BODY CONTROL SYSTEM C

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< PRECAUTION > PRECAUTION PRECAUTIONS

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

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

WARNING:

Always observe the following items for preventing accidental activation.

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

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

WARNING:

Always observe the following items for preventing accidental activation.

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

< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION COMPONENT PARTS BODY CONTROL SYSTEM

BODY CONTROL SYSTEM : Component Parts Location



① BCM

A Behind of dash side finisher RH

POWER CONSUMPTION CONTROL SYSTEM

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COMPONENT PARTS

< SYSTEM DESCRIPTION >

POWER CONSUMPTION CONTROL SYSTEM : Component Parts Location

INFOID:000000009602863 A



< SYSTEM DESCRIPTION >

SYSTEM BODY CONTROL SYSTEM

BODY CONTROL SYSTEM : System Description

INFOID:000000009602864

OUTLINE

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

BCM CONTROL FUNCTION LIST

System	Reference
Combination switch reading system	BCS-8, "COMBINATION SWITCH READING SYSTEM : System Description"
Signal buffer system	BCS-12, "SIGNAL BUFFER SYSTEM : System Description"
Power consumption control system	BCS-13. "POWER CONSUMPTION CONTROL SYSTEM : Sys- tem Description"
Shipping mode control system	BCS-15, "SHIPPING MODE CONTROL SYSTEM : System De- scription"
Headlamp system	EXL-16. "HEADLAMP SYSTEM : System Description"
Auto light system	EXL-18, "AUTO LIGHT SYSTEM : System Description"
High beam assist system	EXL-21, "HIGH BEAM ASSIST SYSTEM : System Description"
Daytime running light system	EXL-24, "DAYTIME RUNNING LIGHT SYSTEM : System De- scription"
Turn signal and hazard warning lamp system	EXL-30, "TURN SIGNAL AND HAZARD WARNING LAMP SYS- TEM : System Description"
Parking, license plate side marker and tail lamps system	EXL-31, "PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMP SYSTEM : System Description"
Front fog lamp system	EXL-38, "FRONT FOG LAMP SYSTEM : System Description"
Exterior lamp battery saver system	EXL-40, "EXTERIOR LAMP BATTERY SAVER SYSTEM : Sys- tem Description"
Interior room lamp control system	INL-7, "INTERIOR ROOM LAMP CONTROL SYSTEM : System Description"
Interior room lamp battery saver system	INL-11, "INTERIOR ROOM LAMP BATTERY SAVER SYSTEM : System Description"
Illumination control system	INL-13, "ILLUMINATION CONTROL SYSTEM : System Descrip- tion"
Front wiper and washer system	<u>WW-8. "FRONT WIPER AND WASHER SYSTEM (WITH</u> <u>RAIN SENSOR) : System Description"</u> (With rain sensor) <u>WW-13. "FRONT WIPER AND WASHER SYSTEM (WITH-OUT RAIN SENSOR) : System Description"</u> (Without rain sensor)
Rear window defogger system	DEF-6. "System Description"
Warning chime system	WCS-5, "WARNING CHIME SYSTEM : System Description"
Power door lock system	DLK-16, "System Description"
Intelligent Key system	DLK-19, "INTELLIGENT KEY SYSTEM : System Description"
Trunk lid opener system	DLK-46, "System Description"

< SYSTEM DESCRIPTION >

System		Reference	^
Intelligent Key system/Engine start function		SEC-9, "INTELLIGENT KEY SYSTEM/ENGINE START FUNC- TION : System Description"	A
Infiniti Vehicle Immobilizer System-NATS		SEC-14, "INFINITI VEHICLE IMMOBILIZER SYSTEM-NATS : System Description"	В
Vehicle security system	Theft warning alarm	SEC-19 "VEHICLE SECURITY SYSTEM · System Description"	
venicle security system	Panic alarm		
Power window system		PWC-9, "System Description"	0
TPMS (Tire Pressure Monitoring System)		WT-8, "System Description"	

BODY CONTROL SYSTEM : Fail-safe

FAIL-SAFE CONTROL BY DTC

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

Display contents of CONSULT	Fail-safe	Cancellation	
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC	Г
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC	
B2195: ANTI-SCANNING	Inhibit engine cranking	Ignition switch $ON \rightarrow OFF$	G
B2198: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC	
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) 	Н
B260F: ENG STATE SIG LOST	Inhibit engine cranking	When any of the following conditions are fulfilledIgnition switch position changes to ACCReceives engine status signal (CAN)	
B26F1: IGN RELAY OFF	Inhibit engine cranking	 When the following conditions are fulfilled Ignition switch ON signal (CAN: Transmitted from BCM): ON Ignition switch ON signal (CAN: Transmitted from IPDM E/R): ON 	J
B26F2: IGN RELAY ON	Inhibit engine cranking	 When the following conditions are fulfilled Ignition switch ON signal (CAN: Transmitted from BCM): OFF Ignition switch ON signal (CAN: Transmitted from IPDM E/R): OFF 	K
B26F3: START CONT RLY ON	Inhibit engine cranking	 When the following conditions are fulfilled Starter control relay signal (CAN: Transmitted from BCM): OFF Starter control relay signal (CAN: Transmitted from IPDM E/R): OFF 	L
B26F4: START CONT RLY OFF	Inhibit engine cranking	 When the following conditions are fulfilled Starter control relay signal (CAN: Transmitted from BCM): ON Starter control relay signal (CAN: Transmitted from IPDM E/R): ON 	BC
B26F7: BCM	Inhibit engine cranking by Intelligent Key sys- tem	When room antenna and trunk room antenna functions normally	N

FAIL-SAFE CONTROL BY RAIN SENSOR MALFUNCTION

BCM detects the rain sensor serial link error and the rain sensor malfunction.

BCM controls the following fail-safe when rain sensor has a malfunction.

- Front wiper switch AUTO and sensing rain drop: The condition just before the activation of fail-safe is maintained until the front wiper switch is turned OFF.
- Front wiper switch AUTO and not sensing rain drop: Front wiper is LO operation until the front wiper switch is turned off.

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

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

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

COMBINATION SWITCH READING SYSTEM

COMBINATION SWITCH READING SYSTEM : System Description

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SYSTEM DIAGRAM



NOTE:

*: If so equipped.

• TAIL LAMP switch links lighting switch 1ST and 2ND positions.

OUTLINE

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

COMBINATION SWITCH MATRIX

Combination switch circuit



NOTE:

*: If so equipped.

TAIL LAMP switch links lighting switch 1ST and 2ND positions.

< SYSTEM DESCRIPTION >

Combination switch INPUT-OUTPUT system list						
System	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4	OUTPUT 5	А
INPUT 1	—	FR WASHER	FR WIPER LOW	TURN LH	TURN RH	
INPUT 2	FR WIPER HI	_	FR WIPER INT/AU- TO*	PASSING	HEADLAMP 1	В
INPUT 3	WIP VOLUME 1	RR WASHER*	_	HEADLAMP 2	HI BEAM	
INPUT 4	RR WIPER INT*	WIP VOLUME 3	AUTO LIGHT*		TAIL LAMP	C
INPUT 5	WIP VOLUME 2	RR WIPER ON*	RR FOG*	FR FOG*	_	U

NOTE:

• *: If so equipped.

Headlamp has a dual system switch.

COMBINATION SWITCH READING FUNCTION

Description

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



NOTE:

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

- BCM operates as follows and judges the status of the combination switch.
- It operates the transistor on OUTPUT side in the following order: OUTPUT 5 \rightarrow 4 \rightarrow 3 \rightarrow 2 \rightarrow 1, and outputs voltage waveform.
- The voltage waveform of OUTPUT corresponding to the formed circuit is input into the interface on INPUT side if any (1 or more) switches are ON.

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- It reads this change of the voltage as the status signal of the combination switch.



Operation Example

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

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

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

.

	Combination sw	Itch		BCM	
Lighting & turn signal s	switch V	Viper & washer switc	sh 🔶 🔶		
		/ FR WASHER		Input 1	0
		┼┯╅╹─┌		Input 2	2
HEADLAMP 1 PA		D*	FR WIPER HI		3
	O O DLAMP 2	RR WASHER*			
				Input 4	4
				5 Input 5	(5)
				 Output 1	A
				Output 2	B
	L			Output 3	C
				Output 4	Ē

NOTE:

- *: If so equipped.
- TAIL LAMP switch links lighting switch 1ST and 2ND positions.
- BCM detects the combination switch status signal "1E" when the signal of OUTPUT 5 is input to INPUT 1.
- BCM judges that the TURN RH switch is ON when the signal "1E" is detected.

Example 2: When some switches (TURN RH switch, FR WIPER LOW switch) are turned ON

< SYSTEM DESCRIPTION >

• The circuits between OUTPUT 5 and INPUT 1 and between OUTPUT 3 and INPUT 1 are formed when the TURN RH switch and FR WIPER LOW switch are turned ON.

Lighting & turn signal switch	Combination switch Wiper & washer switch	BCM
	FR WIPER LOW FR WASHER	
	AUTO LIGHT* WIP VOLUME 3 RR WIPER INT*	
FR FOG*	RR FOG*	Output 1
~		Output 3 C Output 4 0

NOTE:

- *: If so equipped.
- TAIL LAMP switch links lighting switch 1ST and 2ND positions.
- BCM detects the combination switch status signal "1CE" when the signals of OUTPUT 3 and OUTPUT 5 are input to INPUT 1.
- BCM judges that the TURN RH switch and FR WIPER LOW switch are ON when the signal "1CE" is H detected.

WIPER VOLUME DIAL POSITION

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

CONSULT of	lata monitor		Switch status	
Monitor item	Value/Status	WIP VOLUME 1	WIP VOLUME 2	WIP VOLUME 3
	1	ON	ON	ON
-	2	ON	ON	OFF
-	3	ON	OFF	OFF
INT VOLUME	4	OFF	OFF	OFF
-	5	OFF	OFF	ON
-	6	OFF	ON	ON
-	7	OFF	ON	OFF

NOTE:

For details of wiper volume dial position, refer to <u>WW-8</u>, <u>"FRONT WIPER AND WASHER SYSTEM (WITH</u> <u>RAIN SENSOR) : System Description</u>" (with rain sensor) or <u>WW-13</u>, <u>"FRONT WIPER AND WASHER SYS-</u> <u>TEM (WITHOUT RAIN SENSOR) : System Description</u>" (without rain sensor).

SIGNAL BUFFER SYSTEM

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< SYSTEM DESCRIPTION >

SIGNAL BUFFER SYSTEM : System Description

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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
Oil pressure switch signal	IPDM E/R (CAN)	Combination meter (CAN)TCU (CAN)	Transmits the received oil pres- sure switch signal via CAN communication.
Door switch signal	Any door switch	 Combination meter (CAN) Driver seat control unit (CAN) IPDM E/R (CAN) Pre-crash seat belt control unit (CAN) 	Inputs the door switch signal and transmits it via CAN com- munication.
Trunk switch signal	Trunk room lamp switch	Combination meter (CAN)	Inputs the trunk room lamp switch signal and transmits trunk switch signal via CAN communication.
 Ignition switch ON signal Ignition switch signal	Push-button ignition switch (Push switch)	 Driver seat control unit (CAN) IPDM E/R (CAN) Pre-crash seat belt control unit (CAN) 	Inputs the push-button ignition switch (push switch) signal and transmits the ignition switch sta- tus judged with BCM via CAN communication.

< SYSTEM DESCRIPTION >

Signal name	Input	Output	Description	٨
Interlock/PNP switch signal	ТСМ	IPDM E/R (CAN)	Inputs the P/N position signal via CAN communication.	A
Stop lamp switch signal	Stop lamp switch	TCM (CAN)	Inputs the stop lamp switch 1 signal and stop lamp switch 2 signal, and transmits it via CAN communication.	В

POWER CONSUMPTION CONTROL SYSTEM

POWER CONSUMPTION CONTROL SYSTEM : System Description

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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, combination meter, TCU, driver seat control unit, pre-crash seat belt control
 unit and CAN gateway) that operates with the ignition switch OFF.

Normal mode (wake-up)

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

CAN communication sleep mode (CAN sleep)

- CAN transmission is stopped

- Control with BCM only is operating

Low power consumption mode (BCM sleep)

- Low power consumption control is active

- CAN transmission is stopped

LOW POWER CONSUMPTION CONTROL WITH BCM

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

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

Sleep mode activation

- BCM receives the sleep-ready signal (ready) from IPDM E/R and TCU via CAN communication.
- BCM transmits the sleep wake up signal (sleep) to each unit when all of the CAN sleep conditions are fulfilled.
- Each unit stops the transmission of CAN communication with the sleep wake up signal. BCM is in CAN communication sleep mode.

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< SYSTEM DESCRIPTION >

• BCM is in the low power consumption mode and perform the low power consumption control when all of the BCM sleep conditions are fulfilled with CAN sleep condition.

Sleep condition

CAN sleep condition	BCM sleep condition
 Receiving the sleep-ready signal (ready) from all units 1 minute after turning Ignition switch OFF Warning chime: Not operation Intelligent Key warning buzzer: Not operation Stop lamp switch: OFF Turn signal indicator lamp: Not operation Exterior lamp: OFF Door lock status: No change CONSULT communication status: Not communication Meter display signal: Non-transmission Door switch status: No change 	 Interior room lamp battery saver: Time out* Infiniti Vehicle Immobilizer System (IVIS) - NATS: Not operation Remote keyless entry receiver communication status: No communication RAP system: OFF

NOTE:

*: Refer to <u>INL-11, "INTERIOR ROOM LAMP BATTERY SAVER SYSTEM : System Description"</u> for details of the interior room lamp battery saver time.

Wake-up operation

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

Wake-up condition

BCM wake-up condition	CAN wake-up condition
 Door key cylinder switch: NEUTRAL → LOCK, NEUTRAL → UNLOCK Door lock and unlock switch: NEUTRAL → LOCK, NEUTRAL → UNLOCK Extended storage fuse switch: OFF → ON, ON → OFF Trunk lid opener cancel switch: OFF → ON, ON → OFF Front door lock assembly (driver side) (unlock sensor): OFF → ON, ON → OFF One touch unlock sensor (driver door) signal: Receiving One touch unlock sensor (passenger door) signal: Receiving Power window or sunroof communication: Receiving 	 Receiving the sleep-ready signal (Not-ready) from any units Push-button ignition switch (push switch): OFF→ ON Hazard switch: OFF → ON HI BEAM switch: OFF → ON, ON → OFF PASSING switch: OFF → ON, ON → OFF HEADLAMP 1 switch: OFF → ON, ON → OFF HEADLAMP 2 switch: OFF → ON, ON → OFF TAIL LAMP switch: OFF → ON, ON → OFF Driver door switch: OFF → ON, ON → OFF Passenger door switch: OFF → ON, ON → OFF Rear RH door switch: OFF → ON, ON → OFF Rear LH door switch: OFF → ON, ON → OFF Trunk room lamp switch: OFF → ON, ON → OFF Driver door request switch: OFF → ON Passenger door request switch: OFF → ON Trunk lid opener request switch: OFF → ON Stop lamp switch: ON Remote keyless entry receiver communication: Receiving

SHIPPING MODE CONTROL SYSTEM

< SYSTEM DESCRIPTION >

SHIPPING MODE CONTROL SYSTEM : System Description

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SYSTEM DIAGRAM



DESCRIPTION

- BCM switches the status (shipping mode or normal mode) by itself according to the extended storage fuse switch condition, and transmits shipping mode status signal to combination meter and each unit via CAN communication.
- When shipping mode function operates, each control unit does not detect DTCs.
- BCM control functions are limited in shipping mode. Refer to BCS-97, "Description".
- The combination meter displays extended storage fuse warning message* on the information display, and turns the turn signal indicator lamp (LH/RH) ON, when BCM is in shipping mode.
- *: When shipping mode function operates, "SHIPPING MODE ON PUSH STORAGE FUSE" is displayed.

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< SYSTEM DESCRIPTION > DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

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APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
Work Support	Changes the setting for each system function.
Self Diagnostic Result	Displays the diagnosis results judged by BCM.
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM.
Data Monitor	The BCM input/output signals are displayed.
Active Test	The signals used to activate each device are forcibly supplied from BCM.
Ecu Identification	The BCM part number is displayed.
Configuration	Read and save the vehicle specification.Write the vehicle specification when replacing BCM.

SYSTEM APPLICATION

BCM can perform the following functions for each system. **NOTE:**

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

				×: Applicable item
System	Sub system soloction itom	Diagnosis mode		
System	Sub system selection item	Work Support	Data Monitor	Active Test
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER	×	×	×
Warning chime	BUZZER		×	×
Interior room lamp timer	INT LAMP	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER	×	×	×
	AIR CONDITONER*		×	×
Intelligent Key systemEngine start system	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
Body control system	BCM	×		
IVIS - NATS	IMMU	×	×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Trunk lid open	TRUNK		×	
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	AIR PRESSURE MONITOR			×

*: This item is not used.

FREEZE FRAME DATA (FFD)

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

< SYSTEM DESCRIPTION >

CONSULT screen item	Indication/Unit	Description		
Vehicle Speed	km/h	Vehicle speed of the moment a particular DTC is detected		
Odo/Trip Meter	km	Total mileage (Odometer value) of the moment a particular DTC is detected		
	SLEEP>LOCK		While turning BCM status from low power consumption mode to normal mode (Power supply position is "LOCK"*)	E
	SLEEP>OFF	-	While turning BCM status from low power consumption mode to normal mode (Power supply position is "OFF".)	С
	LOCK>ACC		While turning power supply position from "LOCK" *to "ACC"	
	ACC>ON		While turning power supply position from "ACC" to "IGN"	Г
	RUN>ACC		While turning power supply position from "RUN" to "ACC" (Vehicle is stopping and selector lever is except P position.)	L
	CRANK>RUN	-	While turning power supply position from "CRANKING" to "RUN" (From cranking up the engine to run it)	E
	RUN>URGENT	Power position status of the moment a particular DTC is detected*	While turning power supply position from "RUN" to "ACC" (Emer- gency stop operation)	_
	ACC>OFF		While turning power supply position from "ACC" to "OFF"	F
	OFF>LOCK		While turning power supply position from "OFF" to "LOCK"*	
Vehicle Condition	OFF>ACC		While turning power supply position from "OFF" to "ACC"	G
	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	F
	LOCK>SLEEP		While turning BCM status from normal mode (Power supply posi- tion 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)	0
	ENGINE RUN		Power supply position is "RUN" (Ignition switch ON with engine running)	K
	CRANKING	-	Power supply position is "CRANKING" (At engine cranking)	
IGN Counter	0 - 39	 The number of times that The number is 0 where The number increases whenever ignition swite The number is fixed to 	At ignition switch is turned ON after DTC is detected a malfunction is detected now. Is like $1 \rightarrow 2 \rightarrow 338 \rightarrow 39$ after returning to the normal condition ich OFF \rightarrow ON.	B

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)

BCM CONSULT FUNCTION

CONSULT performs the following functions via CAN communication with BCM.

WORK SUPPORT

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< SYSTEM DESCRIPTION >

Monitor item	Description
DOOR LOCK-UNLOCK SET	Selective unlock function mode can be changed to operation with this modeOn: OperateOff: Non-operation
AUTO UNLOCK TYPE	Automatic door lock/unlock function (unlock operation) mode can be selected from the follow- ing in this mode MODE1: All doors are unlocked MODE2: Only driver door is unlocked
AUTO LOCK FUNCTION	 Automatic door lock/unlock function (lock operation) mode can be selected from the following in the mode MODE1: All doors are locked when vehicle speed more than 24 km/h (15 MPH) MODE2: All doors are locked when shifting the selector lever from P position to other than the P position MODE3: Non-operation Off: Non-operation
AUTO UNLOCK FUNCTION	 Automatic door lock/unlock function (unlock operation) mode can be selected from the following in this mode MODE1: All doors are unlocked when the power supply position is changed from ON to OFF MODE2: All doors are unlocked when shifting the selector lever from any position other than the P to P position MODE3: Non-operation Off: Non-operation
SIGNATURE LIGHT SETTING	Signature light function can be changed to operation with this modeOn: OperateOff: Non-operation

DATA MONITOR NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

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

ACTIVE TEST

Test item	Description
DOOR LOCK	This test is able to check door lock/unlock operationALL LOCK: The all door lock actuators are locked.ALL UNLK: The all door lock actuators are unlocked.

REAR WINDOW DEFOGGER

< SYSTEM DESCRIPTION >

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

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WORK SUPPORT

			E
Service item	Setting item	Description	
	MODE1 [*]	Note	
SET R-DEF TIMER	MODE2	Do not use this function.	C
	MODE3		

*: Factory setting

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable E to this vehicle, refer to CONSULT display items.

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

ACTIVE TEST

Test Item	Description	-
REAR DEFOGGER	Rear window defogger operates when "On" on CONSULT screen is touched	

BUZZER

BUZZER : CONSULT Function (BCM - BUZZER)

CONSULT APPLICATION ITEMS

Test item	Diagnosis mode	Description	
BUZZER	Self Diagnostic Result	Displays the diagnosis results judged by BCM.	K
	Data Monitor	Displays BCM input data in real time.	
	Active Test	Operation of electrical loads can be checked by sending driving signal to them.	
	Ecu Identification	The BCM part number is displayed.	L

SELF DIAG RESULT

Refer to BCS-62, "DTC Index".

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Display item [Unit]	Description	0
PUSH SW [On/Off]	Status of push-button ignition switch judged by BCM.	P
UNLK SEN-DR [On/Off]	Status of unlock sensor judged by BCM.	
VEH SPEED 1 [km/h]	Value of vehicle speed signal received from combination meter with CAN communication line.	
TAIL LAMP SW [On/Off]	Status of lighting switch judged by BCM using the combination switch readout function.	

< SYSTEM DESCRIPTION >

Display item [Unit]	Description
FR FOG SW [On/Off]	Status of front fog lamp switch judged by BCM using the combination switch readout function.
DOOR SW-DR [On/Off]	Status of driver side door switch judged by BCM.
CDL LOCK SW [On/Off]	Status of door lock unlock switch judged by BCM.

ACTIVE TEST

Display item [Unit]	Description
SEAT BELT WARN TEST	The seat belt warning chime operation can be checked by operating the relevant function (On/Off).
LIGHT WARN ALM	The light warning chime operation can be checked by operating the relevant function (On/Off).
REVERSE WARNING	This item is displayed, but cannot be monitored.

NOTE:

Some items are not available according to vehicle specification. $\ensuremath{\mathsf{INT LAMP}}$

INT LAMP : CONSULT Function (BCM - INT LAMP)

WORK SUPPORT

Service item	Setting item	Setting
SCENARIO LIGHTING SETTING	On	NOTE:
SCENARIO EIGITTING SETTING	Off*	Do not use this function since interior room lamp control is changed.
	On	Without interior room lamp timer function
SET I/E D-ONECK INTCOM	Off*	With interior room lamp timer function
	On	With front fog override function
FOG LAWF OVERRIDE	Off*	Without front fog override function

*: Factory setting

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item [Unit]	Description
REQ SW -DR [On/Off]	Indicated [On/Off] condition of door request switch (driver side)
REQ SW -AS [On/Off]	Indicated [On/Off] condition of door request switch (passenger side)
REQ SW -RR [On/Off]	NOTE: This item is displayed, but cannot be monitored
REQ SW -RL [On/Off]	NOTE: This item is displayed, but cannot be monitored
PUSH SW [On/Off]	Indicates [On/Off] condition of push-button ignition switch
UNLK SEN -DR [On/Off]	Indicates [On/Off] condition of driver door UNLOCK status
DOOR SW-DR [On/Off]	Indicated [On/Off] condition of front door switch (driver side)

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< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description	А
DOOR SW-AS [On/Off]	Indicated [On/Off] condition of front door switch (passenger side)	
DOOR SW-RR [On/Off]	Indicated [On/Off] condition of rear door switch RH	В
DOOR SW-RL [On/Off]	Indicated [On/Off] condition of rear door switch LH	С
DOOR SW-BK [On/Off]	NOTE: This item is displayed, but cannot be monitored	
CDL LOCK SW [On/Off]	Indicated [On/Off] condition of lock signal from door lock and unlock switch	D
CDL UNLOCK SW [On/Off]	Indicated [On/Off] condition of unlock signal from door lock and unlock switch	Е
KEY CYL LK-SW [On/Off]	Indicated [On/Off] condition of lock signal from door key cylinder switch	
KEY CYL UN-SW [On/Off]	Indicated [On/Off] condition of unlock signal from door key cylinder switch	F
TRNK/HAT MNTR [On/Off]	Indicates [On/Off] condition of trunk room lamp switch	G
RKE-LOCK [On/Off]	Indicates [On/Off] condition of LOCK signal from Intelligent Key	
RKE-UNLOCK [On/Off]	Indicates [On/Off] condition of UNLOCK signal from Intelligent Key	Н

ACTIVE TEST

Test item	Operation	Description	
	On	Outputs interior room lamp control signal.	1
	Off	Stops interior room lamp control signal.	J
STEP LAMP TEST	On	Outputs step lamp control signal.	
	Off	Stops step lamp control signal.	K

HEADLAMP

HEADLAMP : CONSULT Function (BCM - HEAD LAMP)

INFOID:000000009725426

WORK SUPPORT

Service item	Setting item	Setting
	MODE 1*	Normal
	MODE 2	More sensitive setting than normal setting. (Turns ON earlier than normal operation.)
	MODE 3	More sensitive setting than MODE 2. (Turns ON earlier than MODE 2.)
	MODE 4	Less sensitive setting than normal setting. (Turns ON later than normal oper- ation.)

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< SYSTEM DESCRIPTION >

Service item	Setting item		Setting	
	MODE 1*	45 sec.	-	
	MODE 2	Without delay timer function		
	MODE 3	30 sec.		
ILL DELAY SET	MODE 4	60 sec.	Sets delay timer function timer operation time.	
	MODE 5	90 sec.	- (All doors closed)	
	MODE 6	120 sec.		
	MODE 7	150 sec.		
	MODE 8	180 sec.		
	MODE 1	Without twilight function		
	MODE 2*	With twilight ON function		
	MODE 1	Without wiper link function		
	MODE 2	With wiper LO and HI		
WIPER LINK	MODE 3*	With wiper INT, LO and HI		
	MODE 4	NOTE: This item is displayed, bu	ut cannot be used.	

*: Factory setting

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item [Unit]	Description
PUSH SW [On/Off]	Indicates [On/Off] condition of push-button ignition switch
ENGINE STATE [STOP/STALL/CRANK/RUN]	Indicates [STOP/STALL/CRANK/RUN] condition of engine states
VEH SPEED 1 [km/h]	Indicates [km/h] condition of vehicle speed signal from combination meter
TURN SIGNAL R [On/Off]	
TURN SIGNAL L [On/Off]	
TAIL LAMP SW [On/Off]	
HI BEAM SW [On/Off]	
HEAD LAMP SW1 [On/Off]	Each switch status that BCM judges from the combination switch reading function.
HEAD LAMP SW2 [On/Off]	
PASSING SW [On/Off]	
AUTO LIGHT SW [On/Off]	
FR FOG SW [On/Off]	
RR FOG SW [On/Off]	NOTE: This item is displayed, but cannot be monitored.

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description	A
DOOR SW-DR [On/Off]	Indicated [On/Off] condition of front door switch (driver side)	
DOOR SW-AS [On/Off]	Indicated [On/Off] condition of front door switch (passenger side)	В
DOOR SW-RR [On/Off]	Indicated [On/Off] condition of rear door switch RH	С
DOOR SW-RL [On/Off]	Indicated [On/Off] condition of rear door switch LH	
DOOR SW-BK [On/Off]	NOTE: This item is displayed, but cannot be monitored.	D
OPTI SEN (DTCT) [V]	The value of outside brightness voltage input from the optical sensor	Е
OPTI SEN (FILT) [V]	The value of outside brightness voltage filtered by BCM	
OPTICAL SENSOR [On/Off/NG]	NOTE: This item is displayed, but cannot be monitored.	F

ACTIVE TEST

Test item	Operation	Description
FR FOG LAMP	On	Transmits the front fog light request signal to IPDM E/R using CAN com- munication to turn the front fog lamp ON.
	Off	Stops the front fog light request signal transmission.
	On	NOTE:
RR FOG LAMP	Off	This item is displayed, but cannot be tested.
DAYTIME RUNNING LIGHT	On	Transmits the daytime running light request signal to IPDM E/R using CAN communication to turn the daytime running light ON.
	Off	Stops the daytime running light request signal transmission.
ILL DIM SIGNAL	On	 Transmits the dimmer signal to combination meter via CAN communication and dims combination meter. Transmits the dimmer signal to display control unit and dims display.
	Off	Stops the dimmer signal transmission.

WIPER

WIPER : CONSULT Function (BCM - WIPER)

WORK SUPPORT

Service item	Setting item	Description		Ν
RAIN SENSOR*1	With rain sensor (Front wiper intermittent time linked with the rain sensor, vehicle speed, and AUTO dial position)	The setting of front wiper	С	
	Without rain sensor (Front wiper intermittent time linked with the vehicle speed and AUTO dial position)	changed		
On WIPER SPEED SETTING* ² Off* ³	On	Linked with vehicle speed (Front wiper intermittent time linked with the vehicle speed and wiper intermittent dial position.)	The setting of front wiper	Г
	Not linked with vehicle speed (Front wiper intermittent time linked with the wiper intermittent dial position.)	changed.		

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< SYSTEM DESCRIPTION >

Service item	Setting item	Description	
FR RR DRIP On	On* ³	Front wiper drop wipe ON	The setting of drop wipe
	Off	Front wiper drop wipe OFF	changed

*1: With rain sensor

*2: Without rain sensor

*³: Factory setting

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor Item [Unit]	Description
PUSH SW [Off/On]	The switch status input from push-button ignition switch.
VEH SPEED 1 [km/h]	Displays the value of the vehicle speed signal received from combination meter via CAN com- munication.
FR WIPER HI [Off/On]	
FR WIPER LOW [Off/On]	Status of each switch judged by BCM using the combination switch reading function
FR WASHER SW [Off/On]	Status of each switch judged by Belvi using the combination switch reading function
FR WIPER INT [Off/On]	
FR WIPER STOP [Off/On]	Displays the status of the front wiper position signal received from IPDM E/R via CAN com- munication.
INT VOLUME [1 – 7]	Status of each switch judged by BCM using the combination switch reading function
RR WIPER ON [Off/On]	NOTE: The item is indicated, but not monitored.
RR WIPER INT [Off/On]	NOTE: The item is indicated, but not monitored.
RR WASHER SW [Off/On]	NOTE: The item is indicated, but not monitored.
RR WIPER STOP [Off/On]	NOTE: The item is indicated, but not monitored.
H/L WSR SW [Off/On]	NOTE: This item is indicated, but not monitored
RAIN SENSOR* [OFF/LOW/HIGH/SPLASH/NG]	Request signal from rain sensor detected by BCM is displayed

*: For models without rain sensor, this item is displayed, but can not be monitored.

ACTIVE TEST

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

< SYSTEM DESCRIPTION >

Test item	Operation	Description	٨
RR WIPER	NOTE: The item is i	ndicated, but not used.	A
HEADLAMP WASHER	NOTE: The item is i	ndicated, but not used.	В

FLASHER

FLASHER : CONSULT Function (BCM - FLASHER)

WORK SUPPORT

Service item	Setting item	Setting	
3-TIME FLASHER SETTING	On*	With 3-time flasher function	F
	Off	Without 3-time flasher function	

*: Factory setting

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item [Unit]	Description	
REQ SW -DR [On/Off]	Indicated [On/Off] condition of door request switch (driver side)	
REQ SW -AS [On/Off]	Indicated [On/Off] condition of door request switch (passenger side)	
PUSH SW [On/Off]	Indicates [On/Off] condition of push-button ignition switch	
TURN SIGNAL R [On/Off]	Each switch status that BCM detects from the combination switch reading function.	
TURN SIGNAL L [On/Off]		
HAZARD SW [On/Off]	The switch status input from the hazard switch.	
RKE-LOCK [On/Off]	Indicates [On/Off] condition of LOCK signal from Intelligent Key	
RKE-UNLOCK [On/Off]	Indicates [On/Off] condition of UNLOCK signal from Intelligent Key	
RKE-PANIC [On/Off]	NOTE: This item is displayed, but cannot be monitored.	

ACTIVE TEST

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

INTELLIGENT KEY

INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)

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WORK SUPPORT

< SYSTEM DESCRIPTION >

Monitor item	Description
INSIDE ANT DIAGNOSIS	This function allows inside key antenna self-diagnosis
LOCK/UNLOCK BY I-KEY	Door lock function (door request switch) mode can be changed to operation in this modeOn: OperateOff: Non-operation
ENGINE START BY I-KEY	Engine start function mode can be changed to operation with this modeOn: OperateOff: Non-operation
TRUNK/GLASS HATCH OPEN	Reminder function (trunk lid opener request switch) mode can be changed to operation with this mode • On: Operate • Off: Non-operation
AUTO LOCK SET	Auto door lock operation time can be changed in this mode MODE 1: OFF MODE 2: 30 sec. MODE 3: 1 minute MODE 4: 2 minutes MODE 5: 3 minutes MODE 6: 4 minutes MODE 6: 5: 5 minutes
SHORT CRANKING OUTPUT	Starter motor can operate during the times below • 70 msec • 100 msec • 200 msec
CONFIRM KEY FOB ID	It can be checked whether Intelligent Key ID code is registered or not in this mode
RETRACTABLE MIRROR SET	NOTE: This item is displayed, but cannot be used
TOUCH SENSOR UNLOCK FUNCTION SETTING	One touch unlock function can be changed to operation with this modeOn: OperateOff: Non-operation
IGN/ACC BATTERY SAVER	Ignition battery saver system mode can be changed to operation with this mode On: Operate Off: Non-operation
REMOTE ENGINE STARTE	NOTE: This item is displayed, but cannot be used
INTELLIGENT KEY LINK SET	NOTE: This item is displayed, but cannot be used
ANSWER BACK	 Reminder function (door request switch and Intelligent Key) mode can be selected from the following with this mode On: S mode (buzzer or horn reminder non-operation) Off: C mode (buzzer or horn operate)
ANSWER BACK I-KEY LOCK UN- LOCK	 Reminder function (door request switch) mode can be selected from the following with this mode BUZZER: Sound Intelligent Key warning buzzer HORN: Sound horn Off: Only hazard warning lamp operate INVALID: This item is displayed, but cannot be used
ANSWERBACK KEYLESS LOCK UNLOCK	Reminder function (Intelligent Key) mode can be selected from the following with this modeOn: Horn and hazard warning lamp operateOff: Only hazard warning lamp operate
WELCOME LIGHT OP SET	NOTE: This item is displayed, but cannot be used

SELF-DIAG RESULT Refer to <u>BCS-62, "DTC Index"</u>.

DATA MONITOR NOTE:

< SYSTEM DESCRIPTION >

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor Item	Condition
REQ SW -DR	Indicates [On/Off] condition of front door request switch (driver side)
REQ SW -AS	Indicates [On/Off] condition of front door request switch (passenger side)
REQ SW -BD/TR	Indicates [On/Off] condition of trunk lid opener request switch
PUSH SW	Indicates [On/Off] condition of push-button ignition switch
SHFTLCK SLNID PWR SPLY	Indicates [On/Off] condition of the power supply from BCM to shift lock solenoid
CLUCH SW	NOTE: This item is displayed, but cannot be monitored
BRAKE SW 1	Indicates [On/Off]* condition of stop lamp switch power supply
BRAKE SW 2	Indicates [On/Off] condition of stop lamp switch
DETE/CANCL SW	Indicates [On/Off] condition of P position
SFT PN/N SW	Indicates [On/Off] condition of P or N position
UNLK SEN -DR	Indicates [On/Off] condition of driver door UNLOCK status
PUSH SW -IPDM	Indicates [On/Off] condition of push-button ignition switch
IGN RLY1 -F/B	Indicates [On/Off] condition of ignition relay 1
DETE SW -IPDM	Indicates [On/Off] condition of P position
SFT PN -IPDM	Indicates [On/Off] condition of P or N position
SFT P -MET	Indicates [On/Off] condition of P position
SFT N -MET	Indicates [On/Off] condition of N position
ENGINE STATE	Indicates [STOP/STALL/CRANK/RUN] condition of engine states
/EH SPEED 1	Display the vehicle speed signal received from combination meter by numerical value [km/h]
VEH SPEED 2	Display the vehicle speed signal received from ABS or VDC or TCM by numerical value [km/h]
DOOR STAT-DR	Indicates [LOCK/READY/UNLK] condition of driver door status
DOOR STAT-AS	Indicates [LOCK/READY/UNLK] condition of passenger door status
DOOR STAT-RR	Indicates [LOCK/READY/UNLK] condition of rear door RH status
DOOR STAT-RL	Indicates [LOCK/READY/UNLK] condition of rear door LH status
BK DOOR STATE	NOTE: This item is displayed, but cannot be monitored
D OK FLAG	Indicates [Set/Reset] condition of Intelligent Key ID
PRMT ENG STRT	Indicates [Set/Reset] condition of engine start possibility
PRMT RKE STRT	NOTE: This item is displayed, but cannot be monitored
I-KEY OK FLAG	Indicates [KEY On/NOT On] condition of Intelligent Key ID and Intelligent Key is detected in- side vehicle
PRBT ENG STRT	Indicates whether or not the engine is in start prohibited status
ID AUTHENT CANCEL TIMER	Indicates whether or not it is in engine start possible status when Intelligent Key verification is unnecessary
ACC BATTERY SAVER	Indicates [On/Off] whether or not ignition battery saver is in operation
CRNK PRBT TMR	Indicates [On/Off] whether or not in cranking prohibited status due to starter motor protection function operation
AUT CRANK TMR	Indicates [On/Off] whether or not in AUTO CRANKING MODE status
CRNK PRBT TME	Indicates the time for changing from cranking prohibited status to cranking possible status
AUT CRANK TMR	Indicates the time that AUTO CRANKING MODE operates
CRANKING TME	Indicates the cranking operation time

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< SYSTEM DESCRIPTION >

Monitor Item	Condition
SHORT CRANK	NOTE: This item is displayed, but not used
DETE SW PWR	Indicates [On/Off] condition of the power supply from BCM to the A/T shift selector (detention switch)
IGN RLY3-REQ	Indicates [On/Off] condition of blower relay control signal
ACC RLY-REQ	Indicates [On/Off] condition of accessory relay control signal
RKE OPE COUN1	When remote keyless entry receiver receives the signal transmitted while operating on Intel- ligent Key, the numerical value start changing
RKE OPE COUN2	NOTE: This item is displayed, but cannot be monitored
TRNK/HAT MNTR	Indicates [On/Off] condition of trunk room lamp switch
RKE-LOCK	Indicates [On/Off] condition of LOCK signal from Intelligent Key
RKE-UNLOCK	Indicates [On/Off] condition of UNLOCK signal from Intelligent Key
RKE-TR/BD	Indicates [On/Off] condition of trunk open signal from Intelligent Key
RKE-PANIC	Indicates [On/Off] condition of panic alarm signal from Intelligent Key
RKE-MODE CHG	NOTE: This item is displayed, but cannot be monitored
RKE PBD	NOTE: This item is displayed, but cannot be monitored

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

ACTIVE TEST

Test item	Description
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation On: Operates Off: Non-operation
INSIDE BUZZER	 This test is able to check warning chime in combination meter operation Take Out: Take away warning chime sounds when CONSULT screen is touched Key: Key warning chime sounds when CONSULT screen is touched Knob: OFF position warning chime sounds when CONSULT screen is touched Off: Non-operation
INDICATOR	 This test is able to check information display (combination meter) operation KEY ON: [Intelligent Key system malfunction] displays when CONSULT screen is touched KEY IND: [Steering lock unit ID registration complete] displays when CONSULT screen is touched Off: Non-operation
INT LAMP	This test is able to check interior room lamp operation On: Operates Off: Non-operation
FLASHER	This test is able to check hazard warning lamp operation The hazard warning lamps are activated after "LH/RH/Off" on CONSULT screen is touched
HORN	This test is able to check horn operation On: Operates
IGN CONT2	This test is able to operate the blower relay in fuse block (J/B)On: OperatesOff: Non-operation
ENGINE SW ILLUMI	This test is able to check push-ignition switch illumination operation Push-ignition switch illumination illuminates when "On" on CONSULT screen is touched
PUSH SWITCH INDICATOR	This test is able to check push-ignition switch indicator operation when "On" on CONSULT screen is touched
ACC CONT	 This test is able to operate the accessory relay in fuse block (J/B) On: Operates Off: Non-operation

< SYSTEM DESCRIPTION >

Test item	Description	
IGN CONT1	This test is able to operate the ignition relay in IPDM E/ROn: OperatesOff: Non-operation	
IGNITION RELAY	This test is able to operate the ignition relay in fuse block (J/B)On: OperatesOff: Non-operation	В
ST CONT LOW	This test is able to operate the starter relay in IPDM E/ROn: Non-operationOff: Operates	С
BATTERY SAVER	 This test is able to check interior room lamp battery saver operation On: Outputs interior room lamp power supply to turn interior room lamps ON. Off: Cuts interior room lamp power supply to turn interior room lamps OFF. 	D
TRUNK/BACK DOOR	This test is able to check trunk lid open operation. This actuator opens when "Open" on CONSULT screen is touched.	Е
RETRACTABLE MIRROR	NOTE: This item is displayed, but cannot be used	_
INTELLIGENT KEY LINK(CAN)	NOTE: This item is displayed, but cannot be used	F
REVERSE LAMP TEST	NOTE: This item is displayed, but cannot be used	G
DOOR HANDLE LAMP TEST	This test is able to check outside handle lamp operationOn: OperatesOff: Non-operation	
DR SEAT LAMP TEST	NOTE: This item is displayed, but cannot be used	
AS SEAT LAMP TEST	NOTE: This item is displayed, but cannot be used	
SHIFT SPOT LAMP TEST	NOTE: This item is displayed, but cannot be used	J
TRUNK/LUGGAGE LAMP TEST	This test is able to check trunk room lamp operation On: Operates Off: Non-operation 	K
KEYFOB P/W TEST	 This test is able to check keyless power window up/down operation Up: Non-operation Down[*]: Power window and sunroof open Off: Non-operation 	L
SHIFTLOCK SORENOID TEST	NOTE: This item is displayed, but cannot be used	РC

 * : When ignition switch is OFF, driver door opened, power window and sunroof is closed. COMB SW

COMB SW : CONSULT Function (BCM - COMB SW)

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DATA MONITOR **NOTE**:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item [UNIT]	Description
FR WIPER HI [Off/On]	Displays the status of the FR WIPER HI switch in combination switch judged by BCM with the combination switch reading function.
FR WIPER LOW [Off/On]	Displays the status of the FR WIPER LOW switch in combination switch judged by BCM with the combination switch reading function.

< SYSTEM DESCRIPTION >

Monitor item [UNIT]	Description
FR WASHER SW [Off/On]	Displays the status of the FR WASHER switch in combination switch judged by BCM with the combination switch reading function.
FR WIPER INT [Off/On]	Displays the status of the FR WIPER INT/AUTO switch in combination switch judged by BCM with the com- bination switch reading function.
INT VOLUME [1 - 7]	Displays the status of wiper volume dial position judged by BCM with the combination switch reading function.
RR WIPER ON [Off/On]	NOTE: This item is displayed, but cannot be monitored
RR WIPER INT [Off/On]	NOTE: This item is displayed, but cannot be monitored
RR WASHER SW [Off/On]	NOTE: This item is displayed, but cannot be monitored
TURN SIGNAL R [Off/On]	Displays the status of the TURN RH switch in combination switch judged by BCM with the combination switch reading function.
TURN SIGNAL L [Off/On]	Displays the status of the TURN LH switch in combination switch judged by BCM with the combination switch reading function.
TAIL LAMP SW [Off/On]	Displays the status of the TAIL LAMP switch in combination switch judged by BCM with the combination switch reading function.
HI BEAM SW [Off/On]	Displays the status of the HI BEAM switch in combination switch judged by BCM with the combination switch reading function.
HEAD LAMP SW 1 [Off/On]	Displays the status of the HEADLAMP 1 switch in combination switch judged by BCM with the combination switch reading function.
HEAD LAMP SW 2 [Off/On]	Displays the status of the HEADLAMP 2 switch in combination switch judged by BCM with the combination switch reading function.
PASSING SW [Off/On]	Displays the status of the PASSING switch in combination switch judged by BCM with the combination switch reading function.
AUTO LIGHT SW [Off/On]	Displays the status of the AUTO LIGHT switch in combination switch judged by BCM with the combination switch reading function.
FR FOG SW [Off/On]	Displays the status of the FR FOG switch in combination switch judged by BCM with the combination switch reading function.
RR FOG SW [Off/On]	NOTE: This item is displayed, but cannot be monitored

BCM

BCM : CONSULT Function (BCM - BCM)

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WORK SUPPORT

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

IMMU

IMMU : CONSULT Function (BCM - IMMU)

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

< SYSTEM DESCRIPTION >

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

ACTIVE TEST

Test item	Description	
THEFT IND	This test is able to check security indicator lamp operation. Security indicator lamp is turned on when "On" on CONSULT screen touched.	G
BATTERY SAVER		Н

BATTERY SAVER : CONSULT Function (BCM - BATTERY SAVER)

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item [Unit]	Description	K
REQ SW -DR [On/Off]	Indicated [On/Off] condition of door request switch (driver side)	
REQ SW -AS [On/Off]	Indicated [On/Off] condition of door request switch (passenger side)	L
REQ SW -RR [On/Off]	NOTE: This item is displayed, but cannot be monitored	BC
REQ SW -RL [On/Off]	NOTE: This item is displayed, but cannot be monitored	
PUSH SW [On/Off]	Indicates [On/Off] condition of push-button ignition switch	Ν
UNLK SEN -DR [On/Off]	Indicates [On/Off] condition of driver door UNLOCK status	
DOOR SW-DR [On/Off]	Indicated [On/Off] condition of front door switch (driver side)	0
DOOR SW-AS [On/Off]	Indicated [On/Off] condition of front door switch (passenger side)	P
DOOR SW-RR [On/Off]	Indicated [On/Off] condition of rear door switch RH	
DOOR SW-RL [On/Off]	Indicated [On/Off] condition of rear door switch LH	
DOOR SW-BK [On/Off]	NOTE: This item is displayed, but cannot be monitored	

F

J

INFOID:000000009725429

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description
CDL LOCK SW [On/Off]	Indicated [On/Off] condition of lock signal from door lock and unlock switch
CDL UNLOCK SW [On/Off]	Indicated [On/Off] condition of unlock signal from door lock and unlock switch
KEY CYL LK-SW [On/Off]	Indicated [On/Off] condition of lock signal from door key cylinder switch
KEY CYL UN-SW [On/Off]	Indicated [On/Off] condition of unlock signal from door key cylinder switch
TRNK/HAT MNTR [On/Off]	Indicates [On/Off] condition of trunk room lamp switch
RKE-LOCK [On/Off]	Indicates [On/Off] condition of LOCK signal from Intelligent Key
RKE-UNLOCK [On/Off]	Indicates [On/Off] condition of UNLOCK signal from Intelligent Key

ACTIVE TEST

Test item	Operation	Description
BATTERY SAVER	Off	Outputs interior room lamp power supply.
	On	Stops interior room lamp power supply.

TRUNK

TRUNK : CONSULT Function (BCM - TRUNK)

INFOID:000000009725422

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor Item	Contents
PUSH SW	Indicates [On/Off] condition of push-button ignition switch
UNLK SEN -DR	Indicates [On/Off] condition of unlock sensor
VEH SPEED 1	Indicates [km/h] condition of vehicle speed signal from combination meter
KEY CYL SW-TR	NOTE: This item is displayed, but cannot be monitored
TR CANCEL SW	Indicates [On/Off] condition of trunk lid opener cancel switch
TR/BD OPEN SW	Indicates [On/Off] condition of trunk lid opener switch
TRNK/HAT MNTR	Indicates [On/Off] condition of trunk room lamp switch
RKE-TR/BD	Indicates [On/Off] condition of trunk open signal from Intelligent Key

THEFT ALM

THEFT ALM : CONSULT Function (BCM - THEFT)

INFOID:000000009725423

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitored Item	Description
REQ SW -DR	Indicates [On/Off] condition of door request switch (driver side).
REQ SW -AS	Indicates [On/Off] condition of door request switch (passenger side).

< SYSTEM DESCRIPTION >

Monitored Item	Description			
REQ SW -RR	NOTE: This item is indicated, but not monitored.	— A		
REQ SW -RL	NOTE: This item is indicated, but not monitored.	В		
REQ SW -BD/TR	Indicates [On/Off] condition of trunk lid opener request switch.			
PUSH SW	Indicates [On/Off] condition of push-button ignition switch	0		
UNLK SEN -DR	Indicates [On/Off] condition of driver door UNLOCK status.			
DOOR SW-DR	Indicates [On/Off] condition of front door switch (driver side).			
DOOR SW-AS	Indicates [On/Off] condition of front door switch (passenger side).	D		
DOOR SW-RR	Indicates [On/Off] condition of rear door switch RH.			
DOOR SW-RL	Indicates [On/Off] condition of rear door switch LH.			
DOOR SW-BK	NOTE: This item is indicated, but not monitored.	E		
CDL LOCK SW	Indicates [On/Off] condition of lock signal from door lock/unlock switch.			
CDL UNLOCK SW	Indicates [On/Off] condition of unlock signal from door lock/unlock switch.	F		
KEY CYL LK-SW	Indicates [On/Off] condition of lock signal from door key cylinder switch.			
KEY CYL UN-SW	Indicates [On/Off] condition of unlock signal from door key cylinder switch.	G		
KEY CYL SW-TR	NOTE: This item is indicated, but not monitored.			
TR/BD OPEN SW	Indicates [On/Off] condition of trunk lid opener switch.	Н		
TRNK/HAT MNTR	Indicates [On/Off] condition of trunk room lamp switch.			
SEN CANCEL SW	NOTE: This item is indicated, but not monitored.			
RKE-LOCK	Indicates [On/Off] condition of LOCK signal from Intelligent Key.			
RKE-UNLOCK	Indicates [On/Off] condition of UNLOCK signal from Intelligent Key.	.]		
RKE-TR/BD	Indicates [On/Off] condition of TRUNK OPEN signal from Intelligent Key.			

WORK SUPPORT

Service Item	Description	
SECURITY ALARM SET	This mode is able to confirm and change security alarm "On" - "Off" setting.	

ACTIVE TEST

Test Item	Description	
FLASHER	This test is able to check turn signal lamp operation. Turn signal lamp is activated after "LH" or "RH" on CONSULT screen is touched.	
THEFT IND	This test is able to check security indicator lamp operation. Security indicator lamp is turned on when "On" on CONSULT screen is touched.	
VEHICLE SECURITY HORN	This test is able to check horn operation. Horn is activated for 0.5 seconds after "On" on CONSULT screen is touched.	(
HEADLAMP(HI)	This test is able to check headlamps operation. Headlamps are turned on when "On" on CONSULT screen is touched.	

RETAIND PWR

RETAIND PWR : CONSULT Function (BCM - RETAINED PWR)

INFOID:000000009725425

Κ

Data monitor

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

BCS-33

< SYSTEM DESCRIPTION >

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

SIGNAL BUFFER

SIGNAL BUFFER : CONSULT Function (BCM - SIGNAL BUFFER)

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

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

ACTIVE TEST

Test item	Opera- tion	Description
	Off	OFF
OIL PRESSURE SW	On	BCM transmits the oil pressure switch signal to the combination meter via CAN communica- tion, which illuminates the oil pressure warning lamp in the combination meter.

AIR PRESSURE MONITOR

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

INFOID:000000009725445

INFOID:000000009239010

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
Active Test	Send the drive signal from CONSULT to the actuator. The operation check can be performed.

ACTIVE TEST

Test Item	Description
FLASHER	This test is able to check turn signal lamp operation [Off/LH/RH].
HORN	This test is able to check horn operation [On].
WARNING LAMP	This test is able to check tire pressure warning lamp operation [On/Off].
ID REGIST WARNING	This test is able to check ID regist warning chime operation [On/Off].
RUN FLAT TIRE W/L	This item is displayed, but cannot be use this item.
RUN FLAT/T WARN BUZZER	This test is able to run flat tire warning chime operation [On/Off].

ECU DIAGNOSIS INFORMATION BCM

Reference Value

VALUES ON THE DIAGNOSIS TOOL

NOTE:

С The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

CONSULT MONITOR ITEM

Monitor Item	Condition	Value/Status	_ D
CONFRM ID ALL	The Intelligent Key ID that the NATS antenna amp. receives is not recog- nized by any Intelligent Key ID registered to BCM.	Yet	E
	The Intelligent Key ID that the NATS antenna amp. receives is recognized by any Intelligent Key ID registered to BCM.	Done	
CONFIRM ID4	The Intelligent Key ID that the NATS antenna amp. receives is not recog- nized by the fourth Intelligent Key ID registered to BCM.	Yet	F
	The Intelligent Key ID that the NATS antenna amp. receives is recognized by the fourth Intelligent Key ID registered to BCM.	Done	
	The Intelligent Key ID that the NATS antenna amp. receives is not recog- nized by the third Intelligent Key ID registered to BCM.	Yet	_ 0
	The Intelligent Key ID that the NATS antenna amp. receives is recognized by the third Intelligent Key ID registered to BCM.	Done	Н
	The Intelligent Key ID that the NATS antenna amp. receives is not recog- nized by the second Intelligent Key ID registered to BCM.	Yet	_
CONFIRM ID2	The Intelligent Key ID that the NATS antenna amp. receives is recognized by the second Intelligent Key ID registered to BCM.	Done	_
CONFIRM ID1	The Intelligent Key ID that the NATS antenna amp. receives is not recog- nized by the first Intelligent Key ID registered to BCM.	Yet	J
	The Intelligent Key ID that the NATS antenna amp. receives is recognized by the first Intelligent Key ID registered to BCM.	Done	
NOT REGISTERED	BCM detects registered Intelligent Key ID, or BCM does not detect Intelli- gent Key ID.	ID OK	— K
	BCM detects non-registration Intelligent Key ID.	ID NG	
	The ID of fourth Intelligent Key is not registered to BCM	Yet	_ L
1 1 4	The ID of fourth Intelligent Key is registered to BCM	Done	_
тр 2	The ID of third Intelligent Key is not registered to BCM	Yet	BCS
IF 3	The ID of third Intelligent Key is registered to BCM	Done	
тр о	The ID of second Intelligent Key is not registered to BCM	Yet	
11 2	The ID of second Intelligent Key is registered to BCM	Done	N
TD 1	The ID of first Intelligent Key is not registered to BCM	Yet	
	The ID of first Intelligent Key is registered to BCM	Done	0
	Driver door request switch is not pressed	Off	
KEQ SVV -DK	Driver door request switch is pressed	On	
	Passenger door request switch is not pressed	Off	P
	Passenger door request switch is pressed	On	
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off	
REQ SW -RL	NOTE: The item is indicated, but not monitored.	Off	

А

BCM

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition		Value/Status					
	Trunk lid opener request switch is not pressed		Off					
REQ SW -BD/TR	Trunk lid opener request switch is pressed		On					
	Push-button ignition switch (push switch) is not pressed		Off					
PUSH SW	Push-button ignition switch (push switch) is pressed	On					
	When BCM is not supplying power to shift lock solenoid		Off					
SHFILCK SLNID PWR SPLY	When BCM is supplying pov	ver to shift lock solenoid	On					
CLUCH SW	NOTE: The item is indicated, but no	t monitored.	Off					
	The brake pedal is not depre	The brake pedal is not depressed						
BRAKE SW 1	The brake pedal is depresse	ed	On					
	The brake pedal is depresse	ed when No. 19 fuse is blown	Off					
BRAKE SW 2	The brake pedal is not depre fuse is normal	essed when No. 19 fuse is blown, or No. 10	On					
		Release selector button	Off					
DETE/CANCL SW	Selector lever in P position	Push selector button						
	Selector lever in any position	n other than P	On					
	Selector lever in any position	n other than P or N	Off					
SFT PN/N SW	Selector lever in P or N posi	tion	On					
S/L -LOCK	NOTE: The item is indicated, but not monitored.		Off					
S/L -UNLOCK	NOTE: The item is indicated, but not monitored.		Off					
S/L RELAY-F/B	NOTE: The item is indicated, but not monitored.		Off					
S/L LIMIT SW1	NOTE: The item is indicated, but not monitored.		Off					
S/L LIMIT SW2	NOTE: The item is indicated, but not monitored.		Off					
	Driver door is locked		Off					
UNLK SEN -DR	Driver door is unlocked		On					
	Push-button ignition switch (push-switch) is not pressed		Off					
PUSH SW -IPDM	Push-button ignition switch (push-switch) is pressed		On					
	Ignition switch in OFF or AC	C position	Off					
IGN RLY1 -F/B	Ignition switch in ON position	n	On					
	Selector lever in any position other than P		0"					
DETE SW -IPDM	Soloctor lover in Prosition	Push selector button	Oli					
		Release selector button	On					
	Selector lever in any position other than P or N		Off					
	Selector lever in P or N position		On					
SET D MET	Selector lever in any position other than P		Off					
SFIF-WEI	Selector lever in P position		On					
	Selector lever in any position other than N		Off					
	Selector lever in N position		On					
	Engine stopped		STOP					
	While the engine stalls		STALL					
ENGINE STATE	At engine cranking		CRANK					
	Engine running		RUN					
Monitor Item	Condition	Value/Status						
-------------------------	---	--	-----	--	--	--	--	--
S/L LOCK-IPDM	NOTE: The item is indicated, but not monitored.	Off	A					
S/L UNLK-IPDM	NOTE: The item is indicated, but not monitored.	Off	В					
S/L RELAY-REQ	NOTE: The item is indicated, but not monitored.	Off	_					
VEH SPEED 1	While driving	Equivalent to speed- ometer reading	С					
VEH SPEED 2	While driving	Equivalent to speed- ometer reading	D					
S/L ACK	NOTE: The item is indicated, but not monitored.	STAT	-					
	Driver door is locked	LOCK	E					
DOOR STAT-DR	Driver door is unlocked	UNLOCK	-					
	Passenger door is locked							
DOOR STAT-AS	Passenger door is unlocked	UNLOCK	- F					
	Rear door RH is locked	LOCK	-					
DOOR STAT-RR	OOR STAT-RR Rear door RH is locked Rear door RH is unlocked							
	Rear door LH is locked	LOCK	-					
DOOR STAT-RL	Rear door LH is unlocked	UNLOCK	-					
	Trunk lid is locked	LOCK	- H					
BK DOOR STATE	Trunk lid is unlocked	UNLOCK	-					
ID OK FLAG	NOTE: The item is indicated, but not monitored.	Reset						
	When the engine start is prohibited	Reset	-					
PRMTENG STRT	When the engine start is permitted	Set	J					
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset	-					
	Intelligent Key ID and Intelligent Key is detected outside vehicle	NOT On	K					
I-KEY OK FLAG	Intelligent Key ID and Intelligent Key is detected inside vehicle	KEY On	-					
PRBT S/L LOCK	NOTE: The item is indicated, but not monitored.	Reset	L					
	Not activated fail safe function	Reset	-					
PRBIENGSTRI	Engine start is prohibited by fail safe function	SET	BC					
	Engine start is prohibited without Intelligent Key	STOP	00					
ID AUTHENT CANCEL TIMER	Engine start is permitted without Intelligent Key	OPRAT	-					
	ACC battery saver timer is stop	STOP	N					
ACC BATTERY SAVER	ACC battery saver timer is running	OPRAT	-					
	Cranking is permitted	Off	_					
CRNK PRBT IMR	Cranking is prohibited	On	0					
	Not auto cranking	Off	-					
AUT CRANK TMR	During auto cranking	On	P					
CRNK PRBT TME	Cranking prohibit timer	sec	-					
AUT CRANK TMR	Auto cranking timer	sec	-					
CRANKING TME	Cranking timer	Sec	-					
SHORT CRANK	NOTE: The item is indicated, but not monitored.	_	-					

Monitor Item	Condition	Value/Status
ST RLY-REQ	NOTE: The item is indicated, but not monitored.	Off
IGN RLY1 -REQ	NOTE: The item is indicated, but not monitored.	Off
IGN RLY2 -REQ	NOTE: The item is indicated, but not monitored.	Off
DETE SW PWR	NOTE: The item is indicated, but not monitored.	Off
IGN RLY3-REQ	NOTE: The item is indicated, but not monitored.	Off
S/L PWR	NOTE: The item is indicated, but not monitored.	Off
ACC RLY-REQ	NOTE: The item is indicated, but not monitored.	Off
RKE OPE COUN1	During the operation of the Intelligent Key	Operation frequency of the key
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	_
	Other than front wiper switch HI	Off
	Front wiper switch HI	On
	Other than front wiper switch LO	Off
FR WIPER LOW	Front wiper switch LO	On
	Front washer switch OFF	Off
FR WASHER SW	Front washer switch ON	On
	Other than front wiper switch INT/AUTO	Off
FR WIPER INT	Front wiper switch INT/AUTO	On
	Front wiper is not in STOP position	Off
FR WIPER STOP	Front wiper is in STOP position	On
INT VOLUME	Wiper volume dial is in a dial position 1 - 7	Wiper volume dial po- sition
RR WIPER ON	NOTE: The item is indicated, but not monitored.	Off
RR WIPER INT	NOTE: The item is indicated, but not monitored.	Off
RR WASHER SW	NOTE: The item is indicated, but not monitored.	Off
RR WIPER STOP	NOTE: The item is indicated, but not monitored.	Off
	Other than turn signal switch RH	Off
TURN SIGNAL R	Turn signal switch RH	On
	Other than turn signal switch LH	Off
TURN SIGNAL L	Turn signal switch LH	On
	Other than lighting switch 1ST or 2ND	Off
TAIL LAIVIT OVV	Lighting switch 1ST or 2ND	On
	Other than lighting switch HI	Off
	Lighting switch HI	On
	Other than lighting switch 2ND	Off
NEAD LAIVIP SVV 1	Lighting switch 2ND	On

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status					
	Other than lighting switch 2ND	Off					
HEAD LAMP SW 2	Lighting switch 2ND	On					
	Other than lighting switch PASS	Off					
PASSING SW	Lighting switch PASS	On					
	Other than lighting switch AUTO	Off					
AUTO LIGHT SW	JTO LIGHT SW						
	Front fog lamp switch OFF	Off					
FR FOG SW	Front fog lamp switch ON	On					
RR FOG SW	NOTE: The item is indicated, but not monitored.	Off					
	Driver door closed	Off					
DOOR SW-DR	Driver door opened	On					
	Passenger door closed	Off					
DOOR SW-AS	Passenger door opened	On					
	Rear RH door closed	Off					
DOOR SW-RR	Rear RH door opened	On					
	Rear LH door closed	Off					
DOOR SW-RL	Rear LH door opened	On					
DOOR SW-BK	NOTE: The item is indicated, but not monitored.	Off					
	Other than power door lock switch LOCK	Off					
CDL LOCK SW	Power door lock switch LOCK	On					
	Other than power door lock switch UNLOCK	Off					
CDL UNLOCK SW	Power door lock switch UNLOCK	On					
	Other than driver door key cylinder LOCK position	Off					
KEY CYL LK-SW	Driver door key cylinder LOCK position	On					
	Other than driver door key cylinder UNLOCK position	Off					
KEY CYL UN-SW	Driver door key cylinder UNLOCK position	On					
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off					
	Hazard switch is OFF	Off					
HAZARD SW	Hazard switch is ON	On					
	Rear window defogger switch OFF	Off					
REAR DEF SW	Rear window defogger switch ON	On					
H/L WSR SW	NOTE: The item is indicated, but not monitored.	Off					
	Trunk lid opener cancel switch OFF	Off					
TR CANCEL SW	Trunk lid opener cancel switch ON	On					
	Trunk lid opener switch OFF	Off					
IK/BU UPEN SW	While the trunk lid opener switch is turned ON	On					
	Trunk lid closed	Off					
IKNK/HAI MNIK	Trunk lid opened	On					
FAN ON SIG	NOTE: The item is indicated, but not monitored.	Off					
AIR COND SW	NOTE: The item is indicated, but not monitored.	Off					

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Monitor Item	Condition	Value/Status			
SEN CANCEL SW	NOTE: The item is indicated, but not monitored.	Off			
THERMO AMP	Off				
BKE LOOK	LOCK button of the Intelligent Key is not pressed	Off			
RNE-LUUN	LOCK button of the Intelligent Key is pressed	On			
	UNLOCK button of the Intelligent Key is not pressed	Off			
RKE-UNLOCK	UNLOCK button of the Intelligent Key is pressed	On			
	TRUNK OPEN button of the Intelligent Key is not pressed	Off			
KKE-TR/BD	TRUNK OPEN button of the Intelligent Key is pressed	On			
RKE-PANIC	NOTE: The item is indicated, but not monitored.	Off			
RKE-MODE CHG	E CHG NOTE: The item is indicated, but not monitored.				
RKE PBD	NOTE: The item is indicated, but not monitored.	Off			
	Air bag signal (NORMAL) is detected.	NOMAL			
SHOCK SENSOR	Air bag signal (AIR BAG OPEN) is detected.	On			
	Air bag signal is not detected.	Off			
	Bright outside of the vehicle	Close to 5 V			
OPTISEN (DTCT)	Dark outside of the vehicle	Close to 0 V			
	Bright outside of the vehicle (Lighting switch AUTO)	Close to 5 V			
OPTI SEN (FILT)	Dark outside of the vehicle (Lighting switch AUTO)	Close to 1.50 V			
OPTICAL SENSOR	Off				
	No rain (or very light rain)	Off			
	Light rain	LOW			
RAIN SENSOR	Heavy rain	HIGH			
	When liquid is splashed on the front window	SPLSH			
	Rain sensor internal error	NG			

< ECU DIAGNOSIS INFORMATION >

TERMINAL LAYOUT



PHYSICAL VALUES

Termir	nal No.	Description	escription		Value		
(Wire	color)	Signal name	Input/		Condition	(Approx.)	Ν
+	-	Signal name	Output			()	
1	Crownd	Push-button ignition	lanut	Push-button ig-	Pressed	0 – 1.5 V	
(R)	(R) Ground switch (Push switch)	switch (Push switch)	Input	(push switch)	Not pressed	9 – 16 V	0
3	Cround	Sensor power sup-	Output	Ignition owitch	OFF	0 V	
(Y)	Giouna	ply	Output	Ignition switch	ON	4.65 - 5.5 V	Ρ
4	Ground	Ontical sonsor	Input	Ignition switch	When bright outside of the vehicle	Close to 5 V	
(BG)	Oplical sensor	input	ON	When dark outside of the vehicle	Close to 0 V		
5* ¹ (LG)	Ground	Shock status	Input		_		

BCS

Termi	nal No.	Description				
(Wire	color)	Signal name	Input/ Output		Condition	Value (Approx.)
					All switches OFF	0 V
					Turn signal switch RH	
					Lighting switch 1ST	
10		Combination switch	.	Combination	Lighting switch 2ND	
(W)	Ground	OUTPUT 5	Output	switch		
					Lighting switch HI	2 ms
						JPMIA0031GB 10.7 V
					All switches OFF	0 V
					Turn signal switch LH	
					Lighting switch 2ND	(V) 15
11	Ground	Combination switch	Output	Combination	Lighting switch PASS	10
(SB)		OUIPUI 4		switch	Front fog lamp switch ON	0 2 ms JPMIA0035GB
						0.1/
					Front wiper switch LO	0 0
	Ground	Combination switch OUTPUT 3	Output	Combination switch	Front wiper switch MIST	(V)
10					Front wiper switch INT/	15 10
(L)					AUTO	
					Lighting switch AUTO	JPMIA0034GB
						10.7 V
					All switches OFF	0 V
					Front washer switch ON	
					Any of the condition below	
13		Combination switch	.	Combination	INT VOLUME 1	10
(G)	Ground	OUTPUT 2	Output	switch	INT VOLUME 5	0
					• INT VOLUME 6 NOTE:	
					"INT VOLUME" in "DATA	JPMIA0033GB
					MONITOR [#] mode of "BCM" using CONSULT.	10.7 V
					All switches OFF	0 V
					Front wiper switch HI	
					Any of the condition below	
					 with all switches OFF INT VOLUME 1 	(V) 15
14	Ground	Combination switch	Output	Combination	INT VOLUME 2	
(P)	Croana	OUTPUT 1	output	switch	 INT VOLUME 3 INT VOLUME 6 	0
					INT VOLUME 7	
					NOTE: "INT VOLUMF" in "DATA	JPMIA0032GB
					MONITOR" mode of	10.7 V
					"BCIM" using CONSULF.	

Termi	nal No.	Description				Value	
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)	А
15 (G)	Ground	One touch unlock sensor (driver door)	Input	Driver door out- side handle grip (backside)	Touch	(V) 15 10 5 0 10 ms JSMIA1404GB	B C D
					Other than the above	9 – 16 V	
16 (G)	Ground	One touch unlock sensor (passenger door)	Input	Passenger door outside handle grip (backside)	Touch	(V) 15 10 5 0 10 ms	E
							G
					Other than the above	9 – 16 V	
17 (P)	Ground	Receiver and sensor ground	Input	Ignition switch OFF		0 V	Н
18 (L)	Ground	Security indicator lamp control	Output	Security indica- tor lamp	ON Blinking (Ignition switch OFF)	0 V	l J
					OFF	12 V	
20 (R)	Ground	Detention switch	Input	Selector lever	P position (Release selec- tor button)	0 – 1.5 V	L
21 (SB)	Ground	Step lamp and foot lamp control	Output	Step lamp and foot lamp	ON OFF	9 – 16 V 0 – 1.5 V 9 – 16 V	BCS
25 (R)	Ground	Stop lamp switch 2	Input	Ignition switch O	FF	9 – 16 V	Ν
26	Ground	Extended storage	Input	Extended stor-	ON (Ignition switch OFF)	9 – 16 V	
(R)	Croand	fuse switch	mput	age fuse switch	OFF	0 V	0
27	Ground	Stop lamp switch 1	Input	Stop lamp	OFF (Brake pedal is not depressed)	0 V	~
(٢)				SWITCH	ON (Brake pedal is de- pressed)	9 - 16 V	Ρ

Termi	nal No.	Description				
(Wire	color)	Signal name	Input/ Output		Condition	(Approx.)
30 (W)	Ground	Front door lock as- sembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	(V) 10 10 10 11.8 V (V) 15 10 10 10 11.8 V
					UNLOCK status (Unlock sensor switch ON)	0 V
					ON	0 V
33* ² (V)	Ground	Trunk lid opener cancel switch	Input	Trunk lid opener cancel switch	OFF	(V) 15 0 5 0 + +10ms PKIB4956J
					Pressed	0 V
36 (G)	Ground	Hazard switch	Input	Hazard switch	Not pressed	(V) 10 10 10 10 10 11 11 11 11 11
39 (BR)	Ground	P/N position	Input	Selector lever	P or N position	(V) 15 10 5 0 10 10 10 10 10 10 10 10 10 10 10 10 1
					Except P and N positions	0 V

Termi	nal No.	Description		scription			
(Wire	color)	Signal name	Input/ Output		Condition	value (Approx.)	А
					OFF	0 V	В
							С
48	Ground	Push-button ignition switch illumination	Output	Push-button ig-	ACC NOTE: The pulse cycle changes	2 ms JMMIA1405GB	D
(K)		power supply		nition switch	at push-button ignition switch.	(V) 15	Е
							F
						JMIMIA 1400GB	G
					ON	9 V	
52* ³ (G)	Ground	Dongle link	Input/ Output	Ignition switch O	FF	5 V	Н
54 (V)	Ground	Communication line	Input/ Output	Ignition switch ON		(V) 15 10 5 0 20ms DKIA7022E	J
				Ignition switch O	FF	9.0 - 10 V 12 V	K
55 (R)	Ground	Rain sensor serial link	Input/ Output	Ignition switch O	Ν	(V) 15 10 5 0 	BC
59 (P)	Ground	CAN-L	Input/ Output	_		8.7 V	Ν
60 (L)	Ground	CAN-H	Input/ Output		_	_	0
61		Rear window defoo-	0.1	Ignition switch	Rear window defogger is not activated	9 – 16 V	
(G)	Ground	ger relay control	Output	ŎN	Rear window defogger is activated	0 – 1.5 V	Ρ
62	Ground	Starter relay control	Output	Ignition switch	When selector lever is in P or N position	9 – 16 V	
(R) Grou	Ground	Giarter relay control	Ουιρυί	ON	When selector lever is not in P or N position	0 – 0.5 V	

(Wire color) Signal name Input/ Output Condition (Approx) 64 Ground Intelligent Key warn- ing buzzer Output Intelligent Key warning buzzer Sounding NOTE: The pulse cycle changes depending on buzzer sounds. Intelligent Key warning buzzer 65 Ground Outside handle lamp control Output Output Outside handle lamp ON 0-0.5 V 66 Ground Outside handle lamp control Output Ignition switch OFF or ACC 0-0.5 V 67 Ground Blower relay control Output Ignition switch ON OFF or ACC 0-0.5 V 68 Ground Ignition relay (F/B) Control Output Ignition switch ON OFF or ACC 0-0.5 V 67 Ground Dimmer signal Output Ignition switch ON OFF or ACC 0-0.5 V 68 Ground Dimmer signal Output Ignition switch ON OFF or ACC 0-0.5 V 70 Geround Detention switch power supply Output Ignition switch ON For 15 seconds after ignition switch OFF 0-16 V 69 Ground Detention switch power supply Output	Termir	nal No.	Description					
64 (V) Ground Intelligent Key warn- ing buzzer Output Intelligent Key warning buzzer Sounding NOTE: The pulse cycle changes sounds. 0-0.5 V 65 (B) Ground Outside handle lamp control Output Outside handle lamp ON 0-0.5 V 66 (B) Ground Outside handle lamp control Output Outside handle lamp ON 0-0.5 V 66 (B) Ground Blower relay control Output Ignition switch OFF or ACC 0-0.5 V 67 (W/B) Ground Ignition relay (F/B) control Output Ignition switch ON OFF or ACC 0-0.5 V 68 (R) Ground Dimmer signal Output Ignition switch ON OFF or ACC 0-0.5 V 68 (GR) Ground Dimmer signal Output Ignition switch ON OFF or ACC 0-0.5 V 69 (GR) Ground Detention switch power supply Output Ignition switch ON The area around the vehi- cle is dark (Block the light on the optical sensor) 0-0.5 V 70 (B) Ground Ignition relay (IPDM E/R) control Output Ignition switch OF or ACC 9-16 V 71 (G) Ground Ignition relay (IPDM E/R) control Output Ignition switch OF or ACC 9-16 V 71 (G) Gr	(Wire +	color)	Signal name	Input/ Output	Condition		Value (Approx.)	
64 (V) Ground Intelligent Key warn- ing buzzer Output Intelligent Key warn- ing buzzer Output Intelligent Key warn- warning buzzer Sounding NoTE: The pulse cycle changes sounds. Image: Comparison of the pulse cycle changes depending on buzzer Image: Comparison of the pulse cycle changes sounds. Image: Comparison of the pulse cycle changes of the pulse cycle changes sounds. Image: Comparison of the pulse cycle changes of the pulse cycle changes sounds. Image: Comparison of the pulse cycle changes of the pulse cycle changes sounds. Image: Comparison of the pulse cycle changes of the pulse cycle changes sort Image: Comparison of the pulse cycle changes coutrepulse cycle changes sort Image: Compul							0 – 0.5 V	
$ \begin{array}{c c c c c c } \hline \begin{tabular}{ c c c c c c c } \hline \begin{tabular}{ c c c c c c c } \hline \begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	64 (V)	Ground	Intelligent Key warn- ing buzzer	Output	Intelligent Key warning buzzer	Sounding NOTE: The pulse cycle changes depending on buzzer sounds.	(V) 15 0 0 400 ms JMMIA1407GB	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $						Not sounding	9 – 16 V	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	65 (B)	Ground	Outside handle lamp	Output	Outside handle	ON	0 – 0.5 V	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	(2)					OFF AGG	9 – 16 V	
	66 (B)	Ground	Blower relay control	Output	Ignition switch	OFF of ACC ON	0 – 0.5 V 9 – 16 V	
(W/B)GroundIgnition rols (V.D.)OutputIgnition switchON9 - 16 V68 (R)GroundDimmer signalOutputIgnition switch ONEither of the following conditions • Lighting switch OFF • The area around the vehi- icle is bright (Shine a light on the optical sen- sor)0 V69 (GR)GroundDetention switch power supplyOutputIgnition switch ONACC or ON9 - 16 V69 (GR)GroundDetention switch power supplyOutputIgnition switchACC or ON9 - 16 V70 (B)GroundIgnition relay (IPDM E/R) controlOutputIgnition switchOFF or ACC9 - 16 V71 (G)GroundDriver door request switchInputDriver door request quest switchON (Pressed)0 - 1.5 V71 (G)For undDriver door request switchInputDriver door request switchON (Pressed)0 - 1.5 V71 (G)For undDriver door request switchInputDriver door request switchON (Pressed)0 - 1.5 V71 (G)For undDriver door request switchON (Pressed)0 - 1.5 VON (Pressed)0 - 1.5 V	67		Ignition relay (F/B)			OFF or ACC	0 – 0.5 V	
$ \begin{array}{ c c c c c } \hline & & & \\ \hline \hline & & \\ \hline & & \\ \hline & & \\ \hline & & \\ \hline \hline & & $	(W/B)	Ground	control	Output	Ignition switch	ON	9 – 16 V	
$ \begin{array}{ c c c c } \hline \begin{tabular}{ c c c } \hline \begin{tabular}{ c c c c c c c c } \hline \begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	68 (R)	Ground	Dimmer signal	Output	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) 	0 V	
$ \begin{array}{c} \begin{array}{c} 69\\ (GR) \\ (GR) \\ \end{array} \end{array} \begin{array}{c} \end{pmatrix} & p$						The area around the vehi- cle is dark (Block the light from the optical sensor)	12 V	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	69 (GR)	Ground	Detention switch	Output	Ignition switch	ACC or ON For 15 seconds after igni- tion switch OFF	9 – 16 V	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	()					After 15 seconds after ig- nition switch OFF	0 – 0.5 V	
(B)GroundE/R) controlOutputIgnition switchON $0 - 0.5 V$ 71 (G)GroundDriver door request switchInputDriver door re- quest switchON (Pressed) $0 - 1.5 V$ 71 (G)OFF (Not pressed) $9 - 16 V$ $0 - 1.5 V$ 71 (G)ON (Pressed) $0 - 1.5 V$ $0 - 1.5 V$ 71 (G)ON (Pressed) $0 - 1.5 V$ 71 (G)ON (Pressed) $0 - 1.5 V$	70	Oneveral	Ignition relay (IPDM	Quatarat	l maiti e a consiste la	OFF or ACC	9 – 16 V	
71 (G) Ground Driver door request switch Input Driver door re- quest switch ON (Pressed) 0 - 1.5 V 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	(B)	Ground	E/R) control	Output	ignition switch	ON	0 – 0.5 V	
(G) Ground switch Input quest switch OFF (Not pressed) 9 – 16 V Imput Imput quest switch ON (Pressed) 0 – 1.5 V	71	Cround	Driver door request	المعرية	Driver door re-	ON (Pressed)	0 – 1.5 V	
ON (Pressed) 0 – 1.5 V	(G)	Ground	switch	input	quest switch	OFF (Not pressed)	9 – 16 V	
						ON (Pressed)	0 – 1.5 V	
72 (SB) Ground Passenger door request switch Input Passenger door request switch OFF (Not pressed) 15 10 10 10 10 10 10 10 10 10 10 10 10 10	72 (SB)	Ground	Passenger door re- quest switch	Input	Passenger door request switch	OFF (Not pressed)	(V) 15 10 5 0 <i>10</i> <i>10</i> <i>10</i> <i>10</i> <i>10</i> <i>10</i> <i>10</i> <i>1</i>	

< ECU DIAGNOSIS INFORMATION >

Termi	nal No.	Description				Value	٨				
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)	A				
							В				
					All switches OFF		С				
						JPMIA0041GB 1.4 V	D				
75 (BR)	Ground	Combination switch INPUT 5	Input	Combination switch	Front fog lamp switch ON	(V) 15 10 2 ms JPMIA0037GB 1.3 V	E				
									Any of the condition below with all switches OFF • INT VOLUME 1 • INT VOLUME 2 • INT VOLUME 6 • INT VOLUME 7 NOTE:		G
					"INT VOLUME" in "DATA MONITOR" mode of "BCM" using CONSULT.						

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Termi	nal No.	Description				Value	
(VVire +	color)	Signal name	Input/ Output		Condition	(Approx.)	
					All switches OFF	(V) 15 10 5 2 ms JPMIA0041GB 1.4 V	
76	Ground	Combination switch	Input	Combination	Lighting switch AUTO	(V) 15 0 2 ms JPMIA0038GB 1.3 V	
(BG)				switch	Lighting switch 1ST	(V) 15 0 2 ms JPMIA0036GB 1.3 V	
				Any of the condition with all switches OF • INT VOLUME 1 • INT VOLUME 5 • INT VOLUME 6 NOTE: "INT VOLUME" in " MONITOR" mode of "BCM" using CONS	Any of the condition below with all switches OFF • INT VOLUME 1 • INT VOLUME 5 • INT VOLUME 6 NOTE: "INT VOLUME" in "DATA MONITOR" mode of "BCM" using CONSULT.	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V	

< ECU DIAGNOSIS INFORMATION >

Termi	nal No.	Description				Value	
(Wire	color)	Signal name	Input/ Output	Input/ Output	Condition	(Approx.)	
					All switches OFF	(V) 15 0 2 ms JPMIA0041GB	B
						1.4 V	D
					Lighting switch HI		E
						2 ms	F
77 (V)	77 (V) Ground Combination switc INPUT 3	Combination switch INPUT 3	Input s	Combination switch		1.3 V	G
					Lighting switch 2ND	(V) 15 10 5 0 	Н
						JPMIA0037GB 1.3 V	
					Any of the condition below with all switches OFF • INT VOLUME 1 • INT VOLUME 2		J
					• INT VOLUME 3 NOTE: "INT VOLUME" in "DATA MONITOR" mode of	0 2 ms	K
				"BCM" using CONSULT.	JPMIA0040GB 1.3 V	L	

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Terminal No.		Description				
(Wire +	color)	Signal name	Input/ Output		Condition	Value (Approx.)
					All switches OFF	(V) 15 10 2 ms JPMIA0041GB 1.4 V
					Lighting switch PASS	(V) 15 0 2.ms JPMIA0037GB 1.3 V
78 (Y)	Ground	Combination switch INPUT 2	Input	Combination switch	Lighting switch 2ND	(V) 15 0 2 ms JPMIA0036GB 1.3 V
					Front wiper switch INT/ AUTO	(V) 15 0 2 ms JPMIA0038GB 1.3 V
					Front wiper switch HI	(V) 15 0 2 ms JPMIA0040GB 1.3 V

< ECU DIAGNOSIS INFORMATION >

Termi	nal No.	Description				Value	
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)	A
					All switches OFF	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V	B C D
					Turn signal switch LH	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V	E
79 (LG)	Ground	Combination switch INPUT 1	Input	Combination switch	Turn signal switch RH	(V) 15 0 2.ms JPMIA0036GB 1.3 V	H
					Front wiper switch LO	(V) 15 0 2 ms 1.3 V	J K L
			Front washer switch ON	(V) 15 0 2 ms JPMIA0039GB 1.3 V	BCS N		
80	Ground	Trunk lid opener	Input	Trunk lid opener	ON (Pressed)	0 – 1.5 V	0
(L)	C. Sund	switch		switch	OFF (Not pressed)	9 – 16 V	

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Termir	nal No.	Description				Value
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)
82 (W)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (When rear LH door closed)	(V) 15 0 10 ms JPMIA0011GB 11.8 V
					ON (When rear door LH opened)	0 V
					ON (Pressed)	0 – 1.5 V
83 (L)	Ground	Trunk lid opener re- quest switch	Input	Trunk lid opener request switch	OFF (Not pressed)	(V) 15 10 2 ms JMMIA1408GB
85	Ground	Trunk room lamp	Output	Trunk room	OFF	9 – 16 V
(P)	Croana	control	Output	lamp	ON	0 – 1 V
91 (GR)	Ground	Trunk lid open	Output	Trunk lid	OFF (Actuator is not activated)	0 V
					ed)	9 - 16 V
92 (W)	Ground	Turn signal RH out- put (Side and rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V (V) 15 10 5 0 1 s PKID0926E 6.5 V (Turn signal lamp turn on: 9 - 16 V)
93 (G)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (When rear RH door closed) ON (When rear door RH opened)	(V) 15 10 10 10 10 11.8 V 0 V

Terminal No.		Description				Value	
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)	A
94 (GR)	Ground	Passenger door switch	Input	Passenger door switch	OFF (When passenger door closed)	(V) 15 10 5 0 10 10 10 10 10 10 10 10 10 10 10 10 1	B C D
					ON (When passenger door opened)	0 V	_
96 (V)	Ground	Driver door switch	Input	Driver door switch	OFF (When driver door closed)	(V) 15 10 5 0 10 ms JPMIA0011GB	E F G
				ON (When driver door opened)	11.8 V 0 V	Н	
97 (R)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (When trunk lid closed)	(V) 15 10 5 0 10 ms 10 ms	l J
					ON (When trunk lid opened)	11.8 V 0 V	K
99		Inside kev antenna		put Ignition switch ON and any door is open	When Intelligent Key is not in the antenna detec- tion area	(V) 60 40 20 0 1 s JSMIA1413GB	L BCS
(GR)	(GR) Ground (Tr	(Trunk room) (-)	Output		When Intelligent Key is in the antenna detection area	(V) 60 40 0 0 1 5 JSMIA1414GB	O

Termii	Terminal No. Description				\/alue	
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)
100	Ground	Inside kev antenna		Ignition switch	When Intelligent Key is not in the antenna detec- tion area	(V) 60 40 0 0 0 1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
(W)		(Trunk room) (+)		door is open	When Intelligent Key is in the antenna detection area	(V) 60 20 0 1 s JSMIA1406GB
101	101 Ground R	und Rear bumper anten- na (-)	Output	When pressing the trunk lid opener request switch with all doors are locked and igni- tion switch OFF	When Intelligent Key is not in the antenna detec- tion area	(V) 60 40 20 0 1 s JSMIA1504GB
(BG) Grou					When Intelligent Key is in the antenna detection area	(V) 60 40 0 0 1 5 JSMIA1505GB
102	Ground	Rear bumper anten- na (+)	Output	When pressing the trunk lid opener request switch with all doors are locked and igni- tion switch OFF	When Intelligent Key is not in the antenna detec- tion area	(V) 60 40 20 0 1 s JSMIA1504GB
(LG) G					When Intelligent Key is in the antenna detection area	(V) 60 40 20 0 0 1 5 JSMIA1505GB

Termi	Terminal No. Description				Value		
(Wire	color)	Signal name	Input/ Output		Condition	Value (Approx.)	A
					Turn signal switch OFF	0 V	D
103 (Y)	Ground	Turn signal LH out- put (Side and rear)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s PKID0926E 6.5 V (Turn signal lamp turn on: 9 - 16 V)	D C B
					Turn signal switch OFF	0 V	
105		Turn signal DH out					F
(V) Ground	Ground	put (Front)	Output O	ON	Turn signal switch RH		G
						6.5 V (Turn signal lamp turn on: 9 - 16 V)	Η
107 (P)	Ground	Push-button ignition switch illumination ground	Input	Ignition switch O	N	0 V	
111	Ground	ACC/ON indicator	Output	Ignition switch	OFF	9 – 16 V	J
(Y)		lamp			ACC or ON	0 – 1.5 V	
113 (SB)	Ground	Accessory relay	Output	Ignition switch	OFF	0 – 0.5 V	1Z
(00)		control			ACC of ON	9 – 16 V	N
				When pressing	When Intelligent Key is not in the antenna detec- tion area	(V) 30 20 10 0 ••••••••••••••••••••••••••••••	L BC
114 (LG)	Ground	Passenger door an- tenna (+)	Output	request switch (passenger side) with all doors are		JSMIA1506GB	Ν
				locked and igni- tion switch OFF	When Intelligent Key is in the antenna detection area		0
					JSMIA1507GB	Ρ	

Terminal No.		Description				Value	
(Wire +	color)	Signal name	Input/ Output		Condition	value (Approx.)	
115	Ground	. Passenger door an-		When pressing the front door request switch (passenger	When Intelligent Key is not in the antenna detec- tion area	(V) 30 10 10 15 JSMIA1506GB	
(V)	Glound	tenna (-)	Output	side) with all doors are locked and igni- tion switch OFF	When Intelligent Key is in the antenna detection area	(V) 30 10 0 1 1 s JSMIA1507GB	
116 (BR) Ground	Ground	ound Inside key antenna (Console) (+)	Output	Ignition switch ON and any door is open	When Intelligent Key is not in the antenna detec- tion area	(V) 60 40 0 0 1 s JSMIA1348GB	
	Glound				When Intelligent Key is in the antenna detection area	(V) 60 40 0 0 1 s JSMIA1406GB	
					Turn signal switch OFF	0 V	
117 (W/B)	Ground	Turn signal LH out- put (Front)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s PKID0926E 6.5 V (Turn signal lamp turn on: 9 - 16 V)	

Termi	nal No.	Description				Value	
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)	A
119	119 (L) Ground Remote keyless en- try receiver commu- nication Ir	Remote keyless en-		Ignition switch	Waiting	(V) 15 0 5 0 200 ms JMMA1409GB	B
(L)		input	ŌN	When operating either button on Intelligent Key	(V) 15 10 5 0 200 ms JMMA1410GB	E	
121		Driver door antenna		When pressing the front door request switch (driver side)	When Intelligent Key is not in the antenna detec- tion area	(V) 30 10 0 1 1 5 1 5 30 10 10 10 10 10 10 10 10 10 10 10 10 10	G
(SB)	(SB) Ground	(-)	Guiput	with all doors are locked and ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 30 10 0 1 1 5 1 5 5 5 5 5 5 5 5 5 5 5 5 5	J
122	Ground	Driver door antenna	Output	When pressing the front door request switch (driver side) with all doors are locked and ignition switch OFF	When Intelligent Key is not in the antenna detec- tion area	(V) 30 20 10 10 15 JSMIA1506GB	L BC
(BG) Gro	Ground	Ground (+)	Output		When Intelligent Key is in the antenna detection area	(V) 30 20 10 0 0 1 1 5 JSMIA1507GB	O P

Termir	nal No.	Description				Value
(Wire +	color) –	Signal name	Input/ Output		Condition	(Approx.)
123	3 Inside key antenna Ignition		Ignition switch	When Intelligent Key is not in the antenna detec- tion area	(V) 60 40 0 0 1 5 JSMIA1348GB	
(R)	Glound	(+)	Uutput	door is open	When Intelligent Key is in the antenna detection area	(V) 60 20 0 0 1 s JSMIA1406GB
124	Ground	Ground Inside key antenna (Instrument lower) Output ON and any (-)	Ignition switch ON and any	When Intelligent Key is not in the antenna detec- tion area	(V) 60 40 0 0 1 s JSMIA1413GB	
(G) Grour				door is open	When Intelligent Key is in the antenna detection area	(V) 60 40 0 0 1 s JSMA1414GB
126 (B)	Ground	NATS antenna amp.	Input/ Output	Intelligent Key: Intelligent Key battery is re- moved	Brake pedal: Depressed	(V) 15 0 W W W 200 ms JSKIA3178ZZ
127 (W)	Ground	NATS antenna amp.	Input/ Output	Intelligent Key: Intelligent Key battery is re- moved	Brake pedal: Depressed	(V) 30 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Termi	nal No.	Description				Value	
(Wire +	color)	Signal name	Input/ Output		Condition	Value (Approx.)	A
							В
		Inside key antenna			When Intelligent Key is not in the antenna detec- tion area		С
128	Ground		Output	Ignition switch ON and any		JSMIA1413GB	D
(GR)		(Console) (-)		door is open	When Intelligent Key is in		Е
					area	JSMIA1414GB	F
				Interior room lam (Cuts the interior	p battery saver is activated. room lamp power supply)	0 V	G
129 (LG)	Ground	Interior room lamp power supply	Output	Interior room lamp battery saver is not ac vated. (Outputs the interior room lamp power su ply)		9 – 16 V	Н
130	130 Ground Passenger do	Passenger door UN-	Output	Passangar door	UNLOCK (Actuator is activated)	9 – 16 V	
(P)	Giouna	LOCK	Output	Fassenger door	Other then UNLOCK (Ac- tuator is not activated)	0 V	J
131 (Y)	Ground	Battery power sup- ply	Input	Ignition switch O	FF	9 – 16 V	
132	Ground	Rear door LH/RH	Output	Rear door LH/	LOCK (Actuator is activat- ed)	9 – 16 V	Κ
(V)		LUCK	•	KH	Other then LOCK (Actua- tor is not activated)	0 V	L
133	Ground	Rear door LH/RH	Output	Rear door LH/	UNLOCK (Actuator is activated)	9 – 16 V	
(BR)		UNLOCK	•	RH	Other then UNLOCK (Ac- tuator is not activated)	0 V	BCS
134 (B)	Ground	Ground	Output	Ignition switch O	FF	0 V	N
135	Ground	Front doors and fuel	Output	Front doors and	LOCK (Actuator is activat- ed)	9 – 16 V	
(V)				fuel lid	Other then LOCK (Actua- tor is not activated)	0 V	0
136 (V)	Ground	Interior room lamp control	Output	Map lamp and personal lamp	When all doors are closed (Interior room lamp is turned OFF)	0 V	Ρ
				(Door position)	Any doors opens (Interior room lamp is turned ON)	9 – 16 V	
137	Ground	Driver door and fuel	Output	Driver door and	UNLOCK (Actuator is activated)	9 – 16 V	
(LG) Ground	lid UNLOCK	Calput	fuel lid	Other then UNLOCK (Ac- tuator is not activated)	0 V		

< ECU DIAGNOSIS INFORMATION >

Termii	nal No.	Description			Value
(Wire +	color)	Signal name	Input/ Output	Condition	(Approx.)
138 (P)	Ground	Rear doors lock ac- tuator power supply	Input	Ignition switch ON	9 – 16 V
139 (W)	Ground	Battery power sup- ply (F/L)	Input	Ignition switch OFF	9 – 16 V
				Ignition switch OFF	0 V
140 (BR) Gr	Ground	Ignition switch ON	Output	Within 45 second after ignition switch is turned OFF	9 – 16 V
				Ignition switch ON	
141 (R)	Ground	Power supply (BAT)	Output	Ignition switch OFF	9 – 16 V
142 (R)	Ground	Front door and fuel filler lid lock actuator power supply	Input	Ignition switch ON	9 – 16 V
143 (B)	Ground	Ground	Output	Ignition switch OFF	0 V

*1: This harness is connected but not used.

*2: Except for Mexico

*3: For Canada

Fail-safe

FAIL-SAFE CONTROL BY DTC

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

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 $ON \rightarrow OFF$
B2198: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
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)
B260F: ENG STATE SIG LOST	Inhibit engine cranking	When any of the following conditions are fulfilledIgnition switch position changes to ACCReceives engine status signal (CAN)
B26F1: IGN RELAY OFF	Inhibit engine cranking	 When the following conditions are fulfilled Ignition switch ON signal (CAN: Transmitted from BCM): ON Ignition switch ON signal (CAN: Transmitted from IPDM E/R): ON
B26F2: IGN RELAY ON	Inhibit engine cranking	 When the following conditions are fulfilled Ignition switch ON signal (CAN: Transmitted from BCM): OFF Ignition switch ON signal (CAN: Transmitted from IPDM E/R): OFF
B26F3: START CONT RLY ON	Inhibit engine cranking	 When the following conditions are fulfilled Starter control relay signal (CAN: Transmitted from BCM): OFF Starter control relay signal (CAN: Transmitted from IPDM E/R): OFF
B26F4: START CONT RLY OFF	Inhibit engine cranking	 When the following conditions are fulfilled Starter control relay signal (CAN: Transmitted from BCM): ON Starter control relay signal (CAN: Transmitted from IPDM E/R): ON
B26F7: BCM	Inhibit engine cranking by Intelligent Key sys- tem	When room antenna and trunk room antenna functions normally

FAIL-SAFE CONTROL BY RAIN SENSOR MALFUNCTION

INFOID:000000009602874

< ECU DIAGNOSIS INFORMATION >

BCM detects the rain sensor serial link error and the rain sensor malfunction. BCM controls the following fail-safe when rain sensor has a malfunction. А Front wiper switch AUTO and sensing rain drop: The condition just before the activation of fail-safe is maintained until the front wiper switch is turned OFF. Front wiper switch AUTO and not sensing rain drop: Front wiper is LO operation until the front wiper switch is В turned off. FAIL-SAFE CONTROL OF COMBINATION SWITCH READING FUNCTION CAUSED BY LOW POWER SUPPLY VOLTAGE If voltage of battery power supply lower, BCM maintains combination switch reading to the status when input voltage is less than approximately 9 V. D INFOID:000000009602875 Е F

NOTE:

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

DTC Inspection Priority Chart

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	0
2	U1000: CAN COMM U1010: CONTROL UNIT (CAN)	G
3	 B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI-SCANNING B2196: DONGLE NG B2198: NATS ANTENNA AMP 	Н
	B2555: STOP LAMP B2556: PUSH-BTN IGN SW B2557: VEHICLE SPEED B2601: SHIFT POSITION B2602: SHIFT POSITION B2603: SHIFT POSI STATUS	J
	 B2604: PNP/CLUTCH SW B2605: PNP/CLUTCH SW B2608: STARTER RELAY B2605: ENG STATE SIGLOST 	K
4	 B2614: BCM B2615: BCM B2616: BCM 	L
	 B2618: BCM B261A: PUSH-BTN IGN SW B261E: VEHICLE TYPE B26F1: IGN RELAY OFF B26F5: IM RELAY OFF 	BC
	 B26F2: IGN RELAY ON B26F3: START CONT RLY ON B26F4: START CONT RLY OFF B26F6: BCM 	Ν
	 B26F7: BCM B26F8: BCM B26FC: KEY REGISTRATION B26FF: INTELLIGENT TUNER COMM ERROR 	0
	U0415: VEHICLE SPEED	P

< ECU DIAGNOSIS INFORMATION >

Priority	DTC
5	 C1704: LOW PRESSURE FL C1705: LOW PRESSURE FR C1706: LOW PRESSURE RR C1707: LOW PRESSURE RL C1708: [NO - DATA] - FL C1709: [NO - DATA] - FR C1710: [NO - DATA] - RR C1711: [NO - DATA] - RR C1711: [NO - DATA] - RR C1711: [PRESSDATA ERR] FL C1717: [PRESSDATA ERR] FR C1718: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RR C1730: FLAT TIRE FR C1730: FLAT TIRE FR C1731: FLAT TIRE FR C1732: FLAT TIRE RR C1732: FLAT TIRE RR C1734: CONTROL UNIT C1761: TEMPERATURE DATA FR C1762: TEMPERATURE DATA FR C1763: TEMPERATURE DATA RR C1764: TEMPERATURE DATA RR C1769: CONFIG SETTING C1770: G SENSOR FL C1771: G SENSOR RR
6	 B2621: INSIDE ANTENNA B2622: INSIDE ANTENNA B2623: INSIDE ANTENNA
7	 B259A: ROOM LAMP FUSE BLOWN B259B: DR TOUCH SENSOR B259C: PASS TOUCH SENSOR B2626: OUTSIDE ANTENNA B2627: OUTSIDE ANTENNA B2628: OUTSIDE ANTENNA

DTC Index

NOTE:

The details of time display are as follows.

• CRNT: A malfunction is detected now.

• PAST: A malfunction was detected in the past.

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to <u>BCS-16, "COM-MON ITEM : CONSULT Function (BCM - COMMON ITEM)"</u>.

×:Applicable

INFOID:000000009602876

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condi- tion	Intelligent Key warning display	Security indi- cator lamp ON	Low pressure warning lamp ON	Reference
No DTC is detected. further testing may be required.	_	_	_	_	_	_
U1000: CAN COMM		—	_	_	_	<u>BCS-85</u>
U1010: CONTROL UNIT (CAN)	_	_			—	<u>BCS-86</u>
U0415: VEHICLE SPEED	_	_	×		—	<u>BCS-87</u>
B2192: ID DISCORD BCM-ECM	×		_	×		<u>SEC-62</u>
B2193: CHAIN OF BCM-ECM	×	—		×		<u>SEC-63</u>

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condi- tion	Intelligent Key warning display	Security indi- cator lamp ON	Low pressure warning lamp ON	Reference	A
B2195: ANTI-SCANNING	×	—	—	×	—	<u>SEC-64</u>	
B2196: DONGLE NG	×	—	—	—	—	<u>SEC-65</u>	-
B2198: NATS ANTENNA AMP	×	—	—	×	—	SEC-67	С
B2555: STOP LAMP	_	×	×	—	—	<u>SEC-69</u>	-
B2556: PUSH-BTN IGN SW	—	×	×	—	—	<u>SEC-72</u>	
B2557: VEHICLE SPEED	×	×	×	—	—	<u>SEC-74</u>	D
B2562: LOW VOLTAGE	_	×	_	_	—	BCS-88	-
B259A: ROOM LAMP FUSE BLOWN	—	_	_	_	—	<u>BCS-89</u>	E
B259B: DR TOUCH SENSOR	_	×	—	—	—	<u>DLK-77</u>	-
B259C: PASS TOUCH SENSOR	_	×	—	—	—	DLK-79	F
B2601: SHIFT POSITION	×	×	×	—	—	<u>SEC-76</u>	-
B2602: SHIFT POSITION	×	×	×	—	—	<u>SEC-78</u>	0
B2603: SHIFT POSI STATUS	×	×	×	—	—	<u>SEC-81</u>	G
B2604: PNP/CLUTCH SW	×	×	×	—	—	<u>SEC-85</u>	-
B2605: PNP/CLUTCH SW	×	×	×	—	—	<u>SEC-88</u>	Н
B2608: STARTER RELAY	×	×	×	—	—	<u>SEC-90</u>	-
B260F: ENG STATE SIG LOST	×	×	×	—	—	<u>SEC-92</u>	-
B2614: BCM	_	×	×	—	—	PCS-63	
B2615: BCM	_	×	×	—	—	PCS-66	-
B2616: BCM	_	×	×	_	—	PCS-69	J
B2618: BCM	—	×	×	—	_	PCS-72	-
B261A: PUSH-BTN IGN SW	_	×	×	_		PCS-74	-
B2621: INSIDE ANTENNA	_	×	_	_		<u>DLK-81</u>	K
B2622: INSIDE ANTENNA	_	×	_	_		<u>DLK-84</u>	-
B2623: INSIDE ANTENNA	_	×	_	—	—	<u>DLK-87</u>	
B2626: OUTSIDE ANTENNA	_	×	_	_		<u>DLK-90</u>	
B2627: OUTSIDE ANTENNA	_	×		_	—	<u>DLK-92</u>	
B2628: OUTSIDE ANTENNA	_	×	_	_		<u>DLK-94</u>	BC
B26F1: IGN RELAY OFF	×	×	×	_	—	PCS-76	
B26F2: IGN RELAY ON	×	×	×	_	—	PCS-78	N
B26F3: START CONT RLY ON	×	×	×	_		<u>SEC-94</u>	
B26F4: START CONT RLY OFF	×	×	×	_	_	<u>SEC-96</u>	-
B26F6: BCM	_	×	×	—	—	PCS-80	0
B26F7: BCM	×	×	×	_		<u>SEC-98</u>	-
B26F8: BCM	_	×	×	_	—	<u>SEC-99</u>	_
B26FC: KEY REGISTRATION	_	×	×	_	_	<u>SEC-100</u>	Р
B26FF: INTELLIGENT TUNER COMM ERROR	_	×	×	_	_	<u>DLK-96</u>	-
C1704: LOW PRESSURE FL	—	—	—	—	×	<u>WT-34</u>	-
C1705: LOW PRESSURE FR	—	—	—	—	×	<u>WT-34</u>	-
C1706: LOW PRESSURE RR	_	—	—	—	×	<u>WT-34</u>	-

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condi- tion	Intelligent Key warning display	Security indi- cator lamp ON	Low pressure warning lamp ON	Reference
C1707: LOW PRESSURE RL	—	—	-	—	×	<u>WT-34</u>
C1708: [NO - DATA] - FL	—	—	_	—	×	<u>WT-36</u>
C1709: [NO - DATA] - FR	—	—	_	—	×	<u>WT-36</u>
C1710: [NO - DATA] - RR	—	—	_	—	×	<u>WT-36</u>
C1711: [NO - DATA] - RL	—	—	_	—	×	<u>WT-36</u>
C1716: [PRESSDATA ERR] FL	—	—	_	—	×	<u>WT-38</u>
C1717: [PRESSDATA ERR] FR	_	—	_	_	×	<u>WT-38</u>
C1718: [PRESSDATA ERR] RR	—	—	_	—	×	<u>WT-38</u>
C1719: [PRESSDATA ERR] RL	—	—	_	—	×	<u>WT-38</u>
C1729: VHCL SPEED SIG ERR	—	—	_	—	×	<u>WT-39</u>
C1730: FLAT TIRE FL	—	—	_	—	×	<u>WT-40</u>
C1731: FLAT TIRE FR	—	—	_	—	×	<u>WT-40</u>
C1732: FLAT TIRE RR	—	—	_	—	×	<u>WT-40</u>
C1733: FLAT TIRE RL	—	—	_	—	×	<u>WT-40</u>
C1734: CONTROL UNIT	—	—	_	_	×	<u>WT-42</u>
C1761: TEMPERATURE DATA FL	—	—	_	_	×	<u>WT-44</u>
C1762: TEMPERATURE DATA FR	—	_	_	—	×	<u>WT-44</u>
C1763: TEMPERATURE DATA RR	—	—	—	—	×	<u>WT-44</u>
C1764: TEMPERATURE DATA RL	—	_	_	_	×	<u>WT-44</u>
C1769: CONFIG SETTING	—	—	_	—	×	<u>WT-45</u>
C1770: G SENSOR FL	—	—	_	—	×	<u>WT-46</u>
C1771: G SENSOR FR	—	—	—	—	×	<u>WT-46</u>
C1772: G SENSOR RL	—	—	—	—	×	<u>WT-46</u>
C1773: G SENSOR RR		—			×	<u>WT-46</u>

WIRING DIAGRAM

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< WIRING DIAGRAM >

Connector No. B10 Connector Name FRX01 DOR SMT04 (PASE04GR SDE) Connector Type TH047W-4N1		Terminal Color Of Signal Name [Specification] No.	3 GR –		Connector No. B71	Connector Name INSIDE KEY ANTENNA (TRUNK ROOM)	Connector Type RK02FGY	<)	Terminal Color Of Signal Name [Snecification]	No. Wire Vignation Uppendiction	2 GR ANT+						
Connector No. B44 Connector Name REAR DOOR SWITCH LH Connector Type TH04PW-NH		Terminal Color Of Signal Name [Specification] No.	3 W -		Connector No. B67	Connector Name TRUNK ROOM LAMP	Connector Type S02FW			H.S.	1]	Terminal Color Of Sienal Name [Soworification]	No. Wire Creation Concernant	2 GR						
Connector No. B23 Connector Name REAR CONSINATION LANP FH1 BCDY SIDE) Connector Type NSG4MW-CS	4321	Terminal Color Of Signal Name [Specification] No.	1 LG	3 < 2	4 B -		Connector No. B42	Connector Name FRONT DOOR SWITCH (DRIVER SIDE)	Connector Type TH04FW-NH	-		K SH			Terminal Color Of	No. Wire Signal Name [Specification] 3 V -					
Y CONTROL MODULE) BI9 me-causa sar et.1 commo, un tamen sub THI BTW-CS2	1 2 4 6 8 9 19 10 12 14 16/17 18 20	Of Signal Name [Specification]	SIG BAT	CAN LO	BACKLE_SW_LH_NO	LD SHIELD GND	SENS POWER 1	OUT 2 CAN HI	LOCAL COMM 1	SENS GND 1	SIG GND MOTOR BAT	MOTOR GND		B22	REAR COMBINATION LAMP LH (BODY SIDE)	NS04MW-CS		4 3 2 1	Of Signal Name [Specification]	1	1

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No. No. <td>Color Of Signal Name [Specification]</td> <td></td> <td></td> <td></td> <td>((1)3 4))</td> <td></td> <td>K</td> <td></td> <td></td> <td>r Type RH04FLGY</td> <td> Name FRONT ONE TOUCH UNLOCK SENSOR ASSEMBLY (DRIVER S </td> <td>222</td> <td>No D10</td> <td></td> <td>Y UNLOCK_SW</td> <td>SB COM</td> <td>BR ENCODER SIG2</td> <td>GR ENCODER_SIG1</td> <td>B ENCODER_GND</td> <td>BR IGN</td> <td></td> <td>L UP</td> <td>2 NC</td> <td>+ LNOODEN.</td> <td>V ENCODER +</td> <td>Color Of Signal Name [Specification] Wire</td> <td>3 4 5 6 7 9 10 11 12 13 15 16</td> <td></td> <td>Type NS16FW-CS</td> <td>Name POWER WINDOW MAIN SWITCH</td> <td>No. D8</td> <td>(BODY CONTROL MODULE)</td>	Color Of Signal Name [Specification]				((1)3 4))		K			r Type RH04FLGY	 Name FRONT ONE TOUCH UNLOCK SENSOR ASSEMBLY (DRIVER S 	222	No D10		Y UNLOCK_SW	SB COM	BR ENCODER SIG2	GR ENCODER_SIG1	B ENCODER_GND	BR IGN		L UP	2 NC	+ LNOODEN.	V ENCODER +	Color Of Signal Name [Specification] Wire	3 4 5 6 7 9 10 11 12 13 15 16		Type NS16FW-CS	Name POWER WINDOW MAIN SWITCH	No. D8	(BODY CONTROL MODULE)

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BCM (BODY CONTROL MODULE)								
Connector No. E17	Connect	or No.	E35	Connector No.	E45	Connector N	>. E64	
Connector Name FRONT TURN SIGNAL LAMP LH	Connect	or Name	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)	Connector Name	INTELLIGENT KEY WARNING BUZZER	Connector N	me FUSE BLOCK (J/B)	
Connector Type RH02FB	Connect	or Type	SAZ30FB-SJZ4-U	Connector Type	RK03FBR	Connector Ty	pe NS08FW-CS	Π
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	<i>с</i>	BR	FR RH WHEEL SENSOR SIGNAL					
	10	GR	FR RH WHEEL SENSOR POWER SUPPLY	-		Connector Ty	pe TH12FW-NH	
K	13	н	VACUUM SENSOR SIGNAL					
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-	28	5	VACUUM SENSOR POWER SUPPLY	-	- [With ACSD]	Terminal Co	Hor Of C IN IC IC IC	_
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	SB ACC RELAY CONT	LG PASSENGER DOOR ANT + V DASSENGED DOOD ANT -	PD INSIDE KEV ANT (CONSOLE) +	W/B TURN SIG LH OUTPUT (FRONT)	L KYLS ENT RECEIV COMM	SB DRIVER DOOR ANT -	BG DRIVER DOOR ANT +	R INSIDE KEY ANT (INSTRUMENT LOWER) +	G INSIDE KEY ANT (INSTRUMENT LOWER) -	B NATS ANT AMP.	W NATS ANT AMP.	GR INSIDE KEY ANT (CONSOLE) -		1 () ()	e. MI/	ame BCM (BODY CONTROL MODULE)	me FEAD9FW-FHA6-SA				T 137 136 135 134 133 132 131 130 129	142 142 141 140 130 138	001 001 041 141 751 051			olor Of Signal Name [Specification]	Wire opposite opposit	LG INT ROOM LAMP PWR SPLY	P PASS DOOR UNLK OUTPUT	FIL (FUSE)	V RR, RL DOOR LK OUTPUT		V FRONT DOOR FLITD LK OUTPUT	V INT ROOM LAMP CONT	LG FRONT DOOR, FL LID UNLK OUTPUT	P REAR DOORS ACT PWR SPLY	W BAT (F/L)	BR IGN ON	R PWR SPLY (BAT)	R FRONT DOORS, FL LID ACT PWR SPLY	B GND					
	113	114	911	117	119	121	122	123	124	126	127	128			Connector No	Connector Na	Connector Tv				H.S.H					Terminal Co	No.	129	130	31	132	22 124	135	136	137	138	139	140	141	142	143					
	TR LID OPNR SW		MIS		BCM (BODY CONTROL MODULE)	TH24FGY-NH		•	R		92 91 85 83 82	103 102 101 100 99 97 96 94 93			Signal Name [Specification]	DEAD I H DOOD SW	TR LID OPEN RED SW	TR ROOM LAMP CONT	TRUNK LID OPEN	TURN SIG RH OUTPUT (SIDE,REAR)	REAR RH DOOR SW	PASSENGER DOOR SW	DRIVER DOOR SW	TR ROOM LAMP SW	INSIDE KEY ANT (TRUNK) -	INSIDE KEY ANT (TRUNK) +	REAR BMPR ANT -	REAR BMPR ANT +	TURN SIG LH OUTPUT (SIDE,REAR)			aiw	BCM (BODY CONTROL MODULE)	TH24FB-NH			[116 115 114 113 111 111 107 105	128 127 126 124 123 122 121 119 117			Signal Name [Specification]		TURN SIG RH OUTPUT (FRONT)	PUSH-BTN IGN SW ILL GND
	0		motor No		lector Name	ector Type				Ś					ninal Color UT				GR	2	0	4 GR	> 9	7 R	9 GR	00 0	10 BG	2 LG	3 ≺		:	lector No.	ector Name	ector Type				Ń					ninal Color Of	o. Wire	<	с ,
	8		and o	0	Con	Conn								ļ	Lerr.	à	5 60	6 84	6	6	6	9	6	6	6	5	2	2	2		ļ	Con	Conn	Conn				Ŧ					Terr	ž	2	=
	ONE TOUCH UNLK SENS (PASS)	RECEIVER/SENSOR GND	DECOLUTE IND LOWE CONT	STEP LAMP CONT	STOP LAMP SW2	EXTENDED STORAGE FUSE SW	STOP LAMP SW	DR DOOR UNLK SENS	TR LID OP CANCEL SW	HAZARD SW	P/N POSITION			M14	BCM (BODY CONTROL MODULE)	THADER-NH					60 59 55 54 52 46	00 13 13 17 13 12 17 13 18 68 68 68 64 65 64			f Simal Mama [Snarification]	oignal Naille Lopecification	PUSH-BTN IGN SW ILL PWR	DONGLE LINK	COMM LINE	RAIN SENSOR	CAN-L	DEAD WINDOW DEC DI V CONT	STARTER IN CONT	I-KEY WARN BUZZER	OUTS HD LAMP CONT	BLOWER FAN RLY CONT	IGN RLYAY (F/B) CONT	DIMMER	A/T SHIFT SELECT PWR SPLY	IGN RLYAY (IPDM E/R) CONT	DR DOOR REG SW	PASS DOOR REQ SW	COMBI SW INPUT 5	COMBI SW INPUT 4	COMBI SW INPUT 3	COMBI SW INPUT 2
	σ	∝ -		e B	~	œ	۵.	>	>	σ	BR			tor No.	tor Name	tor Tune	od i bhe								al Color Ot	Wire	œ (σ	>	× I	<u>∎</u> .		, a	>	œ	в	W/B	œ	GR	8	σ	SB	BR	g	>	> -
	16	11	2	21	25	26	27	8	33	36	39			Connec	Connec	Control	00	-		H	ļ				Termin	No	48	52	2	8	60	8 5	6	64	65	99	67	68	69	70	71	72	75	76	F	8/
DY CONTROL MODULE)	M7	A/T SHIFT SELECTOR	TUISEW-NH	I MI # 171111		R		1 2 3 4 5	7 0 10 14			Signal Name [Specification]		-	1		1	1	-	-	1	1			M13	BCM (BODY CONTROL MODULE)		TH40FG-NH				20 18 17 16 15 14 13 12 11 19 5 4 3 1	33 33 34 33 34 37 36 37 37 37 37 37 37 37 37 37 37 37 37 37			Cirred Mamo [Coordfordion]		PUSH SW	SENS PWR SPLY	OPTICAL SENSOR	-	COMBI SW OUTPUT 5	COMBI SW OUTPUT 4	COMBI SW OUTPUT 3	COMBI SW OUTPUT 2	COMBI SW OUTPUT 1
1 (BOL	tor No.	tor Name	Tune		_							al Color Of	MIC	8	3	2 a		, ~	>		B	ď			tor No.	'or Name	,	tor Type								al Color Of	Wire	æ	>	BG	ΓC	M	ß	_	5	•
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BCM (F	30DY C	CONTROL MODULE)										
Connector No	o. M58		Conné	ector No.	M81	Terminal	Color Of	Simul Manue [Snanification]	33	SB	ACC	_
Connector Na	ame COMB	BINATION METER	Conné	ector Name	TCU	No.	Wire		34	×	BAT	_
Connector Ty	ype TH12F	FW-NH	Conne	ector Type	TH40FW-NH	2	• @	1				
									Connector N	o. M10	60	
					K	Connecto	r No.	491	Connector N	ame INS0	DE KEY ANTENNA(INSTRUMENT LOWER)	
ΉS			Ŧ	vi	2 4 6 10 14 18 20 22 1 34 1	Connecto	r Name	DPTICAL SENSOR	Connector T	ype RK(02FGY	-
		41 42 43 44 45 46 47 48 51 52			1 3 5 7 9 1 19 21 23 1 25 1	Connecto	r Type	KO3FW			V	
									H.S.			
Terminal Cc No.	olor Of Wire	Signal Name [Specification]	Term	inal Color (Wire	0f Signal Name [Specification]	S H		ģ				
41		CAN-H	-	≻	BAT			1 2 2)	
42	۵.	CAN-L	~	8	GND			1 2 3				
43	8	ILLUMINATION CONTROL SIGNAL	°	>	ACC				Terminal Co	olor Of	Simal Nama [Snarification]	_
44	>	FUEL LEVEL SENSOR GROUND	4	æ	IGN				No.	Wire	oliginal realing tobaction of	
45	M	BATTERY POWER SUPPLY	5	SB	ACC OUTPUT	Terminal	Color Of	Signal Name [Specification]	-	œ	ANT+	
46	æ	IGNITION SIGNAL	۳	5	1	No.	Wire		2	J	ANT-	_,
47	LG	AV COMMUNICATION SIGNAL (H)			GND	-	>	SENSOR_POWER				
48	BB	AV COMMUNICATION SIGNAL (L)	о (CAN-H	2	ß	SENSOR OUTPUT				_
51	BR	FUEL LEVEL SENSOR SIGNAL	-		CAN-L	m	•	SENSOR GND	Connector N	o.	13	_
52	8	GROUND	2 6	- m	AUDIO TYPE RECOGNITION SIGNAL MICROPHONE VCC				Connector N	ame REI	MOTE KEYLESS ENTRY RECEIVER	
			6	0	MICROPHONE SIGNAL	Connecto	r No.	A100	Connector T	vpe AA(004FB	_
Connector No	o. M80		20	SHIEL	D SHIELD		- North	TIME OCTION AND				
Connector No	TDIDI	HOTING B.	21	-	MICROPHONE VCC	CONNECTO	r Name I					
CONTRACTOR IN			22	0	SOUND SIGNAL	Connecto	r Type 1	'H24FW-NH				
Connector T	ype TH12F	FB-NH	23	3 SHIEL	D SHIELD				H.S.			
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		5 1	Conne	actor Name	TRUNK LID OPENER CANCEL SWITCH		_		No.	Wire	oignai Name [opecification]	
									-	W	+12V	_
ľ			Conne	actor Type	S02FW	Terminal	Color Of	Signal Name [Specification]	2	_	SIGNAL	
Terminal Co	olor Of	Signal Name [Specification]	_		[No	Wire		9	۵	GND	_
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- ,		'	F	v	<u>]</u>	- :	<u>,</u>	CAN-L				
n ư	۲ a			3	1	<u></u>	- 8	DIMMER SIGNAL				
, ₉		1			2	22	; a	GND				
7	В	1			Ū	25	SB	1				
						26	BR	CAMERA SWITCH SIGNAL				
						28	LG	AV COMM (H)				

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JRMWD9947GB

< WIRING DIAGRAM >

TRUNK LID OPENER REQUEST SWITCH ASSEMBL

nnector Type

nector Type nector Name

mector No. nector Name

BCM (BODY CONTROL MODULE) VANITY MIRROR LAMP (PASSENGER SIDE) Signal Name [Specification

- 5

Signal Name [Specifica

Wire

erminal No.

Connector No. 753 Connector Name TRUNK LID LOCK ASSEMBLY

VANITY MIRROR LAMP (DRIVER SIDE)

nector Tyne

3124

H.S.

H.S.

Signal Name [Specification

123

H.S.

H.S.H

Signal Name [Specification]

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

< BASIC INSPECTION >

BASIC INSPECTION	0
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT	A
Description	В
BEFORE REPLACEMENT When replacing BCM, save or print current vehicle specification with CONSULT configuration before replace- ment. NOTE:	С
If "READ CONFIGURATION" can not be used, use the "WRITE CONFIGURATION - Manual selection" after replacing BCM.	D
AFTER REPLACEMENT CAUTION: When replacing BCM, always perform "WRITE CONFIGURATION" with CONSULT. Or not doing so,	E
 BCM control function does not operate normally. Complete the procedure of "WRITE CONFIGURATION" in order. Configuration is different for each vehicle model. Confirm configuration of each vehicle model. If you set incorrect "WRITE CONFIGURATION", incidents might occur. 	F
When replacing BCM, perform the system initialization (NATS and TPMS) (if equipped).	G
Work Procedure	
1.SAVING VEHICLE SPECIFICATION	Н
CONSULT Configuration Perform "READ CONFIGURATION" to save or print current vehicle specification. Refer to <u>BCS-82. "Descrip-</u> tion".	I
If "READ CONFIGURATION" can not be used, use the "WRITE CONFIGURATION - Manual selection" after replacing BCM.	J
>> GO TO 2.	
2.REPLACE BCM	K
Replace BCM. Refer to <u>BCS-98, "Removal and Installation"</u> .	
>> GO TO 3.	L
3.WRITING VEHICLE SPECIFICATION	
CONSULT Configuration Perform "WRITE CONFIGURATION - Config file" or "WRITE CONFIGURATION - Manual selection" to write vehicle specification. Refer to <u>BCS-82, "Work Procedure"</u> .	BCS
	Ν
> GU IU 4. 4 INITIALIZE BCM (NATS) (IE EQUIPPED)	
Perform BCM initialization (NATS)	0
>> GO TO 5.	Ρ
J. INITIALIZE TPMS (IF EQUIPPED)	

Perform TPMS initialization. Refer to WT-32, "Work Procedure".

>> WORK END

CONFIGURATION (BCM)

< BASIC INSPECTION >

CONFIGURATION (BCM)

Description

INFOID:000000009725387

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

Function	Description
READ CONFIGURATION	Reads the vehicle configuration of current BCM.Saves the read vehicle configuration.
WRITE CONFIGURATION - Manual selection	Writes the vehicle configuration with manual selection.
WRITE CONFIGURATION - Config file	Writes the vehicle configuration with saved data.

NOTE:

Manual setting item: Items which need selection by vehicle specifications

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

For some models and specifications, the automatic setting item may not be displayed.

CAUTION:

When replacing BCM, always perform "WRITE CONFIGURATION" with CONSULT. Or not doing so, BCM control function does not operate normally.

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

Work Procedure

INFOID:000000009725388

1.WRITING MODE SELECTION

CONSULT Configuration
 Select "CONFIGURATION" of BCM.

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

2.PERFORM "WRITE CONFIGURATION - CONFIG FILE"

CONSULT Configuration
 Perform "WRITE CONFIGURATION - Config file".

>> WORK END

 $\mathbf{3.}$ perform "write configuration - manual selection"

CONSULT Configuration

- 1. Select "WRITE CONFIGURATION Manual selection".
- 2. Identify the correct model and configuration list. Refer to BCS-83. "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.

NOTE:

If items are not displayed, touch "SETTING". Refer to <u>BCS-83. "Configuration list"</u> for written items and setting value.

- 4. Select "SETTING".
 - CAUTION:

Make sure to select "SETTING" even if the indicated configuration of brand new BCM is same as the desirable configuration. If not, configuration which is set automatically by selecting vehicle model can not be memorized.

5. When "COMMAND FINISHED", select "END".

CONFIGURATION (BCM)

< BASIC INSPECTION >

>> GO TO 4.

4. OPERATION CHECK

Confirm that each function controlled by BCM operates normally.

>> WORK END

Configuration list

CAUTION:

Thoroughly read and understand the vehicle specification. ECU control may not operate normally if the setting is not correct.

SETTIN	IG ITEM	NOTE	-		
Items	Setting value	NOTE	E		
TR CANCEL SW	$WITH \Leftrightarrow WITHOUT$	WITH: With trunk lid opener cancel switchWITHOUT: Without trunk lid opener cancel switch	-		
RAIN SENSOR CONFIG	$WITH \Leftrightarrow WITHOUT$	WITH: With rain sensorWITHOUT: Without rain sensor	F		
DONGLE	$WITH \Leftrightarrow WITHOUT$	WITH: For Canada modelsWITHOUT: Except for Canada models	-		
CAN ERR DETECT HPCM or VCM	WITHOUT	_	_		
CAN ERR DETECT TELEMAT- ICS	$WITH \Leftrightarrow WITHOUT$	WITH: With telematics systemWITHOUT: Without telematics system	-		
HBA SYSTEM	$WITH \Leftrightarrow WITHOUT$	WITH: With high beam assist systemWITHOUT: Without high beam assist system	-		
KEY FOB FREQUENCY TYPE	MODE2	_			
REMOTE KEYLESS ENTRY RE- CEIVER	MODE1				
Key Fob Type	LCK/UNLCK/TRNK/ALRM	_	-		
ONE TOUCH UNLOCK SENSOR	MODE1	_	-		
INTELLIGENT KEY TYPE	MODE2	_	ŀ		
ALT TYPE	GASOLINE	—	-		
TRANSMISSION	AT with ABS	_	-		
AUTO CRANK TIME	MODE1	_			

⇔: Items which confirm vehicle specifications

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INFOID:000000009602886

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< BASIC INSPECTION >

SHIPPING MODE CANCEL OPERATION

Work Procedure

INFOID:000000009602887

1. SHIPPING MODE CANCEL OPERATION

- 1. Turn ignition switch OFF.
- 2. Push in (switch on) the extended storage fuse switch. Refer to PG-101, "How To Check".
- 3. Turn ignition switch ON.
- 4. Turn ignition switch OFF and wait at least 2 seconds.

>> GO TO 2.

2. SHIPPING MODE CANCEL CHECK

- 1. Turn ignition switch ON.
- 2. Check that extended storage fuse warning message is not displayed on information display.

>> WORK END

< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS U1000 CAN COMM

DTC Description

INFOID:000000009602890

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Desxription

CAN (Controller Area Network) is a serial communication line for real time applications. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Modern vehicle is equipped with many electronic control unit, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H-line, CAN L-line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only. CAN Communication Signal Chart. Refer to LAN-44, "CAN COMMUNICATION SYSTEM : CAN Communication Signal Chart".

DTC DETECTION LOGIC

DTC	CONSULT display description	DTC Detection Condition	
U1000	CAN COMM (CAN communication circuit)	When BCM cannot communicate CAN communication signal continuously for 2 seconds or more.	F
POSSIBLE CAN comm	CAUSE nunication system		G
FAIL-SAFI	Ξ		Н
Diagnosi	s Procedure	INFOID:00000009602891	
1.PERFO	RM SELF DIAGNOSTIC		

1. Turn ignition switch ON and wait for 2 seconds or more.

2. Check "Self Diagnostic Result" of BCM.

Is DTC "U1000" displayed?

YES >> Refer to LAN-26, "Trouble Diagnosis Flow Chart".

NO–1 >> To check malfunction symptom before repair: Refer to <u>GI-43, "Intermittent Incident"</u>.

NO-2 >> Confirmation after repair: INSPECTION END

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U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

U1010 CONTROL UNIT (CAN)

DTC Description

INFOID:000000009602892

DTC DETECTION LOGIC

DTC	CONSULT display description	DTC Detection Condition	
U1010	CONTROL UNIT (CAN) [Control unit (CAN)]	BCM detected internal CAN communication circuit malfunction.	
POSSIBL BCM	E CAUSE		
FAIL-SAF	E		
Diagnos	is Procedure		INFOID:000000009602893
1. REPLA	CE BCM		
When DTC	C "U1010" is detected, replace	e BCM.	

>> Replace BCM. Refer to <u>BCS-98, "Removal and Installation"</u>.

< DTC/CIRCUIT DIAGNOSIS >

U0415 VEHICLE SPEED

DTC Description

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INFOID:000000009602894

DTC DETECTION LOGIC

DIO	CONSULT display description	DIC Detection Condition
U0415	VEHICLE SPEED (Vehicle speed)	When the vehicle speed signal received from the ABS actuator and electric unit (con- trol unit) remains abnormal for 2 seconds or more.
POSSIBL • ABS act • BCM	E CAUSE uator and electric unit (control	l unit)
FAIL-SAF —	E	
отс сог 1. отс с	NFIRMATION PROCEDUR ONFIRMATION	E
 Erase Turn i Perfo ignitic 	e the DTC. gnition switch OFF. rm the "Self Diagnostic Resul on switch is turned ON.	t" of BCM with CONSULT, when passed 2 seconds or more after the
Is any DT YES > NO-1 > NO-2 >	<u>C detected?</u> >> Refer to <u>BCS-87, "Diagnosi</u> >> To check malfunction symp >> Confirmation after repair: IN	<u>is Procedure"</u> . tom before repair: Refer to <u>GI-43, "Intermittent Incident"</u> . ISPECTION END
Diagnos	sis Procedure	INFOID:000000009602895
1. ABS A	CTUATOR AND ELECTRIC U	INIT (CONTROL UNIT) SELF-DIAG RESULTS
Perform "S 57, "DTC	Self-Diagnostic Result" of ABS Index".	S actuator and electric unit (control unit) with CONSULT. Refer to <u>BRC-</u>
Is any DT	C detected?	nctioning part
		C.00. "Demovel and Installation"

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< DTC/CIRCUIT DIAGNOSIS >

B2562 LOW VOLTAGE

DTC Description

INFOID:000000009602896

INFOID:000000009602897

DTC DETECTION LOGIC

DTC	CONSULT display description	DTC Detection Condition
B2562	LOW VOLTAGE (Low voltage)	When the power supply voltage to BCM remains less than 8.8 V for 120 seconds or more

POSSIBLE CAUSE

- Harness or connector (power supply circuit)
- BCM

FAIL-SAFE

DTC CONFIRMATION PROCEDURE

1. DTC CONFIRMATION

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

Is any DTC detected?

- YES >> Refer to BCS-88, "Diagnosis Procedure".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

1.CHECK POWER SUPPLY CIRCUIT

Check BCM power supply circuit. Refer to <u>BCS-91, "Diagnosis Procedure"</u>.

Is the circuit normal?

- YES >> Replace BCM. Refer to <u>BCS-98. "Removal and Installation"</u>.
- NO >> Repair the malfunctioning part.

B259A ROOM LAMP FUSE

< DTC/CIRCUIT DIAGNOSIS >

B259A ROOM LAMP FUSE

DTC Description

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INFOID:000000009602898

DTC DETECTION LOGIC

DTC	CONSULT display description	DTC Detection Condition
B259A	ROOM LAMP FUSE BLOWN (Room lamp fuse blown)	When BCM detects that power supply voltage is supplied to fusible link battery power, but not to BCM battery fuse for 2 minutes when ignition switch is ON.
POSSIBL • Fuse • Harness • Harness • BCM	E CAUSE or connector (power supply of or connector (interior room la	circuit is open or shorted) amp power supply circuit is shorted)
FAIL-SAF —	E	
DTC COI	NFIRMATION PROCEDUR	E
1.отс с	ONFIRMATION	
 Erase Turn i Perfo for 2 i 	DTC. gnition switch OFF. rm the "Self Diagnostic Resul minutes or more.	t" of BCM with CONSULT, after the ignition switch has been turned ON
Is any DT YES > NO-1 > NO-2 >	<u>C detected?</u> >> Refer to <u>BCS-89, "Diagnos</u> >> To check malfunction symp -> Confirmation after repair: IN	<u>is Procedure"</u> . tom before repair: Refer to <u>GI-43, "Intermittent Incident"</u> . NSPECTION END
Diagnos	sis Procedure	INF01D:00000000960289
1. CHEC	K FUSE	
1. Turn i 2. Chec	gnition switch OFF. < that the following fuse is not	blown.
	Signal name	Fuse No.
	Battery power supply	20
Is the fuse YES > NO >	<u>⇒ fusing?</u> -> GO TO 3. -> GO TO 2.	
2. CHEC	K BCM FUSE CIRCUIT	
1. Disco 2. Chec	nnect BCM connectors. < voltage between BCM harne	ess connector and ground.
	(+)	

	+)			
B		(-)	voltage	
Connector	Terminal			F
M17	131	Ground	9 – 16 V	

Is the measurement value normal?

YES >> Check intermittent incident. Refer to GI-43. "Intermittent Incident".

NO >> Repair harness or connector.

$\mathbf{3}.$ Check BCM FUSE CIRCUIT FOR SHORT TO GROUND

1. Disconnect BCM connectors.

B259A ROOM LAMP FUSE

< DTC/CIRCUIT DIAGNOSIS >

2. Check continuity between BCM harness connector and ground.

B	CM		Continuity
Connector Terminal		Ground	Continuity
M17	131		Not existed

Does continuity exist?

YES >> Repair harness or connector.

NO >> GO TO 4.

4.CHECK INTERIOR ROOM LAMP POWER SUPPLY CIRCUIT FOR SHORT TO GROUND

- 1. Disconnect following connectors.
- Map lamp
- Personal lamp
- Vanity mirror lamp (both sides)
- Outside handle lamp (both sides)
- Step lamp (ALL)
- Trunk room lamp
- 2. Check continuity between BCM harness connector and ground.

B	CM		Continuity	
Connector Terminal		Ground	Continuity	
M17	129		Not existed	

Does continuity exist?

- YES >> Repair harness or connector.
- NO >> Check interior room lamp. If result is normal, replace BCM. Refer to <u>BCS-98, "Removal and Instal-</u><u>lation"</u>.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

1.CHECK FUSE AND FUSIBLE LINK

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

Signal r	name	Fuse and fusible link No.		
Dotton (no)		20		
Battery power suppry		М		
s the fuse fusing?				
YES >> Replace the blov	wn fuse or fusible link afte	er repairing the affected circ	uit if a fuse or fusible link	
blown.				
. Turn ignition switch OFF	Nore			
 Check voltage between 	BCM harness connector a	ind ground.		
		-		
(+)		(-)		
BC	Λ		Voltage	
Connector	Terminal			
M17	131	Ground	9 – 16 V	
	139			
s the measurement value no	<u>prmal?</u>			
YES >> GO TO 3.	or connector			
Sheck continuity between BC	JM harness connector and	d ground.		
BCI	N			
	Terminal		Continuity	
Connector		Ground		
Connector	134			
Connector M17	134 143	-	Existed	

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COMBINATION SWITCH OUTPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

COMBINATION SWITCH OUTPUT CIRCUIT

Diagnosis Procedure

INFOID:000000009602901

1. CHECK OUTPUT 1 - 5 CIRCUIT FOR OPEN

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

Sustam	BCM		Combination switch		Continuity
System	Connector	Terminal	Connector	Terminal	Continuity
OUTPUT 1		14		12	
OUTPUT 2		13		14	
OUTPUT 3	M13	12	M27	5	Existed
OUTPUT 4		11		2	
OUTPUT 5		10		8	†

Does continuity exist?

YES >> GO TO 2.

NO >> Repair harnesses or connectors.

2.check output 1 - 5 circuit for short

Check for continuity between BCM harness connector and ground.

Sustam	B	СМ		Continuity
System	Connector	Terminal	_	Continuity
OUTPUT 1		14	_	
OUTPUT 2		13	Ground	
OUTPUT 3	M13	12	_	Not existed
OUTPUT 4		11	_	
OUTPUT 5	1	10		

Does continuity exist?

YES >> Repair harnesses or connectors.

NO >> GO TO 3.

3.CHECK COMBINATION SWITCH INTERNAL CIRCUIT

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

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

System	(+) BCM		(-)	Voltage
	Connector	Terminal	•	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
OUTPUT 1		12		
OUTPUT 2		14		
OUTPUT 3	M27	5	Ground	Refer to BCS-35, "Reference Value".
OUTPUT 4	2			
OUTPUT 5		8		

Is the measurement value normal?

YES >> Replace BCM. Refer to <u>BCS-98, "Removal and Installation"</u>.

COMBINATION SWITCH OUTPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

NO >> Replace combination switch. Refer to <u>BCS-99</u>, "Removal and Installation".

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COMBINATION SWITCH INPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

COMBINATION SWITCH INPUT CIRCUIT

Diagnosis Procedure

INFOID:000000009602902

1.CHECK INPUT 1 - 5 CIRCUIT FOR OPEN

1. Turn ignition switch OFF.

2. Disconnect BCM and combination switch connectors.

3. Check continuity between BCM harness connector and combination switch harness connector.

Sustan	BCM		Combination switch		Continuity
System	Connector	Terminal	Connector	Terminal	Continuity
INPUT 1		79		11	
INPUT 2	-	78	-	9	-
INPUT 3	M14	77	M27	7	Existed
INPUT 4		76	-	10	-
INPUT 5		75		13	†

Does continuity exist?

YES >> GO TO 2.

NO >> Repair harnesses or connectors.

2. CHECK INPUT 1 - 5 CIRCUIT FOR SHORT

Check for continuity between BCM harness connector and ground.

Sustam	BCM			Continuity
System	Connector	Terminal	_	Continuity
INPUT 1		79		
INPUT 2		78	Ground	
INPUT 3	M14	77		Not existed
INPUT 4		76		
INPUT 5		75	-	

Does continuity exist?

YES >> Repair harnesses or connectors.

NO >> GO TO 3.

3. CHECK BCM OUTPUT SIGNAL

1. Connect BCM connector.

2. Check voltage between BCM harness connector and ground.

System	(B(+) CM	()	Voltage (Approx.)	
	Connector	Terminal			
INPUT 1		79			
INPUT 2	M14	78	-	Refer to <u>BCS-35, "Refer-</u> ence Value".	
INPUT 3		77	Ground		
INPUT 4		76	-		
INPUT 5		75			

Is the measurement value normal?

Yes >> GO TO 4.

No >> Replace BCM. Refer to <u>BCS-98, "Removal and Installation"</u>.

4.CHECK BCM INPUT SIGNAL

COMBINATION SWITCH INPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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

	(+)		Vallana	В	
System	B	BCM		(Approx.)		
	Connector	Terminal		()]]]]]		
INPUT 1		79			С	
INPUT 2	 M14	78		Refer to <u>BCS-35, "Refer-</u>		
INPUT 3		77	Ground		D	
INPUT 4		76	_		D	
INPUT 5		75	_			
Is the measurement value normal?						

Is the measurement value normal?

- Yes >> Replace BCM. Refer to BCS-98, "Removal and Installation".
- >> Replace combination switch. Refer to BCS-99, "Removal and Installation". No

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COMBINATION SWITCH SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS COMBINATION SWITCH SYSTEM SYMPTOMS

Symptom Table

INFOID:000000009603021

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

														Malfunction item: ×
Data monitor item														
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	Malfunction combi- nation
	×	×			×	×								A
×			×						×		×			В
				×				×		×				С
				×			×					×		D
				×									×	E
×				×										F
		×		×										G
	×		×									×		Н
						×				×	×		×	I
					×		×	×	×					J
All Items						К								
If only one item is detected or the item is not applicable to the combinations A to K						L								
All Items are normal					М									

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

Malfunction combination	Malfunctioning part	Repair or replace				
А	Combination switch INPUT 1 circuit	 Inspect the combination switch output circuit applicable to the malfunction- ing part, Refer to BCS-94, "Diagnosis Procedure". 				
В	Combination switch INPUT 2 circuit					
С	Combination switch INPUT 3 circuit					
D	Combination switch INPUT 4 circuit					
Е	Combination switch INPUT 5 circuit					
F	Combination switch OUTPUT 1 circuit					
G	Combination switch OUTPUT 2 circuit	1				
Н	Combination switch OUTPUT 3 circuit	Inspect the combination switch input circuit applicable to the malfunctioning part. Refer toBCS-92, "Diagnosis Procedure".				
I	Combination switch OUTPUT 4 circuit					
J	Combination switch OUTPUT 5 circuit					
К	BCM	Replace BCM. Refer to BCS-98, "Removal and Installation".				
L	Combination switch	Replace combination switch. Refer to BCS-99, "Removal and Installation".				
М	Connector and harness	Check intermittent incident. Refer to GI-43, "Intermittent Incident".				

< SYMPTOM DIAGNOSIS >

NORMAL OPERATING CONDITION

Description

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.

- When ignition switch is OFF, BCM operates snipping mode.
 BCM control function is limited in shipping mode. Remote keyless entry function is not operated during the shipping mode.
- For shipping mode cancel operation, refer to <u>BCS-84, "Work Procedure"</u>.
 NOTE:

Do not cancel shipping mode during storage of the vehicle. Always cancel shipping mode before delivery of the vehicle to customer.

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REMOVAL AND INSTALLATION

BCM

Removal and Installation

NOTE:

Before replacing BCM, perform "READ CONFIGURATION" to save or print current vehicle specification. Refer to <u>BCS-82. "Description"</u>.

REMOVAL

- 1. Disconnect the battery cable from the negative terminal.
- 2. Remove the dash side finisher RH. Refer to INT-28, "DASH SIDE FINISHER : Removal and Installation".
- 3. Remove the BCM mounting nut (A) and mounting bolt (B).
- 4. Disconnect the harness connectors from the BCM (1).



INSTALLATION

Install in the reverse order of removal.

CAUTION:

Be sure to perform "WRITE CONFIGURATION" when replacing BCM. Or not doing so, BCM control function does not operate normally. NOTE:

Be sure to perform the system initialization (NATS and TPMS) when replacing BCM. Refer to <u>BCS-82, "Work</u> <u>Procedure"</u>.

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< REMOVAL AND INSTALLATION >

COMBINATION SWITCH

Removal and Installation

REMOVAL

- 1. Remove steering column cover. Refer to IP-12, "Removal and Installation".
- 2. Remove screws (A) and disconnect connector (2) then pull up combination switch (1) to remove it.



INSTALLATION Install in the reverse order of removal.

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