SECTION BCS
BODY CONTROL SYSTEM

CONTENTS

BCM

PRECAUTION

PRECAUTIONS

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

INFOID:0000000014666394

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. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

WARNING:

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

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

WARNING:

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

PREPARATION

PREPARATION

Special Service Tool

INFOID:0000000014387207

The actual shape of the tools may differ from those illustrated here.

Tool number (TechMate No.) Tool name	Description
— (J-50190) Signal Tech II  ALEIA0131ZZ	• Activate and display TPMS transmitter IDs • Display tire pressure reported by the TPMS transmitter • Read TPMS DTCs • Register TPMS transmitter IDs • Test remote keyless entry keyfob relative to signal strength • Check Intelligent Key relative signal strength • Confirm vehicle Intelligent Key antenna signal strength • Compatible with future sensors • Equipped with a display

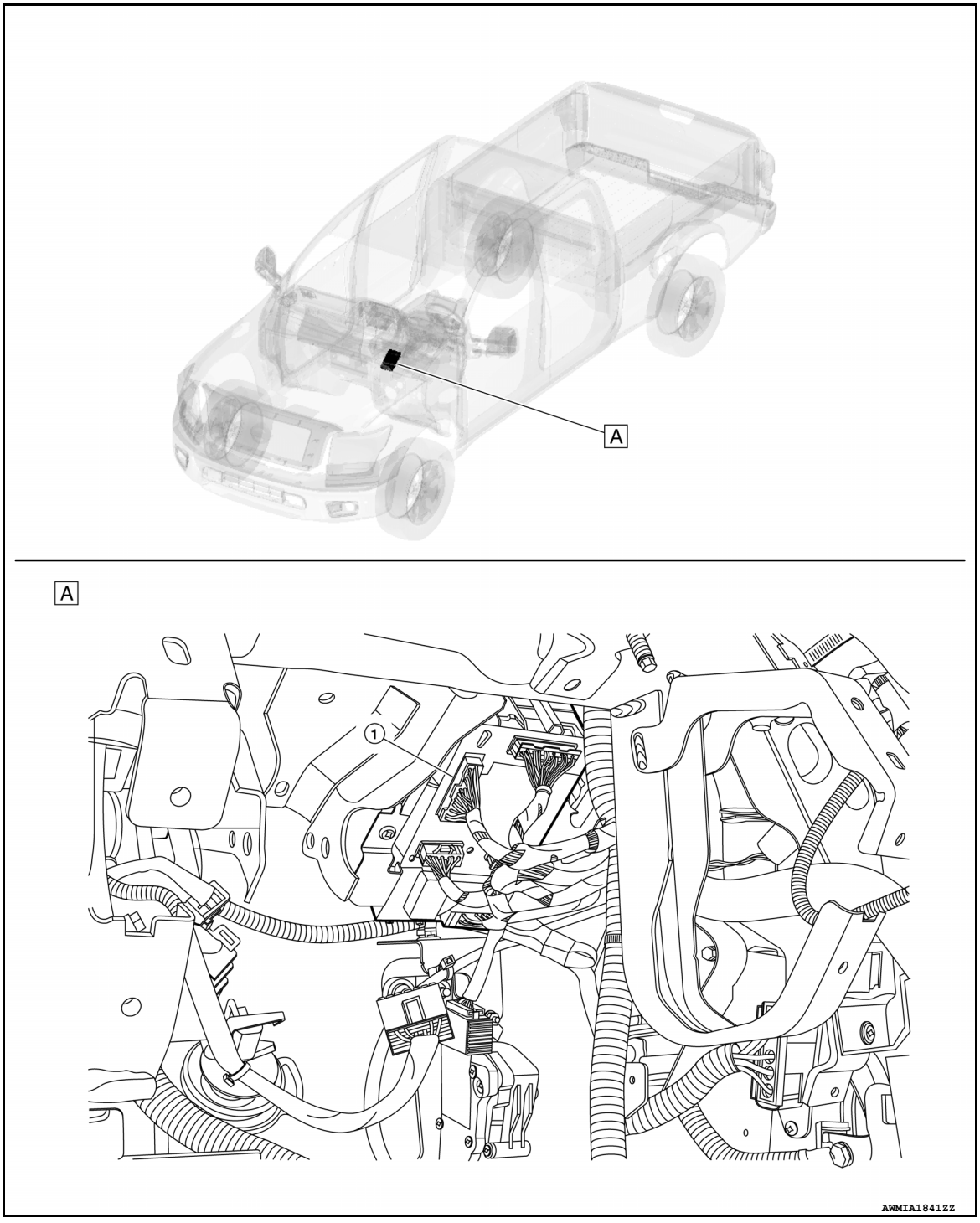
SYSTEM DESCRIPTION

COMPONENT PARTS

BODY CONTROL SYSTEM

BODY CONTROL SYSTEM : Component Parts Location

INFOID:0000000014387208



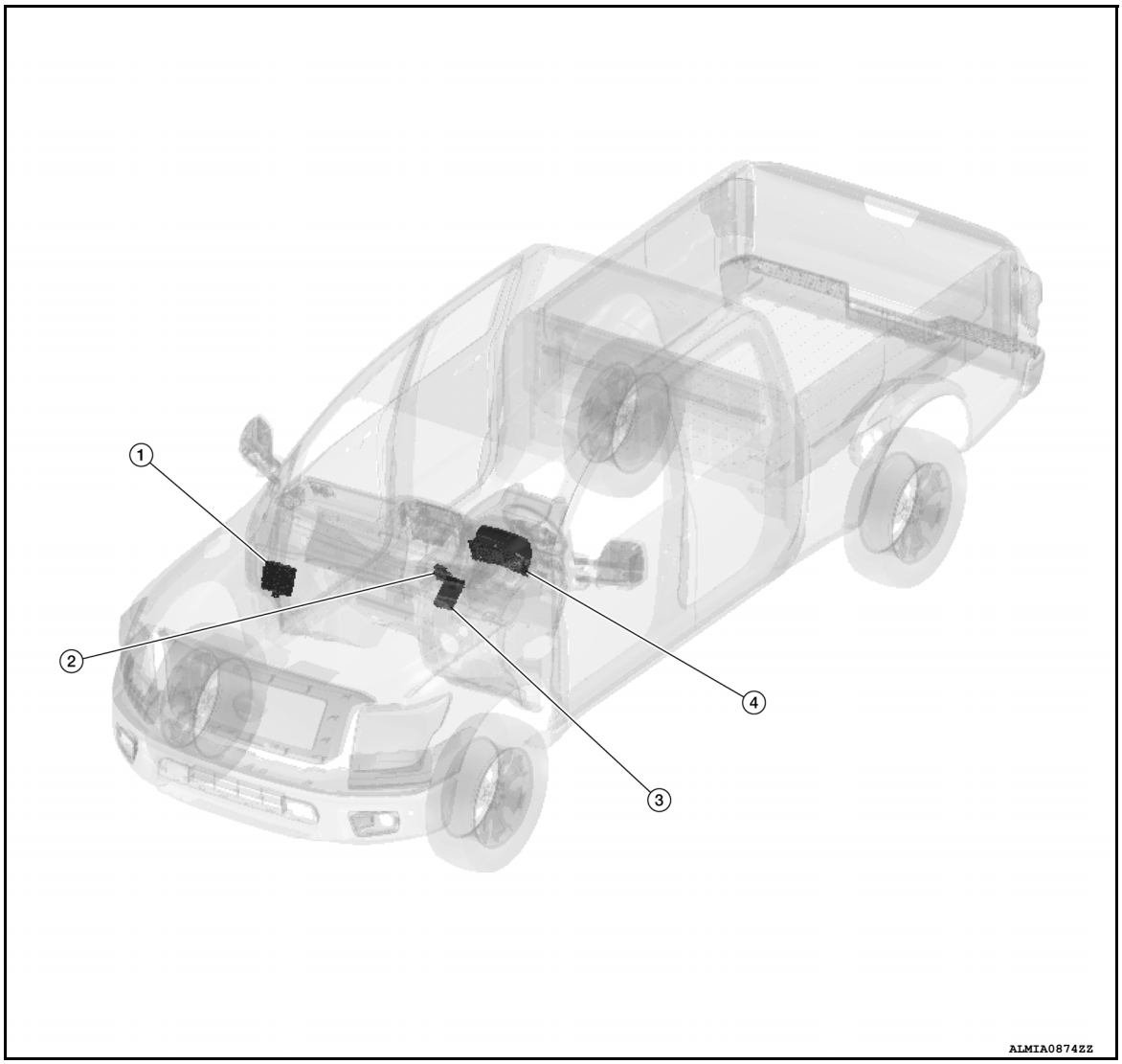
A. LH side of dash (view from drivers footwell with steering column removed)

1. BCM

POWER CONSUMPTION CONTROL SYSTEM

POWER CONSUMPTION CONTROL SYSTEM : Component Parts Location

INFOID:0000000014387209



1. IPDM E/R
   Refer to PCS-5, "Component Parts Location".
2. CAN gateway
   Refer to LAN-223, "Component Parts Location".
3. BCM
   Refer to BCS-5, "BODY CONTROL SYSTEM : Component Parts Location".
4. Combination meter
   Refer to MWI-8, "METER SYSTEM : Component Parts Location".

SYSTEM

BODY CONTROL SYSTEM

BODY CONTROL SYSTEM : System Description

INFOID:0000000014387210

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 and allows for various settings to be changed.

BCM CONTROL FUNCTION LIST

System	Refer to
Combination switch reading system	BCS-8, "COMBINATION AND LIGHTING SWITCH READING SYSTEM : System Description"
Signal buffer system	BCS-15, "SIGNAL BUFFER SYSTEM : System Description"
Power consumption control system	BCS-16, "POWER CONSUMPTION CONTROL SYSTEM : System Description"
Shipping mode control system	BCS-18, "SHIPPING MODE CONTROL SYSTEM : System Description"
Auto light system	EXL-160, "AUTO LIGHT SYSTEM : System Description" (LED type headlamp) EXL-11, "AUTO LIGHT SYSTEM : System Description" (Halogen type headlamp)
Headlamp system	EXL-159, "HEADLAMP SYSTEM : System Description" (LED type headlamp) EXL-11, "HEADLAMP SYSTEM : System Description" (Halogen type headlamp)
Daytime running light system	EXL-161, "DAYTIME RUNNING LIGHT SYSTEM : System Description" (LED type headlamp) EXL-12, "DAYTIME RUNNING LIGHT SYSTEM : System Description" (Halogen type headlamp)
Front fog lamp system	EXL-164, "FRONT FOG LAMP SYSTEM : System Description" (LED type headlamp) EXL-15, "FRONT FOG LAMP SYSTEM : System Description" (Halogen type headlamp)
Turn signal and hazard warning lamp system	EXL-162, "TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM : System Description" (LED type headlamp) EXL-12, "TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM : System Description" (Halogen type headlamp)
Parking, license plate and tail lamp system	EXL-163, "PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMP SYSTEM : System Description" (LED type headlamp) EXL-13, "PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMP SYSTEM : System Description" (Halogen type headlamp)
Exterior lamp battery saver system	EXL-165, "EXTERIOR LAMP BATTERY SAVER SYSTEM : System Description" (LED type headlamp) EXL-11, "HEADLAMP SYSTEM : System Description" (Halogen type headlamp)
Interior room lamp battery saver system	INL-7, "INTERIOR ROOM LAMP CONTROL SYSTEM : System Description"
Interior room lamp control system	
Front wiper and washer system	WW-9, "FRONT WIPER AND WASHER SYSTEM : System Description"

System		Refer to
Warning chime system		WCS-7, "WARNING CHIME SYSTEM : System Description"
Door lock system		DLK-17, "System Description"
Nissan vehicle immobilizer system (NVIS)		SEC-12, "NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS : System Description"
Vehicle security system		SEC-14, "VEHICLE SECURITY SYSTEM : System Description"
Panic alarm		
Rear window defogger system		DEF-7, "System Description"
Intelligent Key system/engine start system	Door lock function	DLK-20, "DOOR LOCK FUNCTION : System Description"
	Warning function	DLK-24, "WARNING FUNCTION : System Description"
	Key reminder function	DLK-27, "KEY REMINDER FUNCTION : System Description"
	Engine start function	SEC-9, "INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION : System Description"
Power window system		PWC-9, "System Description"
RAP (retained accessory power) system		BCS-31, "RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)"

BODY CONTROL SYSTEM : Fail Safe

INFOID:0000000014387211

Display contents of CONSULT	Fail-safe	Cancellation
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI-SCANNING	Inhibit engine cranking	Ignition switch ON → OFF
B2560: START POW SUP CIRC	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent: • Starter control relay signal • Starter relay status signal
B2562: LOW VOLTAGE	Inhibit engine cranking	100 ms after the power supply voltage increases to more than 8.8 V
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent: • Starter motor relay control signal • Starter relay status signal (CAN)
B260A: IGN RELAY	Inhibit engine cranking	500 ms after the following conditions are fulfilled: • IGN relay (IPDM E/R) control signal: OFF (Battery voltage) • Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) • Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)
B261E: FUEL MIS CONFIG	Inhibit engine cranking	BCM initialization

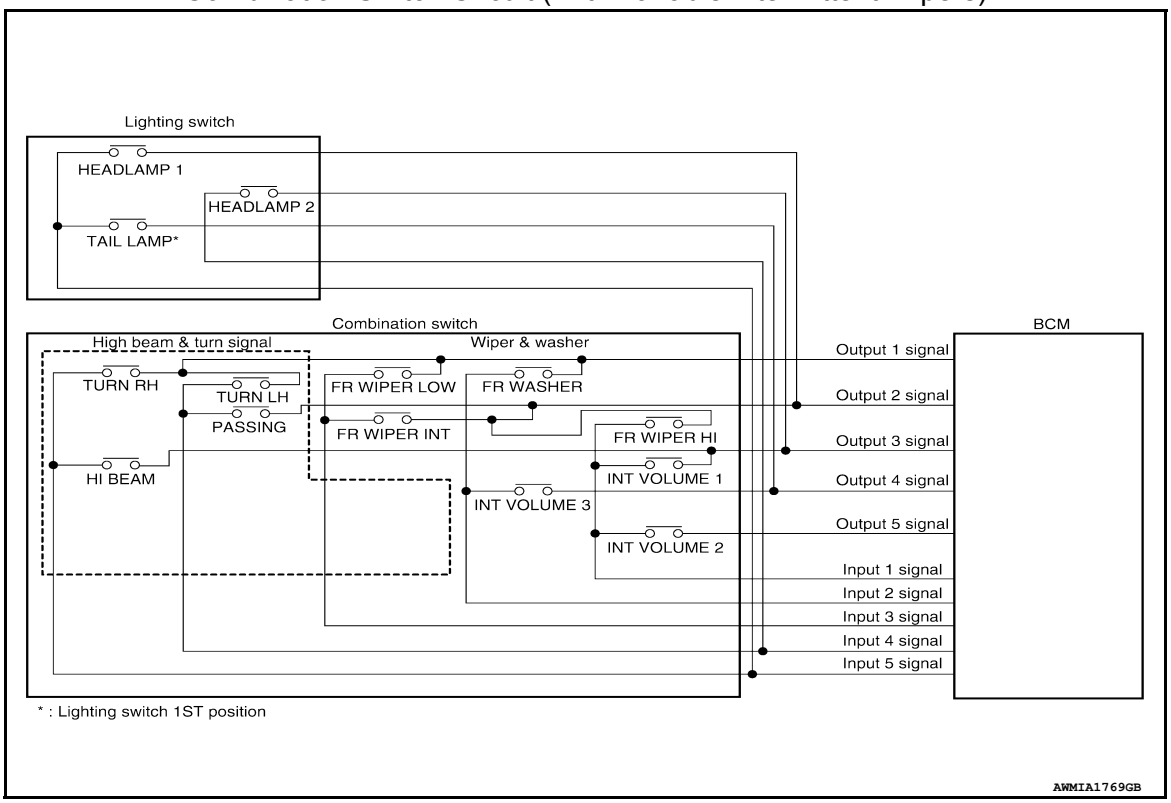
COMBINATION AND LIGHTING SWITCH READING SYSTEM

COMBINATION AND LIGHTING SWITCH READING SYSTEM : System Description

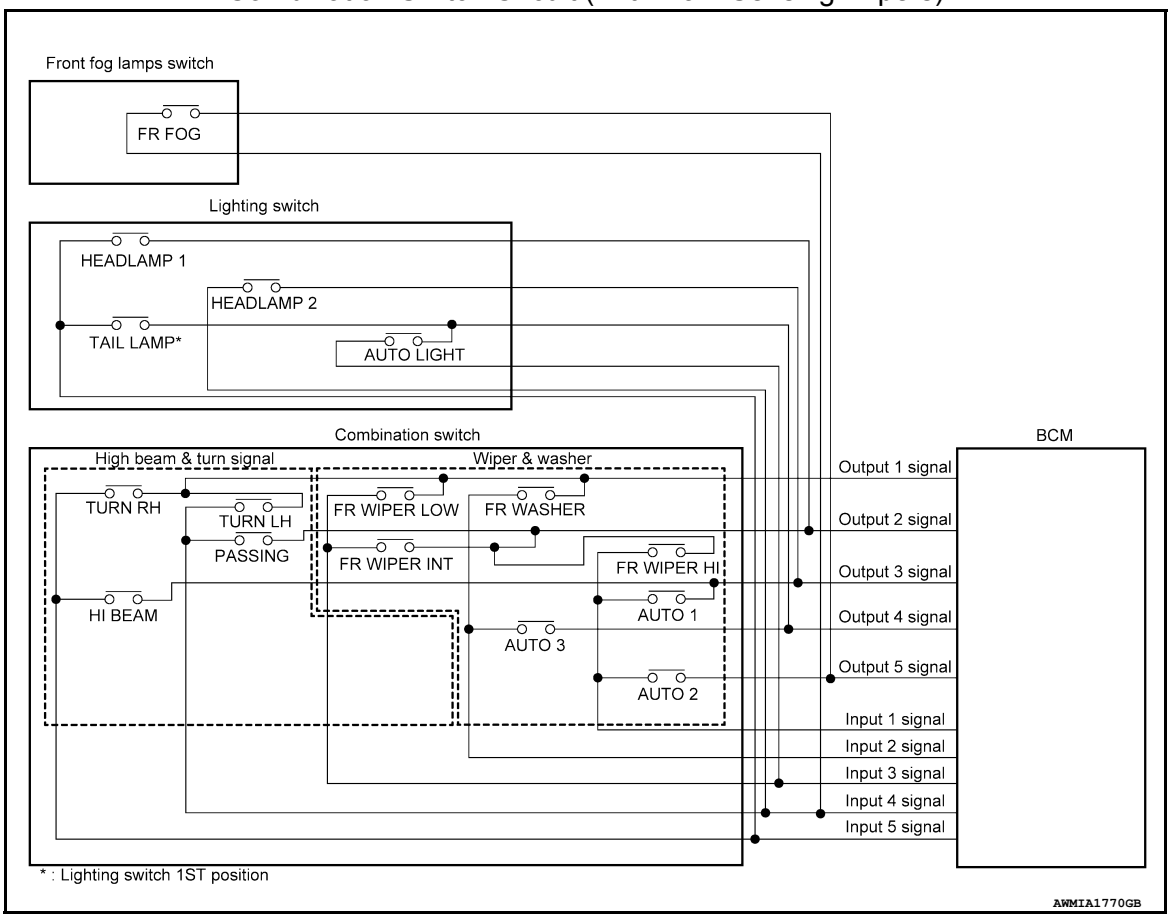
INFOID:0000000014387212

SYSTEM DIAGRAM

Combination Switch Circuit (With Variable Intermittent Wipers)



Combination Switch Circuit (With Rain Sensing Wipers)

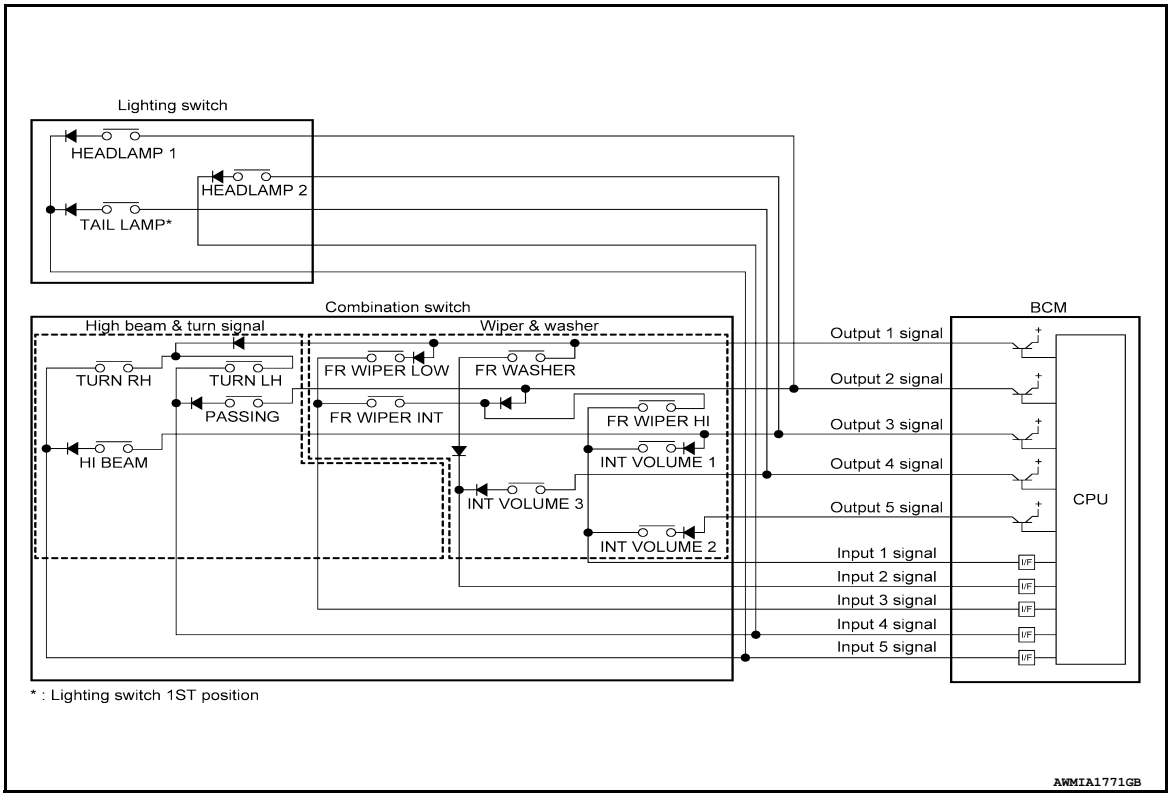


OUTLINE

- BCM reads the status of the combination and lighting switches (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 states.

COMBINATION AND LIGHTING SWITCH MATRIX (WITH VARIABLE INTERMITTENT WIPERS)

Combination Switch Circuit (With Variable Intermittent Wipers)

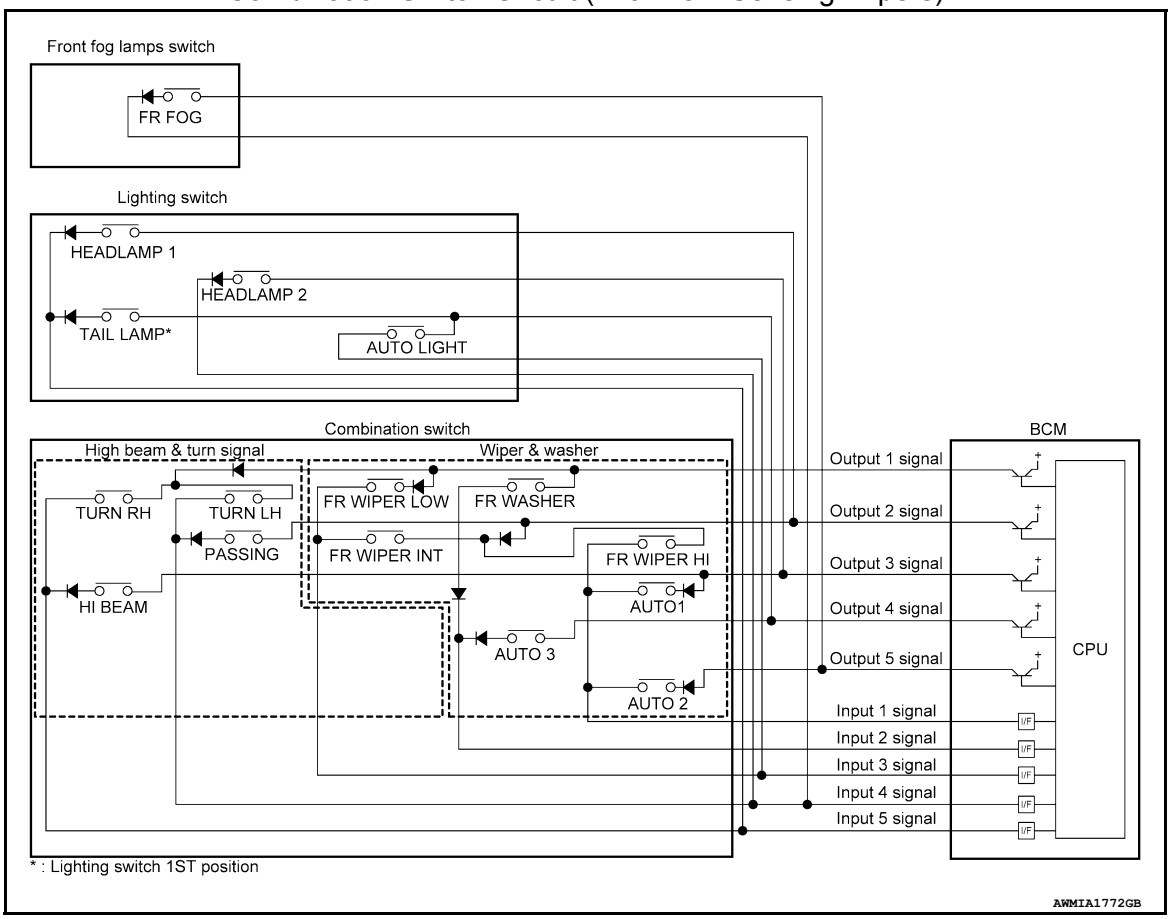


Combination and lighting switch INPUT-OUTPUT system list

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

COMBINATION AND LIGHTING SWITCH MATRIX (WITH RAIN SENSING WIPERS)

Combination Switch Circuit (With Rain Sensing Wipers)



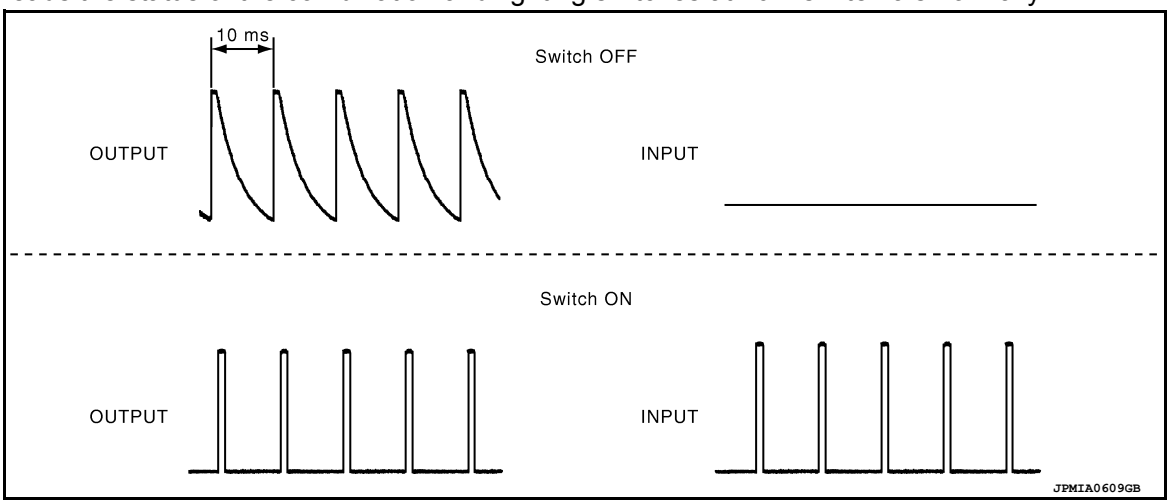
Combination and lighting switch INPUT-OUTPUT system list

System	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5
OUTPUT 1	—	FR WASHER	FR WIPER LOW	TURN LH	TURN RH
OUTPUT 2	FR WIPER HI	—	FR WIPER INT	PASSING	HEADLAMP 1
OUTPUT 3	AUTO 1	—	—	HEADLAMP 2	HI BEAM
OUTPUT 4	—	AUTO 3	AUTO LIGHT	—	TAIL LAMP
OUTPUT 5	AUTO 2	—	—	FR FOG	—

COMBINATION AND LIGHTING SWITCH READING FUNCTION

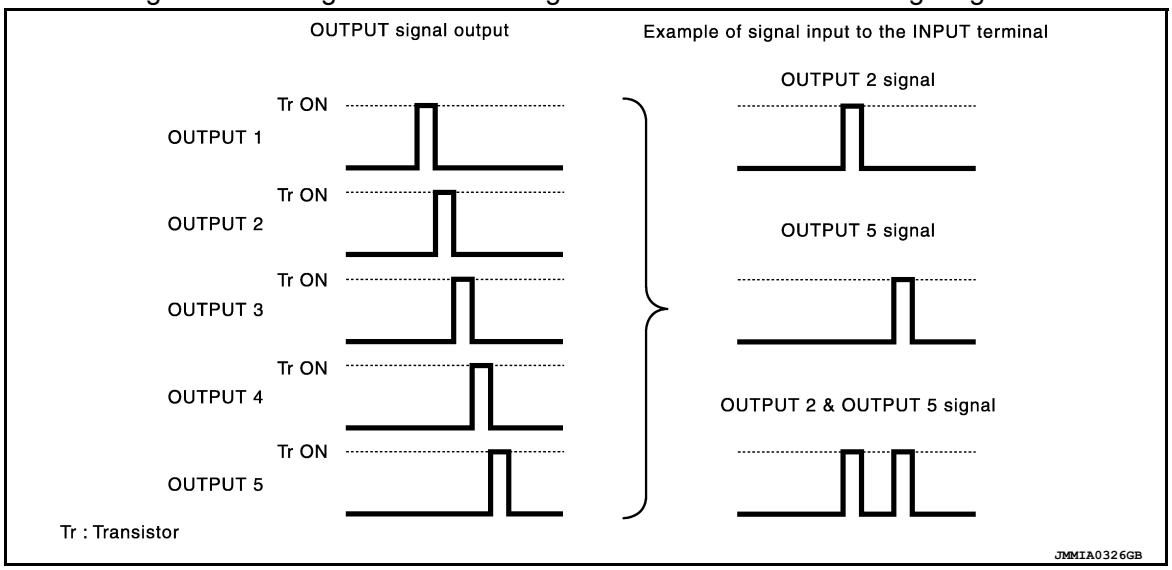
Description

- BCM reads the status of the combination and lighting switches at 10 ms intervals normally.



NOTE:
BCM reads the status of the combination and lighting switches at 60 ms intervals when BCM is controlled at low power consumption control mode.

- BCM operates as follows and judges the status of the combination and lighting switches.
- 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 and lighting switches.



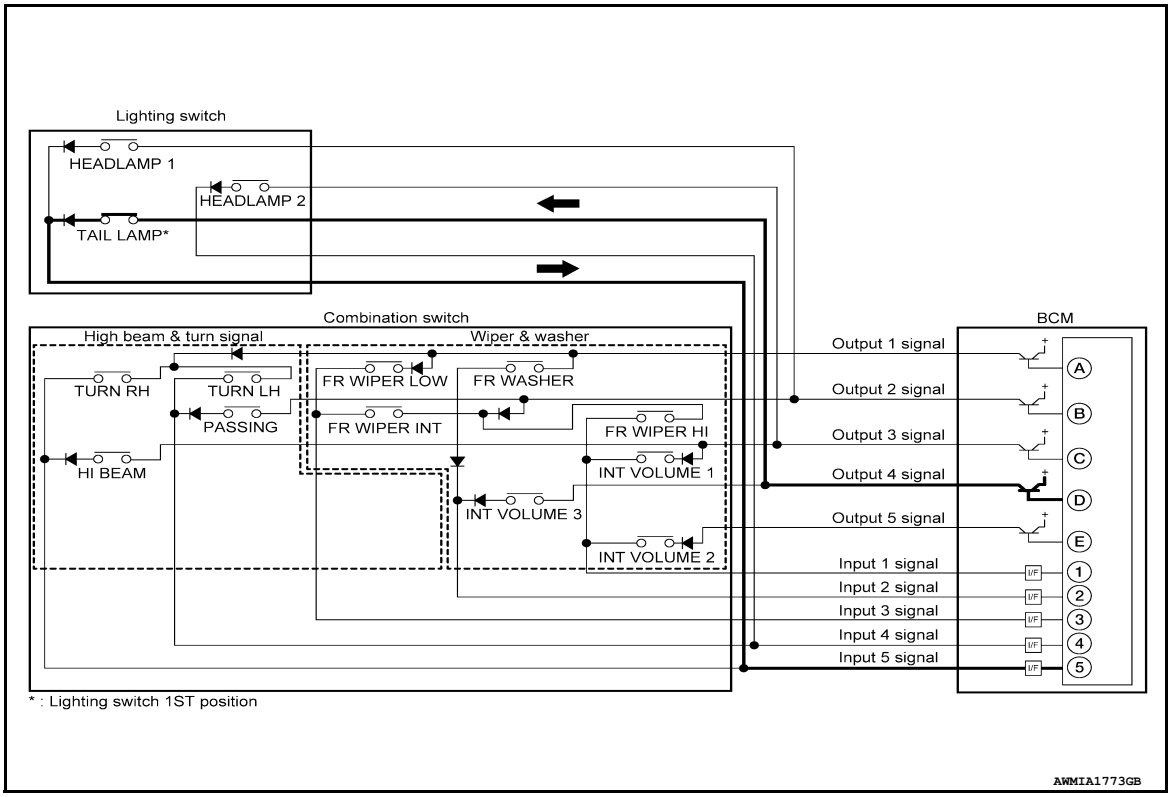
Operation Example

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

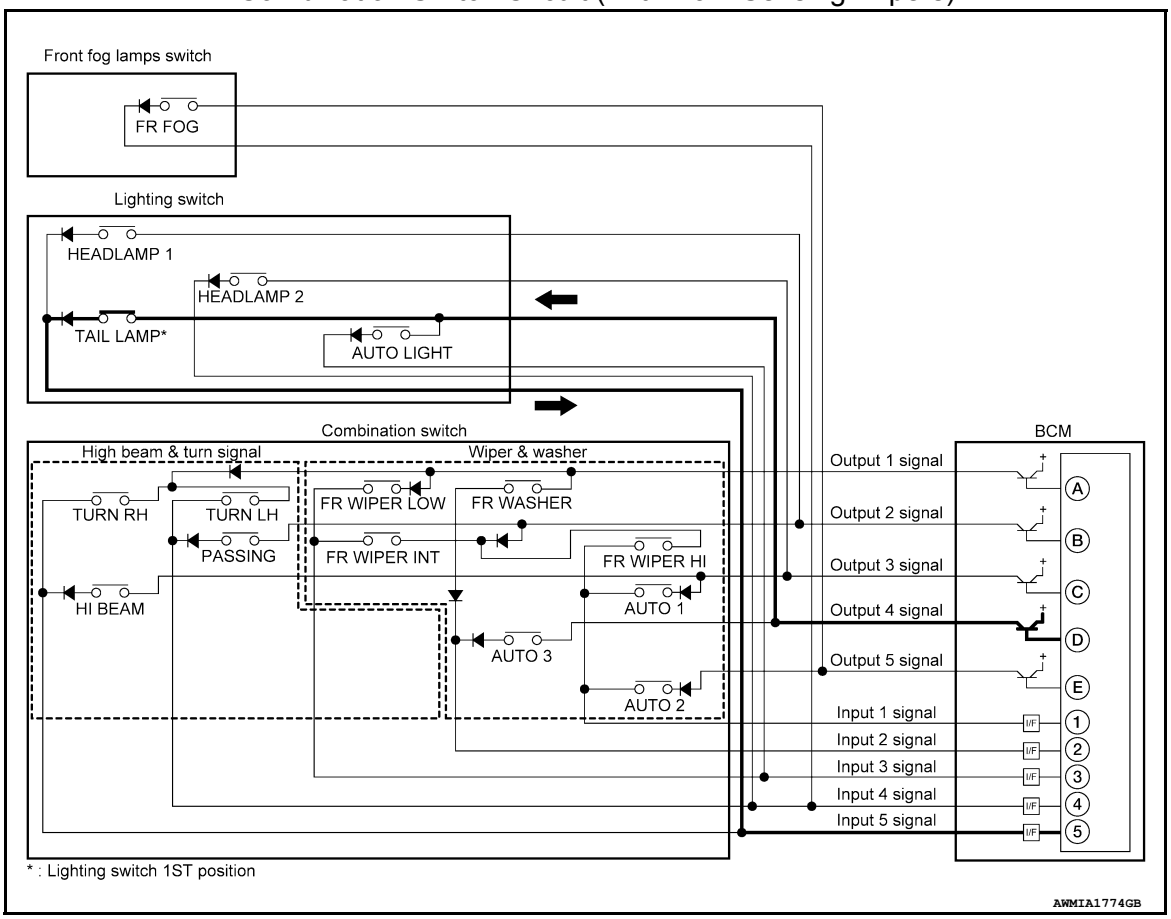
Example 1: When a switch (TAIL LAMP) is turned ON

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

Combination Switch Circuit (With Variable Intermittent Wipers)



Combination Switch Circuit (With Rain Sensing Wipers)

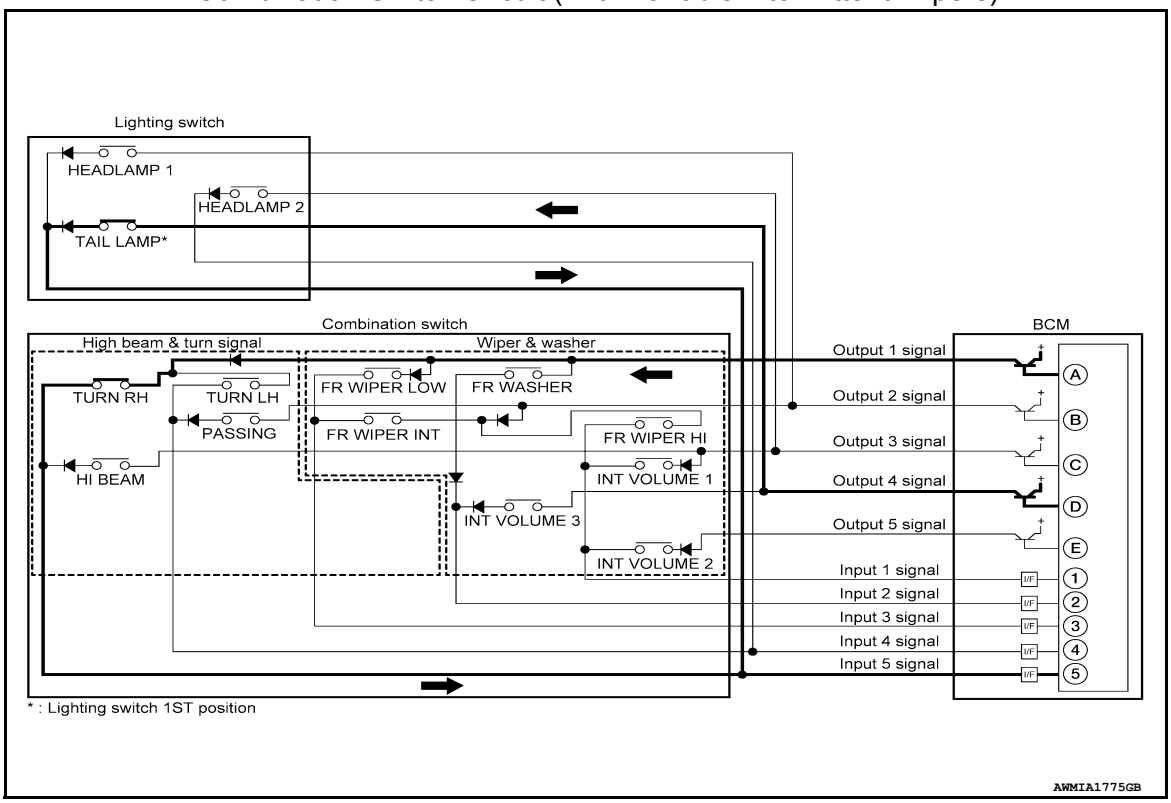


- BCM detects the combination and lighting switch status signal “5D” when the signal of OUTPUT 4 is input to INPUT 5.
- BCM judges that the TAIL LAMP switch is ON when the signal “5D” is detected.

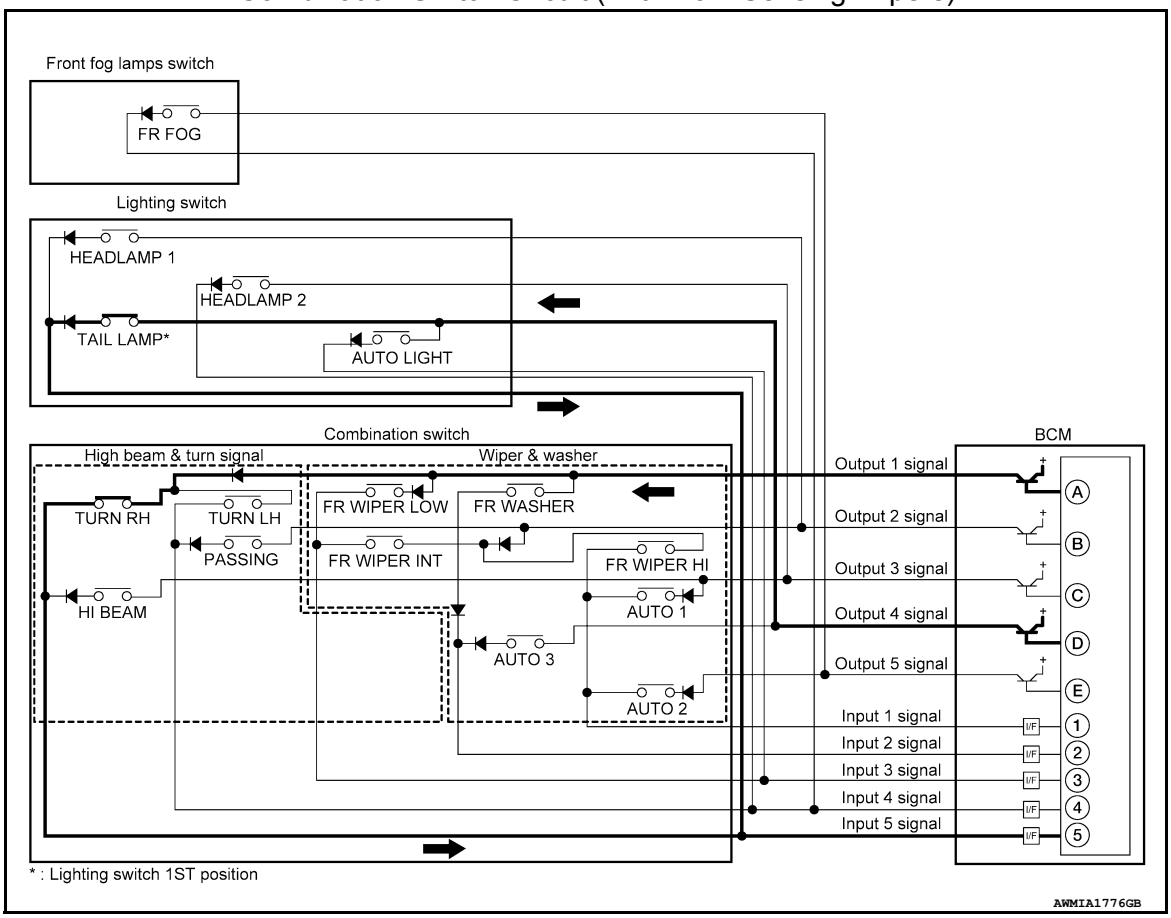
Example 2: When some switches (TURN RH, TAIL LAMP) are turned ON

- 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.

Combination Switch Circuit (With Variable Intermittent Wipers)



Combination Switch Circuit (With Rain Sensing Wipers)



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

WIPER INTERMITTENT DIAL POSITION (WITH VARIABLE INTERMITTENT WIPERS)

BCM judges the wiper intermittent dial 1 - 5 by the status of INT VOLUME 1, 2 and 3 switches.

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

NOTE:

For details of wiper intermittent dial position, refer to WW-9, "FRONT WIPER AND WASHER SYSTEM : System Description".

WIPER AUTO DIAL POSITION (WITH RAIN SENSING WIPERS)

BCM judges the wiper auto dial 1 - 4 by the status of AUTO 1, 2 and 3 switches.

Wiper auto dial position	Switch status		
	AUTO 1	AUTO 2	AUTO 3
1	OFF	ON	OFF
2	OFF	OFF	ON
3	OFF	OFF	OFF
4	ON	ON	OFF

NOTE:

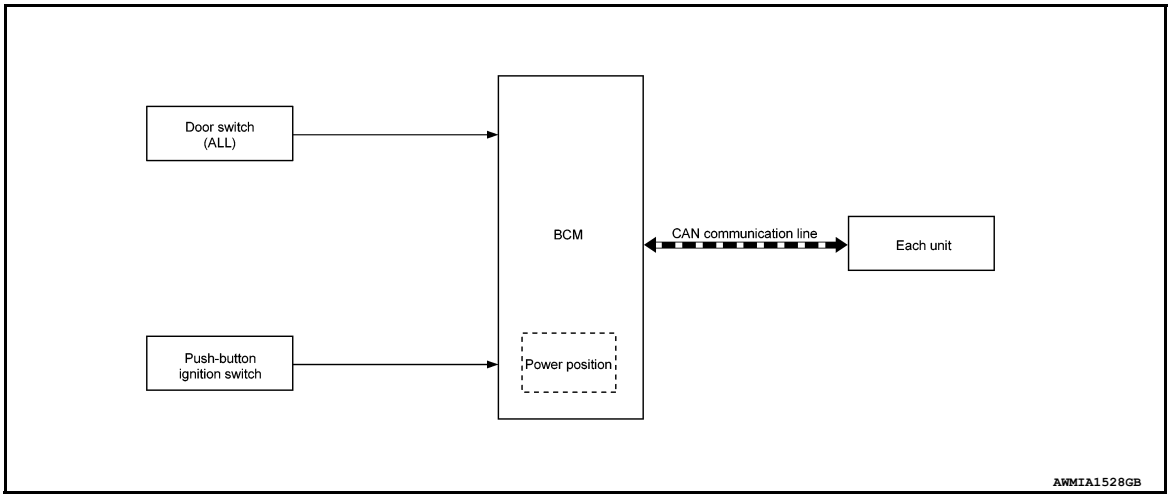
For details of wiper auto dial position, refer to WW-9, "FRONT WIPER AND WASHER SYSTEM : System Description".

SIGNAL BUFFER SYSTEM

SIGNAL BUFFER SYSTEM : System Description

INFOID:0000000014387213

SYSTEM DIAGRAM



OUTLINE

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

Signal transmission function list

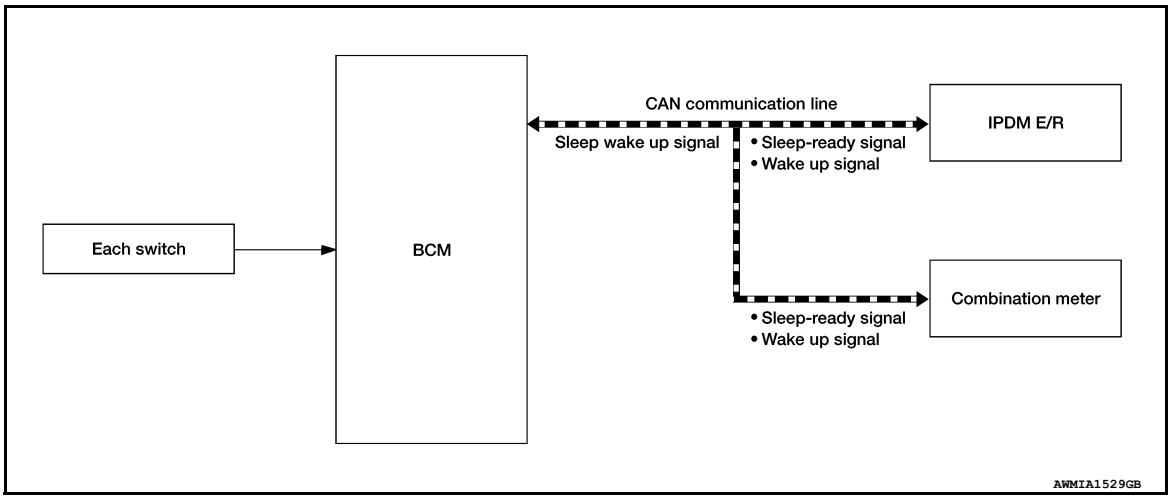
Signal name	Input	Output	Description
• Ignition switch ON signal • Ignition switch signal	Engine switch (push switch)	IPDM E/R (CAN)	Inputs the push-button ignition switch (push switch) signal and transmits the ignition switch status judged with BCM via CAN communication.
Door switch signal	Any door switch	• Combination meter (CAN) • IPDM E/R (CAN)	Inputs the door switch signal and transmits it via CAN communication.

POWER CONSUMPTION CONTROL SYSTEM

POWER CONSUMPTION CONTROL SYSTEM : System Description

INFOID:0000000014387214

SYSTEM DIAGRAM



OUTLINE

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

Normal mode (wake-up)
- CAN communication is normally performed with other units
- Each control with BCM is operating properly

CAN communication sleep mode (CAN sleep)
- CAN transmission is stopped
- Control with BCM only is operating

Low power consumption mode (BCM sleep)
- Low power consumption control is active
- CAN transmission is stopped

LOW POWER CONSUMPTION CONTROL WITH BCM

BCM reduces the power consumption with the following operation in the low power consumption mode.
- The reading interval of each switch changes from a 10 ms interval to a 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 wakeup signal. BCM is in CAN communication sleep mode.

- BCM is in the low power consumption mode and performs 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
• Receiving the sleep-ready signal (ready) from all units • Ignition switch: OFF • Vehicle security system alarm: No operation • Warning lamp: No operation • Intelligent Key warning buzzer: No operation • Brake switch: OFF • Turn signal indicator lamp: No operation • Exterior lamp: OFF • Door lock status: No change • CONSULT communication status: No communication • Meter display signal: Non-transmission • Door switch status: No change • Rear window defogger: OFF	• Interior room lamp battery saver: Time out • RAP system: OFF • Push-button ignition switch (push switch) illumination: OFF • NATS: No operation • Remote keyless entry receiver communication status: No communication

Wake-up operation

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

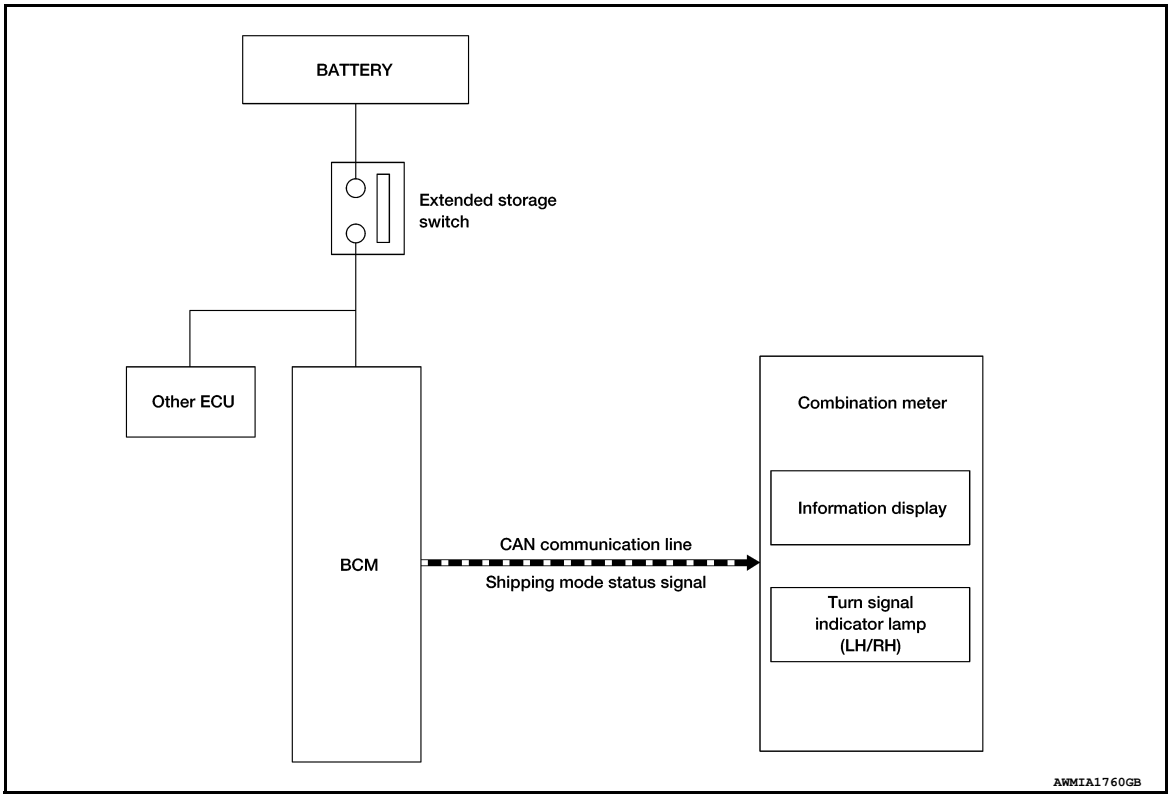
BCM wake-up condition	CAN wake-up condition
• Door unlock sensor: OFF→ON, ON→OFF • Front door lock assembly LH (key cylinder switch): Lock or unlock • Door lock switch: OFF→ON • Door unlock switch: OFF→ON • Remote keyless entry receiver: Receiving valid keyfob	• Receiving the sleep-ready signal (Not-ready) from any units • Push-button ignition switch (push switch): OFF→ON • Hazard switch: OFF→ON • PASSING switch: OFF→ON, ON→OFF • TAIL LAMP switch: OFF→ON • Front door switch LH: OFF→ON, ON→OFF • Front door switch RH: OFF → ON, ON → OFF • Driver door request switch: OFF→ON • Passenger door request switch: OFF→ON • Stop lamp switch signal: ON • Remote keyless entry receiver: Receiving valid keyfob

SHIPPING MODE CONTROL SYSTEM

SHIPPING MODE CONTROL SYSTEM : System Description

INFOID:0000000014387215

SYSTEM DIAGRAM



DESCRIPTION

- The BCM switches the status (shipping mode or normal mode) by itself according to the extended storage switch condition, and transmits the shipping mode status signal to the combination meter and each unit via CAN communication.
- When the shipping mode function is activated, the control units will not detect DTCs.
- BCM control functions are limited in shipping mode. Refer to BCS-78, "Description".
- When the BCM is in shipping mode, a message may be shown in the combination meter or display.
- For shipping mode cancel operation refer to BCS-65, "Work Procedure".

DIAGNOSIS SYSTEM (BCM)
COMMON ITEM
COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000014387216

APPLICATION ITEM
CONSULT performs the following functions via CAN communication with BCM.

Direct Diagnostic Mode	Description
ECU Identification	The BCM part number is displayed.
Self Diagnostic Result	The BCM self diagnostic results are displayed.
Data Monitor	The BCM input/output data is displayed in real time.
Active Test	The BCM activates outputs to test components.
Work support	The settings for BCM functions can be changed.
Configuration	• The vehicle specification can be read and saved. • The vehicle specification can be written when replacing BCM.
CAN Diag Support Mntr	The result of transmit/receive diagnosis of CAN communication is displayed.

SYSTEM APPLICATION
BCM can perform the following functions:

System	Sub System	Direct Diagnostic Mode						
		ECU Identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN Diag Support Mntr
Door lock	DOOR LOCK		×	×	×	×		
Rear window defogger	REAR DEFOGGER			×	×	×		
Warning chime	BUZZER			×	×			
Interior room lamp timer	INT LAMP			×	×	×		
Exterior lamp	HEADLAMP			×	×	×		
Wiper and washer	WIPER			×	×	×		
Turn signal and hazard warning lamps	FLASHER			×	×	×		
Air conditioner	AIR CONDITIONER			×				
Intelligent Key system	INTELLIGENT KEY		×	×	×	×		
Combination switch	COMB SW			×				
BCM	BCM	×	×			×	×	×
Immobilizer	IMMU		×	×	×			
Interior room lamp battery saver	BATTERY SAVER			×	×			
Vehicle security system	THEFT ALM			×	×	×		
RAP system	RETAINED PWR			×				
Signal buffer system	SIGNAL BUFFER			×				

FREEZE FRAME DATA (FFD)
The BCM records the following vehicle condition at the time a particular DTC is detected, and displays it on CONSULT.

CONSULT screen item	Indication/Unit	Description	
Vehicle Speed	km/h	Vehicle speed at the moment a particular DTC is detected	
Odo/Trip Meter	km	Total mileage (Odometer value) at the moment a particular DTC is detected	
Vehicle Condition	SLEEP>LOCK	Power position status at 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 stopped and selector lever is in 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)*
	OFF		Power supply position is “OFF” (Ignition switch OFF)
	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 • 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 is switched OFF → ON. • The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.	

NOTE:
*: Power supply position shifts to “LOCK” from “OFF”, when ignition switch is in the OFF position, selector lever is in the P position, and any of the following conditions are met:
- Closing door
- Opening door
- Door is locked using door request switch
- Door is locked using Intelligent Key

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

DOOR LOCK

DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)

INFOID:0000000014387217

SELF DIAGNOSTIC RESULT

Refer to BCS-52, "DTC Index".

DATA MONITOR

Monitor Item [Unit]	Description
REQ SW-DR [On/Off]	Indicates condition of door request switch LH.
REQ SW-AS [On/Off]	Indicates condition of door request switch RH.
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH.
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH.
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH.
CDL LOCK SW [On/Off]	Indicates condition of lock signal from door lock and unlock switch.
CDL UNLOCK SW [On/Off]	Indicates condition of unlock signal from door lock and unlock switch.
KEY CYL LK-SW [On/Off]	Indicates condition of lock signal from door key cylinder switch.
KEY CYL UN-SW [On/Off]	Indicates condition of unlock signal from door key cylinder switch.

ACTIVE TEST

Test Item	Description
DOOR LOCK	This test is able to check door lock operation [ALL LOCK/ALL UNLK].

WORK SUPPORT

Support Item	Setting	Description
DOOR LOCK-UNLOCK SET	On*	Automatic door locks function ON.
	Off	Automatic door locks function OFF.
AUTO UNLOCK TYPE	MODE2	Driver door only unlocks automatically.
	MODE1*	All doors unlock automatically.
AUTO LOCK FUNCTION	MODE3	This mode is not used.
	MODE2	Doors lock automatically when shifted out of P (park).
	MODE1*	Doors lock automatically when vehicle speed reaches 24 km/h (15 mph).
	Off	—
AUTO UNLOCK FUNCTION	MODE3	This mode is not used.
	MODE2*	Doors unlock automatically when shifted into P (park).
	MODE1	Doors unlock automatically when ignition is switched from ON to OFF.
	Off	—
SIGNITURE LIGHT SETTING	On*	Signature light setting ON.
	Off	Signature light setting OFF.

* : Initial setting

REAR DEFOGGER

REAR DEFOGGER : CONSULT Function (BCM - REAR DEFOGGER)

INFOID:0000000014387218

DATA MONITOR

Monitor Item [Unit]	Description
PUSH SW [On/Off]	Indicates condition of push-button ignition switch.
REAR DEF SW [On/Off]	Indicates condition of rear window defogger switch.

ACTIVE TEST

Test Item	Description
REAR DEFOGGER	This test is able to check rear window defogger operation [Off/On].

WORK SUPPORT

Support Item	Setting	Description
SET R-DEF TIMER	MODE3	Rear defogger turns OFF after 1 minute.
	MODE2	Rear defogger remains ON until turned OFF.
	MODE1*	Rear defogger turns OFF after 15 minutes.

* : Initial setting

BUZZER

BUZZER : CONSULT Function (BCM - BUZZER)

INFOID:0000000014387219

DATA MONITOR

Monitor Item [Unit]	Description
PUSH SW [On/Off]	Indicates condition of push-button ignition switch.
UNLK SEN -DR [On/Off]	Indicates condition of door unlock sensor.
VEH SPEED 1 [km/h]	Indicates vehicle speed signal received from ABS on CAN communication line.
TAIL LAMP SW [On/Off]	Indicates condition of combination switch.
FR FOG SW [On/Off]	Indicates condition of front fog lamp switch.
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.
CDL LOCK SW [On/Off]	Indicates condition of lock signal from door lock and unlock switch.

ACTIVE TEST

Test Item	Description
SEAT BELT WARN TEST	This test is able to check seat belt warning chime operation [On/Off].
LIGHT WARN ALM	This test is able to check light warning chime operation [On/Off].
REVERSE WARNING	This test is able to check reverse warning chime operation [On/Off].

INT LAMP

INT LAMP : CONSULT Function (BCM - INT LAMP)

INFOID:0000000014387220

DATA MONITOR

Monitor Item [Unit]	Description
REQ SW -DR [On/Off]	Indicates condition of door request switch LH.
REQ SW -AS [On/Off]	Indicates condition of door request switch RH.
PUSH SW [On/Off]	Indicates condition of push-button ignition switch.
UNLK SEN -DR [On/Off]	Indicates condition of door unlock sensor.
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH.
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH.
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH.
CDL LOCK SW [On/Off]	Indicates condition of lock signal from door lock and unlock switch.
CDL UNLOCK SW [On/Off]	Indicates condition of unlock signal from door lock and unlock switch.
KEY CYL LK-SW [On/Off]	Indicates condition of lock signal from door key cylinder switch.
KEY CYL UN-SW [On/Off]	Indicates condition of unlock signal from door key cylinder switch.
RKE-LOCK [On/Off]	Indicates condition of lock signal from Intelligent Key.
RKE-UNLOCK [On/Off]	Indicates condition of unlock signal from Intelligent Key.

ACTIVE TEST

Test Item	Description
INT LAMP	This test is able to check interior room lamp operation [On/Off].
STEP LAMP TEST	This test is able to check step lamp operation [On/Off].
Cargo lamp	This test is able to check cargo lamp operation [On/Off].

WORK SUPPORT

NOTE:
The items listed below are the only applicable Work Support items for this vehicle. If other items are displayed on CONSULT, do not use or change the setting for these other items.

Support Item	Setting	Description
SET I/L D-UNLCK INTCON	On	Interior room lamp timer function ON.
	Off*	Interior room lamp timer function OFF.
SCENARIO LIGHTING SETTING	On	**NOTE:** Do not use this function since interior room lamp control is changed.
	Off*	
FOG LAMP OVERRIDE	On*	With fog override function.
	Off	Without fog override function.

*: Initial setting

HEADLAMP

HEADLAMP : CONSULT Function (BCM - HEADLAMP)

INFOID:0000000014387221

DATA MONITOR

Monitor Item [Unit]	Description
PUSH SW [On/Off]	Indicates condition of push-button ignition switch.
ENGINE STATE [Stop/Stall/Crank/Run]	Indicates engine status received from ECM on CAN communication line.
VEH SPEED 1 [km/h]	Indicates vehicle speed signal received from ABS on CAN communication line.
TURN SIGNAL R [On/Off]	Indicates condition of combination switch.
TURN SIGNAL L [On/Off]	
TAIL LAMP SW [On/Off]	
HI BEAM SW [On/Off]	
HEAD LAMP SW 1 [On/Off]	
HEAD LAMP SW 2 [On/Off]	
PASSING SW [On/Off]	
AUTO LIGHT SW [On/Off]	
FR FOG SW [On/Off]	
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH.
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH.
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH.
OPTI SEN (DTCT) [V]	Indicates outside brightness voltage signal from optical sensor.
OPTI SEN (FILT) [V]	Indicates outside brightness voltage signal from optical sensor filtered by BCM.

ACTIVE TEST

Test Item	Description
FR FOG LAMP	This test is able to check front fog lamp operation [On/Off].
DAYTIME RUNNING LIGHT	This test is able to check daytime running lamp operation [On/Off].
ILL DIM SIGNAL	This test is able to check head lamp illumination dimming operation [On/Off].

WORK SUPPORT

Support Item	Setting	Description
TWILIGHT ON	MODE2*	Auto lamp function ON.
	MODE1	Auto lamp function OFF.
WIPER LINK	MODE4	This mode is not used.
	MODE3*	Wiper link function operates in INT, LOW and HI.
	MODE2	Wiper link function operates in LOW and HI.
	MODE1	Wiper link function OFF.
CUSTOM A/LIGHT SETTING	MODE4	Less sensitive than normal setting (turns ON later).
	MODE3	More sensitive than MODE2.
	MODE2	More sensitive than normal setting (turns ON earlier).
	MODE1*	Normal setting.
ILL DELAY SET	MODE 8	Auto lamp delay timer.
	MODE 7	
	MODE 6	
	MODE 4	
	MODE 5	
	MODE 3	
	MODE 2	
	MODE 1*	

*: Initial setting

WIPER

WIPER : CONSULT Function (BCM - WIPER)

INFOID:0000000014387222

DATA MONITOR

Monitor Item [Unit]	Description
PUSH SW [On/Off]	Indicates condition of push-button ignition switch.
VEH SPEED 1 [km/h]	Indicates vehicle speed signal received from ABS on CAN communication line.
FR WIPER HI [On/Off]	Indicates condition of wiper operation of combination switch.
FR WIPER LOW [On/Off]	
FR WASHER SW [On/Off]	
FR WIPER INT [On/Off]	
FR WIPER STOP [On/Off]	Indicates front wiper auto stop signal received from IPDM E/R on CAN communication line.
INT VOLUME [1 – 5]	Indicates condition of intermittent wiper [1 - 5] or auto wiper [1 - 4] operation of combination switch.
RAIN SENSOR [On/Off]	Indicates condition of rain sensor.

ACTIVE TEST

Test Item	Description
FR WIPER	This test is able to check front wiper operation [Hi/Lo/INT/Off].

WORK SUPPORT

Support Item	Setting	Description
WIPER SPEED SETTING	On	Front wiper intermittent time linked with vehicle speed and wiper dial position.
	Off*	Front wiper intermittent time linked with wiper dial position.
RAIN SENSOR	On*	Rain sensor function ON.
	Off	Rain sensor function OFF.

*: Initial setting

FLASHER

FLASHER : CONSULT Function (BCM - FLASHER)

INFOID:0000000014387223

DATA MONITOR

Monitor Item [Unit]	Description
REQ SW -DR [On/Off]	Indicates condition of door request switch LH.
REQ SW -AS [On/Off]	Indicates condition of door request switch RH.
PUSH SW [On/Off]	Indicates condition of push-button ignition switch.
TURN SIGNAL R [On/Off]	Indicates condition of turn signal function of combination switch.
TURN SIGNAL L [On/Off]	
HAZARD SW [On/Off]	Indicates condition of hazard switch.
RKE-LOCK [On/Off]	Indicates condition of lock signal from Intelligent Key.
RKE-UNLOCK [On/Off]	Indicates condition of unlock signal from Intelligent Key.
RKE-PANIC [On/Off]	Indicates condition of panic alarm signal from Intelligent Key.

ACTIVE TEST

Test Item	Description
FLASHER	This test is able to check turn signal lamp operation [Off/LH/RH].

WORK SUPPORT

Support item	Setting	Description
3-TIME FLASHER SETTING	ON*	3-Time flasher setting ON.
	OFF	3-Time flasher setting OFF.

* : Initial setting

AIR CONDITIONER

AIR CONDITIONER : CONSULT Function (BCM - AIR CONDITIONER)

INFOID:0000000014387224

DATA MONITOR

Monitor Item [Unit]	Description
FAN ON SIG [On/Off]	Indicates condition of fan switch.
AIR COND SW [On/Off]	Indicates condition of A/C switch.

INTELLIGENT KEY

INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)

INFOID:0000000014387225

SELF DIAGNOSTIC RESULT

Refer to BCS-52, "DTC Index".

DATA MONITOR

Monitor Item [Unit]	Main	Description
REQ SW -DR [On/Off]	×	Indicates condition of door request switch LH.
REQ SW -AS [On/Off]	×	Indicates condition of door request switch RH.
PUSH SW [On/Off]		Indicates condition of push-button ignition switch.
SHIFTLOCK SOLENOID PWR SUPPLY [On/Off]	×	Indicates condition of power supply to shiftlock solenoid.
BRAKE SW 1 [On/Off]	×	Indicates condition of brake switch.
BRAKE SW 2 [On/Off]		Indicates condition of brake switch.
DETE/CANCL SW [On/Off]	×	Indicates condition of P (park) position.
SFT PN/N SW [On/Off]	×	Indicates condition of P (park) or N (neutral) position.
UNLK SEN -DR [On/Off]	×	Indicates condition of door unlock sensor.
PUSH SW -IPDM [On/Off]		Indicates condition of push-button ignition switch received from IPDM E/R on CAN communication line.
IGN RLY1 -F/B [On/Off]		Indicates condition of ignition relay 1 received from IPDM E/R on CAN communication line.
DETE SW -IPDM [On/Off]		Indicates condition of park position switch received from TCM on CAN communication line.
SFT PN -IPDM [On/Off]		Indicates condition of P (park) or N (neutral) position from TCM on CAN communication line.
SFT P -MET [On/Off]		Indicates condition of P (park) position from TCM on CAN communication line.
SFT N -MET [On/Off]		Indicates condition of N (neutral) position from IPDM E/R on CAN communication line.
ENGINE STATE [Stop/Start/Crank/Run]	×	Indicates condition of engine state from ECM on CAN communication line.
VEH SPEED 1 [mph/km/h]	×	Indicates condition of vehicle speed signal received from ABS on CAN communication line.
VEH SPEED 2 [mph/km/h]	×	Indicates condition of vehicle speed signal received from combination meter on CAN communication line.
DOOR STAT -DR [LOCK/READY/UNLK]	×	Indicates condition of driver side door status.
DOOR STAT -AS [LOCK/READY/UNLK]	×	Indicates condition of passenger side door status.
DOOR STAT -RR [LOCK/READY/UNLK]	×	Indicates condition of rear right side door status.
DOOR STAT -RL [LOCK/READY/UNLK]	×	Indicates condition of rear left side door status.
ID OK FLAG [Set/Reset]		Indicates condition of Intelligent Key ID.
PRMT ENG STRT [Set/Reset]		Indicates condition of engine start possibility.
PRMT RKE STRT [Set/Reset]		Indicates condition of engine start possibility from Intelligent Key.
I-KEY OK FLAG [Key ON/Key OFF]	×	Indicates condition of Intelligent Key OK flag.
PRBT ENG STRT [Set/Reset]		Indicates condition of engine start prohibit.
ID AUTHENTICATION CANCEL TIMER [under a stop]		Indicates condition of Intelligent Key ID authentication.
ACC BATTERY SAVER [under a stop]		Indicates condition of battery saver.
CRNK PRBT TMR [On/Off]		Indicates condition of crank prohibit timer.
AUT CRNK TMR [On/Off]		Indicates condition of automatic engine crank timer from Intelligent Key.
CRNK PRBT TME [sec]		Indicates condition of crank prohibit timer.
AUT CRNK TMR [sec]		Indicates condition of automatic engine crank timer from Intelligent Key.

Monitor Item [Unit]	Main	Description
CRANKING TME [sec]		Indicates condition of engine cranking time from Intelligent Key.
ST RLY -REQ		Indicates condition of starter relay.
IGN RLY 1 -REQ		Indicates condition of ignition 1 relay.
IGN RLY 2 -REQ		Indicates condition of ignition 2 relay.
DETE SW PWR [On/Off]		Indicates condition of park position switch voltage.
ACC RLY -REQ [On/Off]		Indicates condition of accessory relay control request.
RKE OPE COUN1 [0-19]	×	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.
RKE OPE COUN2 [0-19]	×	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.
RKE-LOCK [On/Off]		Indicates condition of lock signal from Intelligent Key.
RKE-UNLOCK [On/Off]		Indicates condition of unlock signal from Intelligent Key.
RKE-PANIC [On/Off]		Indicates condition of panic signal from Intelligent Key.
RKE-MODE CHG [On/Off]		Indicates condition of mode change signal from Intelligent Key.

ACTIVE TEST

Test Item	Description
INTELLIGENT KEY LINK (CAN)	This test is able to check Intelligent Key identification number [Off/ID No1/ID No2/ID No3/ID No4/ID No5].
INT LAMP	This test is able to check interior room lamp operation [On/Off].
FLASHER	This test is able to check hazard lamp operation [LH/RH/Off].
HORN	This test is able to check horn operation [On].
BATTERY SAVER	This test is able to check battery saver operation [On/Off].
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation [On/Off].
INSIDE BUZZER	This test is able to check combination meter warning chime operation [Take Out/Knob/Key/Off].
INDICATOR	This test is able to check combination meter warning lamp operation [KEY ON/KEY IND/Off].
IGN CONT2	This test is able to check ignition relay-2 control operation [On/Off].
ENGINE SW ILLUMI	This test is able to check push-button ignition switch START indicator operation [On/Off].
PUSH SWITCH INDICATOR	This test is able to check push-button ignition switch indicator operation [On/Off].
ACC CONT	This test is able to check accessory relay control operation [On/Off].
IGN CONT1	This test is able to check ignition relay-1 control operation [On/Off].
ST CONT LOW	This test is able to check starter control relay operation [On/Off].
IGNITION RELAY	This test is able to check ignition relay operation [On/Off].
TRUNK/LUGGAGE LAMP TEST	This test is able to check cargo lamp illumination operation [On/Off].
KEYFOB PW TEST	This test is able to check power window operation using the Intelligent Key [P/W up/down OFF/Send P/W down ON/Send P/W up ON].
SHIFTLOCK SOLENOID TEST	This test is able to check shift lock solenoid operation [On/Off].

WORK SUPPORT

Support Item	Setting	Description
IGN/ACC BATTERY SAVER	On*	Battery saver function ON.
	Off	Battery saver function OFF.
REMOTE ENGINE STARTER	On*	Remote engine start function ON.
	Off	Remote engine start function OFF.

Support Item	Setting		Description
ANSWERBACK I-KEY LOCK UNLOCK	BUZZER*		Buzzer reminder function by door lock/unlock request switch ON.
	HORN		Horn chirp reminder function by door lock request switch ON.
	Off		No reminder function by door lock/unlock request switch.
	INVALID		This mode is not used.
ANSWERBACK KEYLESS LOCK UNLOCK	On*		Buzzer or horn chirp reminder when doors are locked/unlocked with Intelligent Key.
	Off		No buzzer or horn chirp reminder when doors are locked/unlocked with Intelligent Key.
ANSWER BACK	On*		Horn chirp reminder when doors are locked with Intelligent Key.
	Off		No horn chirp reminder when doors are locked with Intelligent Key.
RETRACTABLE MIRROR SET	On		Retractable mirror set ON.
	Off*		Retractable mirror set OFF.
LOCK/UNLOCK BY I-KEY	On*		Door lock/unlock function from Intelligent Key ON.
	Off		Door lock/unlock function from Intelligent Key OFF.
ENGINE START BY I-KEY	On*		Engine start function from Intelligent Key ON.
	Off		Engine start function from Intelligent Key OFF.
CONFIRM KEY FOB ID	—		Intelligent Key ID code can be checked.
SHORT CRANKING OUTPUT	Start	70 msec	Starter motor operation duration times.
		100 msec	
		200 msec	
	End		—
INSIDE ANT DIAGNOSIS	—		This function allows inside key antenna self-diagnosis.
AUTO LOCK SET	MODE7	5 min	Auto door lock time can be set in this mode.
	MODE6	4 min	
	MODE5	3 min	
	MODE4	2 min	
	MODE3*	1 min	
	MODE2	30 sec	
	MODE1	Off	

*: Initial Setting

COMB SW

COMB SW : CONSULT Function (BCM - COMB SW)

INFOID:0000000014387226

DATA MONITOR

Monitor Item [Unit]	Description
FR WIPER HI [On/Off]	Indicates condition of wiper operation of combination switch.
FR WIPER LOW [On/Off]	
FR WASHER SW [On/Off]	
FR WIPER INT [On/Off]	
INT VOLUME [1 - 5]	Indicates condition of intermittent wiper [1 - 5] or auto wiper [1 - 4] operation of combination switch.
TURN SIGNAL R [On/Off]	Indicates condition of right turn signal operation of combination switch.
TURN SIGNAL L [On/Off]	Indicates condition of left turn signal operation of combination switch.
TAIL LAMP SW [On/Off]	Indicates condition of tail lamp switch operation of combination switch.

Monitor Item [Unit]	Description
HI BEAM SW [On/Off]	Indicates condition of high beam switch operation of combination switch.
HEAD LAMP SW 1 [On/Off]	Indicates condition of head lamp switch 1 operation of combination switch.
HEAD LAMP SW 2 [On/Off]	Indicates condition of head lamp switch 2 operation of combination switch.
PASSING SW [On/Off]	Indicates condition of passing switch operation of combination switch.
AUTO LIGHT SW [On/Off]	Indicates condition of auto light switch operation of combination switch.
FR FOG SW [On/Off]	Indicates condition of front fog lamp switch operation of combination switch.

BCM

BCM : CONSULT Function (BCM - BCM)

INFOID:0000000014387227

ECU IDENTIFICATION
The BCM part number is displayed.

SELF DIAGNOSTIC RESULT
Refer to BCS-52, "DTC Index".

WORK SUPPORT

Support Item	Setting	Description
RESET SETTING VALUE	Reset	Returns BCM to initial value in factory shipment.
	Cancel	Cancels the reset function.

CONFIGURATION
Refer to BCS-63, "CONFIGURATION (BCM) : Description".

CAN DIAG SUPPORT MNTR
Refer to LAN-50, "CAN Diagnostic Support Monitor".

IMMU

IMMU : CONSULT Function (BCM - IMMU)

INFOID:0000000014387228

SELF DIAGNOSTIC RESULT
Refer to BCS-52, "DTC Index".

DATA MONITOR

Monitor Item [Unit]	Description
CONFRM ID ALL [Yet/DONE]	Switches to DONE when an Intelligent Key is registered.
CONFIRM ID4 [Yet/DONE]	
CONFIRM ID3 [Yet/DONE]	
CONFIRM ID2 [Yet/DONE]	
CONFIRM ID1 [Yet/DONE]	
TP 4 [Yet/DONE]	DONE indicates the number of the Intelligent Key ID which has been registered.
TP 3 [Yet/DONE]	
TP 2 [Yet/DONE]	
TP 1 [Yet/DONE]	
PUSH SW [On/Off]	Indicates condition of push-button ignition switch.

ACTIVE TEST

Test Item	Description
THEFT IND	This test is able to check security indicator operation [On/Off].

BATTERY SAVER

BATTERY SAVER : CONSULT Function (BCM - BATTERY SAVER)

INFOID:0000000014387229

DATA MONITOR

Monitor Item [Unit]	Description
REQ SW -DR [On/Off]	Indicates condition of door request switch LH.
REQ SW -AS [On/Off]	Indicates condition of door request switch RH.
PUSH SW [On/Off]	Indicates condition of push-button ignition switch.
UNLK SEN -DR [On/Off]	Indicates condition of door unlock sensor.
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH.
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH.
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH.
CDL LOCK SW [On/Off]	Indicates condition of lock signal from door lock and unlock switch.
CDL UNLOCK SW [On/Off]	Indicates condition of unlock signal from door lock and unlock switch.
KEY CYL LK-SW [On/Off]	Indicates condition of lock signal from door key cylinder switch.
KEY CYL UN-SW [On/Off]	Indicates condition of unlock signal from door key cylinder switch.
RKE-LOCK [On/Off]	Indicates condition of lock signal from Intelligent Key.
RKE-UNLOCK [On/Off]	Indicates condition of unlock signal from Intelligent Key.

ACTIVE TEST

Test item	Description
BATTERY SAVER	This test is able to check battery saver operation [On/Off].

THEFT ALM

THEFT ALM : CONSULT Function (BCM - THEFT ALM)

INFOID:0000000014387230

DATA MONITOR

Monitor Item	Description
REQ SW -DR [On/Off]	Indicates condition of door request switch LH.
REQ SW -AS [On/Off]	Indicates condition of door request switch RH.
PUSH SW [On/Off]	Indicates condition of push-button ignition switch.
UNLK SEN -DR [On/Off]	Indicates condition of door unlock sensor.
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH.
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH.
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH.
CDL LOCK SW [On/Off]	Indicates condition of lock signal from door lock and unlock switch.
CDL UNLOCK SW [On/Off]	Indicates condition of unlock signal from door lock and unlock switch.
KEY CYL LK-SW [On/Off]	Indicates condition of lock signal from door key cylinder switch.
KEY CYL UN-SW [On/Off]	Indicates condition of unlock signal from door key cylinder switch.
RKE-LOCK [On/Off]	Indicates condition of lock signal from Intelligent Key.
RKE-UNLOCK [On/Off]	Indicates condition of unlock signal from Intelligent Key.

ACTIVE TEST

Test Item	Description
FLASHER	This test is able to check turn signal lamp operation [LH/RH/Off].
THEFT IND	This test is able to check security indicator lamp operation [On/Off].
VEHICLE SECURITY HORN	This test is able to check vehicle security horn operation [On].
HEADLAMP(HI)	This test is able to check vehicle security lamp operation [On].

WORK SUPPORT

Support Item	Setting	Description
SECURITY ALARM SET	On*	Security alarm ON.
	Off	Security alarm OFF.

*: Initial setting

RETAINED PWR

RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)

INFOID:0000000014387231

DATA MONITOR

Monitor Item [Unit]	Description
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH.

SIGNAL BUFFER

SIGNAL BUFFER : CONSULT Function (BCM - SIGNAL BUFFER)

INFOID:0000000014387232

DATA MONITOR

Monitor Item [Unit]	Description
PUSH SW [On/Off]	Indicates condition of the push-button ignition switch.

ECU DIAGNOSIS INFORMATION

BCM

Reference Value

INFOID:0000000014387233

NOTE:
The Signal Tech II Tool [— (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Activate and display TPMS transmitter IDs
- Display tire pressure reported by the TPMS transmitter
- Read TPMS DTCs
- Register TPMS transmitter IDs
- Check Intelligent Key relative signal strength
- Confirm vehicle Intelligent Key antenna signal strength

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
ACC BATTERY SAVER	When battery saver is OFF	Under a stop
ACC RLY -REQ	When BCM is not requesting accessory relay activation.	Off
	When BCM is requesting accessory relay activation.	On
AIR COND SW	A/C switch OFF	Off
	A/C switch ON	On
AUTO CRNK TMR	When the remote engine start timer is OFF.	Off
	When the remote engine start timer is ON.	On
AUTO CRNK TMR	Remote engine start timer duration in seconds.	sec
AUTO LIGHT SW	Lighting switch OFF	Off
	Lighting switch AUTO	On
BRAKE SW 1	When the brake pedal is released	On
	When the brake pedal is depressed	Off
BRAKE SW 2	Brake pedal released	Off
	Brake pedal depressed	On
BUZZER	Buzzer in combination meter OFF	Off
	Buzzer in combination meter ON	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
CONFRM ID ALL	The key ID does not match any key ID registered to BCM.	Yet
	The key ID matches any key ID registered to BCM.	DONE
CONFIRM ID4	The key ID does not match the fourth key ID registered to BCM.	Yet
	The key ID matches the fourth key ID registered to BCM.	DONE
CONFIRM ID3	The key ID does not match the third key ID registered to BCM.	Yet
	The key ID matches the third key ID registered to BCM.	DONE
CONFIRM ID2	The key ID does not match the second key ID registered to BCM.	Yet
	The key ID matches the second key ID registered to BCM.	DONE
CONFIRM ID1	The key ID does not match the first key ID registered to BCM.	Yet
	The key ID matches the first key ID registered to BCM.	DONE
CRANKING TME	Engine start timer duration.	sec

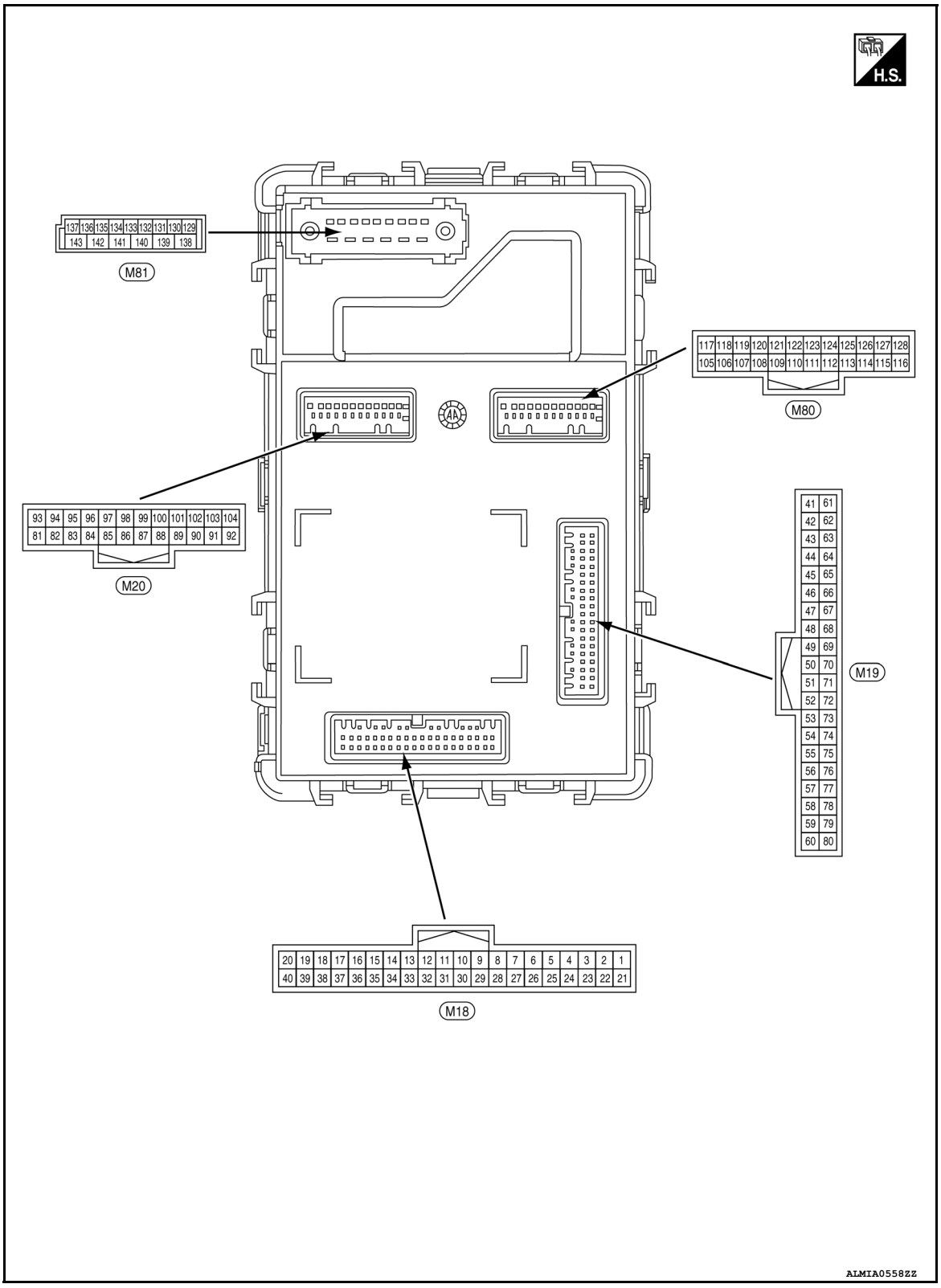
Monitor Item	Condition	Value/Status
CRNK PRBT TME	Engine start prohibit timer duration.	sec
CRNK PRBT TMR	When the engine start prohibit timer is OFF.	Off
	When the engine start prohibit timer is ON.	On
DETE SW -IPDM	When selector lever is in P position	Off
	When selector lever is in any position other than P	On
DETE SW PWR	When BCM is not supplying power to park position switch.	Off
	When BCM is supplying power to park position switch.	On
DETE/CANCL SW	When selector lever is in P position	Off
	When selector lever is in any position other than P	On
DOOR STAT-AS	Passenger door LOCK status	LOCK
	Passenger door UNLOCK status	UNLK
	Wait with selective UNLOCK operation (5 seconds)	READY
DOOR STAT-DR	Driver door LOCK status	LOCK
	Driver door UNLOCK status	UNLK
	Wait with selective UNLOCK operation (5 seconds)	READY
DOOR STAT-RL	Rear left door LOCK status	LOCK
	Rear left door UNLOCK status	UNLK
	Wait with selective UNLOCK operation (5 seconds)	READY
DOOR STAT-RR	Rear right door LOCK status	LOCK
	Rear right door UNLOCK status	UNLK
	Wait with selective UNLOCK operation (5 seconds)	READY
DOOR SW-AS	Front door RH closed	Off
	Front door RH opened	On
DOOR SW-DR	Front door LH closed	Off
	Front door LH opened	On
DOOR SW-RL	Rear door LH closed	Off
	Rear door LH opened	On
DOOR SW-RR	Rear door RH closed	Off
	Rear door RH opened	On
ENGINE STATE	Engine stopped	Stop
	While the engine stalls	Stall
	At engine cranking	Crank
	Engine running	Run
FAN ON SIG	Blower motor fan switch OFF	Off
	Blower motor fan switch ON	On
FR FOG SW	Front fog lamp switch OFF	Off
	Front fog lamp switch ON	On
FR WASHER SW	Front washer switch OFF	Off
	Front washer switch ON	On
FR WIPER LOW	Front wiper switch OFF	Off
	Front wiper switch LO	On
FR WIPER HI	Front wiper switch OFF	Off
	Front wiper switch HI	On

Monitor Item	Condition	Value/Status
FR WIPER INT	Front wiper switch OFF	Off
	Front wiper switch INT or AUTO	On
FR WIPER STOP	Any position other than front wiper stop position	Off
	Front wiper stop position	On
HAZARD SW	When hazard switch is not pressed	Off
	When hazard switch is pressed	On
HEAD LAMP SW 1	Headlamp switch OFF	Off
	Headlamp switch 1st	On
HEAD LAMP SW 2	Headlamp switch OFF	Off
	Headlamp switch 1st	On
HI BEAM SW	High beam switch OFF	Off
	High beam switch HI	On
ID AUTHENTICATION CANCEL TIMER	When I-Key authentication is OFF.	Under a stop
ID OK FLAG	Ignition switch ACC or ON	Reset
	Ignition switch OFF	Set
IGN RLY1 F/B	Ignition switch OFF or ACC	Off
	Ignition switch ON	On
IGN RLY 1 -REQ	Ignition switch OFF or ACC	Off
	Ignition switch ON	On
IGN RLY 2 -REQ	Ignition switch OFF or ACC	Off
	Ignition switch ON	On
INT VOLUME	Wiper intermittent dial is in dial position 1 - 5 or AUTO dial is in position 1 - 4.	1 - 5
I-KEY OK FLAG	I-Key OFF	Key OFF
	I-Key ON	Key ON
KEY CYL LK-SW	Door key cylinder LOCK position	Off
	Door key cylinder other than LOCK position	On
KEY CYL UN-SW	Door key cylinder UNLOCK position	Off
	Door key cylinder other than UNLOCK position	On
OPTI SEN (DTCT)	Bright outside the vehicle	Close to 5V
	Dark outside the vehicle	Close to 0V
OPTI SEN (FILT)	Bright outside the vehicle	Close to 5V
	Dark outside the vehicle	Close to 0V
PASSING SW	Other than lighting switch PASS	Off
	Lighting switch PASS	On
PRBT ENG STRT	When the engine start is prohibited	Reset
	When the engine start is permitted	Set
PRMT ENG STRT	When the engine start is prohibited	Reset
	When the engine start is permitted	Set
PRMT RKE STRT	When the engine start is prohibited	Reset
	When the engine start is permitted	Set
PUSH SW	Return ignition switch to LOCK position	Off
	Press ignition switch	On

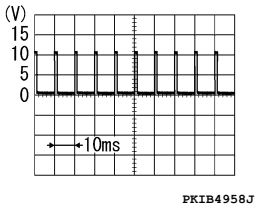
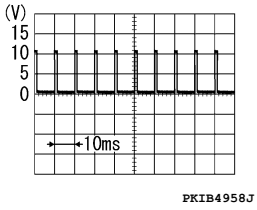
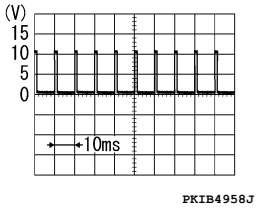
Monitor Item	Condition	Value/Status
PUSH SW-IPDM	When engine switch (push switch) is not pressed	Off
	When engine switch (push switch) is pressed	On
RAIN SENSOR	Rain sensor OFF	Off
	Rain sensor ON	On
REAR DEF SW	Rear window defogger switch OFF	Off
	Rear window defogger switch ON	On
REQ SW-AS	When passenger door request switch is not pressed	Off
	When passenger door request switch is pressed	On
REQ SW-DR	When driver door request switch is not pressed	Off
	When driver door request switch is pressed	On
REQ SW -RL	When rear door request switch LH is not pressed	Off
	When rear door request switch LH is pressed	On
REQ SW -RR	When rear door request switch RH is not pressed	Off
	When rear door request switch RH is pressed	On
RKE-LOCK	When LOCK button of Intelligent Key is not pressed	Off
	When LOCK button of Intelligent Key is pressed	On
RKE-MODE CHG	When LOCK/UNLOCK button of Intelligent Key is not pressed and held simultaneously	Off
	When LOCK/UNLOCK button of Intelligent Key is pressed and held simultaneously	On
RKE OPE COUN1	Operation frequency of Intelligent Key	0-19
RKE OPE COUN2	Operation frequency of Intelligent Key	0-19
RKE-PANIC	When PANIC button of Intelligent Key is not pressed	Off
	When PANIC button of Intelligent Key is pressed	On
RKE-UNLOCK	When UNLOCK button of Intelligent Key is not pressed	Off
	When UNLOCK button of Intelligent Key is pressed	On
SFT N-MET	When selector lever is in any position other than N	Off
	When selector lever is in N position	On
SFT P-MET	When selector lever is in any position other than P	Off
	When selector lever is in P position	On
SFT PN -IPDM	When selector lever is in any position other than P or N	Off
	When selector lever is in P or N position	On
SFT PN/N SW	When selector lever is in any position other than P or N	Off
	When selector lever is in P or N position	On
SHIFTLOCK SOLE-NOID POWER SUPPLY	When BCM is not supplying power to shift lock.	Off
	When BCM is supplying power to shift lock.	On
ST RLY -REQ	Ignition switch OFF or ACC	Off
	Ignition switch ON	On
TAIL LAMP SW	Other than lighting switch 1ST and 2ND	Off
	Lighting switch 1ST or 2ND	On
TP 4	The ID of fourth key is not registered to BCM	Yet
	The ID of fourth key is registered to BCM	DONE
TP 3	The ID of third key is not registered to BCM	Yet
	The ID of third key is registered to BCM	DONE

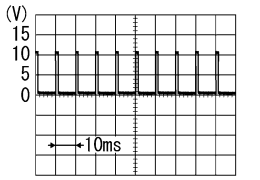
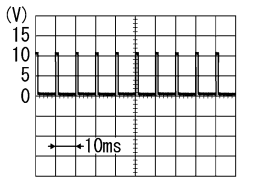
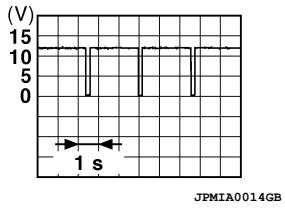
Monitor Item	Condition	Value/Status
TP 2	The ID of second key is not registered to BCM	Yet
	The ID of second key is registered to BCM	DONE
TP 1	The ID of first key is not registered to BCM	Yet
	The ID of first key is registered to BCM	DONE
TURN SIGNAL L	Turn signal switch OFF	Off
	Turn signal switch LH	On
TURN SIGNAL R	Turn signal switch OFF	Off
	Turn signal switch RH	On
UNLK SEN-DR	Driver door UNLOCK status	Off
	Driver door LOCK status	On
VEH SPEED 1	While driving, equivalent to speedometer reading	mph, km/h
VEH SPEED 2	While driving, equivalent to speedometer reading	mph, km/h

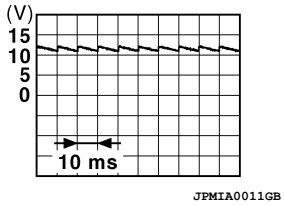
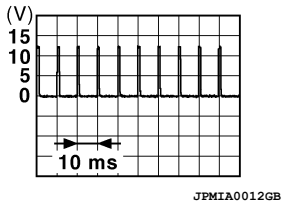
TERMINAL LAYOUT

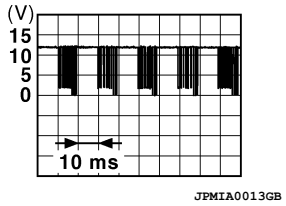
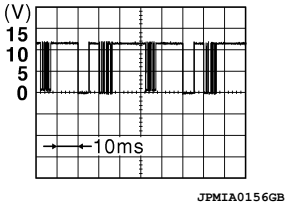


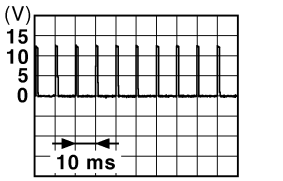
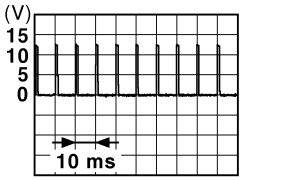
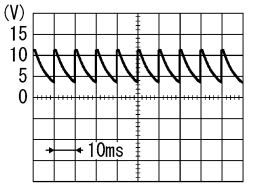
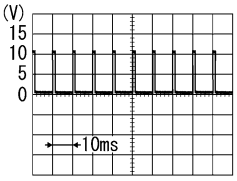
PHYSICAL VALUES

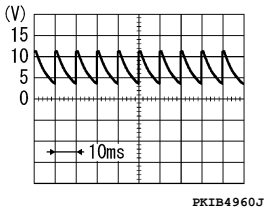
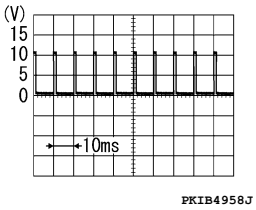
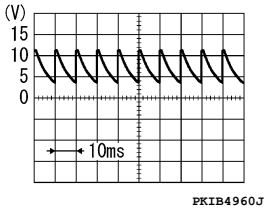
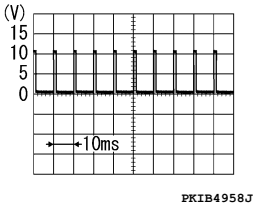
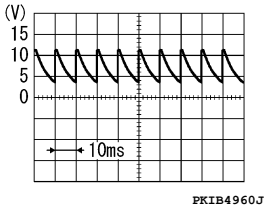
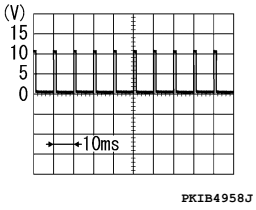
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
1 (G)	Ground	Engine start switch	Input	Push-button ignition switch	Pressed	0V
					Not pressed	Battery voltage
3 (R)	Ground	Auto light power supply 5V	Output	Push-button ignition switch	OFF	0V
					ACC or ON	5V
4 (W/R)	Ground	Auto light signal	Input	Push-button ignition switch ON	When outside of the vehicle is bright	Close to 5V
					When outside of the vehicle is dark	Close to 0V
10 (SB)	Ground	Combination switch input 5	Input	Combination and lighting switches	OFF	0 V
				Combination switch	TURN RH	 1.0 V
					HI BEAM	
				Lighting switch	HEADLAMP 1	
11 (G/Y)	Ground	Combination switch input 4	Input	Combination, front fog lamps and lighting switches	OFF	0 V
				Front fog lamps switch	ON	 1.0 V
				Combination switch	TURN LH	
					PASSING	
				Lighting switch	HEADLAMP 2	
12 (Y)	Ground	Combination switch input 3	Input	Combination and lighting switches	OFF	0 V
				Combination switch	FR WIPER LOW	 1.0 V
					FR WIPER INT (any intermittent position)	
				Lighting switch	TAIL LAMP	
					AUTO LAMP	

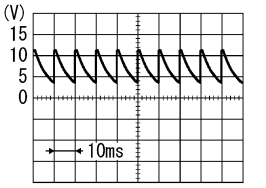
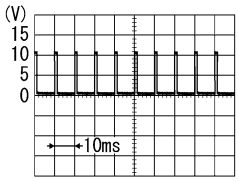
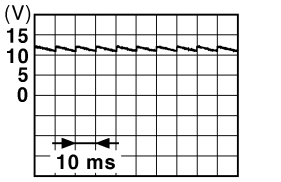
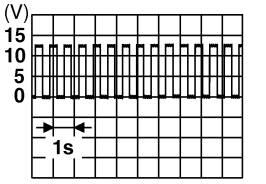
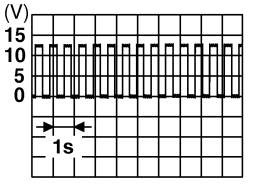
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
13 (G/B)	Ground	Combination switch input 2	Input	Combination switch	OFF	0 V
					FR WASHER Wiper intermittent dial 2 Wiper AUTO dial 2 Wiper intermittent dial 3	 1.0 V
14 (V)	Ground	Combination switch input 1	Input	Combination switch	OFF	0 V
					FR WIPER HI Wiper intermittent dial 1 Wiper AUTO dial 1 Wiper intermittent dial 2 Wiper AUTO dial 4 Wiper intermittent dial 5	 1.0 V
17 (P)	Ground	Auto light reference ground	Input	Push-button ignition switch ON		0V
18 (V)	Ground	Security indicator	Output	Security indicator	ON	0V
					Blinking	 11.3V
					OFF	Battery voltage
20 (R)	Ground	Shift P	Input	Selector lever	P position	0V
					Any position other than P	Battery voltage
21 (R/W)	Ground	Step lamp control	Output	Step lamp	ON	0V
					OFF	Battery voltage
23 (Y)	Ground	Air conditioner sw	Input	A/C switch	OFF	9.0 - 12.0V
					ON	0V
25 (W)	Ground	Brake switch fuse	Input	—		Battery voltage
26 (L)	Ground	Shorting input	Input	Push-button ignition switch OFF		Battery voltage
27 (R/G)	Ground	Brake switch lamp	Input	Stop lamp switch	OFF (brake pedal is not depressed)	0V
					ON (brake pedal is de-pressed)	Battery voltage
29 (W)	Ground	Blower fan sw	Input	Blower motor switch	ON	Battery voltage
					OFF	0V

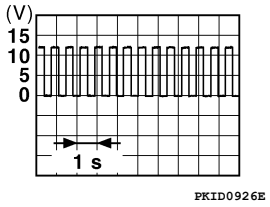
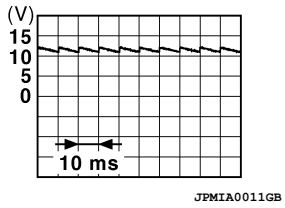
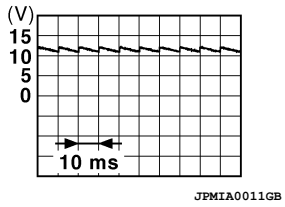
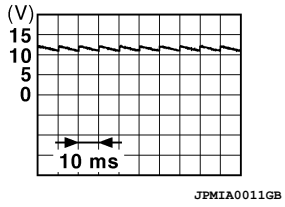
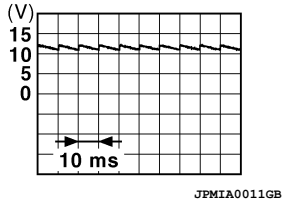
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
30 (P)	Ground	Driver door lock status	Input	Front door LH	LOCK status	 JPMIA0011GB 11.8V
					UNLOCK status	0V
32 (Y)	Ground	Rear window defogger ON signal	Input	Rear window defogger switch	OFF	5V
					ON	0V
35 (R/G)	Ground	Trailer brake control unit brake switch	Input	Trailer brake control unit (pinch) switch	OFF (trailer brake control unit pinch switch is not depressed)	0V
					ON (trailer brake control unit pinch switch is depressed)	Battery voltage
36 (W/B)	Ground	Hazard switch	Input	Hazard switch	Pressed	0 V
					Not pressed	 JPMIA0012GB 1.1V
39 (B/R)	Ground	Shift N/P	Input	Selector lever	P or N position	Battery voltage
					Except P and N positions	0V
41 (Y/L)	Ground	Trailer light check relay output (vehicle stop lamps during trailer light check)	Output	Intelligent Key	Press and release LOCK button, within 2 seconds press and hold LOCK button for at least 2 seconds (keyfob), or Operate trailer light check from combination meter (Trailer Settings)	Battery voltage
					Except above	0V
42 (R/Y)	Ground	Cargo lamp output	Output	Cargo lamp switch	ON	0V
					OFF	Battery voltage
48 (R)	Ground	High side start switch LED	Output	Push-button ignition switch illumination	ON	5.5V
					OFF	0V
52 (W)	Ground	Audio dongle	Input/ Output	Push-button ignition switch OFF		5V

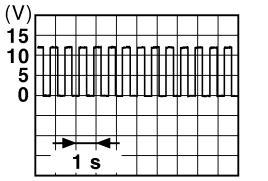
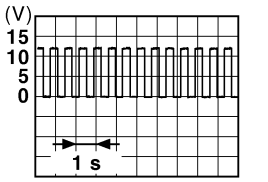
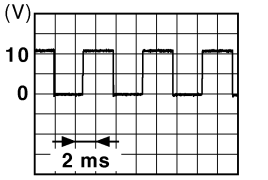
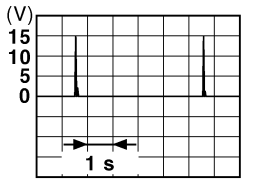
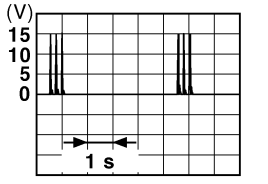
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
54 (W/L)	Ground	Power window lin/ communication	Input/ Output	Push-button ignition switch	ON	 10.2V
					OFF or ACC	0V
55 (W/B)	Ground	Rain sensor K-line	Input/ Output	Push-button ignition switch	OFF	0V
					ON	 8.0 – 9.0V
59 (P)	Ground	CAN low	Input/ Output	—		—
60 (L)	Ground	CAN high	Input/ Output	—		—
61 (O)	Ground	Rear defogger relay output	Output	Rear window defogger	Active	Battery voltage
					Not activated	0V
62 (W)	Ground	Starter relay output	Output	Push-button ignition switch ON	When selector lever is in P or N position and the brake is depressed	Battery voltage
					When selector lever is in P or N position and the brake is not depressed	0V
64 (P)	Ground	Buzzer output	Output	Outside warning buzzer	Sounding	0V
					Not sounding	Battery voltage
66 (W)	Ground	Blower fan relay output	Output	Push-button ignition switch	OFF or ACC	0V
					ON	Battery voltage
67 (G)	Ground	Ignition electrical relay output 2	Output	Push-button ignition switch	OFF or ACC	0V
					ON	Battery voltage
68 (L)	Ground	Dimmer signal output	Output	Push-button ignition switch ON	Either of the following conditions: • Lighting switch OFF • The area around the vehicle is bright (Shine a light on the optical sensor)	0V
					The area around the vehicle is dark (Block the light from the optical sensor)	Battery voltage
69 (R/B)	Ground	AT device output	Output	—		Battery voltage
70 (P)	Ground	IPDM E/R ignition output 1	Output	Push-button ignition switch	OFF or ACC	Battery voltage
					ON	0V

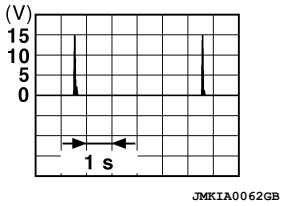
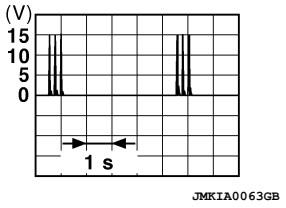
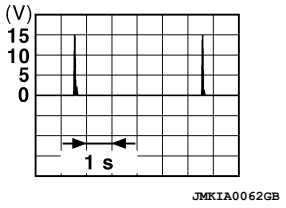
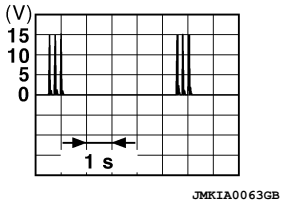
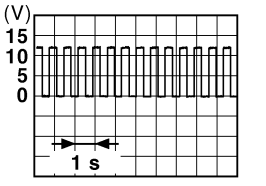
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
71 (O)	Ground	Driver request switch	Input	Front door LH request switch	ON (pressed)	0V
					OFF (not pressed)	 JPMIA0016GB 1.0V
72 (G)	Ground	Passenger request switch	Input	Front door RH request switch	ON (pressed)	0V
					OFF (not pressed)	 JPMIA0016GB 1.0V
75 (L/W)	Ground	Combination switch output 5	Output	Combination and front fog lamps switch	OFF	 PKIB4960J 7.0 - 8.0 V
				Front fog lamps switch	ON	 PKIB4958J 1.2 V
				Combination switch	Wiper intermittent dial 1	
					Wiper AUTO dial 1	
					Wiper intermittent dial 2	
					Wiper AUTO dial 4	
					Wiper intermittent dial 5	

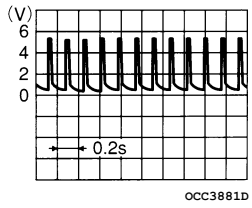
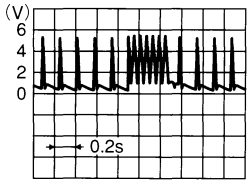
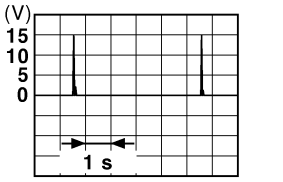
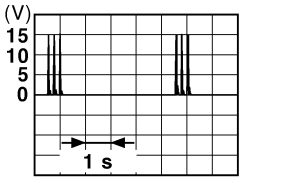
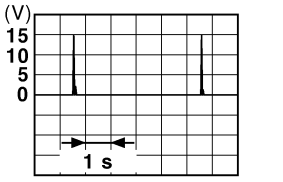
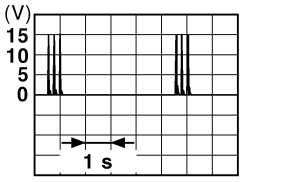
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
76 (P)	Ground	Combination switch output 4	Output	Combination and lighting switches	OFF	 PKIB4960J 7.0 - 8.0 V
				Lighting switch	TAIL LAMP	 PKIB4958J 1.2 V
					AUTO LAMP	
				Combination switch	Wiper intermittent dial 2	
					Wiper AUTO dial 2	
					Wiper intermittent dial 3	
77 (L)	Ground	Combination switch output 3	Output	Combination and lighting switches	OFF	 PKIB4960J 7.0 - 8.0 V
				Lighting switch	HEADLAMP 2	 PKIB4958J 1.2 V
				Combination switch	HI BEAM	
					Wiper AUTO dial 4	
					Wiper intermittent dial 5	
78 (O/B)	Ground	Combination switch output 2	Output	Combination and lighting switches	OFF	 PKIB4960J 7.0 - 8.0 V
				Lighting switch	HEADLAMP 1	 PKIB4958J 1.2 V
				Combination switch	PASSING	
					FR WIPER HI	
					FR WIPER INT (any intermittent position)	

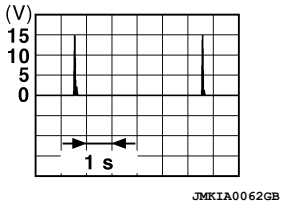
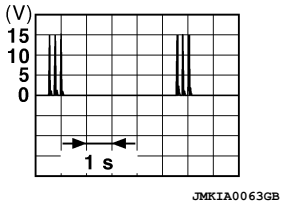
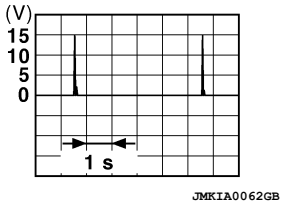
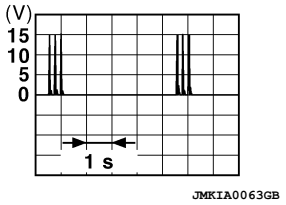
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
79 (R/W)	Ground	Combination switch output 1	Output	Combination switch	OFF	 PKIB4960J 7.0 - 8.0 V
					TURN RH	 PKIB4958J 1.2 V
					TURN LH	
					FR WIPER LOW	
					FR WASHER	
82 (W)	Ground	Left rear door switch	Input	Rear door LH switch	OFF (when rear door LH closes)	 JPMIA0011GB 11.8V
					ON (when rear door LH opens)	0V
86 (G/B)	Ground	Left rear trailer flasher	Output	Push-button ignition switch ON	Turn signal switch OFF	Battery voltage
					Turn signal switch LH	 PKIC6370E 6.0 - 7.0 V
87 (Y/B)	Ground	Right rear trailer flasher	Output	Push-button ignition switch ON	Turn signal switch OFF	Battery voltage
					Turn signal switch RH	 PKIC6370E 6.0 - 7.0 V

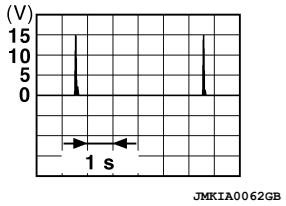
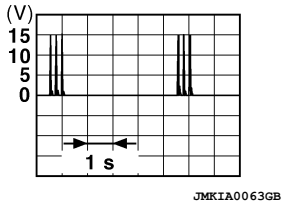
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
92 (O)	Ground	Right rear flasher	Output	Push-button ignition switch ON	Turn signal switch OFF	0V
					Turn signal switch RH	 PKID0926E 6.5V
93 (R)	Ground	Right rear door switch	Input	Rear door RH switch	OFF (when rear door RH closes)	 JPMIA0011GB 11.8V
					ON (when rear door RH opens)	0V
94 (G)	Ground	Passenger door switch	Input	Front door RH switch	OFF (when front door RH closes)	 JPMIA0011GB 11.8V
					ON (when front door RH opens)	0V
96 (BG)	Ground	Driver door switch	Input	Front door LH switch	OFF (front door LH CLOSE)	 JPMIA0011GB 11.8V
					ON (front door LH OPEN)	0V
97 (P/L)	Ground	Cargo lamp switch	Input	Cargo lamp switch	OFF	 JPMIA0011GB 11.8V
					ON	0V

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
103 (G/B)	Ground	Left rear flasher	Output	Push-button ignition switch ON	Turn signal switch OFF	0V
					Turn signal switch LH	 PKID0926E 6.5V
105 (G/Y)	Ground	Right front flasher	Output	Push-button ignition switch ON	Turn signal switch OFF	0V
					Turn signal switch RH	 PKID0926E 6.5V
107 (W)	Ground	Low side start switch LED	Output	Push-button ignition switch	OFF	0V
					NOTE: When the illumination brightening/dimming level is in the neutral position ON	 JSNIA0010GB
108 (L/R)	Ground	Shift lock solenoid output	Input	Selector lever	P position	0V
					Any position other than P	Battery voltage
111 (P)	Ground	ACC LED	Output	Push-button ignition switch	OFF	Battery voltage
					ACC or ON	0V
113 (L)	Ground	ACC relay output	Output	Push-button ignition switch	OFF	0V
					ACC or ON	Battery voltage
114 (W)	Ground	Outside key antenna (passenger side) A	Output	When the front door RH request switch is operated with push-button ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB

Terminal No. (Wire color) (+)	Terminal No. (Wire color) (-)	Description Signal name	Description Input/ Output	Condition		Value (Approx.)
115 (BG)	Ground	Outside key antenna (passenger side) B	Output	When the front door RH request switch is operated with push-button ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
116 (W)	Ground	Inside key antenna (console) A	Output	Push-button ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
117 (G/B)	Ground	Left front flasher	Output	Push-button ignition switch ON	Turn signal switch OFF	0V
					Turn signal switch LH	 PKID0926E 6.5V

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
119 (R)	Ground	Remote keyless entry receiver signal	Input/ Output	Push-button ignition switch ON	Standby state	 OCC3881D
					When receiving the signal from the transmitter	 OCC3880D
121 (G)	Ground	Outside key antenna (driver side) B	Output	When the front door LH request switch is operated with push-button ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
122 (P)	Ground	Outside key antenna (driver side) A	Output	When the front door LH request switch is operated with push-button ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
123 (W)	Ground	Inside key antenna (instrument center) A	Output	Push-button ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
124 (G)	Ground	Inside key antenna (instrument center) B	Output	Push-button ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
126 (P)	Ground	NATS antenna amp. B	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 volt meter should move.
127 (BG)	Ground	NATS antenna amp. A	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 volt meter should move.

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
128 (B)	Ground	Inside key antenna (console) B	Output	Push-button ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
129 (R/G)	Ground	Battery saver output	Output	After passing the interior room lamp battery saver operation time		0V
				Any other time after passing the interior room lamp battery saver operation time		Battery voltage
130 (LG)	Ground	Passenger door unlock	Output	Front door RH	UNLOCK (actuator is activated)	Battery voltage
					Other than UNLOCK (actuator is not activated)	0V
131 (W)	Ground	BCM battery fuse	Input	Push-button ignition switch OFF		Battery voltage
132 (Y)	Ground	Front RH and rear door lock	Output	Front RH and rear doors	LOCK (actuator is activated)	Battery voltage
					Other than LOCK (actuator is not activated)	0V
133 (BR)	Ground	Front RH and rear door unlock	Output	Front RH and rear doors	UNLOCK (actuator is activated)	Battery voltage
					Other than UNLOCK (actuator is not activated)	0V
134 (B)	Ground	Ground 2	—	Push-button ignition switch ON		0V
135 (O)	Ground	Driver door lock	Output	All doors	LOCK (actuator is activated)	Battery voltage
					Other than LOCK (actuator is not activated)	0V
136 (L)	Ground	Room lamp control	Output	Interior room lamp	OFF	Battery voltage
					ON	0V
137 (V)	Ground	Driver door unlock	Output	Front door LH	UNLOCK (actuator is activated)	Battery voltage
					Other than UNLOCK (actuator is not activated)	0V
138 (V)	Ground	Rear door battery	Input	Push-button ignition switch OFF		Battery voltage
139 (W)	Ground	Fusible link battery power	Input	Push-button ignition switch OFF		Battery voltage

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
(+)	(-)	Signal name	Input/ Output		
140 (LG)	Ground	Power window ignition power supply	Output	Push-button ignition switch ON	Battery voltage
141 (V)	Ground	Power window battery power supply	Output	Push-button ignition switch OFF	Battery voltage
142 (Y)	Ground	Front door battery	Input	Push-button ignition switch OFF	Battery voltage
143 (B)	Ground	Ground 1	—	Push-button ignition switch ON	0V

Fail Safe

INFOID:0000000014387234

Display contents of CONSULT	Fail-safe	Cancellation
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI-SCANNING	Inhibit engine cranking	Ignition switch ON → OFF
B2560: START POW SUP CIRC	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent: • Starter control relay signal • Starter relay status signal
B2562: LOW VOLTAGE	Inhibit engine cranking	100 ms after the power supply voltage increases to more than 8.8 V
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent: • Starter motor relay control signal • Starter relay status signal (CAN)
B260A: IGN RELAY	Inhibit engine cranking	500 ms after the following conditions are fulfilled: • IGN relay (IPDM E/R) control signal: OFF (Battery voltage) • Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) • Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)
B261E: FUEL MIS CONFIG	Inhibit engine cranking	BCM initialization

DTC Inspection Priority Chart

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

Priority	DTC
1	• B2562: LOW VOLTAGE
2	• U1000: CAN COMM CIRCUIT • U1010: CONTROL UNIT(CAN)
3	• B2192: ID DISCORD BCM-ECM • B2193: CHAIN OF BCM-ECM • B2195: ANTI SCANNING • B2196: DONGLE NG • B2198: IMMOBI ANT NG

Priority	DTC
4	• B2555: STOP LAMP CIRCUIT • B2556: ENG START SW • B2557: VEHICLE SPEED • B2560: START POW SUP CIRC • B2601: SHIFT P SIGNAL • B2602: SHIFT P DIAG • B2603: SHIFT POSITION • B2604: SHIFT PN DIAG CAN • B2605: SHIFT PN DIAG IPDM • B2608: STARTER RELAY • B260A: IGN RELAY • B260F: ECM CAN COMM • B261A: ENGINE SW • B261B: CRANKING TIMEOUT • B261E: FUEL MIS CONFIG • B26F1: IGN RELAY OFF STUCK FAIL • B26F2: IGN RELAY ON STUCK FAIL • B26F3: INHIBIT RELAY ON STUCK FAIL • B26F4: INHIBIT RELAY OFF STUCK FAIL • B26F6: IGN USM CONT FAIL • B26F7: LF DRIVER COMMUNICATION FAIL • B26FC: KEYFOB MISS REGISTRATION • B26FD: SHIFT LOCK SOLENOID INSIDE F/B FAIL • B26FE: HOOD SW CAN DIAG FAIL • B26FF: INTELLIGENT TUNER COMMUNICATION FAIL • U0415: VDC CAN CIR2
5	• B2621: INSIDE ANTENNA 1 • B2622: INSIDE ANTENNA 2 • B2626: OUTSIDE 1 ANTENNA • B2627: OUTSIDE 2 ANTENNA
6	B259A: ROOM LAMP FUSE BLOWN

DTC Index

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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 is switched OFF → ON. The counter remains at 39 even if the number of cycles exceeds it. It is counted from 1 again when turning ignition switch OFF → ON after returning to the normal condition if the malfunction is detected again.

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Reference page
No DTC is detected. Further testing may be required.	—	—	—
U1000: CAN COMM CIRCUIT	—	—	BCS-67, "DTC Description"
U1010: CONTROL UNIT (CAN)	—	—	BCS-68, "DTC Description"
U0415: VDC CAN CIR2	—	—	BCS-66, "DTC Description"
B2192: ID DISCORD BCM-ECM	×	—	SEC-78, "DTC Description"
B2193: CHAIN OF BCM-ECM	×	—	SEC-80, "DTC Description"
B2195: ANTI SCANNING	×	—	SEC-82, "DTC Description"
B2196: DONGLE NG	—	—	SEC-84, "DTC Description"
B2198: IMMOBI ANT NG	—	—	SEC-86, "DTC Description"
B2555: STOP LAMP CIRCUIT	—	—	SEC-88, "DTC Description"
B2556: ENG START SW	—	×	SEC-93, "DTC Description"

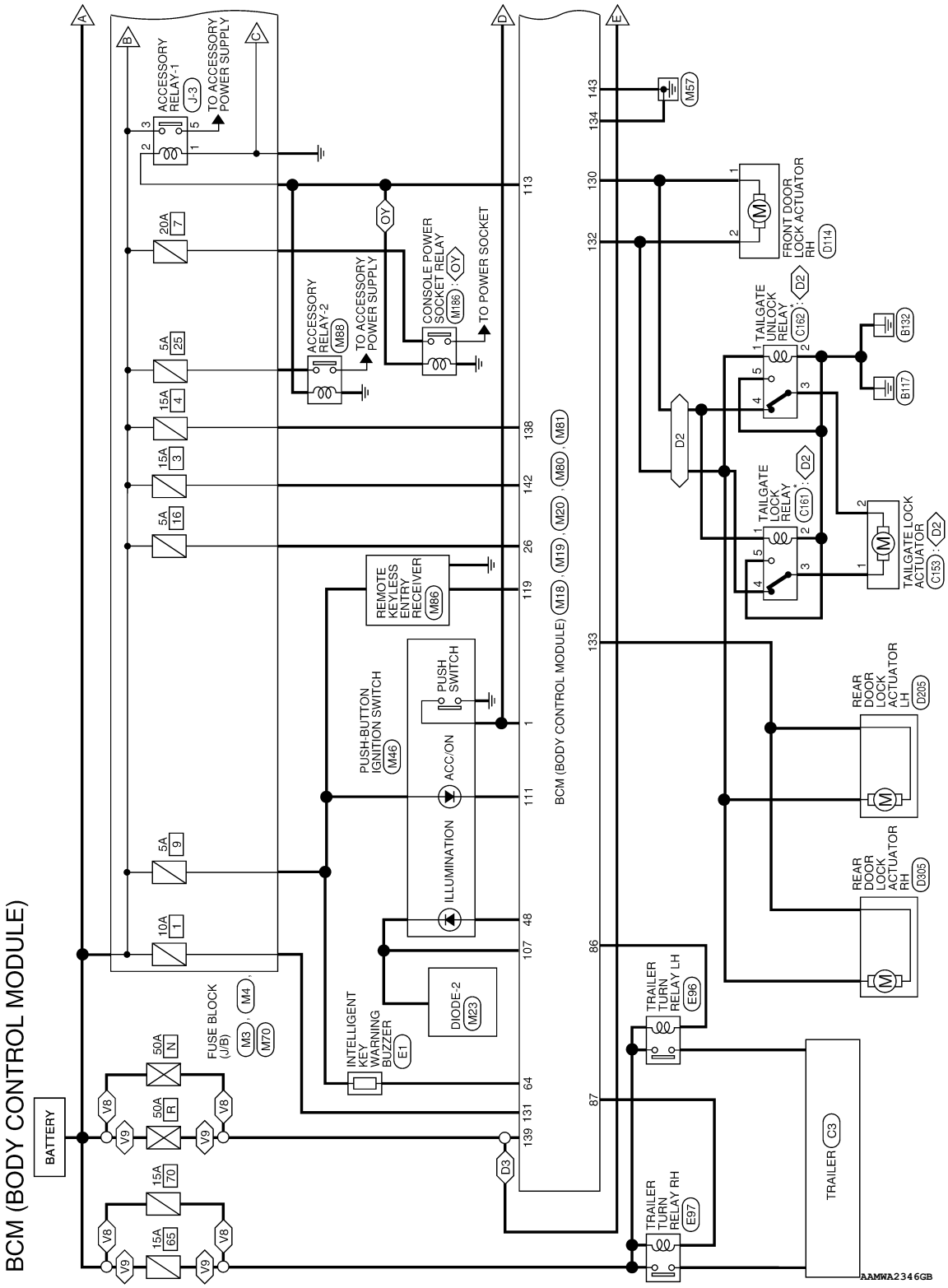
CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Reference page
B2557: VEHICLE SPEED	—	×	SEC-96, "DTC Description"
B2560: START POW SUP CIRC	×	×	SEC-98, "DTC Description"
B2562: LOW VOLTAGE	×	—	BCS-69, "DTC Description"
B259A: ROOM LAMP FUSE BLOWN	—	—	BCS-70, "DTC Description"
B2601: SHIFT P SIGNAL	—	×	SEC-100, "DTC Description"
B2602: SHIFT P DIAG	—	×	SEC-103, "DTC Description"
B2603: SHIFT POSITION	—	×	SEC-106, "DTC Description"
B2604: SHIFT PN DIAG CAN	—	×	SEC-110, "DTC Description"
B2605: SHIFT PN DIAG IPDM	—	×	SEC-113, "DTC Description"
B2608: STARTER RELAY	×	×	SEC-116, "DTC Description"
B260A: IGN RELAY	×	×	PCS-79, "DTC Description"
B260F: ECM CAN COMM	×	×	SEC-118, "DTC Description"
B261A: ENGINE SW	—	×	PCS-81, "DTC Description"
B261B: CRANKING TIMEOUT	—	—	SEC-120, "DTC Description"
B261E: FUEL MIS CONFIG	×	× (Turn ON for 15 seconds)	SEC-121, "DTC Description"
B2621: INSIDE ANTENNA 1	—	—	DLK-77, "DTC Description"
B2622: INSIDE ANTENNA 2	—	—	DLK-80, "DTC Description"
B2626: OUTSIDE 1 ANTENNA	—	—	DLK-92, "DTC Description"
B2627: OUTSIDE 2 ANTENNA	—	—	DLK-95, "DTC Description"
B26F1: IGNITION RELAY OFF STUCK FAIL	—	—	PCS-84, "DTC Description"
B26F2: IGNITION RELAY ON STUCK FAIL	—	—	PCS-86, "DTC Description"
B26F3: INHIBIT RELAY ON STUCK FAIL	—	—	SEC-123, "DTC Description"
B26F4: INHIBIT RELAY OFF STUCK FAIL	—	—	SEC-124, "DTC Description"
B26F6: IGN USM CONT FAIL	—	—	PCS-88, "DTC Description"
B26F7: LF DRIVER COMMUNICATION FAIL	—	—	SEC-126, "DTC Description"
B26FC: KEYFOB MIS REGISTRATION	—	—	SEC-125, "DTC Description"
B26FD: SHIFT LOCK SOLENOID INSIDE F/B FAIL	—	—	DLK-83, "DTC Description"
B26FE: HOOD SWITCH CAN DIAG FAIL	—	—	DLK-85, "DTC Description"
B26FF: INTELLIGENT TUNER COMMUNICATION FAIL	—	—	DLK-88, "DTC Description"

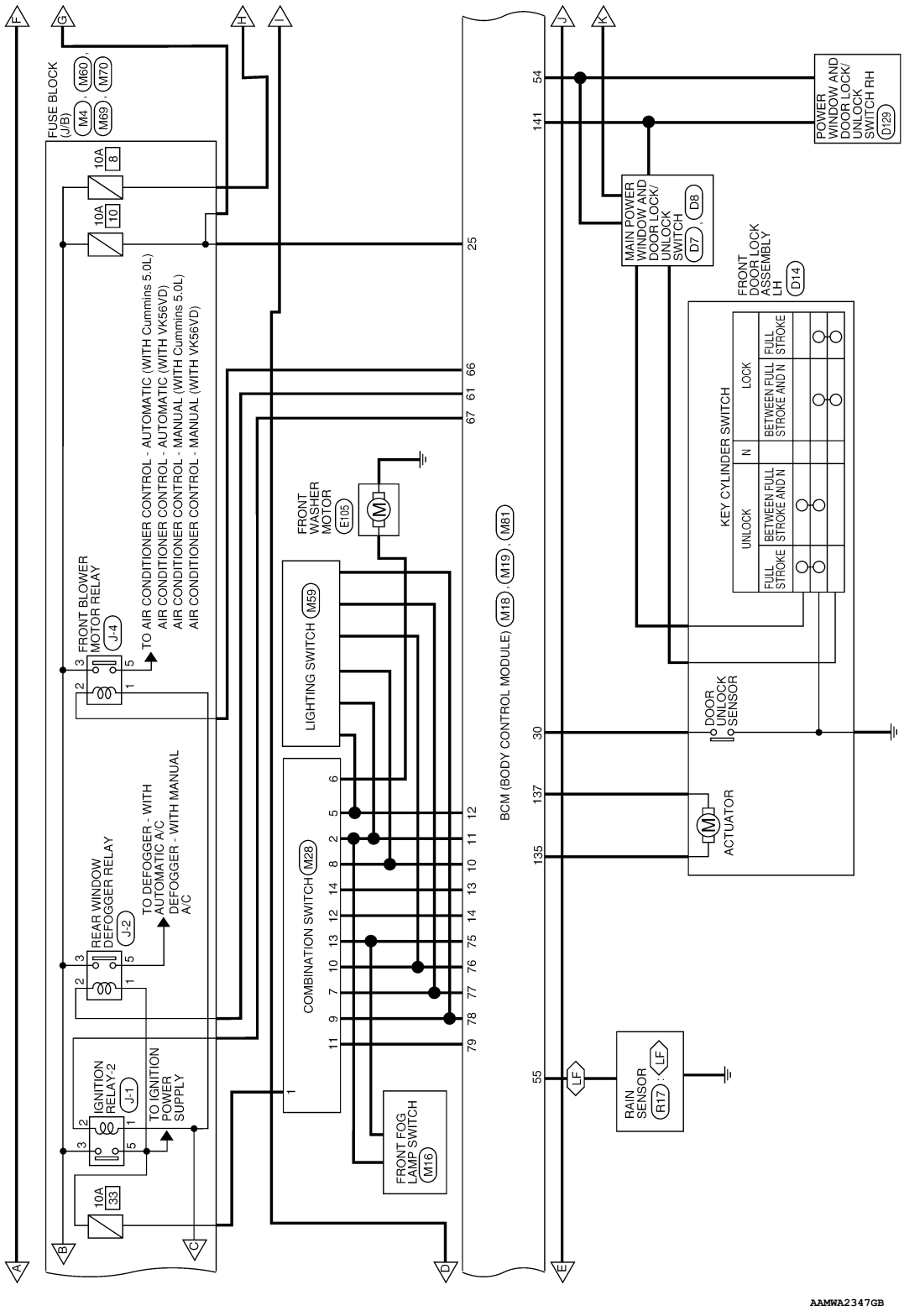
WIRING DIAGRAM

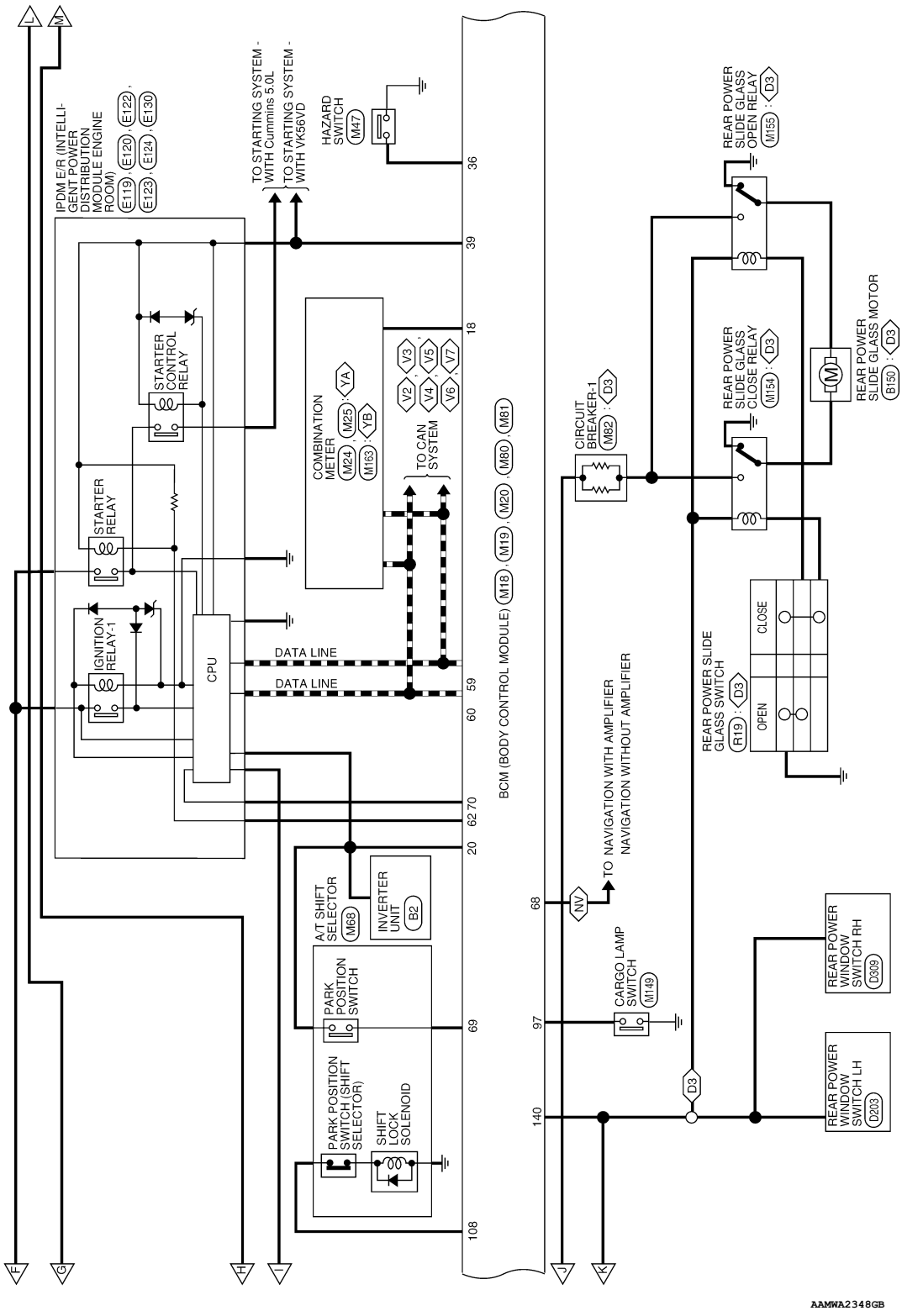
BCM

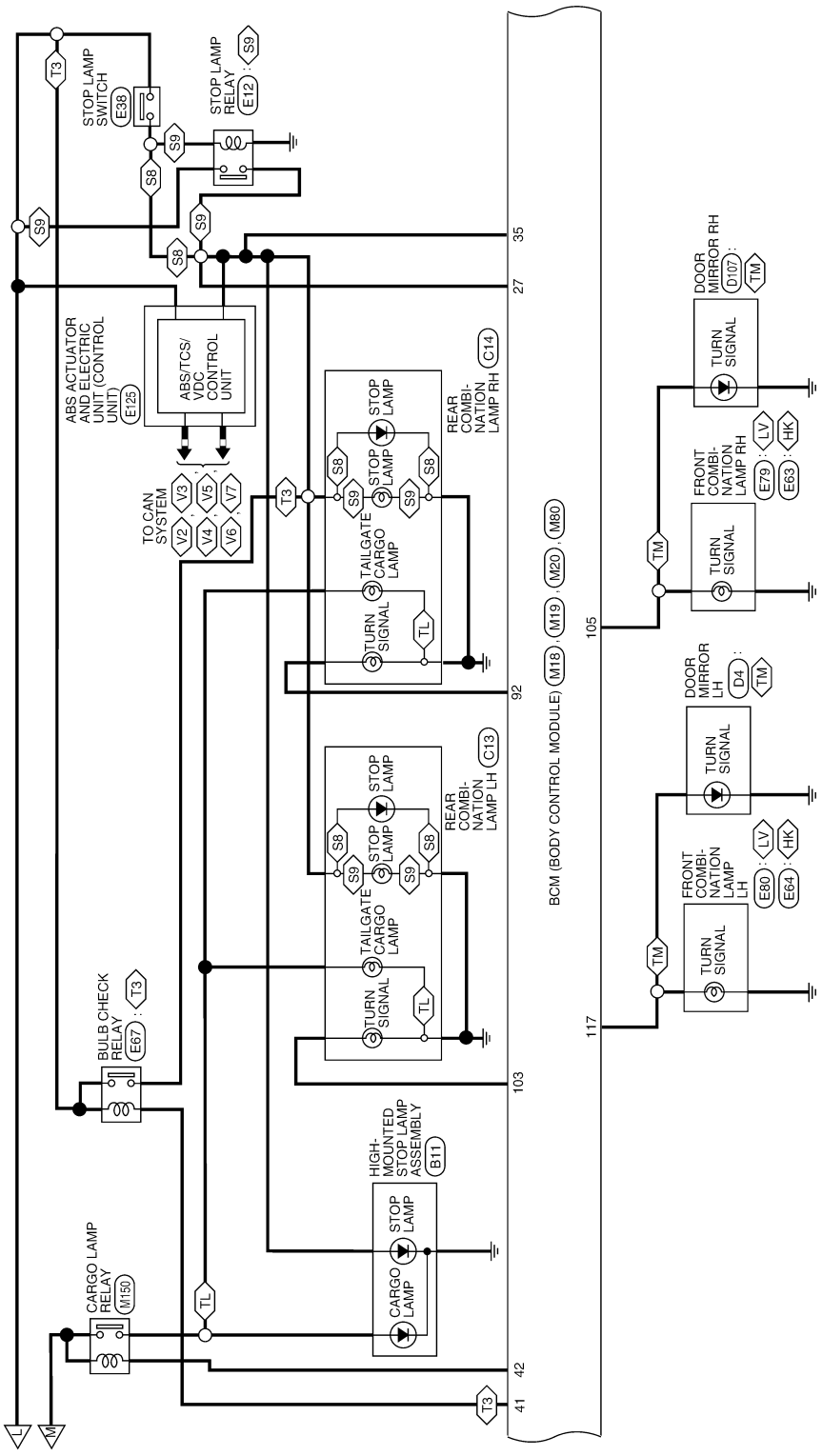
Wiring Diagram

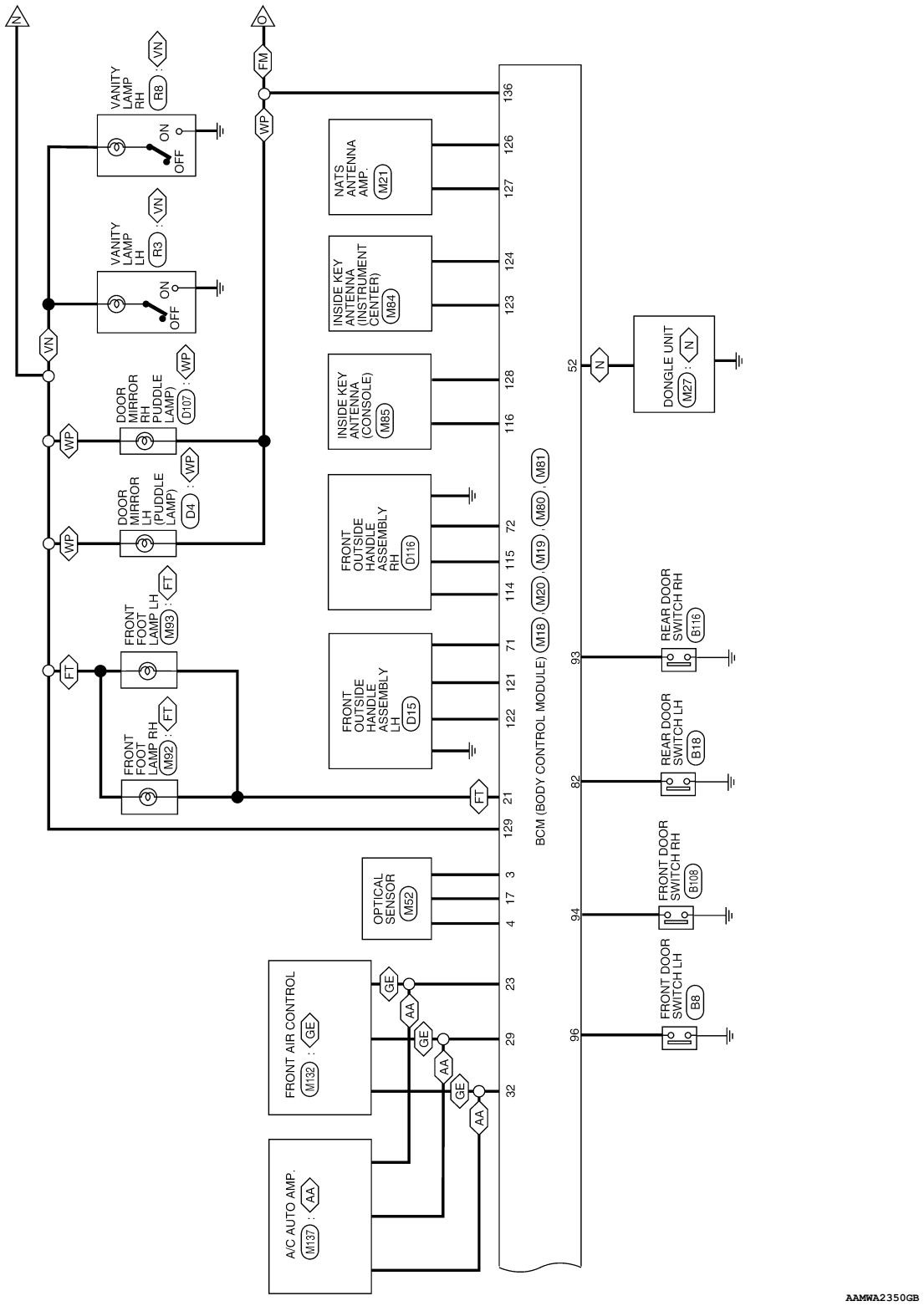
INFOID:0000000014387237




FUSE BLOCK (J/B) M4, M60, M69, M70
10A 8
10A 10
10A 33
FRONT BLOWER MOTOR RELAY J-4
REAR WINDOW DEFOGGER RELAY J-2
IGNITION RELAY-2 J-1
TO IGNITION POWER SUPPLY
TO DEFOGGER - WITH AUTOMATIC A/C
DEFOGGER - WITH MANUAL A/C
TO AIR CONDITIONER CONTROL - AUTOMATIC (WITH Cummins 5.0L)
AIR CONDITIONER CONTROL - AUTOMATIC (WITH VK56VD)
AIR CONDITIONER CONTROL - MANUAL (WITH Cummins 5.0L)
AIR CONDITIONER CONTROL - MANUAL (WITH VK56VD)
FRONT WASHER MOTOR E105
LIGHTING SWITCH M59
COMBINATION SWITCH M28
FRONT FOG LAMP SWITCH M16
BCM (BODY CONTROL MODULE) M18, M19, M81
RAIN SENSOR R17
POWER WINDOW AND DOOR LOCK/ UNLOCK SWITCH RH D129
MAIN POWER WINDOW AND DOOR LOCK/ UNLOCK SWITCH D7, D8
FRONT DOOR LOCK ASSEMBLY LH D14
KEY CYLINDER SWITCH
UNLOCK
LOCK
N
FULL STROKE
BETWEEN FULL STROKE AND N
DOOR UNLOCK SENSOR
ACTUATOR
AAMWA2347GB


IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E119, E120, E122, E123, E124, E130
TO STARTING SYSTEM - WITH Cummins 5.0L
TO STARTING SYSTEM - WITH VK56VD
HAZARD SWITCH M47
STARTER CONTROL RELAY
STARTER RELAY
IGNITION RELAY-1
CPU
COMBINATION METER M24, M25, M163
YA, YB
V2, V3, V4, V5, V6, V7
TO CAN SYSTEM
DATA LINE
DATA LINE
BCM (BODY CONTROL MODULE) M18, M19, M20, M80, M81
A/T SHIFT SELECTOR M68
INVERTER UNIT B2
PARK POSITION SWITCH
PARK POSITION SWITCH (SHIFT SELECTOR)
SHIFT LOCK SOLENOID
CIRCUIT BREAKER-1 M82
TO NAVIGATION WITH AMPLIFIER
NAVIGATION WITHOUT AMPLIFIER
CARGO LAMP SWITCH M149
REAR POWER SLIDE GLASS OPEN RELAY M155
REAR POWER SLIDE GLASS CLOSE RELAY M154
REAR POWER SLIDE GLASS MOTOR B150
REAR POWER SLIDE GLASS SWITCH R19
OPEN
CLOSE
REAR POWER WINDOW SWITCH RH D309
REAR POWER WINDOW SWITCH LH D203
D3
AAMWA2348GB


STOP LAMP SWITCH E38
STOP LAMP RELAY E12
ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) E125
ABS/TCS/VDC CONTROL UNIT
TO CAN SYSTEM
REAR COMBINATION LAMP RH C14
REAR COMBINATION LAMP LH C13
STOP LAMP
TAILGATE CARGO LAMP
TURN SIGNAL
BCM (BODY CONTROL MODULE) M18 M19 M20 M80
DOOR MIRROR RH D107
DOOR MIRROR LH D4
FRONT COMBINATION LAMP RH E79 E63
FRONT COMBINATION LAMP LH E80 E64
BULB CHECK RELAY E67
CARGO LAMP RELAY M150
HIGH-MOUNTED STOP LAMP ASSEMBLY B11
CARGO LAMP
35
27
105
92
117
103
42
41
AAMWA2349GB


VANITY LAMP RH R8 : VN
VANITY LAMP LH R3 : VN
DOOR MIRROR RH PUDDLE LAMP) D107 : WP
DOOR MIRROR LH (PUDDLE LAMP) D4 : WP
FRONT FOOT LAMP LH M93 : FT
FRONT FOOT LAMP RH M92 : FT
ON
OFF
FM
WP
VN
FT
NATS ANTENNA AMP. M21
INSIDE KEY ANTENNA (INSTRUMENT CENTER) M84
INSIDE KEY ANTENNA (CONSOLE) M85
FRONT OUTSIDE HANDLE ASSEMBLY RH D116
FRONT OUTSIDE HANDLE ASSEMBLY LH D15
BCM (BODY CONTROL MODULE) M18 : M20 : M19 : M80 : M81
DONGLE UNIT M27 : N
REAR DOOR SWITCH RH B116
REAR DOOR SWITCH LH B18
FRONT DOOR SWITCH RH B108
FRONT DOOR SWITCH LH B8
OPTICAL SENSOR M52
FRONT AIR CONTROL M132 : GE
A/C AUTO AMP. M137 : AA
GE
AA
136
126
127
124
123
128
116
72
115
114
71
121
122
21
129
3
17
4
23
29
32
52
93
82
94
96
AAMWA2350GB


: CAN COMMUNICATION LINE FOR DIAGNOSIS
AA : WITH AUTO A/C
CX : WITHOUT FRONT ROOF CONSOLE
D2 : WITH ELECTRIC LOCKING TAILGATE
D3 : WITH POWER REAR GLASS
E2 : WITHOUT NAVIGATION SYSTEM
FC : WITH FRONT ROOF CONSOLE
FT : WITH FOOT LAMPS
GE : WITH MANUAL A/C
HK : WITH HALOGEN HEADLAMPS
LF : WITH RAIN SENSING FRONT WIPERS
LV : WITH LED HEADLAMPS
N : FOR CANADA
NV : WITH NAVI
OY : WITH CONSOLE POWER SOCKET
S8 : WITH LED REAR COMBINATION LAMPS
S9 : WITHOUT LED REAR COMBINATION LAMPS
T3 : WITH TRAILER BRAKE
TL : WITH TAILGATE CARGO LAMPS
TM : WITH TURN SIGNAL IN MIRROR
V2 : WITH VK56VD AND WITH DRIVER ASSISTANCE SYSTEM
V3 : WITH VK56VD AND WITHOUT DRIVER ASSISTANCE SYSTEM
V4 : CAN GATEWAY SYSTEM WITH Cummins 5.0L
V5 : WITH Cummins 5.0L AND WITHOUT NAVIGATION
V6 : WITH Cummins 5.0L AND WITH NAVIGATION WITH BLIND SPOT WARNING SYSTEMS
V7 : WITH Cummins 5.0L AND WITH NAVIGATION WITHOUT BLIND SPOT WARNING SYSTEMS
V8 : WITH Cummins 5.0L
V9 : WITH VK56VD
VN : WITH VANITY LAMPS
WP : WITH PUDDLE LAMPS
YA : WITH TYPE A
YB : WITH TYPE B
N
O
CX
FC
PERSONAL LAMP R11
FRONT ROOM/MAP LAMP ASSEMBLY R13 : FC
FRONT ROOM/MAP LAMP ASSEMBLY R14 : CX
MAP LAMP SWITCH LH
MAP LAMP SWITCH RH
DOOR
INTERIOR SWITCH
ON
OFF
AAMWA2351GB

BCM (BODY CONTROL MODULE) CONNECTORS

Connector No.	C153
Connector Name	TAILGATE LOCK ACTUATOR
Connector Type	RH02FB
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
1	W	TAILGATE LOCK RELAY OUTPUT
2	GR	TAILGATE UNLOCK RELAY OUTPUT

Connector No.	C161
Connector Name	TAILGATE LOCK RELAY
Connector Type	6098-4739
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
1	L	RELAY CONTROL
2	B	GROUND
3	G	RELAY OUTPUT
4	G	DOOR LOCK AS/RR/RL
5	B	GROUND

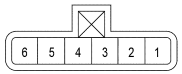
Connector No.	C162
Connector Name	TAILGATE UNLOCK RELAY
Connector Type	6098-4739
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
1	G	RELAY CONTROL
2	B	GROUND
3	L	RELAY OUTPUT
4	L	SUPER LOCK/DOOR UNLOCK AS
5	B	GROUND

Connector No.	D114
Connector Name	FRONT DOOR LOCK ACTUATOR RH
Connector Type	E06FGY-RS
Connector Color	GRAY

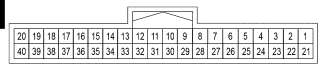
H.S.



Terminal No.	Color of Wire	Signal Name
1	LG	SUPER LOCK/DOOR UNLOCK AS
2	Y	DOOR LOCK AS/RR/RL
3	–	–
4	–	–
5	–	–
6	–	–

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH
Connector Color	GREEN

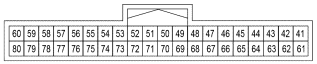
H.S.



Terminal No.	Color of Wire	Signal Name
1	G	ENG START SW NO ESCL
2	–	–
3	R	A/L POWER SUPPLY 5V
4	W/R	A/L SIGNAL
5	–	–
6	–	–
7	–	–
8	–	–
9	–	–
10	SB	COMBI SW IN 5
11	G/Y	COMBI SW IN 4
12	Y	COMBI SW IN 3
13	G/B	COMBI SW IN 2
14	V	COMBI SW IN 1
15	–	–
16	–	–
17	P	GND RF A/L
18	V	SECURITY INDICATOR
19	–	–
20	R	SHIFT P
21	R/W	STEP LAMP CONT
22	–	–
23	Y	AIRCON SW
24	–	–
25	W	BRAKE SW FUSE
26	L	SHORT IN PIN INPUT
27	R/G	BRAKE SW LAMP
28	–	–
29	W	BLOWER FAN SW
30	P	DR DOOR LOCK STATUS
31	–	–
32	Y	REAR DEFOGGER SW
33	–	–
34	–	
35	R/G	REVERSE SW
36	W/B	HAZARD SW
37	–	–
38	–	–
39	B/R	SHIFT N/P
40	–	–

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH
Connector Color	BLACK

H.S.



Terminal No.	Color of Wire	Signal Name
41	Y/L	TRAILER LIGHT CHECK RELAY OUT
42	R/Y	CARGO LAMP OUT
43	–	–
44	–	–
45	–	–
46	–	–
47	–	–
48	R	HIGH SIDE START SW LED
49	–	–
50	–	–
51	–	–
52	W	AUDIO DONGLE
53	–	–
54	W/L	PW UART
55	W/B	L&R SENSOR K-LINE
56	–	–
57	–	–
58	–	–
59	P	CAN-L
60	L	CAN-H
61	O	REAR DEFOGGER RELAY OUT
62	W	STARTER RELAY OUT
63	–	–
64	P	BUZZER OUT
65	–	–
66	W	BLOWER FAN RELAY OUT
67	G	IGN ELEC RELAY OUT 2
68	L	MR OUTPUT
69	R/B	AT DEVICE OUT
70	P	IGN USM OUT 1
71	O	DR REQUEST SW
72	G	AS REQUEST SW
73	–	–
74	–	–
75	L/W	COMBI SW OUT 5
76	P	COMBI SW OUT 4
77	L	COMBI SW OUT 3
78	O/B	COMBI SW OUT 2
79	R/W	COMBI SW OUT 1
80	–	–

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BCM (BODY CONTROL MODULE) CONNECTORS

Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH24FGY-NH
Connector Color	GRAY

H.S.

92	91	90	89	88	87	86	85	84	83	82	81
104	103	102	101	100	99	98	97	96	95	94	93

Terminal No.	Color of Wire	Signal Name
81	–	–
82	W	RL DOOR SW
83	–	–
84	–	–
85	–	–
86	G/B	TRAILER FLASHER RL
87	Y/B	TRAILER FLASHER RR
88	–	–
89	–	–
90	–	–
91	–	–
92	O	RR FLASHER
93	R	RR DOOR SW
94	G	AS DOOR SW
95	–	–
96	BG	DR DOOR SW
97	P/L	CARGO LAMP SW
98	–	–
99	–	–
100	–	–
101	–	–
102	–	–
103	G/B	RL FLASHER
104	–	–

Connector No.	M28
Connector Name	COMBINATION SWITCH
Connector Type	TH16FW-NH
Connector Color	WHITE

H.S.

1	2	3			4	5	6
7	8	9	10	11	12	13	14

Terminal No.	Color of Wire	Signal Name
1	W/R	IGNITION
2	G/Y	COMBI SW OUTPUT 4
3	–	–
4	–	–
5	Y	COMBI SW OUTPUT 3
6	V/W	FRONT WASHER MOTOR +
7	L	COMBI SW INPUT 3
8	SB	COMBI SW OUTPUT 5
9	O/B	COMBI SW INPUT 2
10	P	COMBI SW INPUT 4
11	R/W	COMBI SW INPUT 1
12	V	COMBI SW OUTPUT 1
13	L/W	COMBI SW INPUT 5
14	G/B	COMBI SW OUTPUT 2

Connector No.	M80
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH24FB-NH
Connector Color	BLACK

H.S.

116	115	114	113	112	111	110	109	108	107	106	105
128	127	126	125	124	123	122	121	120	119	118	117

Terminal No.	Color of Wire	Signal Name
105	G/Y	FR FLASHER
106	–	–
107	W	LOW SIDE START SW LED
108	L/R	SHIFT LOCK SOLENOID OUT
109	–	–
110	–	–
111	P	ACC LED
112	–	–

113	L	ACC RELAY OUT
114	W	AS DOOR ANT A
115	BG	AS DOOR ANT B
116	W	ROOM ANT 2 A
117	G/B	FL FLASHER
118	–	–
119	R	RF NIMOCO
120	–	–
121	G	DR DOOR ANT B
122	P	DR DOOR ANT A
123	W	ROOM ANT 1 A
124	G	ROOM ANT 1 B
125	–	–
126	P	IMMO START BUTTON ANT B
127	BG	IMMO START BUTTON ANT A
128	B	ROOM ANT 2 B

Connector No.	M81
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA09FW-FHA6-SA
Connector Color	WHITE

H.S.

137	136	135	134	133	132	131	130	129
143	142	141	140	139	138			

Terminal No.	Color of Wire	Signal Name
129	R/G	BATTERY SAVER OUT
130	LG	SUPER LOCK/DOOR UNLOCK AS
131	W	BAT BCM FUSE
132	Y	DOOR LOCK AS/RR/RL
133	BR	DOOR UNLOCK AS/RR/RL
134	B	GND2
135	O	DOOR LOCK DR/AS/FL
136	L	ROOM LAMP CONT
137	V	DOOR UNLOCK DR/AS/FL
138	V	BAT REAR DOOR
139	W	BAT-POWER F/L
140	LG	P/W POWER SUPPLY IGN
141	V	P/W POWER SUPPLY BAT
142	Y	BAT FRONT DOOR
143	B	GND1

AAMIA5062GB

BASIC INSPECTION

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM)

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Description

INFOID:0000000014387238

BEFORE REPLACEMENT

When replacing BCM, save or print current vehicle specification with CONSULT configuration before replacement. Refer to BCS-62, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Work Procedure".

NOTE:

If “Before Replace ECU” cannot be used, use the “After Replace ECU” or “Manual Configuration” after replacing BCM.

AFTER REPLACEMENT

CAUTION:

- **When replacing BCM, you must perform “After Replace ECU” with CONSULT.**
- **Complete the procedure of “After Replace ECU” in order.**
- **If you set incorrect “After Replace ECU”, 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) : Work Procedure

INFOID:0000000014387239

1.SAVING VEHICLE SPECIFICATION

CONSULT

Enter "Re/Programming, Configuration" and perform “Before Replace ECU” to save or print current vehicle specification.

NOTE:

If “Before Replace ECU” cannot be used, use the "After Replace ECU" or "Manual Configuration" after replacing BCM.

>> GO TO 2.

2.REPLACE BCM

Replace BCM. Refer to BCS-79, "Removal and Installation".

>> GO TO 3.

3.WRITING VEHICLE SPECIFICATION

CONSULT

1. Enter "Re/Programming, Configuration".
2. If “Before Replace ECU” operation was performed, automatically an "Operation Log Selection" screen will be displayed. Select the applicable file from the "Saved Data List" and press “Confirm” to write vehicle specification. Refer to BCS-63, "CONFIGURATION (BCM) : Work Procedure".
3. If “Before Replace ECU” operation was not performed, select "After Replace ECU" or "Manual Configuration" to write vehicle specification. Refer to BCS-63, "CONFIGURATION (BCM) : Work Procedure".

>> GO TO 4.

4.REGISTER INTELLIGENT KEYS

For initialization and registration of Intelligent Keys, refer to CONSULT Immobilizer mode and follow the on-screen instructions.

>> Work End.

CONFIGURATION (BCM)

CONFIGURATION (BCM) : Description

INFOID:0000000014387240

Vehicle specification needs to be written with CONSULT because it is not written after replacing BCM.
Configuration has three functions as follows:

Function	Description
"Before Replace ECU"	• Reads the vehicle configuration of current BCM. • Saves the read vehicle configuration.
"After Replace ECU"	Writes the vehicle configuration with manual selection.
"Select Saved Data List"	Writes the vehicle configuration with saved data.

CAUTION:
- **When replacing BCM, you must perform “Select Saved Data List” or "After Replace ECU" with CONSULT.**
- **Complete the procedure of “Select Saved Data List” or "After Replace ECU" in order.**
- **If you set incorrect “Select Saved Data List” or "After Replace ECU", incidents might occur.**
- **Configuration is different for each vehicle model. Confirm configuration of each vehicle model.**
- **Never perform “Select Saved Data List” or "After Replace ECU" except for new BCM.**

CONFIGURATION (BCM) : Work Procedure

INFOID:0000000014387241

1.WRITING MODE SELECTION

CONSULT
Select “Reprogramming, Configuration” of BCM.

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

2.PERFORM “SAVED DATA LIST”

CONSULT
Automatically “Operation Log Selection” window will display if “Before Replace ECU” was performed. Select applicable file from the “Save Data List” and press “Confirm”.

>> Work End.

3.PERFORM “AFTER REPLACE ECU” OR “MANUAL CONFIGURATION”

CONSULT
1. Select “After Replace ECU” or “Manual Configuration”.
2. Identify the correct model and configuration list. Refer to BCS-64, "CONFIGURATION (BCM) : Configuration List".
3. Confirm and/or change setting value for each item.
   CAUTION:
   Thoroughly read and understand the vehicle specification. ECU control may not operate normally if the setting is not correct.
4. Select “Next”.
   CAUTION:
   Make sure to select “Next”, confirm each setting value and press “OK” 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 cannot be memorized.
5. When "Completed", select "End".

>> GO TO 4.

4.OPERATION CHECK

Confirm that each function controlled by BCM operates normally.

>> Work End.

CONFIGURATION (BCM) : Configuration List

INFOID:0000000014387242

CAUTION:

- **Thoroughly read and understand the vehicle specification. ECU control may not operate normally if the setting is not correct.**
- **The "setting value" of this vehicle is as follows: Never select any other value than the setting value shown below. (If there is only 1 item in "setting value" that means that item is the only choice for this certain vehicle.)**

SETTING ITEM		NOTE
Items	Setting value	
AUTO LIGHT	WITHOUT ⇔ MODE3 ⇔ MODE4	• WITHOUT: Without auto light system • MODE3: With auto light system and With daytime running lamps • MODE4: With auto light system and Without daytime running lamps
DRL	WITHOUT ⇔ MODE4	• WITHOUT: Without daytime running lamps • MODE4: With daytime running lamps
SIGNATURE LIGHT SETTING	WITH ⇔ WITHOUT	• WITH: With LED headlamps • WITHOUT: With halogen headlamps
WELCOME LIGHT	WITH ⇔ WITHOUT	• WITH: With welcome light function • WITHOUT: Without welcome light function
RAIN SENSOR CONFIG	WITH ⇔ WITHOUT	• WITH: With rain sensing front wipers • WITHOUT: Without rain sensing front wipers
DONGLE	WITH ⇔ WITHOUT	• WITH: With dongle (Canada) • WITHOUT: Without dongle (USA)
CAN ERR DETECT TELEMATICS	WITH ⇔ WITHOUT	• WITH: With telematics system • WITHOUT: Without telematics system
CAN error detect transfer control unit	WITH ⇔ WITHOUT	• WITH: 4WD models • WITHOUT: 2WD models
Key Fob Type	LCK/UNLCK/ALRM ⇔ ENST/LCK/UNLCK/ALRM	• LCK/UNLCK/ALRM: 3 button (w/o engine start) • ENST/LCK/UNLCK/ALRM: 4 button (w/engine start)
INTELLIGENT KEY TYPE	Half ⇔ Full	• Half: Without door request switches • Full: With door request switches
ALT TYPE	GASOLINE ⇔ DIESEL	• GASOLINE: With VK56VD • DIESEL: With Cummins 5.0L
TRAILER LIGHT CHECK	WITH ⇔ WITHOUT	• WITH: With trailer light check • WITHOUT: Without trailer light check

SHIPPING MODE CANCEL OPERATION

Work Procedure

INFOID:0000000014387243

1. SHIPPING MODE CANCEL OPERATION

1. Turn ignition switch OFF.
2. Press in (turn on) the extended storage switch. Refer to PG-179, "How To Check".
3. Turn ignition switch ON.
4. Turn ignition switch OFF and wait at least 2 seconds.

NOTE:
Pressing in the extended storage switch moves the mode from Shipping to Normal.

>> GO TO 2.

2. SHIPPING MODE CANCEL CHECK

1. Turn ignition switch ON.
2. Check that extended storage warning message is not displayed in combination meter or display.

>> Work End.

DTC/CIRCUIT DIAGNOSIS

U0415 VEHICLE SPEED SIG

DTC Description

INFOID:0000000014387244

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
U0415	VDC CAN CIR2 (Vehicle speed)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	—
		Diagnosis delay time	2 seconds or more

POSSIBLE CAUSE

- ABS actuator and electric unit (control unit)
- BCM

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1. DTC CONFIRMATION PROCEDURE

CONSULT

1. Erase the DTC.
2. Turn ignition switch OFF.
3. Perform “Self Diagnostic Result” mode of “BCM”, after the ignition switch has been turned ON for 2 seconds or more.

Is any DTC detected?

YES >> Refer to BCS-66, "Diagnosis Procedure".
NO–1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO–2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014387245

1. SELF DIAGNOSTIC RESULT

CONSULT

1. Turn ignition switch ON.
2. Select “Self-Diagnostic Result” mode of “ABS”.
3. Check DTC.

Is any DTC detected?

YES >> Repair or replace the malfunctioning part.
NO >> Replace BCM. Refer to BCS-79, "Removal and Installation".

U1000 CAN COMM CIRCUIT

DTC Description

INFOID:0000000014387246

Description

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 vehicles are equipped with many electronic control units 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-74, "CAN COMMUNICATION SYSTEM : CAN Communication Signal Chart".

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
U1000	CAN COMM CIRCUIT (CAN communication circuit)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	—
		Diagnosis delay time	2 seconds or more

POSSIBLE CAUSE

CAN communication system

FAIL-SAFE

—

Diagnosis Procedure

INFOID:0000000014387247

1. SELF DIAGNOSTIC RESULT

CONSULT

1. Turn ignition switch ON and wait for 2 seconds or more.
2. Check “Self Diagnostic Result” mode of “BCM”.
3. Check DTC.

Is DTC “U1000” displayed?

YES >> Refer to LAN-53, "Trouble Diagnosis Flow Chart".
NO–1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO–2 >> Confirmation after repair: Inspection End.

U1010 CONTROL UNIT (CAN)

DTC Description

INFOID:0000000014387248

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
U1010	CONTROL UNIT(CAN) (Control unit)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	—
		Diagnosis delay time	2 seconds or more

POSSIBLE CAUSE

- BCM

FAIL-SAFE

—

Diagnosis Procedure

INFOID:0000000014387249

1. REPLACE BCM

When DTC U1010 is detected, replace BCM.

>> Replace BCM. Refer to BCS-79, "Removal and Installation".

B2562 LOW VOLTAGE

DTC Description

INFOID:0000000014387250

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2562	LOW VOLTAGE (Low voltage)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	BCM power circuit (terminal 139 and 131 and ground)
		Threshold	Less than 8.8V
		Diagnosis delay time	120 seconds or more

POSSIBLE CAUSE

- Harness or connector (power supply circuit)
- BCM

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.DTC CONFIRMATION PROCEDURE

CONSULT

1. Erase DTC.
2. Turn ignition switch OFF.
3. Perform the “Self Diagnostic Result” mode of “BCM”, after the ignition switch is turned ON for 120 seconds or more.

Is any DTC detected?

YES >> Refer to BCS-69, "Diagnosis Procedure".
NO–1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO–2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014387251

1.CHECK POWER SUPPLY CIRCUIT

Check BCM power supply circuit. Refer to BCS-72, "Diagnosis Procedure".

Is the circuit normal?

YES >> Replace BCM. Refer to BCS-79, "Removal and Installation".
NO >> Repair the malfunctioning part.

B259A ROOM LAMP FUSE

DTC Description

INFOID:0000000014387252

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B259A	ROOM LAMP FUSE BLOWN (Room lamp fuse blown)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	BCM power circuit (terminal 131 and ground)
		Threshold	Approx. 0V
		Diagnosis delay time	120 seconds or more

POSSIBLE CAUSE

- Fuse
- Harness or connector (power supply circuit is open or shorted)
- Harness or connector (battery saver output circuit is shorted)
- BCM

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.DTC CONFIRMATION PROCEDURE

CONSULT

1. Erase DTC.
2. Turn ignition switch OFF.
3. Perform the “Self Diagnostic Result” mode of “BCM”, after the ignition switch has been turned ON for 120 seconds or more.

Is any DTC detected?

YES >> Refer to BCS-70, "Diagnosis Procedure".
NO–1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO–2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014387253

Regarding Wiring Diagram information, refer to BCS-54, "Wiring Diagram".

1. CHECK FUSE

Check that the following fuse is not blown.

Terminal No.	Signal name	Fuse No.
131	BCM battery fuse	1 (10A)

Is the fuse blown?

YES >> Replace the blown fuse after repairing the affected circuit.
NO >> GO TO 2.

2. CHECK BAT BCM FUSE CIRCUIT

1. Disconnect BCM connector M81.
2. Check voltage between BCM connector M81 terminal 131 and ground.

BCM		Ground	Voltage (Approx.)
Connector	Terminal		
M81	131	—	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness or connectors.

3. CHECK BATTERY SAVER OUTPUT CIRCUIT FOR SHORT TO GROUND

1. Turn ignition OFF.
2. Check continuity between BCM connector M81 terminal 129 and ground.

BCM		Ground	Continuity
Connector	Terminal		
M81	129	—	No

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-79, "Removal and Installation".
NO >> Repair or replace harness or connectors.

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000014387254

Regarding Wiring Diagram information, refer to BCS-54, "Wiring Diagram".

1. CHECK FUSE AND FUSIBLE LINK

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

Signal name	Fuse and fusible link No.	
	Cummins 5.0L	VK56VD
Fusible link battery power	R (50A)	N (50A)
BCM battery fuse	1 (10A)	1 (10A)

Is the fuse or fusible link blown?

YES >> Replace the blown fuse or fusible link after repairing the affected circuit.
NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

1. Disconnect BCM connector M81.
2. Check voltage between BCM connector M81 terminals 131, 139 and ground.

BCM		Ground	Voltage (Approx.)
Connector	Terminal		
M81	131	(—)	Battery voltage
	139		

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness or connectors.

3. CHECK GROUND CIRCUIT

Check continuity between BCM connector M81 terminals 134, 143 and ground.

BCM		Ground	Continuity
Connector	Terminal		
M81	134	—	Yes
	143		

Is the inspection result normal?

YES >> Inspection End.
NO >> Repair or replace harness or connectors.

COMBINATION AND LIGHTING SWITCH INPUT CIRCUIT

Diagnosis Procedure

INFOID:0000000014387255

Regarding Wiring Diagram information, refer to BCS-54, "Wiring Diagram".

1.CHECK INPUT 1 - 5 CIRCUIT FOR OPEN

1. Turn ignition switch OFF.
2. Disconnect BCM, combination switch, lighting switch and front fog switch (if equipped) connectors.
3. Check continuity between BCM connector and combination switch connector.

Combination switch signal	BCM		Combination switch		Continuity
	Connector	Terminal	Connector	Terminal	
Input 1	M19	79	M28	11	Yes
Input 2		78		9	
Input 3		77		7	
Input 4		76		10	
Input 5		75		13	

4. Check continuity between BCM connector and lighting switch connector.

Lighting switch signal	BCM		Lighting switch		Continuity
	Connector	Terminal	Connector	Terminal	
Input 2	M19	78	M59	2	Yes
Input 3		77		3	
Input 4		76		4	

5. Check continuity between BCM connector and front fog lamps switch connector (if equipped).

Front fog switch signal	BCM		Front fog switch		Continuity
	Connector	Terminal	Connector	Terminal	
Input 5	M19	75	M16	1	Yes

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace harness or connectors.

2.CHECK INPUT 1 - 5 CIRCUIT FOR SHORT

Check for continuity between BCM connector and ground.

Switch signal	BCM		Ground	Continuity
	Connector	Terminal		
Input 1	M18	79	Ground	No
Input 2		78		
Input 3		77		
Input 4		76		
Input 5		75		

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness or connectors.

3.CHECK BCM OUTPUT VOLTAGE

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

Switch signal	Terminals			Voltage (Approx.)
	(+)		(−)	
	BCM			
	Connector	Terminal		
Input 1	M19	79	Ground	Refer to BCS-32, "Reference Value".
Input 2		78		
Input 3		77		
Input 4		76		
Input 5		75		

Is the inspection result normal?

YES >> Replace malfunctioning switch.
NO >> Replace BCM. Refer to BCS-79, "Removal and Installation".

COMBINATION AND LIGHTING SWITCH OUTPUT CIRCUIT

Diagnosis Procedure

INFOID:0000000014387256

Regarding Wiring Diagram information, refer to BCS-54, "Wiring Diagram".

1.CHECK OUTPUT 1 - 5 CIRCUIT FOR OPEN

1. Turn ignition switch OFF.
2. Disconnect BCM, combination switch, lighting switch and front fog switch (if equipped) connectors.
3. Check continuity between BCM connector and combination switch connector.

Combination switch signal	BCM		Combination switch		Continuity
	Connector	Terminal	Connector	Terminal	
Output 1	M18	14	M28	12	Yes
Output 2		13		14	
Output 3		12		5	
Output 4		11		2	
Output 5		10		8	

4. Check continuity between BCM connector and lighting switch connector.

Lighting switch signal	BCM		Lighting switch		Continuity
	Connector	Terminal	Connector	Terminal	
Output 3	M18	12	M59	7	Yes
Output 4		11		6	
Output 5		10		5	

5. Check continuity between BCM connector and front fog switch connector (if equipped).

Front fog switch signal	BCM		Front fog switch		Continuity
	Connector	Terminal	Connector	Terminal	
Output 4	M18	11	M16	2	Yes

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace harness or connectors.

2.CHECK OUTPUT 1 - 5 CIRCUIT FOR SHORT

Check for continuity between BCM connector and ground.

Switch signal	BCM		Ground	Continuity
	Connector	Terminal		
Output 1	M18	14	Ground	No
Output 2		13		
Output 3		12		
Output 4		11		
Output 5		10		

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness or connectors.

3.CHECK BCM INTPUT SIGNAL

1. Connect BCM, combination switch, lighting switch and front fog switch (if equipped) connectors.
2. Turn ON any switch in the system that is malfunctioning.
3. Check voltage between BCM connector and ground.

Switch signal	Terminals			Voltage (Approx.)
	(+)		(−)	
	BCM			
	Connector	Terminal		
Output 1	M18	14	Ground	Refer to BCS-32, "Reference Value".
Output 2		13		
Output 3		12		
Output 4		11		
Output 5		10		

Is the inspection result normal?

Yes >> Replace BCM. Refer to BCS-79, "Removal and Installation".
No >> Replace malfunctioning switch.

SYMPTOM DIAGNOSIS

COMBINATION AND LIGHTING SWITCH SYSTEM SYMPTOMS

Symptom Table

INFOID:0000000014387257

1. Perform “Data Monitor” of CONSULT to check for any malfunctioning item.
2. Check the malfunction combinations.

Malfunctioning item: ×

Data monitor item													Malfunction combination
FR WIPER HI	FR WIPER LOW	FR WASHER SW	FR WIPER INT	INT VOLUME	TURN SIGNAL R	TURN SIGNAL L	TAIL LAMP SW	HI BEAM SW	HEAD LAMP SW 1	HEAD LAMP SW 2	PASSING SW	AUTO LIGHT SW	FR FOG SW	
	×	×			×	×								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	Input 1 signal circuit	Inspect the output signal circuit applicable to the malfunctioning part. Refer to BCS-73, "Diagnosis Procedure".
B	Input 2 signal circuit	
C	Input 3 signal circuit	
D	Input 4 signal circuit	
E	Input 5 signal circuit	
F	Output 1 signal circuit	Inspect the input signal circuit applicable to the malfunctioning part. Refer to BCS-75, "Diagnosis Procedure".
G	Output 2 signal circuit	
H	Output 3 signal circuit	
I	Output 4 signal circuit	
J	Output 5 signal circuit	
K	BCM	Replace BCM. Refer to BCS-79, "Removal and Installation".
L	Combination or lighting switch	Replace malfunctioning switch.

NORMAL OPERATING CONDITION

Description

INFOID:0000000014387258

SHIPPING MODE

- Shipping mode inhibits battery power consumption during transportation or storage of the vehicle. Vehicle is set to shipping mode before being shipped from the factory.
- When ignition switch is OFF, BCM operates shipping mode.
- BCM control function is limited in shipping mode. Remote keyless entry function does not operate in shipping mode.
- For shipping mode cancel operation, refer to BCS-65, "Work Procedure".

NOTE:
Do not cancel shipping mode during storage of the vehicle. Shipping mode should not be canceled until just prior to customer delivery.

REMOVAL AND INSTALLATION

BCM (BODY CONTROL MODULE)

Removal and Installation

INFOID:0000000014387259

BCM

REMOVAL

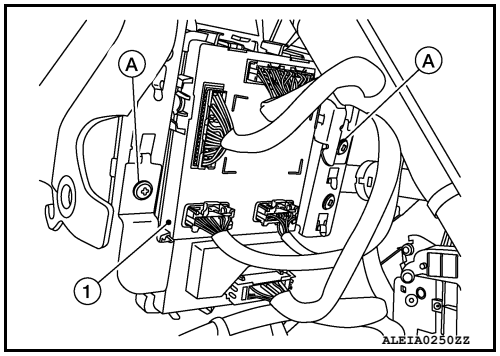
CAUTION:

Before removing the BCM, retrieve current BCM configuration to use for reference when configuring brand-new BCM after installation. Refer to BCS-7, "BODY CONTROL SYSTEM : System Description".

NOTE:

The BCM is located on the LH side of the instrument panel.

1. Disconnect the battery or batteries. Refer to PG-185, "Battery Disconnect".
2. Remove the instrument lower panel LH. Refer to IP-22, "Removal and Installation".
3. Remove the screws (A) and release the BCM.
4. Disconnect the harness connectors.
5. Remove the BCM (1).



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- **When replacing BCM, it must be configured. Refer to BCS-63, "CONFIGURATION (BCM) : Description".**
- **When replacing BCM, perform initialization of NATS system and registration of all NATS ignition key IDs. Refer to BCS-63, "CONFIGURATION (BCM) : Description".**
- **When replacing BCM, perform ID registration procedure of low tire pressure warning system. Refer to BCS-63, "CONFIGURATION (BCM) : Description".**

COMBINATION SWITCH

Removal and Installation

INFOID:0000000014387260

REMOVAL

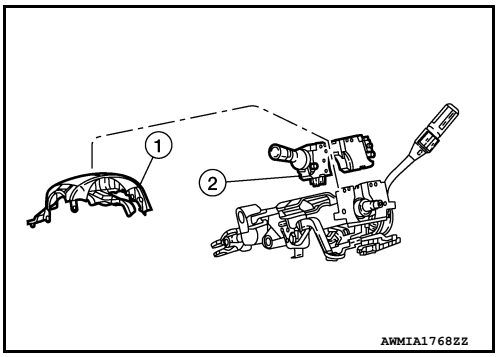
CAUTION:

- **Before servicing, turn the ignition switch OFF, disconnect both battery terminals and wait at least three minutes.**
- **Do not use air tools or electric tools for servicing.**

NOTE:

Shown with steering wheel removed for clarity only.

1. Disconnect the battery or batteries. Refer to PG-185, "Battery Disconnect".
2. Remove the instrument lower panel LH side. Refer to IP-22, "Removal and Installation"
3. Remove the upper steering column cover (1) and lower steering column cover.
4. Remove the tilt/telescopic switch electrical connector.
5. Loosen the combination switch bolts.
6. Disconnect the harness connector from the combination switch.
7. Remove the combination switch (2).



Combination switch bolts	**: 3.5 Nm (0.36 kg-m, 31 in-lb)**

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- **After the work is completed, make sure no system malfunction is detected by air bag warning lamp.**
- **In case a malfunction is detected by the air bag warning system lamp, reset with the self-diagnosis function and delete the memory with CONSULT GI-55, "Function and System Application".**
- **If a malfunction is still detected after the above operation, perform self-diagnosis to repair malfunctions. Refer to SRC-143, "Diagnosis Procedure".**