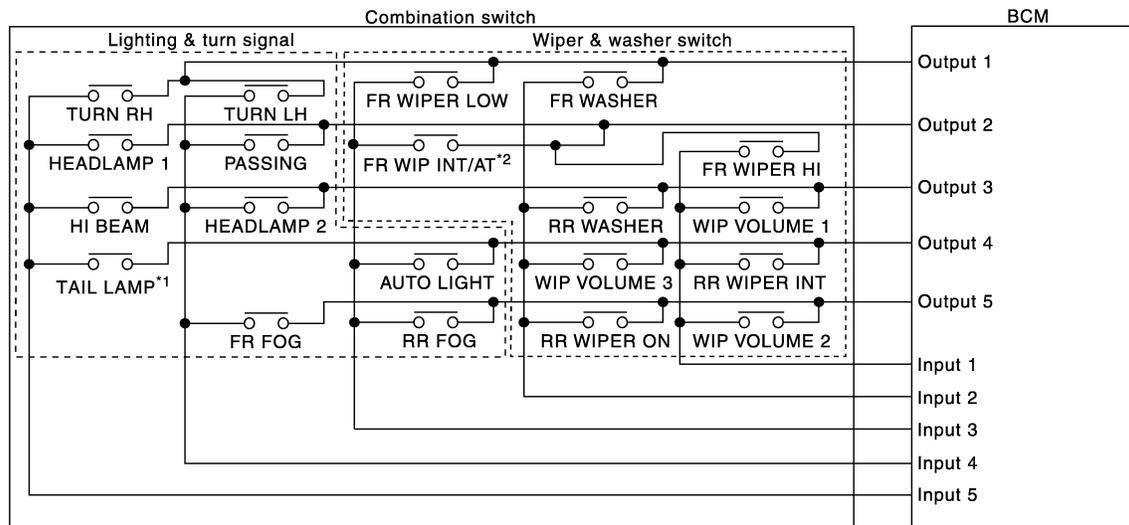
[WITH INTELLIGENT KEY SYSTEM]

System	Reference
Rear wiper and washer system	WW-14, "REAR WIPER AND WASHER SYSTEM : System Diagram"
Headlamp washer system	WW-16, "HEAD LAMP WASHER SYSTEM : System Diagram"
Warning chime system	WCS-6, "WARNING CHIME SYSTEM : System Diagram"
Power door lock system	<ul style="list-style-type: none"> • DLK-24, "System Diagram" (With super lock) • DLK-201, "System Diagram" (Without super lock)
Nissan Vehicle Immobilizer System (NVIS) - NATS	SEC-17, "NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS : System Diagram"
Vehicle security system	Theft warning alarm
	Panic alarm
	SEC-20, "VEHICLE SECURITY SYSTEM : System Diagram"
Rear window defogger system	<ul style="list-style-type: none"> • DEF-7, "WITH AUTO A/C : System Diagram" (With automatic A/C) • DEF-7, "WITHOUT AUTO A/C : System Diagram" (Without automatic A/C)
Intelligent Key system/engine start system	<ul style="list-style-type: none"> • DLK-27, "INTELLIGENT KEY SYSTEM : System Diagram" (With super lock) • DLK-204, "INTELLIGENT KEY SYSTEM : System Diagram" (Without super lock)
Back door opener system	<ul style="list-style-type: none"> • DLK-39, "System Diagram" (With super lock) • DLK-215, "System Diagram" (Without super lock)
Air conditioning control system	Automatic A/C
	Manual A/C
	<ul style="list-style-type: none"> • HAC-17, "System Diagram" (4WD models) • HAC-109, "AUTOMATIC AIR CONDITIONING SYSTEM : System Diagram" (2WD models) • HAC-203, "System Diagram" (4WD models) • HAC-253, "MANUAL AIR CONDITIONING SYSTEM : System Diagram" (2WD models)
Power window system	PWC-6, "POWER WINDOW SYSTEM : System Diagram"

COMBINATION SWITCH READING SYSTEM

COMBINATION SWITCH READING SYSTEM : System Diagram

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NOTE:

- *1: TAIL LAMP switch links lighting switch 1ST and 2ND positions.
- *2: "FR WIP INT/AT" is FR WIPER INT/AUTO.

COMBINATION SWITCH READING SYSTEM : System Description

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OUTLINE

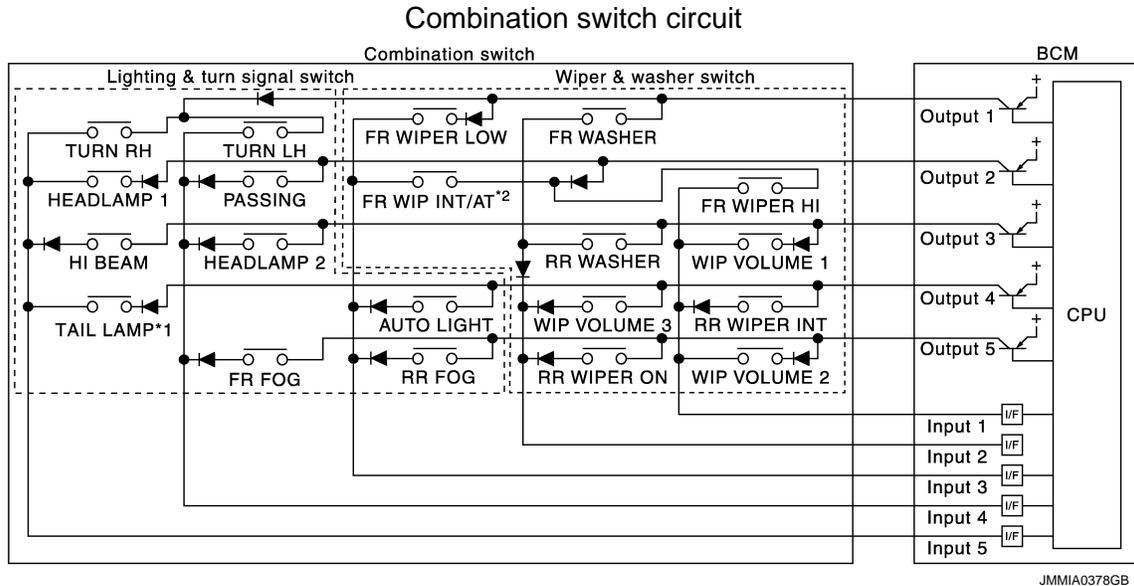
SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

- 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



NOTE:

- *1: TAIL LAMP switch links lighting switch 1ST and 2ND positions.
- *2: "FR WIP INT/AT" is FR WIPER INT/AUTO.

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/ AUTO	PASSING	HEADLAMP 1
OUTPUT 3	WIP VOLUME 1	RR WASHER	—	HEADLAMP 2	HI BEAM
OUTPUT 4	RR WIPER INT	WIP VOLUME 3	AUTO LIGHT	—	TAIL LAMP
OUTPUT 5	WIP VOLUME 2	RR WIPER ON	RR FOG	FR FOG	—

NOTE:

Headlamp has a dual system switch.

COMBINATION SWITCH READING FUNCTION

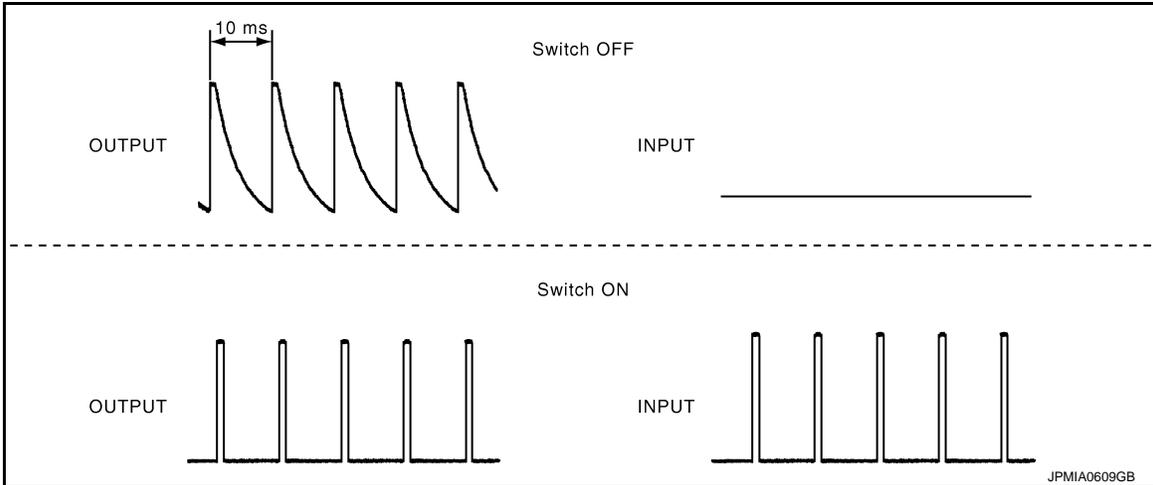
Description

SYSTEM

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

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



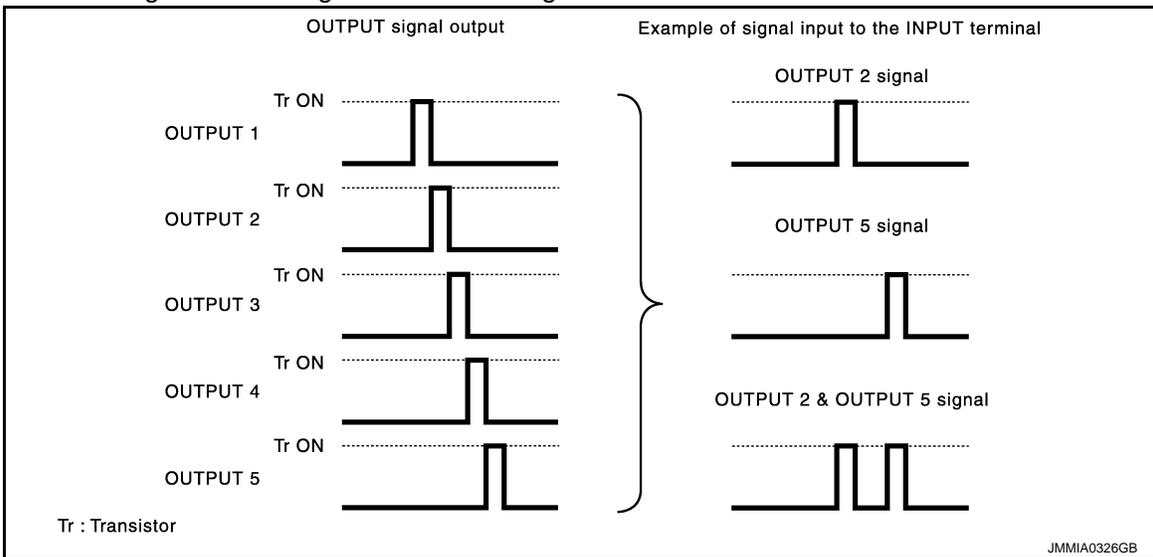
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NOTE:

BCM reads the status of the combination switch at 60 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 1 → 2 → 3 → 4 → 5, 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.

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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".

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

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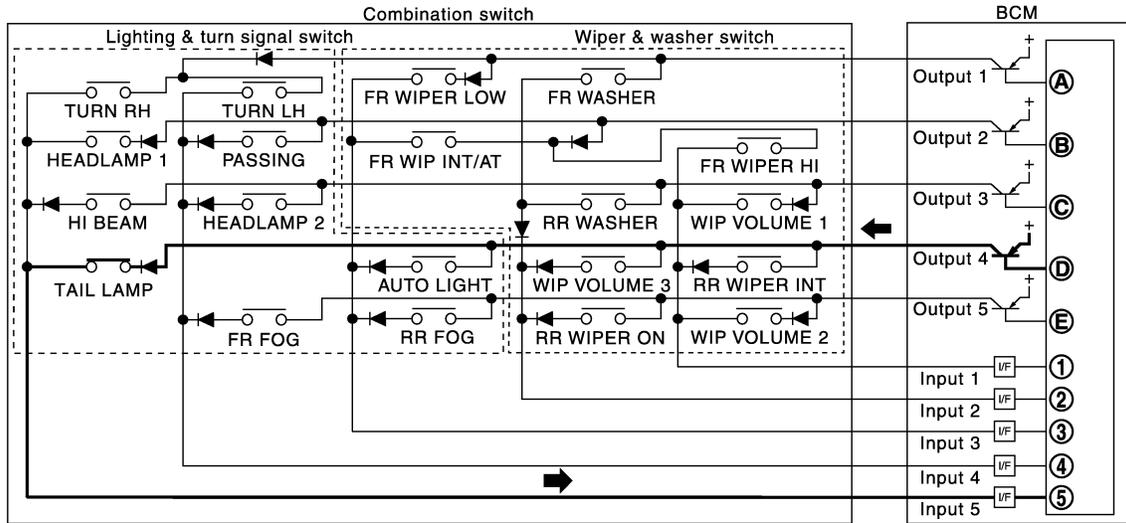
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[WITH INTELLIGENT KEY SYSTEM]

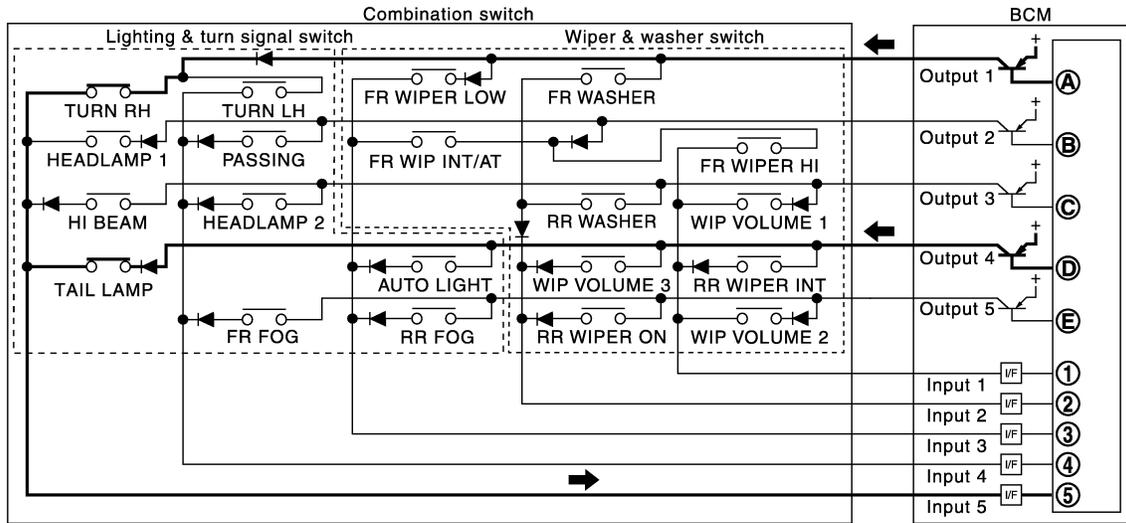
- The circuit between OUTPUT 4 and INPUT 5 is formed when the TAIL LAMP switch is turned ON.



- 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 VOLUME DIAL POSITION

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

Wiper volume dial position	Switch status		
	WIP VOLUME 1	WIP VOLUME 2	WIP VOLUME 3
1	ON	ON	ON
2	ON	ON	OFF
3	ON	OFF	OFF
4	OFF	OFF	OFF
5	OFF	OFF	ON

SYSTEM

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Wiper volume dial position	Switch status		
	WIP VOLUME 1	WIP VOLUME 2	WIP VOLUME 3
6	OFF	ON	ON
7	OFF	ON	OFF

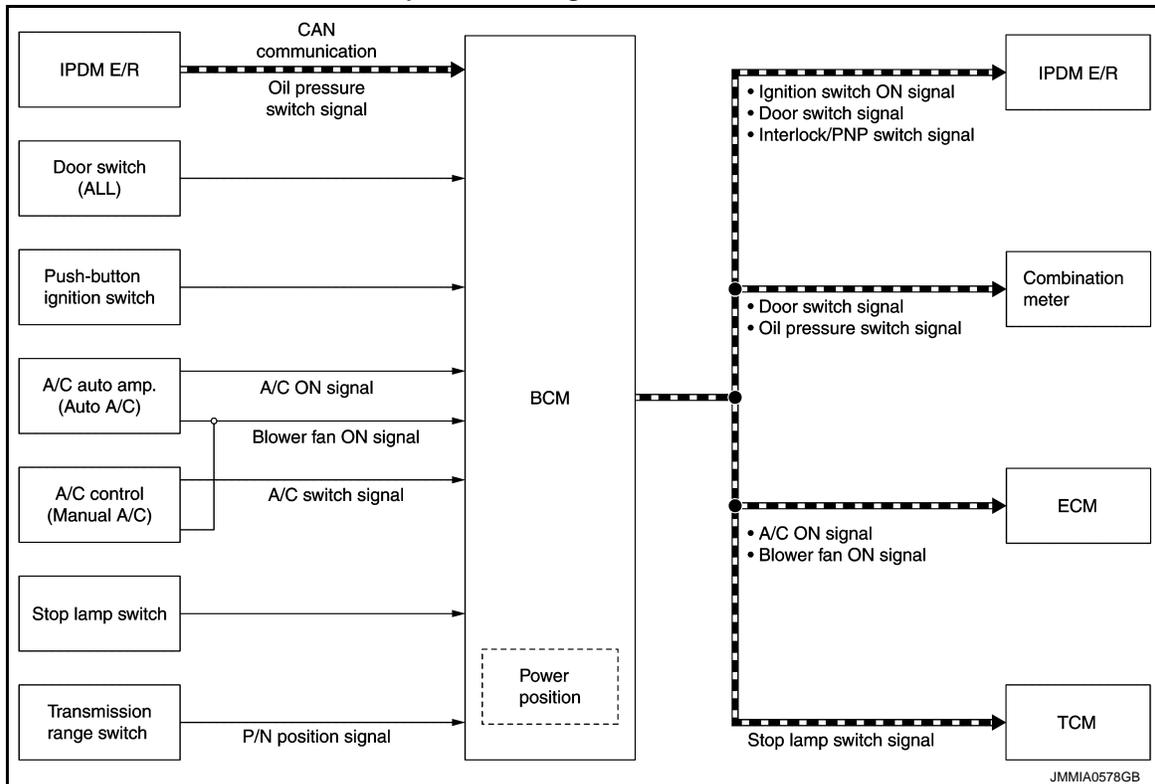
NOTE:

For details of wiper volume dial position, refer to [WW-8. "FRONT WIPER AND WASHER SYSTEM \(WITH LIGHT & RAIN SENSOR\) : System Description"](#) (with light and rain sensor), [WW-11. "FRONT WIPER AND WASHER SYSTEM \(WITHOUT LIGHT & RAIN SENSOR\) : System Description"](#) (without light and rain sensor).

SIGNAL BUFFER SYSTEM

SIGNAL BUFFER SYSTEM : System Diagram

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NOTE:

Oil pressure switch is applied to diesel engine models.

SIGNAL BUFFER SYSTEM : System Description

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OUTLINE

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

Signal transmission function list

Signal name	Input	Output	Description
Ignition switch ON signal	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	<ul style="list-style-type: none"> A/C auto amp. (Auto A/C) A/C control (Manual A/C) 	ECM (CAN)	Input blower fan switch signal, and transmit the blower fan ON signal via CAN communication.

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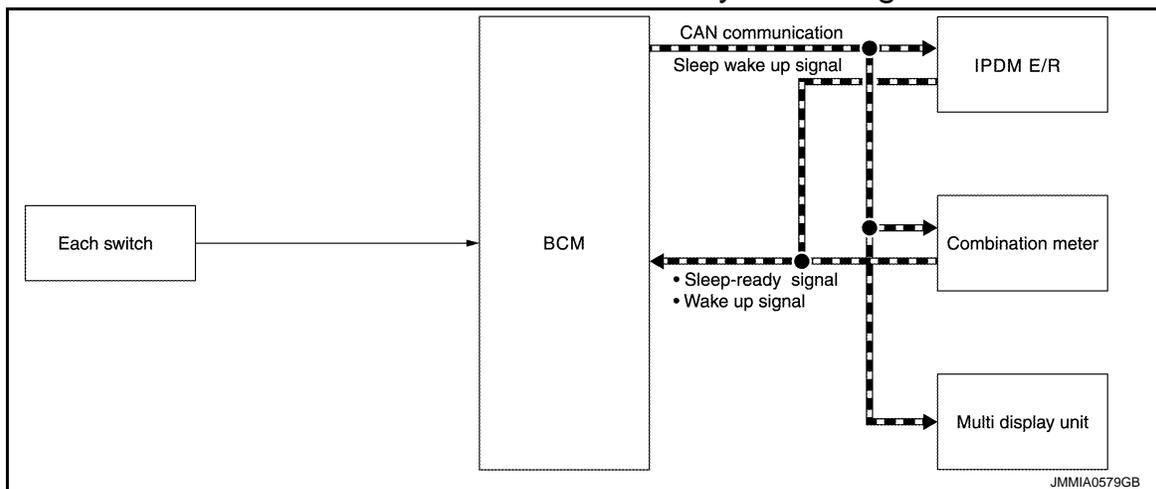
[WITH INTELLIGENT KEY SYSTEM]

Signal name	Input	Output	Description
A/C ON signal	<ul style="list-style-type: none"> A/C auto amp. (Auto A/C) A/C control (Manual A/C) 	ECM (CAN)	Input A/C ON signal (automatic A/C) or A/C switch signal (manual A/C), and transmit the A/C ON signal via CAN communication.
Oil pressure switch signal (Diesel engine models)	IPDM E/R (CAN)	Combination meter (CAN)	Transmits the received oil pressure switch signal via CAN communication.
Stop lamp switch signal	Stop lamp switch	<ul style="list-style-type: none"> TCM (CAN) ECM (CAN) (Diesel engine models) 	Inputs the stop lamp switch 1 signal and stop lamp switch 2 signal, and transmits it via CAN communication.
Interlock/PNP switch signal	Transmission range switch	IPDM E/R (CAN)	Inputs the P/N position signal, and transmits the interlock/PNP switch signal via CAN communication.

POWER CONSUMPTION CONTROL SYSTEM

POWER CONSUMPTION CONTROL SYSTEM : System Diagram

INFOID:000000006598020



POWER CONSUMPTION CONTROL SYSTEM : System Description

INFOID:000000006598021

OUTLINE

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

Normal mode (wake-up)

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

CAN communication sleep mode (CAN sleep)

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

Low power consumption mode (BCM sleep)

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

LOW POWER CONSUMPTION CONTROL WITH BCM

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

SYSTEM

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

- 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.

Sleep condition

CAN sleep condition	BCM sleep condition
<ul style="list-style-type: none"> Receiving the sleep-ready signal (ready) from all units 1 minute after turning 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 Nissan Vehicle Immobilizer System (NVIS) - NATS: Not operation Remote keyless entry receiver communication status: No communication 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.

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

BCS

N
O
P

SYSTEM

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Wake-up condition

Wake-up condition

- 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
 - RR FOG switch: OFF → ON
 - 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
 - Back door opener switch: OFF → ON
 - Stop lamp switch: ON
 - Door lock and unlock switch: NEUTRAL → LOCK, NEUTRAL → UNLOCK
 - Remote keyless entry receiver communication: Receiving
 - Front door lock assembly (driver side) (unlock sensor):
OFF → ON, ON → OFF
-

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

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

INFOID:0000000006598022

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 timer	INT LAMP	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	x
<ul style="list-style-type: none"> Automatic A/C Manual A/C 	AIR CONDITONER		x	x*2
<ul style="list-style-type: none"> Intelligent Key system Engine start system 	INTELLIGENT KEY	x	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 open	TRUNK		x	
Theft warning alarm	THEFT ALM	x	x	x
—	RETAINED PWR*1		x	
Signal buffer system	SIGNAL BUFFER		x	x

NOTE:

- *1: This item is displayed, but not used.
- *2: For models with automatic A/C, this diagnosis mode is not used.

FREEZE FRAME DATA (FFD)

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

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

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	The number of times that ignition switch is turned ON after DTC is detected <ul style="list-style-type: none"> • The number is 0 when a malfunction is detected now. • The number increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. • The number is fixed to 39 until the self-diagnosis results are erased if it is over 39. 	

DOOR LOCK

DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK) (With Super Lock)

INFOID:000000006744609

BCM CONSULT-III FUNCTION

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

WORK SUPPORT

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor item	Description	A
DOOR LOCK-UNLOCK SET	Anti-hijack function mode can be changed to operation with this mode <ul style="list-style-type: none"> • On: Operate • Off: Non-operation 	B
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 10 km/h (6 MPH) • P RANGE*: All doors are locked when shifting the selector lever from P position to other than the P position 	C
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 	D E
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 and unlock operation 	F G

*: 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	H
REQ SW-DR	Indicated [On/Off] condition of door request switch (driver side)	I
REQ SW-AS	Indicated [On/Off] condition of door request switch (passenger side)	J
REQ SW-BD/TR	Indicated [On/Off] condition of back door request switch	K
DOOR SW-DR	Indicated [On/Off] condition of front door switch (driver side)	L
DOOR SW-AS	Indicated [On/Off] condition of front door switch (passenger side)	M
DOOR SW-RR	Indicated [On/Off] condition of rear door switch RH	N
DOOR SW-RL	Indicated [On/Off] condition of rear door switch LH	O
DOOR SW-BK	Indicated [On/Off] condition of back door switch	P
CDL LOCK SW	Indicated [On/Off] condition of lock signal from door lock unlock switch	Q
CDL UNLOCK SW	Indicated [On/Off] condition of unlock signal from door lock unlock switch	R
KEY CYL LK-SW	NOTE: This item is displayed, but cannot be monitored	S
KEY CYL UN-SW	NOTE: This item is displayed, but cannot be monitored	T
SHOCK SENSOR	Indicates [NOMAL/ON/OFF] condition of circuit between BCM and air bag diagnosis sensor unit <ul style="list-style-type: none"> • NORMAL: Ignition switch ON. (BCM is receiving normal condition signal from air bag diagnosis sensor unit.) • ON: During the receiving of air bag signal from air bag diagnosis sensor unit • OFF: After the receiving of air bag signal from air bag diagnosis sensor unit 	U

ACTIVE TEST

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

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 back door lock actuator is unlocked when "BD UNLK" on CONSULT- III screen is touched*• The door lock actuator (other) is unlocked when "OTR ULK" on CONSULT-III screen is touched
SUPER LOCK	This test is able to check super lock actuator operation <ul style="list-style-type: none">• The all door lock actuators are set when "LOCK" on CONSULT-III screen is touched• The all door lock actuators are released when "UNLOCK" on CONSULT-III screen is touched
DOOR LOCK IND	This test is able to check door lock status indicator operation <ul style="list-style-type: none">• On: Operate• Off: Non-operation

*: BD UNLK function does not operate.

DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK) (Without Super Lock)

INFOID:000000006744612

BCM CONSULT-III FUNCTION

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

WORK SUPPORT

Monitor item	Description
DOOR LOCK-UNLOCK SET	Anti-hijack 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 10 km/h (6 MPH)• 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 and 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

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor Item	Contents
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	NOTE: This item is displayed, but cannot be monitored
KEY CYL UN-SW	NOTE: This item is displayed, but cannot be monitored
SHOCK SENSOR	Indicates [NOMAL/ON/OFF] condition of circuit between BCM and air bag diagnosis sensor unit <ul style="list-style-type: none"> • NORMAL: Ignition switch ON. (BCM is receiving normal condition signal from air bag diagnosis sensor unit.) • ON: During the receiving of air bag signal from air bag diagnosis sensor unit • OFF: After the receiving of air bag signal from air bag diagnosis sensor unit

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 back door lock actuator is unlocked when "BD UNLK" on CONSULT- III screen is touched* • The door lock actuator (other) is unlocked when "OTR ULK" on CONSULT-III screen is touched
SUPER LOCK	NOTE: This item is displayed, but cannot be monitored
DOOR LOCK IND	NOTE: This item is displayed, but cannot be monitored

*: BD UNLK function does not operate.

REAR WINDOW DEFOGGER

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

INFOID:000000006744623

Data monitor

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

ACTIVE TEST

Test Item	Description
REAR DEFOGGER	Give a drive signal to the rear window defogger relay to activate it.

BUZZER

BUZZER : CONSULT-III Function (BCM - BUZZER)

INFOID:000000006744624

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.

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

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

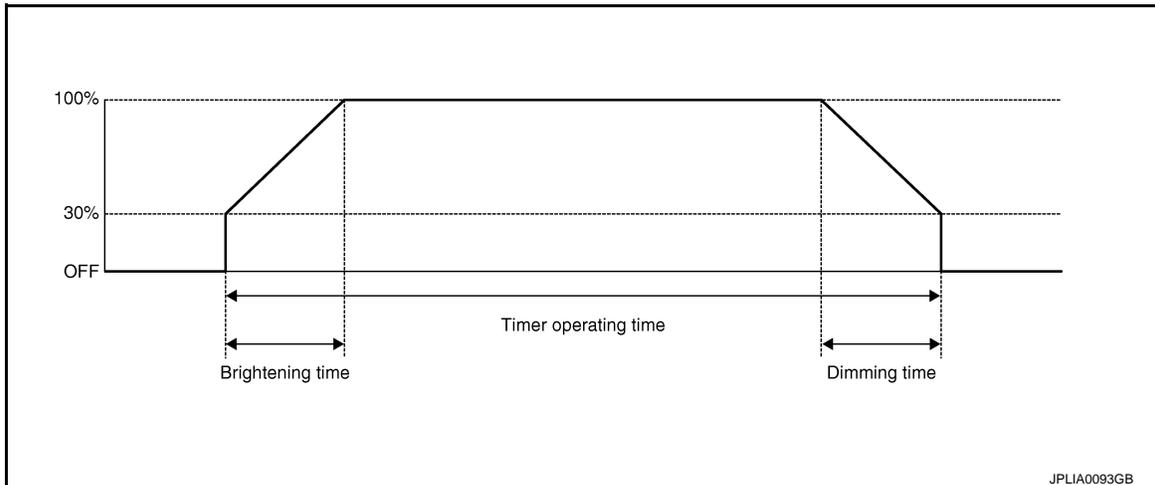
Display item [Unit]	Description
KEY REMINDER WARN	The key warning chime operation can be checked by operating the relevant function (On/Off).
LIGHT WARN ALM	The light warning chime operation can be checked by operating the relevant function (On/Off).

INT LAMP

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

INFOID:000000006744619

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

DIAGNOSIS SYSTEM (BCM)

[WITH 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	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	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
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]	
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
TRNK/HAT MNTR [On/Off]	NOTE: The item is indicated, but not monitored
KEY CYL LK-SW [On/Off]	NOTE: The item is indicated, but not monitored
KEY CYL UN-SW [On/Off]	NOTE: The item is indicated, but not monitored

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description
RKE-LOCK [On/Off]	Lock signal status received from remote keyless entry receiver
RKE-UNLOCK [On/Off]	Unlock signal status received from remote keyless entry receiver

ACTIVE TEST

Test item	Operation	Description
INT LAMP	On	Outputs the interior room lamp control signal to turn the interior room lamps ON. [Map lamp, 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:000000006744617

WORK SUPPORT

Service item	Setting item	Setting
CUSTOM A/LIGHT SETTING*1	MODE 1*2	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*2	With the exterior lamp battery saver function
	Off	Without the exterior lamp battery saver function
HEAD LIGHT TIMER	MODE 1	10 sec.
	MODE 2*2	30 sec.
		Sets follow me home function activating time

*1: For models is without auto light system, this item is displayed but work support is not operated.

*2: Factory setting

DATA MONITOR

Monitor item [Unit]	Description
PUSH SW [On/Off]	The switch status input from push-button ignition switch
ENGINE STATE [Stop/Stall/Crank/Run]	The engine status received from ECM via CAN communication
VEH SPEED 1 [km/h]	The value of the vehicle speed received from combination meter via CAN communication

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description	
TURN SIGNAL R [On/Off]	Each switch status that BCM judges from the combination switch reading function	A
TURN SIGNAL L [On/Off]		B
TAIL LAMP SW [On/Off]		C
HI BEAM SW [On/Off]		D
HEAD LAMP SW1 [On/Off]		E
HEAD LAMP SW2 [On/Off]		F
PASSING SW [On/Off]		G
AUTO LIGHT SW* [On/Off]		H
FR FOG SW [On/Off]		I
RR FOG SW [On/Off]		J
DOOR SW-DR [On/Off]	The switch status input from front door switch (driver side)	K
DOOR SW-AS [On/Off]	The switch status input from front door switch (passenger side)	L
DOOR SW-RR [On/Off]	The switch status input from rear door switch RH	M
DOOR SW- RL [On/Off]	The switch status input from rear door switch LH	N
DOOR SW-BK [On/Off]	The switch status input from back door switch	O
OPTICAL SENSOR* [On/Off/NG]	The sensor condition received from light & rain sensor	P
OPTI SEN (DTCT) [V]	NOTE: The item is indicated, but not monitored	Q
OPTI SEN (FILT) [V]		R

*: For models without auto light system, this is not displayed.

ACTIVE TEST

Test item	Operation	Description
TAIL LAMP	On	Transmits the position light request signal to IPDM E/R via CAN communication to turn the tail lamp ON.
	Off	Stops the tail lamp request signal transmission.
HEAD LAMP	Hi	Transmits the high beam request signal via CAN communication to turn the headlamp (HI).
	Lo	Transmits the low beam request signal via 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 via CAN communication to turn the front fog lamp ON.
	Off	Stops the front fog lights request signal transmission.

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Test item	Operation	Description
RR FOG LAMP	On	<ul style="list-style-type: none"> Outputs voltage to turn the rear fog lamp ON. Transmits the rear fog lights request signal to combination meter via CAN communication to turn the rear fog lamp indicator lamp ON.
	Off	<ul style="list-style-type: none"> Stops the voltage to turn the rear fog lamp OFF. Stops the rear fog lamp status signal transmission.
DAYTIME RUNNING LIGHT*	On	Transmits the daytime running light request signal via CAN communication to turn the parking, license plate and tail lamps ON.
	Off	Stop the daytime running light request signal transmission.

*: For models without daytime running light system, this item is not displayed.

WIPER

WIPER : CONSULT-III Function - WIPER

INFOID:000000006744621

WORK SUPPORT

Service item	Setting item	Description
WIPER SPEED SETTING*1	On*3	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)
RAIN SEN WIP FUNC SET*2	On*3	With light & rain sensor (Front wiper intermittent time linked with the light & rain sensor, vehicle speed, and AUTO dial position)
	Off	Without light & rain sensor (Front wiper intermittent time linked with the vehicle speed and AUTO dial position)

*1: The item is indicated, but not operated on model with rain sensor

*2: The item is indicated, but not operated on model without rain sensor

*3: 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]	Displays the value of the vehicle speed signal received from combination meter via CAN communication
FR WIPER HI [Off/On]	Status of each switch judged by BCM using 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]	Displays the status of the front wiper stop position signal received from IPDM E/R via CAN communication.
INT VOLUME [1 - 7]	Status of each switch judged by BCM using the combination switch reading function

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor Item [Unit]	Description
RR WIPER ON [Off/On]	Status of each switch judged by BCM using the combination switch reading function
RR WIPER INT [Off/On]	
RR WASHER SW [Off/On]	
RR WIPER STOP [Off/On]	Rear wiper motor (stop position) status input from the rear wiper motor
H/L WASH SW [Off/On]	NOTE: The item is indicated, but not monitored
RAIN SENSOR [OFF/LOW/HIGH/SPLASH/NG]	Request signal from light & rain sensor detected by BCM is displayed

ACTIVE TEST

Test item	Operation	Description
FR WIPER	Hi	Transmits the front wiper request signal (HI) to IPDM E/R via CAN communication to operate the front wiper HI operation.
	Lo	Transmits the front wiper request signal (LO) to IPDM E/R via CAN communication to operate the front wiper LO operation.
	INT	Transmits the front wiper request signal (INT) to IPDM E/R via 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	Output the voltage to operate the rear wiper motor.
	Off	Stops the voltage to stop the rear wiper motor.
HEADLAMP WASH-ER	On	Transmits the headlamp washer request signal to IPDM E/R via CAN communication to operate the headlamp washer operation.

FLASHER

FLASHER : CONSULT-III Function (BCM - FLASHER)

INFOID:000000006744618

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 door request switch and Intelligent Key.

*: 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

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description
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
RKE-UNLOCK [On/Off]	Unlock signal status received from the remote keyless entry receiver
RKE-PANIC [On/Off]	NOTE: The item is indicated, but not monitored

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 - AIR CONDITIONER) (Automatic A/C 4WD Models)

INFOID:000000006744625

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.

AIR CONDITIONER : CONSULT-III Function (BCM - AIR CONDITIONER) (Automatic A/C 2WD Models)

INFOID:000000006744626

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.

AIR CONDITIONER : CONSULT-III Function (BCM - AIR CONDITIONER) (Manual A/C 4WD Models)

INFOID:000000006744627

DATA MONITOR

Display item list

Monitor Item [Unit]	Contents
FAN ON SIG [On/Off]	Displays blower motor status as judged from blower fan ON signal.
AIR COND SW [On/Off]	Displays A/C switch status as judged from A/C switch signal.

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor Item [Unit]	Contents
THERMO AMP [On/Off]	Displays thermo control amp. status as judged from thermo control amp. signal.
IGN SW [On/Off]	Displays ignition switch position status as judged form ignition switch signal.

ACTIVE TEST

Test item	Operation	Description
A/C INDICATOR	On	A/C indicator is turned ON.
	Off	A/C indicator is turned OFF.

AIR CONDITIONER : CONSULT-III Function (BCM - AIR CONDITIONER) (Manual A/C 2WD Models)

INFOID:000000006744628

DATA MONITOR

Display item list

Monitor Item [Unit]	Contents
FAN ON SIG [On/Off]	Displays blower motor status as judged from blower fan ON signal.
AIR COND SW [On/Off]	Displays A/C switch status as judged from A/C switch signal.
THERMO AMP [On/Off]	Displays thermo control amp. status as judged from thermo control amp. signal.
IGN SW [On/Off]	Displays ignition switch position status as judged form ignition switch signal.

ACTIVE TEST

Test item	Operation	Description
A/C INDICATOR	On	A/C indicator is turned ON.
	Off	A/C indicator is turned OFF.

INTELLIGENT KEY

INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY) (With Super Lock)

INFOID:000000006744610

WORK SUPPORT

Monitor item	Description
INSIDE ANT DIAGNOSIS	This function allows inside key antenna self-diagnosis
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	NOTE: This item is displayed, but cannot be monitored
TRUNK OPEN DELAY	NOTE: This item is displayed, but cannot be monitored
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

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor item	Description
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 and unlock operation • Off: Non-operation
ANS BACK I-KEY LOCK	Buzzer reminder function (lock operation) mode by door request switch 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 <ul style="list-style-type: none"> • 70 msec • 100 msec • 200 msec
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 operation 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
ANSWER BACK FUNCTION	Buzzer reminder function mode by Intelligent Key button can be selected from the following with this mode <ul style="list-style-type: none"> • On: Operate • Off: Non-operation
TAKE OUT FROM WIN WARN SET	NOTE: This item is indicated, but not used
RETRACTABLE MIRROR SET	Auto retractable door mirror function mode can be changed to operation with this mode <ul style="list-style-type: none"> • On: Operate • Off: Non-operation

SELF-DIAG RESULT

Refer to [BCS-67, "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 interlock switch
BRAKE SW 1	Indicates [On/Off]*2 condition of stop lamp switch power supply
BRAKE SW 2	Indicates [On/Off] condition of stop lamp switch
DETE/CANCL SW	Indicates [On/Off] condition of P position
SFT PN/N SW	Indicates [On/Off] condition of P or N position

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Condition
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
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	NOTE: This item is displayed, but cannot be monitored
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 CVT models.

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

ACTIVE TEST

Test item	Description
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 • Off: Non-operation

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Test item	Description
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 IND: "KEY" Warning lamp blinks when CONSULT-III screen is touched • Off: Non-operation
INT LAMP	This test is able to check interior room lamp operation <ul style="list-style-type: none"> • On: Operate • Off: Non-operation
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: Key warning lamp indicator when CONSULT-III screen is touched • 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
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
BATTERY SAVER	This test is able to check interior room lamp operation. The interior room lamp will be activated after "ON" on CONSULT-III screen is touched.
TRUNK/BACK DOOR	This test is able to check back door opener actuator open operation. This actuator opens when "Open" on CONSULT-III screen is touched.
RETRACTABLE MIRROR	This test is able to check auto retractable door mirror operation <ul style="list-style-type: none"> • On: Operate • Off: Non-operation

INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY) (Without Super Lock)

INFOID:000000006744613

WORK SUPPORT

Monitor item	Description
INSIDE ANT DIAGNOSIS	This function allows inside key antenna self-diagnosis
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	NOTE: This item is displayed, but cannot be monitored

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor item	Description
TRUNK OPEN DELAY	NOTE: This item is displayed, but cannot be monitored
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 and unlock operation • Off: Non-operation
ANS BACK I-KEY LOCK	Buzzer reminder function (lock operation) mode by door request switch 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 <ul style="list-style-type: none"> • 70 msec • 100 msec • 200 msec
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 operation 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
ANSWER BACK FUNCTION	Buzzer reminder function mode by Intelligent Key button can be selected from the following with this mode <ul style="list-style-type: none"> • On: Operate • Off: Non-operation
TAKE OUT FROM WIN WARN SET	NOTE: This item is indicated, but not used
RETRACTABLE MIRROR SET	Auto retractable door mirror function mode can be changed to operation with this mode <ul style="list-style-type: none"> • On: Operate • Off: Non-operation

SELF-DIAG RESULT

Refer to [BCS-67, "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 interlock switch

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor Item	Condition
BRAKE SW 1	Indicates [On/Off]*2 condition of stop lamp switch power supply
BRAKE SW 2	Indicates [On/Off] condition of stop lamp 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
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	NOTE: This item is displayed, but cannot be monitored
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 CVT models.

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

ACTIVE TEST

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Test item	Description	A
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation <ul style="list-style-type: none"> • On: Operate • Off: Non-operation 	B
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 • Off: Non-operation 	C
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 IND: "KEY" Warning lamp blinks when CONSULT-III screen is touched • Off: Non-operation 	D
INT LAMP	This test is able to check interior room lamp operation <ul style="list-style-type: none"> • On: Operate • Off: Non-operation 	E
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: Key warning lamp indicator when CONSULT-III screen is touched • 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 	F G H
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	I
P RANGE	This test is able to check CVT shift selector power supply <ul style="list-style-type: none"> • On: Operate • Off: Non-operation 	J
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	K
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	L
BATTERY SAVER	This test is able to check interior room lamp operation. The interior room lamp will be activated after "ON" on CONSULT-III screen is touched.	M
TRUNK/BACK DOOR	This test is able to check back door opener actuator open operation. This actuator opens when "Open" on CONSULT-III screen is touched.	N
RETRACTABLE MIRROR	This test is able to check auto retractable door mirror operation <ul style="list-style-type: none"> • On: Operate • Off: Non-operation 	O

BCS

COMB SW

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

INFOID:000000006598037

DATA MONITOR

Monitor item [UNIT]	Description	P
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.	P
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.	P

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor item [UNIT]	Description
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/AUTO switch in combination switch judged by BCM with the combination switch reading function.
INT VOLUME [1 - 7]	Displays the status of wiper volume dial position judged by BCM with the combination switch reading function.
TURN SIGNAL R [Off/On]	Displays the status of the TURN RH switch in combination switch judged by BCM with the combination switch reading function.
TURN SIGNAL L [Off/On]	Displays the status of the TURN LH switch in combination switch judged by BCM with the combination switch reading function.
TAIL LAMP SW [Off/On]	Displays the status of the TAIL LAMP switch in combination switch judged by BCM with the combination switch reading function.
HI BEAM SW [Off/On]	Displays the status of the HI BEAM switch in combination switch judged by BCM with the combination switch reading function.
HEAD LAMP SW 1 [Off/On]	Displays the status of the HEADLAMP 1 switch in combination switch judged by BCM with the combination switch reading function.
HEAD LAMP SW 2 [Off/On]	Displays the status of the HEADLAMP 2 switch in combination switch judged by BCM with the combination switch reading function.
PASSING SW [Off/On]	Displays the status of the PASSING switch in combination switch judged by BCM with the combination switch reading function.
AUTO LIGHT SW [Off/On]	Displays the status of the AUTO LIGHT switch in combination switch judged by BCM with the combination switch reading function.
FR FOG SW [Off/On]	Displays the status of the FR FOG switch in combination switch judged by BCM with the combination switch reading function.
RR FOG SW [Off/On]	Displays the status of the RR FOG switch in combination switch judged by BCM with the combination switch reading function.

BCM

BCM : CONSULT-III Function (BCM - BCM)

INFOID:000000006598038

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:000000006744616

WORK SUPPORT

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

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	

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor item	Content
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.

BATTERY SAVER

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

INFOID:000000006744620

WORK SUPPORT

Service item	Setting item	Setting
ROOM LAMP TIMER SET	MODE 1	30 min.
	MODE 2	60 min.
	MODE 3*	15 min.
		Sets the interior room lamp battery saver timer operating time.
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

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DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description
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
TRNK/HAT MNTR [On/Off]	NOTE: The item is indicated, but not monitored
KEY CYL LK-SW [On/Off]	NOTE: The item is indicated, but not monitored
KEY CYL UN-SW [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
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) (With Super Lock)

INFOID:000000006744611

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	Indicates [ON/OFF] condition of back door opener switch.
TRNK/HAT MNTR	NOTE: This item is displayed, but cannot be monitored
RKE-TR/BD	NOTE: This item is displayed, but cannot be monitored

TRUNK : CONSULT-III Function (BCM - TRUNK) (Without Super Lock)

INFOID:000000006744614

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	Indicates [ON/OFF] condition of back door opener switch.

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor Item	Contents
TRNK/HAT MNTR	NOTE: This item is displayed, but cannot be monitored
RKE-TR/BD	NOTE: This item is displayed, but cannot be monitored

THEFT ALM

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

INFOID:000000006744615

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.

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).
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	NOTE: This is displayed even when it is not equipped.
KEY CYL UN-SW	NOTE: This is displayed even when it is not equipped.
TR/BD OPEN SW	Indicates [ON/OFF] condition of back door opener switch.
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.

ACTIVE TEST

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

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 horns operation. Horns are 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.

SIGNAL BUFFER

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

INFOID:000000006598046

DATA MONITOR

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

ACTIVE TEST

Test item	Operation	Description
OIL PRESSURE SW NOTE: For gasoline engine models, this item is not used.	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.

ECU DIAGNOSIS INFORMATION

BCM

Reference Value

INFOID:000000006598047

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 volume dial is in a dial position 1 - 7	Wiper volume dial position
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
RR FOG SW	Rear fog lamp switch OFF	Off
	Rear fog lamp switch ON	On
DOOR SW-DR	Driver door closed	Off
	Driver door opened	On
DOOR SW-AS	Passenger door closed	Off
	Passenger door opened	On
DOOR SW-RR	Rear RH door closed	Off
	Rear RH door opened	On

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< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Value/Status
DOOR SW-RL	Rear LH door closed	Off
	Rear LH door opened	On
DOOR SW-BK	Back door closed	Off
	Back door opened	On
CDL LOCK SW	Other than power door lock switch LOCK	Off
	Power door lock switch LOCK	On
CDL UNLOCK SW	Other than power door lock switch UNLOCK	Off
	Power door lock switch UNLOCK	On
KEY CYL LK-SW	NOTE: The item is indicated, but not monitored.	Off
KEY CYL UN-SW	NOTE: The item is indicated, but not monitored.	Off
HAZARD SW	Hazard switch is OFF	Off
	Hazard switch is ON	On
REAR DEF SW	Rear window defogger switch OFF	Off
	Rear window defogger switch ON	On
H/L WASH SW	NOTE: The item is indicated, but not monitored.	Off
TR/BD OPEN SW	Back door opener switch OFF	Off
	While the back door opener switch is turned ON	On
TRNK/HAT MNTR	Trunk lid closed	Off
	Trunk lid opened	On
FAN ON SIG	Blower fan OFF	Off
	Blower fan ON	On
AIR COND SW	<ul style="list-style-type: none"> • Air conditioner OFF (A/C switch indicator OFF) (Automatic A/C) • A/C switch OFF (Manual A/C) 	Off
	<ul style="list-style-type: none"> • Air conditioner ON (A/C switch indicator ON) (Automatic A/C) • A/C switch ON (Manual A/C) 	On
RKE-LOCK	LOCK button of the key is not pressed	Off
	LOCK button of the key is pressed	On
RKE-UNLOCK	UNLOCK button of the key is not pressed	Off
	UNLOCK button of the key is pressed	On
RKE-TR/BD	NOTE: The item is indicated, but not monitored.	Off
RKE-PANIC	PANIC button of the key is not pressed	Off
	PANIC button of the key is pressed	On
RKE-MODE CHG	LOCK/UNLOCK button of the key is not pressed and held simultaneously	Off
	LOCK/UNLOCK button of the key is pressed and held simultaneously	On
SHOCK SENSOR	Air bag signal (NORMAL) is detected.	NOMAL
	Air bag signal (AIR BAG OPEN) is detected.	On
	Air bag signal is not detected.	Off
OPTI SEN (DTCT)	NOTE: The item is indicated, but not monitored.	0 V
OPTI SEN (FILT)	NOTE: The item is indicated, but not monitored.	0 V

BCM

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Value/Status		
OPTICAL SENSOR	Bright outside of the vehicle	Off	A	
	Dark outside of vehicle	On		
	Light sensor internal error	NG	B	
RAIN SENSOR	No rain (or very light rain)	Off		
	Light rain	LOW	C	
	Heavy rain	HIGH		
	When liquid is splashed on the front window	SPLSH		
	Rain sensor internal error	NG	D	
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	E	
	Passenger door request switch is pressed	On		
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off	F	
REQ SW -RL	NOTE: The item is indicated, but not monitored.	Off		
REQ SW -BD/TR	Back door request switch is not pressed	Off	G	
	Back door request switch is pressed	On		
PUSH SW	Push-button ignition switch (push switch) is not pressed	Off	H	
	Push-button ignition switch (push switch) is pressed	On		
CLUCH SW	The clutch pedal is not depressed.	Off		
	The clutch pedal is depressed	On	I	
BRAKE SW 1	The brake pedal is not depressed	Off		
	The brake pedal is depressed	On	J	
BRAKE SW 2	The brake pedal is depressed when No. 38 fuse is blown	Off		
	The brake pedal is not depressed when No. 38 fuse is blown, or No. 38 fuse is normal	On	K	
DETE/CANCL SW NOTE: For M/T models this item is not used.	Selector lever in P position	Release selector button	Off	
		Push selector button	On	L
	Selector lever in any position other than P			
SFT PN/N SW	<ul style="list-style-type: none"> • Selector lever in any position other than P and N (CVT models) • Control lever in any position other than neutral (M/T models) 	Off	BCS	
		<ul style="list-style-type: none"> • Selector lever in P or N position (CVT models) • Control lever in neutral position (M/T models) 	On	
S/L -LOCK	Steering is locked	Off		
	Steering is unlocked	On	N	
S/L -UNLOCK	Steering is unlocked	Off		
	Steering is locked	On	O	
S/L RELAY-F/B	Steering is unlocked	Off		
	Steering is locked	On		
UNLK SEN -DR	Driver door is locked	Off	P	
	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		

BCM

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Value/Status
DETE SW -IPDM NOTE: For M/T models this item is not used.	Selector lever in any position other than P	Off
	Selector lever in P position	
		Push selector button Release selector button
SFT PN -IPDM NOTE: For M/T models this item is not used.	Selector lever in any position other than P and N	Off
	Selector lever in P or N position	On
SFT P -MET NOTE: For M/T models this item is not used.	Selector lever in any position other than P	Off
	Selector lever in P position	On
SFT N -MET NOTE: For M/T models this item is not used.	Selector lever in any position other than N	Off
	Selector lever in N position	On
ENGINE STATE	Engine stopped	Stop
	While the engine stalls	Stall
	At engine cranking	Crank
	Engine running	Run
S/L LOCK-IPDM	Steering is locked	Off
	Steering is unlocked	On
S/L UNLK-IPDM	Steering is unlocked	Off
	Steering is locked	On
S/L RELAY-REQ	Steering is unlocked	Off
	Steering is locked	On
VEH SPEED 1	While driving	Equivalent to speedometer reading
VEH SPEED 2	While driving	Equivalent to speedometer reading
DOOR STAT-DR	Driver door is locked	LOCK
	Wait with anti-hijack operation (5 seconds)	READY
	Driver door is unlocked	UNLOCK
DOOR STAT-AS	Passenger door is locked	LOCK
	Wait with anti-hijack operation (5 seconds)	READY
	Passenger door is unlocked	UNLOCK
ID OK FLAG	Steering is locked	Reset
	Steering is unlocked	Set
PRMT ENG STRT	The engine start is prohibited	Reset
	The engine start is permitted	Set
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset
RKE OPE COUN1	During the operation of the key	Operation frequency of the key
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	—
CONFRM ID ALL	The key ID that the key slot receives is not recognized by any key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by any key ID registered to BCM.	Done

BCM

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Value/Status	
CONFIRM ID4	The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.	Yet	A
	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done	B
CONFIRM ID3	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet	C
	The key ID that the key slot receives is recognized by the third key ID registered to BCM.	Done	D
CONFIRM ID2	The key ID that the key slot receives is not recognized by the second key ID registered to BCM.	Yet	E
	The key ID that the key slot receives is recognized by the second key ID registered to BCM.	Done	F
CONFIRM ID1	The key ID that the key slot receives is not recognized by the first key ID registered to BCM.	Yet	G
	The key ID that the key slot receives is recognized by the first key ID registered to BCM.	Done	H
NOT REGISTERED	BCM detects registered key ID, or BCM does not detect key ID.	ID OK	I
	BCM detects non-registration key ID.	ID NG	J
TP 4	The ID of fourth key is not registered to BCM	Yet	K
	The ID of fourth key is registered to BCM	Done	L
TP 3	The ID of third key is not registered to BCM	Yet	M
	The ID of third key is registered to BCM	Done	N
TP 2	The ID of second key is not registered to BCM	Yet	O
	The ID of second key is registered to BCM	Done	P
TP 1	The ID of first key is not registered to BCM	Yet	Q
	The ID of first key is registered to BCM	Done	R

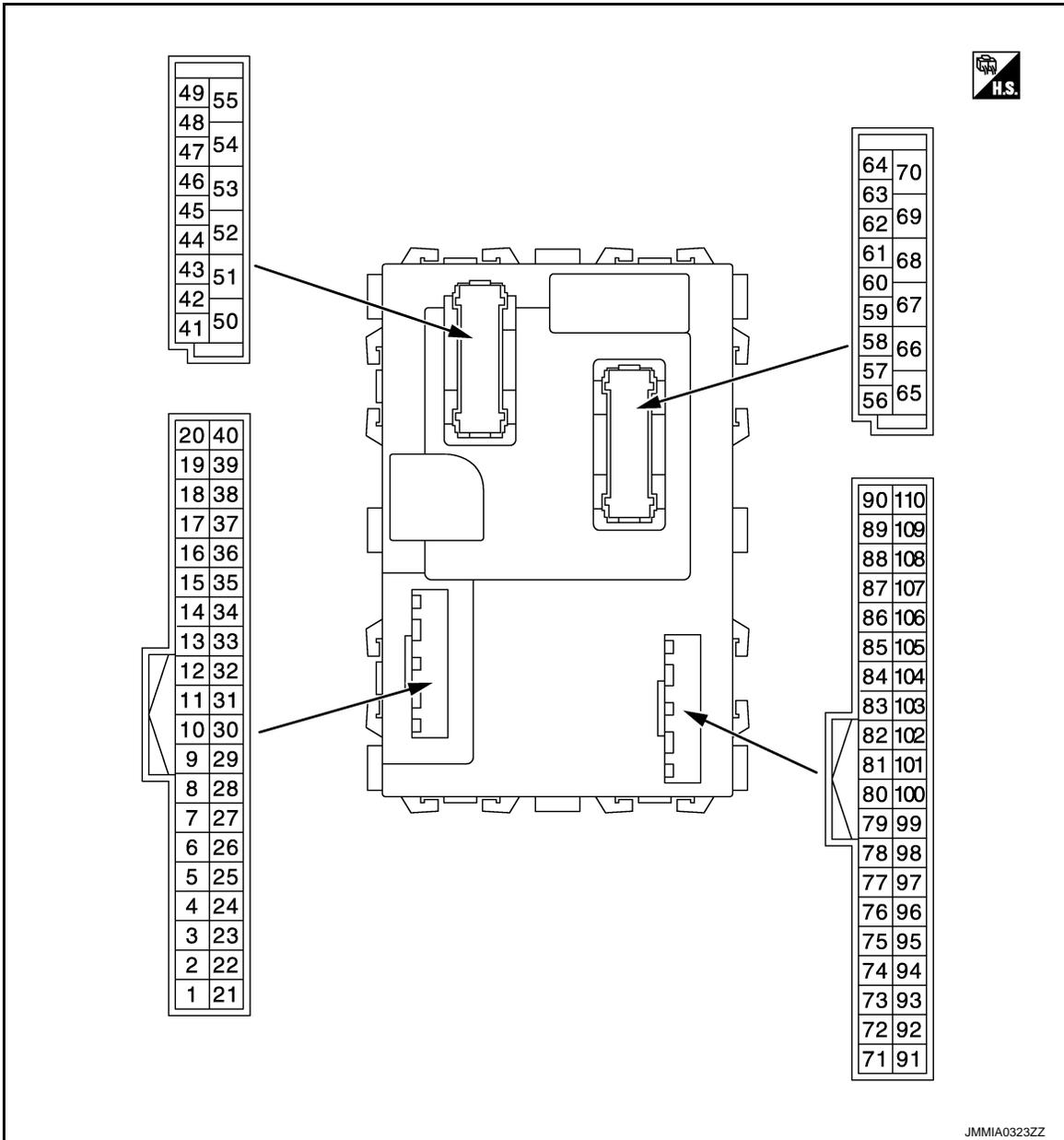
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< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

TERMINAL LAYOUT



PHYSICAL VALUES

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< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
		Signal name	Input/ Output		
+	-				
2 (L)	Ground	Combination switch INPUT 5	Input	All switches OFF	0 V
				Turn signal switch RH	<p style="text-align: right; font-size: small;">PKIB4958J</p>
				Lighting switch HI	
				Lighting switch 1ST	
				Lighting switch 2ND	<p style="text-align: right; font-size: small;">JPMIA0342JP</p>
3 (GR)	Ground	Combination switch INPUT 4	Input	All switches OFF	0 V
				Turn signal switch LH	<p style="text-align: right; font-size: small;">PKIB4958J</p>
				Lighting switch PASS	
				Lighting switch 2ND	
				Front fog lamp switch ON	<p style="text-align: right; font-size: small;">PKIB4956J</p>

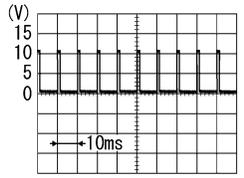
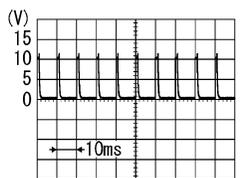
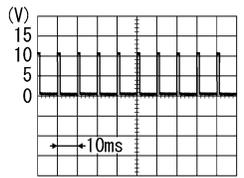
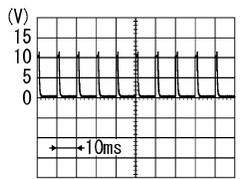
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< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

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

BCM

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
6 (W)	Ground	Combination switch INPUT 1	Input	All switches OFF (Wiper volume dial 4)	0 V	
				Front wiper switch HI (Wiper volume dial 4)		
				Rear wiper switch INT (Wiper volume dial 4)		
				Wiper volume dial 3 (All switches OFF)		1.0 V
6 (W)	Ground	Combination switch INPUT 1	Input	Combination switch	Any of the condition below with all switches OFF	
					• Wiper volume dial 1	
					• Wiper volume dial 2	
6 (W)	Ground	Combination switch INPUT 1	Input	Combination switch	Any of the condition below with all switches OFF	
					• Wiper volume dial 6	
6 (W)	Ground	Combination switch INPUT 1	Input	Combination switch	• Wiper volume dial 7	
					9 (R)	Ground
9 (R)	Ground	Stop lamp switch 1	Input	Stop lamp switch	ON (Brake pedal is depressed)	
11 (R)				Ground	Light and rain sensor serial link	Input/ Output
	11 (R)	Ground	Light and rain sensor serial link			
12 (GR)	Ground			Door lock and unlock switch LOCK	Input	Door lock and unlock switch
		12 (GR)	Ground			Door lock and unlock switch LOCK

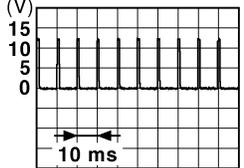
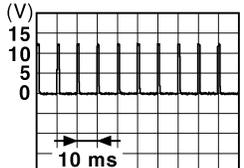
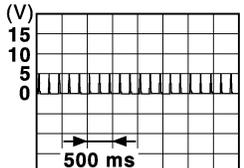
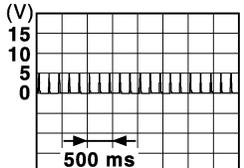
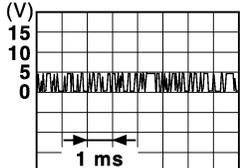
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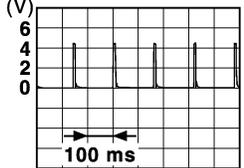
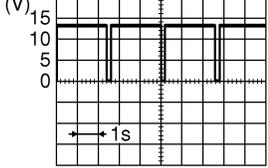
[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
13 (BR)	Ground	Door lock and unlock switch UNLOCK	Input	Door lock and unlock switch	NEUTRAL position	 <small>JPMIA0012GB</small> 1.0 - 1.5 V
					UNLOCK position	0 V
15*1 (W)	Ground	Rear window defogger switch	Input	Rear window defogger switch	Not pressed	 <small>JPMIA0012GB</small> 1.0 - 1.5 V
					Pressed	0 V
16*2 (P)	Ground	Door lock status indicator lamp	Output	Door lock status indicator lamp	OFF	0 V
					ON	12 V
17*2 (LG)	Ground	Alarm link	Input/ Output	—	—	—
18 (V)	Ground	Receiver 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)	Ground	Remote keyless entry receiver communication	Input	Ignition switch OFF	Waiting	 <small>JMKIA3838GB</small>
					When operating either button on Intelligent Key	 <small>JMKIA3841GB</small>
21 (P)	Ground	NATS antenna amp.	Input/ Output	During waiting	Intelligent Key backside is contacted to push-button ignition switch, turn ignition switch ON.	Just after pressing push-button ignition switch. Pointer of analog tester should move.

BCM

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
22 (W)	Ground	Remote keyless entry receiver RSSI	Input	Ignition switch OFF	Waiting  <small>JMKIA5952GB</small>
				When pressing and holding either button on Intelligent Key	 <small>JMKIA5953GB</small>
23 (R)	Ground	Security indicator lamp	Output	ON	0 V
				Blinking (Ignition switch OFF)	 <small>JPMIA0590GB</small> 12.0 V
				OFF	Battery voltage
24 (SB)	Ground	Dongle link	Input/ Output	Ignition switch OFF	5 V
25 (LG)	Ground	NATS antenna amp.	Input/ Output	During waiting	Intelligent Key backside is contacted to push-button ignition switch, turn ignition switch ON. Just after pressing push-button ignition switch. Pointer of analog tester should move.
26*1 (BR)	Ground	Thermo control amp.	Input	Ignition switch ON	0 V
				Evaporator is extremely low temperature	12 V

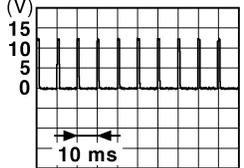
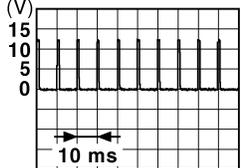
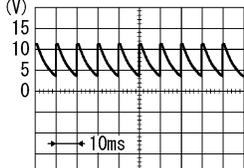
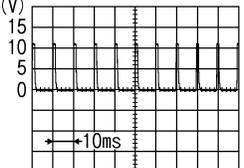
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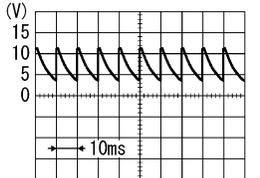
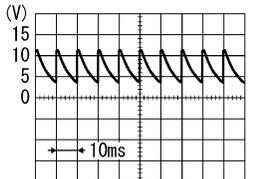
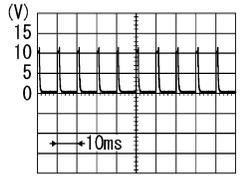
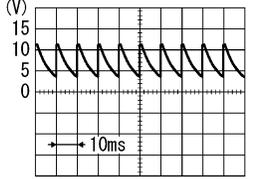
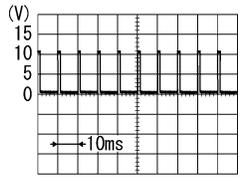
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< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
+	-					
27 (Y)	Ground	A/C ON (Automatic A/C)	Input	A/C	OFF (A/C switch indicator: OFF)	 <small>JPMIA0012GB</small> 1.0 - 1.5 V
					ON (A/C switch indicator: ON)	0 V
		A/C switch (Manual A/C)		A/C switch	OFF	 <small>JPMIA0012GB</small> 1.0 - 1.5 V
					ON	0 V
28 (LG)	Ground	Blower fan switch (Automatic A/C)	Input	Fan switch	Blower fan switch OFF	0 V
					Blower fan switch ON	 <small>PKIB4960J</small> 7.0 - 8.0 V
		Blower fan switch (Manual A/C)		Fan switch	Blower fan switch OFF	 <small>PIIB7730J</small> 1.5 - 2.0 V
					Blower fan switch ON	0 V
29 (SB)	Ground	Hazard switch	Input	Hazard switch	OFF	12 V
					ON	0 V
30 (L)	Ground	Back door opener switch	Input	Back door opener switch	Pressed	0 V
						Not pressed

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
31 (GR)	Ground	Front door lock as- sembly driver side (Unlock sensor)	Input	Driver door	 <p>7.0 - 8.0 V</p>	
					UNLOCK status (Unlock sensor switch ON)	0 V
32 (LG)	Ground	Combination switch OUTPUT 5	Output	Combination switch	 <p>7.0 - 8.0 V</p>	
					Front fog lamp switch ON (Wiper volume dial 4)	 <p>1.0 V</p>
					Rear fog lamp switch ON (Wiper volume dial 4)	
					Rear wiper switch ON (Wiper volume dial 4)	
	Any of the condition below with all switches OFF	<ul style="list-style-type: none"> • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 6 • Wiper volume dial 7 				
33 (Y)	Ground	Combination switch OUTPUT 4	Output	Combination switch	 <p>7.0 - 8.0 V</p>	
					Lighting switch 1ST (Wiper volume dial 4)	 <p>1.2 V</p>
					Lighting switch AUTO (Wiper volume dial 4)	
					Rear wiper switch INT (Wiper volume dial 4)	
	Any of the condition below with all switches OFF	<ul style="list-style-type: none"> • Wiper volume dial 1 • Wiper volume dial 5 • Wiper volume dial 6 				

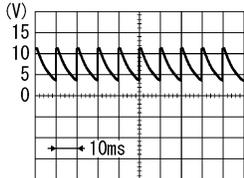
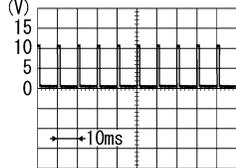
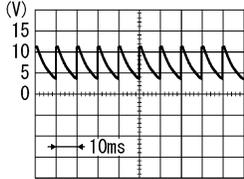
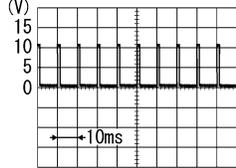
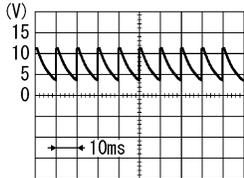
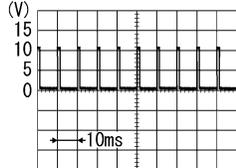
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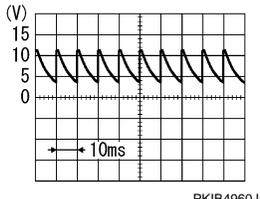
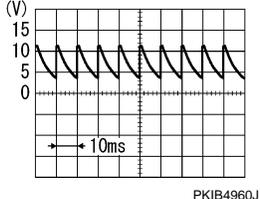
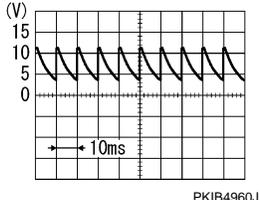
[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
34 (V)	Ground	Combination switch OUTPUT 3	Output	Combination switch	All switches OFF (Wiper volume 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 volume 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 volume dial 4)	
					Rear washer switch ON (Wiper volume dial 4)	
Any of the condition below with all switches OFF						
<ul style="list-style-type: none"> • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 3 						
35 (R)	Ground	Combination switch OUTPUT 2	Output	Combination switch (Wiper volume dial 4)	All switches 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/ AUTO	
Front wiper switch HI						
36 (P)	Ground	Combination switch OUTPUT 1	Output	Combination switch (Wiper volume dial 4)	All switches 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						

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< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
37 (G)	Ground	Detention switch	Input	Selector lever	P position (Release selector button)	0 V
					P position (Push selector button)	12 V
					Any position other than P	
39 (L)	Ground	CAN-H	Input/ Output	—	—	
40 (P)	Ground	CAN-L	Input/ Output	—	—	
43 (P)	Ground	Back door switch	Input	Back door switch	OFF (When back door closed)	 7.0 - 8.0 V
					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 (R)	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
46 (LG)	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

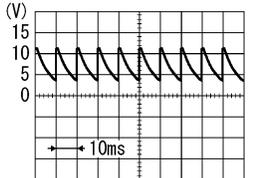
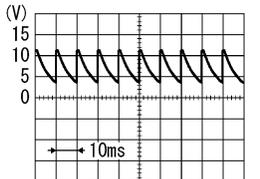
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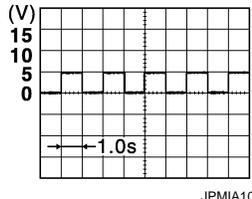
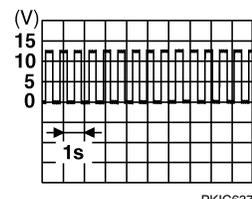
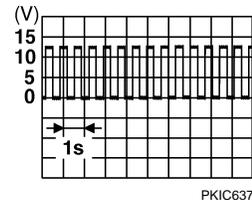
[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
47 (SB)	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
48 (BR)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (When rear LH 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 rear door LH opened)	0 V
49 (L)	Ground	Luggage room lamp	Output	Luggage room lamp	OFF	12 V
					ON	0 V
51 (Y)	Ground	Back door request switch	Input	Back door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	12 V
52 (G)	Ground	Rear fog lamp	Output	Rear fog lamp	OFF	0 V
					ON	12 V
53 (GR)	Ground	Back door open	Output	Back door	OFF (Actuator is not activated)	0 V
					OPEN (Actuator is activated)	12 V
54 (P)	Ground	Rear wiper	Output	Rear wiper	OFF (Stopped)	0 V
					ON (Activated)	12 V
55 (G)	Ground	Passenger door and rear door UNLOCK	Output	Passenger door and rear door	UNLOCK (Actuator is activated)	12 V
					Other than UNLOCK (Actuator is not activated)	0 V
56 (P)	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 (P)	Ground	Battery power supply	Input	Ignition switch OFF	Battery voltage	

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[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
58 (L)	Ground	Air bag signal	Input	Ignition switch	OFF	5 V
				ON		2.5 V
59*2 (V)	Ground	Super lock	Output	Super lock actuator	Actuator is activated	12 V
				Actuator is not activated	0 V	
60 (V)	Ground	Turn signal LH	Output	Ignition switch ON	Turn signal switch OFF	0 V
				Turn signal switch LH		6.0 V
61 (W)	Ground	Turn signal RH	Output	Ignition switch ON	Turn signal switch OFF	0 V
				Turn signal switch RH		6.0 V
63 (BR)	Ground	Interior room lamp control	Output	Interior room lamp	OFF	12 V
				ON	0 V	
64 (R)*5 (G)*3	Ground	Cranking request (Except M/T models)	input	Ignition switch OFF		3.6 V
				Ignition switch ON	Engine stopped (Selector lever is in P position)	0 V
					Engine stopped (Selector lever is not in P position)	12 V
		Engine running	12 V			
		Reverse switch (M/T models)	Input	Ignition switch ON	Control lever REVERSE position	Battery voltage
Control lever except REVERSE position	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 (W)	Ground	Driver door UNLOCK	Output	Driver door	UNLOCK (Actuator is activated)	12 V
				Other then UNLOCK (Actuator is not activated)	0 V	

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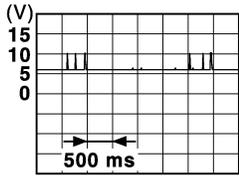
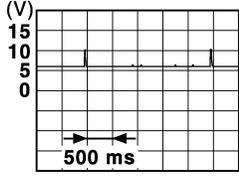
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< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	-					
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 (P)	Ground	P/W power supply (BAT)	Output	Ignition switch OFF		12 V
70 (Y)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
72*1 (SB)	Ground	A/C indicator	Output	A/C indicator	OFF	12 V
					ON	0 V
74 (V)	Ground	Auto retractable door mirror operation	Output	Ignition switch OFF	Within for 6 seconds after doors are locked by following operation <ul style="list-style-type: none"> • Pushed LOCK button of Intelligent Key • Pushed any door request switch 	0 V
					After 6 seconds after doors are locked	Battery voltage
75 (P)*2 (LG)*4	Ground	Driver door request switch	Input	Driver door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	12 V
76 (LG)*2 (P)*4	Ground	Passenger door request switch	Input	Passenger door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	12 V
78 (LG)*2 (P)*4	Ground	Driver door antenna (+)	Output	When the driver door request switch is operated with ignition switch ON		
				When Intelligent Key is not in the antenna detection area (The distance between Intelligent Key and antenna: Approx. 2 m)	 <p style="text-align: right; font-size: small;">JMKIA5954GB</p>	
				When Intelligent Key is in the antenna detection area (The distance between Intelligent Key and antenna: 80 cm or less)	 <p style="text-align: right; font-size: small;">JMKIA5955GB</p>	

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Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
79 (Y)*2 (V)*4	Ground	Driver door antenna (-)	Output	When Intelligent Key is not in the antenna detection area (The distance between Intelligent Key and antenna: Approx. 2 m)	<p>JMKIA5954GB</p>
				When the driver door request switch is operated with ignition switch ON	<p>JMKIA5955GB</p>
80 (P)*2 (LG)*4	Ground	Passenger door antenna (+)	Output	When Intelligent Key is not in the antenna detection area (The distance between Intelligent Key and antenna: Approx. 2 m)	<p>JMKIA5954GB</p>
				When the passenger door request switch is operated with ignition switch ON	<p>JMKIA5955GB</p>
81 (V)*2 (Y)*4	Ground	Passenger door antenna (-)	Output	When Intelligent Key is not in the antenna detection area (The distance between Intelligent Key and antenna: Approx. 2 m)	<p>JMKIA5954GB</p>
				When the passenger door request switch is operated with ignition switch ON	<p>JMKIA5955GB</p>

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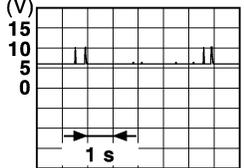
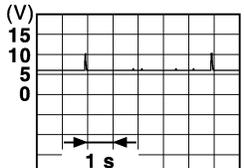
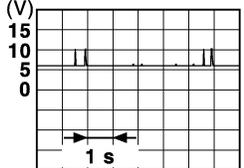
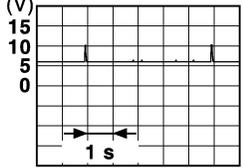
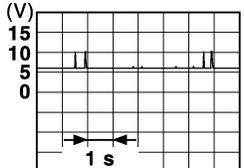
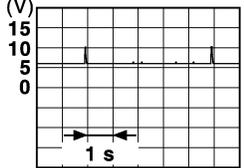
[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
82 (W)	Ground	Rear bumper antenna (+)	Output	When the back door request switch is operated with ignition switch ON	When Intelligent Key is not in the antenna detection area (The distance between Intelligent Key and antenna: Approx. 2 m)
				When Intelligent Key is in the antenna detection area (The distance between Intelligent Key and antenna: 80 cm or less)	 <small>JMKIA5954GB</small>
83 (LG)	Ground	Rear bumper antenna (-)	Output	When the back door request switch is operated with ignition switch ON	When Intelligent Key is not in the antenna detection area (The distance between Intelligent Key and antenna: Approx. 2 m)
				When Intelligent Key is in the antenna detection area (The distance between Intelligent Key and antenna: 80 cm or less)	 <small>JMKIA5955GB</small>
84 (BR)	Ground	Room antenna 1 (+) (Instrument center)	Output	Ignition switch ON	When Intelligent Key is not in the antenna detection area
				When Intelligent Key is in the antenna detection area	 <small>JMKIA5951GB</small>
					 <small>JMKIA3839GB</small>

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< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
85 (GR)	Ground	Room antenna 1 (-) (Instrument center)	Output	Ignition switch ON	When Intelligent Key is not in the antenna detec- tion area  <p style="text-align: right; font-size: small;">JMkia5951GB</p>
				Ignition switch ON	When Intelligent Key is in the antenna detection area  <p style="text-align: right; font-size: small;">JMkia3839GB</p>
86 (G)	Ground	Room antenna 2 (+) (Console)	Output	Ignition switch ON	When Intelligent Key is not in the antenna detec- tion area  <p style="text-align: right; font-size: small;">JMkia5951GB</p>
				Ignition switch ON	When Intelligent Key is in the antenna detection area  <p style="text-align: right; font-size: small;">JMkia3839GB</p>
87 (R)	Ground	Room antenna 2 (-) (Console)	Output	Ignition switch ON	When Intelligent Key is not in the antenna detec- tion area  <p style="text-align: right; font-size: small;">JMkia5951GB</p>
				Ignition switch ON	When Intelligent Key is in the antenna detection area  <p style="text-align: right; font-size: small;">JMkia3839GB</p>

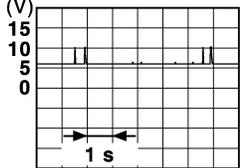
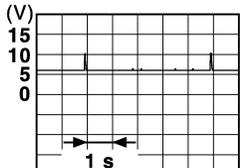
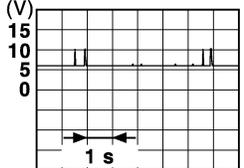
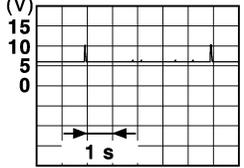
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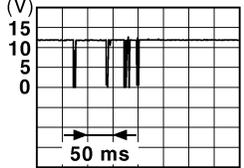
[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
		Signal name	Input/ Output		
+	-				
88 (V)	Ground	Luggage room antenna (+)	Output	Ignition switch ON	When Intelligent Key is not in the antenna detection area  JMkia5951GB
					When Intelligent Key is in the antenna detection area  JMkia3839GB
89 (LG)	Ground	Luggage room antenna (-)	Output	Ignition switch ON	When Intelligent Key is not in the antenna detection area  JMkia5951GB
					When Intelligent Key is in the antenna detection area  JMkia3839GB
90 (W)	Ground	Push-button ignition switch illumination power supply	Output	Push-button ignition switch illumination	ON: 12 V OFF: 0 V
91 (V)	Ground	ACC/ON indicator lamp	Output	Ignition switch	OFF: Battery voltage ACC or ON: 0 V
93 (GR)	Ground	Intelligent Key warning buzzer	Output	Intelligent Key warning buzzer	Sounding: 0 V Not sounding: 12 V

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< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
94 (Y)	Ground	Steering lock unit communication	Input/ Output	Steering lock	LOCK status	12 V
					LOCK or UNLOCK	 <p style="text-align: right; font-size: small;">JMKIA0066GB</p>
					For 15 seconds after UN- LOCK	12 V
					15 seconds or later after UNLOCK	0 V
95 (L)	Ground	Steering lock unit power supply	Output	Ignition switch	OFF or ACC	12 V
				ON	0 V	
96 (BR)	Ground	Accessory relay control	Output	Ignition switch	OFF	0 V
				ACC or ON	12 V	
97 (SB)	Ground	Starter relay control	Output	Ignition switch	When selector lever is in P or N position	12 V
				ON	When selector lever is not in P or N position	0 V
98 (P)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	12 V
				ON	0 V	
99 (R)	Ground	Ignition relay (F/B) control	Output	Ignition switch	OFF or ACC	0 V
				ON	12 V	
100 (LG)	Ground	Push-button ignition switch (push switch)	Input	Push-button ig- nition switch (push switch)	Pressed	0 V
				Not pressed	12 V	
101 (V)	Ground	Clutch interlock switch (M/T models)	Input	Clutch interlock switch	OFF (Clutch pedal is not depressed)	0 V
				ON (Clutch pedal is de- pressed)	Battery voltage	
		Ignition power sup- ply No.2 (Except M/T models)	Output	Ignition switch	OFF	0 V
				ON	12 V	
102 (L)	Ground	P/N position (Except M/T models)	Input	Selector lever	P or N position	12 V
				Except P and N positions	0 V	
		Neutral switch (M/T models)	Input	Ignition switch	Control lever NEUTRAL position	Battery voltage
				ON	Control lever except NEU- TRAL position	0 V
104 (SB)	Ground	CVT shift selector (detention switch) power supply	Output	Ignition switch ON	12 V	
105 (V)	Ground	Stop lamp switch 2	Input	Ignition switch OFF	Battery voltage	
106 (Y)	Ground	Blower relay control	Output	Ignition switch	OFF or ACC	0 V
				ON	12 V	

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< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
107 (W)	Ground	Steering lock condition No. 1	Input	Steering lock	LOCK status	0 V
					UNLOCK status	12 V
108 (P)	Ground	Steering lock condition No. 2	Input	Steering lock	LOCK status	12 V
					UNLOCK status	0 V

- *1: With manual A/C
- *2: RHD models
- *3: M/T models
- *4: LHD models
- *5: Except M/T models

Fail-safe

INFOID:000000006598048

FAIL-SAFE CONTROL BY DTC

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

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"> • Detention 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 • Detention switch signal: P position (push selector button) or except P position (12 V) • 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 - Detention switch signal: P position (push selector button) or except P position (12 V) - 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 - Detention switch signal: P position (release selector button) (0 V) - P/N position signal: P or N positions (12 V)

BCM

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Display contents of CONSULT	Fail-safe	Cancellation
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 - Ignition switch is in the ON position - P/N position signal: P or N position (12 V) - Shift position signal (CAN): P or N position • Status 2 - Ignition switch is in the ON position - 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 - Power position: IGN - P/N position signal: Except P and N positions (0 V) - Interlock/PNP switch signal (CAN): OFF • Status 2 - Ignition switch is in the ON position - 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
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 <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • Starter control relay signal (CAN: Transmitted from BCM): ON • Starter control relay signal (CAN: Transmitted from IPDM E/R): ON

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Display contents of CONSULT	Fail-safe	Cancellation
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

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.

FAIL-SAFE CONTROL BY LIGHT AND RAIN SENSOR MALFUNCTION

BCM detects the light and rain sensor serial link error and the light and rain sensor malfunction. BCM controls the following fail-safe when light and rain sensor has a malfunction.

Fail-safe Control

- Auto light control: Headlamp low beam, parking lamp, license plate lamp and tail lamp are turned ON.
- Front wiper control
 - Front wiper switch AUTO and sensing rain drop: The condition just before the activation of fail-safe is maintained until the front wiper switch is turned OFF.
 - Front wiper switch AUTO and not sensing rain drop: Front wiper is LO operation until the front wiper switch is turned off.

FAIL-SAFE CONTROL OF COMBINATION SWITCH READING FUNCTION CAUSED BY LOW POWER SUPPLY VOLTAGE

If voltage of battery power supply lower, BCM maintains combination switch reading to the status when input voltage is less than approximately 9 V.

NOTE:

When voltage of battery power supply is approximately 9 V or more, combination switch reading function returns to normal operation.

DTC Inspection Priority Chart

INFOID:000000006598049

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

Priority	DTC
1	B2562: LOW VOLTAGE
2	<ul style="list-style-type: none"> • U1000: CAN COMM • 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

< ECU DIAGNOSIS INFORMATION >

Priority	DTC	
4	• B2013: ID DISCORD BCM-S/L	A
	• B2014: CHAIN OF S/L-BCM	
	• B2555: STOP LAMP	B
	• B2556: PUSH-BTN IGN SW	
	• B2557: VEHICLE SPEED	C
	• B2601: SHIFT POSITION	
	• B2602: SHIFT POSITION	D
	• B2603: SHIFT POSI STATUS	
	• B2604: PNP/CLUTCH SW	E
	• B2605: PNP/CLUTCH SW	
	• B2608: STARTER RELAY	F
	• B2609: S/L STATUS	
	• B260B: STEERING LOCK UNIT	G
	• B260C: STEERING LOCK UNIT	
	• B260D: STEERING LOCK UNIT	H
	• B260F: ENG STATE SIG LOST	
	• B2612: S/L STATUS	I
	• B2614: BCM	
	• B2615: BCM	J
	• B2616: BCM	
	• B2618: BCM	K
	• B2619: BCM	
	• B261A: PUSH-BTN IGN SW	L
	• 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		
• B26F9: CRANK REQ CIR SHORT		
• B26FA: CRANK REQ CIR OPEN		
• B26FC: KEY REGISTRATION		
• U0415: VEHICLE SPEED		
5	• B2621: INSIDE ANTENNA	
	• B2622: INSIDE ANTENNA	
	• B2623: INSIDE ANTENNA	
6	• B2626: OUTSIDE ANTENNA	
	• B2627: OUTSIDE ANTENNA	
	• B2628: OUTSIDE ANTENNA	

BCS

DTC Index

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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-17, "COMMON ITEM : CONSULT-III Function \(BCM - COMMON ITEM\)"](#).

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warn- ing lamp ON	Reference page
No DTC is detected. further testing may be required.	—	—	—	—
U1000: CAN COMM	—	—	—	BCS-83

BCM

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warn- ing lamp ON	Reference page
U1010: CONTROL UNIT (CAN)	—	—	—	BCS-84
U0415: VEHICLE SPEED	×	—	×	BCS-85
B2013: ID DISCORD BCM-S/L	×	×	×	SEC-69
B2014: CHAIN OF S/L-BCM	×	×	×	SEC-70
B2192: ID DISCORD BCM-ECM	×	—	—	SEC-60
B2193: CHAIN OF BCM-ECM	×	—	—	SEC-61
B2195: ANTI-SCANNING	×	—	—	SEC-61
B2198: NATS ANTENNA AMP	×	—	—	SEC-65
B2555: STOP LAMP	—	×	×	SEC-73
B2556: PUSH-BTN IGN SW	—	×	×	SEC-76
B2557: VEHICLE SPEED	×	×	×	SEC-78
B2562: LOW VOLTAGE	—	×	—	BCS-86
B2601: SHIFT POSITION	×	×	×	SEC-79
B2602: SHIFT POSITION	×	×	×	SEC-81
B2603: SHIFT POSI STATUS	×	×	×	SEC-84
B2604: PNP/CLUTCH SW	×	×	×	SEC-88
B2605: PNP/CLUTCH SW	×	×	×	SEC-90
B2608: STARTER RELAY	×	×	×	SEC-93
B2609: S/L STATUS	×	×	×	SEC-95
B260B: STEERING LOCK UNIT	×	×	×	SEC-98
B260C: STEERING LOCK UNIT	—	×	×	SEC-99
B260D: STEERING LOCK UNIT	×	×	×	SEC-100
B260F: ENG STATE SIG LOST	×	×	×	SEC-101
B2612: S/L STATUS	×	×	×	SEC-102
B2614: BCM	—	×	×	PCS-91
B2615: BCM	—	×	×	PCS-94
B2616: BCM	—	×	×	PCS-97
B2618: BCM	—	×	×	PCS-100
B2619: BCM	×	×	×	SEC-105
B261A: PUSH-BTN IGN SW	—	×	×	PCS-101
B2621: INSIDE ANTENNA	—	×	—	• DLK-55 * ¹ • DLK-230 * ²
B2622: INSIDE ANTENNA	—	×	—	• DLK-57 * ¹ • DLK-232 * ²
B2623: INSIDE ANTENNA	—	×	—	• DLK-59 * ¹ • DLK-234 * ²
B2626: OUTSIDE ANTENNA	—	×	—	• DLK-236 * ¹ • DLK-236 * ²
B2627: OUTSIDE ANTENNA	—	×	—	• DLK-63 * ¹ • DLK-238 * ²
B2628: OUTSIDE ANTENNA	—	×	—	• DLK-65 * ¹ • DLK-240 * ²

BCM

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warn- ing lamp ON	Reference page
B26E9: LOCK MALFUNCTION	—	×	× (Turn ON for 15 sec- onds)	SEC-116
B26EF: STRG LCK RELAY OFF	×	×	×	SEC-117
B26F0: STRG LCK RELAY ON	×	×	×	SEC-119
B26F1: IGN RELAY OFF	×	×	×	PCS-103
B26F2: IGN RELAY ON	×	×	×	PCS-105
B26F3: START CONT RLY ON	×	×	×	SEC-121
B26F4: START CONT RLY OFF	×	×	×	SEC-122
B26F5: STRG LCK STS SW	—	×	×	SEC-123
B26F6: BCM	—	×	×	PCS-107
B26F7: BCM	×	×	×	SEC-126
B26F8: BCM	—	×	×	SEC-127
B26F9: CRANK REQ CIR SHORT	—	×	×	SEC-128
B26FA: CRANK REQ CIR OPEN	—	×	×	SEC-130
B26FC: KEY REGISTRATION	—	×	×	SEC-133

NOTE:

- *1: With super lock
- *2: Without super lock

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WIRING DIAGRAM

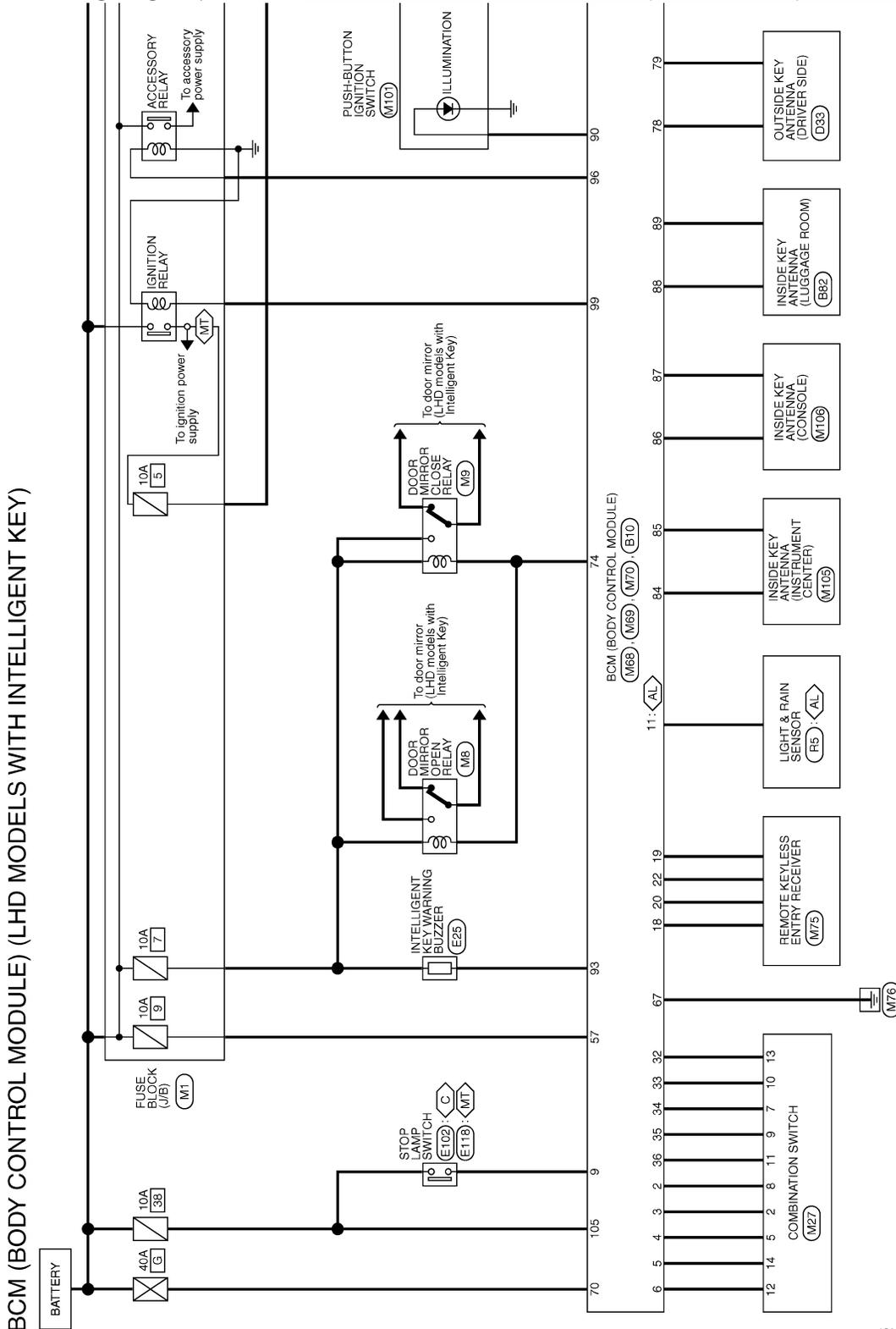
BCM

LHD

LHD : Wiring Diagram

INFOID:000000006598051

For connector terminal arrangements, harness layouts, and alphabets in a ◊ (option abbreviation; if not described in wiring diagram), refer to [GI-12, "Connector Information/Explanation of Option Abbreviation"](#).



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

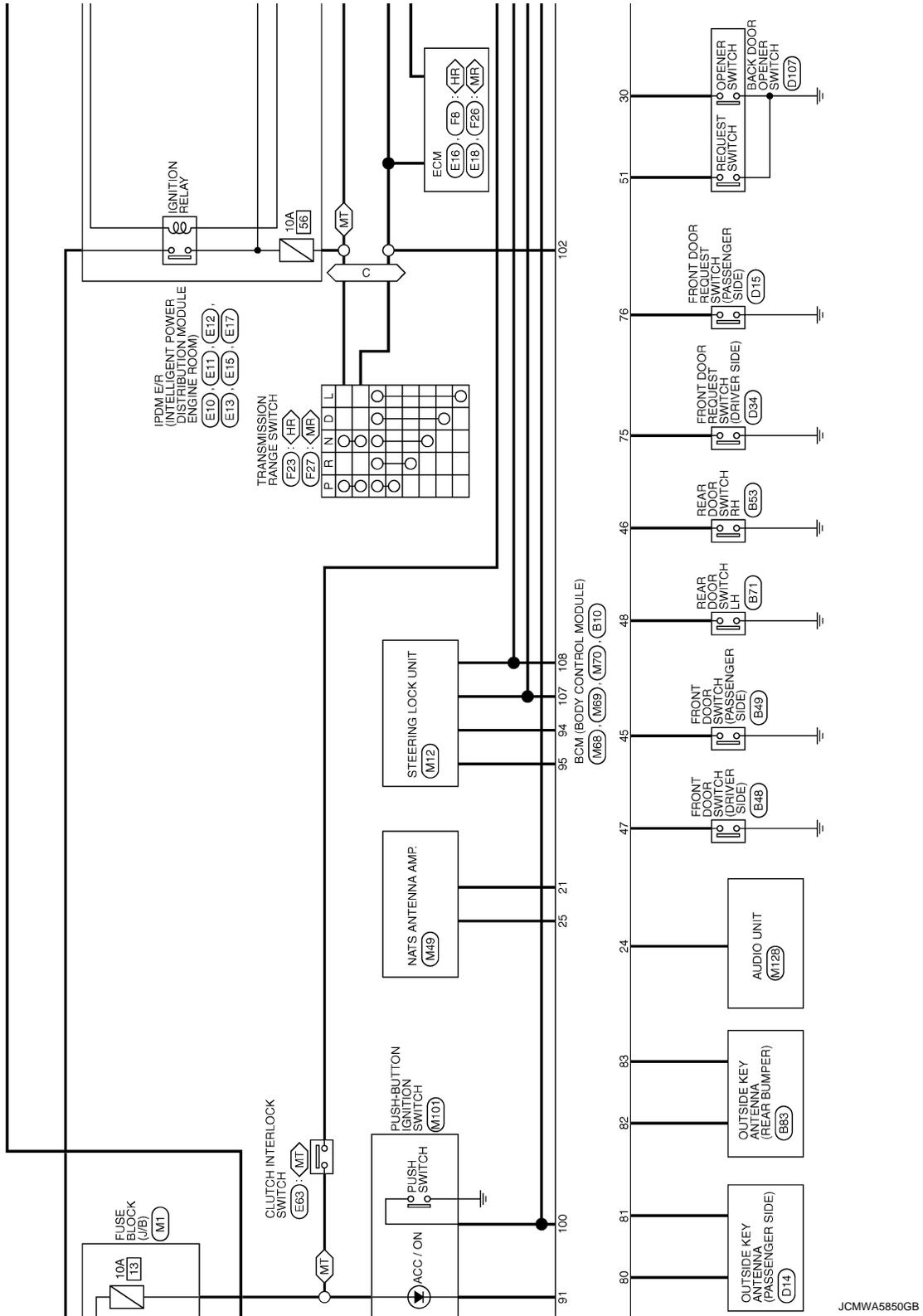
2010/07/07

JCMWA5849GB

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< WIRING DIAGRAM >

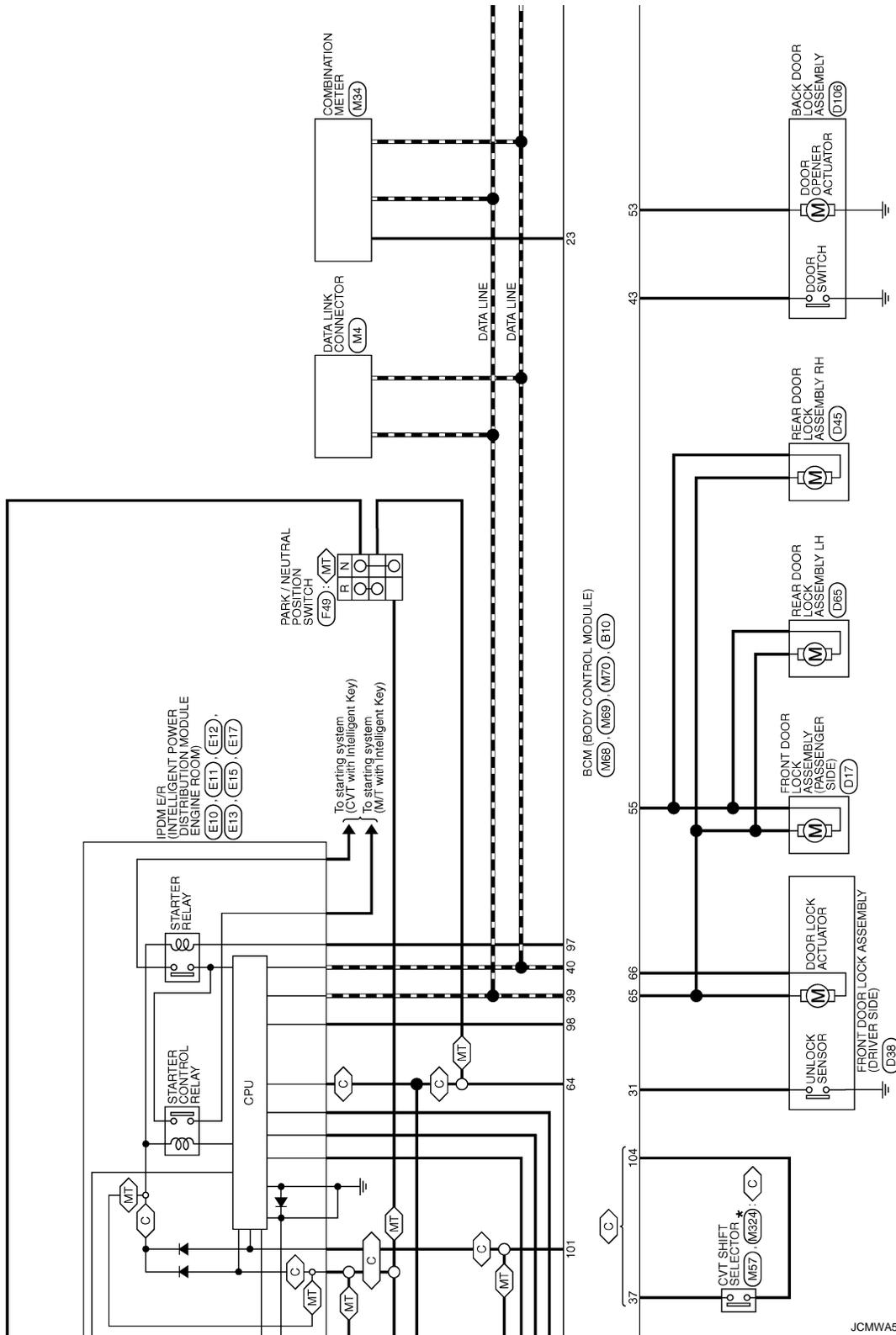
[WITH INTELLIGENT KEY SYSTEM]



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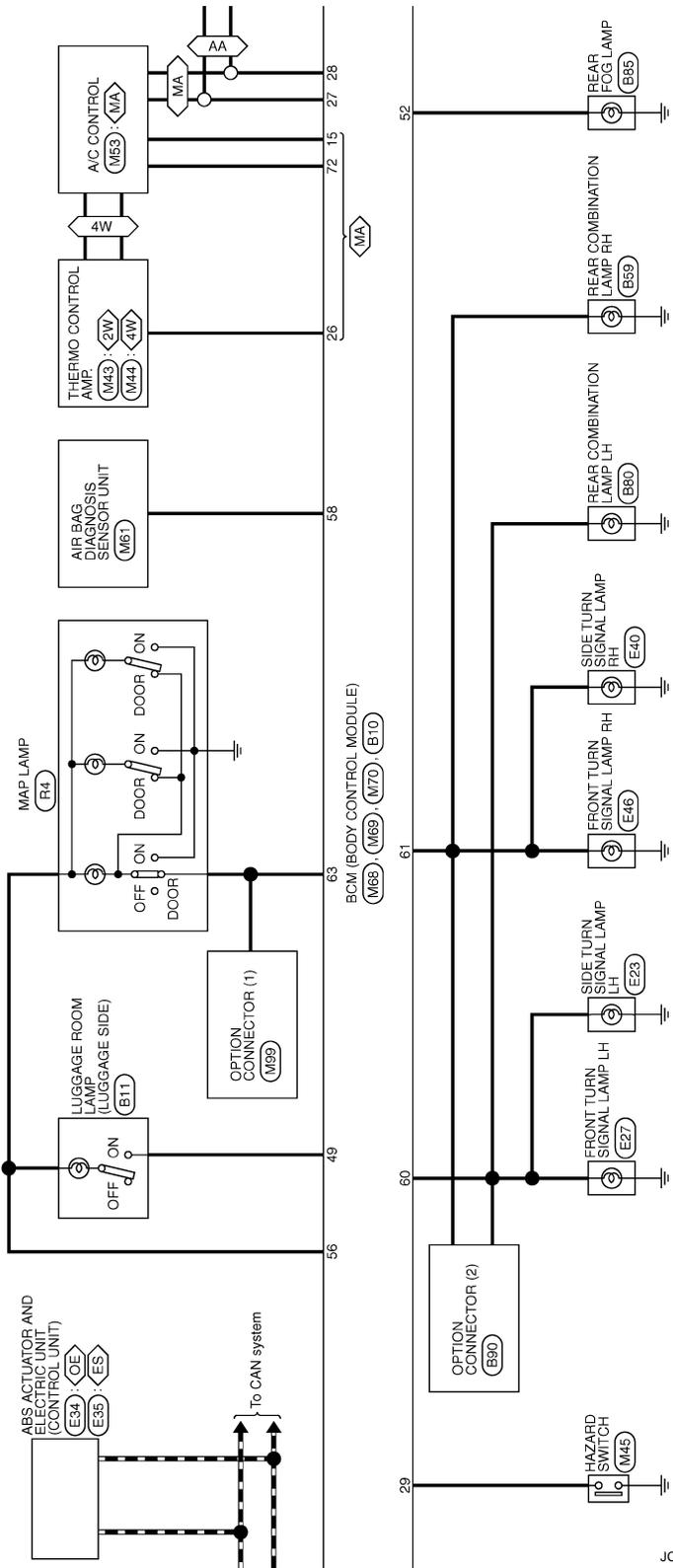


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< WIRING DIAGRAM >

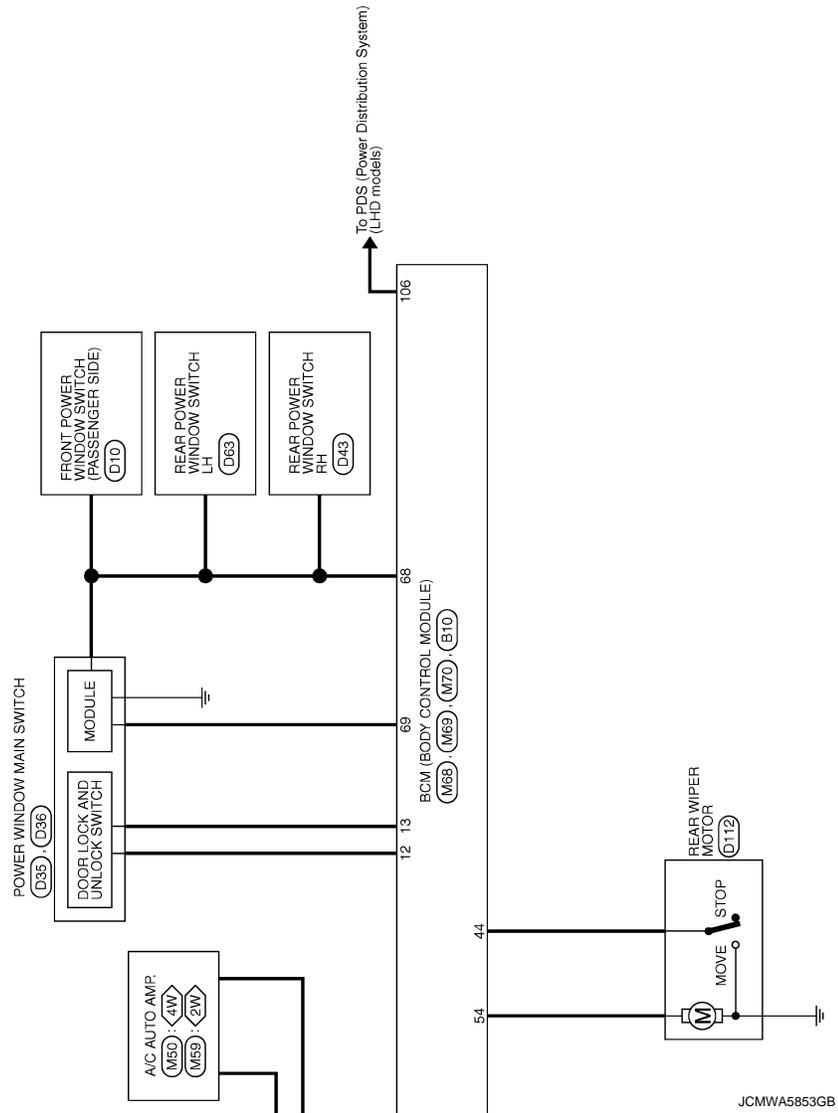
[WITH INTELLIGENT KEY SYSTEM]



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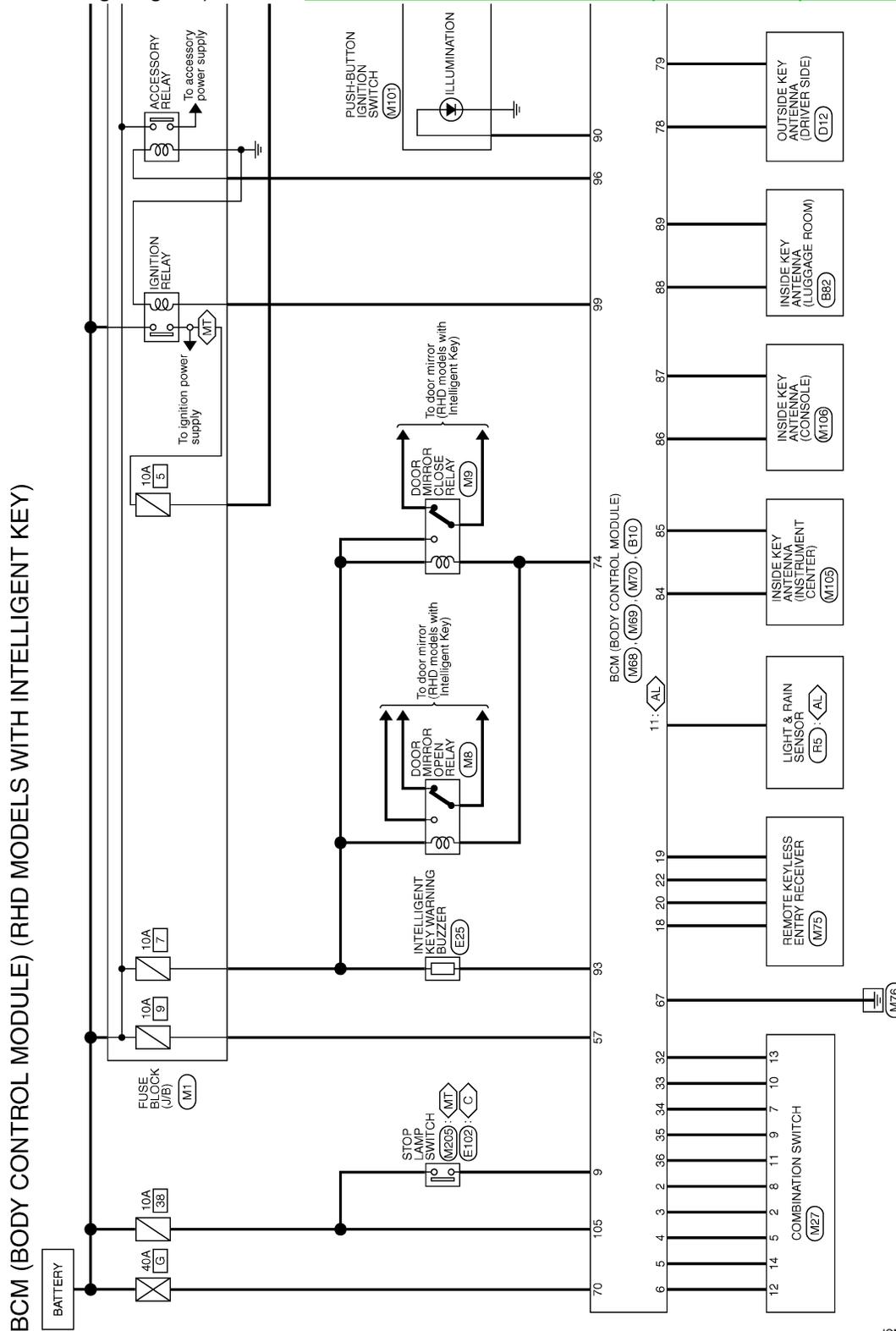
JCMWA5853GB

RHD

RHD : Wiring Diagram

INFOID:000000006598054

For connector terminal arrangements, harness layouts, and alphabets in a ◊ (option abbreviation; if not described in wiring diagram), refer to [GI-12, "Connector Information/Explanation of Option Abbreviation"](#).



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

2010/07/07

JCMWA5854GB

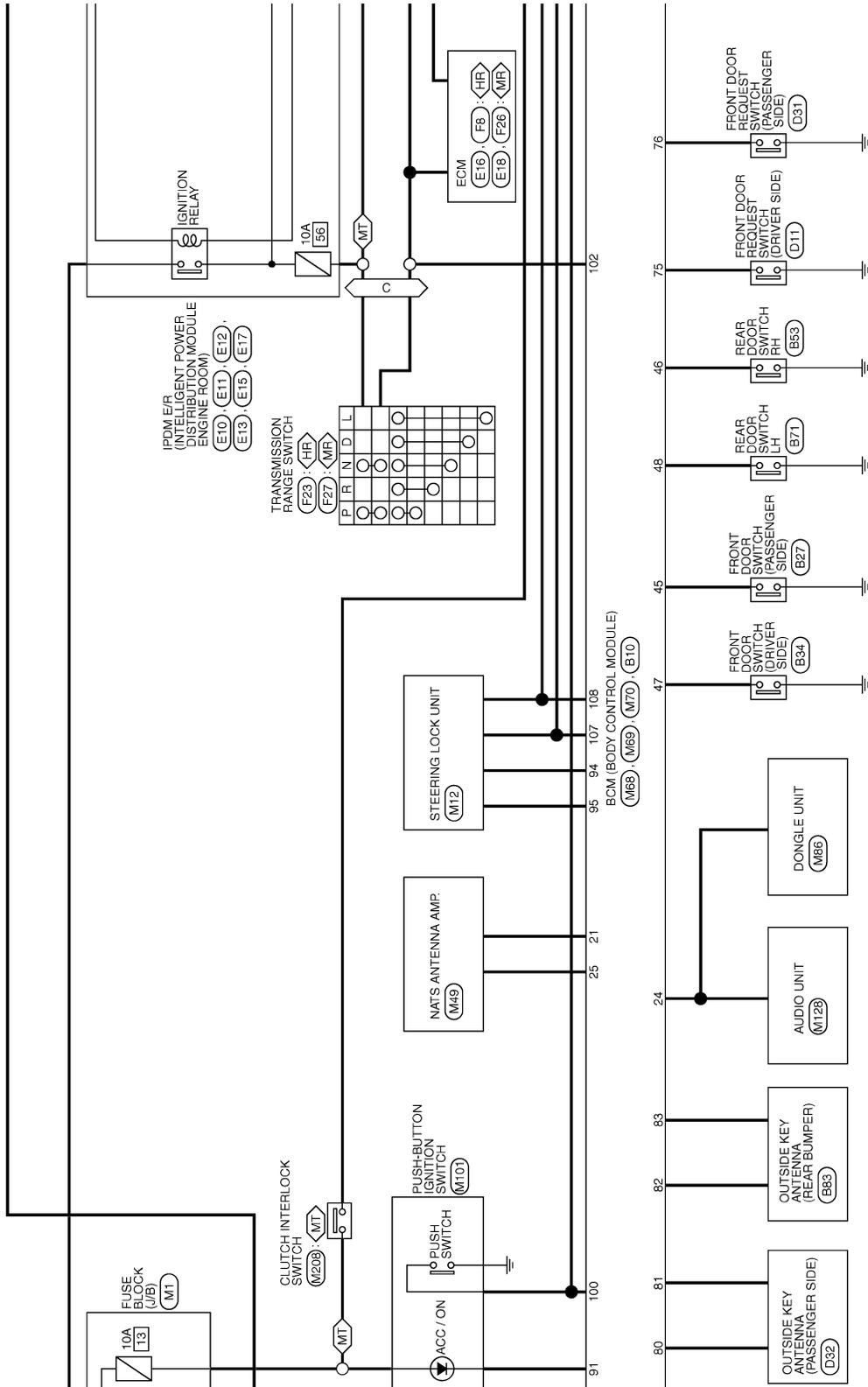
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BCM

< WIRING DIAGRAM >

[WITH INTELLIGENT KEY SYSTEM]

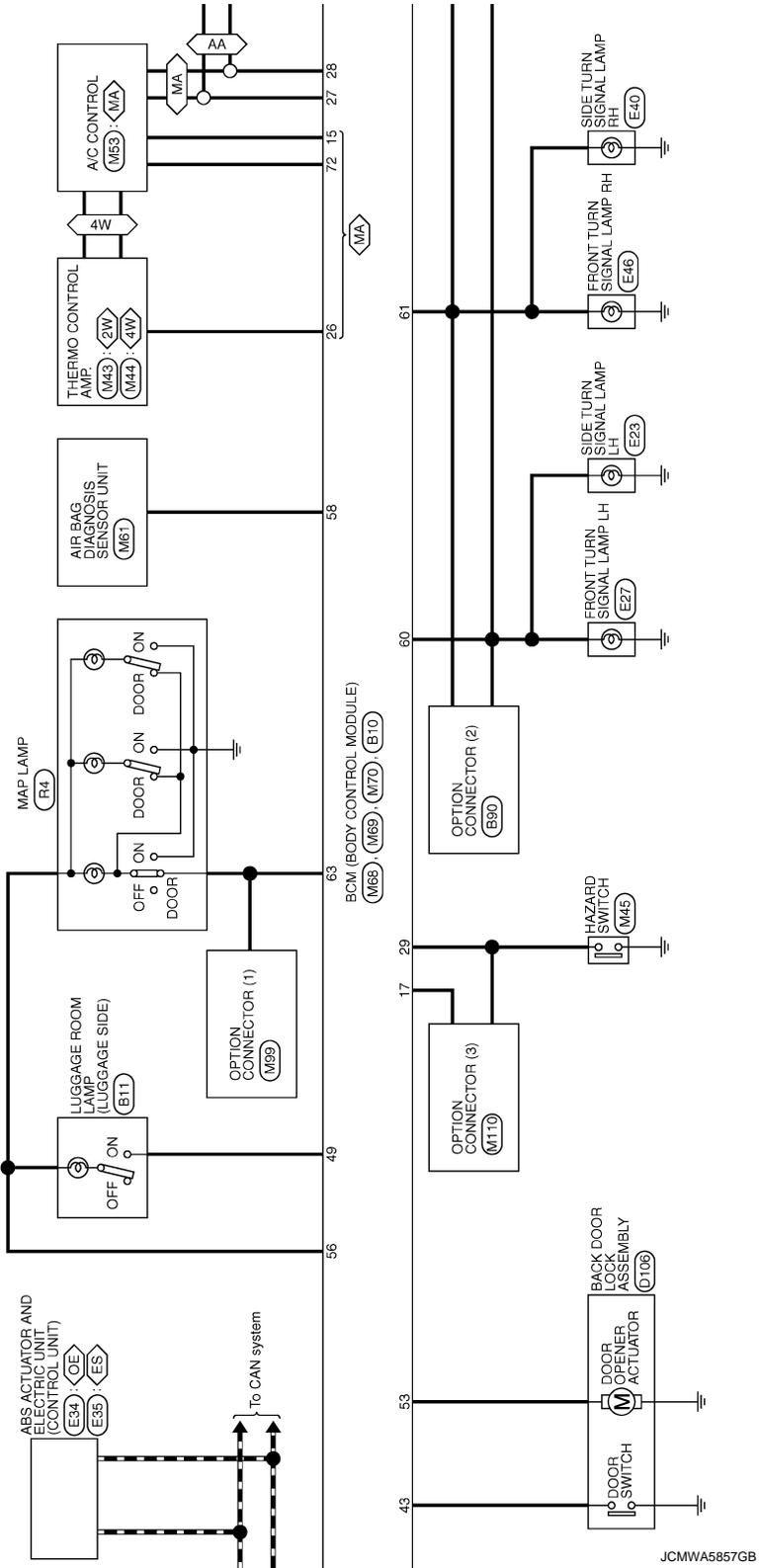


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BCM

< WIRING DIAGRAM >

[WITH INTELLIGENT KEY SYSTEM]

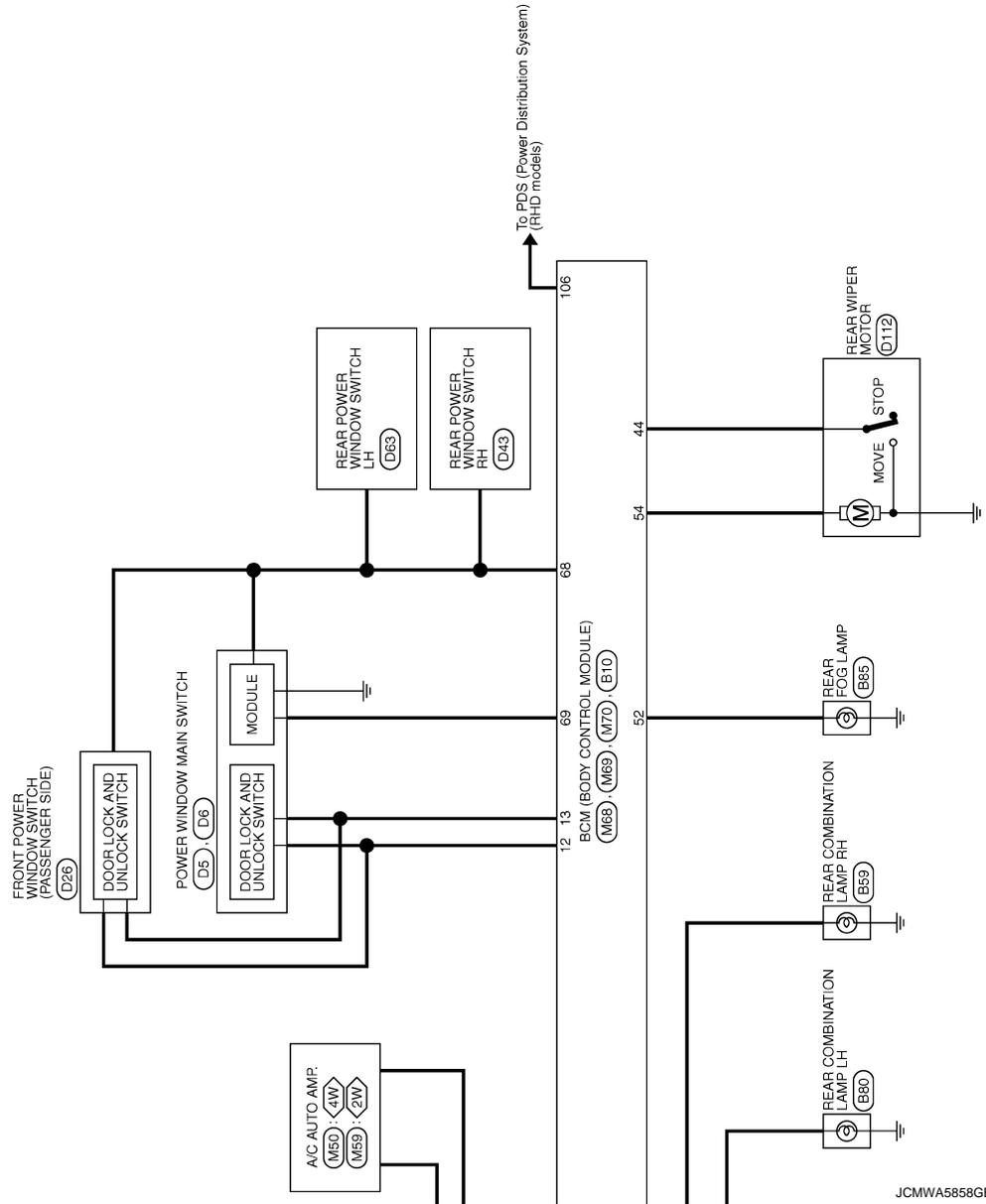


JCMWA5857GB

BCM

< WIRING DIAGRAM >

[WITH INTELLIGENT KEY SYSTEM]



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BCS

BASIC INSPECTION

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM)

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Description

INFOID:000000006598055

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:000000006598056

1. SAVING VEHICLE SPECIFICATION

CONSULT-III Configuration

Perform "READ CONFIGURATION" to save or print current vehicle specification. Refer to [BCS-80, "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-93, "Removal and Installation"](#).

>> 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-81, "CONFIGURATION \(BCM\) : Special Repair Requirement"](#).

>> GO TO 4.

4. INITIALIZE BCM (NATS)

Perform BCM initialization. (NATS)

>> WORK END

CONFIGURATION (BCM)

CONFIGURATION (BCM) : Description

INFOID:000000006598057

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:000000006598058

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-81, "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:000000006598059

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.

2WD MODELS

SETTING ITEM		NOTE
Items	Setting value	
ALT TYPE	GASOLINE ⇔ DIESEL	<ul style="list-style-type: none"> • GASOLINE: Gasoline engine models • DIESEL: Diesel engine models
AUTO LIGHT	WITH ⇔ WITHOUT	—
HANDLE	RHD ⇔ LHD	—
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
THEFT ALM AREA	WITHOUT ⇔ MODE4	<ul style="list-style-type: none"> • WITHOUT: Without theft warning alarm • MODE4: With theft warning alarm
BCM AC CONTROL	MODE2 ⇔ MODE4	<ul style="list-style-type: none"> • MODE2: Except with automatic air conditioning system • MODE4: With automatic air conditioning system

⇔: Items which confirm vehicle specifications

4WD MODELS

SETTING ITEM		NOTE
Items	Setting value	
AUTO LIGHT	WITH ⇔ WITHOUT	—
HANDLE	RHD ⇔ LHD	—
DTRL	WITH ⇔ WITHOUT	<ul style="list-style-type: none"> • WITH: With daytime running light system • WITHOUT: Without daytime running light system
THEFT ALM AREA	WITHOUT ⇔ MODE4	<ul style="list-style-type: none"> • WITHOUT: Without theft warning alarm • MODE4: With theft warning alarm
BCM AC CONTROL	MODE2 ⇔ MODE4	<ul style="list-style-type: none"> • MODE2: Except with automatic air conditioning system • MODE4: With automatic air conditioning system

⇔: Items which confirm vehicle specifications

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM

Description

INFOID:000000006598060

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-31, "CAN COMMUNICATION SYSTEM : CAN Communication Signal Chart"](#).

DTC Logic

INFOID:000000006598061

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:000000006598062

1. PERFORM SELF DIAGNOSTIC

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

Is DTC "U1000" displayed?

- YES >> Refer to [LAN-17, "Trouble Diagnosis Flow Chart"](#).
- NO >> Refer to [GI-42, "Intermittent Incident"](#).

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U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

U1010 CONTROL UNIT (CAN)

DTC Logic

INFOID:000000006598063

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:000000006598064

1. REPLACE BCM

When DTC "U1010" is detected, replace BCM.

>> Replace BCM. Refer to [BCS-93. "Removal and Installation"](#).

U0415 VEHICLE SPEED

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

U0415 VEHICLE SPEED

Description

INFOID:000000006598065

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:000000006598066

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 BCM with CONSULT-III, when passed 2 seconds or more after the ignition switch is turned ON.

Is any DTC detected?

- YES >> Refer to [BCS-85, "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000006598067

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-24, "CONSULT-III Function"](#) (without EPS), [BRC-131, "CONSULT-III Function"](#) (with EPS).

Is any DTC detected?

- YES >> Repair or replace the malfunctioning part.
NO >> Replace BCM. Refer to [BCS-93, "Removal and Installation"](#).

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B2562 LOW VOLTAGE

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

B2562 LOW VOLTAGE

DTC Logic

INFOID:000000006598068

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 BCM with CONSULT-III, when passed 120 seconds or more after the ignition switch is turned ON.

Is any DTC detected?

- YES >> Refer to [BCS-86, "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000006598069

1. CHECK POWER SUPPLY CIRCUIT

Check BCM power supply circuit. Refer to [BCS-87, "Diagnosis Procedure"](#).

Is the circuit normal?

- YES >> Replace BCM. Refer to [BCS-93, "Removal and Installation"](#).
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:000000006598072

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
	9

Is the fuse fusing?

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

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

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

Terminals		Voltage (Approx.)
(+)	(-)	
BCM		Ground Battery voltage
Connector	Terminal	
M69	70	
	57	

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		
M69	67		Existed

Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

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COMBINATION SWITCH OUTPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

COMBINATION SWITCH OUTPUT CIRCUIT

Diagnosis Procedure

INFOID:000000006598073

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		Continuity
	Connector	Terminal	
OUTPUT 1	M68	36	Ground
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		Voltage (Approx.)
	(+)	(-)	
	BCM		
	Connector	Terminal	
OUTPUT 1	M68	36	Ground
OUTPUT 2		35	
OUTPUT 3		34	
OUTPUT 4		33	
OUTPUT 5		32	

7.0 - 8.0 V

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-93, "Removal and Installation"](#).

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COMBINATION SWITCH INPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

COMBINATION SWITCH INPUT CIRCUIT

Diagnosis Procedure

INFOID:000000006598074

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		
INPUT 1	M68	6	Ground	Refer to BCS-41. "Reference Value" .
INPUT 2		5		
INPUT 3		4		
INPUT 4		3		
INPUT 5		2		

Is the measurement value normal?

Yes >> Replace BCM. Refer to [BCS-93. "Removal and Installation"](#).

COMBINATION SWITCH INPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

No >> Replace combination switch.

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COMBINATION SWITCH SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

SYMPTOM DIAGNOSIS

COMBINATION SWITCH SYSTEM SYMPTOMS

Symptom Table

INFOID:000000006700111

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	RR 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-88, "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	Inspect the combination switch input circuit applicable to the malfunctioning part. Refer to BCS-90, "Diagnosis Procedure" .
F	Combination switch INPUT 1 circuit	
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-93, "Removal and Installation" .
L	Combination switch	Replace combination switch.

REMOVAL AND INSTALLATION

BCM

Removal and Installation

INFOID:000000006598076

CAUTION:

Before replacing BCM, perform "READ CONFIGURATION" to save or print current vehicle specification. Refer to [BCS-80, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT \(BCM\) : Description"](#).

REMOVAL (RHD MODELS)

1. Remove glove box assembly. Refer to [IP-13, "Removal and Installation"](#).
2. Remove harness clip.
3. Remove BCM mounting screws.
4. Remove BCM and disconnect the connectors.
5. Remove relays and relay mounting bracket from BCM.

REMOVAL (LHD MODELS)

1. Remove instrument lower panel. Refer to [IP-13, "Removal and Installation"](#).
2. Remove harness clip.
3. Remove BCM mounting screws.
4. Remove BCM and disconnect the connectors.
5. Remove relays and relay mounting bracket from BCM.

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-80, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT \(BCM\) : Special Repair Requirement"](#).

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COMBINATION SWITCH

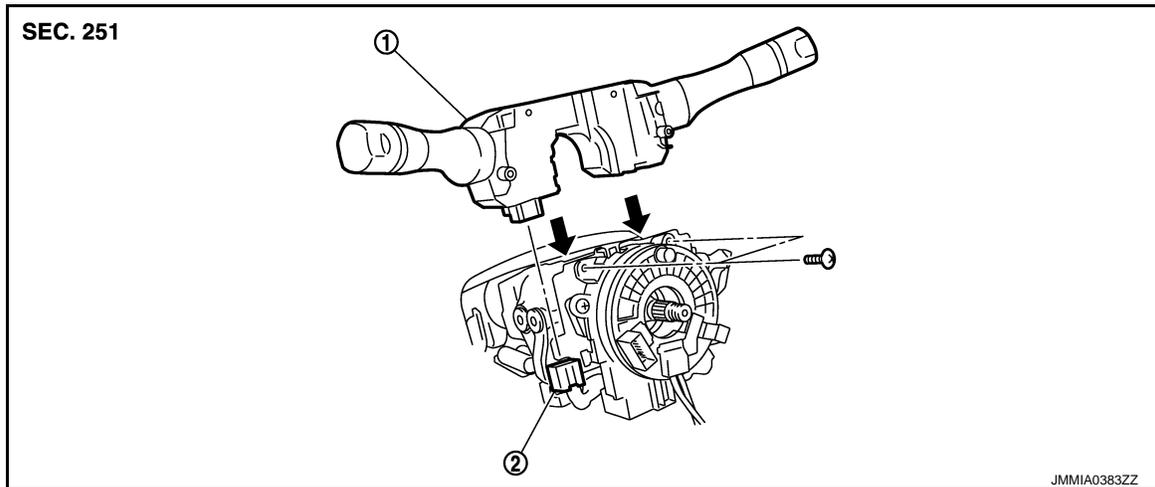
< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

COMBINATION SWITCH

Exploded View

INFOID:000000006598077



1. Combination switch

2. Combination switch connector

Removal and Installation

INFOID:000000006598078

REMOVAL

1. Remove steering column cover. Refer to [IP-13. "Removal and Installation"](#).
2. Remove screws.
3. Disconnect the connector.
4. Pull up the combination switch to remove it.

INSTALLATION

Install in the reverse order of removal.

PRECAUTION

PRECAUTIONS

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

INFOID:000000006627720

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 that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "SRS AIR BAG".
- Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

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

WARNING:

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

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COMPONENT PARTS

[WITHOUT INTELLIGENT KEY SYSTEM]

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SYSTEM DESCRIPTION

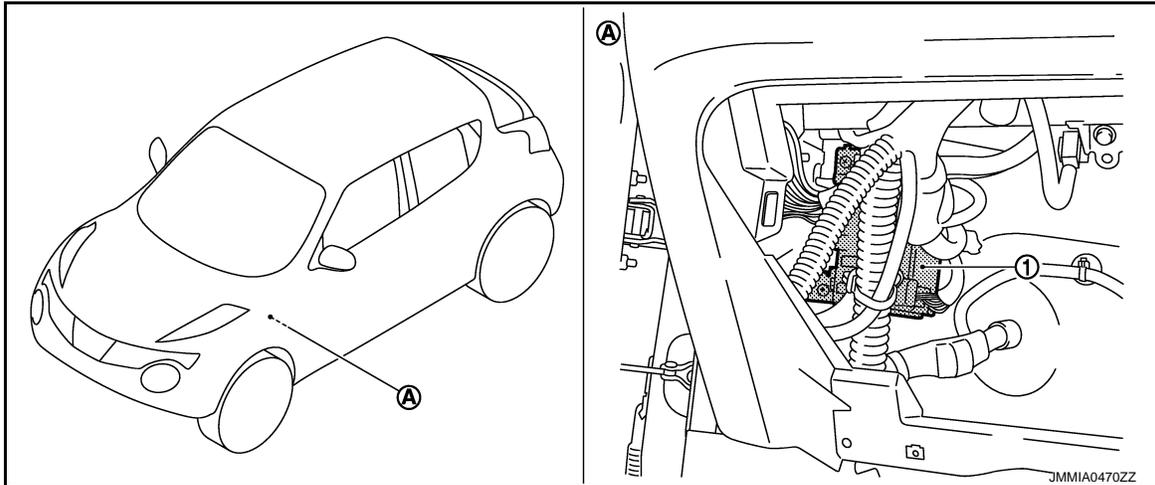
COMPONENT PARTS

BODY CONTROL SYSTEM

BODY CONTROL SYSTEM : Component Parts Location

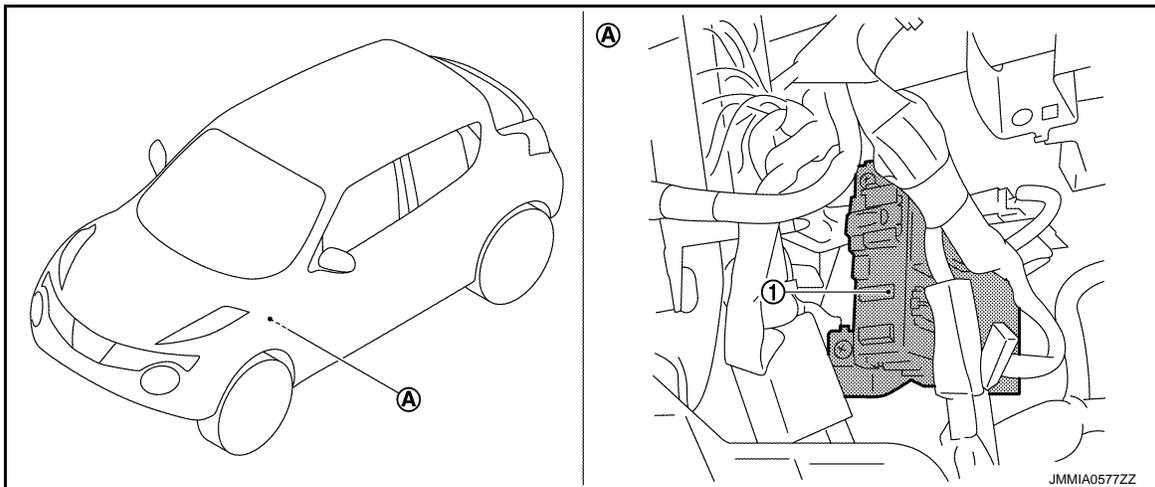
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RHD MODELS



- 1. BCM
- A. Behind of glove box (Left side)

LHD MODELS



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

POWER CONSUMPTION CONTROL SYSTEM

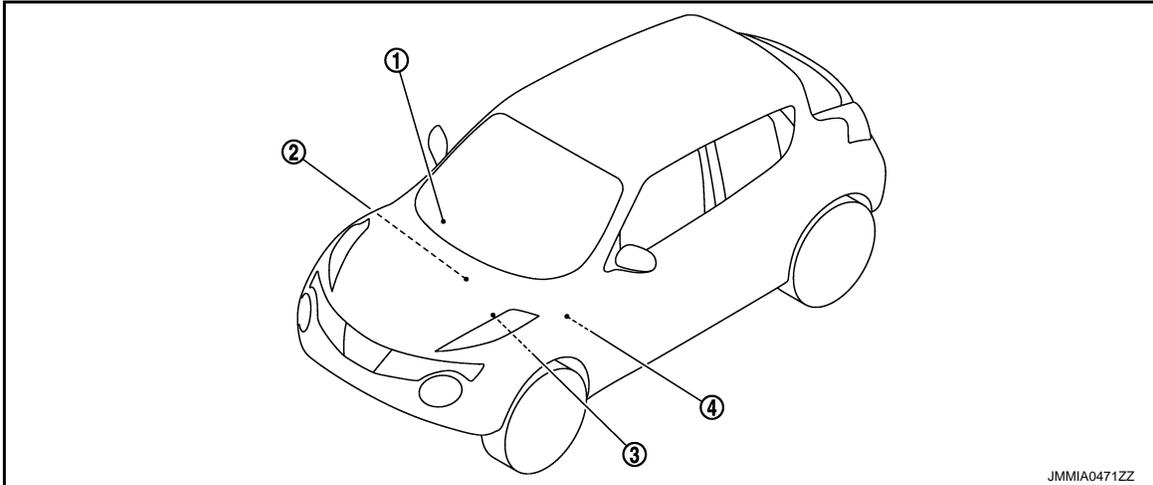
COMPONENT PARTS

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[WITHOUT INTELLIGENT KEY SYSTEM]

POWER CONSUMPTION CONTROL SYSTEM : Component Parts Location

INFOID:000000006700114



1. Combination meter

2. Multi display unit
Refer to [AV-96. "Component Parts Location"](#).

3. IPDM E/R
Refer to [PCS-5. "Component Parts Location"](#).

4. BCM
Refer to [BCS-96. "BODY CONTROL SYSTEM : Component Parts Location"](#).

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SYSTEM

BODY CONTROL SYSTEM

BODY CONTROL SYSTEM : System Description

INFOID:000000006627723

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-100, "COMBINATION SWITCH READING SYSTEM : System Diagram"
Signal buffer system	BCS-103, "SIGNAL BUFFER SYSTEM : System Diagram"
Power consumption control system	BCS-104, "POWER CONSUMPTION CONTROL SYSTEM : System Diagram"
Headlamp system	EXL-9, "HEADLAMP SYSTEM : System Diagram"
Auto light system	<ul style="list-style-type: none"> • EXL-10, "AUTO LIGHT SYSTEM (WITHOUT DTRL) : System Diagram" (Without daytime running light system) • EXL-11, "AUTO LIGHT SYSTEM (WITH DTRL) : System Diagram" (With daytime running light system)
Daytime running light system	EXL-12, "DAYTIME RUNNING LIGHT SYSTEM : System Diagram"
Front fog lamp system	EXL-13, "FRONT FOG LAMP SYSTEM : System Diagram"
Rear fog lamp system	EXL-14, "REAR FOG LAMP SYSTEM : System Diagram"
Turn signal and hazard warning lamp system	EXL-14, "TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM : System Diagram"
Parking, license plate, side maker and tail lamps system	<ul style="list-style-type: none"> • EXL-15, "PARKING, LICENSE PLATE AND TAIL LAMP SYSTEM (WITHOUT DTRL) : System Diagram" (Without daytime running light system) • EXL-16, "PARKING, LICENSE PLATE AND TAIL LAMP SYSTEM (WITH DTRL) : System Diagram" (With daytime running light system)
Exterior lamp battery saver system	<ul style="list-style-type: none"> • EXL-17, "EXTERIOR LAMP BATTERY SAVER SYSTEM (WITHOUT DTRL) : System Diagram" (Without daytime running light system) • EXL-18, "EXTERIOR LAMP BATTERY SAVER SYSTEM (WITH DTRL) : System Diagram" (With daytime running light system)
Interior room lamp control system	INL-6, "INTERIOR ROOM LAMP CONTROL SYSTEM : System Diagram"
Interior room lamp battery saver system	INL-8, "INTERIOR ROOM LAMP BATTERY SAVER SYSTEM : System Diagram"
Front wiper and washer system	<ul style="list-style-type: none"> • WW-8, "FRONT WIPER AND WASHER SYSTEM (WITH LIGHT & RAIN SENSOR) : System Diagram" (With light and rain sensor) • WW-11, "FRONT WIPER AND WASHER SYSTEM (WITHOUT LIGHT & RAIN SENSOR) : System Diagram" (Without light and rain sensor))
Rear wiper and washer system	WW-14, "REAR WIPER AND WASHER SYSTEM : System Diagram"
Headlamp washer system	WW-16, "HEAD LAMP WASHER SYSTEM : System Diagram"

SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

System		Reference page
Rear window defogger system		<ul style="list-style-type: none"> • DEF-7, "WITH AUTO A/C : System Diagram" (With automatic A/C) • DEF-7, "WITHOUT AUTO A/C : System Diagram" (Without automatic A/C)
Air conditioning control system	Automatic A/C	<ul style="list-style-type: none"> • HAC-17, "System Diagram" (4WD models) • HAC-109, "AUTOMATIC AIR CONDITIONING SYSTEM : System Diagram" (2WD models)
	Manual A/C	<ul style="list-style-type: none"> • HAC-203, "System Diagram" (4WD models) • HAC-253, "MANUAL AIR CONDITIONING SYSTEM : System Diagram" (2WD models)
	Manual heater	HAC-315, "System Description"
Warning chime system		WCS-6, "WARNING CHIME SYSTEM : System Diagram"
Power door lock system		<ul style="list-style-type: none"> • DLK-363, "System Diagram" (With super lock) • DLK-494, "System Diagram" (Without super lock)
Remote keyless entry system	Remote keyless entry unctio n	<ul style="list-style-type: none"> • DLK-366, "REMOTE KEYLESS ENTRY FUNCTION : System Diagram" (With super lock) • DLK-497, "System Diagram" (Without super lock)
	Super lock function	DLK-367, "SUPER LOCK FUNCTION : System Diagram"
Back door opener system		<ul style="list-style-type: none"> • DLK-369, "System Diagram" (With super lock) • DLK-494, "System Diagram" (Without super lock)
Nissan anti-theft system (NATS)		SEC-173, "NISSAN ANTI-THEFT SYSTEM : System Diagram"
Vehicle security system		SEC-174, "VEHICLE SECURITY SYSTEM : System Diagram"
Power window system		PWC-6, "POWER WINDOW SYSTEM : System Diagram"

BODY CONTROL SYSTEM : Fail-safe

INFOID:000000006627724

FAIL-SAFE CONTROL BY DTC

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

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.

COMBINATION SWITCH READING SYSTEM

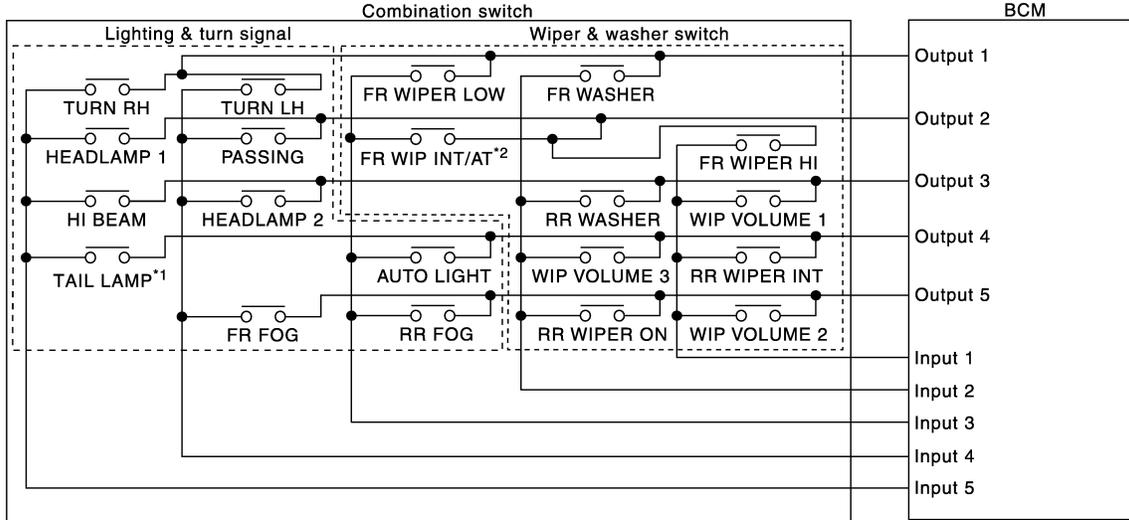
SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

COMBINATION SWITCH READING SYSTEM : System Diagram

INFOID:000000006698947



JMMIA0377GB

NOTE:

- *1: TAIL LAMP switch links lighting switch 1ST and 2ND positions.
- *2: "FR WIP INT/AT" is FR WIPER INT/AUTO.

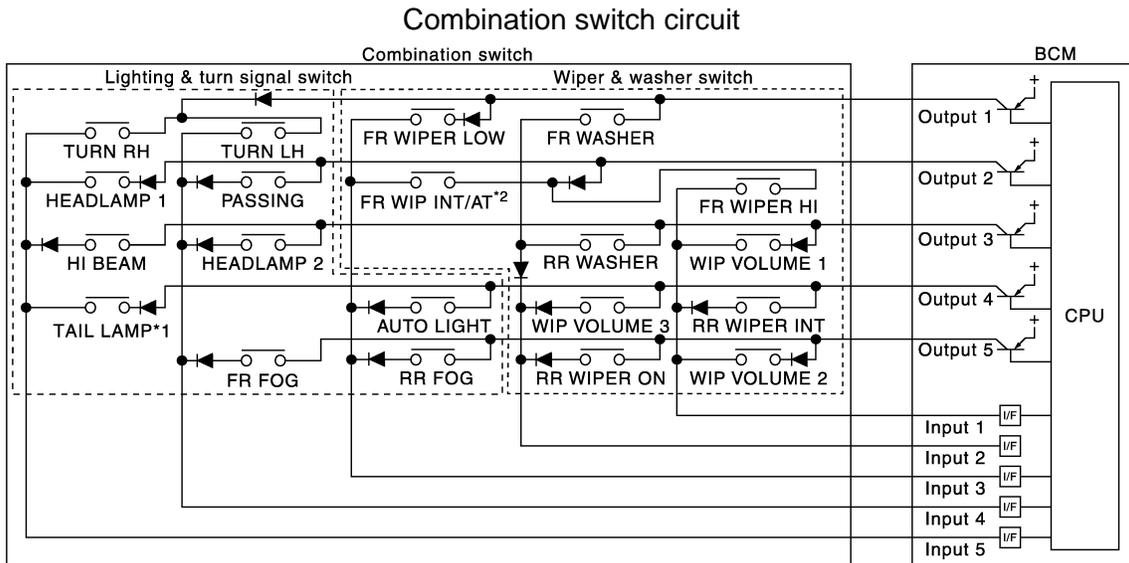
COMBINATION SWITCH READING SYSTEM : System Description

INFOID:000000006698948

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



JMMIA0378GB

NOTE:

- *1: TAIL LAMP switch links lighting switch 1ST and 2ND positions.
- *2: "FR WIP INT/AT" is FR WIPER INT/AUTO.

SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

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/ AUTO	PASSING	HEADLAMP 1
OUTPUT 3	WIP VOLUME 1	RR WASHER	—	HEADLAMP 2	HI BEAM
OUTPUT 4	RR WIPER INT	WIP VOLUME 3	AUTO LIGHT	—	TAIL LAMP
OUTPUT 5	WIP VOLUME 2	RR WIPER ON	RR FOG	FR FOG	—

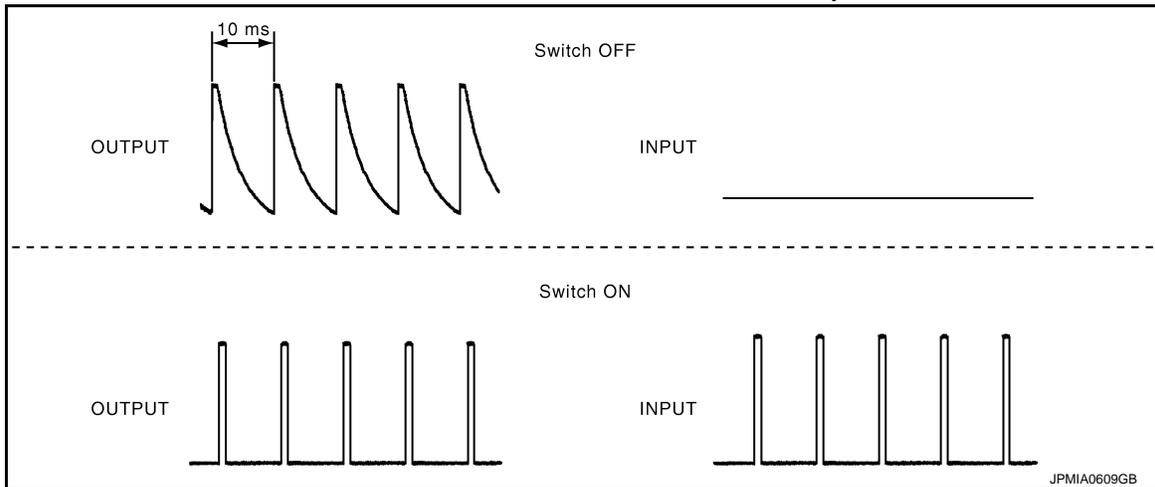
NOTE:

Headlamp has a dual system switch.

COMBINATION SWITCH READING FUNCTION

Description

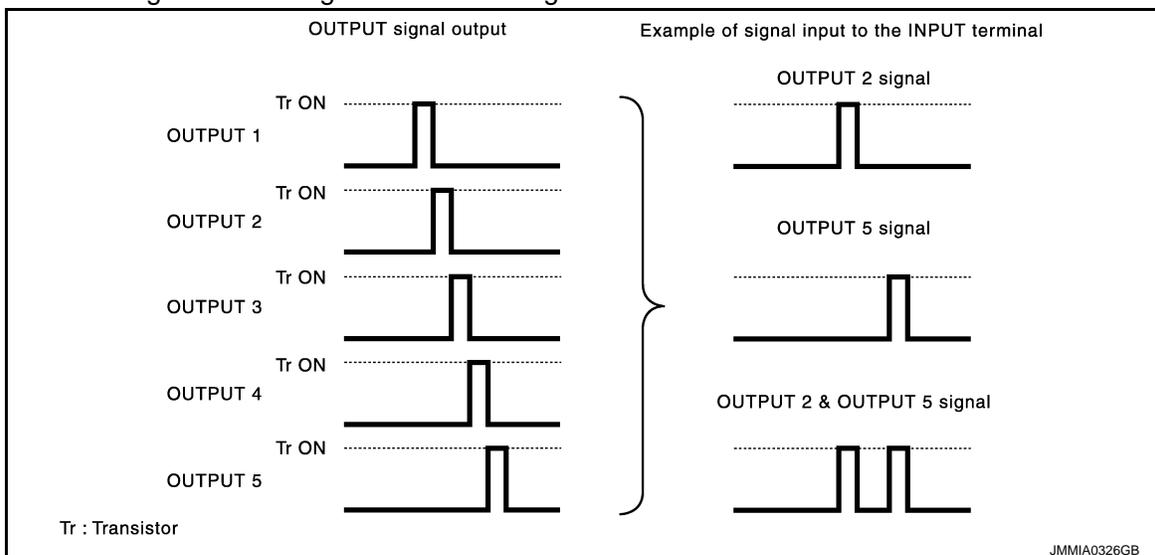
- BCM reads the status of the combination switch at 10 ms interval normally.



NOTE:

BCM reads the status of the combination switch at 60 ms interval when BCM is controlled at low power consumption 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 1 → 2 → 3 → 4 → 5, 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

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SYSTEM

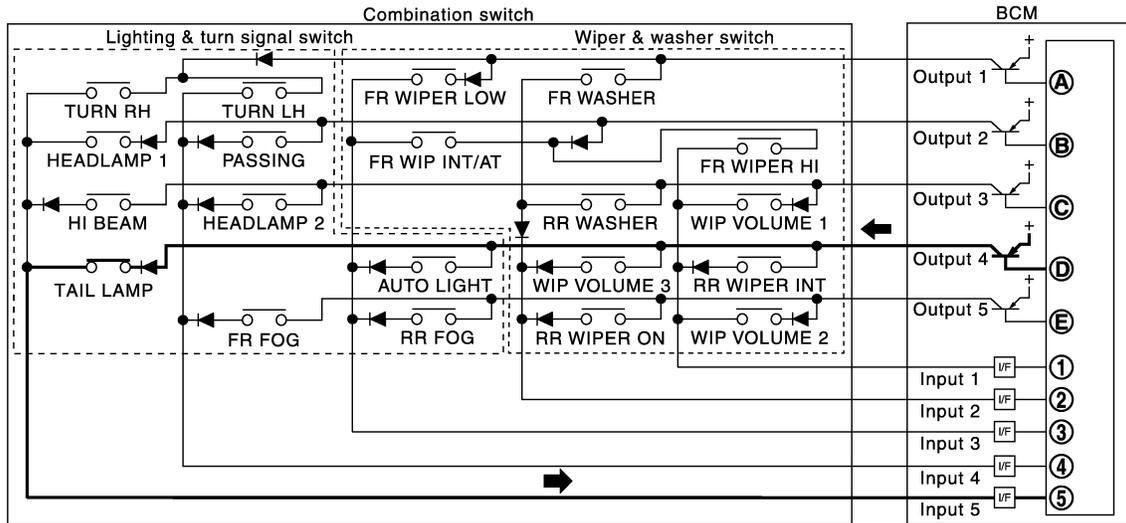
< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

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

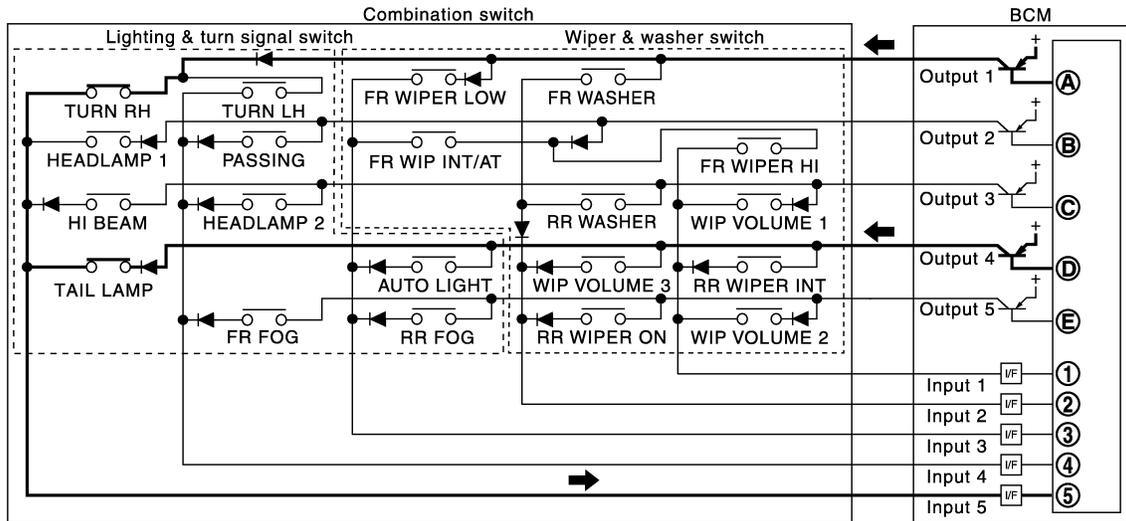
- The circuit between OUTPUT 4 and INPUT 5 is formed when the TAIL LAMP switch is turned ON.



- 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 VOLUME DIAL POSITION

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

Wiper volume dial position	Switch status		
	WIP VOLUME 1	WIP VOLUME 2	WIP VOLUME 3
1	ON	ON	ON
2	ON	ON	OFF
3	ON	OFF	OFF
4	OFF	OFF	OFF

SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

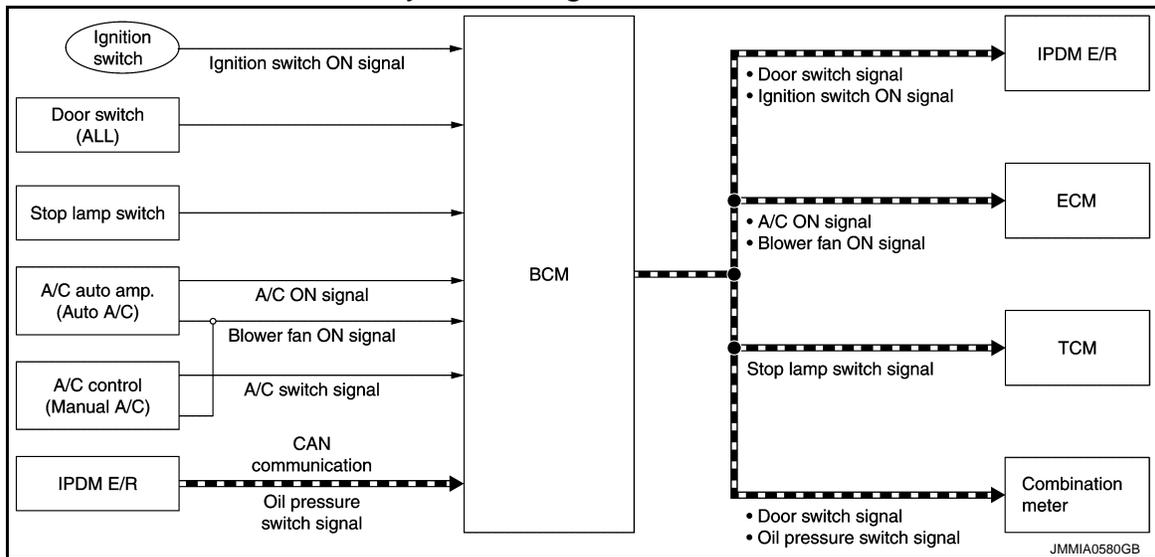
Wiper volume dial position	Switch status		
	WIP VOLUME 1	WIP VOLUME 2	WIP VOLUME 3
5	OFF	OFF	ON
6	OFF	ON	ON
7	OFF	ON	OFF

NOTE:

For details of wiper volume dial position, refer to [WW-8. "FRONT WIPER AND WASHER SYSTEM \(WITH LIGHT & RAIN SENSOR\) : System Description"](#) (with light and rain sensor), [WW-11. "FRONT WIPER AND WASHER SYSTEM \(WITHOUT LIGHT & RAIN SENSOR\) : System Description"](#) (without light and rain sensor).

SIGNAL BUFFER SYSTEM

SIGNAL BUFFER SYSTEM : System Diagram



NOTE:

Oil pressure switch is applied to diesel engine models.

SIGNAL BUFFER SYSTEM : System Description

INFOID:000000006627728

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. (Auto A/C) • A/C control (Manual A/C) 	ECM (CAN)	Input blower fan switch signal, and transmit the blower fan ON signal via CAN communication.
A/C ON signal	<ul style="list-style-type: none"> • A/C auto amp. (Auto A/C) • A/C control (Manual A/C) 	ECM (CAN)	Input A/C ON signal (automatic A/C) or A/C switch signal (manual A/C), and transmit the A/C ON signal via CAN communication.

SYSTEM

< SYSTEM DESCRIPTION >

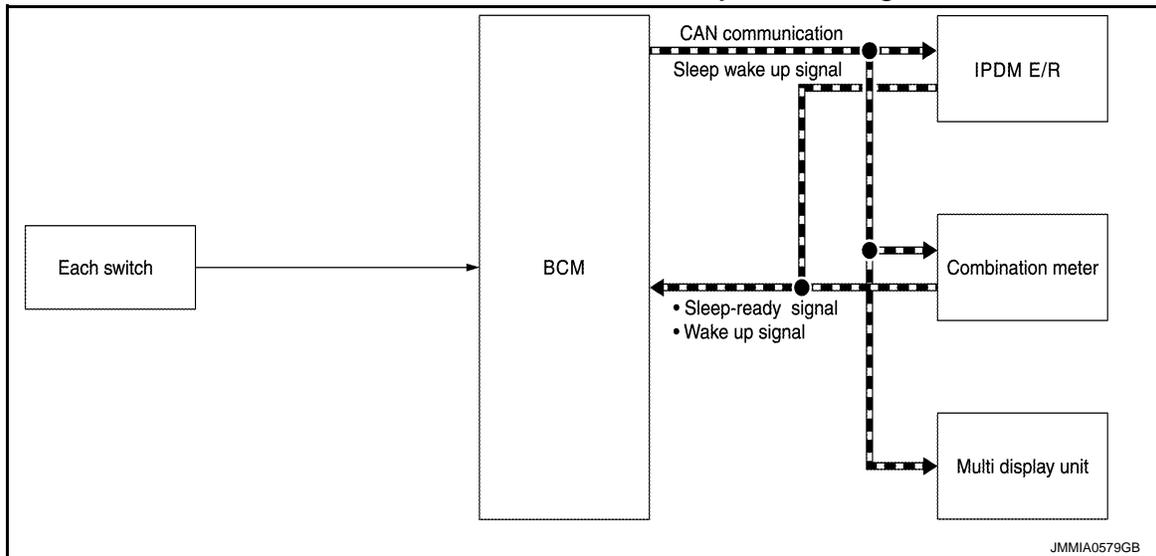
[WITHOUT INTELLIGENT KEY SYSTEM]

Signal name	Input	Output	Description
Oil pressure switch signal (Diesel engine models)	IPDM E/R (CAN)	Combination meter (CAN)	Transmits the received oil pressure switch signal with CAN communication.
Stop lamp switch signal	Stop lamp switch	<ul style="list-style-type: none"> TCM (CAN) ECM (CAN) (Diesel engine models) 	Inputs the stop lamp switch signal, and transmits it via CAN communication.

POWER CONSUMPTION CONTROL SYSTEM

POWER CONSUMPTION CONTROL SYSTEM : System Diagram

INFOID:000000006627729



POWER CONSUMPTION CONTROL SYSTEM : System Description

INFOID:000000006627730

OUTLINE

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

Normal mode (wake-up)

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

CAN communication sleep mode (CAN sleep)

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

Low power consumption mode (BCM sleep)

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

LOW POWER CONSUMPTION CONTROL WITH BCM

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

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

Sleep mode activation

- BCM receives the sleep-ready signal (ready) from IPDM E/R and 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.

SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

- 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.

Sleep condition

CAN sleep condition	BCM sleep condition
<ul style="list-style-type: none"> • Receiving the sleep-ready signal (ready) from all units • 1 minute after turning ignition switch OFF • Vehicle security system: 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 • Driver door lock status: No change • Key switch status: No change 	<ul style="list-style-type: none"> • Interior room lamp battery saver: Time out • Nissan anti-theft system (NATS): Not operation • Remote keyless entry receiver communication status: No communication

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 • Ignition switch: OFF → ACC, ON • Key switch: OFF → ON, ON → OFF • 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 • RR FOG switch: OFF → ON • 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 • Back door opener switch: OFF → ON • Stop lamp switch: ON • Door lock and unlock switch: NEUTRAL → LOCK, NEUTRAL → UNLOCK • Front door lock assembly (driver side) (unlock sensor): OFF → ON, ON → OFF • Remote keyless entry receiver communication: Receiving

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

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

INFOID:000000006627731

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 control	INT LAMP	×	×	×
Remote keyless entry system	MULTI REMOTE ENT	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER		×	×
<ul style="list-style-type: none"> Automatic A/C Manual A/C Manual heater 	AIR CONDITONER		×	×*2
Combination switch	COMB SW		×	
Body control system	BCM	×		
NATS	IMMU	×		×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door open	TRUNK		×	
Vehicle security system	THEFT ALM	×	×	×
—	RETAINED PWR*1		×	×
Signal buffer system	SIGNAL BUFFER		×	×
—	PANIC ALARM*1			×

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

• *2: For models with automatic A/C, this mode is not used.

DOOR LOCK

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK) (With Super Lock)

INFOID:000000006747277

WORK SUPPORT

Monitor item	Description
DOOR LOCK-UNLOCK SET	Anti-hijack function 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 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 10 km/h (6 MPH) 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 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 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: Door lock and unlock operation

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

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
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
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 front door driver side
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	Indicates [NOMAL/ON/OFF] condition of circuit between BCM and air bag diagnosis sensor unit <ul style="list-style-type: none"> NORMAL: Ignition switch ON (BCM is receiving normal condition signal from air bag diagnosis sensor unit) ON: During the receiving of air bag signal from air bag diagnosis sensor unit OFF: After the receiving of air bag signal from air bag diagnosis sensor unit
KEY CYL LK-SW	NOTE: This item is displayed, but cannot be monitored

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor Item	Contents
KEY CYL UN-SW	NOTE: This item is displayed, but cannot be monitored
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 back door lock actuator is unlocked when "BD ULK" on CONSULT-III screen is touched • The door lock actuator (other) is unlocked when "OTR ULK" on CONSULT-III screen is touched
DOOR LOCK IND	This test is able to check door lock status indicator operation
SUPER LOCK	This test is able to check super lock actuator operation <ul style="list-style-type: none"> • The all super lock actuators are set when "LOCK" on CONSULT-III screen is touched • The all super lock actuators are released when "UNLOCK" on CONSULT-III screen is touched

DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK) (Without Super Lock)

INFOID:00000006747280

WORK SUPPORT

Monitor item	Description
DOOR LOCK-UNLOCK SET	Anti-hijack function 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 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 10 km/h (6 MPH) • 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 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 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: Door lock and unlock operation

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

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
CDL LOCK SW	Indicated [On/Off] condition of lock signal from door lock unlock switch

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor Item	Contents
CDL UNLOCK SW	Indicated [On/Off] condition of unlock signal from door lock unlock 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 front door driver side
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	Indicates [NOMAL/ON/OFF] condition of circuit between BCM and air bag diagnosis sensor unit <ul style="list-style-type: none"> • NORMAL: Ignition switch ON (BCM is receiving normal condition signal from air bag diagnosis sensor unit) • ON: During the receiving of air bag signal from air bag diagnosis sensor unit • OFF: After the receiving of air bag signal from air bag diagnosis sensor unit
KEY CYL LK-SW	NOTE: This item is displayed, but cannot be monitored
KEY CYL UN-SW	NOTE: This item is displayed, but cannot be monitored
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 back door lock actuator is unlocked when "BD ULK" on CONSULT-III screen is touched • The door lock actuator (other) is unlocked when "OTR ULK" on CONSULT-III screen is touched
DOOR LOCK IND	NOTE: This item is displayed, but cannot be monitored
SUPER LOCK	NOTE: This item is displayed, but cannot be monitored

REAR WINDOW DEFOGGER

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

INFOID:000000006747294

Data monitor

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

ACTIVE TEST

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Test Item	Description
REAR DEFOGGER	Give a drive signal to the rear window defogger relay to activate it.

BUZZER

BUZZER : CONSULT-III Function (BCM - BUZZER)

INFOID:000000006747295

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.
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).
LIGHT WARN ALM	The light warning chime operation can be checked by operating the relevant function (On/Off).

INT LAMP

DIAGNOSIS SYSTEM (BCM)

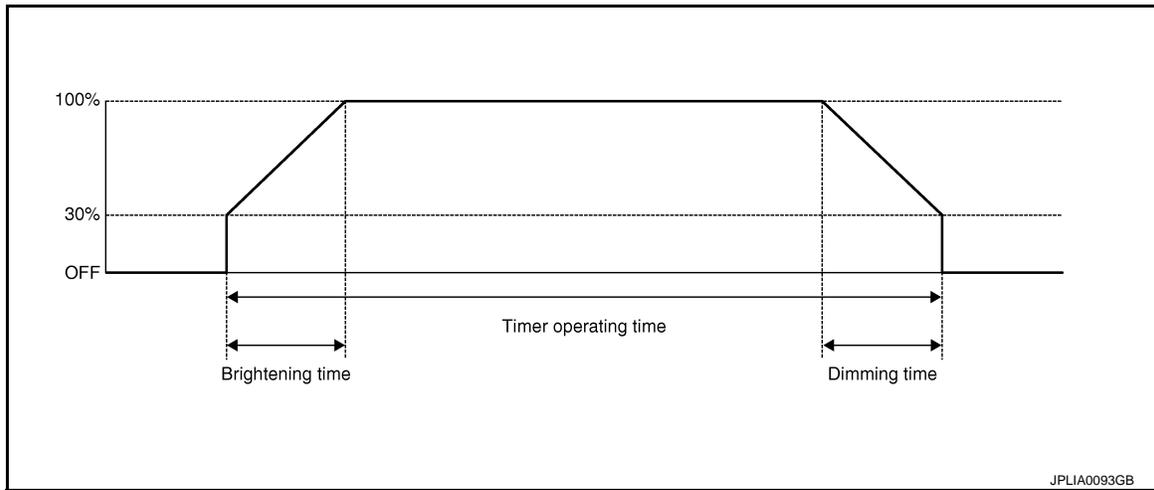
[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

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

INFOID:000000006747289

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
ROOM LAMP ON TIME SET	MODE 1	0.5 sec.
	MODE 2*	1 sec.
	MODE 3	2 sec.
	MODE 4	3 sec.
	MODE 5	4 sec.
	MODE 6	5 sec.
	MODE 7	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	4 sec.
	MODE 6	5 sec.
	MODE 7	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

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BCS

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description
IGN ON SW [On/Off]	Ignition switch (ON) status judges from IGN signal (ignition power supply)
KEY ON SW [On/Off]	The switch status input from key switch
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
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
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
TRNK/HAT MNTR [On/Off]	NOTE: The item is indicated, but not monitored
KEY CYL LK-SW [On/Off]	NOTE: The item is indicated, but not monitored
KEY CYL UN-SW [On/Off]	NOTE: The item is indicated, but not monitored
ACC ON SW [On/Off]	Ignition switch (ACC) status judges from ACC signal (ACC power supply)

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, 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) (With Super Lock)

INFOID:000000006747278

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

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor Item	Condition
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	NOTE: This item is displayed, but cannot be tested

ACTIVE TEST

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]
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 back door lock actuator is unlocked when "BD ULK" on CONSULT- III screen is touched • The door lock actuator (other) is unlocked when "OTR ULK" on CONSULT-III screen is touched

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 Keyfob ID code is registered or not in this mode
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	NOTE: This item is displayed, but cannot be tested
TRUNK OPEN SET	NOTE: This item is displayed, but cannot be tested

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

MULTI REMOTE ENT : CONSULT-III Function (BCM - MULTI REMOTE ENT) (Without Super Lock)

INFOID:000000006747281

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	NOTE: This item is displayed, but cannot be tested

ACTIVE TEST

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]
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 back door lock actuator is unlocked when "BD ULK" on CONSULT- III screen is touched • The door lock actuator (other) is unlocked when "OTR ULK" on CONSULT-III screen is touched

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 Keyfob ID code is registered or not in this mode
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

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Test item	Description
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	NOTE: This item is displayed, but cannot be tested
TRUNK OPEN SET	NOTE: This item is displayed, but cannot be tested

HEADLAMP

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

INFOID:000000006747287

WORK SUPPORT

Service item	Setting item	Setting
CUSTOM A/LIGHT SETTING*1	MODE 1*2	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*2	With the exterior lamp battery saver function
	Off	Without the exterior lamp battery saver function
HEAD LIGHT TIMER	MODE 1	10 sec.
	MODE 2*2	30 sec.
		Sets follow me home function activating time

*1: For models is without auto light system, this item is not displayed.

*2: 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

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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*1 [On/Off]	
AUTO LIGHT SW*2 [On/Off]	
RR FOG SW [On/Off]	
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/NG]	The sensor condition received from light & rain sensor

*1: Only models with front fog lamp can be monitored.

*2: Only models with auto light system can be monitored.

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)

[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*1	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.
RR FOG LAMP	On	<ul style="list-style-type: none"> Outputs the voltage to turn the rear fog lamp ON. Transmits the rear fog lamp status signal to the combination meter with CAN communication to turn the rear fog lamp indicator lamp ON.
	Off	<ul style="list-style-type: none"> Stops the voltage to turn the rear fog lamp OFF. Stops the rear fog lamp status signal transmission.
DAYTIME RUNNING LIGHT*2	On	Transmits the daytime running light request signal via CAN communication to turn the parking, license plate and tail lamps ON.
	Off	Stop the daytime running light request signal transmission.

*1: For models without front fog lamp, this item is displayed but active test is not operated.

*2: For models without daytime running light system, this item is not displayed.

WIPER

WIPER : CONSULT-III Function (BCM - WIPER)

INFOID:000000006747291

WORK SUPPORT

Service item	Setting item	Description
WIPER SPEED SETTING*1	On*3	Linked with vehicle speed (Front wiper intermittent time linked with the vehicle speed and wiper intermittent dial position)
	Off	Not linked with vehicle speed (Front wiper intermittent time linked with the wiper intermittent dial position)
RAIN SEN WIP FUNC SET*2	On*3	With rain sensor (Front wiper intermittent time linked with the rain sensor, vehicle speed, and AUTO dial position)
	Off	Without rain sensor (Front wiper intermittent time linked with the vehicle speed and AUTO dial position)

*1: The item is indicated, but not operated on model with rain sensor

*2: The item is indicated, but not operated on model without rain sensor

*3: 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.

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor Item [Unit]	Description
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]	
RR WIPER STOP [On/Off]	Rear wiper motor (stop position) status input from the rear wiper motor.
REVERSE SW CAN [On/Off]	Reverse position status as judged from TCM with CAN communication.
RAIN SENSOR* [OFF/LOW/HIGH/SPLASH/NG]	Request signal from rain sensor detected by BCM is displayed

*: The item is displayed but is not monitored on model without rain sensor

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.
HEADLAMP WASH-ER	On	Transmits the headlamp washer request signal to IPDM E/R via CAN communication to operate the headlamp washer operation.

FLASHER

FLASHER : CONSULT-III Function (BCM - FLASHER)

INFOID:000000006747288

DATA MONITOR

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

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 - AIR CONDITIONER) (Automatic A/C 4WD Models)

INFOID:000000006747296

DATA MONITOR

Display Item List

Monitor Item [Unit]	Contents
IGN SW [On/Off]	Displays ignition switch position status as judged from ignition switch signal.
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 (BCM - AIR CONDITIONER) (Automatic A/C 2WD Models)

INFOID:000000006747297

DATA MONITOR

Display Item List

Monitor Item [Unit]	Contents
IGN SW [On/Off]	Displays ignition switch position status as judged from ignition switch signal.
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 (BCM - AIR CONDITIONER) (Manual A/C 4WD Models)

INFOID:000000006747298

DATA MONITOR

Display item list

Monitor Item [Unit]	Contents
FAN ON SIG [On/Off]	Displays blower motor status as judged from blower fan ON signal.
AIR COND SW [On/Off]	Displays A/C switch status as judged from A/C switch signal.
THERMO AMP [On/Off]	Displays thermo control amp. status as judged from thermo control amp. signal.
IGN SW [On/Off]	Displays ignition switch position status as judged from ignition switch signal.

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DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

ACTIVE TEST

Test item	Operation	Description
A/C INDICATOR	On	A/C indicator is turned ON.
	Off	A/C indicator is turned OFF.

AIR CONDITIONER : CONSULT-III Function (BCM - AIR CONDITIONER) (Manual A/C 2WD Models)

INFOID:000000006747299

DATA MONITOR

Display item list

Monitor Item [Unit]	Contents
FAN ON SIG [On/Off]	Displays blower motor status as judged from blower fan ON signal.
AIR COND SW [On/Off]	Displays A/C switch status as judged from A/C switch signal.
THERMO AMP [On/Off]	Displays thermo control amp. status as judged from thermo control amp. signal.
IGN SW [On/Off]	Displays ignition switch position status as judged form ignition switch signal.

ACTIVE TEST

Test item	Operation	Description
A/C INDICATOR	On	A/C indicator is turned ON.
	Off	A/C indicator is turned OFF.

AIR CONDITIONER : CONSULT-III Function (BCM - AIR CONDITIONER) (Heater and Ventilation)

INFOID:000000006747300

DATA MONITOR

Display item list

Monitor Item [Unit]	Contents
FAN ON SIG [On/Off]	Displays blower motor status as judged from blower fan ON signal.
IGN SW [On/Off]	Displays ignition switch position status as judged form ignition switch signal.

COMB SW

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

INFOID:000000006627742

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.

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor item [UNIT]	Description
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]	Displays the status of RR FOG switch in combination switch judged by the combination switch reading function.
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/AUTO 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.
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:0000000006627743

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:0000000006747285

WORK SUPPORT

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

ACTIVE TEST

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.

BATTERY SAVER

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

INFOID:0000000006747290

WORK SUPPORT

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BCS

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

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.	
	MODE 3*	15 min.	
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
IGN ON SW [On/Off]	Ignition switch (ON) status judges from IGN signal (ignition power supply)
KEY ON SW [On/Off]	The switch status input from key switch
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
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
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
TRNK/HAT MNTR [On/Off]	NOTE: The item is indicated, but not monitored
KEY CYL LK-SW [On/Off]	NOTE: The item is indicated, but not monitored
KEY CYL UN-SW [On/Off]	NOTE: The item is indicated, but not monitored
ACC ON SW [On/Off]	Ignition switch (ACC) status judges from ACC signal (ACC power supply)

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

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

TRUNK : CONSULT-III Function (BCM - TRUNK) (With Super Lock)

INFOID:000000006747282

DATA MONITOR

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

TRUNK : CONSULT-III Function (BCM - TRUNK) (Without Super Lock)

INFOID:000000006747282

DATA MONITOR

Monitor Item	Contents
KEY ON SW	Indicates [On/Off] condition of key switch.
LOCK STATUS	Indicates [On/Off] condition of front door driver side.
VEHICLE SPEED	Indicates [Km/h] condition of vehicle speed signal from combination meter.
IGN ON SW	Indicates [On/Off] condition of ignition switch.
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)

INFOID:000000006747284

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 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.

SIGNAL BUFFER

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DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

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

INFOID:00000000627747

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 NOTE: For gasoline engine models, this item is not used.	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.

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000000627748

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	Driver door is locked	Off
	Driver door is unlocked	On
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	Air bag deployment signal (NORMAL) is detected.	NOMAL
	Air bag deployment signal (AIR BAG OPEN) is detected	On
	Air bag deployment signal is not detected	Off
KEY CYL LK-SW	NOTE: The item is indicated, but not used.	Off
KEY CYL UN-SW	NOTE: The item is indicated, but not used.	Off
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	NOTE: The item is indicated, but not monitored.	Off
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	Rear fog lamp switch OFF	Off
	Rear fog lamp switch ON	On
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)	NOTE: The item is indicated, but not monitored.	0 V
OPTI SEN (FILT)	NOTE: The item is indicated, but not monitored.	0 V
LIG SEN COND	Bright outside of the vehicle	Off
	Dark outside of vehicle	On
	Light sensor internal error	NG
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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Value/Status	
FR WIPER LOW	Front wiper switch OFF	Off	A
	Front wiper switch LO	On	
FR WIPER INT	Front wiper switch OFF	Off	B
	Front wiper switch INT	On	
FR WASHER SW	Front washer switch OFF	Off	C
	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	D
	Front wiper stop position	On	
RR WIPER ON	Rear wiper switch OFF	Off	E
	Rear wiper switch ON	On	
RR WIPER INT	Rear wiper switch OFF	Off	F
	Rear wiper switch INT	On	
RR WASHER SW	Rear washer switch OFF	Off	G
	Rear washer switch ON	On	
RR WIPER STOP	Rear wiper stop position	Off	H
	Other than rear wiper stop position	On	
RAIN SENSOR	No rain (or very light rain)	Off	I
	Light rain	LOW	
	Heavy rain	HIGH	
	When liquid is splashed on the front window	SPLSH	
	Rain sensor internal error	NG	
HAZARD SW	Hazard switch OFF	Off	J
	Hazard switch ON	On	
FAN ON SIG	Blower control dial OFF	Off	K
	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	L
	<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	BCS
	Evaporator is extremely low temperature	On	
FR DEF SW	Other than A/C mode defroster ON position	Off	N
	A/C mode defroster ON position	On	
KEYLESS TRUNK	NOTE: The item is indicated, but not monitored.	Off	O
TRNK OPNR SW	NOTE: The item is indicated, but not monitored.	Off	P
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	

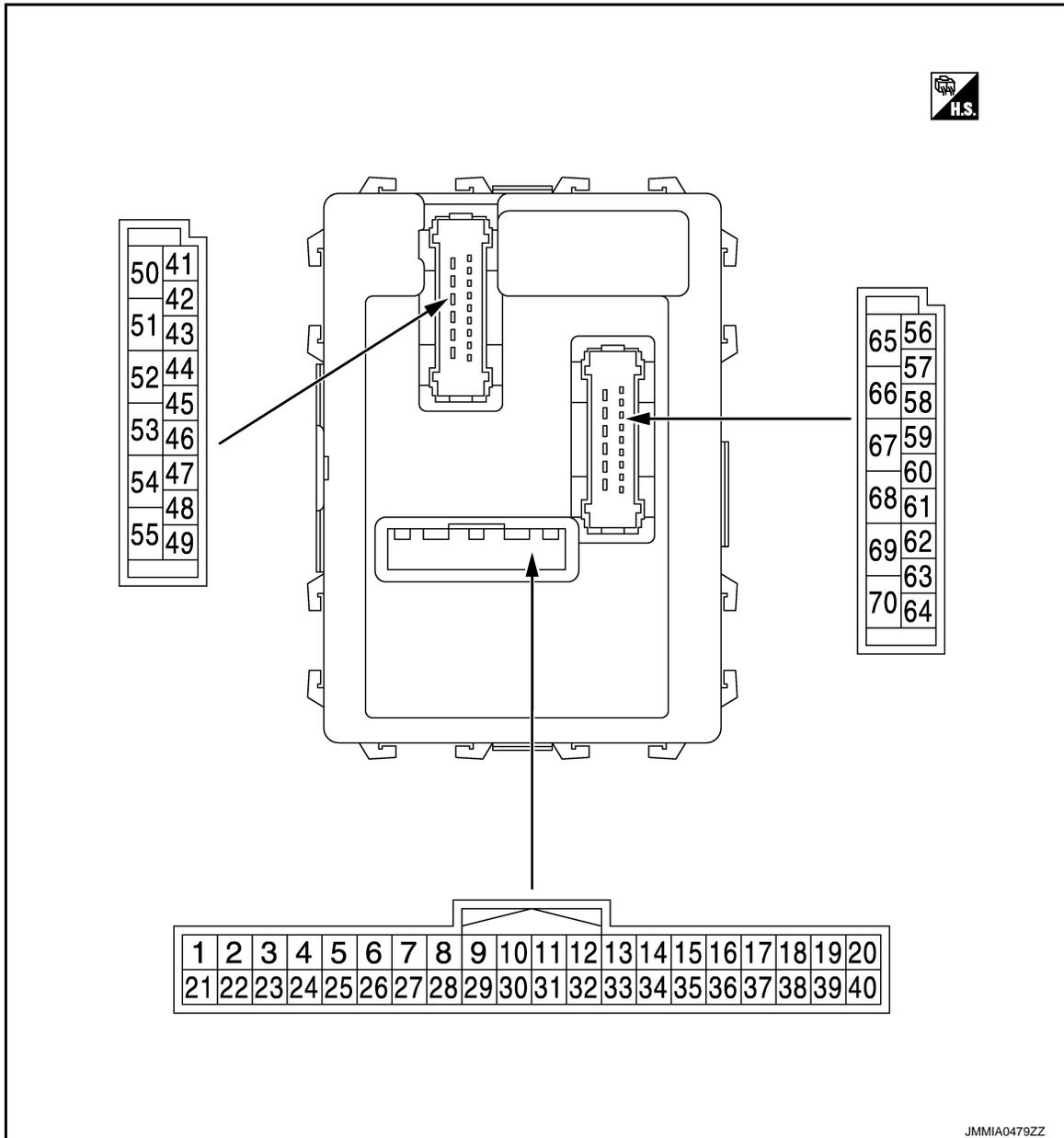
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Value/Status
INTELLI KEY	NOTE: The item is indicated, but not used.	Off
AUTO RELOCK	NOTE: The item is indicated, but not monitored.	Off
OIL PRESS SW NOTE: For gasoline engine models, this item is not monitored.	<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



PHYSICAL VALUES

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-				
2 (L)	Ground	Combination switch INPUT 5	Input	All switches OFF	0 V
				Turn signal switch RH	
				Lighting switch HI	
				Lighting switch 1ST	
				Lighting switch 2ND	
3 (GR)	Ground	Combination switch INPUT 4	Input	All switches OFF	0 V
				Turn signal switch LH	
				Lighting switch PASS	
				Lighting switch 2ND	
				Front fog lamp switch ON	

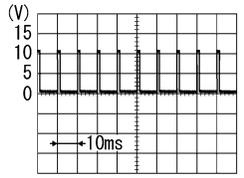
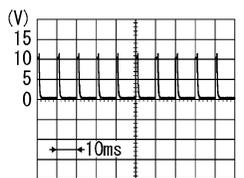
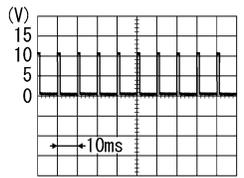
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)		
+	-	Signal name	Input/ Output				
6 (W)	Ground	Combination switch INPUT 1	Input	Combination switch	All switches OFF (Wiper intermittent dial 4)	0 V	
					Front wiper switch HI (Wiper intermittent dial 4)		
					Rear wiper switch INT (Wiper intermittent dial 4)		
					Wiper intermittent dial 3 (All switches OFF)		1.0 V
6 (W)	Ground	Combination switch INPUT 1	Input	Combination switch	Any of the condition below with all switches 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 switches OFF		
<ul style="list-style-type: none"> • Wiper intermittent dial 6 • Wiper intermittent dial 7 	0.8 V						
7*4 (GR)	Ground	Front door lock as- sembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sen- sor switch OFF)		
					UNLOCK status (Unlock sensor switch ON)		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*1 (W)	Ground	Rear window defog- ger switch	Input	Rear window defogger switch	OFF (Not pressed)	12 V	
					ON (Pressed)	0 V	
11 (L)	Ground	Ignition switch ACC	Input	Ignition switch OFF	0 V		
				Ignition switch ACC or ON	Battery voltage		

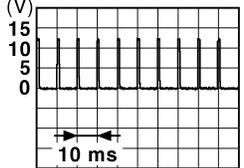
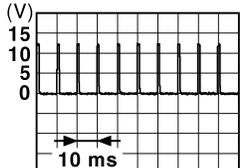
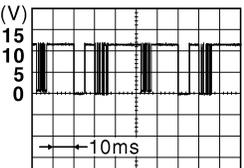
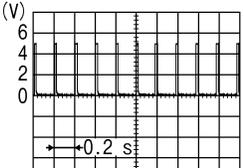
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BCM (BODY CONTROL MODULE)

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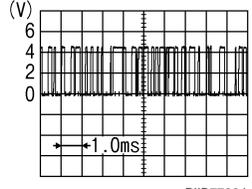
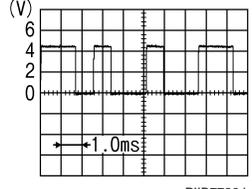
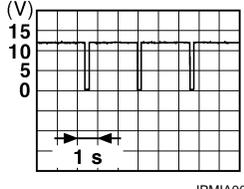
[WITHOUT INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
12 (GR)	Ground	Door lock and unlock switch LOCK	Input	Door lock and unlock switch	NEUTRAL position	 <small>JPMIA0012GB</small> 1.0 - 1.5 V
					LOCK position	0 V
13 (BR)	Ground	Door lock and unlock switch UNLOCK	Input	Door lock and unlock switch	NEUTRAL position	 <small>JPMIA0012GB</small> 1.0 - 1.5 V
					UNLOCK position	0 V
14 (R)	Ground	Light & rain sensor serial link	Input/ Output	Ignition switch OFF	12 V	
				Ignition switch ON	 <small>JPMIA0156GB</small> 8.7 V	
16*2 (P)	Ground	Door lock status indi- cator lamp	Output	Door lock status indicator lamp	OFF	0 V
					ON	12 V
18 (V)	Ground	Receiver ground	Input	Ignition switch ON		0 V
19 (BR)	Ground	Remote keyless en- try 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)	 <small>JPMIA0338JP</small>

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
20 (G)	Ground	Remote keyless entry receiver communication	Input	Insert mechanical key into ignition key cylinder	0 V
				Waiting	 <p style="text-align: right; font-size: small;">PIIB7728J</p>
				Signal receiving	 <p style="text-align: right; font-size: small;">PIIB7729J</p>
21 (P)	Ground	NATS antenna amp.	Input/ Output	Just after inserting ignition key in key cylinder	Pointer of tester should move
				Other than above	0 V
22*2 (LG)	Ground	Alarm link	Input/ Output	—	—
23 (R)	Ground	Security indicator lamp	Input	ON	0 V
				Blinking (Ignition switch OFF)	 <p style="text-align: right; font-size: small;">JPMIA0014GB</p>
				OFF	12 V
24 (SB)	Ground	Dongle link	Input/ Output	—	—
25 (LG)	Ground	NATS antenna amp.	Input/ Output	Just after inserting ignition key in key cylinder	Pointer of tester should move
				Other than above	0 V
26*3 (BR)	Ground	Thermo control amp.	Input	Ignition switch ON	0 V
				Evaporator is extremely low temperature	12 V

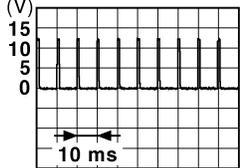
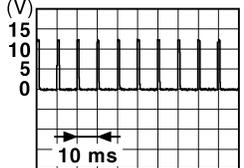
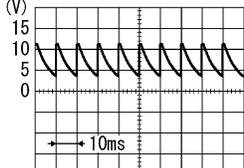
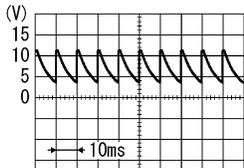
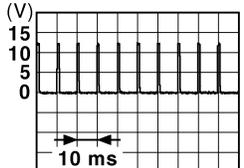
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
27 (Y)	Ground	A/C switch (Auto- matic air condition- er)	Input	A/C	OFF (A/C switch indicator: OFF)	 <small>JPMIA0012GB</small> 1.0 - 1.5 V
					ON (A/C switch indicator: ON)	0 V
		A/C switch (Manual c air conditioner)		A/C switch	OFF	 <small>JPMIA0012GB</small> 1.0 - 1.5 V
					ON	0 V
28 (LG)	Ground	Blower fan switch (With automatic air conditioner)	Input	Fan switch	Blower fan switch OFF	0 V
					Blower fan switch ON	 <small>PKIB4960J</small> 7.0 - 8.0 V
		Blower fan switch (Without automatic air conditioner)		Fan switch	Blower fan switch OFF	 <small>PKIB4960J</small> 7.0 - 8.0 V
					Blower fan switch ON	0 V
29 (SB)	Ground	Hazard switch	Input	Hazard switch	OFF	12 V
					ON	0 V
30 (L)	Ground	Back door opener switch	Input	Back door opener switch	Pressed	0 V
					Not pressed	 <small>JPMIA0012GB</small> 1.0 - 1.5 V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT 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 switches OFF (Wiper intermittent dial 4)
					Front fog lamp switch ON (Wiper intermittent dial 4)
					Rear fog lamp switch ON (Wiper intermittent dial 4)
					Rear wiper switch ON (Wiper intermittent dial 4)
Any of the condition below with all switches OFF					7.0 - 8.0 V
<ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7 					1.0 V
33 (Y)	Ground	Combination switch OUTPUT 4	Output	Combination switch	All switches OFF (Wiper intermittent dial 4)
					Lighting switch 1ST (Wiper intermittent dial 4)
					Lighting switch AUTO (Wiper intermittent dial 4)
					Rear wiper switch INT (Wiper intermittent dial 4)
Any of the condition below with all switches OFF					7.0 - 8.0 V
<ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6 					1.2 V

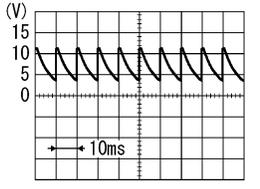
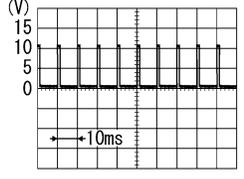
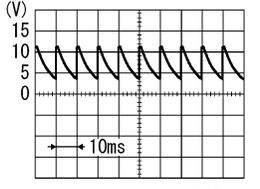
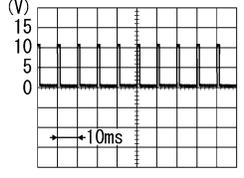
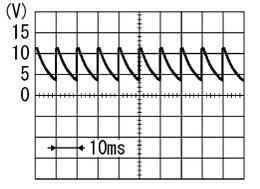
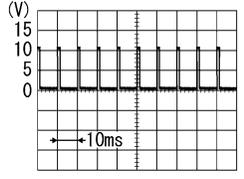
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BCM (BODY CONTROL MODULE)

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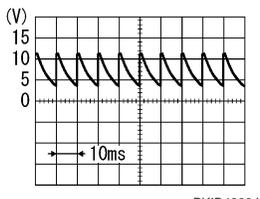
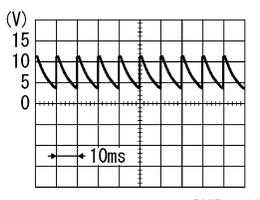
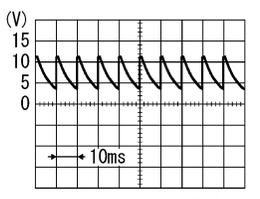
[WITHOUT INTELLIGENT KEY SYSTEM]

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
		Signal name	Input/ Output		
+	-				
37 (GR)	Ground	Key switch	Input	Insert mechanical key into ignition key cylinder	Battery voltage
				Remove mechanical key from ignition key cylinder	0 V
38 (R)	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	—	—
41 (LG)	Ground	Rear wiper stop position	Input	Ignition switch ON	12 V
				Any position other than rear wiper stop position	0 V
42 (LG)	Ground	Rear RH door switch	Input	Rear RH door switch	 7.0 - 8.0 V
				ON (When rear RH door opened)	0 V
43 (BR)	Ground	Rear LH door switch	Input	Rear LH door switch	 7.0 - 8.0 V
				ON (When rear LH door opened)	0 V
44 (SB)	Ground	Driver door switch	Input	Driver door switch	 7.0 - 8.0 V
				ON (When driver door opened)	0 V

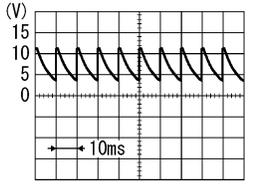
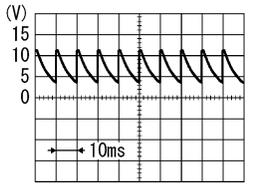
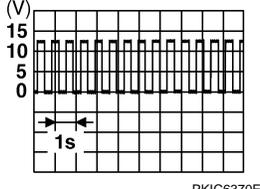
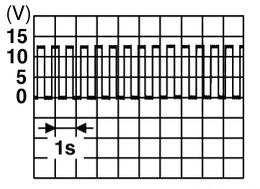
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BCM (BODY CONTROL MODULE)

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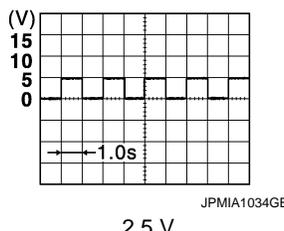
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Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
+	-					
45 (R)	Ground	Passenger door switch	Input	Passenger door switch	OFF (When passenger door closed)	 7.0 - 8.0 V
					ON (When passenger door opened)	0 V
47 (P)	Ground	Back door switch	Input	Back door switch	OFF (When back door closed)	 7.0 - 8.0 V
					ON (When back door opened)	0 V
48 (W)	Ground	Turn signal RH	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	 6.0 V
49 (V)	Ground	Turn signal LH	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	 6.0 V
50 (GR)	Ground	Back door open	Output	Back door	OFF (Actuator is not activated)	0 V
					OPEN (Actuator is activated)	12 V
51 (G)	Ground	Rear fog lamp	Output	Rear fog lamp	OFF	0 V
					ON	12 V
52*2 (V)	Ground	Super lock	Output	Super lock actuator	Actuator is activated	12 V
					Actuator is not activated	0 V
53 (P)	Ground	Rear wiper	Output	Ignition switch ON	Rear wiper switch OFF	0 V
					Rear wiper switch ON	12 V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	-					
55 (L)	Ground	Luggage room lamp	Output	Luggage room lamp	OFF	12 V
					ON	0 V
56 (W)	Ground	Driver door UN- LOCK	Output	Driver door	UNLOCK (Actuator is activated)	12 V
					Other than UNLOCK (Actuator is not activated)	0 V
57 (P)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
58 (P)	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
60 (BR)	Ground	Interior room lamp control	Output	Interior room lamp	OFF	12 V
					ON	0 V
63*3 (SB)	Ground	A/C indicator	Output	A/C indicator	OFF	12 V
					ON	0 V
64 (L)	Ground	Air bag signal	Input	Ignition switch	OFF	5 V
					ON	
65 (Y)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
66 (P)	Ground	P/W power supply (BAT)	Output	Ignition switch OFF		12 V
67 (L)	Ground	P/W power supply (IGN)	Output	Ignition switch ON		12 V
68 (SB)	Ground	Passenger door and rear door UNLOCK	Output	Passenger door and rear door	UNLOCK (Actuator is activated)	12 V
					Other than UNLOCK (Actuator is not activated)	0 V
69 (V)	Ground	All doors LOCK	Output	All doors	LOCK (Actuator is activated)	12 V
					Other than LOCK (Actuator is not activated)	0 V
70 (B)	Ground	Ground	Output	Ignition switch ON		0 V

NOTE:

- *1: Without automatic A/C
- *2: RHD models
- *3: With manual A/C
- *4: LHD models

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BCS

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Fail-safe

INFOID:000000006627749

FAIL-SAFE CONTROL BY DTC

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

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

FAIL-SAFE CONTROL BY LIGHT AND RAIN SENSOR MALFUNCTION

BCM detects the light and rain sensor serial link error and the light and rain sensor malfunction. BCM controls the following fail-safe when light and rain sensor has a malfunction.

Fail-safe Control

- Auto light control: Headlamp low beam, parking lamp, license plate lamp and tail lamp are turned ON.
- Front wiper control
 - Front wiper switch AUTO and sensing rain drop: The condition just before the activation of fail-safe is maintained until the front wiper switch is turned OFF.
 - Front wiper switch AUTO and not sensing rain drop: Front wiper is LO operation until the front wiper switch is turned off.

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.

FAIL-SAFE CONTROL OF COMBINATION SWITCH READING FUNCTION CAUSED BY LOW POWER SUPPLY VOLTAGE

If voltage of battery power supply lower, BCM maintains combination switch reading to the status when input voltage is less than approximately 9 V.

NOTE:

When voltage of battery power supply is approximately 9 V or more, combination switch reading function returns to normal operation.

DTC Inspection Priority Chart

INFOID:000000006627750

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

DTC Index

INFOID:00000000627751

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	Reference
U1000: CAN COMM	—	BCS-153
U1010: CONTROL UNIT (CAN)	—	BCS-154
B2190: NATS ANTENNA AMP	×	SEC-200
B2191: DIFFERENCE OF KEY	×	SEC-203
B2192: ID DISCORD BCM-ECM	×	SEC-204
B2193: CHAIN OF BCM-ECM	×	SEC-205
B2195: ANTI SCANNING	×	SEC-206
B2196: DONGLE NG	×	SEC-207

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BCS

WIRING DIAGRAM

BCM

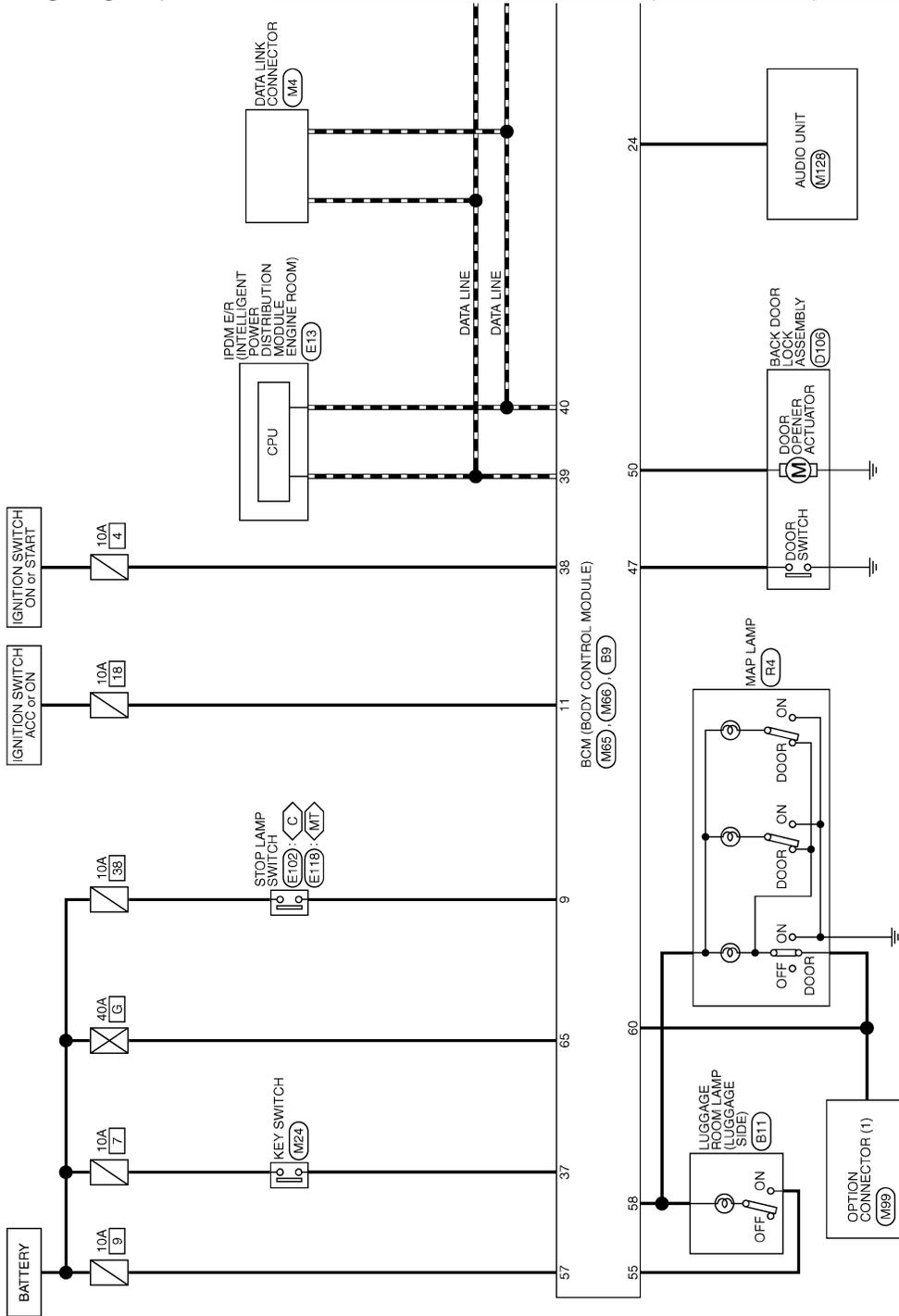
LHD

LHD : Wiring Diagram

INFOID:000000006659751

For connector terminal arrangements, harness layouts, and alphabets in a  (option abbreviation; if not described in wiring diagram), refer to [GI-12, "Connector Information/Explanation of Option Abbreviation"](#).

BCM (BODY CONTROL MODULE) (LHD MODELS WITHOUT INTELLIGENT KEY)



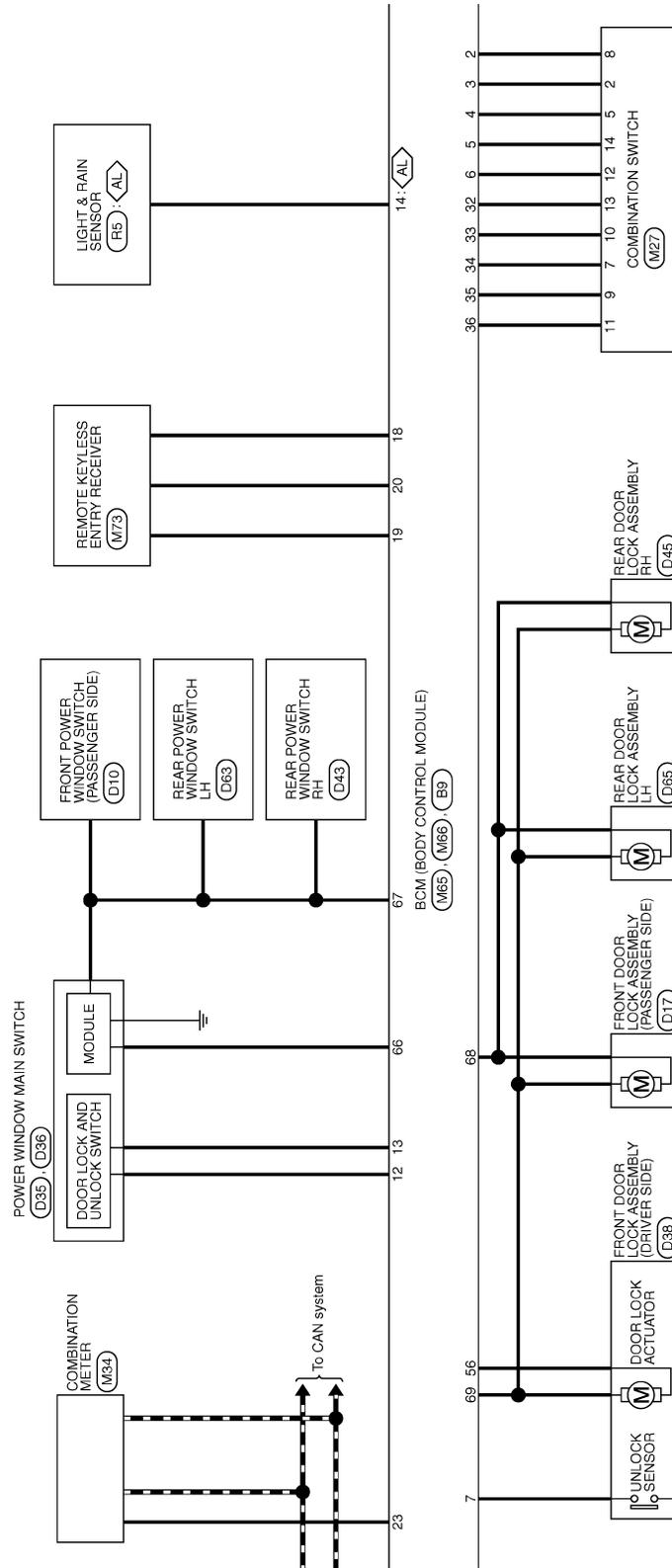
2010/07/07

JCMWA5859GB

BCM

< WIRING DIAGRAM >

[WITHOUT INTELLIGENT KEY SYSTEM]



JCMWA5860GB

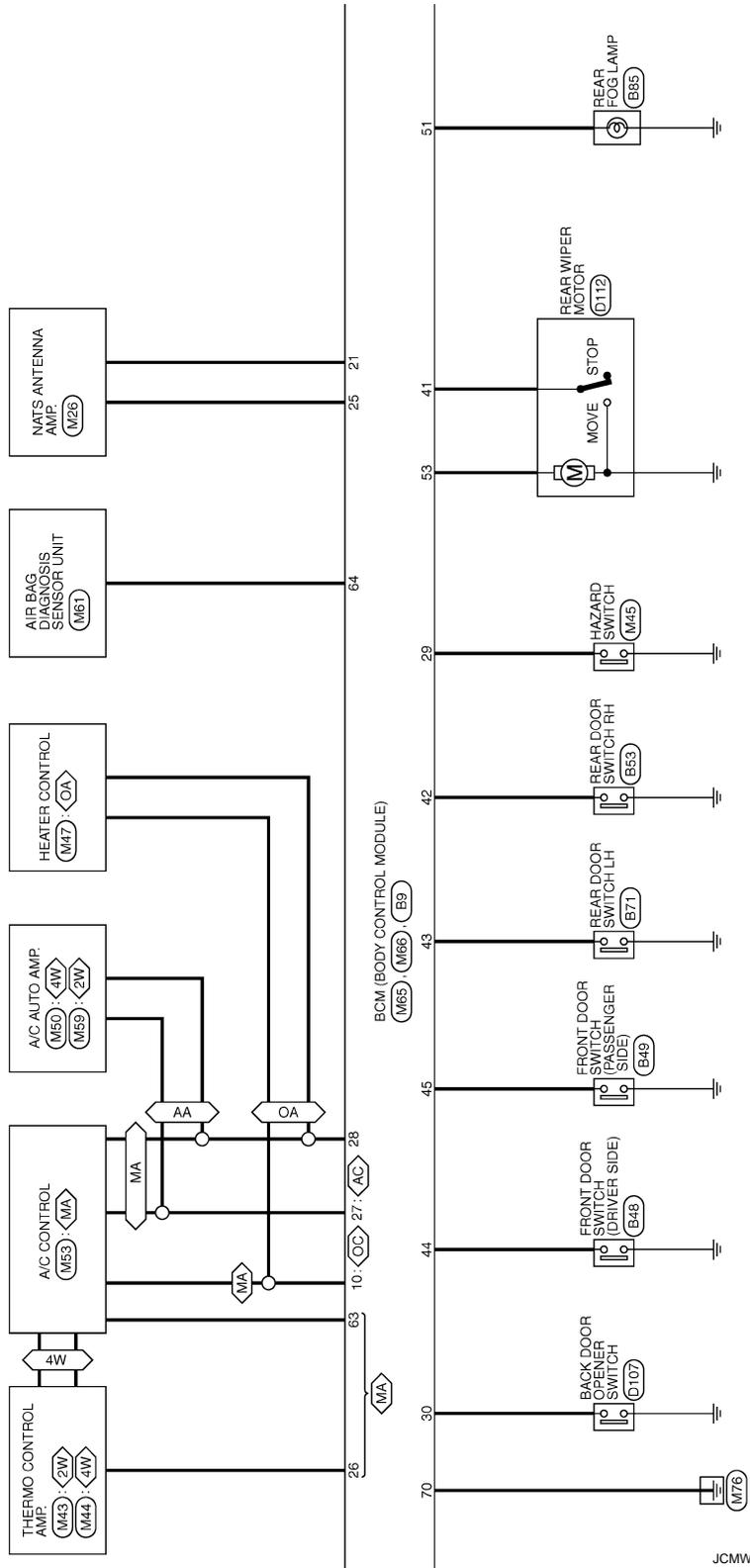
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BCM

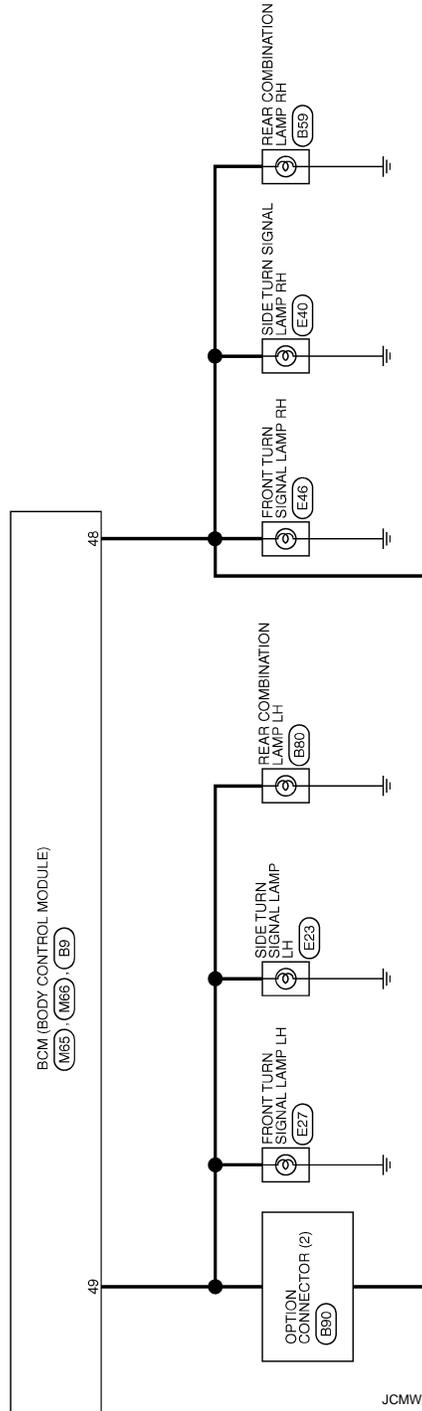
< WIRING DIAGRAM >

[WITHOUT INTELLIGENT KEY SYSTEM]



JCMWA5861GB

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JCMWA5862GB

RHD

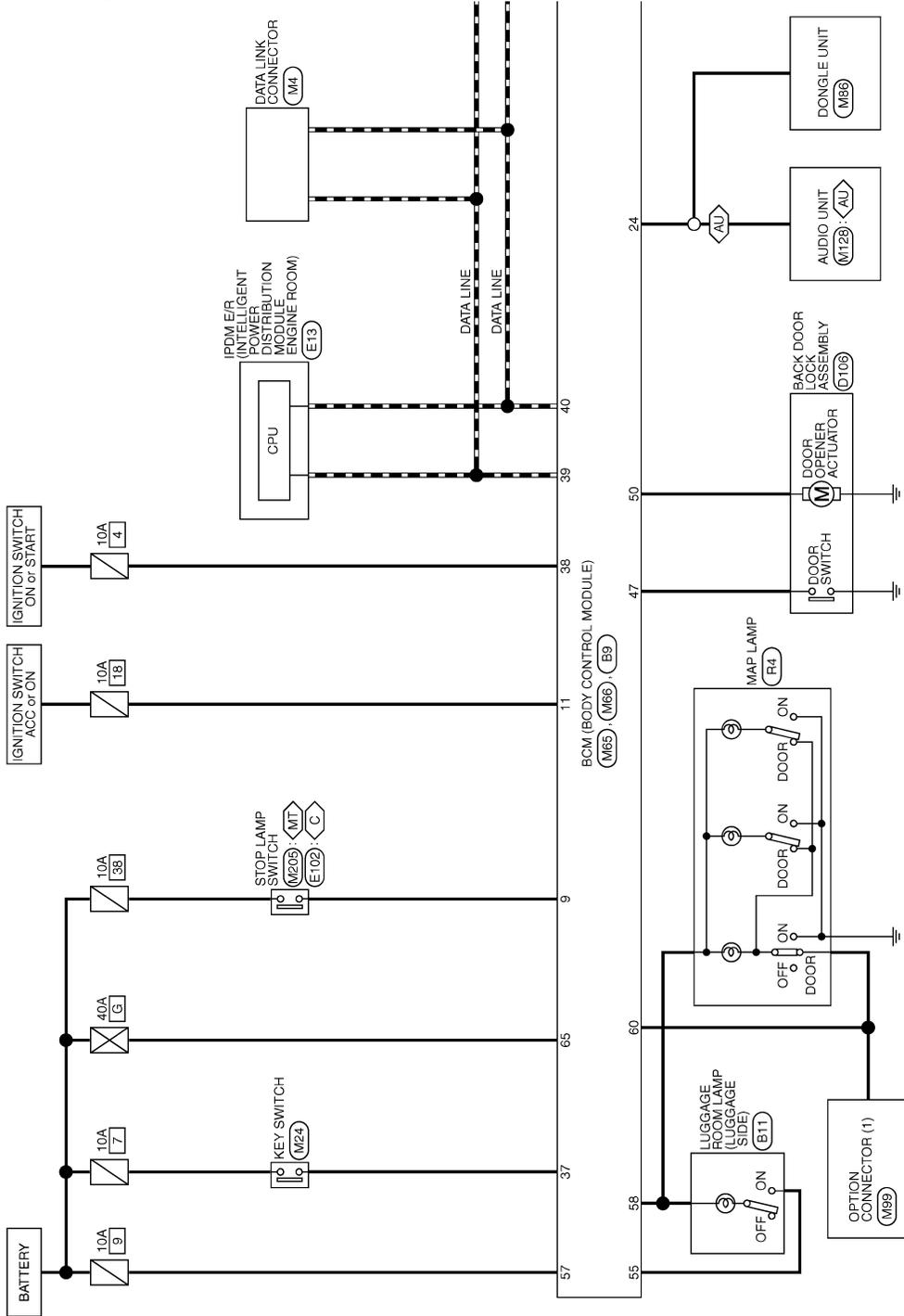
BCS

RHD : Wiring Diagram

INFOID:000000006659752

For connector terminal arrangements, harness layouts, and alphabets in a  (option abbreviation; if not described in wiring diagram), refer to [GI-12, "Connector Information/Explanation of Option Abbreviation"](#).

BCM (BODY CONTROL MODULE) (RHD MODELS WITHOUT INTELLIGENT KEY)



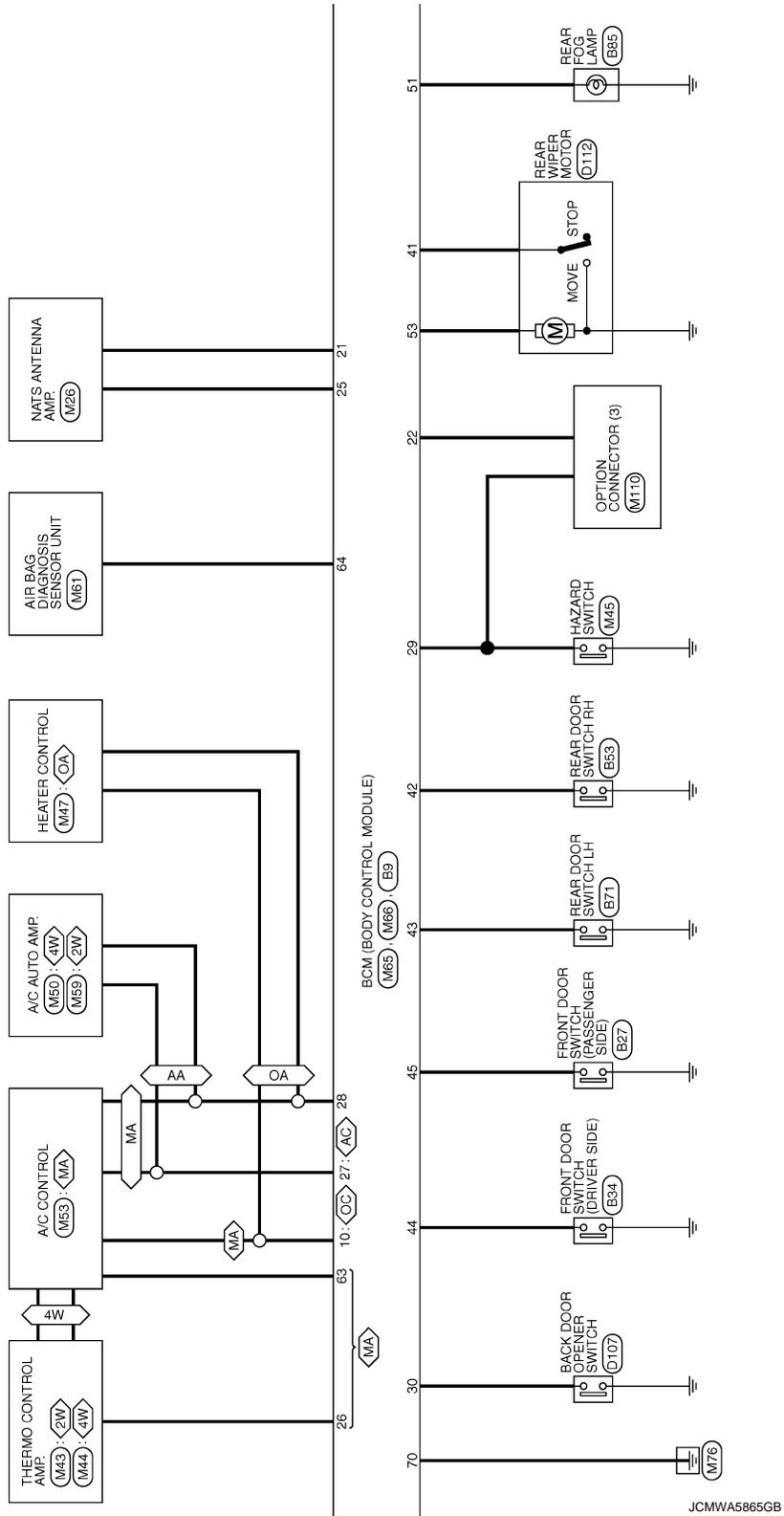
2010/07/07

JCMWA5863GB

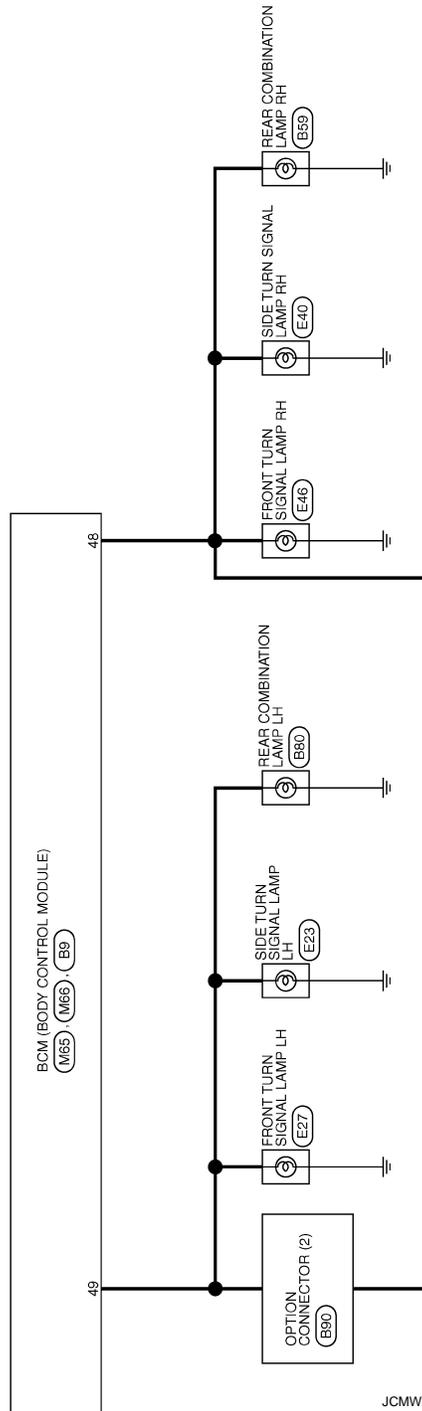
BCM

< WIRING DIAGRAM >

[WITHOUT INTELLIGENT KEY SYSTEM]



JCMWA5865GB



JCMWA5866GB

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ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

< BASIC INSPECTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

BASIC INSPECTION

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

Description

INFOID:000000006627753

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).

Work Procedure

INFOID:000000006627754

1.SAVING VEHICLE SPECIFICATION

ⓅCONSULT-III Configuration

Perform "READ CONFIGURATION" to save or print current vehicle specification. Refer to [BCS-151, "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-161, "Removal and Installation"](#).

>> 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-151, "Work Procedure"](#).

>> GO TO 4.

4.INITIALIZE BCM (NATS)

Perform BCM initialization. (NATS)

>> WORK END

CONFIGURATION (BCM)

Description

INFOID:000000006627755

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

NOTE:

Manual setting item: Items which need selection by vehicle specifications

Automatic setting item: Items which are written in automatically (Setting can not be changed)

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" when performing operations other than the below.
 - Replacing with new BCM
 - Changing "SECURITY ALARM SET(SIREN)" of work support from ON to OFF*

NOTE:

*: Perform configuration in "WRITE CONFIGURATION - Manual selection" after performing this work support.

Work Procedure

INFOID:000000006627756

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-152, "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".

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CONFIGURATION (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< BASIC INSPECTION >

>> GO TO 4.

4. OPERATION CHECK

Confirm that each function controlled by BCM operates normally.

>> WORK END

Configuration list

INFOID:000000006627757

CAUTION:

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

2WD MODELS

SETTING ITEM		NOTE
Items	Setting value	
CAN CONNECTION UNIT	MODE4 ⇔ WITHOUT	<ul style="list-style-type: none">• MODE4: Except M/T models• WITHOUT: M/T models
AUTO LIGHT	WITH ⇔ WITHOUT	—
HANDLE	RHD ⇔ LHD	—
PTC HEATER	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 with automatic air conditioning system• AUTO A/C: With automatic air conditioning system
THEFT ALARM	WITH ⇔ WITHOUT	<ul style="list-style-type: none">• WITH: With theft warning alarm• WITHOUT: Without theft warning alarm

⇔: Items which confirm vehicle specifications

4WD MODELS

SETTING ITEM		NOTE
Items	Setting value	
AUTO LIGHT	WITH ⇔ WITHOUT	—
HANDLE	RHD ⇔ LHD	—
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 with automatic air conditioning system• AUTO A/C: With automatic air conditioning system
THEFT ALARM	WITH ⇔ WITHOUT	<ul style="list-style-type: none">• WITH: With theft warning alarm• WITHOUT: Without theft warning alarm

⇔: Items which confirm vehicle specifications

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM

Description

INFOID:0000000006627758

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-31, "CAN COMMUNICATION SYSTEM : CAN Communication Signal Chart"](#).

DTC Logic

INFOID:0000000006627759

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:0000000006627760

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-17, "Trouble Diagnosis Flow Chart"](#).
- NO >> Refer to [GI-42, "Intermittent Incident"](#).

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U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

U1010 CONTROL UNIT (CAN)

DTC Logic

INFOID:000000006627761

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:000000006627762

1. REPLACE BCM

When DTC "U1010" is detected, replace BCM.

>> Replace BCM. Refer to [BCS-161. "Removal and Installation"](#).

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:000000006627763

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	9
	G
ACC power supply	18
Ignition power supply	4

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		
(+)			OFF	ACC	ON
BCM		Ground	OFF	ACC	ON
Connector	Terminal		OFF	ACC	ON
M66	65		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		Continuity
M66	70		Existed

Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

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COMBINATION SWITCH OUTPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

COMBINATION SWITCH OUTPUT CIRCUIT

Diagnosis Procedure

INFOID:000000006627764

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.

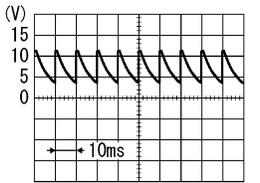
System	BCM		Ground	Continuity
	Connector	Terminal		
OUTPUT 1	M65	36	Ground	Not existed
OUTPUT 2		35		
OUTPUT 3		34		
OUTPUT 4		33		
OUTPUT 5		32		

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		
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-161, "Removal and Installation"](#).

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COMBINATION SWITCH INPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

COMBINATION SWITCH INPUT CIRCUIT

Diagnosis Procedure

INFOID:000000006627765

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-125 . "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-161](#). "Removal and Installation".

COMBINATION SWITCH INPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

No >> Replace combination switch.

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COMBINATION SWITCH SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

SYMPTOM DIAGNOSIS

COMBINATION SWITCH SYSTEM SYMPTOMS

Symptom Table

INFOID:000000006627766

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	RR FOG SW	
	×	×						×	×									A
×			×									×		×				B
						×	×				×		×					C
					×		×			×					×			D
				×			×									×	×	E
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		×		×		×	×											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-156. "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-158. "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-161. "Removal and Installation" .
L	Combination switch	Replace combination switch.

REMOVAL AND INSTALLATION

BCM (BODY CONTROL MODULE)

Removal and Installation

INFOID:000000000627767

CAUTION:

Before replacing BCM, perform “READ CONFIGURATION” to save or print current vehicle specification. Refer to [BCS-150, "Description"](#).

REMOVAL (RHD MODELS)

1. Remove glove box assembly. Refer to [IP-13, "Removal and Installation"](#).
2. Remove harness clip.
3. Remove BCM mounting screws.
4. Remove BCM and disconnect the connectors.
5. Remove relays and relay mounting bracket from BCM.

REMOVAL (LHD MODELS)

1. Remove instrument lower panel. Refer to [IP-13, "Removal and Installation"](#).
2. Remove harness clip.
3. Remove BCM mounting screws.
4. Remove BCM and disconnect the connectors.
5. Remove relays and relay mounting bracket from BCM.

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-151, "Work Procedure"](#).

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BCS

COMBINATION SWITCH

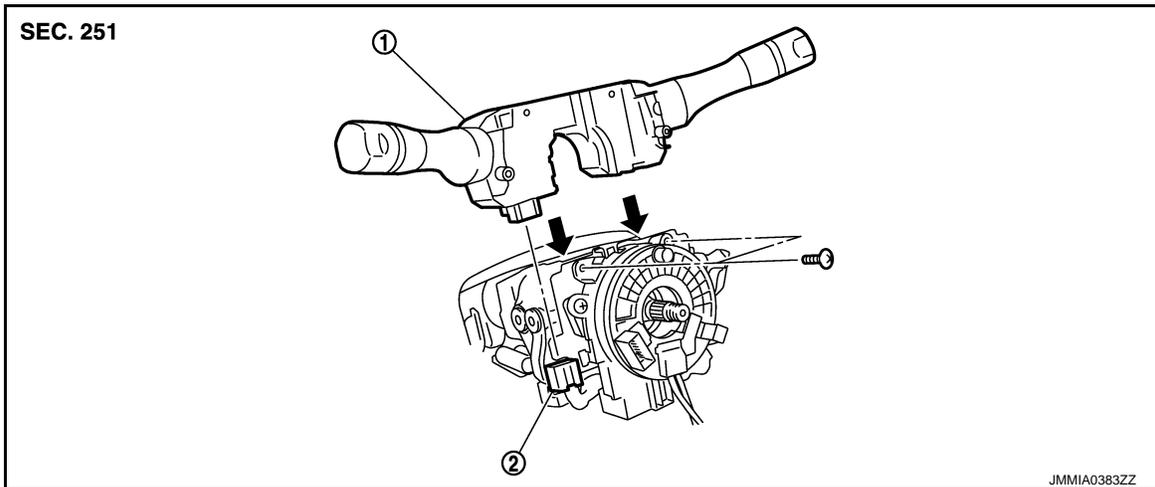
< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

COMBINATION SWITCH

Exploded View

INFOID:000000006706009



1. Combination switch

2. Combination switch connector

Removal and Installation

INFOID:000000006627768

REMOVAL

1. Remove steering column cover. Refer to [IP-13. "Removal and Installation"](#).
2. Remove screws.
3. Disconnect the connector.
4. Pull up the combination switch to remove it.

INSTALLATION

Install in the reverse order of removal.