SECTION SEC
SECURITY CONTROL SYSTEM

CONTENTS

PRECAUTION

PRECAUTIONS

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

INFOID:0000000014391277

The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER”, used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

WARNING:

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

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

WARNING:

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

Precaution for Work

INFOID:0000000014391278

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with a new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:

- Water soluble dirt:
- Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
- Then rub with a soft, dry cloth.

- Oily dirt:
- Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty area.
- Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
- Then rub with a soft, dry cloth.

- Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

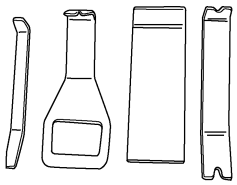
PREPARATION

PREPARATION

Special Service Tool

INFOID:0000000014391279

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

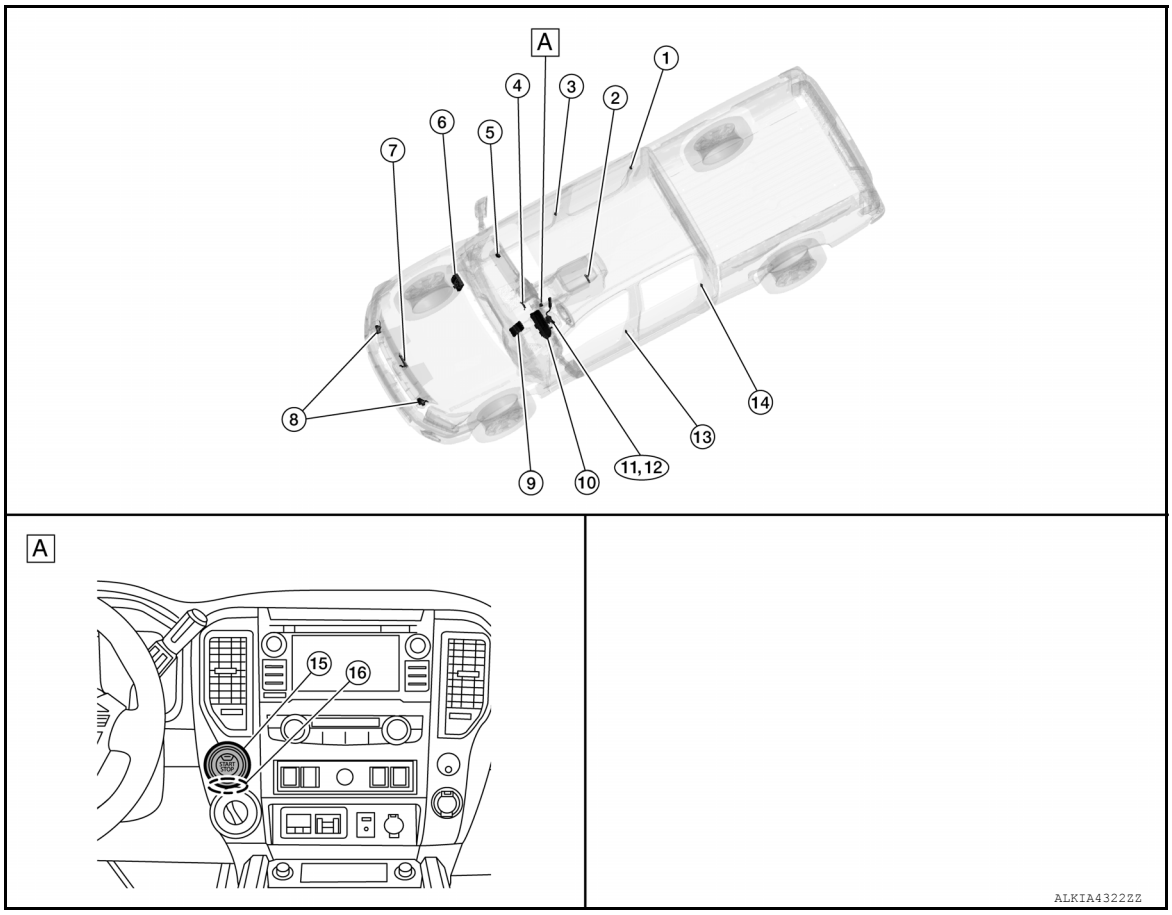
Tool number (TechMate No.) Tool name	Description
— (J-46534) Trim Tool Set  AWJIA0483ZZ	Removing trim components

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000014391280



A. View of center console.

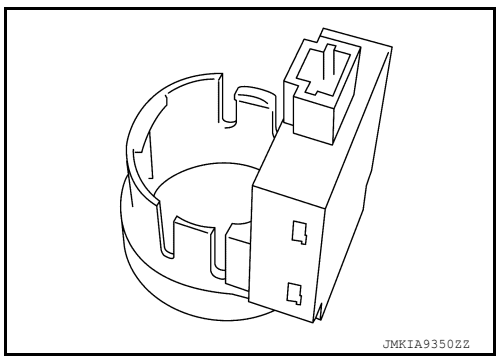
No.	Component	Function
1.	Rear door switch RH	Door switch detects door open/close condition and then transmits ON/OFF signal to BCM.
2.	Inside key antenna (console)	• Inside key antenna (console) detects whether Intelligent Key is inside the vehicle or not, and then transmits the signal to the BCM. • Refer to DLK-14, "Inside Key Antenna (Console)".
3.	Front door switch RH	Door switch detects door open/close condition and then transmits ON/OFF signal to BCM.
4.	Inside key antenna (instrument panel)	• Inside key antenna (instrument panel) detects whether Intelligent Key is inside the vehicle or not, and then transmits the signal to the BCM. • Refer to DLK-14, "Inside Key Antenna (Instrument Center)".
5.	Remote keyless entry receiver	• Remote keyless entry receiver receives button operation signal and key ID signal of Intelligent Key and then transmits them to BCM. • Refer to DLK-13, "Remote Keyless Entry Receiver".
6.	IPDM E/R	• IPDM E/R detects push-button ignition switch (push switch) status, and transmits push-button ignition switch status signal (CAN) to BCM. • Refer to PCS-5, "Component Parts Location".
7.	Hood switch	• Hood switch transmits hood open/closed signal to the IPDM E/R. • Refer to SEC-6, "Component Parts Location".

No.	Component	Function
8.	Horns	IPDM E/R energizes the horns when the security system is activated.
9.	BCM	• BCM controls INTELLIGENT KEY SYSTEM (ENGINE START FUNCTION), NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS [NVIS (NATS)] and VEHICLE SECURITY SYSTEM. • BCM performs the ID verification between BCM and Intelligent Key when the Intelligent Key is carried into the detection area of inside key antenna, and push-button ignition switch is pressed. If the ID verification result is OK, ignition switch operation is available. Then, when the ignition switch is turned ON, BCM performs ID verification between BCM and ECM. If the ID verification result is OK, ECM can start engine. • Refer to BCS-5, "BODY CONTROL SYSTEM : Component Parts Location" for detailed installation location.
10.	Combination meter	• Combination meter transmits the vehicle speed signal to BCM via CAN communication. • BCM also receives the vehicle speed signal from ABS actuator and electric unit (control unit) via CAN communication. BCM compares both signals to detect the vehicle speed. • Security indicator lamp is located on combination meter. • Security indicator lamp blinks when ignition switch is in any position other than ON to warn that NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS [NVIS (NATS)] is on board. • Refer to MWI-8, "METER SYSTEM : Component Parts Location" (type A meter) MWI-116, "METER SYSTEM : Component Parts Location" (type B meter)
11.	Transmission range switch	• The transmission range switch detects the selector lever position. • Refer to TM-17, "A/T CONTROL SYSTEM : Transmission Range Switch".
12.	A/T shift selector (Park position switch)	A/T shift selector detects shift lever status, transmits detention switch signal to BCM.
13.	Front door switch LH	Front door switch LH transmits door open/closed signal to the BCM.
14.	Rear door switch LH	Rear door switch LH transmits door open/closed signal to the BCM.
15.	Push-button ignition switch	Push-button ignition switch has push switch inside which detects that push-button ignition switch is pressed and then transmits ON/OFF signal to BCM. BCM changes the ignition switch position with the operation of push-button ignition switch. BCM maintains the ignition switch position status while push-button ignition switch is not operated.
16.	NATS antenna amp.	SEC-7, "NATS Antenna Amp."

NATS Antenna Amp.

INFOID:0000000014391281

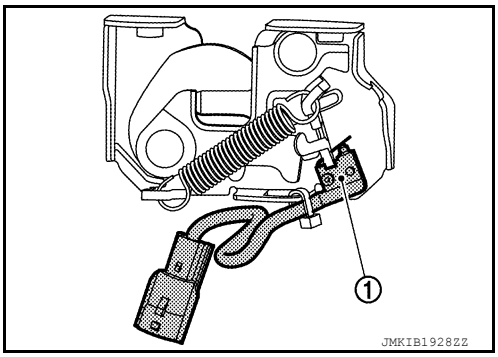
The ID verification is performed between BCM and transponder integrated into Intelligent Key via NATS antenna amp. when Intelligent Key backside is contacted to power switch, in case that Intelligent Key battery is discharged. If the ID verification result is OK, the operation of power switch is available.



Hood Switch

INFOID:0000000014391282

Hood switch ① detects that hood is open and then transmits ON/OFF signal to IPDM E/R. IPDM E/R transmits hood switch signal to BCM via CAN communication. Hood switch is integrated into hood lock assembly LH.



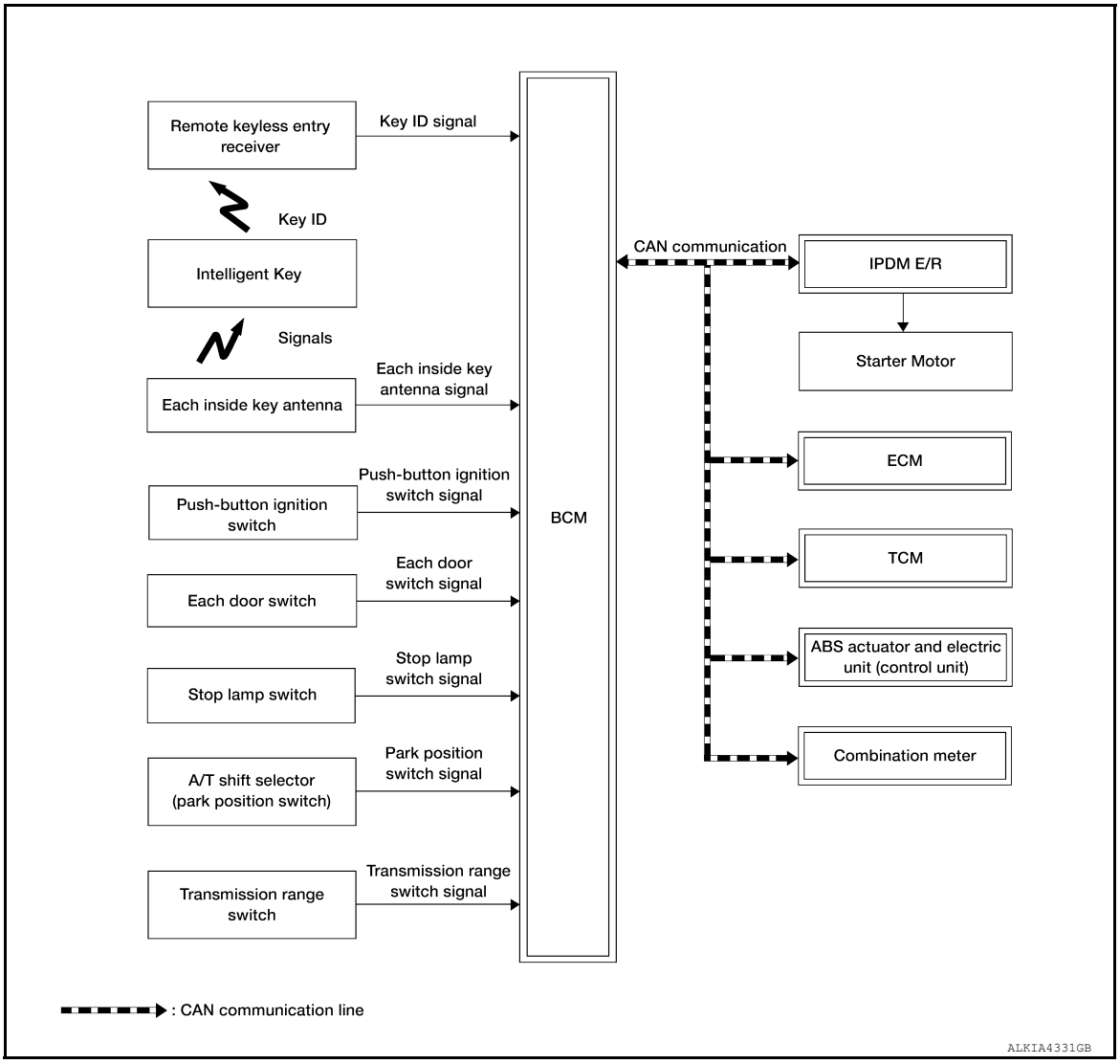
SYSTEM

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION : System Description

INFOID:0000000014391283

SYSTEM DIAGRAM



SYSTEM DESCRIPTION

- The engine start function of Intelligent Key system makes it possible to start and stop the engine without using the key, based on the electronic ID verification. The electronic ID verification is performed between BCM and Intelligent Key when the push-button ignition switch is pressed, while the Intelligent Key is within the detection area of inside key antenna.
  NOTE:
  The driver should carry the Intelligent Key at all times.
- Intelligent Key has 2 IDs [Intelligent Key ID and IVIS (NATS) ID]. It can perform the door lock/unlock operation and the push-button ignition switch operation when the registered Intelligent Key is carried.
- When Intelligent Key battery is discharged, engine can be started by operating push-button ignition switch after contacting Intelligent Key backside to push-button ignition switch. At that time, the IVIS (NATS) ID verification is performed.
- If the ID is successfully verified, when push-button ignition switch is pressed, the engine can be started.
- Up to 4 Intelligent Keys can be registered (Including the standard Intelligent Key) upon request from the customer.
- For initialization and registration of Intelligent Key, refer to CONSULT Immobilizer mode and follow the on-screen instructions.

NOTE:
Refer to SEC-9, "INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION : System Description" for any functions other than engine start function of Intelligent Key system.

PRECAUTIONS FOR INTELLIGENT KEY SYSTEM

The transponder [the chip for IVIS (NATS) ID verification] is integrated into the Intelligent Key.
In that case, the IVIS (NATS) ID verification can be performed when Intelligent Key backside is contacted to push-button ignition switch. If verification result is OK, engine can be started.

OPERATION WHEN INTELLIGENT KEY IS CARRIED

1. When the push-button ignition switch is pressed, the BCM activates the inside key antenna and transmits the request signal to the Intelligent Key.
2. The Intelligent Key receives the request signal and transmits the Intelligent Key ID signal to the BCM.
3. BCM receives the Intelligent Key ID signal via remote keyless entry receiver and verifies it with the registered ID.
4. BCM turns ACC relay ON and transmits the ignition power supply ON signal to IPDM E/R.
5. IPDM E/R turns the ignition relay ON and starts the ignition power supply.
6. BCM detects the selector lever position and brake pedal operating condition.
7. BCM transmits the starter request signal to IPDM E/R and turns the starter relay in IPDM E/R ON, if BCM judges that the engine start condition* is satisfied.
8. IPDM E/R turns the starter control relay ON when receiving the starter request signal.
9. Power supply is supplied through the starter relay and the starter control relay to operate the starter motor.
   CAUTION:
   If a malfunction is detected in the Intelligent Key system, the “KEY” warning lamp in the combination meter illuminates. At that time, the engine cannot be started.
10. When BCM receives feedback signal from ECM indicating that the engine is started, the BCM transmits a stop signal to IPDM E/R and stops cranking by turning OFF the starter motor relay. (If engine start is unsuccessful, cranking stops automatically within 5 seconds.)
    CAUTION:
    When the Intelligent Key is carried outside of the vehicle (inside key antenna detection area) while the power supply is in the ACC or ON position, even if the engine start condition* is satisfied, the engine cannot be started.

*: For the engine start condition, refer to the table below “POWER SUPPLY POSITION CHANGE TABLE BY PUSH-BUTTON IGNITION SWITCH OPERATION”.

OPERATION RANGE

Engine can be started when Intelligent Key is inside the vehicle. However, sometimes engine may not start when Intelligent Key is on instrument panel or in glove box.

ENGINE START OPERATION WHEN INTELLIGENT KEY IS CONTACTED TO PUSH-BUTTON IGNITION SWITCH

When Intelligent Key battery is discharged, the IVIS (NATS) ID verification between transponder in Intelligent Key and BCM is performed when Intelligent Key backside is contacted to push-button ignition switch. If the verification result is OK, engine can be started.

POWER SUPPLY POSITION CHANGE TABLE BY PUSH-BUTTON IGNITION SWITCH OPERATION

The power supply position changing operation can be performed with the following operations.

NOTE:

- When an Intelligent Key is within the detection area of inside key antenna and when Intelligent Key backside is contacted to push-button ignition switch, it is equivalent to the operations below.
- When starting the engine, the BCM monitors under the engine start conditions:

- Brake pedal operating condition
- Selector lever position
- Vehicle speed

Vehicle speed: less than 4 km/h (2.5 MPH)

Power supply position	Engine start/stop condition		Push-button ignition switch operation frequency
	Selector lever	Brake pedal operation condition	
LOCK → ACC	—	Not depressed	1
LOCK → ACC → ON	—	Not depressed	2
LOCK → ACC → ON → OFF	—	Not depressed	3
LOCK → START ACC → START ON → START	P or N position	Depressed	1
Engine is running → OFF	—	—	1

Vehicle speed: 4 km/h (2.5 MPH) or more

Power supply position	Engine start/stop condition		Push-button ignition switch operation frequency
	Selector lever	Brake pedal operation condition	
Engine is running → ACC	—	—	Emergency stop operation
Engine stall return operation while driving	N position	Not depressed	1

Emergency stop operation

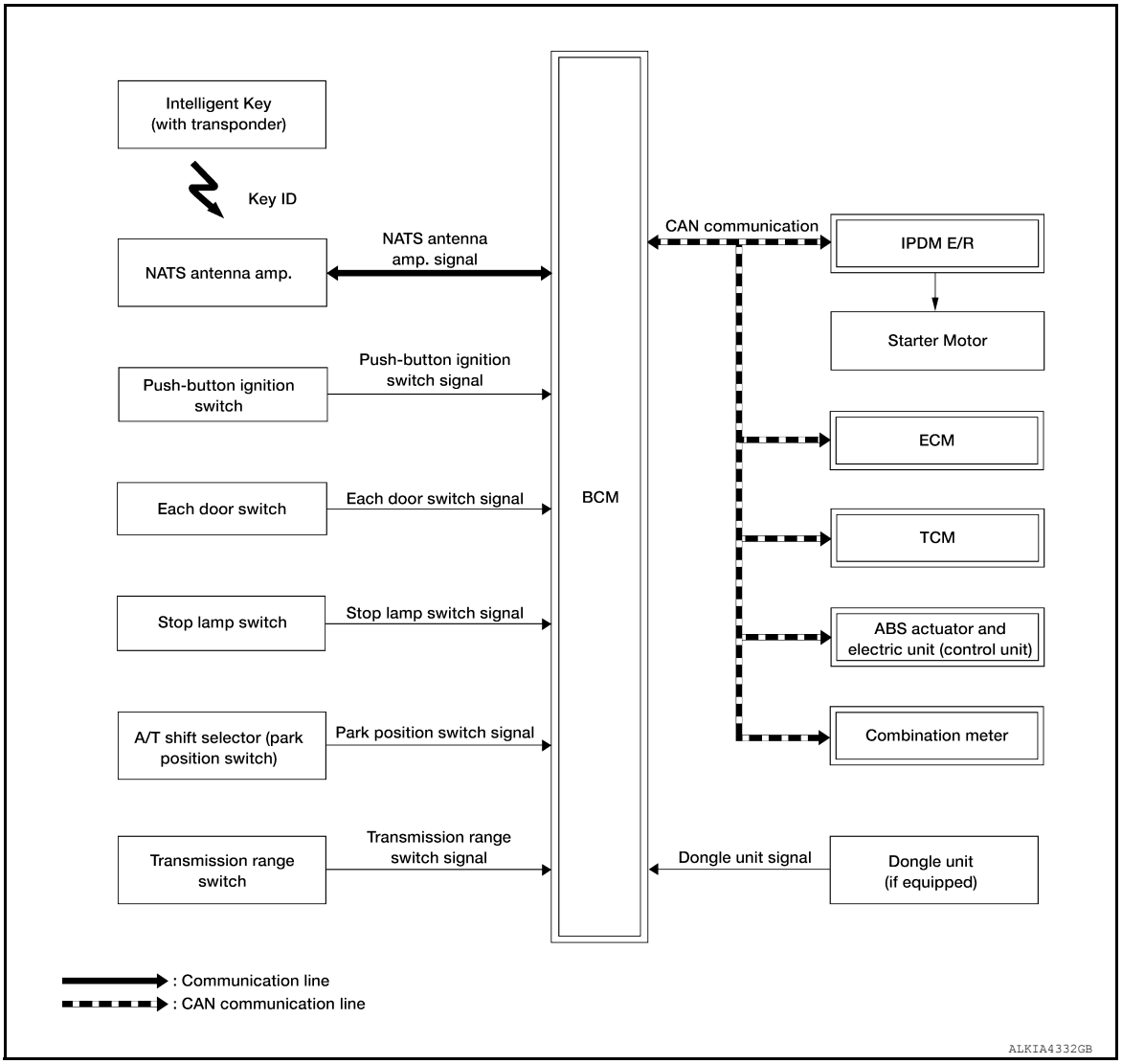
- Press and hold the push-button ignition switch for 2 seconds or more.
- Press the push-button ignition switch 3 times or more within 1.5 seconds.

NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS

NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS : System Description

INFOID:0000000014391284

SYSTEM DIAGRAM



SYSTEM DESCRIPTION

- The NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS [NVIS (NATS)] prevents the engine from being started by an Intelligent Key whose ID is not registered to the vehicle (BCM). It has higher protection against auto theft involving the duplication of mechanical keys.
- The ignition key integrated in the Intelligent Key cannot start the engine. When the Intelligent Key battery is discharged, the NVIS (NATS) ID verification is performed between the transponder integrated with Intelligent Key and BCM via NATS antenna amp., when the Intelligent Key backside is contacted to push-button ignition switch. If the verification results are OK, the engine start operation can be performed by the push-button ignition switch operation.
- Locate the security indicator lamp and apply the anti-theft system equipment sticker that warns that the NVIS (NATS) is on-board the model.
- Security indicator lamp always blinks when the power supply position is any position other than ON.
- Up to 4 Intelligent Keys can be registered (including the standard ignition key) upon request from the owner.
- Specified registration is required when replacing ECM, BCM or Intelligent Key.
- For initialization and registration of Intelligent Key, refer to CONSULT Immobilizer mode and follow the on-screen instructions.
- Possible symptom of NVIS (NATS) malfunction is “Engine cannot start”. The engine can not be started because of other than NVIS (NATS) malfunction, so start the trouble diagnosis according to SEC-64, "Work Flow".
- If ECM other than genuine part is installed, the engine cannot be started. For ECM replacement procedure, refer to EC-1993, "Removal and Installation".

PRECAUTIONS FOR KEY REGISTRATION

- The ID registration is a procedure that erases the current NVIS (NATS) ID once, and then reregisters a new ID. Therefore, before starting the registration operation, collect all registered Intelligent Keys from the customer.
- When registering the Intelligent Key, perform only one procedure to simultaneously register both ID [NVIS (NATS) ID and Intelligent Key ID].

SECURITY INDICATOR LAMP

- Warns that the vehicle is equipped with NVIS (NATS).
- Security indicator lamp always blinks when the power supply position is any position other than ON.

NOTE:
Because security indicator lamp is highly efficient, the battery is barely affected.

ENGINE START OPERATION WHEN INTELLIGENT KEY IS CONTACTED TO PUSH-BUTTON IGNITION SWITCH

1. When the brake pedal is depressed while the selector lever is in the P (Park) position, the BCM activates the NATS antenna amp. that is located behind the push-button ignition switch.
2. When Intelligent Key (transponder built-in) backside is contacted to push-button ignition switch, BCM starts NVIS (NATS) ID verification between BCM and Intelligent Key (transponder built-in) via NATS antenna amp.
3. When the NVIS (NATS) ID verification result is OK, buzzer in combination meter sounds and BCM transmits the result to ECM.
4. BCM turns ACC relay ON and transmits ignition power supply ON signal to IPDM E/R.
5. IPDM E/R turns the ignition relay ON and starts the ignition power supply.
6. BCM detects that the selector lever position is P (Park) or N (Neutral).
7. BCM transmits starter request signal to IPDM E/R and turns the starter relay in IPDM E/R ON if BCM judges that the engine start condition* is satisfied.
8. IPDM E/R turns the starter control relay ON when receiving the starter request signal.
9. Power supply is supplied through the starter relay and the starter control relay to operate the starter motor.
10. When BCM receives feedback signal from ECM indicating that the engine is started, BCM transmits a stop signal to IPDM E/R and stops cranking by turning off the starter motor relay. (If engine start is unsuccessful, cranking stops automatically within 5 seconds.)

*: For the engine start condition, refer to the table “POWER SUPPLY POSITION CHANGE TABLE BY PUSH-BUTTON IGNITION SWITCH OPERATION” below.

POWER SUPPLY POSITION CHANGE TABLE BY PUSH-BUTTON IGNITION SWITCH OPERATION

The power supply position changing operation can be performed with the following operations.

NOTE:
- When an Intelligent Key is within the detection area of inside key antenna and when Intelligent Key backside is contacted to push-button ignition switch, it is equivalent to the operations below.
- When starting the engine, the BCM monitors under the engine start conditions:

- Brake pedal operating condition
- Selector lever position
- Vehicle speed

Vehicle speed: less than 4 km/h (2.5 MPH)

Power supply position	Engine start/stop condition		Push-button ignition switch operation frequency
	Selector lever	Brake pedal operation condition	
LOCK → ACC	—	Not depressed	1
LOCK → ACC → ON	—	Not depressed	2
LOCK → ACC → ON → OFF	—	Not depressed	3

Power supply position	Engine start/stop condition		Push-button ignition switch operation frequency
	Selector lever	Brake pedal operation condition	
LOCK → START ACC → START ON → START	P (Park) or N (Neutral) position	Depressed	1
Engine is running → OFF	—	—	1

Vehicle speed: 4 km/h (2.5 MPH) or more

Power supply position	Engine start/stop condition		Push-button ignition switch operation frequency
	Selector lever	Brake pedal operation condition	
Engine is running → ACC	—	—	Emergency stop operation
Engine stall return operation while driving	N (Neutral) position	Not depressed	1

Emergency stop operation

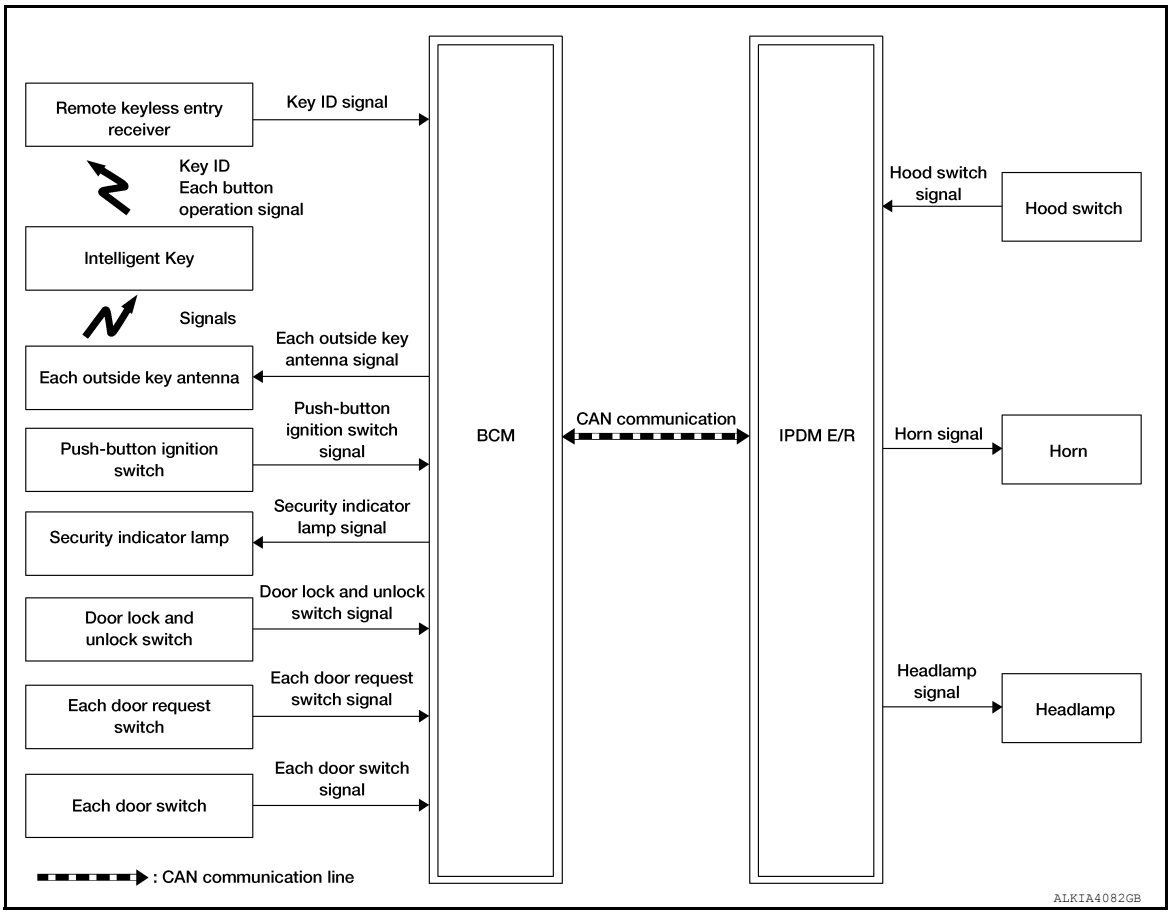
- Press and hold the push-button ignition switch for 2 seconds or more.
- Press the push-button ignition switch 3 times or more within 1.5 seconds.

VEHICLE SECURITY SYSTEM

VEHICLE SECURITY SYSTEM : System Description

INFOID:0000000014391285

SYSTEM DIAGRAM



SYSTEM DESCRIPTION

- The vehicle security system has two alarm functions (theft warning alarm and panic alarm) and reduces the possibility of a theft or mischief by activating horns and headlamps intermittently.

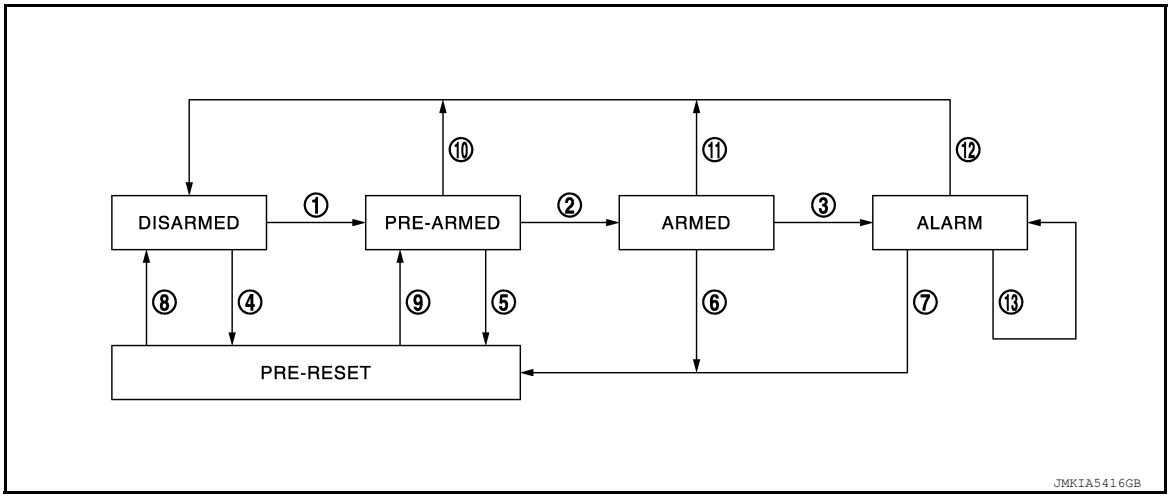
- The panic alarm does not start when the theft warning alarm is activating and the panic alarm stops when the theft warning alarm is activated.
  The priority of the functions are as per the following.

Priority	Function
1	Theft warning alarm
2	Panic alarm

THEFT WARNING ALARM

- The theft warning alarm function activates horns and headlamps intermittently when BCM detects that any door or hood is opened by unauthorized means while the system is in the ARMED state.
- Security indicator lamp on combination meter always blinks when power supply position is any position other than ON. Security indicator lamp blinking warns that the vehicle is equipped with a vehicle security system.

Operation Flow



No.	System state	Switching condition		
1	DISARMED to PRE-ARMED	When all conditions of A and one condition of B is satisfied.	A	B
			• Power supply position: OFF/LOCK • All doors: Closed • Hood: Closed	All doors are locked by: • Door key cylinder LOCK switch • LOCK button of Intelligent Key • Door request switch
2	PRE-ARMED to ARMED	When all of the following conditions are satisfied for 30 seconds.	• Power supply position: OFF/LOCK • All doors: Locked • Hood: Closed	
3	ARMED to ALARM	When one condition of A and one condition of B are satisfied.	A	B
			Intelligent Key: Not used	• Any door: Open • Hood: Open
4	DISARMED to PRE-RESET	When all conditions of A and one condition of B is satisfied.	A	B
			• Power supply position: OFF/LOCK • All doors: Closed • Hood: Open	All doors are locked by: • Door key cylinder LOCK switch • LOCK button of Intelligent Key • Door request switch
5	PRE-ARMED to PRE-RESET	When one of the following conditions is satisfied.	• Hood: Open	
6	ARMED to PRE-RESET	No conditions.		
7	ALARM to PRE-RESET			

No.	System state	Switching condition	
8	PRE-RESET to DISARMED	When one of the following conditions is satisfied.	• Power supply position: ACC/ON/CRANKING/RUN • Door key cylinder UNLOCK switch: ON • UNLOCK button of Intelligent Key: ON • Door request switch: ON • UNLOCK switch of door lock and unlock switch: ON • Any door: Open
9	PRE-RESET to PRE-ARMED	When all of the following conditions are satisfied.	• Power supply position: OFF/LOCK • All doors: Closed • Hood: Closed
10	PRE-ARMED to DISARMED	When one of the following conditions is satisfied.	• Power supply position: ACC/ON/CRANKING/RUN • Door key cylinder UNLOCK switch: ON • UNLOCK button of Intelligent Key: ON • Door request switch: ON • Any door: Open
11	ARMED to DISARMED	When one of the following conditions is satisfied.	• Power supply position: ACC/ON/CRANKING/RUN • Door key cylinder UNLOCK switch: ON • UNLOCK button of Intelligent Key: ON • Door request switch: ON
12	ALARM to DISARMED		
13	RE-ALARM	When one of the following conditions is satisfied after the ALARM operation is finished.	• Any door: Open • Hood: Open

NOTE:

- BCM ignores the door key cylinder UNLOCK switch signal input for 1 second after the door key cylinder LOCK switch signal input.
- To lock/unlock all doors by operating remote control button of Intelligent Key or door request switch, Intelligent Key must be within the detection area of outside key antenna. For details, refer to SEC-9, "INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION : System Description".

DISARMED Phase

The vehicle security system is not set in the DISARMED phase. The vehicle security system stays in this phase while any door is open because it is assumed that the owner is inside or nearby the vehicle. Security indicator lamp blinks every 2.4 seconds.

When the vehicle security system is reset, each phase switches to the DISARMED phase directly.

PRE-ARMED Phase

The PRE-ARMED phase is the transient state between the DISARMED phase and the ARMED phase. This phase is maintained for 30 seconds so that the owner can reset the setting due to a mis-operation. This phase switches to the ARMED phase when vehicle conditions are not changed for 30 seconds. Security indicator lamp illuminates while being in this phase.

To reset the PRE-ARMED phase, refer to the switching condition of No. 10 in the table above.

ARMED Phase

The vehicle security system is set and BCM monitors all necessary inputs. If any door or hood is opened without using Intelligent Key, vehicle security system switches to the ALARM phase. Security indicator lamp blinks every 2.4 seconds.

To reset the ARMED phase, refer to the switching condition of No. 11 in the table above.

ALARM Phase

BCM transmits “Theft Warning Horn Request” signal and “High Beam Request” signal intermittently to IPDM E/R via CAN communication. In this phase, horns and headlamps are activated intermittently for approximately 50 seconds to warn that the vehicle is accessed by unauthorized means. ON/OFF timing of horns and headlamps are synchronized. After 50 seconds, the vehicle security system returns to the ARMED phase. At this time, if BCM still detects unauthorized access to the vehicle, the system is switched to the ALARM phase again. This RE-ALARM operation is carried out a maximum of 2 times.

To cancel the ALARM operation, refer to the switching condition of No. 12 in the table above.

NOTE:

If a battery terminal is disconnected during the ALARM phase, theft warning alarm stops. But when the battery terminal is reconnected, theft warning alarm is activated again.

PRE-RESET Phase

The PRE-RESET phase is the transient state between each phase and DISARMED phase. If only the condition of hood is not satisfied, the system switches to the PRE-RESET phase. Then, when any condition is changed, the system switches to the DISARMED phase or PRE-ARMED phase.

PANIC ALARM

- The panic alarm function activates horns and headlamps intermittently when the owner presses the PANIC ALARM button of Intelligent Key outside the vehicle while the power supply position is OFF or LOCK.
- When BCM receives panic alarm signal from Intelligent Key, BCM transmits “Theft Warning Horn Request” signal and “High Beam Request” signal intermittently to IPDM E/R via CAN communication. To prevent the activation due to mis-operation of Intelligent Key by owner, the panic alarm function is activated when BCM receives the signal for 0.4 - 0.6 seconds.
- Panic alarm operation is maintained for 25 seconds.
- Panic alarm operation is cancelled when BCM receives one of the following signals:

- LOCK button of Intelligent Key: ON
- UNLOCK button of Intelligent Key: ON
- PANIC ALARM button of Intelligent Key: Long pressed
- Any door request switch: ON

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

INFOID:0000000014664552

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

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

SYSTEM APPLICATION
BCM can perform the following functions:

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

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

CONSULT screen item	Indication/Unit	Description	
Vehicle Speed	km/h	Vehicle speed at the moment a particular DTC is detected	
Odo/Trip Meter	km	Total mileage (Odometer value) at the moment a particular DTC is detected	
Vehicle Condition	SLEEP>LOCK	Power position status at the moment a particular DTC is detected*	While turning BCM status from low power consumption mode to normal mode (Power supply position is “LOCK”*).
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode (Power supply position is “OFF”.)
	LOCK>ACC		While turning power supply position from “LOCK” *to “ACC”
	ACC>ON		While turning power supply position from “ACC” to “IGN”
	RUN>ACC		While turning power supply position from “RUN” to “ACC” (Vehicle is stopped and selector lever is in P position.)
	CRANK>RUN		While turning power supply position from “CRANKING” to “RUN” (From cranking up the engine to run it)
	RUN>URGENT		While turning power supply position from “RUN“ to “ACC” (Emergency stop operation)
	ACC>OFF		While turning power supply position from “ACC” to “OFF”
	OFF>LOCK		While turning power supply position from “OFF” to “LOCK”*
	OFF>ACC		While turning power supply position from “OFF” to “ACC”
	ON>CRANK		While turning power supply position from “IGN” to “CRANKING”
	OFF>SLEEP		While turning BCM status from normal mode (Power supply position is “OFF”.) to low power consumption mode
	LOCK>SLEEP		While turning BCM status from normal mode (Power supply position is “LOCK”*.) to low power consumption mode
	LOCK		Power supply position is “LOCK” (Ignition switch OFF)*
	OFF		Power supply position is “OFF” (Ignition switch OFF)
	ACC		Power supply position is “ACC” (Ignition switch ACC)
	ON		Power supply position is “IGN” (Ignition switch ON with engine stopped)
	ENGINE RUN		Power supply position is “RUN” (Ignition switch ON with engine running)
	CRANKING		Power supply position is “CRANKING” (At engine cranking)
IGN Counter	0 - 39	The number of times that ignition switch is turned ON after DTC is detected • The number is 0 when a malfunction is detected now. • The number increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition is switched OFF → ON. • The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.	

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

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

INTELLIGENT KEY

INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)

INFOID:0000000014664553

SELF DIAGNOSTIC RESULT

Refer to BCS-52, "DTC Index".

DATA MONITOR

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

Monitor Item [Unit]	Main	Description
ACC RLY -REQ [On/Off]		Indicates condition of accessory relay control request.
RKE OPE COUN1 [0-19]	×	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.
RKE OPE COUN2 [0-19]	×	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.
RKE-LOCK [On/Off]		Indicates condition of lock signal from Intelligent Key.
RKE-UNLOCK [On/Off]		Indicates condition of unlock signal from Intelligent Key.
RKE-PANIC [On/Off]		Indicates condition of panic signal from Intelligent Key.
RKE-MODE CHG [On/Off]		Indicates condition of mode change signal from Intelligent Key.

ACTIVE TEST

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

WORK SUPPORT

Support Item	Setting	Description
IGN/ACC BATTERY SAVER	On*	Battery saver function ON.
	Off	Battery saver function OFF.
REMOTE ENGINE STARTER	On*	Remote engine start function ON.
	Off	Remote engine start function OFF.
ANSWERBACK I-KEY LOCK UNLOCK	BUZZER*	Buzzer reminder function by door lock/unlock request switch ON.
	HORN	Horn chirp reminder function by door lock request switch ON.
	Off	No reminder function by door lock/unlock request switch.
	INVALID	This mode is not used.

Support Item	Setting		Description
ANSWERBACK KEYLESS LOCK UNLOCK	On*		Buzzer or horn chirp reminder when doors are locked/unlocked with Intelligent Key.
	Off		No buzzer or horn chirp reminder when doors are locked/unlocked with Intelligent Key.
ANSWER BACK	On*		Horn chirp reminder when doors are locked with Intelligent Key.
	Off		No horn chirp reminder when doors are locked with Intelligent Key.
RETRACTABLE MIRROR SET	On		Retractable mirror set ON.
	Off*		Retractable mirror set OFF.
LOCK/UNLOCK BY I-KEY	On*		Door lock/unlock function from Intelligent Key ON.
	Off		Door lock/unlock function from Intelligent Key OFF.
ENGINE START BY I-KEY	On*		Engine start function from Intelligent Key ON.
	Off		Engine start function from Intelligent Key OFF.
CONFIRM KEY FOB ID	—		Intelligent Key ID code can be checked.
SHORT CRANKING OUTPUT	Start	70 msec	Starter motor operation duration times.
		100 msec	
		200 msec	
	End		—
INSIDE ANT DIAGNOSIS	—		This function allows inside key antenna self-diagnosis.
AUTO LOCK SET	MODE7	5 min	Auto door lock time can be set in this mode.
	MODE6	4 min	
	MODE5	3 min	
	MODE4	2 min	
	MODE3*	1 min	
	MODE2	30 sec	
	MODE1	Off	

*: Initial Setting

THEFT ALM

THEFT ALM : CONSULT Function (BCM - THEFT ALM)

INFOID:0000000014664554

DATA MONITOR

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

Monitor Item	Description
RKE-LOCK [On/Off]	Indicates condition of lock signal from Intelligent Key.
RKE-UNLOCK [On/Off]	Indicates condition of unlock signal from Intelligent Key.

ACTIVE TEST

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

WORK SUPPORT

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

*: Initial setting

IMMU

IMMU : CONSULT Function (BCM - IMMU)

INFOID:0000000014664555

SELF DIAGNOSTIC RESULT

Refer to BCS-52, "DTC Index".

DATA MONITOR

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

ACTIVE TEST

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

DIAGNOSIS SYSTEM (IPDM E/R)

CONSULT Function (IPDM E/R)

INFOID:0000000014664556

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with IPDM E/R:

Direct Diagnostic Mode	Description
Self Diagnostic Result	The IPDM E/R self diagnostic results are displayed.
Data Monitor	The IPDM E/R input/output data is displayed in real time.
Active Test	The IPDM E/R activates outputs to test components.
CAN Diag Support Mntr	The result of transmit/receive diagnosis of CAN communication is displayed.

SELF DIAGNOSTIC RESULT

Refer to PCS-23, "DTC Index".

DATA MONITOR

Monitor Item [Unit]	Main Signals	Description
AC COMP REQ [On/Off]	×	Indicates A/C compressor request signal received from ECM on CAN communication line
TAIL&CLR REQ [On/Off]	×	Indicates position light request signal received from BCM on CAN communication line
HL LO REQ [On/Off]	×	Indicates low beam request signal received from BCM on CAN communication line
HL HI REQ [On/Off]	×	Indicates high beam request signal received from BCM on CAN communication line
FR FOG REQ [On/Off]	×	Indicates front fog light request signal received from BCM on CAN communication line
FR WIP REQ [Stop/1LOW/Low/Hi]	×	Indicates front wiper request signal received from BCM on CAN communication line
WIP AUTO STOP [STOP P/ACT P]	×	Indicates condition of front wiper auto stop signal
WIP PROT [Off/BLOCK]	×	Indicates condition of front wiper fail-safe operation
IGN RLY1 -REQ [On/Off]		Indicates ignition switch ON signal received from BCM on CAN communication line.
IGN RLY [On/Off]	×	Indicates condition of ignition relay
PUSH SW [On/Off]		Indicates condition of push-button ignition switch.
INTER/NP SW [On/Off]		Indicates condition of AT shift position.
ST RLY CONT [On/Off]		Indicates starter relay status signal received from BCM on CAN communication line.
IHBT RLY -REQ [On/Off]		Indicates starter control relay signal received from BCM on CAN communication line.
ST/INHI RLY [Off/ ST /INHI]		Indicates condition of starter relay and starter control relay.
DETENT SW [On/Off]		Indicates condition of AT shift selector (park position switch).
DTRL REQ [Off]		Indicates daytime light request signal received from BCM on CAN communication line
HOOD SW [On/Off]		Indicates condition of hood switch.
THFT HRN REQ [On/Off]		Indicates theft warning horn request signal received from BCM on CAN communication line
HORN CHIRP [On/Off]		Indicates horn reminder signal received from BCM on CAN communication line
HOOD SW 2 [On/Off]		Indicates condition of hood switch 2.

ACTIVE TEST

Test item	Description
REAR DEFOGGER	This test is able to check rear defogger operation [On/Off].
FRONT WIPER	This test is able to check wiper motor operation [Hi/Lo/Off].
EXTERNAL LAMPS	This test is able to check external lamp operation [Fog/Hi/Lo/TAIL/Off].
HORN	This test is able to check horn operation [On].

ECU DIAGNOSIS INFORMATION

ECM, IPDM E/R, BCM

List of ECU Reference

INFOID:0000000014391291

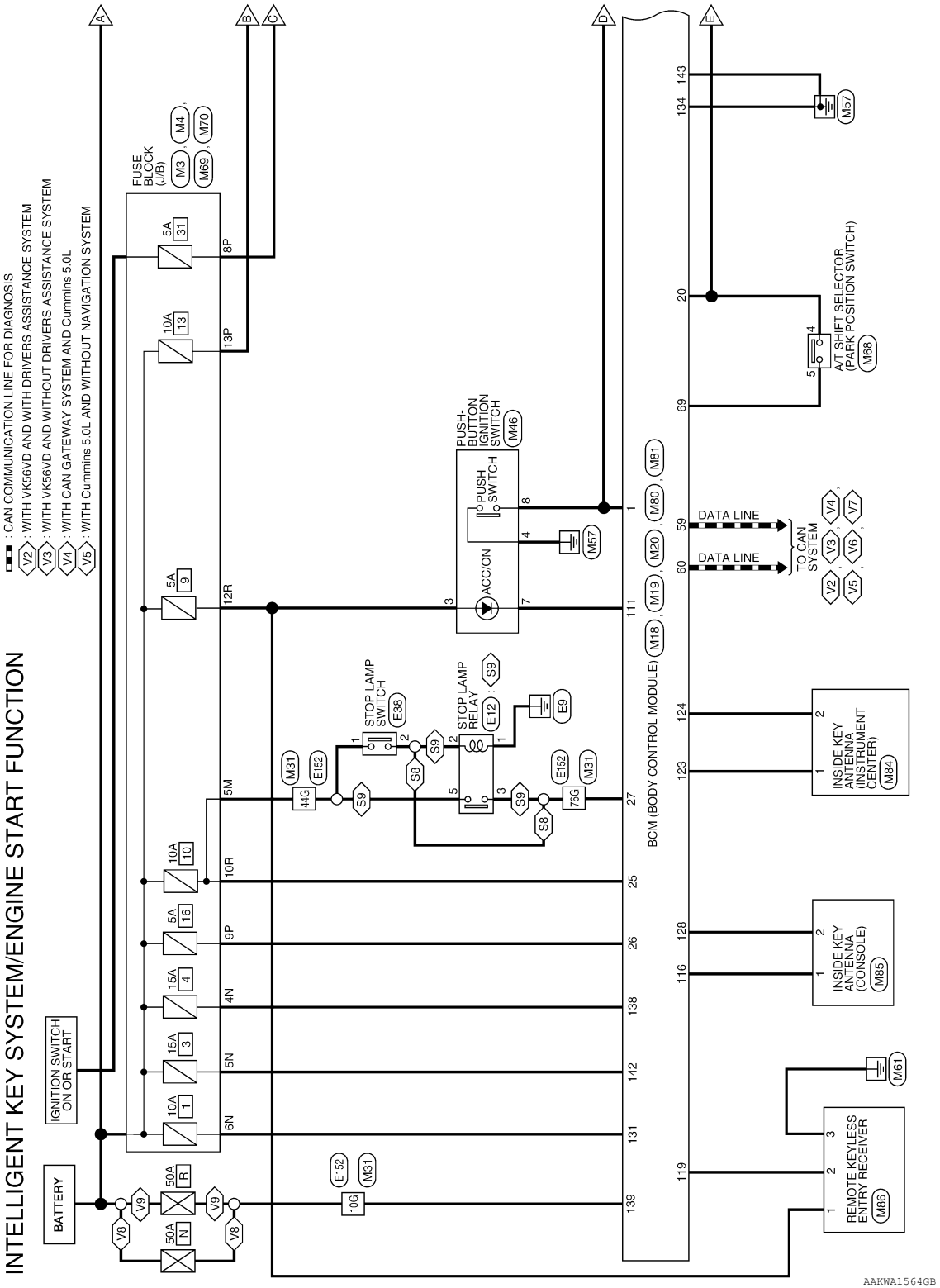
ECU	Reference
ECM	EC-816, "Reference Value"
	EC-828, "Fail safe"
	EC-837, "DTC Index"
	EC-837, "DTC Index"
IPDM E/R	PCS-14, "Reference Value"
	PCS-22, "Fail Safe"
	PCS-23, "DTC Index"
BCM	BCS-32, "Reference Value"
	BCS-51, "Fail Safe"
	BCS-51, "DTC Inspection Priority Chart"
	BCS-52, "DTC Index"

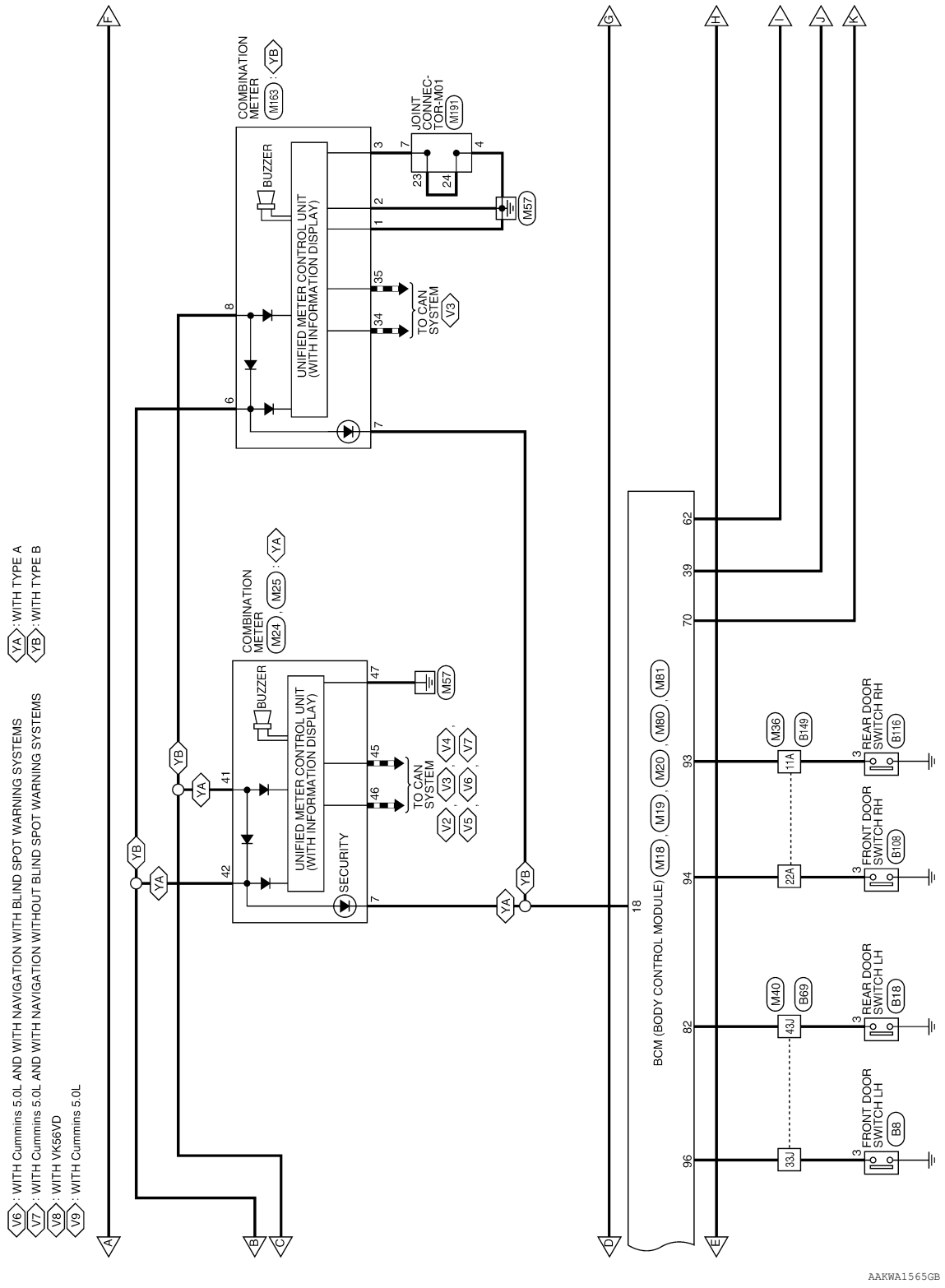
WIRING DIAGRAM

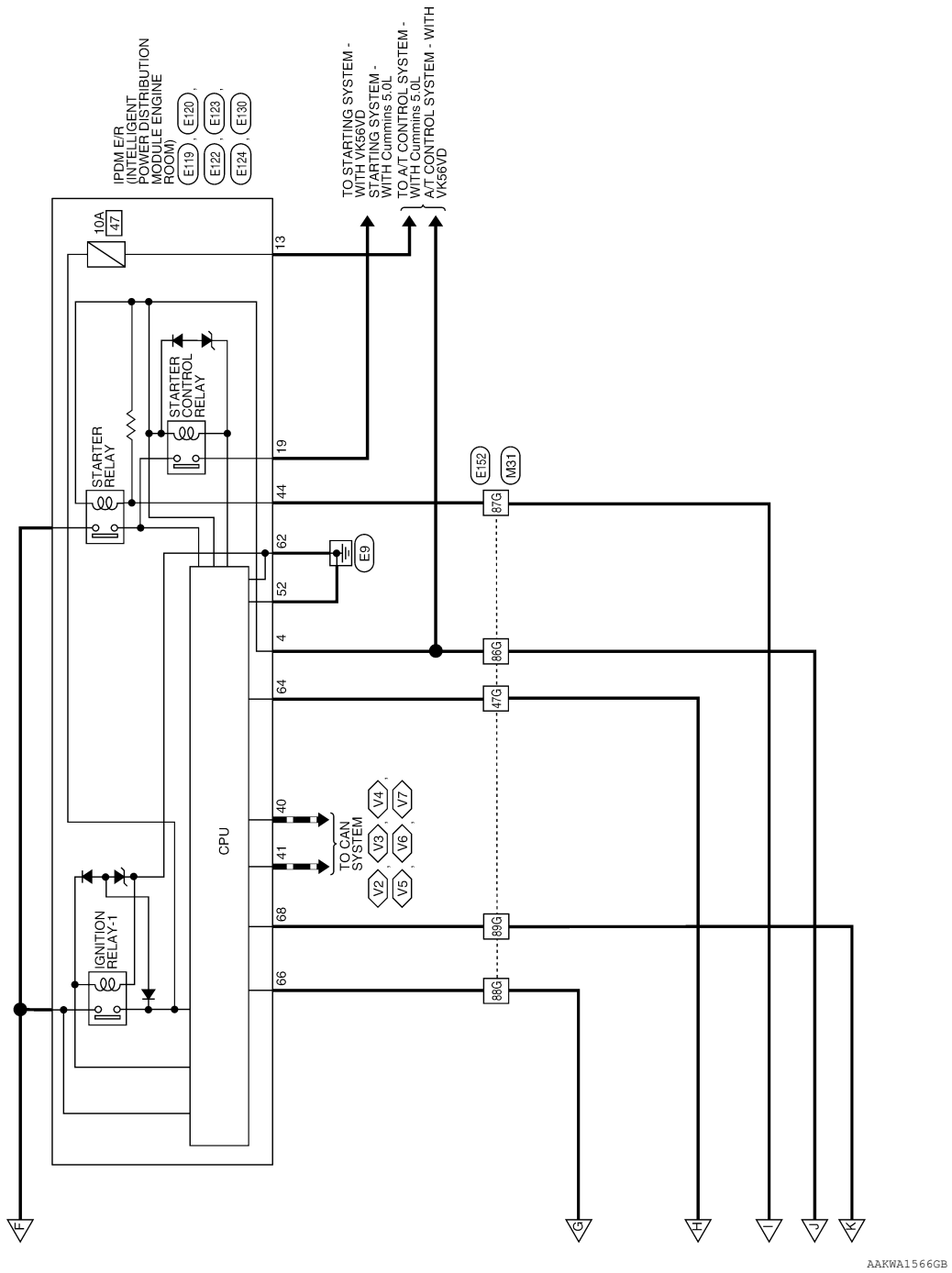
INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

Wiring Diagram

INFOID:0000000014391292



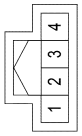

COMBINATION METER
M163
YB
BUZZER
UNIFIED METER CONTROL UNIT (WITH INFORMATION DISPLAY)
JOINT CONNEC-TOR-M01
M191
M57
TO CAN SYSTEM
V3
COMBINATION METER
M24
M25
YA
SECURITY
V4
V7
V6
V2
V5
BCM (BODY CONTROL MODULE)
M18
M19
M20
M80
M81
M36
B149
11A
REAR DOOR SWITCH RH
B116
FRONT DOOR SWITCH RH
B108
22A
M40
B69
43J
REAR DOOR SWITCH LH
B18
FRONT DOOR SWITCH LH
B8
33J
YA : WITH TYPE A
YB : WITH TYPE B
V6 : WITH Cummins 5.0L AND WITH NAVIGATION WITH BLIND SPOT WARNING SYSTEMS
V7 : WITH Cummins 5.0L AND WITH NAVIGATION WITHOUT BLIND SPOT WARNING SYSTEMS
V8 : WITH VK56VD
V9 : WITH Cummins 5.0L
AAKWA1565GB


IPDM E/R
(INTELLIGENT
POWER DISTRIBUTION
MODULE ENGINE
ROOM)
E119, E120, E122, E123, E124, E130
TO STARTING SYSTEM - WITH VK56VD
STARTING SYSTEM - WITH Cummins 5.0L
TO A/T CONTROL SYSTEM - WITH Cummins 5.0L
A/T CONTROL SYSTEM - WITH VK56VD
10A
47
13
STARTER CONTROL RELAY
STARTER RELAY
19
44
62
52
4
64
40
41
68
66
E9
E152
M31
87G
86G
47G
89G
88G
CPU
TO CAN SYSTEM
V4, V7, V3, V6, V2, V5
IGNITION RELAY-1
F
G
H
I
J
K
AAKWA1566GB

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION CONNECTORS

Connector No.	B8
Connector Name	FRONT DOOR SWITCH LH
Connector Type	TH04FW-NH
Connector Color	WHITE

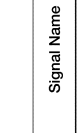
H.S.



Terminal No.	Color of Wire	Signal Name
1	–	–
2	–	–
3	L	DR DOOR SW
4	–	–

Connector No.	B18
Connector Name	REAR DOOR SWITCH LH
Connector Type	TH04FW-NH
Connector Color	WHITE

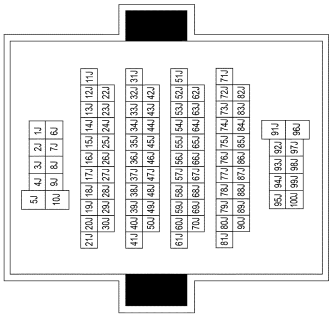
H.S.



Terminal No.	Color of Wire	Signal Name
1	–	–
2	–	–
3	SB	RL DOOR SW
4	–	–

Connector No.	B69
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4
Connector Color	WHITE

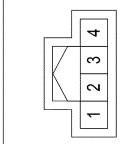
H.S.



Terminal No.	Color of Wire	Signal Name
1J	P	TO MAIN HARNESS
2J	R/Y	TO MAIN HARNESS
3J	L	TO MAIN HARNESS
4J	L/B	TO MAIN HARNESS
5J	G/W	TO MAIN HARNESS
6J	LG/Y	TO MAIN HARNESS
7J	BR/LG	TO MAIN HARNESS
8J	SB/BR	TO MAIN HARNESS
9J	BR	TO MAIN HARNESS
10J	BR	TO MAIN HARNESS
11J	O/B	TO MAIN HARNESS
12J	L	TO MAIN HARNESS
13J	SB/O	TO MAIN HARNESS
14J	Y	TO MAIN HARNESS
15J	–	TO MAIN HARNESS
16J	R	TO MAIN HARNESS
17J	G	TO MAIN HARNESS
18J	SB	TO MAIN HARNESS
19J	O	TO MAIN HARNESS
20J	O/B	TO MAIN HARNESS
21J	Y/R	TO MAIN HARNESS
22J	P	TO MAIN HARNESS
23J	W	TO MAIN HARNESS
24J	W/R	TO MAIN HARNESS
25J	V	TO MAIN HARNESS
26J	L	TO MAIN HARNESS
27J	R	TO MAIN HARNESS
28J	L	TO MAIN HARNESS
29J	G/O	TO MAIN HARNESS
30J	SB	TO MAIN HARNESS
31J	LG	TO MAIN HARNESS
32J	R	TO MAIN HARNESS
33J	L	TO MAIN HARNESS
34J	Y	TO MAIN HARNESS
35J	P	TO MAIN HARNESS
36J	G/R	TO MAIN HARNESS
37J	LG/B	TO MAIN HARNESS
38J	SB	TO MAIN HARNESS
39J	Y/L	TO MAIN HARNESS
40J	BR	TO MAIN HARNESS
41J	L	TO MAIN HARNESS
42J	L	TO MAIN HARNESS
43J	SB	TO MAIN HARNESS
44J	BR	TO MAIN HARNESS
45J	BG	TO MAIN HARNESS
46J	P/Y	TO MAIN HARNESS
47J	Y/GR	TO MAIN HARNESS
48J	V	TO MAIN HARNESS
49J	BR/Y	TO MAIN HARNESS
50J	G/W	TO MAIN HARNESS
51J	–	TO MAIN HARNESS
52J	SHIELD	TO MAIN HARNESS
53J	R	TO MAIN HARNESS
54J	L	TO MAIN HARNESS
55J	R	TO MAIN HARNESS
56J	W	TO MAIN HARNESS
57J	L/G	TO MAIN HARNESS
58J	O	TO MAIN HARNESS
59J	–	TO MAIN HARNESS
60J	SHIELD	TO MAIN HARNESS
61J	G	TO MAIN HARNESS
62J	–	TO MAIN HARNESS
63J	R/W	TO MAIN HARNESS
64J	L/W	TO MAIN HARNESS
65J	SHIELD	TO MAIN HARNESS
66J	B	TO MAIN HARNESS
67J	SHIELD	TO MAIN HARNESS
68J	O/L	TO MAIN HARNESS
69J	SHIELD	TO MAIN HARNESS
70J	BR	TO MAIN HARNESS
71J	L/W	TO MAIN HARNESS
72J	–	TO MAIN HARNESS
72J	–	TO MAIN HARNESS
73J	–	TO MAIN HARNESS
74J	SHIELD	TO MAIN HARNESS
75J	LG/B	TO MAIN HARNESS
76J	R	TO MAIN HARNESS
77J	SHIELD	TO MAIN HARNESS
78J	GR/B	TO MAIN HARNESS
79J	B	TO MAIN HARNESS
80J	W	TO MAIN HARNESS
81J	SHIELD	TO MAIN HARNESS
82J	L/R	TO MAIN HARNESS
83J	–	TO MAIN HARNESS
84J	–	TO MAIN HARNESS
85J	Y/B	TO MAIN HARNESS
86J	G	TO MAIN HARNESS
87J	B/R	TO MAIN HARNESS
88J	SHIELD	TO MAIN HARNESS
89J	GR/R	TO MAIN HARNESS
90J	L	TO MAIN HARNESS
91J	L/B	TO MAIN HARNESS
92J	SB	TO MAIN HARNESS
93J	B	TO MAIN HARNESS
94J	L	TO MAIN HARNESS
95J	LG	TO MAIN HARNESS
96J	R	TO MAIN HARNESS
97J	B/Y	TO MAIN HARNESS
98J	L/B	TO MAIN HARNESS
99J	W/L	TO MAIN HARNESS
100J	SB	TO MAIN HARNESS

Connector No.	B108
Connector Name	FRONT DOOR SWITCH RH
Connector Type	TH04FW-NH
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1	–	–
2	–	–
3	LG/R	AS DOOR SW
4	–	–

AAKIA4082GB

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION CONNECTORS

Connector No.	B116
Connector Name	REAR DOOR SWITCH RH
Connector Type	TH04FW-NH
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	–	–
2	–	–
3	LG	RR DOOR SW
4	–	–

Connector No.	B149
Connector Name	WIRE TO WIRE
Connector Type	TH80MDGY-CS16-TM4
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
1A	SB/G	TO MAIN HARNESS -(WITHOUT CLIMATE CONTROLLED SEATS)
1A	SB	TO MAIN HARNESS -(WITH CLIMATE CONTROLLED SEATS)
2A	L	TO MAIN HARNESS
3A	V	TO MAIN HARNESS
4A	SB/R	TO MAIN HARNESS
5A	–	TO MAIN HARNESS

6A	LG/Y	TO MAIN HARNESS -(WITHOUT CLIMATE CONTROLLED SEATS)
6A	LG	TO MAIN HARNESS -(WITH CLIMATE CONTROLLED SEATS)
7A	W	TO MAIN HARNESS
9A	B	TO MAIN HARNESS
9A	L/B	TO MAIN HARNESS
10A	W	TO MAIN HARNESS
11A	LG	TO MAIN HARNESS
12A	BR/O	TO MAIN HARNESS
13A	Y/W	TO MAIN HARNESS
14A	R/G	TO MAIN HARNESS
15A	Y/L	TO MAIN HARNESS
16A	O/L	TO MAIN HARNESS
17A	L	TO MAIN HARNESS
18A	Y	TO MAIN HARNESS
19A	LG	TO MAIN HARNESS
20A	R	TO MAIN HARNESS
21A	BG	TO MAIN HARNESS
22A	LG/R	TO MAIN HARNESS
23A	Y/LG	TO MAIN HARNESS
24A	BR/Y	TO MAIN HARNESS
25A	–	TO MAIN HARNESS
26A	GR	TO MAIN HARNESS
27A	LG	TO MAIN HARNESS
28A	LG/B	TO MAIN HARNESS
29A	–	TO MAIN HARNESS
30A	BR	TO MAIN HARNESS
31A	W/R	TO MAIN HARNESS
32A	G/R	TO MAIN HARNESS
33A	–	TO MAIN HARNESS
34A	SHIELD	TO MAIN HARNESS
35A	P	TO MAIN HARNESS
36A	B	TO MAIN HARNESS
37A	–	TO MAIN HARNESS
38A	R/B	TO MAIN HARNESS
39A	G/O	TO MAIN HARNESS
40A	V	TO MAIN HARNESS
41A	SHIELD	TO MAIN HARNESS
42A	SHIELD	TO MAIN HARNESS
43A	R	TO MAIN HARNESS
44A	G	TO MAIN HARNESS
45A	–	TO MAIN HARNESS
46A	–	TO MAIN HARNESS
47A	Y	TO MAIN HARNESS
48A	R/W	TO MAIN HARNESS
49A	R/L	TO MAIN HARNESS
50A	B	TO MAIN HARNESS
51A	–	TO MAIN HARNESS
52A	–	TO MAIN HARNESS
53A	–	TO MAIN HARNESS
54A	–	TO MAIN HARNESS
55A	–	TO MAIN HARNESS
56A	–	TO MAIN HARNESS
57A	–	TO MAIN HARNESS
58A	–	TO MAIN HARNESS
59A	–	TO MAIN HARNESS
60A	G/W	TO MAIN HARNESS
61A	–	TO MAIN HARNESS
62A	–	TO MAIN HARNESS
63A	–	TO MAIN HARNESS
64A	–	TO MAIN HARNESS
65A	–	TO MAIN HARNESS
66A	–	TO MAIN HARNESS
67A	–	TO MAIN HARNESS
68A	–	TO MAIN HARNESS
69A	Y/R	TO MAIN HARNESS
70A	R/G	TO MAIN HARNESS
71A	–	TO MAIN HARNESS
72A	Y/B	TO MAIN HARNESS
73A	G	TO MAIN HARNESS
74A	B/R	TO MAIN HARNESS
75A	SHIELD	TO MAIN HARNESS
76A	GR/R	TO MAIN HARNESS
77A	L	TO MAIN HARNESS
78A	SHIELD	TO MAIN HARNESS
79A	Y	TO MAIN HARNESS
80A	L	TO MAIN HARNESS
81A	R	TO MAIN HARNESS
82A	SHIELD	TO MAIN HARNESS
83A	LG/B	TO MAIN HARNESS
84A	R	TO MAIN HARNESS
85A	SHIELD	TO MAIN HARNESS
86A	GR/B	TO MAIN HARNESS
87A	B	TO MAIN HARNESS
88A	W	TO MAIN HARNESS
89A	SHIELD	TO MAIN HARNESS
90A	G	TO MAIN HARNESS
91A	W/L	TO MAIN HARNESS
92A	BR	TO MAIN HARNESS
93A	L/Y	TO MAIN HARNESS
94A	R/L	TO MAIN HARNESS
95A	BR	TO MAIN HARNESS
96A	R	TO MAIN HARNESS
97A	LG	TO MAIN HARNESS
98A	B/V	TO MAIN HARNESS
99A	O/L	TO MAIN HARNESS
100A	BR/W	TO MAIN HARNESS

Connector No.	E12
Connector Name	STOP LAMP RELAY
Connector Type	MS02FL-M2-LC
Connector Color	BLUE

H.S.

Terminal No.	Color of Wire	Signal Name
1	B	GROUND
2	W	RELAY CONTROL
3	R/G	STOP LAMPS
5	R/Y	BATTERY

Connector No.	E38
Connector Name	STOP LAMP SWITCH
Connector Type	M04FW-LC
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	R/Y	BATTERY
2	W	RELAY CONT - (WITHOUT LED REAR COMBINATION LAMPS)
2	R/G	STOP LAMPS - (WITH LED REAR COMBINATION LAMPS)
3	GR	IGNITION
4	R/B	STOP 2

AAKIA4083GB

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION CONNECTORS

Connector No.	E119
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS16FW-CS
Connector Color	WHITE

H.S.

9	8	7	6		5	4	3
18	17	16	15	14	13	12	11	10

Terminal No.	Color of Wire	Signal Name
3	–	–
4	B/R	NP SW
5	L/W	H/LAMP HI RH
6	G	H/LAMP HI LH
7	L	H/LAMP LO LH
8	R/Y	H/LAMP LO RH
9	G/W	FR FOG/L LH
10	–	–
11	P	ETC VB - (WITH CUMMINS 5.0L)
11	O	ETC VB - (WITH VK56VD)
12	W/R	FR FOG/L RH
13	Y/R	A/T ECU IGN
14	G	REVERSE LAMP IGN
15	GR	ABS ECU IGN
16	G	ETC RLY CONT - (WITH CUMMINS 5.0L)
16	V/R	ETC RLY CONT - (WITH VK56VD)
17	L/W	IGN COIL - (WITH CUMMINS 5.0L)
17	W	IGN COIL - (WITH VK56VD)
18	–	–

Connector No.	E120
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	M06FW-LC
Connector Color	WHITE

H.S.

21	20	19
24	23	22

Terminal No.	Color of Wire	Signal Name
19	W/R	STARTER MOTOR
20	L	F/L IGNSW
21	–	–
22	–	–
23	–	–
24	–	–

Connector No.	E122
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH12FW-NH
Connector Color	WHITE

H.S.

42	41	40	39	38	37
48	47	46	45	44	43

Terminal No.	Color of Wire	Signal Name
37	–	–
38	–	–
39	L/Y	WIPER AUTO STOP SW
40	P	CAN-L
41	L	CAN-H
42	BR	DTRL RLY
43	–	–
44	W/B	START CONT
45	GR	FUEL RLY CONT
46	Y	HOOD SW
47	Y	ALT C - (WITH VK56VD)
48	R/W	HORN RLY CONT

Connector No.	E123
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS08FBR-CS
Connector Color	BROWN

H.S.

51				50	49
56	55	54	53	52

Terminal No.	Color of Wire	Signal Name
49	Y/B	A/C COMP - (WITH CUMMINS 5.0L)
49	GR/R	A/C COMP - (WITH VK56VD)
50	BR	TRAILER TOW
51	–	–
52	B	S-GND
53	–	–
54	–	–
55	–	–
56	–	–

Connector No.	E124
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	M06FB-LC
Connector Color	BLACK

H.S.

59	58	57
62	61	60

Terminal No.	Color of Wire	Signal Name
57	W/B	RR DEF
58	BR	FUEL PUMP - (WITH CUMMINS 5.0L)
58	B/Y	FUEL PUMP - (WITH VK56VD)
59	–	–
60	–	–
61	–	–
62	B	P GND

Connector No.	E130
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH10FB-NH
Connector Color	BLACK

H.S.

67	66	65	64	63
72	71	70	69	68

Terminal No.	Color of Wire	Signal Name
63	–	–

Terminal No.	Color of Wire	Signal Name
64	R	DETENT SW
65	–	–
66	P	PUSH START SW
67	–	–
68	L	IGN SIGNAL
69	–	–
70	–	–
71	SB	HOOD SW2
72	W	E-CPLG - (WITH VK56VD)

AAKIA4084GB

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION CONNECTORS

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1G	G	TO MAIN HARNESS
2G	B/R	TO MAIN HARNESS
3G	W/B	TO MAIN HARNESS
4G	BR/W	TO MAIN HARNESS
5G	BR	TO MAIN HARNESS
6G	P	TO MAIN HARNESS - (WITH VK56VD)
6G	R/W	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
7G	Y	TO MAIN HARNESS
8G	G	TO MAIN HARNESS
9G	R	TO MAIN HARNESS
10G	W	TO MAIN HARNESS
11G	R/G	TO MAIN HARNESS
12G	W/B	TO MAIN HARNESS
13G	BR	TO MAIN HARNESS
14G	Y/B	TO MAIN HARNESS
15G	G/W	TO MAIN HARNESS
16G	G	TO MAIN HARNESS
17G	G/Y	TO MAIN HARNESS
18G	G/Y	TO MAIN HARNESS
19G	Y/V	TO MAIN HARNESS
20G	G/Y	TO MAIN HARNESS
21G	B/Y	TO MAIN HARNESS
22G	G/R	TO MAIN HARNESS
23G	Y/R	TO MAIN HARNESS

24G	G/B	TO MAIN HARNESS
25G	R/W	TO MAIN HARNESS
26G	R	TO MAIN HARNESS
27G	LG	TO MAIN HARNESS
28G	G/B	TO MAIN HARNESS
29G	G/B	TO MAIN HARNESS
30G	BR/Y	TO MAIN HARNESS
31G	P	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
31G	R	TO MAIN HARNESS - (WITH VK56VD)
32G	P	TO MAIN HARNESS
33G	Y/L	TO MAIN HARNESS
34G	GR	TO MAIN HARNESS
35G	G/R	TO MAIN HARNESS
36G	SB	TO MAIN HARNESS
37G	R/W	TO MAIN HARNESS
38G	BR	TO MAIN HARNESS
39G	BR	TO MAIN HARNESS
40G	–	TO MAIN HARNESS
41G	R/G	TO MAIN HARNESS
42G	O	TO MAIN HARNESS
43G	B	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
43G	G	TO MAIN HARNESS - (WITH VK56VD)
44G	R/Y	TO MAIN HARNESS
45G	G	TO MAIN HARNESS
46G	LG	TO MAIN HARNESS
47G	R	TO MAIN HARNESS
48G	W	TO MAIN HARNESS
49G	–	TO MAIN HARNESS
50G	BR	TO MAIN HARNESS
51G	R	TO MAIN HARNESS
52G	L	TO MAIN HARNESS
53G	W	TO MAIN HARNESS
54G	W	TO MAIN HARNESS
55G	G	TO MAIN HARNESS
56G	W	TO MAIN HARNESS
57G	Y	TO MAIN HARNESS
58G	BG	TO MAIN HARNESS
59G	BG	TO MAIN HARNESS
60G	BG	TO MAIN HARNESS
61G	B	TO MAIN HARNESS
62G	W	TO MAIN HARNESS
63G	R	TO MAIN HARNESS
64G	W/L	TO MAIN HARNESS
65G	W/R	TO MAIN HARNESS
66G	BG	TO MAIN HARNESS
67G	BG	TO MAIN HARNESS
68G	B	TO MAIN HARNESS
69G	Y	TO MAIN HARNESS
70G	L	TO MAIN HARNESS
71G	R/W	TO MAIN HARNESS

72G	L/W	TO MAIN HARNESS
73G	SHIELD	TO MAIN HARNESS
74G	W	TO MAIN HARNESS
75G	R	TO MAIN HARNESS
76G	R/G	TO MAIN HARNESS
77G	G	TO MAIN HARNESS
78G	W	TO MAIN HARNESS
79G	–	TO MAIN HARNESS
80G	R	TO MAIN HARNESS
81G	L	TO MAIN HARNESS
82G	R	TO MAIN HARNESS
83G	L	TO MAIN HARNESS
84G	L	TO MAIN HARNESS
85G	W/B	TO MAIN HARNESS
86G	B/R	TO MAIN HARNESS
87G	W/B	TO MAIN HARNESS
88G	P	TO MAIN HARNESS
89G	L	TO MAIN HARNESS
90G	G	TO MAIN HARNESS
91G	G	TO MAIN HARNESS
92G	V/W	TO MAIN HARNESS
93G	BR	TO MAIN HARNESS
94G	G	TO MAIN HARNESS
95G	G	TO MAIN HARNESS
96G	W	TO MAIN HARNESS
97G	R	TO MAIN HARNESS
98G	W/B	TO MAIN HARNESS
99G	BR	TO MAIN HARNESS
100G	GR/W	TO MAIN HARNESS

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	CS06FW-M2
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1N	–	–
2N	W	BATTERY
3N	W	BLOWER FAN RELAY OUT
4N	V	BATTERY
5N	Y	BATTERY
6N	W	BATTERY
7N	L	ACC RELAY OUT
8N	W	IGNITION

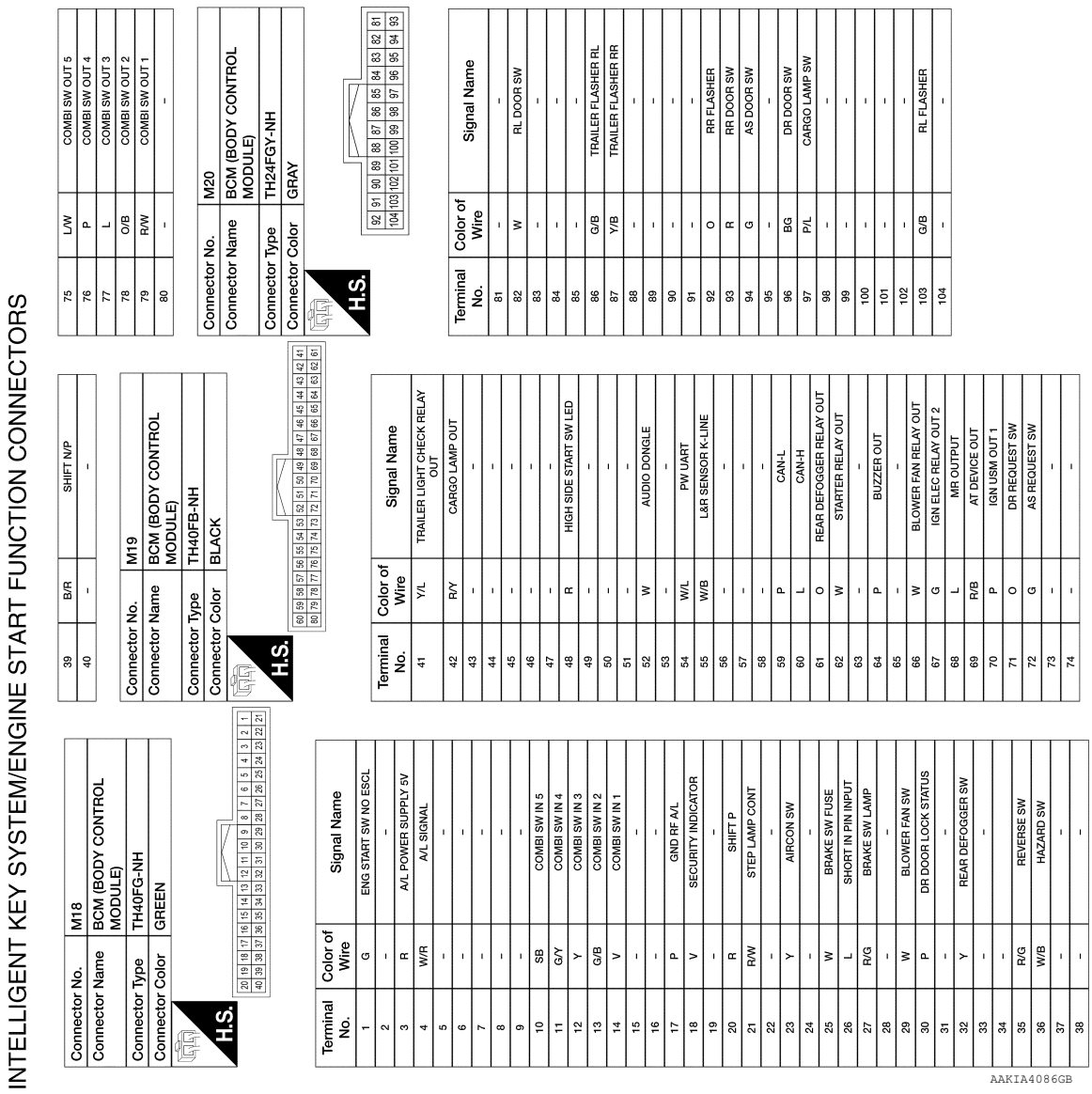
Connector No.	M4
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FW-CS
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1P	R	IGNITION
2P	Y	IGNITION
3P	G	IGNITION RELAY OUT
4P	B/W	RR DEF RLY
5P	B/W	RR DEF RLY
6P	O	RR DEF RLY OUT
7P	G	IGNITION
8P	W	IGNITION
9P	L	BATTERY
10P	–	–
11P	–	–
12P	–	–
13P	R	BATTERY
14P	Y	BATTERY
15P	Y/LG	BATTERY
16P	W	BLOWER FAN RELAY OUT

AAKIA4085GB

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION CONNECTORS



INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION CONNECTORS

Connector No.	M24
Connector Name	COMBINATION METER (WITH TYPE A)
Connector Type	TH40FW-NH
Connector Color	WHITE

H.S.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name
1	B	GND(STRG/SATELLITE SW GND)
2	–	–
3	–	–
4	–	–
5	–	–
6	–	–
7	V	SECURITY
8	–	–
9	BG	AS BELT SW (W/O ODS)
10	LG	TOW MODE SW
11	BR	CHG
12	BR	LED HEAD LAMP (R)
13	W	LED HEAD LAMP (L)
14	R	ACC SW
15	W	OUTSIDE TEMP SENSOR (WITH VK56VD)
16	O	AIR BAG
17	–	–
18	P	TRIP RESET SW
19	–	–
20	R	OUTSIDE TEMP GND (WITH VK56VD)
21	–	–
22	P	STRG SW A
23	R	STRG SW B
24	W	WASHER SW
25	–	–
26	G	PKB SW
27	P/L	AS BELT SW (WITH ODS)
28	O/B	DR BELT SW
29	–	–
30	–	–
31	–	–
32	BR	AT SHIFT UP
33	V/W	AT SHIFT DOWN
34	–	–
35	–	–
36	W	ILL UP SW

37	R	ILL DOWN SW
38	G	8P/R OUTPUT
39	–	–
40	–	–

Connector No.	M25
Connector Name	COMBINATION METER (WITH TYPE A)
Connector Type	TH12FW-NH
Connector Color	WHITE

H.S.

46	45	44	43	42	41
52	51	50	49	48	47

Terminal No.	Color of Wire	Signal Name
41	W	IGN
42	R	BAT
43	Y/V	FUEL SENSOR GND
44	GR	ILL CONT OUTPUT
45	P	CAN-L
46	L	CAN-H
47	B	G1
48	BR/Y	FUEL SENSOR
49	–	–
50	–	–
51	LG	M CAN-L
52	SB	M CAN-H

AAKIA4087GB

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION CONNECTORS

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4
Connector Color	WHITE

H.S.

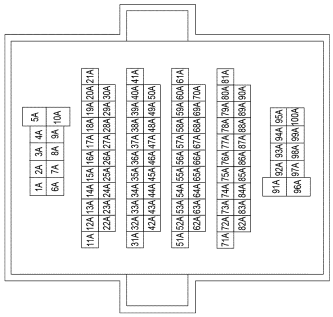
Terminal No.	Color of Wire	Signal Name
1G	G	TO ENGINE ROOM HARNESS
2G	B/R	TO ENGINE ROOM HARNESS
3G	W	TO ENGINE ROOM HARNESS
4G	BR/W	TO ENGINE ROOM HARNESS
5G	–	TO ENGINE ROOM HARNESS
6G	R/W	TO ENGINE ROOM HARNESS
7G	Y	TO ENGINE ROOM HARNESS
8G	G	TO ENGINE ROOM HARNESS
9G	R	TO ENGINE ROOM HARNESS
10G	W	TO ENGINE ROOM HARNESS
11G	R/G	TO ENGINE ROOM HARNESS
12G	W/B	TO ENGINE ROOM HARNESS
13G	BR	TO ENGINE ROOM HARNESS
14G	Y/B	TO ENGINE ROOM HARNESS
15G	G/W	TO ENGINE ROOM HARNESS
16G	G	TO ENGINE ROOM HARNESS
17G	O	TO ENGINE ROOM HARNESS
18G	G/Y	TO ENGINE ROOM HARNESS
19G	Y/V	TO ENGINE ROOM HARNESS
20G	G/Y	TO ENGINE ROOM HARNESS
21G	B/Y	TO ENGINE ROOM HARNESS
22G	G/R	TO ENGINE ROOM HARNESS
23G	Y/R	TO ENGINE ROOM HARNESS
24G	G/B	TO ENGINE ROOM HARNESS
25G	R/W	TO ENGINE ROOM HARNESS
26G	R	TO ENGINE ROOM HARNESS
27G	LG	TO ENGINE ROOM HARNESS
28G	G/B	TO ENGINE ROOM HARNESS
29G	G/B	TO ENGINE ROOM HARNESS
30G	BR/Y	TO ENGINE ROOM HARNESS
31G	R	TO ENGINE ROOM HARNESS
32G	R	TO ENGINE ROOM HARNESS
33G	Y/L	TO ENGINE ROOM HARNESS
34G	GR	TO ENGINE ROOM HARNESS
35G	G/R	TO ENGINE ROOM HARNESS
36G	SB	TO ENGINE ROOM HARNESS
37G	R/W	TO ENGINE ROOM HARNESS
38G	BR	TO ENGINE ROOM HARNESS
39G	BR	TO ENGINE ROOM HARNESS
40G	–	TO ENGINE ROOM HARNESS
41G	R/G	TO ENGINE ROOM HARNESS
42G	O	TO ENGINE ROOM HARNESS
43G	G	TO ENGINE ROOM HARNESS
44G	R/Y	TO ENGINE ROOM HARNESS
45G	G	TO ENGINE ROOM HARNESS
46G	LG	TO ENGINE ROOM HARNESS
47G	R	TO ENGINE ROOM HARNESS
48G	W	TO ENGINE ROOM HARNESS
49G	–	TO ENGINE ROOM HARNESS
50G	BR	TO ENGINE ROOM HARNESS
51G	R	TO ENGINE ROOM HARNESS
52G	L	TO ENGINE ROOM HARNESS
53G	W	TO ENGINE ROOM HARNESS
54G	W	TO ENGINE ROOM HARNESS
55G	G	TO ENGINE ROOM HARNESS
56G	W	TO ENGINE ROOM HARNESS
57G	Y	TO ENGINE ROOM HARNESS
58G	BG	TO ENGINE ROOM HARNESS
59G	BG	TO ENGINE ROOM HARNESS
60G	BG	TO ENGINE ROOM HARNESS
61G	O	TO ENGINE ROOM HARNESS
62G	W	TO ENGINE ROOM HARNESS
63G	O	TO ENGINE ROOM HARNESS
64G	W/L	TO ENGINE ROOM HARNESS
65G	W/R	TO ENGINE ROOM HARNESS
66G	BG	TO ENGINE ROOM HARNESS
67G	O	TO ENGINE ROOM HARNESS
68G	B	TO ENGINE ROOM HARNESS
69G	Y	TO ENGINE ROOM HARNESS
70G	L	TO ENGINE ROOM HARNESS
71G	R/W	TO ENGINE ROOM HARNESS
72G	L/W	TO ENGINE ROOM HARNESS
73G	SHIELD	TO ENGINE ROOM HARNESS
74G	W	TO ENGINE ROOM HARNESS
75G	R	TO ENGINE ROOM HARNESS
76G	R/G	TO ENGINE ROOM HARNESS
77G	BG	TO ENGINE ROOM HARNESS
78G	P	TO ENGINE ROOM HARNESS
79G	–	TO ENGINE ROOM HARNESS
80G	R	TO ENGINE ROOM HARNESS
81G	L	TO ENGINE ROOM HARNESS
82G	R	TO ENGINE ROOM HARNESS
83G	L	TO ENGINE ROOM HARNESS
84G	L	TO ENGINE ROOM HARNESS
85G	W	TO ENGINE ROOM HARNESS
86G	B/R	TO ENGINE ROOM HARNESS
87G	W	TO ENGINE ROOM HARNESS
88G	G	TO ENGINE ROOM HARNESS
89G	P	TO ENGINE ROOM HARNESS
90G	G	TO ENGINE ROOM HARNESS
91G	P	TO ENGINE ROOM HARNESS
92G	V/W	TO ENGINE ROOM HARNESS
93G	BR	TO ENGINE ROOM HARNESS
94G	B	TO ENGINE ROOM HARNESS
95G	G	TO ENGINE ROOM HARNESS
96G	R	TO ENGINE ROOM HARNESS
97G	R	TO ENGINE ROOM HARNESS
98G	W/B	TO ENGINE ROOM HARNESS
99G	R	TO ENGINE ROOM HARNESS
100G	GR/W	TO ENGINE ROOM HARNESS

AAKIA4088GB

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION CONNECTORS

Connector No.	M36
Connector Name	WIRE TO WIRE
Connector Type	TH80FDGY-CS16-TM4
Connector Color	GRAY

H.S.



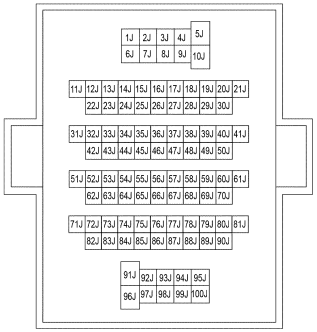
Terminal No.	Color of Wire	Signal Name
1A	W	TO BODY NO. 2 HARNESS
2A	LG	TO BODY NO. 2 HARNESS
3A	V	TO BODY NO. 2 HARNESS
4A	SB	TO BODY NO. 2 HARNESS
5A	–	TO BODY NO. 2 HARNESS
6A	BG	TO BODY NO. 2 HARNESS - (WITH CLIMATE CONTROLLED SEAT)
6A	LG	TO BODY NO. 2 HARNESS - (WITHOUT CLIMATE CONTROLLED SEAT)
7A	W	TO BODY NO. 2 HARNESS
8A	B	TO BODY NO. 2 HARNESS
9A	L/B	TO BODY NO. 2 HARNESS
10A	W	TO BODY NO. 2 HARNESS
11A	R	TO BODY NO. 2 HARNESS
12A	BR	TO BODY NO. 2 HARNESS
13A	G	TO BODY NO. 2 HARNESS
14A	R/G	TO BODY NO. 2 HARNESS
15A	O	TO BODY NO. 2 HARNESS
16A	O/L	TO BODY NO. 2 HARNESS
17A	L	TO BODY NO. 2 HARNESS
18A	Y	TO BODY NO. 2 HARNESS
19A	B/W	TO BODY NO. 2 HARNESS
20A	R	TO BODY NO. 2 HARNESS
21A	BG	TO BODY NO. 2 HARNESS
22A	G	TO BODY NO. 2 HARNESS
23A	Y	TO BODY NO. 2 HARNESS
24A	L	TO BODY NO. 2 HARNESS
25A	–	TO BODY NO. 2 HARNESS
26A	GR	TO BODY NO. 2 HARNESS
27A	LG	TO BODY NO. 2 HARNESS
28A	LG	TO BODY NO. 2 HARNESS
29A	GR	TO BODY NO. 2 HARNESS
30A	BR	TO BODY NO. 2 HARNESS
31A	W/R	TO BODY NO. 2 HARNESS
32A	G/R	TO BODY NO. 2 HARNESS
33A	–	TO BODY NO. 2 HARNESS
34A	SHIELD	TO BODY NO. 2 HARNESS
35A	P	TO BODY NO. 2 HARNESS
36A	B	TO BODY NO. 2 HARNESS
37A	–	TO BODY NO. 2 HARNESS
38A	R/B	TO BODY NO. 2 HARNESS
39A	G/O	TO BODY NO. 2 HARNESS
40A	V	TO BODY NO. 2 HARNESS
41A	SHIELD	TO BODY NO. 2 HARNESS
42A	SHIELD	TO BODY NO. 2 HARNESS
43A	R	TO BODY NO. 2 HARNESS
44A	G	TO BODY NO. 2 HARNESS
45A	–	TO BODY NO. 2 HARNESS
46A	–	TO BODY NO. 2 HARNESS
47A	Y	TO BODY NO. 2 HARNESS
48A	R/W	TO BODY NO. 2 HARNESS
49A	R/L	TO BODY NO. 2 HARNESS
50A	B	TO BODY NO. 2 HARNESS
51A	–	TO BODY NO. 2 HARNESS
52A	–	TO BODY NO. 2 HARNESS
53A	–	TO BODY NO. 2 HARNESS
54A	–	TO BODY NO. 2 HARNESS
55A	–	TO BODY NO. 2 HARNESS
56A	–	TO BODY NO. 2 HARNESS
57A	–	TO BODY NO. 2 HARNESS
58A	–	TO BODY NO. 2 HARNESS
59A	–	TO BODY NO. 2 HARNESS
60A	G/W	TO BODY NO. 2 HARNESS
61A	–	TO BODY NO. 2 HARNESS
62A	–	TO BODY NO. 2 HARNESS
63A	–	TO BODY NO. 2 HARNESS
64A	–	TO BODY NO. 2 HARNESS
65A	–	TO BODY NO. 2 HARNESS
66A	–	TO BODY NO. 2 HARNESS
67A	–	TO BODY NO. 2 HARNESS
68A	–	TO BODY NO. 2 HARNESS
69A	Y/R	TO BODY NO. 2 HARNESS
70A	R/G	TO BODY NO. 2 HARNESS
71A	–	TO BODY NO. 2 HARNESS
72A	W	TO BODY NO. 2 HARNESS
73A	G	TO BODY NO. 2 HARNESS
74A	W	TO BODY NO. 2 HARNESS
75A	SHIELD	TO BODY NO. 2 HARNESS
76A	R	TO BODY NO. 2 HARNESS
77A	L	TO BODY NO. 2 HARNESS
78A	SHIELD	TO BODY NO. 2 HARNESS
79A	GR	TO BODY NO. 2 HARNESS
80A	V	TO BODY NO. 2 HARNESS
81A	R	TO BODY NO. 2 HARNESS
82A	SHIELD	TO BODY NO. 2 HARNESS
83A	R	TO BODY NO. 2 HARNESS
84A	O	TO BODY NO. 2 HARNESS
85A	SHIELD	TO BODY NO. 2 HARNESS
86A	W	TO BODY NO. 2 HARNESS
87A	B	TO BODY NO. 2 HARNESS
88A	W	TO BODY NO. 2 HARNESS
89A	SHIELD	TO BODY NO. 2 HARNESS
90A	G	TO BODY NO. 2 HARNESS
91A	W/L	TO BODY NO. 2 HARNESS
92A	BR	TO BODY NO. 2 HARNESS
93A	L/Y	TO BODY NO. 2 HARNESS
94A	R/L	TO BODY NO. 2 HARNESS
95A	BR	TO BODY NO. 2 HARNESS
96A	R	TO BODY NO. 2 HARNESS
97A	LG	TO BODY NO. 2 HARNESS
98A	B/V	TO BODY NO. 2 HARNESS
99A	O/L	TO BODY NO. 2 HARNESS
100A	BR/W	TO BODY NO. 2 HARNESS

AAKIA4089GB

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION CONNECTORS

Connector No.	M40
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4
Connector Color	WHITE

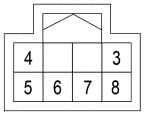
H.S.



Terminal No.	Color of Wire	Signal Name
1J	G	TO BODY HARNESS
2J	R/Y	TO BODY HARNESS
3J	L	TO BODY HARNESS
4J	L/B	TO BODY HARNESS
5J	B	TO BODY HARNESS
6J	BR	TO BODY HARNESS
7J	BG	TO BODY HARNESS
8J	SB	TO BODY HARNESS
9J	BR	TO BODY HARNESS
10J	R	TO BODY HARNESS
11J	O/B	TO BODY HARNESS
12J	L	TO BODY HARNESS
13J	W	TO BODY HARNESS
14J	Y	TO BODY HARNESS
15J	–	TO BODY HARNESS
16J	R	TO BODY HARNESS
17J	G	TO BODY HARNESS
18J	SB	TO BODY HARNESS
19J	O	TO BODY HARNESS
20J	O/B	TO BODY HARNESS
21J	Y	TO BODY HARNESS
22J	P	TO BODY HARNESS
23J	W	TO BODY HARNESS
24J	W/R	TO BODY HARNESS
25J	P	TO BODY HARNESS
26J	L	TO BODY HARNESS
27J	R	TO BODY HARNESS
28J	L	TO BODY HARNESS
29J	G/O	TO BODY HARNESS
30J	SB	TO BODY HARNESS
31J	L/G	TO BODY HARNESS
32J	R	TO BODY HARNESS
33J	BG	TO BODY HARNESS
34J	Y	TO BODY HARNESS
35J	P	TO BODY HARNESS
36J	G/R	TO BODY HARNESS
37J	LG	TO BODY HARNESS
38J	SB	TO BODY HARNESS
39J	Y	TO BODY HARNESS
40J	SB	TO BODY HARNESS
41J	L	TO BODY HARNESS
42J	L	TO BODY HARNESS
43J	W	TO BODY HARNESS
44J	BR	TO BODY HARNESS
45J	BG	TO BODY HARNESS
46J	P	TO BODY HARNESS
47J	O	TO BODY HARNESS
48J	V	TO BODY HARNESS
49J	BR	TO BODY HARNESS
50J	G/W	TO BODY HARNESS
51J	–	TO BODY HARNESS
52J	SHIELD	TO BODY HARNESS
53J	R	TO BODY HARNESS
54J	L	TO BODY HARNESS
55J	R	TO BODY HARNESS
56J	W	TO BODY HARNESS
57J	R	TO BODY HARNESS
58J	B	TO BODY HARNESS
59J	–	TO BODY HARNESS
60J	SHIELD	TO BODY HARNESS
61J	G	TO BODY HARNESS
62J	–	TO BODY HARNESS
63J	R/W	TO BODY HARNESS
64J	L/W	TO BODY HARNESS
65J	SHIELD	TO BODY HARNESS
66J	B	TO BODY HARNESS
67J	SHIELD	TO BODY HARNESS
68J	W	TO BODY HARNESS
69J	SHIELD	TO BODY HARNESS
70J	B/R	TO BODY HARNESS
71J	L/W	TO BODY HARNESS
72J	–	TO BODY HARNESS
73J	–	TO BODY HARNESS
74J	SHIELD	TO BODY HARNESS
75J	R	TO BODY HARNESS
76J	O	TO BODY HARNESS
77J	SHIELD	TO BODY HARNESS
78J	W	TO BODY HARNESS
79J	B	TO BODY HARNESS
80J	W	TO BODY HARNESS
81J	SHIELD	TO BODY HARNESS
82J	L/R	TO BODY HARNESS
83J	–	TO BODY HARNESS
84J	–	TO BODY HARNESS
85J	W	TO BODY HARNESS
86J	G	TO BODY HARNESS
87J	W	TO BODY HARNESS
88J	SHIELD	TO BODY HARNESS
89J	R	TO BODY HARNESS
90J	L	TO BODY HARNESS
91J	L/B	TO BODY HARNESS
92J	SB	TO BODY HARNESS
93J	B	TO BODY HARNESS
94J	LG	TO BODY HARNESS
95J	L	TO BODY HARNESS
96J	G	TO BODY HARNESS
97J	B/Y	TO BODY HARNESS
98J	L/B	TO BODY HARNESS
99J	W/L	TO BODY HARNESS
100J	Y	TO BODY HARNESS

Connector No.	M46
Connector Name	PUSH-BUTTON IGNITION SWITCH
Connector Type	TH08FW-NH
Connector Color	WHITE

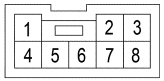
H.S.



Terminal No.	Color of Wire	Signal Name
3	BG	BATTERY
4	B	GND
5	R	HIGH SIDE START SW LED
6	W	ILLUMINATION -
7	P	ACC LED
8	G	ENG START SW NO ESCL

Connector No.	M68
Connector Name	A/T SHIFT SELECTOR
Connector Type	TK08FW
Connector Color	WHITE

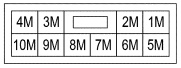
H.S.



Terminal No.	Color of Wire	Signal Name
1	B	GND
2	B	GND
3	L/R	SHIFT LOCK SOL OUT
4	R	SHIFT P
5	R/B	AT DEVICE OUT
6	LG	TOW MODE SW
7	BR	SHIFT UP
8	V/W	SHIFT DOWN

Connector No.	M69
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS10FW-CS
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1M	GR	IGNITION
2M	–	–
3M	–	–
4M	–	–
5M	R/Y	BATTERY
6M	R/W	TAIL LAMP 2
7M	–	–
8M	–	–
9M	–	–
10M	W/R	IGNITION

AAKIA4090GB

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION CONNECTORS

Connector No.	M70
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FBR-CS
Connector Color	BROWN

H.S.

7R	6R	5R	4R		3R	2R	1R
16R	15R	14R	13R	12R	11R	10R	9R	8R

Terminal No.	Color of Wire	Signal Name
1R	L	TAIL LAMP 2
2R	G/R	IGNITION
3R	Y/R	BATTERY
4R	–	–
5R	W	BATTERY
6R	G/W	ACCESSORY
7R	–	–
8R	–	–
9R	–	–
10R	W	BATTERY
11R	–	–
12R	BG	BATTERY
13R	B	ACCESSORY
14R	G/Y	BATTERY
15R	Y	BATTERY
16R	G/R	ACCESSORY

111	P	ACC LED
112	–	–
113	L	ACC RELAY OUT
114	W	AS DOOR ANT A
115	BG	AS DOOR ANT B
116	W	ROOM ANT 2 A
117	G/B	FL FLASHER
118	–	–
119	R	RF NIMOCO
120	–	–
121	G	DR DOOR ANT B
122	P	DR DOOR ANT A
123	W	ROOM ANT 1 A
124	G	ROOM ANT 1 B
125	–	–
126	P	IMMO START BUTTON ANT B
127	BG	IMMO START BUTTON ANT A
128	B	ROOM ANT 2 B

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

H.S.

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

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

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

H.S.

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

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

Connector No.	M84
Connector Name	INSIDE KEY ANTENNA (INSTRUMENT CENTER)
Connector Type	RK02FGY
Connector Color	GRAY

H.S.

1	2

Terminal No.	Color of Wire	Signal Name
1	W	ROOM ANT 1A
2	G	ROOM ANT 1B

Connector No.	M85
Connector Name	INSIDE KEY ANTENNA (CONSOLE)
Connector Type	RK02FGY
Connector Color	GRAY

H.S.

1	2

Terminal No.	Color of Wire	Signal Name
1	W	ROOM ANT 2A
2	B	ROOM ANT 2B

Connector No.	M86
Connector Name	REMOTE KEYLESS ENTRY RECEIVER
Connector Type	AAC04FB
Connector Color	BLACK

H.S.

1	2	3	4

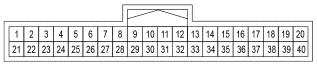
Terminal No.	Color of Wire	Signal Name
1	BG	BATTERY
2	R	RF NIMOCO
3	B	GND
4	–	–

AAKIA4091GB

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION CONNECTORS

Connector No.	M163
Connector Name	COMBINATION METER (WITH TYPE B)
Connector Type	TH40FW-NH
Connector Color	WHITE

H.S.

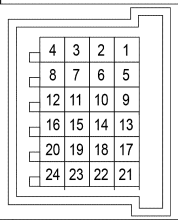


Terminal No.	Color of Wire	Signal Name
1	B	GND (ILL)
2	B	GND (CIRCUIT)
3	B	GND (POWER)
4	–	–
5	–	–
6	R	BAT
7	V	SECURITY
8	W	IGN
9	BG	AS BELT SW (W/O ODS)
10	LG	TOW MODE SW
11	BR	CHG
12	B	SATELLITE SW GND
13	B	STRG SW GND
14	R	ACC
15	W	OUTSIDE TEMP SENSOR
16	O	AIR BAG
17	–	–
18	P	TRIP RESET SW
19	–	–
20	R	OUTSIDE TEMP GND
21	–	–
22	P	STRG SW A
23	R	STRG SW B
24	W	WASHER SW
25	–	–
26	G	PKB SW
27	P/L	AS BELT SW (WITH ODS)
28	O/B	DR BELT SW
29	–	–
30	Y/V	FUEL SENSOR GND
31	BR/Y	FUEL SENSOR
32	BR	AT SHIFT UP
33	V/W	AT SHIFT DOWN
34	L	CAN-H
35	P	CAN-L
36	W	ILL UP SW
37	R	ILL DOWN SW
38	G	8P/R OUTPUT
39	–	–
40	GR	ILL CONT OUT

AAKIA4092GB

Connector No.	M191
Connector Name	JOINT CONNECTOR-M01
Connector Type	NH24FW-J
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1	–	–
2	B	GND
3	B	GND
4	B	GROUND
5	–	–
6	B	GND
7	B	GND
8	B	GND
9	–	–
10	B	GND
11	B	GND
12	B	GND
13	B	GND
14	B	GND
15	B	GND
16	–	–
17	B	GND
18	B	GND
19	SHIELD	GROUND
20	B	GND
21	B	GND
22	B	GND
23	B	GROUND
24	B	GROUND

NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS

Wiring Diagram

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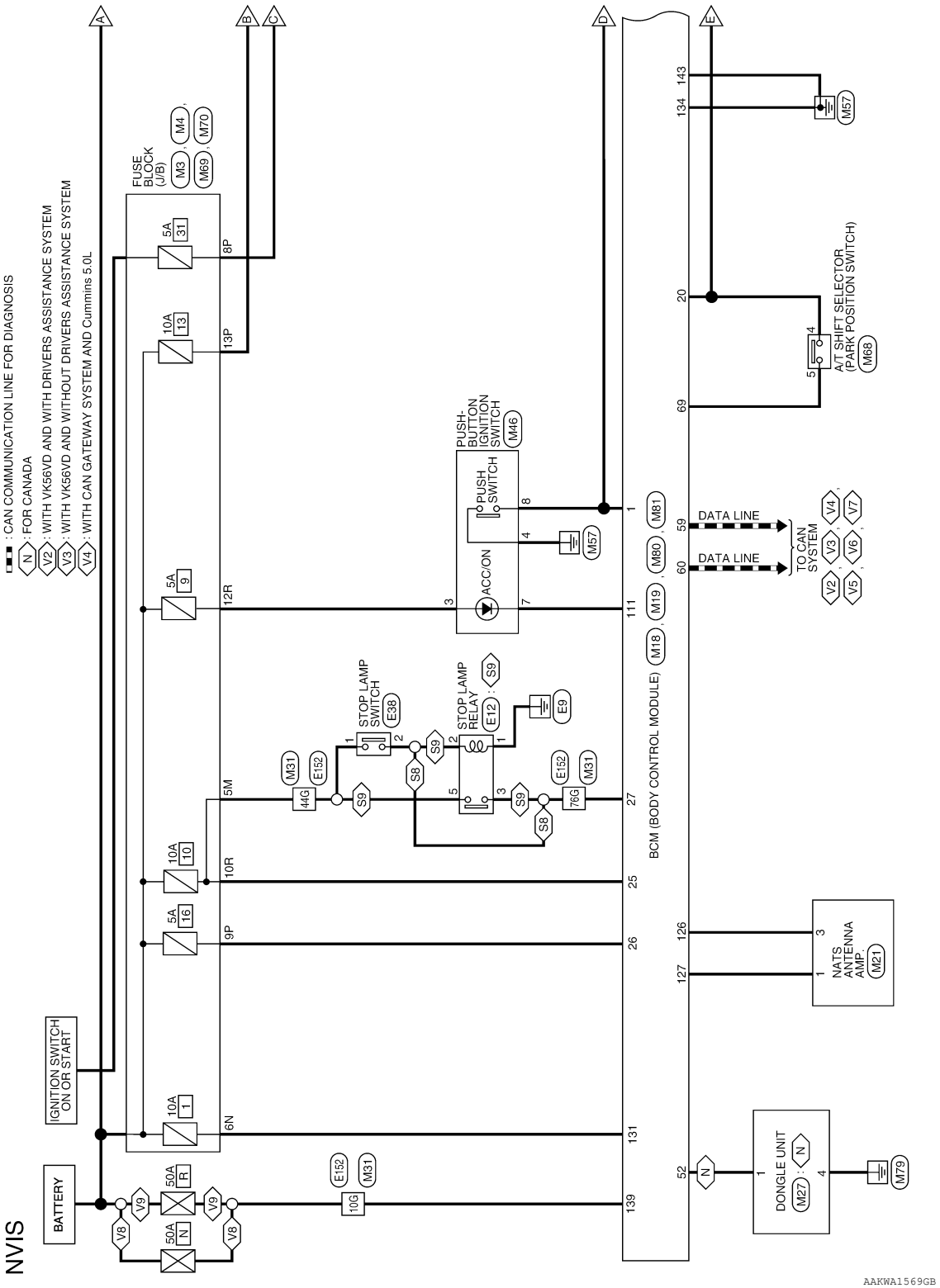
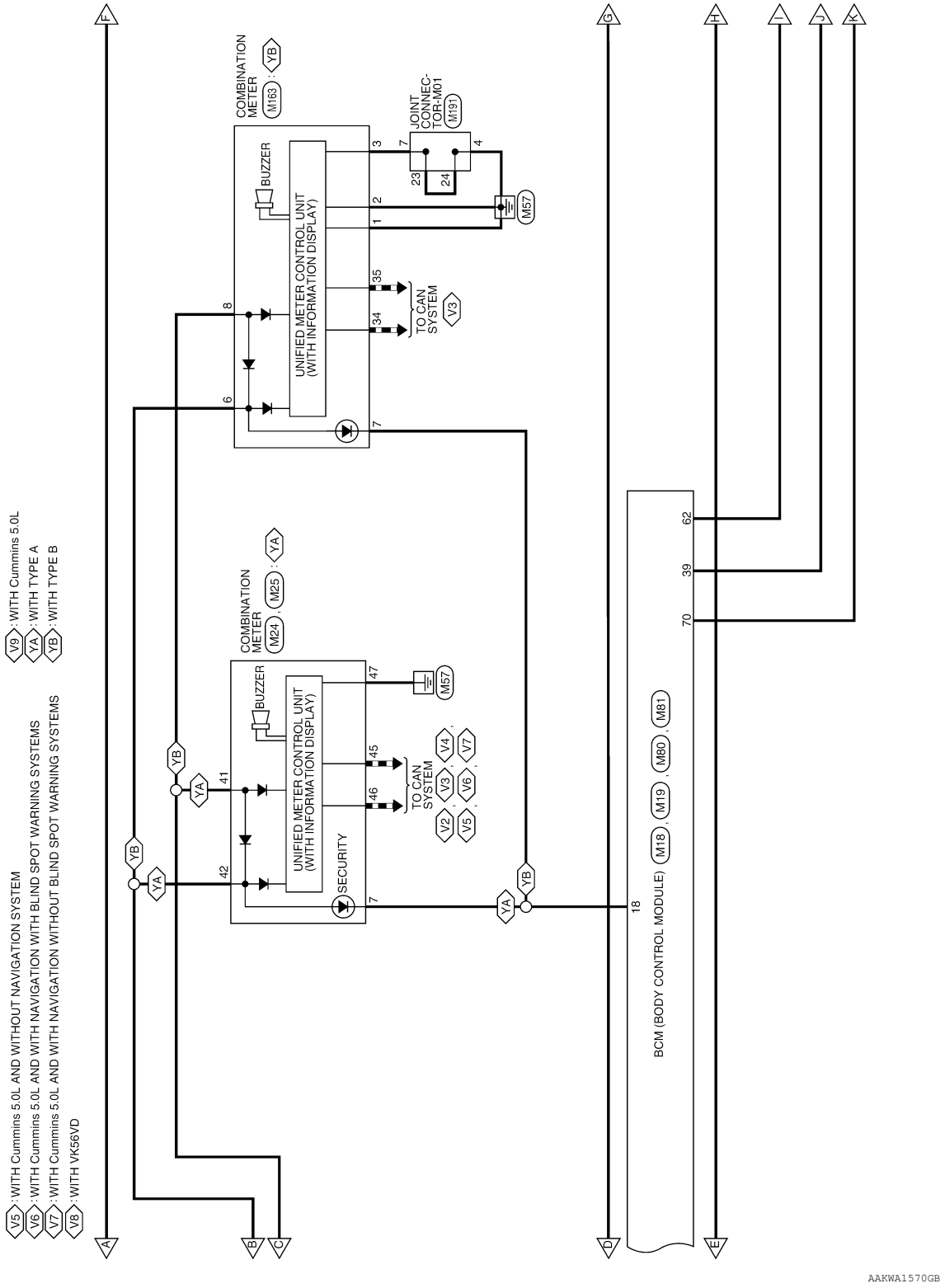
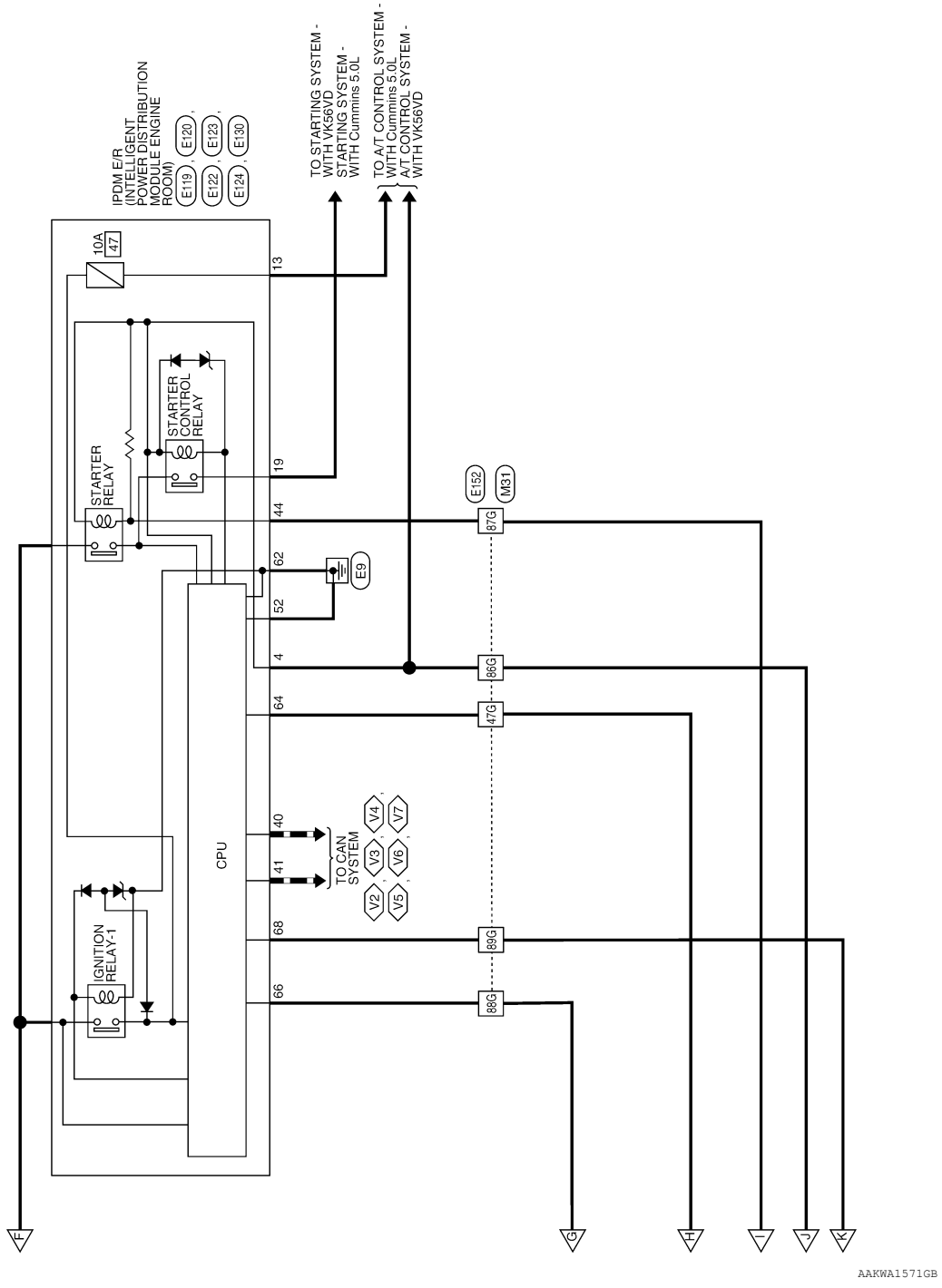



COMBINATION METER (M163) YB
BUZZER
UNIFIED METER CONTROL UNIT (WITH INFORMATION DISPLAY)
JOINT CONNEC-TOR-M01 (M191)
M57
TO CAN SYSTEM V3
COMBINATION METER (M24), (M25) YA
SECURITY
TO CAN SYSTEM V3, V4, V7, V2, V5, V6
BCM (BODY CONTROL MODULE) (M18), (M19), (M80), (M81)
V9 : WITH Cummins 5.0L
YA : WITH TYPE A
YB : WITH TYPE B
V5 : WITH Cummins 5.0L AND WITHOUT NAVIGATION SYSTEM
V6 : WITH Cummins 5.0L AND WITH NAVIGATION WITH BLIND SPOT WARNING SYSTEMS
V7 : WITH Cummins 5.0L AND WITH NAVIGATION WITHOUT BLIND SPOT WARNING SYSTEMS
V8 : WITH VK56VD
AAKWA1570GB


IPDM E/R
(INTELLIGENT
POWER DISTRIBUTION
MODULE ENGINE
ROOM)
E119, E120, E122, E123, E124, E130
TO STARTING SYSTEM -
WITH VK56VD
STARTING SYSTEM -
WITH Cummins 5.0L
TO A/T CONTROL SYSTEM -
WITH Cummins 5.0L
A/T CONTROL SYSTEM -
WITH VK56VD
10A
47
13
STARTER
CONTROL
RELAY
STARTER
RELAY
19
44
62
52
4
64
40
41
68
66
E152
M31
87G
E9
86G
47G
89G
88G
CPU
TO CAN
SYSTEM
V4, V7, V3, V6, V2, V5
IGNITION
RELAY-1
F
G
H
I
J
K
AAKWA1571GB

NVIS CONNECTORS

Connector No.	E12
Connector Name	STOP LAMP RELAY
Connector Type	MS02FL-M2-LC
Connector Color	BLUE

H.S.

Terminal No.	Color of Wire	Signal Name
1	B	GROUND
2	W	RELAY CONTROL
3	R/G	STOP LAMPS
5	R/Y	BATTERY

Connector No.	E38
Connector Name	STOP LAMP SWITCH
Connector Type	M04FW-LC
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	R/Y	BATTERY
2	R/G	STOP LAMPS - (WITH LED REAR COMBINATION LAMPS)
2	W	RELAY CONT - (WITHOUT LED REAR COMBINATION LAMPS)
3	GR	IGNITION
4	R/B	STOP 2

Connector No.	E119
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS16FW-CS
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
3	–	–
4	B/R	NP SW
5	L/W	H/LAMP HI RH
6	G	H/LAMP HI LH
7	L	H/LAMP LO LH
8	R/Y	H/LAMP LO RH
9	G/W	FR FOG/L LH
10	–	–
11	O	ETC VB - (WITH VK56VD)
11	P	ETC VB - (WITH CUMMINS 5.0L)
12	W/R	FR FOG/L RH
13	Y/R	A/T ECU IGN
14	G	REVERSE LAMP IGN
15	GR	ABS ECU IGN
16	V/R	ETC RLY CONT - (WITH VK56VD)
16	G	ETC RLY CONT - (WITH CUMMINS 5.0L)
17	W	IGN COIL - (WITH VK56VD)
17	L/W	IGN COIL - (WITH CUMMINS 5.0L)
18	–	–

Connector No.	E120
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	M06FW-LC
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name

19	W/R	STARTER MOTOR
20	L	F/L IGNSW
21	–	–
22	–	–
23	–	–
24	–	–

Connector No.	E122
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH12FW-NH
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
37	–	–
38	–	–
39	L/Y	WIPER AUTO STOP SW
40	P	CAN-L
41	L	CAN-H
42	BR	DTRL RLY
43	–	–
44	W/B	START CONT
45	GR	FUEL RLY CONT
46	Y	HOOD SW
47	Y	ALT C - (WITH VK56VD)
48	R/W	HORN RLY CONT

Connector No.	E123
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS08FBR-CS
Connector Color	BROWN

H.S.

Terminal No.	Color of Wire	Signal Name
49	GR/R	A/C COMP - (WITH VK56VD)

49	Y/B	A/C COMP - (WITH CUMMINS 5.0L)
50	BR	TRAILER TOW
51	–	–
52	B	S-GND
53	–	–
54	–	–
55	–	–
56	–	–

Connector No.	E124
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	M06FB-LC
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
57	W/B	RR DEF
58	B/Y	FUEL PUMP - (WITH VK56VD)
58	BR	FUEL PUMP - (WITH CUMMINS 5.0L)
59	–	–
60	–	–
61	–	–
62	B	P GND

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NVIS CONNECTORS

Connector No.	E130
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH10FB-NH
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
63	–	–
64	R	DETENT SW
65	–	–
66	P	PUSH START SW
67	–	–
68	L	IGN SIGNAL
69	–	–
70	–	–
71	SB	HOOD SW2
72	W	E-CPLG - (WITH VK56VD)

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1G	G	TO MAIN HARNESS
2G	B/R	TO MAIN HARNESS
3G	W/B	TO MAIN HARNESS
4G	BR/W	TO MAIN HARNESS
5G	BR	TO MAIN HARNESS
6G	P	TO MAIN HARNESS - (WITH VK56VD)
6G	R/W	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
7G	Y	TO MAIN HARNESS
8G	G	TO MAIN HARNESS
9G	R	TO MAIN HARNESS
10G	W	TO MAIN HARNESS
11G	R/G	TO MAIN HARNESS
12G	W/B	TO MAIN HARNESS
13G	BR	TO MAIN HARNESS
14G	Y/B	TO MAIN HARNESS
15G	G/W	TO MAIN HARNESS
16G	G	TO MAIN HARNESS
17G	G/Y	TO MAIN HARNESS
18G	G/Y	TO MAIN HARNESS
19G	Y/V	TO MAIN HARNESS
20G	G/Y	TO MAIN HARNESS
21G	B/Y	TO MAIN HARNESS
22G	G/R	TO MAIN HARNESS
23G	Y/R	TO MAIN HARNESS
24G	G/B	TO MAIN HARNESS
25G	R/W	TO MAIN HARNESS
26G	R	TO MAIN HARNESS
27G	LG	TO MAIN HARNESS
28G	G/B	TO MAIN HARNESS
29G	G/B	TO MAIN HARNESS
30G	BR/Y	TO MAIN HARNESS
31G	P	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
31G	R	TO MAIN HARNESS - (WITH VK56VD)
32G	P	TO MAIN HARNESS
33G	Y/L	TO MAIN HARNESS
34G	GR	TO MAIN HARNESS
35G	G/R	TO MAIN HARNESS
36G	SB	TO MAIN HARNESS
37G	R/W	TO MAIN HARNESS
38G	BR	TO MAIN HARNESS
39G	BR	TO MAIN HARNESS
40G	–	TO MAIN HARNESS
41G	R/G	TO MAIN HARNESS
42G	O	TO MAIN HARNESS
43G	B	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
43G	G	TO MAIN HARNESS - (WITH VK56VD)
44G	R/Y	TO MAIN HARNESS
45G	G	TO MAIN HARNESS
46G	LG	TO MAIN HARNESS
47G	R	TO MAIN HARNESS
48G	W	TO MAIN HARNESS
49G	–	TO MAIN HARNESS
50G	BR	TO MAIN HARNESS
51G	R	TO MAIN HARNESS
52G	L	TO MAIN HARNESS
53G	W	TO MAIN HARNESS
54G	W	TO MAIN HARNESS
55G	G	TO MAIN HARNESS
56G	W	TO MAIN HARNESS
57G	Y	TO MAIN HARNESS
58G	BG	TO MAIN HARNESS
59G	BG	TO MAIN HARNESS
60G	BG	TO MAIN HARNESS
61G	B	TO MAIN HARNESS
62G	W	TO MAIN HARNESS
63G	R	TO MAIN HARNESS
64G	W/L	TO MAIN HARNESS
65G	W/R	TO MAIN HARNESS
66G	BG	TO MAIN HARNESS
67G	BG	TO MAIN HARNESS
68G	B	TO MAIN HARNESS
69G	Y	TO MAIN HARNESS
70G	L	TO MAIN HARNESS
71G	R/W	TO MAIN HARNESS
72G	L/W	TO MAIN HARNESS
73G	SHIELD	TO MAIN HARNESS
74G	W	TO MAIN HARNESS
75G	R	TO MAIN HARNESS
76G	R/G	TO MAIN HARNESS
77G	G	TO MAIN HARNESS
78G	W	TO MAIN HARNESS
79G	–	TO MAIN HARNESS
80G	R	TO MAIN HARNESS
81G	L	TO MAIN HARNESS
82G	R	TO MAIN HARNESS
83G	L	TO MAIN HARNESS
84G	L	TO MAIN HARNESS
85G	W/B	TO MAIN HARNESS
86G	B/R	TO MAIN HARNESS
87G	W/B	TO MAIN HARNESS
88G	P	TO MAIN HARNESS
89G	L	TO MAIN HARNESS
90G	G	TO MAIN HARNESS
91G	G	TO MAIN HARNESS
92G	V/W	TO MAIN HARNESS
93G	BR	TO MAIN HARNESS
94G	G	TO MAIN HARNESS
95G	G	TO MAIN HARNESS
96G	W	TO MAIN HARNESS
97G	R	TO MAIN HARNESS
98G	W/B	TO MAIN HARNESS
99G	BR	TO MAIN HARNESS
100G	GR/W	TO MAIN HARNESS

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	CS06FW-M2
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1N	–	–
2N	W	BATTERY
3N	W	BLOWER FAN RELAY OUT
4N	V	BATTERY
5N	Y	BATTERY
6N	W	BATTERY
7N	L	ACC RELAY OUT
8N	W	IGNITION

AAKIA4119GB

NVIS CONNECTORS

Connector No.	M4
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FW-CS
Connector Color	WHITE

H.S.

7P	6P	5P	4P		3P	2P	1P
16P	15P	14P	13P	12P	11P	10P	9P	8P

Terminal No.	Color of Wire	Signal Name
1P	R	IGNITION
2P	Y	IGNITION
3P	G	IGNITION RELAY OUT
4P	B/W	RR DEF RLY
5P	B/W	RR DEF RLY
6P	O	RR DEF RLY OUT
7P	G	IGNITION
8P	W	IGNITION
9P	L	BATTERY
10P	–	–
11P	–	–
12P	–	–
13P	R	BATTERY
14P	Y	BATTERY
15P	Y/LG	BATTERY
16P	W	BLOWER FAN RELAY OUT

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

H.S.

20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21

Terminal No.	Color of Wire	Signal Name
1	G	ENG START SW NO ESCL
2	–	–
3	R	A/L POWER SUPPLY 5V
4	W/R	A/L SIGNAL
5	–	–
6	–	–

7	–	–
8	–	–
9	–	–
10	SB	COMBI SW IN 5
11	G/Y	COMBI SW IN 4
12	Y	COMBI SW IN 3
13	G/B	COMBI SW IN 2
14	V	COMBI SW IN 1
15	–	–
16	–	–
17	P	GND RF A/L
18	V	SECURITY INDICATOR
19	–	–
20	R	SHIFT P
21	R/W	STEP LAMP CONT
22	–	–
23	Y	AIRCON SW
24	–	–
25	W	BRAKE SW FUSE
26	L	SHORT IN PIN INPUT
27	R/G	BRAKE SW LAMP
28	–	–
29	W	BLOWER FAN SW
30	P	DR DOOR LOCK STATUS
31	–	–
32	Y	REAR DEFOGGER SW
33	–	–
34	–	–
35	R/G	REVERSE SW
36	W/B	HAZARD SW
37	–	–
38	–	–
39	B/R	SHIFT N/P
40	–	–

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

H.S.

60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41
80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61

Terminal No.	Color of Wire	Signal Name
41	Y/L	TRAILER LIGHT CHECK RELAY OUT
42	R/Y	CARGO LAMP OUT

43	–	–
44	–	–
45	–	–
46	–	–
47	–	–
48	R	HIGH SIDE START SW LED
49	–	–
50	–	–
51	–	–
52	W	AUDIO DONGLE
53	–	–
54	W/L	PW UART
55	W/B	L&R SENSOR K-LINE
56	–	–
57	–	–
58	–	–
59	P	CAN-L
60	L	CAN-H
61	O	REAR DEFOGGER RELAY OUT
62	W	STARTER RELAY OUT
63	–	–
64	P	BUZZER OUT
65	–	–
66	W	BLOWER FAN RELAY OUT
67	G	IGN ELEC RELAY OUT 2
68	L	MR OUTPUT
69	R/B	AT DEVICE OUT
70	P	IGN USM OUT 1
71	O	DR REQUEST SW
72	G	AS REQUEST SW
73	–	–
74	–	–
75	L/W	COMBI SW OUT 5
76	P	COMBI SW OUT 4
77	L	COMBI SW OUT 3
78	O/B	COMBI SW OUT 2
79	R/W	COMBI SW OUT 1
80	–	–

Connector No.	M21
Connector Name	NATS ANTENNA AMP.
Connector Type	NH03FW
Connector Color	WHITE

H.S.

1
2
3

1	BG	IMMO START BUTTON ANT A
2	–	–
3	P	IMMO START BUTTON ANT B

AAKIA4120GB

NVIS CONNECTORS

Connector No.	M24
Connector Name	COMBINATION METER (WITH TYPE A)
Connector Type	TH40FW-NH
Connector Color	WHITE

H.S.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name
1	B	GND(STRG/SATELLITE SW GND)
2	–	–
3	–	–
4	–	–
5	–	–
6	–	–
7	V	SECURITY
8	–	–
9	BG	AS BELT SW (W/O ODS)
10	LG	TOW MODE SW
11	BR	CHG
12	BR	LED HEAD LAMP (R)
13	W	LED HEAD LAMP (L)
14	R	ACC SW
15	W	OUTSIDE TEMP SENSOR (WITH VK56VD)
16	O	AIR BAG
17	–	–
18	P	TRIP RESET SW
19	–	–
20	R	OUTSIDE TEMP GND (WITH VK56VD)
21	–	–
22	P	STRG SW A
23	R	STRG SW B
24	W	WASHER SW
25	–	–
26	G	PKB SW
27	P/L	AS BELT SW (WITH ODS)
28	O/B	DR BELT SW
29	–	–
30	–	–
31	–	–
32	BR	AT SHIFT UP
33	V/W	AT SHIFT DOWN
34	–	–
35	–	–
36	W	ILL UP SW
37	R	ILL DOWN SW
38	G	8P/R OUTPUT
39	–	–
40	–	–

Connector No.	M25
Connector Name	COMBINATION METER (WITH TYPE A)
Connector Type	TH12FW-NH
Connector Color	WHITE

H.S.

46	45	44	43	42	41
52	51	50	49	48	47

Terminal No.	Color of Wire	Signal Name
41	W	IGN
42	R	BAT
43	Y/V	FUEL SENSOR GND
44	GR	ILL CONT OUTPUT
45	P	CAN-L
46	L	CAN-H
47	B	G1
48	BR/Y	FUEL SENSOR
49	–	–
50	–	–
51	LG	M CAN-L
52	SB	M CAN-H

Connector No.	M27
Connector Name	DONGLE UNIT
Connector Type	TH04FW-NH
Connector Color	WHITE

H.S.

1	2	3	4

Terminal No.	Color of Wire	Signal Name
1	W	AUDIO DONGLE
2	–	–
3	–	–
4	B	GND

AAKIA4121GB

NVIS CONNECTORS

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1G	G	TO ENGINE ROOM HARNESS
2G	B/R	TO ENGINE ROOM HARNESS
3G	W	TO ENGINE ROOM HARNESS
4G	BR/W	TO ENGINE ROOM HARNESS
5G	–	TO ENGINE ROOM HARNESS
6G	R/W	TO ENGINE ROOM HARNESS
7G	Y	TO ENGINE ROOM HARNESS
8G	G	TO ENGINE ROOM HARNESS
9G	R	TO ENGINE ROOM HARNESS
10G	W	TO ENGINE ROOM HARNESS
11G	R/G	TO ENGINE ROOM HARNESS
12G	W/B	TO ENGINE ROOM HARNESS
13G	BR	TO ENGINE ROOM HARNESS
14G	Y/B	TO ENGINE ROOM HARNESS
15G	G/W	TO ENGINE ROOM HARNESS
16G	G	TO ENGINE ROOM HARNESS
17G	O	TO ENGINE ROOM HARNESS
18G	G/Y	TO ENGINE ROOM HARNESS
19G	Y/V	TO ENGINE ROOM HARNESS
20G	G/Y	TO ENGINE ROOM HARNESS
21G	B/Y	TO ENGINE ROOM HARNESS
22G	G/R	TO ENGINE ROOM HARNESS
23G	Y/R	TO ENGINE ROOM HARNESS
24G	G/B	TO ENGINE ROOM HARNESS
25G	R/W	TO ENGINE ROOM HARNESS
26G	R	TO ENGINE ROOM HARNESS
27G	LG	TO ENGINE ROOM HARNESS
28G	G/B	TO ENGINE ROOM HARNESS
29G	G/B	TO ENGINE ROOM HARNESS
30G	BR/Y	TO ENGINE ROOM HARNESS
31G	R	TO ENGINE ROOM HARNESS
32G	R	TO ENGINE ROOM HARNESS
33G	Y/L	TO ENGINE ROOM HARNESS
34G	GR	TO ENGINE ROOM HARNESS
35G	G/R	TO ENGINE ROOM HARNESS
36G	SB	TO ENGINE ROOM HARNESS
37G	R/W	TO ENGINE ROOM HARNESS
38G	BR	TO ENGINE ROOM HARNESS
39G	BR	TO ENGINE ROOM HARNESS
40G	–	TO ENGINE ROOM HARNESS
41G	R/G	TO ENGINE ROOM HARNESS
42G	O	TO ENGINE ROOM HARNESS
43G	G	TO ENGINE ROOM HARNESS
44G	R/Y	TO ENGINE ROOM HARNESS
45G	G	TO ENGINE ROOM HARNESS
46G	LG	TO ENGINE ROOM HARNESS
47G	R	TO ENGINE ROOM HARNESS
48G	W	TO ENGINE ROOM HARNESS
49G	–	TO ENGINE ROOM HARNESS
50G	BR	TO ENGINE ROOM HARNESS
51G	R	TO ENGINE ROOM HARNESS
52G	L	TO ENGINE ROOM HARNESS
53G	W	TO ENGINE ROOM HARNESS
54G	W	TO ENGINE ROOM HARNESS
55G	G	TO ENGINE ROOM HARNESS
56G	W	TO ENGINE ROOM HARNESS
57G	Y	TO ENGINE ROOM HARNESS
58G	BG	TO ENGINE ROOM HARNESS
59G	BG	TO ENGINE ROOM HARNESS
60G	BG	TO ENGINE ROOM HARNESS
61G	O	TO ENGINE ROOM HARNESS
62G	W	TO ENGINE ROOM HARNESS
63G	O	TO ENGINE ROOM HARNESS
64G	W/L	TO ENGINE ROOM HARNESS
65G	W/R	TO ENGINE ROOM HARNESS
66G	BG	TO ENGINE ROOM HARNESS
67G	O	TO ENGINE ROOM HARNESS
68G	B	TO ENGINE ROOM HARNESS
69G	Y	TO ENGINE ROOM HARNESS
70G	L	TO ENGINE ROOM HARNESS
71G	R/W	TO ENGINE ROOM HARNESS
72G	L/W	TO ENGINE ROOM HARNESS
73G	SHIELD	TO ENGINE ROOM HARNESS
74G	W	TO ENGINE ROOM HARNESS
75G	R	TO ENGINE ROOM HARNESS
76G	R/G	TO ENGINE ROOM HARNESS
77G	BG	TO ENGINE ROOM HARNESS
78G	P	TO ENGINE ROOM HARNESS
79G	–	TO ENGINE ROOM HARNESS
80G	R	TO ENGINE ROOM HARNESS
81G	L	TO ENGINE ROOM HARNESS
82G	R	TO ENGINE ROOM HARNESS
83G	L	TO ENGINE ROOM HARNESS
84G	L	TO ENGINE ROOM HARNESS
85G	W	TO ENGINE ROOM HARNESS
86G	B/R	TO ENGINE ROOM HARNESS
87G	W	TO ENGINE ROOM HARNESS
88G	G	TO ENGINE ROOM HARNESS
89G	P	TO ENGINE ROOM HARNESS
90G	G	TO ENGINE ROOM HARNESS
91G	P	TO ENGINE ROOM HARNESS
92G	V/W	TO ENGINE ROOM HARNESS
93G	BR	TO ENGINE ROOM HARNESS
94G	B	TO ENGINE ROOM HARNESS
95G	G	TO ENGINE ROOM HARNESS
96G	R	TO ENGINE ROOM HARNESS
97G	R	TO ENGINE ROOM HARNESS
98G	W/B	TO ENGINE ROOM HARNESS
99G	R	TO ENGINE ROOM HARNESS
100G	GR/W	TO ENGINE ROOM HARNESS

Connector No.	M46
Connector Name	PUSH-BUTTON IGNITION SWITCH
Connector Type	TH08FW-NH
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
3	BG	BATTERY
4	B	GND
5	R	HIGH SIDE START SW LED
6	W	ILLUMINATION -
7	P	ACC LED
8	G	ENG START SW NO ESCL

Connector No.	M68
Connector Name	A/T SHIFT SELECTOR
Connector Type	TK08FW
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	B	GND
2	B	GND
3	L/R	SHIFT LOCK SOL OUT
4	R	SHIFT P
5	R/B	AT DEVICE OUT
6	LG	TOW MODE SW
7	BR	SHIFT UP
8	V/W	SHIFT DOWN

Connector No.	M69
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS10FW-CS
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1M	GR	IGNITION
2M	–	–
3M	–	–
4M	–	–
5M	R/Y	BATTERY
6M	R/W	TAIL LAMP 2
7M	–	–
8M	–	–
9M	–	–
10M	W/R	IGNITION

AAKIA4122GB

NVIS CONNECTORS

Connector No.	M70
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FBR-CS
Connector Color	BROWN

H.S.

7R	6R	5R	4R		3R	2R	1R	
16R	15R	14R	13R	12R	11R	10R	9R	8R

Terminal No.	Color of Wire	Signal Name
1R	L	TAIL LAMP 2
2R	G/R	IGNITION
3R	Y/R	BATTERY
4R	–	–
5R	W	BATTERY
6R	G/W	ACCESSORY
7R	–	–
8R	–	–
9R	–	–
10R	W	BATTERY
11R	–	–
12R	BG	BATTERY
13R	B	ACCESSORY
14R	G/Y	BATTERY
15R	Y	BATTERY
16R	G/R	ACCESSORY

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
105	G/Y	FR FLASHER
106	–	–
107	W	LOW SIDE START SW LED
108	L/R	SHIFT LOCK SOLENOID OUT
109	–	–
110	–	–
111	P	ACC LED
112	–	–
113	L	ACC RELAY OUT
114	W	AS DOOR ANT A
115	BG	AS DOOR ANT B
116	W	ROOM ANT 2 A
117	G/B	FL FLASHER
118	–	–
119	R	RF NIMOCO
120	–	–
121	G	DR DOOR ANT B
122	P	DR DOOR ANT A
123	W	ROOM ANT 1 A
124	G	ROOM ANT 1 B
125	–	–
126	P	IMMO START BUTTON ANT B
127	BG	IMMO START BUTTON ANT A
128	B	ROOM ANT 2 B

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

H.S.

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

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

Connector No.	M163
Connector Name	COMBINATION METER (WITH TYPE B)
Connector Type	TH40FW-NH
Connector Color	WHITE

H.S.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20				
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40				

Terminal No.	Color of Wire	Signal Name
1	B	GND (ILL)
2	B	GND (CIRCUIT)
3	B	GND (POWER)
4	–	–
5	–	–
6	R	BAT
7	V	SECURITY
8	W	IGN
9	BG	AS BELT SW (W/O ODS)
10	LG	TOW MODE SW
11	BR	CHG
12	B	SATELLITE SW GND
13	B	STRG SW GND
14	R	ACC
15	W	OUTSIDE TEMP SENSOR
16	O	AIR BAG
17	–	–
18	P	TRIP RESET SW
19	–	–
20	R	OUTSIDE TEMP GND
21	–	–
22	P	STRG SW A
23	R	STRG SW B
24	W	WASHER SW
25	–	–
26	G	PKB SW
27	P/L	AS BELT SW (WITH ODS)
28	O/B	DR BELT SW
29	–	–
30	Y/V	FUEL SENSOR GND
31	BR/Y	FUEL SENSOR
32	BR	AT SHIFT UP
33	V/W	AT SHIFT DOWN
34	L	CAN-H
35	P	CAN-L
36	W	ILL UP SW
37	R	ILL DOWN SW
38	G	8P/R OUTPUT
39	–	–
40	GR	ILL CONT OUT

Connector No.	M191
Connector Name	JOINT CONNECTOR-M01
Connector Type	NH24FW-J
Connector Color	WHITE

H.S.

4	3	2	1																				
8	7	6	5																				
12	11	10	9																				
16	15	14	13																				
20	19	18	17																				
24	23	22	21																				

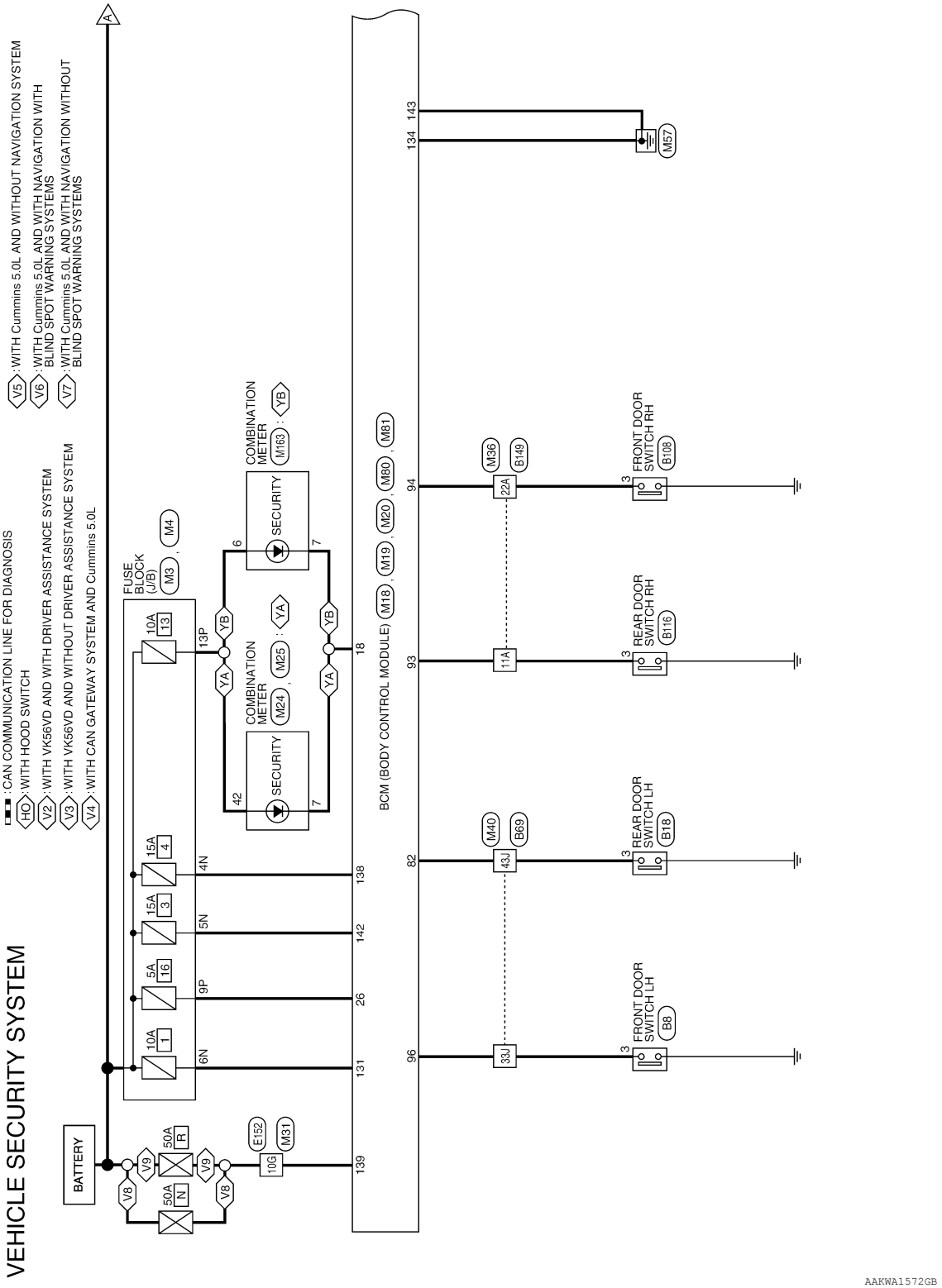
Terminal No.	Color of Wire	Signal Name
1	–	–
2	B	GND
3	B	GND
4	B	GROUND
5	–	–
6	B	GND
7	B	GND
8	B	GND
9	–	–
10	B	GND
11	B	GND
12	B	GND
13	B	GND
14	B	GND
15	B	GND
16	–	–
17	B	GND
18	B	GND
19	SHIELD	GROUND
20	B	GND
21	B	GND
22	B	GND
23	B	GROUND
24	B	GROUND

AAKIA4123GB

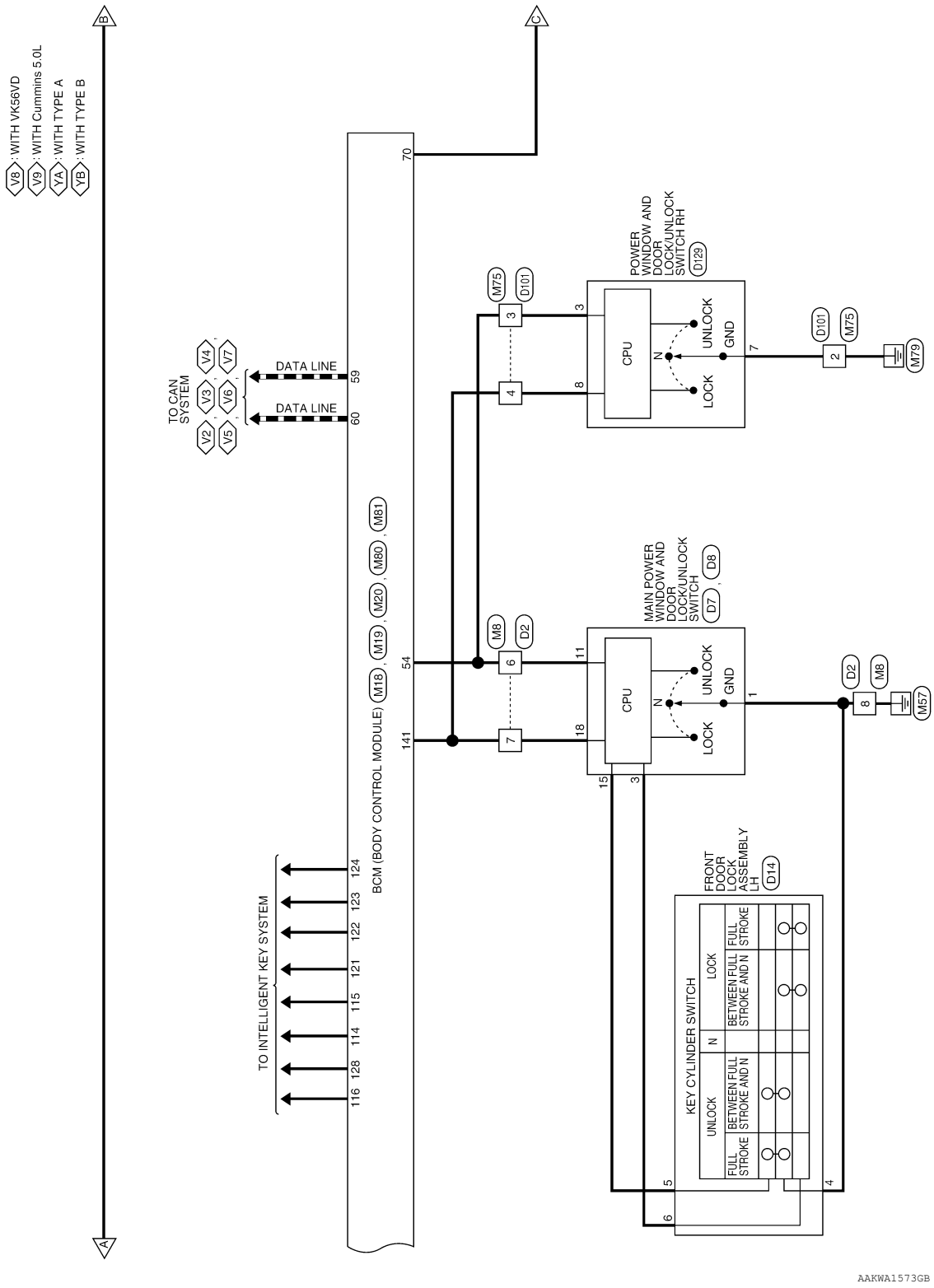
VEHICLE SECURITY SYSTEM

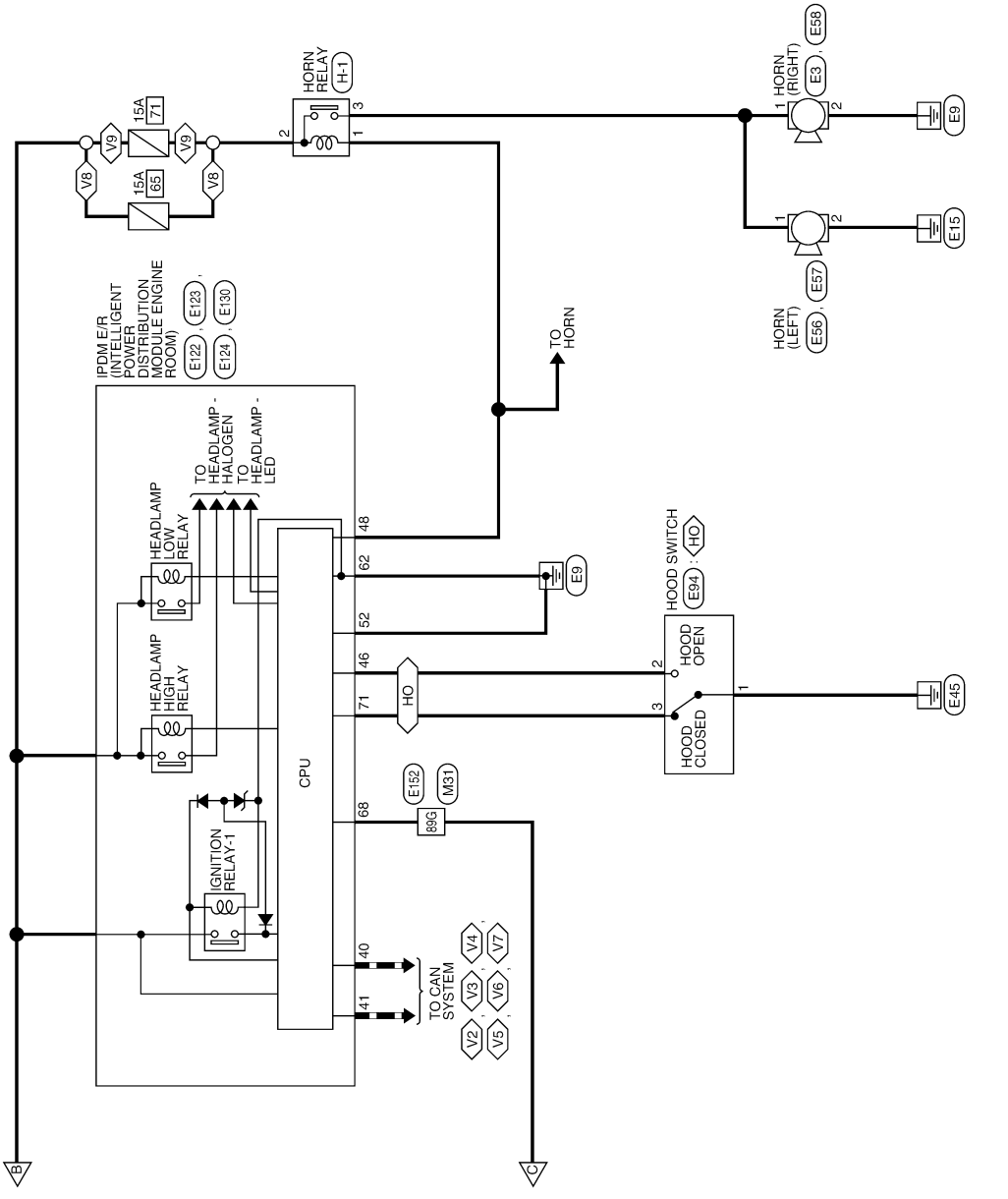
Wiring Diagram

INFOID:0000000014391294



AAKWA1572GB


V8 : WITH VK56VD
V9 : WITH Cummins 5.0L
YA : WITH TYPE A
YB : WITH TYPE B
TO CAN SYSTEM
DATA LINE
DATA LINE
BCM (BODY CONTROL MODULE)
TO INTELLIGENT KEY SYSTEM
POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH
MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH
FRONT DOOR LOCK ASSEMBLY LH
KEY CYLINDER SWITCH
CPU
UNLOCK
LOCK
GND
AAKWA1573GB


HORN RELAY
H-1
15A
71
15A
65
V9
V8
HORN (RIGHT)
E3
E58
E9
E15
HORN (LEFT)
E56
E57
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E123
E130
E122
E124
TO HORN
TO HEADLAMP - HALOGEN
TO HEADLAMP - LED
HEADLAMP LOW RELAY
HEADLAMP HIGH RELAY
IGNITION RELAY-1
CPU
HO
HOOD SWITCH
E94
HOOD OPEN
HOOD CLOSED
E45
E152
M31
89G
TO CAN SYSTEM
V4
V7
V3
V6
V2
V5
48
62
52
46
71
68
40
41
B
C
AAKWA1574GB

VEHICLE SECURITY SYSTEM CONNECTORS

Connector No.	B8
Connector Name	FRONT DOOR SWITCH LH
Connector Type	TH04FW-NH
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	–	–
2	–	–
3	L	DR DOOR SW
4	–	–

Connector No.	B18
Connector Name	REAR DOOR SWITCH LH
Connector Type	TH04FW-NH
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	–	–
2	–	–
3	SB	RL DOOR SW
4	–	–

Connector No.	B69
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1J	P	TO MAIN HARNESS
2J	R/Y	TO MAIN HARNESS
3J	L	TO MAIN HARNESS
4J	L/B	TO MAIN HARNESS
5J	G/W	TO MAIN HARNESS
6J	LG/Y	TO MAIN HARNESS
7J	BR/LG	TO MAIN HARNESS
8J	SB/BR	TO MAIN HARNESS
9J	BR	TO MAIN HARNESS
10J	BR	TO MAIN HARNESS
11J	O/B	TO MAIN HARNESS
12J	L	TO MAIN HARNESS
13J	SB/O	TO MAIN HARNESS
14J	Y	TO MAIN HARNESS
15J	–	TO MAIN HARNESS
16J	R	TO MAIN HARNESS
17J	G	TO MAIN HARNESS
18J	SB	TO MAIN HARNESS
19J	O	TO MAIN HARNESS
20J	O/B	TO MAIN HARNESS
21J	Y/R	TO MAIN HARNESS
22J	P	TO MAIN HARNESS
23J	W	TO MAIN HARNESS
24J	W/R	TO MAIN HARNESS
25J	V	TO MAIN HARNESS
26J	L	TO MAIN HARNESS
27J	R	TO MAIN HARNESS
28J	L	TO MAIN HARNESS
29J	G/O	TO MAIN HARNESS
30J	SB	TO MAIN HARNESS
31J	LG	TO MAIN HARNESS
32J	R	TO MAIN HARNESS
33J	L	TO MAIN HARNESS
34J	Y	TO MAIN HARNESS
35J	P	TO MAIN HARNESS
36J	G/R	TO MAIN HARNESS
37J	LG/B	TO MAIN HARNESS
38J	SB	TO MAIN HARNESS
39J	Y/L	TO MAIN HARNESS
40J	BR	TO MAIN HARNESS
41J	L	TO MAIN HARNESS
42J	L	TO MAIN HARNESS
43J	SB	TO MAIN HARNESS
44J	BR	TO MAIN HARNESS
45J	BG	TO MAIN HARNESS
46J	P/Y	TO MAIN HARNESS
47J	Y/GR	TO MAIN HARNESS
48J	V	TO MAIN HARNESS
49J	BR/Y	TO MAIN HARNESS
50J	G/W	TO MAIN HARNESS
51J	–	TO MAIN HARNESS
52J	SHIELD	TO MAIN HARNESS
53J	R	TO MAIN HARNESS
54J	L	TO MAIN HARNESS
55J	R	TO MAIN HARNESS
56J	W	TO MAIN HARNESS
57J	L/G	TO MAIN HARNESS
58J	O	TO MAIN HARNESS
59J	–	TO MAIN HARNESS
60J	SHIELD	TO MAIN HARNESS
61J	G	TO MAIN HARNESS
62J	–	TO MAIN HARNESS
63J	R/W	TO MAIN HARNESS
64J	L/W	TO MAIN HARNESS
65J	SHIELD	TO MAIN HARNESS
66J	B	TO MAIN HARNESS
67J	SHIELD	TO MAIN HARNESS
68J	O/L	TO MAIN HARNESS
69J	SHIELD	TO MAIN HARNESS
70J	BR	TO MAIN HARNESS
71J	L/W	TO MAIN HARNESS
72J	–	TO MAIN HARNESS
73J	–	TO MAIN HARNESS
74J	SHIELD	TO MAIN HARNESS
75J	LG/B	TO MAIN HARNESS
76J	R	TO MAIN HARNESS
77J	SHIELD	TO MAIN HARNESS
78J	GR/B	TO MAIN HARNESS
79J	B	TO MAIN HARNESS
80J	W	TO MAIN HARNESS
81J	SHIELD	TO MAIN HARNESS
82J	L/R	TO MAIN HARNESS
83J	–	TO MAIN HARNESS
84J	–	TO MAIN HARNESS
85J	Y/B	TO MAIN HARNESS
86J	G	TO MAIN HARNESS
87J	B/R	TO MAIN HARNESS
88J	SHIELD	TO MAIN HARNESS
89J	GR/R	TO MAIN HARNESS
90J	L	TO MAIN HARNESS
91J	L/B	TO MAIN HARNESS
92J	SB	TO MAIN HARNESS
93J	B	TO MAIN HARNESS
94J	L	TO MAIN HARNESS
95J	LG	TO MAIN HARNESS
96J	R	TO MAIN HARNESS
97J	B/Y	TO MAIN HARNESS
98J	L/B	TO MAIN HARNESS
99J	W/L	TO MAIN HARNESS
100J	SB	TO MAIN HARNESS

Connector No.	B108
Connector Name	FRONT DOOR SWITCH RH
Connector Type	TH04FW-NH
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	–	–
2	–	–
3	LG/R	AS DOOR SW
4	–	–

AAKIA4124GB

VEHICLE SECURITY SYSTEM CONNECTORS

Connector No.	B116
Connector Name	REAR DOOR SWITCH RH
Connector Type	TH04FW-NH
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	–	–
2	–	–
3	LG	RR DOOR SW
4	–	–

Connector No.	B149
Connector Name	WIRE TO WIRE
Connector Type	TH80MDGY-CS16-TM4
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
1A	SB/G	TO MAIN HARNESS -(WITHOUT CLIMATE CONTROLLED SEATS)
1A	SB	TO MAIN HARNESS -(WITH CLIMATE CONTROLLED SEATS)
2A	L	TO MAIN HARNESS
3A	V	TO MAIN HARNESS
4A	SB/R	TO MAIN HARNESS
5A	–	TO MAIN HARNESS

6A	LG/Y	TO MAIN HARNESS -(WITHOUT CLIMATE CONTROLLED SEATS)
6A	LG	TO MAIN HARNESS -(WITH CLIMATE CONTROLLED SEATS)
7A	W	TO MAIN HARNESS
8A	B	TO MAIN HARNESS
9A	L/B	TO MAIN HARNESS
10A	W	TO MAIN HARNESS
11A	LG	TO MAIN HARNESS
12A	BR/O	TO MAIN HARNESS
13A	Y/W	TO MAIN HARNESS
14A	R/G	TO MAIN HARNESS
15A	Y/L	TO MAIN HARNESS
16A	O/L	TO MAIN HARNESS
17A	L	TO MAIN HARNESS
18A	Y	TO MAIN HARNESS
19A	LG	TO MAIN HARNESS
20A	R	TO MAIN HARNESS
21A	BG	TO MAIN HARNESS
22A	LG/R	TO MAIN HARNESS
23A	Y/LG	TO MAIN HARNESS
24A	BR/Y	TO MAIN HARNESS
25A	–	TO MAIN HARNESS
26A	GR	TO MAIN HARNESS
27A	LG	TO MAIN HARNESS
28A	LG/B	TO MAIN HARNESS
29A	–	TO MAIN HARNESS
30A	BR	TO MAIN HARNESS
31A	W/R	TO MAIN HARNESS
32A	G/R	TO MAIN HARNESS
33A	–	TO MAIN HARNESS
34A	SHIELD	TO MAIN HARNESS
35A	P	TO MAIN HARNESS
36A	B	TO MAIN HARNESS
37A	–	TO MAIN HARNESS
38A	R/B	TO MAIN HARNESS
39A	G/O	TO MAIN HARNESS
40A	V	TO MAIN HARNESS
41A	SHIELD	TO MAIN HARNESS
42A	SHIELD	TO MAIN HARNESS
43A	R	TO MAIN HARNESS
44A	G	TO MAIN HARNESS
45A	–	TO MAIN HARNESS
46A	–	TO MAIN HARNESS
47A	Y	TO MAIN HARNESS
48A	R/W	TO MAIN HARNESS
49A	R/L	TO MAIN HARNESS
50A	B	TO MAIN HARNESS
51A	–	TO MAIN HARNESS
52A	–	TO MAIN HARNESS
53A	–	TO MAIN HARNESS
54A	–	TO MAIN HARNESS
55A	–	TO MAIN HARNESS
56A	–	TO MAIN HARNESS

57A	–	TO MAIN HARNESS
58A	–	TO MAIN HARNESS
59A	–	TO MAIN HARNESS
60A	G/W	TO MAIN HARNESS
61A	–	TO MAIN HARNESS
62A	–	TO MAIN HARNESS
63A	–	TO MAIN HARNESS
64A	–	TO MAIN HARNESS
65A	–	TO MAIN HARNESS
66A	–	TO MAIN HARNESS
67A	–	TO MAIN HARNESS
68A	–	TO MAIN HARNESS
69A	Y/R	TO MAIN HARNESS
70A	R/G	TO MAIN HARNESS
71A	–	TO MAIN HARNESS
72A	Y/B	TO MAIN HARNESS
73A	G	TO MAIN HARNESS
74A	B/R	TO MAIN HARNESS
75A	SHIELD	TO MAIN HARNESS
76A	GR/R	TO MAIN HARNESS
77A	L	TO MAIN HARNESS
78A	SHIELD	TO MAIN HARNESS
79A	Y	TO MAIN HARNESS
80A	L	TO MAIN HARNESS
81A	R	TO MAIN HARNESS
82A	SHIELD	TO MAIN HARNESS
83A	LG/B	TO MAIN HARNESS
84A	R	TO MAIN HARNESS
85A	SHIELD	TO MAIN HARNESS
86A	GR/B	TO MAIN HARNESS
87A	B	TO MAIN HARNESS
88A	W	TO MAIN HARNESS
89A	SHIELD	TO MAIN HARNESS
90A	G	TO MAIN HARNESS
91A	W/L	TO MAIN HARNESS
92A	BR	TO MAIN HARNESS
93A	L/Y	TO MAIN HARNESS
94A	R/L	TO MAIN HARNESS
95A	BR	TO MAIN HARNESS
96A	R	TO MAIN HARNESS
97A	LG	TO MAIN HARNESS
98A	B/V	TO MAIN HARNESS
99A	O/L	TO MAIN HARNESS
100A	BR/W	TO MAIN HARNESS

Connector No.	D2
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	B/W	TO MAIN HARNESS
2	G/B	TO MAIN HARNESS
3	L	TO MAIN HARNESS
4	R	TO MAIN HARNESS
5	W/R	TO MAIN HARNESS
6	W/L	TO MAIN HARNESS
7	V	TO MAIN HARNESS
8	B	TO MAIN HARNESS
9	L/W	TO MAIN HARNESS
10	L/R	TO MAIN HARNESS
11	L/W	TO MAIN HARNESS
12	L	TO MAIN HARNESS
13	Y	TO MAIN HARNESS
14	SB	TO MAIN HARNESS
15	V	TO MAIN HARNESS
16	LG	TO MAIN HARNESS

AAKIA4125GB

VEHICLE SECURITY SYSTEM CONNECTORS

Connector No.	D7
Connector Name	MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH
Connector Type	NS16FW-CS
Connector Color	WHITE

H.S.

7	6	5	4		3	2	1
8	9	10	11	12	13	14	15	16

Terminal No.	Color of Wire	Signal Name
1	B	GND
2	–	–
3	W/R	D LOCK ACTR DR
4	R	ENCODER SIG2
5	BG	ENCODER SIG1
6	SB	RR DN
7	V	RR UP
8	L	RL DN
9	Y	RL UP
10	LG	IGN
11	W/L	COM
12	B	ENCODER GND
13	–	–
14	P	ENCODER+
15	B/W	D LOCK ACTR DR
16	–	–

Connector No.	D8
Connector Name	MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH
Connector Type	NS03FW-CS
Connector Color	WHITE

H.S.

17	18	19

Terminal No.	Color of Wire	Signal Name
17	W	DR UP
18	V	BAT
19	R	DR DN

Connector No.	D14
Connector Name	FRONT DOOR LOCK ASSEMBLY LH
Connector Type	E06FGY-RS
Connector Color	GRAY

H.S.

1	2	3	4	5	6

Terminal No.	Color of Wire	Signal Name
1	L	DOOR LOCK DR/AS/FL
2	V	DOOR UNLOCK DR/AS/FL
3	LG	DR DOOR LOCK STATUS
4	B	GROUND
5	B/W	D LOCK ACTUATOR DR
6	W/R	D LOCK ACTUATOR DR

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS
Connector Color	WHITE

H.S.

4	3		2	1
10	9	8	7	6	5

Terminal No.	Color of Wire	Signal Name
1	B/W	TO MAIN HARNESS
2	B	TO MAIN HARNESS
3	W/L	TO MAIN HARNESS
4	V	TO MAIN HARNESS
5	W/B	TO MAIN HARNESS
6	G/Y	TO MAIN HARNESS
7	W/B	TO MAIN HARNESS
8	L/B	TO MAIN HARNESS
9	G/Y	TO MAIN HARNESS
10	–	TO MAIN HARNESS

Connector No.	D129
Connector Name	POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH
Connector Type	NS12FW-CS
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	–	–
2	–	–
3	W/L	COM
4	G/B	ENCODER GND
5	W	ENCODER +
6	–	–
7	B	GND
8	V	BAT
9	R/L	ENCODER SIG1
10	L/W	ENCODER SIG2
11	G	AS UP
12	L	AS DN

Connector No.	E3
Connector Name	HORN (RIGHT)
Connector Type	P01FB-A
Connector Color	BLACK

H.S.

1

Terminal No.	Color of Wire	Signal Name
1	G	HORN RELAY OUTPUT

Connector No.	E56
Connector Name	HORN (LEFT)
Connector Type	P01FB-A
Connector Color	BLACK

H.S.

2

Terminal No.	Color of Wire	Signal Name
2	B	GROUND

Connector No.	E57
Connector Name	HORN (LEFT)
Connector Type	P01FB-A
Connector Color	BLACK

H.S.

1

Terminal No.	Color of Wire	Signal Name
1	G	HORN RELAY OUTPUT

Connector No.	E58
Connector Name	HORN (RIGHT)
Connector Type	P01FB-A
Connector Color	BLACK

H.S.

2

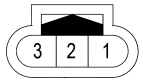
Terminal No.	Color of Wire	Signal Name
2	B	GROUND

AAKIA4126GB

VEHICLE SECURITY SYSTEM CONNECTORS

Connector No.	E94
Connector Name	HOOD SWITCH
Connector Type	RH03MB
Connector Color	BLACK

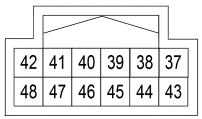
H.S.



Terminal No.	Color of Wire	Signal Name
1	B	GND
2	Y	HOOD SW
3	SB	HOOD SW 2

Connector No.	E122
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH12FW-NH
Connector Color	WHITE

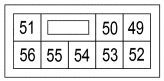
H.S.



Terminal No.	Color of Wire	Signal Name
37	–	–
38	–	–
39	L/Y	WIPER AUTO STOP SW
40	P	CAN-L
41	L	CAN-H
42	BR	DTRL RLY
43	–	–
44	W/B	START CONT
45	GR	FUEL RLY CONT
46	Y	HOOD SW
47	Y	ALT C - (WITH VK56VD)
48	R/W	HORN RLY CONT

Connector No.	E123
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS08FBR-CS
Connector Color	BROWN

H.S.



Terminal No.	Color of Wire	Signal Name
49	Y/B	A/C COMP - (WITH CUMMINS 5.0L)
49	GR/R	A/C COMP - (WITH VK56VD)
50	BR	TRAILER TOW
51	–	–
52	B	S-GND
53	–	–
54	–	–
55	–	–
56	–	–

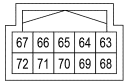
Connector No.	E124
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	M06FB-LC
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
57	W/B	RR DEF
58	BR	FUEL PUMP - (WITH CUMMINS 5.0L)
58	B/Y	FUEL PUMP - (WITH VK56VD)
59	–	–
60	–	–
61	–	–
62	B	P GND

Connector No.	E130
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH10FB-NH
Connector Color	BLACK

H.S.



Terminal No.	Color of Wire	Signal Name
63	–	–
64	R	DETENT SW
65	–	–
66	P	PUSH START SW
67	–	–
68	L	IGN SIGNAL
69	–	–
70	–	–
71	SB	HOOD SW2
72	W	E-CPLG - (WITH VK56VD)

AAKIA4127GB

VEHICLE SECURITY SYSTEM CONNECTORS

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1G	G	TO MAIN HARNESS
2G	B/R	TO MAIN HARNESS
3G	W/B	TO MAIN HARNESS
4G	BR/W	TO MAIN HARNESS
5G	BR	TO MAIN HARNESS
6G	P	TO MAIN HARNESS - (WITH VK56VD)
6G	R/W	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
7G	Y	TO MAIN HARNESS
8G	G	TO MAIN HARNESS
9G	R	TO MAIN HARNESS
10G	W	TO MAIN HARNESS
11G	R/G	TO MAIN HARNESS
12G	W/B	TO MAIN HARNESS
13G	BR	TO MAIN HARNESS
14G	Y/B	TO MAIN HARNESS
15G	G/W	TO MAIN HARNESS
16G	G	TO MAIN HARNESS
17G	G/Y	TO MAIN HARNESS
18G	G/Y	TO MAIN HARNESS
19G	Y/V	TO MAIN HARNESS
20G	G/Y	TO MAIN HARNESS
21G	B/Y	TO MAIN HARNESS
22G	G/R	TO MAIN HARNESS
23G	Y/R	TO MAIN HARNESS
24G	G/B	TO MAIN HARNESS
25G	R/W	TO MAIN HARNESS
26G	R	TO MAIN HARNESS
27G	LG	TO MAIN HARNESS
28G	G/B	TO MAIN HARNESS
29G	G/B	TO MAIN HARNESS
30G	BR/Y	TO MAIN HARNESS
31G	P	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
31G	R	TO MAIN HARNESS - (WITH VK56VD)
32G	P	TO MAIN HARNESS
33G	Y/L	TO MAIN HARNESS
34G	GR	TO MAIN HARNESS
35G	G/R	TO MAIN HARNESS
36G	SB	TO MAIN HARNESS
37G	R/W	TO MAIN HARNESS
38G	BR	TO MAIN HARNESS
39G	BR	TO MAIN HARNESS
40G	–	TO MAIN HARNESS
41G	R/G	TO MAIN HARNESS
42G	O	TO MAIN HARNESS
43G	B	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
43G	G	TO MAIN HARNESS - (WITH VK56VD)
44G	R/Y	TO MAIN HARNESS
45G	G	TO MAIN HARNESS
46G	LG	TO MAIN HARNESS
47G	R	TO MAIN HARNESS
48G	W	TO MAIN HARNESS
49G	–	TO MAIN HARNESS
50G	BR	TO MAIN HARNESS
51G	R	TO MAIN HARNESS
52G	L	TO MAIN HARNESS
53G	W	TO MAIN HARNESS
54G	W	TO MAIN HARNESS
55G	G	TO MAIN HARNESS
56G	W	TO MAIN HARNESS
57G	Y	TO MAIN HARNESS
58G	BG	TO MAIN HARNESS
59G	BG	TO MAIN HARNESS
60G	BG	TO MAIN HARNESS
61G	B	TO MAIN HARNESS
62G	W	TO MAIN HARNESS
63G	R	TO MAIN HARNESS
64G	W/L	TO MAIN HARNESS
65G	W/R	TO MAIN HARNESS
66G	BG	TO MAIN HARNESS
67G	BG	TO MAIN HARNESS
68G	B	TO MAIN HARNESS
69G	Y	TO MAIN HARNESS
70G	L	TO MAIN HARNESS
71G	R/W	TO MAIN HARNESS
72G	L/W	TO MAIN HARNESS
73G	SHIELD	TO MAIN HARNESS
74G	W	TO MAIN HARNESS
75G	R	TO MAIN HARNESS
76G	R/G	TO MAIN HARNESS
77G	G	TO MAIN HARNESS
78G	W	TO MAIN HARNESS
79G	–	TO MAIN HARNESS
80G	R	TO MAIN HARNESS
81G	L	TO MAIN HARNESS
82G	R	TO MAIN HARNESS
83G	L	TO MAIN HARNESS
84G	L	TO MAIN HARNESS
85G	W/B	TO MAIN HARNESS
86G	B/R	TO MAIN HARNESS
87G	W/B	TO MAIN HARNESS
88G	P	TO MAIN HARNESS
89G	L	TO MAIN HARNESS
90G	G	TO MAIN HARNESS
91G	G	TO MAIN HARNESS
92G	V/W	TO MAIN HARNESS
93G	BR	TO MAIN HARNESS
94G	G	TO MAIN HARNESS
95G	G	TO MAIN HARNESS
96G	W	TO MAIN HARNESS
97G	R	TO MAIN HARNESS
98G	W/B	TO MAIN HARNESS
99G	BR	TO MAIN HARNESS
100G	GR/W	TO MAIN HARNESS

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	CS06FW-M2
Connector Color	WHITE

H.S.

3N		2N	1N
8N	7N	6N	5N	4N

Terminal No.	Color of Wire	Signal Name
1N	–	–
2N	W	BATTERY
3N	W	BLOWER FAN RELAY OUT
4N	V	BATTERY
5N	Y	BATTERY
6N	W	BATTERY
7N	L	ACC RELAY OUT
8N	W	IGNITION

Connector No.	M4
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FW-CS
Connector Color	WHITE

H.S.

7P	6P	5P	4P		3P	2P	1P
16P	15P	14P	13P	12P	11P	10P	9P	8P

Terminal No.	Color of Wire	Signal Name
1P	R	IGNITION
2P	Y	IGNITION
3P	G	IGNITION RELAY OUT
4P	B/W	RR DEF RLY
5P	B/W	RR DEF RLY
6P	O	RR DEF RLY OUT
7P	G	IGNITION
8P	W	IGNITION
9P	L	BATTERY
10P	–	–
11P	–	–
12P	–	–
13P	R	BATTERY
14P	Y	BATTERY
15P	Y/LG	BATTERY
16P	W	BLOWER FAN RELAY OUT

AAKIA4128GB

VEHICLE SECURITY SYSTEM CONNECTORS

Connector No.	M8
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS
Connector Color	WHITE

H.S.

1	2	3		4	5	6	7	
8	9	10	11	12	13	14	15	16

Terminal No.	Color of Wire	Signal Name
1	B/W	TO FRONT DOOR LH HARNESS
2	G/B	TO FRONT DOOR LH HARNESS
3	L	TO FRONT DOOR LH HARNESS
4	R	TO FRONT DOOR LH HARNESS
5	W/R	TO FRONT DOOR LH HARNESS
6	W/L	TO FRONT DOOR LH HARNESS
7	V	TO FRONT DOOR LH HARNESS
8	B	TO FRONT DOOR LH HARNESS
9	L/W	TO FRONT DOOR LH HARNESS
10	L/R	TO FRONT DOOR LH HARNESS
11	L/W	TO FRONT DOOR LH HARNESS
12	L	TO FRONT DOOR LH HARNESS
13	Y	TO FRONT DOOR LH HARNESS
14	SB	TO FRONT DOOR LH HARNESS
15	V	TO FRONT DOOR LH HARNESS
16	LG	TO FRONT DOOR LH HARNESS

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

H.S.

20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21

Terminal No.	Color of Wire	Signal Name
1	G	ENG START SW NO ESCL
2	–	–
3	R	A/L POWER SUPPLY 5V
4	W/R	A/L SIGNAL
5	–	–
6	–	–

AAKIA4129GB

7	–	–
8	–	–
9	–	–
10	SB	COMBI SW IN 5
11	G/Y	COMBI SW IN 4
12	Y	COMBI SW IN 3
13	G/B	COMBI SW IN 2
14	V	COMBI SW IN 1
15	–	–
16	–	–
17	P	GND RF A/L
18	V	SECURITY INDICATOR
19	–	–
20	R	SHIFT P
21	R/W	STEP LAMP CONT
22	–	–
23	Y	AIRCON SW
24	–	–
25	W	BRAKE SW FUSE
26	L	SHORT IN PIN INPUT
27	R/G	BRAKE SW LAMP
28	–	–
29	W	BLOWER FAN SW
30	P	DR DOOR LOCK STATUS
31	–	–
32	Y	REAR DEFOGGER SW
33	–	–
34	–	
35	R/G	REVERSE SW
36	W/B	HAZARD SW
37	–	–
38	–	–
39	B/R	SHIFT N/P
40	–	–

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

H.S.

60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41
80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61

Terminal No.	Color of Wire	Signal Name
41	Y/L	TRAILER LIGHT CHECK RELAY OUT
42	R/Y	CARGO LAMP OUT

43	–	–
44	–	–
45	–	–
46	–	–
47	–	–
48	R	HIGH SIDE START SW LED
49	–	–
50	–	–
51	–	–
52	W	AUDIO DONGLE
53	–	–
54	W/L	PW UART
55	W/B	L&R SENSOR K-LINE
56	–	–
57	–	–
58	–	–
59	P	CAN-L
60	L	CAN-H
61	O	REAR DEFOGGER RELAY OUT
62	W	STARTER RELAY OUT
63	–	–
64	P	BUZZER OUT
65	–	–
66	W	BLOWER FAN RELAY OUT
67	G	IGN ELEC RELAY OUT 2
68	L	MR OUTPUT
69	R/B	AT DEVICE OUT
70	P	IGN USM OUT 1
71	O	DR REQUEST SW
72	G	AS REQUEST SW
73	–	–
74	–	–
75	L/W	COMBI SW OUT 5
76	P	COMBI SW OUT 4
77	L	COMBI SW OUT 3
78	O/B	COMBI SW OUT 2
79	R/W	COMBI SW OUT 1
80	–	–

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

H.S.

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

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

VEHICLE SECURITY SYSTEM CONNECTORS

Connector No.	M24
Connector Name	COMBINATION METER (WITH TYPE A)
Connector Type	TH40FW-NH
Connector Color	WHITE

H.S.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name
1	B	GND(STRG/SATELLITE SW GND)
2	–	–
3	–	–
4	–	–
5	–	–
6	–	–
7	V	SECURITY
8	–	–
9	BG	AS BELT SW (W/O ODS)
10	LG	TOW MODE SW
11	BR	CHG
12	BR	LED HEAD LAMP (R)
13	W	LED HEAD LAMP (L)
14	R	ACC SW
15	W	OUTSIDE TEMP SENSOR (WITH VK56VD)
16	O	AIR BAG
17	–	–
18	P	TRIP RESET SW
19	–	–
20	R	OUTSIDE TEMP GND (WITH VK56VD)
21	–	–
22	P	STRG SW A
23	R	STRG SW B
24	W	WASHER SW
25	–	–
26	G	PKB SW
27	P/L	AS BELT SW (WITH ODS)
28	O/B	DR BELT SW
29	–	–
30	–	–
31	–	–
32	BR	AT SHIFT UP
33	V/W	AT SHIFT DOWN
34	–	–
35	–	–
36	W	ILL UP SW
37	R	ILL DOWN SW
38	G	8P/R OUTPUT
39	–	–
40	–	–

Connector No.	M25
Connector Name	COMBINATION METER (WITH TYPE A)
Connector Type	TH12FW-NH
Connector Color	WHITE

H.S.

46	45	44	43	42	41
52	51	50	49	48	47

Terminal No.	Color of Wire	Signal Name
41	W	IGN
42	R	BAT
43	Y/V	FUEL SENSOR GND
44	GR	ILL CONT OUTPUT
45	P	CAN-L
46	L	CAN-H
47	B	G1
48	BR/Y	FUEL SENSOR
49	–	–
50	–	–
51	LG	M CAN-L
52	SB	M CAN-H

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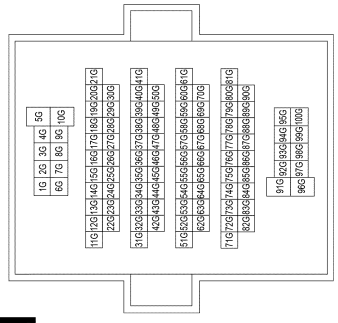
VEHICLE SECURITY SYSTEM CONNECTORS

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1G	G	TO ENGINE ROOM HARNESS
2G	B/R	TO ENGINE ROOM HARNESS
3G	W	TO ENGINE ROOM HARNESS
4G	BR/W	TO ENGINE ROOM HARNESS
5G	–	TO ENGINE ROOM HARNESS
6G	R/W	TO ENGINE ROOM HARNESS
7G	Y	TO ENGINE ROOM HARNESS
8G	G	TO ENGINE ROOM HARNESS
9G	R	TO ENGINE ROOM HARNESS
10G	W	TO ENGINE ROOM HARNESS
11G	R/G	TO ENGINE ROOM HARNESS
12G	W/B	TO ENGINE ROOM HARNESS
13G	BR	TO ENGINE ROOM HARNESS
14G	Y/B	TO ENGINE ROOM HARNESS
15G	G/W	TO ENGINE ROOM HARNESS
16G	G	TO ENGINE ROOM HARNESS
17G	O	TO ENGINE ROOM HARNESS
18G	G/Y	TO ENGINE ROOM HARNESS
19G	Y/V	TO ENGINE ROOM HARNESS
20G	G/Y	TO ENGINE ROOM HARNESS
21G	B/Y	TO ENGINE ROOM HARNESS
22G	G/R	TO ENGINE ROOM HARNESS
23G	Y/R	TO ENGINE ROOM HARNESS
24G	G/B	TO ENGINE ROOM HARNESS
25G	R/W	TO ENGINE ROOM HARNESS
26G	R	TO ENGINE ROOM HARNESS
27G	LG	TO ENGINE ROOM HARNESS
28G	G/B	TO ENGINE ROOM HARNESS
29G	G/B	TO ENGINE ROOM HARNESS
30G	BR/Y	TO ENGINE ROOM HARNESS
31G	R	TO ENGINE ROOM HARNESS
32G	R	TO ENGINE ROOM HARNESS
33G	Y/L	TO ENGINE ROOM HARNESS
34G	GR	TO ENGINE ROOM HARNESS
35G	G/R	TO ENGINE ROOM HARNESS
36G	SB	TO ENGINE ROOM HARNESS
37G	R/W	TO ENGINE ROOM HARNESS
38G	BR	TO ENGINE ROOM HARNESS
39G	BR	TO ENGINE ROOM HARNESS
40G	–	TO ENGINE ROOM HARNESS
41G	R/G	TO ENGINE ROOM HARNESS
42G	O	TO ENGINE ROOM HARNESS
43G	G	TO ENGINE ROOM HARNESS
44G	R/Y	TO ENGINE ROOM HARNESS
45G	G	TO ENGINE ROOM HARNESS
46G	LG	TO ENGINE ROOM HARNESS
47G	R	TO ENGINE ROOM HARNESS
48G	W	TO ENGINE ROOM HARNESS
49G	–	TO ENGINE ROOM HARNESS
50G	BR	TO ENGINE ROOM HARNESS
51G	R	TO ENGINE ROOM HARNESS
52G	L	TO ENGINE ROOM HARNESS
53G	W	TO ENGINE ROOM HARNESS
54G	W	TO ENGINE ROOM HARNESS
55G	G	TO ENGINE ROOM HARNESS
56G	W	TO ENGINE ROOM HARNESS
57G	Y	TO ENGINE ROOM HARNESS
58G	BG	TO ENGINE ROOM HARNESS
59G	BG	TO ENGINE ROOM HARNESS
60G	BG	TO ENGINE ROOM HARNESS
61G	O	TO ENGINE ROOM HARNESS
62G	W	TO ENGINE ROOM HARNESS
63G	O	TO ENGINE ROOM HARNESS
64G	W/L	TO ENGINE ROOM HARNESS
65G	W/R	TO ENGINE ROOM HARNESS
66G	BG	TO ENGINE ROOM HARNESS
67G	O	TO ENGINE ROOM HARNESS
68G	B	TO ENGINE ROOM HARNESS
69G	Y	TO ENGINE ROOM HARNESS
70G	L	TO ENGINE ROOM HARNESS
71G	R/W	TO ENGINE ROOM HARNESS
72G	L/W	TO ENGINE ROOM HARNESS
73G	SHIELD	TO ENGINE ROOM HARNESS
74G	W	TO ENGINE ROOM HARNESS
75G	R	TO ENGINE ROOM HARNESS
76G	R/G	TO ENGINE ROOM HARNESS
77G	BG	TO ENGINE ROOM HARNESS
78G	P	TO ENGINE ROOM HARNESS
79G	–	TO ENGINE ROOM HARNESS
80G	R	TO ENGINE ROOM HARNESS
81G	L	TO ENGINE ROOM HARNESS
82G	R	TO ENGINE ROOM HARNESS
83G	L	TO ENGINE ROOM HARNESS
84G	L	TO ENGINE ROOM HARNESS
85G	W	TO ENGINE ROOM HARNESS
86G	B/R	TO ENGINE ROOM HARNESS
87G	W	TO ENGINE ROOM HARNESS
88G	G	TO ENGINE ROOM HARNESS
89G	P	TO ENGINE ROOM HARNESS
90G	G	TO ENGINE ROOM HARNESS
91G	P	TO ENGINE ROOM HARNESS
92G	V/W	TO ENGINE ROOM HARNESS
93G	BR	TO ENGINE ROOM HARNESS
94G	B	TO ENGINE ROOM HARNESS
95G	G	TO ENGINE ROOM HARNESS
96G	R	TO ENGINE ROOM HARNESS
97G	R	TO ENGINE ROOM HARNESS
98G	W/B	TO ENGINE ROOM HARNESS
99G	R	TO ENGINE ROOM HARNESS
100G	GR/W	TO ENGINE ROOM HARNESS

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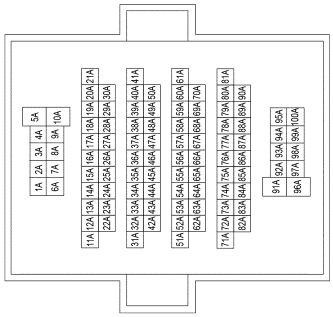
VEHICLE SECURITY SYSTEM CONNECTORS

Connector No.	M36
Connector Name	WIRE TO WIRE
Connector Type	TH80FDGY-CS16-TM4
Connector Color	GRAY

H.S.



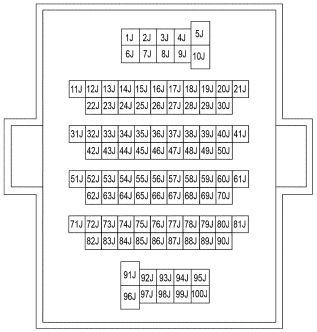
Terminal No.	Color of Wire	Signal Name
1A	W	TO BODY NO. 2 HARNESS
2A	LG	TO BODY NO. 2 HARNESS
3A	V	TO BODY NO. 2 HARNESS
4A	SB	TO BODY NO. 2 HARNESS
5A	–	TO BODY NO. 2 HARNESS
6A	BG	TO BODY NO. 2 HARNESS - (WITH CLIMATE CONTROLLED SEAT)
6A	LG	TO BODY NO. 2 HARNESS - (WITHOUT CLIMATE CONTROLLED SEAT)
7A	W	TO BODY NO. 2 HARNESS
8A	B	TO BODY NO. 2 HARNESS
9A	L/B	TO BODY NO. 2 HARNESS
10A	W	TO BODY NO. 2 HARNESS
11A	R	TO BODY NO. 2 HARNESS
12A	BR	TO BODY NO. 2 HARNESS
13A	G	TO BODY NO. 2 HARNESS
14A	R/G	TO BODY NO. 2 HARNESS
15A	O	TO BODY NO. 2 HARNESS
16A	O/L	TO BODY NO. 2 HARNESS
17A	L	TO BODY NO. 2 HARNESS
18A	Y	TO BODY NO. 2 HARNESS
19A	B/W	TO BODY NO. 2 HARNESS
20A	R	TO BODY NO. 2 HARNESS
21A	BG	TO BODY NO. 2 HARNESS
22A	G	TO BODY NO. 2 HARNESS
23A	Y	TO BODY NO. 2 HARNESS
24A	L	TO BODY NO. 2 HARNESS
25A	–	TO BODY NO. 2 HARNESS
26A	GR	TO BODY NO. 2 HARNESS
27A	LG	TO BODY NO. 2 HARNESS
28A	LG	TO BODY NO. 2 HARNESS
29A	GR	TO BODY NO. 2 HARNESS
30A	BR	TO BODY NO. 2 HARNESS
31A	W/R	TO BODY NO. 2 HARNESS
32A	G/R	TO BODY NO. 2 HARNESS
33A	–	TO BODY NO. 2 HARNESS
34A	SHIELD	TO BODY NO. 2 HARNESS
35A	P	TO BODY NO. 2 HARNESS
36A	B	TO BODY NO. 2 HARNESS
37A	–	TO BODY NO. 2 HARNESS
38A	R/B	TO BODY NO. 2 HARNESS
39A	G/O	TO BODY NO. 2 HARNESS
40A	V	TO BODY NO. 2 HARNESS
41A	SHIELD	TO BODY NO. 2 HARNESS
42A	SHIELD	TO BODY NO. 2 HARNESS
43A	R	TO BODY NO. 2 HARNESS
44A	G	TO BODY NO. 2 HARNESS
45A	–	TO BODY NO. 2 HARNESS
46A	–	TO BODY NO. 2 HARNESS
47A	Y	TO BODY NO. 2 HARNESS
48A	R/W	TO BODY NO. 2 HARNESS
49A	R/L	TO BODY NO. 2 HARNESS
50A	B	TO BODY NO. 2 HARNESS
51A	–	TO BODY NO. 2 HARNESS
52A	–	TO BODY NO. 2 HARNESS
53A	–	TO BODY NO. 2 HARNESS
54A	–	TO BODY NO. 2 HARNESS
55A	–	TO BODY NO. 2 HARNESS
56A	–	TO BODY NO. 2 HARNESS
57A	–	TO BODY NO. 2 HARNESS
58A	–	TO BODY NO. 2 HARNESS
59A	–	TO BODY NO. 2 HARNESS
60A	G/W	TO BODY NO. 2 HARNESS
61A	–	TO BODY NO. 2 HARNESS
62A	–	TO BODY NO. 2 HARNESS
63A	–	TO BODY NO. 2 HARNESS
64A	–	TO BODY NO. 2 HARNESS
65A	–	TO BODY NO. 2 HARNESS
66A	–	TO BODY NO. 2 HARNESS
67A	–	TO BODY NO. 2 HARNESS
68A	–	TO BODY NO. 2 HARNESS
69A	Y/R	TO BODY NO. 2 HARNESS
70A	R/G	TO BODY NO. 2 HARNESS
71A	–	TO BODY NO. 2 HARNESS
72A	W	TO BODY NO. 2 HARNESS
73A	G	TO BODY NO. 2 HARNESS
74A	W	TO BODY NO. 2 HARNESS
75A	SHIELD	TO BODY NO. 2 HARNESS
76A	R	TO BODY NO. 2 HARNESS
77A	L	TO BODY NO. 2 HARNESS
78A	SHIELD	TO BODY NO. 2 HARNESS
79A	GR	TO BODY NO. 2 HARNESS
80A	V	TO BODY NO. 2 HARNESS
81A	R	TO BODY NO. 2 HARNESS
82A	SHIELD	TO BODY NO. 2 HARNESS
83A	R	TO BODY NO. 2 HARNESS
84A	O	TO BODY NO. 2 HARNESS
85A	SHIELD	TO BODY NO. 2 HARNESS
86A	W	TO BODY NO. 2 HARNESS
87A	B	TO BODY NO. 2 HARNESS
88A	W	TO BODY NO. 2 HARNESS
89A	SHIELD	TO BODY NO. 2 HARNESS
90A	G	TO BODY NO. 2 HARNESS
91A	W/L	TO BODY NO. 2 HARNESS
92A	BR	TO BODY NO. 2 HARNESS
93A	L/Y	TO BODY NO. 2 HARNESS
94A	R/L	TO BODY NO. 2 HARNESS
95A	BR	TO BODY NO. 2 HARNESS
96A	R	TO BODY NO. 2 HARNESS
97A	LG	TO BODY NO. 2 HARNESS
98A	B/V	TO BODY NO. 2 HARNESS
99A	O/L	TO BODY NO. 2 HARNESS
100A	BR/W	TO BODY NO. 2 HARNESS

AAKIA4132GB

VEHICLE SECURITY SYSTEM CONNECTORS

Connector No.	M40
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4
Connector Color	WHITE

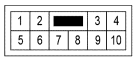
H.S.



Terminal No.	Color of Wire	Signal Name
1J	G	TO BODY HARNESS
2J	R/Y	TO BODY HARNESS
3J	L	TO BODY HARNESS
4J	L/B	TO BODY HARNESS
5J	B	TO BODY HARNESS
6J	BR	TO BODY HARNESS
7J	BG	TO BODY HARNESS
8J	SB	TO BODY HARNESS
9J	BR	TO BODY HARNESS
10J	R	TO BODY HARNESS
11J	O/B	TO BODY HARNESS
12J	L	TO BODY HARNESS
13J	W	TO BODY HARNESS
14J	Y	TO BODY HARNESS
15J	–	TO BODY HARNESS
16J	R	TO BODY HARNESS
17J	G	TO BODY HARNESS
18J	SB	TO BODY HARNESS
19J	O	TO BODY HARNESS
20J	O/B	TO BODY HARNESS
21J	Y	TO BODY HARNESS
22J	P	TO BODY HARNESS
23J	W	TO BODY HARNESS
24J	W/R	TO BODY HARNESS
25J	P	TO BODY HARNESS
26J	L	TO BODY HARNESS
27J	R	TO BODY HARNESS
28J	L	TO BODY HARNESS
29J	G/O	TO BODY HARNESS
30J	SB	TO BODY HARNESS
31J	L/G	TO BODY HARNESS
32J	R	TO BODY HARNESS
33J	BG	TO BODY HARNESS
34J	Y	TO BODY HARNESS
35J	P	TO BODY HARNESS
36J	G/R	TO BODY HARNESS
37J	LG	TO BODY HARNESS
38J	SB	TO BODY HARNESS
39J	Y	TO BODY HARNESS
40J	SB	TO BODY HARNESS
41J	L	TO BODY HARNESS
42J	L	TO BODY HARNESS
43J	W	TO BODY HARNESS
44J	BR	TO BODY HARNESS
45J	BG	TO BODY HARNESS
46J	P	TO BODY HARNESS
47J	O	TO BODY HARNESS
48J	V	TO BODY HARNESS
49J	BR	TO BODY HARNESS
50J	G/W	TO BODY HARNESS
51J	–	TO BODY HARNESS
52J	SHIELD	TO BODY HARNESS
53J	R	TO BODY HARNESS
54J	L	TO BODY HARNESS
55J	R	TO BODY HARNESS
56J	W	TO BODY HARNESS
57J	R	TO BODY HARNESS
58J	B	TO BODY HARNESS
59J	–	TO BODY HARNESS
60J	SHIELD	TO BODY HARNESS
61J	G	TO BODY HARNESS
62J	–	TO BODY HARNESS
63J	R/W	TO BODY HARNESS
64J	L/W	TO BODY HARNESS
65J	SHIELD	TO BODY HARNESS
66J	B	TO BODY HARNESS
67J	SHIELD	TO BODY HARNESS
68J	W	TO BODY HARNESS
69J	SHIELD	TO BODY HARNESS
70J	B/R	TO BODY HARNESS
71J	L/W	TO BODY HARNESS
72J	–	TO BODY HARNESS
73J	–	TO BODY HARNESS
74J	SHIELD	TO BODY HARNESS
75J	R	TO BODY HARNESS
76J	O	TO BODY HARNESS
77J	SHIELD	TO BODY HARNESS
78J	W	TO BODY HARNESS
79J	B	TO BODY HARNESS
80J	W	TO BODY HARNESS
81J	SHIELD	TO BODY HARNESS
82J	L/R	TO BODY HARNESS
83J	–	TO BODY HARNESS
84J	–	TO BODY HARNESS
85J	W	TO BODY HARNESS
86J	G	TO BODY HARNESS
87J	W	TO BODY HARNESS
88J	SHIELD	TO BODY HARNESS
89J	R	TO BODY HARNESS
90J	L	TO BODY HARNESS
91J	L/B	TO BODY HARNESS
92J	SB	TO BODY HARNESS
93J	B	TO BODY HARNESS
94J	LG	TO BODY HARNESS
95J	L	TO BODY HARNESS
96J	G	TO BODY HARNESS
97J	B/Y	TO BODY HARNESS
98J	L/B	TO BODY HARNESS
99J	W/L	TO BODY HARNESS
100J	Y	TO BODY HARNESS

Connector No.	M75
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS
Connector Color	WHITE

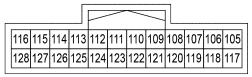
H.S.



Terminal No.	Color of Wire	Signal Name
1	B/W	TO FRONT DOOR RH HARNESS
2	B	TO FRONT DOOR RH HARNESS
3	W/L	TO FRONT DOOR RH HARNESS
4	V	TO FRONT DOOR RH HARNESS
5	W/B	TO FRONT DOOR RH HARNESS
6	G/Y	TO FRONT DOOR RH HARNESS
7	W/B	TO FRONT DOOR RH HARNESS
8	L/B	TO FRONT DOOR RH HARNESS
9	G/Y	TO FRONT DOOR RH HARNESS
10	–	TO FRONT DOOR RH HARNESS

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

H.S.



Terminal No.	Color of Wire	Signal Name
105	G/Y	FR FLASHER
106	–	–
107	W	LOW SIDE START SW LED
108	L/R	SHIFT LOCK SOLENOID OUT
109	–	–
110	–	–
111	P	ACC LED
112	–	–
113	L	ACC RELAY OUT
114	W	AS DOOR ANT A
115	BG	AS DOOR ANT B
116	W	ROOM ANT 2 A
117	G/B	FL FLASHER
118	–	–
119	R	RF NIMOCO
120	–	–
121	G	DR DOOR ANT B
122	P	DR DOOR ANT A
123	W	ROOM ANT 1 A
124	G	ROOM ANT 1 B
125	–	–
126	P	IMMO START BUTTON ANT B
127	BG	IMMO START BUTTON ANT A
128	B	ROOM ANT 2 B

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VEHICLE SECURITY SYSTEM CONNECTORS

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

H.S.

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

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

7	V	SECURITY
8	W	IGN
9	BG	AS BELT SW (W/O ODS)
10	LG	TOW MODE SW
11	BR	CHG
12	B	SATELLITE SW GND
13	B	STRG SW GND
14	R	ACC
15	W	OUTSIDE TEMP SENSOR
16	O	AIR BAG
17	–	–
18	P	TRIP RESET SW
19	–	–
20	R	OUTSIDE TEMP GND
21	–	–
22	P	STRG SW A
23	R	STRG SW B
24	W	WASHER SW
25	–	–
26	G	PKB SW
27	P/L	AS BELT SW (WITH ODS)
28	O/B	DR BELT SW
29	–	–
30	Y/V	FUEL SENSOR GND
31	BR/Y	FUEL SENSOR
32	BR	AT SHIFT UP
33	V/W	AT SHIFT DOWN
34	L	CAN-H
35	P	CAN-L
36	W	ILL UP SW
37	R	ILL DOWN SW
38	G	8P/R OUTPUT
39	–	–
40	GR	ILL CONT OUT

Connector No.	M163
Connector Name	COMBINATION METER (WITH TYPE B)
Connector Type	TH40FW-NH
Connector Color	WHITE

H.S.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name
1	B	GND (ILL)
2	B	GND (CIRCUIT)
3	B	GND (POWER)
4	–	–
5	–	–
6	R	BAT

AAKIA4134GB

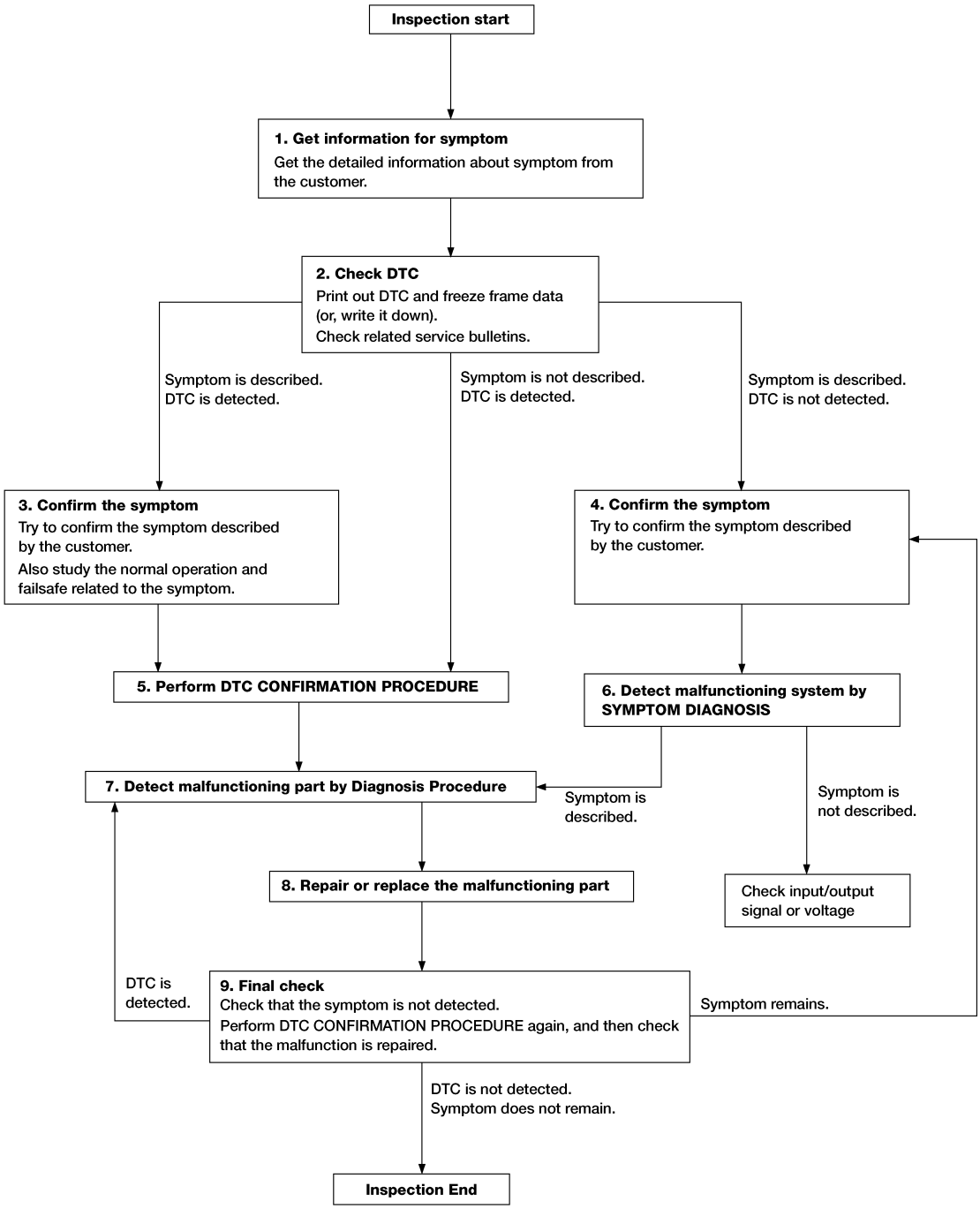
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:0000000014391295

OVERALL SEQUENCE



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DETAILED FLOW

1.GET INFORMATION FOR SYMPTOM

1. Get detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurs).
2. Check operation condition of the function that is malfunctioning.

>> GO TO 2.

2.CHECK DTC

1. Check DTC.
2. Perform the following procedure if DTC is detected.

- Record DTC and freeze frame data (Print them out using CONSULT.)
- Erase DTC.
- Study the relationship between the cause detected by DTC and the symptom described by the customer.

3. Check related service bulletins for information.

Are any symptoms described and any DTC detected?

Symptom is described, DTC is detected>>GO TO 3.
Symptom is described, DTC is not detected>>GO TO 4.
Symptom is not described, DTC is detected>>GO TO 5.

3.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.
Also study the normal operation and fail-safe related to the symptom.
Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 5.

4.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.
Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 6.

5.PERFORM DTC CONFIRMATION PROCEDURE

Perform DTC CONFIRMATION PROCEDURE for the detected DTC, and then check that DTC is detected again. At this time, always connect CONSULT to the vehicle, and check self diagnostic results in real time.
If two or more DTCs are detected, refer to BCS-51, "DTC Inspection Priority Chart" and determine trouble diagnosis order.

NOTE:

- Freeze frame data is useful if the DTC is not detected.
- Perform Component Function Check if DTC CONFIRMATION PROCEDURE is not included in Service Manual. This simplified check procedure is an effective alternative though DTC cannot be detected during this check.
  If the result of Component Function Check is NG, it is the same as the detection of DTC by DTC CONFIRMATION PROCEDURE.

Is DTC detected?

YES >> GO TO 7.
NO >> Check according to GI-47, "Intermittent Incident".

6.DETECT MALFUNCTIONING SYSTEM BY SYMPTOM DIAGNOSIS

Detect malfunctioning system according to SYMPTOM DIAGNOSIS based on the confirmed symptom in step 4, and determine the trouble diagnosis order based on possible causes and symptom.

Is the symptom described?

YES >> GO TO 7.
NO >> Monitor input data from related sensors or check voltage of related module terminals using CONSULT.

7.DETECT MALFUNCTIONING PART BY DIAGNOSIS PROCEDURE

Inspect according to Diagnosis Procedure of the system.

Is malfunctioning part detected?

YES >> GO TO 8.
NO >> Check according to GI-47, "Intermittent Incident".

8. REPAIR OR REPLACE THE MALFUNCTIONING PART

1. Repair or replace the malfunctioning part.
2. Reconnect parts or connectors disconnected during Diagnosis Procedure after repair and replacement.
3. Check DTC. If DTC is detected, erase it.

>> GO TO 9.

9. FINAL CHECK

When DTC is detected in step 2, perform DTC CONFIRMATION PROCEDURE again, and then check that the malfunction is repaired securely.
When symptom is described by the customer, refer to confirmed symptom in step 3 or 4, and check that the symptom is not detected.

Is DTC detected and does symptom remain?

YES-1 >> DTC is detected: GO TO 7.
YES-2 >> Symptom remains: GO TO 4.
NO >> Before returning the vehicle to the customer, always erase DTC.

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ECM

ECM : Description

INFOID:0000000014391296

Performing the following procedure can automatically activate recommunication of ECM and BCM, but only when the ECM is replaced with a new one*.
*: New one means an ECM that has never been energized on-board.
(In this step, initialization procedure by CONSULT is not necessary)
NOTE:
- **If multiple keys are attached to the key holder, separate them before beginning work.**
- **Distinguish keys with unregistered key IDs from those with registered IDs.**

ECM : Work Procedure

INFOID:0000000014391297

1.PERFORM ECM RECOMMUNICATING FUNCTION

1. Install ECM.
2. Contact back side of registered Intelligent Key* to push-button ignition switch, then turn ignition switch to ON.
   *: To perform this step, use the key that is used before performing ECM replacement.
3. Maintain ignition switch in the ON position for at least 5 seconds.
4. Turn ignition switch to OFF.
5. Check that the engine starts.

>> GO TO 2.

2.PERFORM ADDITIONAL SERVICE WHEN REPLACING ECM

Perform EC-885, "Work Procedure".

>> End.

BCM

BCM : Description

INFOID:0000000014391298

BEFORE REPLACEMENT

When replacing BCM, save or print current vehicle specification with CONSULT configuration before replacement.
NOTE:
If “READ CONFIGURATION” can not be used, use the “WRITE CONFIGURATION - Manual selection” after replacing BCM.

AFTER REPLACEMENT

CAUTION:
When replacing BCM, always perform “WRITE CONFIGURATION” with CONSULT. Not doing so will cause the BCM control function to 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.**

NOTE:
When replacing BCM, perform the system initialization (NATS).

BCM : Work Procedure

INFOID:0000000014391299

1.SAVING VEHICLE SPECIFICATION

Ⓗ CONSULT Configuration
Perform “READ CONFIGURATION” to save or print current vehicle specification. Refer to BCS-63, "CONFIGURATION (BCM) : Description".
NOTE:

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

>> GO TO 2.

2.REPLACE BCM

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

>> GO TO 3.

3.WRITING VEHICLE SPECIFICATION

CONSULT Configuration
Perform “WRITE CONFIGURATION - Config file” or “WRITE CONFIGURATION - Manual selection” to write vehicle specification. Refer to BCS-63, "CONFIGURATION (BCM) : Work Procedure".

>> GO TO 4.

4.INITIALIZE BCM (NATS)

Perform BCM initialization. (NATS)

>> Inspection End.

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

DTC Description

INFOID:0000000014664557

Description

CAN (Controller Area Network) is a serial communication line for real time applications. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Modern vehicles are equipped with many electronic control units and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H-line, CAN L-line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only. CAN Communication Signal Chart. Refer to LAN-74, "CAN COMMUNICATION SYSTEM : CAN Communication Signal Chart".

DTC DETECTION LOGIC

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

POSSIBLE CAUSE

CAN communication system

FAIL-SAFE

—

Diagnosis Procedure

INFOID:0000000014664558

1. SELF DIAGNOSTIC RESULT

CONSULT

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

Is DTC “U1000” displayed?

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

U1010 CONTROL UNIT (CAN)

DTC Description

INFOID:0000000014664559

DTC DETECTION LOGIC

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

POSSIBLE CAUSE

- BCM

FAIL-SAFE

—

Diagnosis Procedure

INFOID:0000000014664560

1. REPLACE BCM

When DTC U1010 is detected, replace BCM.

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

P1610 LOCK MODE

DTC Description

INFOID:0000000014391304

ECM forcibly switches to the mode that inhibits engine start, when engine start operation is performed 5 times or more while communication between ECM and BCM is not normal.

DTC DETECTION LOGIC

NOTE:
If DTC P1610 is displayed with other DTC (for BCM or ENGINE), first perform the trouble diagnosis for other DTC.

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
P1610	LOCK MODE	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	When ECM detects a communication malfunction between ECM and BCM 5 times or more
		Diagnosis delay time	—

POSSIBLE CAUSE

Engine start operation is performed five times or more under the following conditions:
- Nissan Vehicle Immobilizer System malfunction
- Operation by unregistered key

FAIL-SAFE

Inhibit engine cranking

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC P1610 is displayed with other DTC (for BCM or ENGINE), first perform the trouble diagnosis for other DTC.

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. BCM: Refer to BCS-52, "DTC Index". ECM: Refer to EC-837, "DTC Index".
NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Check DTC in “Self Diagnostic Result” mode of “ENGINE”.

Is DTC detected?

YES >> Refer to SEC-71, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014391305

1.CHECK DTC PRIORITY

If DTC P1610 is displayed with other DTC (for BCM or ENGINE), first perform the trouble diagnosis for other DTC.

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. BCM: Refer to BCS-52, "DTC Index". ECM: Refer to EC-837, "DTC Index".
NO >> GO TO 2.

2.CHECK ENGINE START FUNCTION

1. Check that DTC except for DTC P1610 is not detected.

If detected, erase the DTC after fixing.
2. Turn ignition switch OFF.
3. Depress brake pedal and contact the registered Intelligent Key backside to push-button ignition switch, then wait 5 seconds.
4. Turn ignition switch ON.
5. Turn ignition switch OFF and wait 5 seconds.
6. Repeat steps 3 and 5 twice (a total of 3 times).
7. Check that engine can start.

>> Inspection End.

P1611 ID DISCORD, IMMU-ECM

DTC Description

INFOID:0000000014391306

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
P1611	ID DISCORD, IMMU-ECM	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	The ID verification results between BCM and ECM are not good
		Diagnosis delay time	—

POSSIBLE CAUSE

- BCM
- Harness or connectors
  (The CAN communication line is open or shorted.
- ECM

FAIL-SAFE

Inhibit engine cranking

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Check DTC in “Self Diagnostic Result” mode of “ENGINE”.

Is DTC detected?

YES >> Refer to SEC-73, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014391307

1. INTELLIGENT KEY REGISTRATION

CONSULT
Register all Intelligent Keys again.

Can engine be started with the registered Intelligent Key?

YES >> Inspection End.
NO >> GO TO 2.

2.CHECK SELF DIAGNOSTIC RESULT

CONSULT
1. Select “Self Diagnostic Result” mode of “ENGINE”.
2. Erase DTC.
3. Perform DTC CONFIRMATION PROCEDURE for DTC P1611. Refer to SEC-73, "DTC Description".

Is DTC detected?

YES >> GO TO 3.
NO >> Inspection End.

3.REPLACE BCM

1. Replace BCM. Refer to BCS-79, "Removal and Installation".
2. Perform DTC CONFIRMATION PROCEDURE for DTC P1611. Refer to SEC-73, "DTC Description".

Is DTC detected?

YES >> GO TO 4.

NO >> Inspection End.

4.REPLACE ECM

Replace ECM. Refer to EC-1993, "Removal and Installation".

>> Inspection End.

P1612 CHAIN OF ECM-IMMU

DTC Description

INFOID:0000000014391308

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
P1612	CHAIN OF BCM-ECM	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	Inactive communication between BCM and ECM
		Diagnosis delay time	—

POSSIBLE CAUSE

- Harness or connectors
  (The CAN communication line is open or shorted.)
- BCM
- ECM

FAIL-SAFE

Inhibit engine cranking

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC P1612 is displayed with DTC U1000 (for BCM) or U1010 (for BCM), first perform the trouble diagnosis for DTC U1000 (for BCM) or U1010 (for BCM).

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. U1000 (for BCM): Refer to BCS-67, "DTC Description". U1010 (for BCM): Refer to BCS-68, "DTC Description".
NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Check DTC in “Self Diagnostic Result” mode of “ENGINE”.

Is DTC detected?

YES >> Refer to SEC-75, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014391309

1.CHECK DTC PRIORITY

If DTC P1612 is displayed with DTC U1000 (for BCM) or U1010 (for BCM), first perform the trouble diagnosis for DTC U1000 (for BCM) or U1010(for BCM).

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. U1000 (for BCM): Refer to BCS-67, "DTC Description". U1010 (for BCM): Refer to BCS-68, "DTC Description".
NO >> GO TO 2.

2.REPLACE BCM

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

Does the engine start?

YES >> Inspection End.
NO >> GO TO 3.

3.REPLACE ECM

Replace ECM. Refer to EC-1993, "Removal and Installation".

>> Inspection End.

P1615 DIFFRENCE OF KEY

DTC Description

INFOID:0000000014391310

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
P1615	DIFFERENCE OF KEY (Difference of key)	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	The ID verification results between combination meter (BCM) and ignition key are not good
		Diagnosis delay time	—

POSSIBLE CAUSE

- Ignition key
- Combination meter

FAIL-SAFE

Fuel cut

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Check DTC in “Self Diagnostic Result” mode of “ENGINE”.

Is DTC detected?

YES >> Refer to SEC-77, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014391311

1.PERFORM INITIALIZATION

CONSULT

Perform initialization of combination meter (BCM) and registration of all ignition keys.

Can the system be initialized and can the engine be started with registered ignition key?

YES >> Inspection End.
NO >> GO TO 2.

2.REPLACE IGNITION KEY

CONSULT

1. Replace ignition key.
2. Perform initialization of combination meter (BCM) and registration of all ignition keys.

Can the system be initialized and can the engine be started with registered ignition key?

YES >> Inspection End.
NO >> GO TO 3.

3.REPLACE COMBINATION METER

CONSULT

1. Replace combination meter. Refer to MWI-108, "Removal and Installation".
2. Perform initialization of BCM and registration of all ignition keys.

>> Inspection End.

B2192 ID DISCORD, IMMU-ECM

DTC Description

INFOID:0000000014391312

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2192	ID DISCORD BCM-ECM (Identification discord body control module - engine control module)	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	The ID verification results between BCM and ECM are not good
		Diagnosis delay time	—

POSSIBLE CAUSE

- BCM
- ECM

FAIL-SAFE

Inhibit engine cranking

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Check DTC in “Self Diagnostic Result” mode of “BCM”.

Is DTC detected?

YES >> Refer to SEC-78, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014391313

1. INTELLIGENT KEY REGISTRATION

CONSULT

Register all Intelligent Keys again.

Can engine be started with the registered Intelligent Key?

YES >> Inspection End.
NO >> GO TO 2.

2.CHECK SELF-DIAGNOSIS RESULT

CONSULT

1. Select “Self Diagnostic Result” mode of “BCM”.
2. Erase DTC.
3. Perform DTC CONFIRMATION PROCEDURE for DTC B2192. Refer to SEC-78, "DTC Description".

Is DTC detected?

YES >> GO TO 3.
NO >> Inspection End.

3.REPLACE BCM

1. Replace BCM. Refer to BCS-79, "Removal and Installation".
2. Perform DTC CONFIRMATION PROCEDURE for DTC B2192. Refer to SEC-78, "DTC Description".

Is DTC detected?

YES >> GO TO 4.
NO >> Inspection End.

4.REPLACE ECM

Replace ECM. Refer to EC-1993, "Removal and Installation".

>> Inspection End.

B2193 CHAIN OF ECM-IMMU

DTC Description

INFOID:0000000014391314

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2193	CHAIN OF BCM-ECM (Chain of body control module - engine control module)	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	Inactive communication between BCM and ECM
		Diagnosis delay time	—

POSSIBLE CAUSE

- Harness or connectors
  (The CAN communication line is open or shorted.)
- ECM
- BCM

FAIL-SAFE

Inhibit engine cranking

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC B2193 is displayed with DTC U1000 or U1010, first perform the trouble diagnosis for DTC U1000 or U1010.

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. U1000: Refer to BCS-67, "DTC Description". U1010: Refer to BCS-68, "DTC Description".
NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Check DTC in “Self Diagnostic Result” mode of “BCM”.

Is DTC detected?

YES >> Refer to SEC-80, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014391315

1.CHECK DTC PRIORITY

If DTC B2193 is displayed with DTC U1000 or U1010, first perform the trouble diagnosis for DTC U1000 or U1010.

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. U1000: Refer to BCS-67, "DTC Description". U1010: Refer to BCS-68, "DTC Description".
NO >> GO TO 2.

2.REPLACE BCM

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

Does the engine start?

YES >> Inspection End.
NO >> GO TO 3.

3.REPLACE ECM

Replace ECM. Refer to EC-1993, "Removal and Installation".

>> Inspection End.

B2195 ANTI-SCANNING

DTC Description

INFOID:0000000014391316

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2195	ANTI-SCANNING (Anti-scanning)	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	ID verification between BCM and ECM that is out of the specified specification is detected
		Diagnosis delay time	—

POSSIBLE CAUSE

ID verification request out of the specified specification

FAIL-SAFE

Inhibits engine cranking

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Check DTC in “Self Diagnostic Result” mode of “BCM”.

Is DTC detected?

YES >> Refer to SEC-82, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014391317

1.CHECK SELF DIAGNOSTIC RESULT 1

CONSULT
1. Select “Self Diagnostic Result” mode of “BCM”.
2. Erase DTC.
3. Perform DTC CONFIRMATION PROCEDURE for DTC B2195. Refer to SEC-82, "DTC Description".

Is DTC detected?

YES >> GO TO 2.
NO >> Inspection End.

2.CHECK EQUIPMENT OF THE VEHICLE

Check that unspecified accessory part related to engine start is not installed.

Is unspecified accessory part related to engine start installed?

YES >> GO TO 3.
NO >> GO TO 4.

3.CHECK SELF DIAGNOSTIC RESULT 2

CONSULT
1. Obtain the customers approval to remove unspecified accessory part related to engine start, and then remove it.
2. Select “Self Diagnostic Result” mode of “BCM”.
3. Erase DTC.
4. Perform DTC CONFIRMATION PROCEDURE for DTC B2195. Refer to SEC-82, "DTC Description".

Is DTC detected?

YES >> GO TO 4.

NO >> Inspection End.

4.REPLACE BCM

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

>> Inspection End.

B2196 DONGLE UNIT

DTC Description

INFOID:0000000014391318

BCM performs ID verification between BCM and dongle unit.
When verification result is OK, BCM permits cranking.

DTC DETECTION LOGIC

NOTE:

- If DTC B2196 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
- If DTC B2196 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2196	DONGLE NG	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	The ID verification results between BCM and dongle unit is not good
		Diagnosis delay time	—

POSSIBLE CAUSE

- Dongle unit
- Harness or connector
  (Dongle unit circuit is open or shorted.)

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Turn ignition switch OFF.
3. Turn ignition switch ON.
4. Select “Self Diagnosis Result” mode.
5. Check DTC.

Is the DTC detected?

YES >> Refer to SEC-84, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000014391319

Regarding Wiring Diagram information, refer to SEC-27, "Wiring Diagram".

1.PERFORM INITIALIZATION

1. Perform initialization of BCM and reregistration of all Intelligent Keys using CONSULT.
2. Start the engine.

Does the engine start?

YES >> Inspection End.
NO >> GO TO 2.

2.CHECK DONGLE UNIT CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect BCM connector and dongle unit connector.
3. Check continuity between BCM harness connector and dongle unit harness connector.

BCM		Dongle unit		Continuity
Connector	Terminal	Connector	Terminal	
M19	52	M27	1	Yes

4. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M19	52		No

Is the inspection result normal?

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

3.CHECK DONGLE UNIT GROUND CIRCUIT

Check continuity between dongle unit harness connector and ground.

Dongle unit		Ground	Continuity
Connector	Terminal		
M27	4		Yes

Is the inspection result normal?

YES >> Replace dongle unit.
NO >> Repair or replace harness.

B2198 NATS ANTENNA AMP.

DTC Description

INFOID:0000000014391320

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2198	NATS ANTENNA AMP (Nissan Anti-Theft System antenna amplifier)	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	Inactive communication between NATS antenna amp. and BCM is detected when BCM enters in the low power consumption mode (BCM sleep condition)
		Diagnosis delay time	—

POSSIBLE CAUSE

- Harness or connectors
  (NATS antenna amp. circuit is open or shorted.)
- NATS antenna amp.
- BCM

FAIL-SAFE

Inhibit engine cranking

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Make the conditions that BCM enters in the low power consumption mode (BCM sleep condition).
   Refer to BCS-16, "POWER CONSUMPTION CONTROL SYSTEM : System Description".
2. Turn ignition switch ON.
3. Check DTC in “Self Diagnostic Result” mode of “BCM”.

Is DTC detected?

YES >> Refer to SEC-86, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

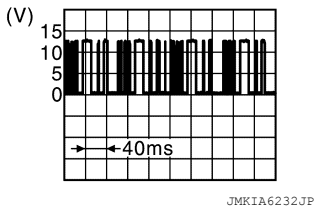
Diagnosis Procedure

INFOID:0000000014391321

Regarding Wiring Diagram information, refer to SEC-27, "Wiring Diagram".

1.CHECK NATS ANTENNA COMMUNICATION SIGNAL

Check voltage signal between NATS antenna amp. harness connector and ground using an oscilloscope.

(+)		(–)	Condition		Voltage (Approx.)
NATS antenna amp.					
Connector	Terminals				
M21	1,3	Ground	Intelligent Key: Intelligent Key battery is removed	Brake pedal: Depressed **NOTE:** Waveform varies each time when brake pedal is depressed	 JMKIA6232JP
				Brake pedal: Released	Battery voltage

Is the inspection result normal?

YES >> Replace NATS antenna amp. Refer to SEC-151, "Removal and Installation".
NO >> GO TO 2.

2.CHECK NATS ANTENNA AMP. OUTPUT SIGNAL CIRCUIT

1. Disconnect NATS antenna amp. connector and BCM connector.
2. Check continuity between NATS antenna amp. harness connector and BCM connector.

NATS antenna amp.		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M21	1	M80	127	Yes
	3		126	

3. Check continuity between NATS antenna amp. harness connector and ground.

NATS antenna amp.		Ground	Continuity
Connector	Terminal		
M21	1		No
	3		

Is the inspection result normal?

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

B2555 STOP LAMP

DTC Description

INFOID:0000000014391322

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2555	STOP LAMP (Stop lamp)	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	BCM makes a comparison between the upper voltage and lower voltage of stop lamp switch. It judges from their values to detect the malfunctioning circuit
		Diagnosis delay time	—

POSSIBLE CAUSE

- Harness or connectors
  (Stop lamp switch circuit is open or shorted.)
- Harness or connectors
  (Stop lamp relay circuit is open or shorted.)
- Stop lamp switch
- Stop lamp relay
- Fuse
- BCM

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Depress brake pedal and wait 1 second or more.
2. Check DTC in “Self Diagnostic Result” mode of “BCM”.

Is DTC detected?

YES >> Refer to SEC-88, "Diagnosis Procedure (Without LED combination lamps)" or SEC-90, "Diagnosis Procedure (With LED combination lamps)".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure (Without LED combination lamps)

INFOID:0000000014391323

Regarding Wiring Diagram information, refer to SEC-41, "Wiring Diagram".

1. CHECK POWER SOURCE (STOP LAMP SWITCH)

1. Turn ignition switch OFF.
2. Disconnect stop lamp switch connector.
3. Check voltage between stop lamp switch and ground.

Stop lamp switch		Ground	Voltage (Approx.)
Connector	Terminal		
E38	1		Battery voltage

Is the inspection result normal?

YES >> GO TO 2.
NO >> Check the following:

- Harness for short or open between fuse block (J/B) and stop lamp switch
- 10A fuse (No. 10, located in fuse block [J/B])

2.CHECK STOP LAMP SWITCH

Check stop lamp switch. Refer to SEC-91, "Component Inspection (Stop Lamp Switch)".

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace stop lamp switch. Refer to BR-21, "Exploded View".

3.CHECK GROUND CIRCUIT (STOP LAMP RELAY)

1. Remove the stop lamp relay.
2. Check continuity between stop lamp relay connector and ground.

Stop lamp relay		Ground	Continuity
Connector	Terminal		
E12	2		Yes

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace damaged parts.

4.CHECK STOP LAMP RELAY

Check stop lamp relay. Refer to SEC-92, "Component Inspection (Stop Lamp Relay)".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace stop lamp relay.

5.CHECK HARNESS BETWEEN STOP LAMP RELAY AND BCM

Check continuity between stop lamp relay and BCM.

BCM		Stop lamp relay		Continuity
Connector	Terminal	Connector	Terminal	
M18	27	E12	3	Yes

Is the inspection result normal?

YES >> GO TO 6.
NO >> Repair or replace damaged parts.

6.CHECK HARNESS BETWEEN STOP LAMP SWITCH AND STOP LAMP RELAY

Check continuity between stop lamp relay and stop lamp switch.

Stop lamp switch		Stop lamp relay		Continuity
Connector	Terminal	Connector	Terminal	
E38	2	E12	2	Yes

Is the inspection result normal?

YES >> GO TO 7.
NO >> Repair or replace damaged parts.

7.CHECK POWER SOURCE (STOP LAMP RELAY)

Check voltage between stop lamp relay and ground.

Stop lamp relay		Ground	Voltage (Approx.)
Connector	Terminal (+)		
E12	5		Battery voltage

Is the inspection result normal?

YES >> GO TO 8.
NO >> Repair or replace damaged parts.

8.CONNECTOR INSPECTION

Check BCM connectors and terminals for deformation, disconnection, looseness or damage.

Is the inspection result normal?

YES >> GO TO 9.
NO >> Repair or replace as necessary.

9.REPLACE BCM

1. Replace BCM. Refer to BCS-79, "Removal and Installation".
2. Perform initialization of BCM and registration of all Intelligent Keys using CONSULT. Refer to the CONSULT Immobilizer mode and follow the on-screen instructions.

>> Inspection End.

Diagnosis Procedure (With LED combination lamps)

INFOID:0000000014391324

Regarding Wiring Diagram information, refer to SEC-41, "Wiring Diagram".

1.CHECK STOP LAMP SWITCH INPUT SIGNAL 1

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

(+)		(–)	Voltage (V) (Approx.)
BCM			
Connector	Terminal		
M18	25	Ground	Battery voltage

Is the inspection normal?

YES >> GO TO 2.
NO-1 >> Check 10 A fuse [No. 10, located in the fuse block (J/B)].
NO-2 >> Check harness for open or short between BCM and fuse.

2.CHECK STOP LAMP SWITCH POWER SUPPLY CIRCUIT

1. Disconnect stop lamp switch connector.
2. Check voltage between stop lamp switch harness connector and ground.

(+)		(–)	Voltage (V) (Approx.)
Stop lamp switch			
Connector	Terminal		
E38	1	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.
NO >> Check harness for open or short between stop lamp switch and fuse.

3.CHECK STOP LAMP SWITCH INPUT SIGNAL 2

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

(+)		(–)	Condition		Voltage (V) (Approx.)
BCM					
Connector	Terminal				
M18	27	Ground	Brake pedal	Depressed	Battery voltage
				Not depressed	0

Is the inspecting result normal?

YES >> GO TO 4.
NO >> GO TO 5.

4.REPLACE BCM

1. Replace BCM. Refer to BCS-79, "Removal and Installation".
2. Perform initialization of BCM and registration of all Intelligent Keys using CONSULT.

>> Inspection End.

5.CHECK STOP LAMP SWITCH CIRCUIT

1. Disconnect stop lamp switch connector.
2. Check continuity between stop lamp switch harness connector and BCM harness connector.

Stop lamp switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
E38	2	M18	27	Yes

3. Check continuity between stop lamp switch harness connector and ground.

Stop lamp switch		Ground	Continuity
Connector	Terminal		
E38	2		No

Is the inspection result normal?

YES >> GO TO 6.
NO >> Repair or replace harness.

6.CHECK STOP LAMP SWITCH

Refer to SEC-91, "Component Inspection (Stop Lamp Switch)".

Is the inspection result normal?

YES >> GO TO 7.
NO >> Replace stop lamp switch. Refer to BR-21, "Exploded View".

7.CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> Inspection End.

Component Inspection (Stop Lamp Switch)

INFOID:0000000014391325

1.CHECK STOP LAMP SWITCH

1. Turn ignition switch OFF.
2. Disconnect stop lamp switch connector.
3. Check continuity between stop lamp switch terminals.

Stop lamp switch		Condition		Continuity
Terminals				
1	2	Brake pedal	Not depressed	No
			Depressed	Yes

Is the inspection result normal?

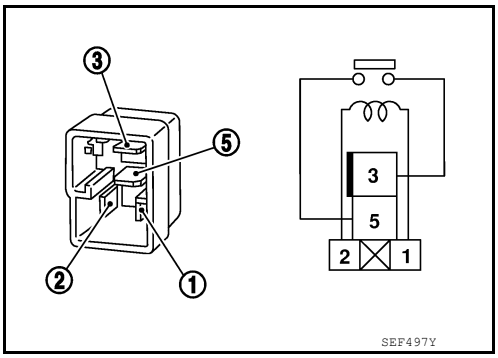
YES >> Inspection End.
NO >> Replace stop lamp switch. Refer to BR-21, "Exploded View".

Component Inspection (Stop Lamp Relay)

INFOID:0000000014391326

1.CHECK STOP LAMP RELAY

1. Disconnect stop lamp relay.
2. Check continuity between stop lamp relay terminals.



Stop lamp relay		Condition	Continuity
Terminals			
3	5	12 V direct current supply between terminals 1 and 2	Yes
		No current supply	No

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace stop lamp relay.

B2556 PUSH-BUTTON IGNITION SWITCH

DTC Description

INFOID:0000000014391327

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2556	PUSH-BTN IGN SW (Push-button ignition switch)	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	BCM detects the push-button ignition switch stuck at ON for 100 seconds or more
		Diagnosis delay time	100 seconds

POSSIBLE CAUSE

- Harness or connectors
  (Push-button ignition switch circuit is shorted.)
- Push-button ignition switch
- BCM

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Press push-button ignition switch under the following condition:
- Brake pedal: Not depressed
2. Release push-button ignition switch and wait 100 seconds or more.
3. Check DTC in “Self Diagnostic Result” mode of “BCM”.

Is DTC detected?

YES >> Refer to SEC-93, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014391328

Regarding Wiring Diagram information, refer to SEC-27, "Wiring Diagram".

1.CHECK PUSH-BUTTON IGNITION SWITCH INPUT SIGNAL

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

(+)		(–)	Voltage (Approx.)
Push-button ignition switch			
Connector	Terminal		
M46	8	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 4.
NO >> GO TO 2.

2.CHECK PUSH-BUTTON IGNITION SWITCH CIRCUIT

1. Disconnect BCM connector and IPDM E/R connector.

2. Check continuity between push-button ignition switch harness connector and BCM harness connector.

Push-button ignition switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M46	8	M18	1	Yes

3. Check continuity between push-button ignition switch harness connector and ground.

Push-button ignition switch		Ground	Continuity
Connector	Terminal		
M46	8		No

Is the inspection result normal?

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

3.REPLACE BCM

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

>> Inspection End.

4.CHECK PUSH-BUTTON IGNITION SWITCH GROUND CIRCUIT

Check continuity between push-button ignition switch harness connector and ground.

Push-button ignition switch		Ground	Continuity
Connector	Terminal		
M46	4		Yes

Is the inspection result normal?

YES >> GO TO 5.
NO >> Repair or replace harness.

5.CHECK PUSH-BUTTON IGNITION SWITCH

Refer to SEC-94, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6.
NO >> Replace push-button ignition switch. Refer to PCS-98, "Removal and Installation".

6.CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> Inspection End

Component Inspection

INFOID:0000000014391329

1.CHECK PUSH-BUTTON IGNITION SWITCH

1. Turn ignition switch OFF.
2. Disconnect push-button ignition switch connector.
3. Check continuity between push-button ignition switch terminals.

Push-button ignition switch		Condition		Continuity
Terminals				
4	8	Push-button ignition switch	Pressed	Yes
			Not pressed	No

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace push-button ignition switch. Refer to PCS-98, "Removal and Installation".

B2557 VEHICLE SPEED

DTC Description

INFOID:0000000014391330

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2557	VEHICLE SPEED (Vehicle speed)	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	BCM detects one of the following conditions for 10 seconds continuously: • Vehicle speed signal from “combination meter” is 10 km/h (6.2 MPH) or more and vehicle speed signal from “ABS actuator and electric unit (control unit)” is 4 km/h (2.5 MPH) or less • Vehicle speed signal from “combination meter” is 4 km/h (2.5 MPH) or less and vehicle speed signal from “ABS actuator and electric unit (control unit)” is 10 km/h (6.2 MPH) or more
		Diagnosis delay time	10 seconds

POSSIBLE CAUSE

- Harness or connectors
  (The CAN communication line is open or shorted.)
- Combination meter
- ABS actuator and electric unit (control unit)

FAIL-SAFE

Inhibit steering lock

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC B2557 is displayed with DTC U1000 or U1010, first perform the trouble diagnosis for DTC U1000 or U1010.

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. U1000: Refer to BCS-67, "DTC Description". U1010: Refer to BCS-68, "DTC Description".
NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Start engine and wait 10 seconds or more.
2. Drive the vehicle at a vehicle speed of 10 km/h (6.2 MPH) or more for 10 seconds or more.
3. Check DTC in “Self Diagnostic Result” mode of “BCM”.

Is DTC detected?

YES >> Refer to SEC-96, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014391331

1.CHECK DTC PRIORITY

If DTC B2557 is displayed with DTC U1000 or U1010, first perform the trouble diagnosis for DTC U1000 or U1010.

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. U1000: Refer to BCS-67, "DTC Description". U1010: Refer to BCS-68, "DTC Description".

NO >> GO TO 2.

2.CHECK DTC OF “ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)”

CONSULT
Check DTC in “Self Diagnostic Result” mode of “ABS”.

Is DTC detected?

YES >> Perform the trouble diagnosis related to the detected DTC. Refer to BRC-55, "DTC Index".
NO >> GO TO 3.

3.CHECK DTC OF “COMBINATION METER”

CONSULT
Check DTC in “Self Diagnostic Result” mode of “METER/M&A”.

Is DTC detected?

YES >> Perform the trouble diagnosis related to the detected DTC. Refer to MWI-36, "DTC Index".
NO >> GO TO 4.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> Inspection End.

B2560 STARTER CONTROL RELAY

DTC Description

INFOID:0000000014391332

Starter control relay, integrated in IPDM E/R, permits the starter relay operation when in the N or P position and the steering is locked or unlocked. It is installed in parallel with the starter relay.

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2560	STARTER CONT RELAY (Starter control relay)	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	BCM detects a discrepancy between the OFF request of starter control relay to IPDM E/R and the feedback. (The feedback is ON instead of OFF.)
		Diagnosis delay time	2 seconds

POSSIBLE CAUSE

IPDM E/R

FAIL-SAFE

Inhibit engine cranking

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC B2560 is displayed with DTC U1000 or U1010, first perform the trouble diagnosis for DTC U1000 or U1010.

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. U1000: Refer to BCS-67, "DTC Description". U1010: Refer to BCS-68, "DTC Description".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON under the following conditions and wait for at least 2 seconds:
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Check “Self diagnostic result” mode.

Is DTC detected?

YES >> Refer to SEC-96, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".

NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014391333

1.CHECK DTC PRIORITY

If DTC B2560 is displayed with DTC U1000 or U1010, first perform the trouble diagnosis for DTC U1000 or U1010.

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. U1000: Refer to BCS-67, "DTC Description". U1010: Refer to BCS-68, "DTC Description".

NO >> GO TO 2.

2.CHECK DTC WITH IPDM E/R

CONSULT

Check “Self Diagnostic Result” mode. Refer to BCS-52, "DTC Index".

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace IPDM E/R. Refer to PCS-43, "Removal and Installation of IPDM E/R".

3. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> Inspection End.

B2601 SHIFT POSITION

DTC Description

INFOID:0000000014391334

DTC DETECTION LOGIC

NOTE:

- If DTC B2601 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
- If DTC B2601 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2601	SHIFT POSITION	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	When there is a difference between P (Park) range signal from A/T shift selector (park position switch) and P (Park) position signal from IPDM E/R (CAN)
		Diagnosis delay time	—

POSSIBLE CAUSE

- A/T shift selector (park position switch)
- BCM
- Harness or connector
  (The CAN communication line is open or shorted.)
- Harness or connector
  [A/T shift selector (park position switch) circuit is open or shorted.]

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Shift the selector lever to the P (Park) position.
2. Turn ignition switch ON and wait 2 seconds or more.
3. Shift the selector lever to any position other than P (Park) and wait 2 seconds or more.
4. Select “Self Diagnostic Result” mode of “BCM”.
5. Check DTC.

Is DTC detected?

YES >> Go to SEC-100, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000014391335

Regarding Wiring Diagram information, refer to SEC-27, "Wiring Diagram".

1.CHECK A/T SHIFT SELECTOR SWITCH FUNCTION

CONSULT

1. Turn ignition switch ON.
2. Select “DETE/CANCEL SW” and “DETENT SW - IPDM” in “Data Monitor” mode.
3. Check “DETE/CANCEL SW” and “DETENT SW - IPDM” indication under the following conditions:

Monitor item	Condition		Indication
DETE/CANCEL SW	A/T Shift selector	In any position other than P (Park)	OFF
		P (Park)	ON
DETENT SW - IPDM	A/T Shift selector	In any position other than P (Park)	OFF
		P (Park)	ON

Is the inspection result normal?

YES >> Refer to GI-47, "Intermittent Incident".
NO-1 >> If “DETE/CANCEL SW” function is incorrect. GO TO 2.
NO-2 >> If “DETENT SW - IPDM” function is incorrect. GO TO 5.

2.CHECK A/T SHIFT SELECTOR CIRCUIT (BCM)

1. Disconnect BCM connector and IPDM E/R connector.
2. Check continuity between A/T shift selector (park position switch) harness connector and BCM harness connector.

A/T shift selector (park position switch)		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M68	4	M18	20	Yes

3. Check continuity between A/T shift selector (park position switch) harness connector and ground.

A/T shift selector (park position switch)		Ground	Continuity
Connector	Terminal		
M68	4		No

Is the inspection result normal?

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

3.CONNECTOR INSPECTION

1. Disconnect BCM.
2. Check connectors and terminals for deformation, disconnection, looseness or damage.

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace as necessary.

4.REPLACE BCM

1. Replace BCM. Refer to BCS-79, "Removal and Installation".
2. Perform initialization of BCM and registration of all Intelligent Keys using CONSULT.

>> Inspection End.

5.CHECK A/T SHIFT SELECTOR CIRCUIT (IPDM E/R)

Check continuity between A/T shift selector (park position switch) harness connector and IPDM E/R harness connector.

A/T shift selector (park position switch)		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
M68	4	E130	64	Yes

Is the inspection result normal?

YES >> GO TO 6.
NO >> Repair or replace harness.

6.CONNECTOR INSPECTION

1. Disconnect IPDM E/R.
2. Check connectors and terminals for deformation, disconnection, looseness or damage.

Is the inspection result normal?

YES >> GO TO 7.
NO >> Repair or replace as necessary.

7.REPLACE IPDM E/R

1. Replace IPDM E/R. Refer to PCS-43, "Removal and Installation of IPDM E/R".

>> Inspection End.

Component Inspection

INFOID:0000000014391336

1.CHECK A/T SHIFT SELECTOR (PARK POSITION SWITCH)

1. Turn ignition switch OFF.
2. Disconnect A/T shift selector connector.
3. Check continuity between A/T shift selector (park position switch) terminals.

A/T shift selector (park position switch) Terminals		Condition		Continuity
5	4	Selector lever	P (Park) position	No
			Other than above	Yes

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace A/T shift selector. Refer to TM-219, "Removal and Installation".

B2602 SHIFT POSITION

DTC Description

INFOID:0000000014391337

DTC DETECTION LOGIC

NOTE:

- If DTC B2602 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
- If DTC B2602 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2602	SHIFT POSITION	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	BCM detects the following status for 10 seconds: • Selector lever is in the P (Park) position • Vehicle speed is 4 km/h (2.5 MPH) or more • Ignition switch is in the ON position
		Diagnosis delay time	—

POSSIBLE CAUSE

- Harness or connectors
  (CAN communication line is open or shorted.)
- Harness or connectors
  [A/T shift selector (park position switch) circuit is open or shorted.]
- A/T shift selector (park position switch)
- Combination meter
- BCM

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Start engine.
2. Drive vehicle at a speed of 4 km/h (2.5 MPH) or more for 10 seconds or more.
3. Select “Self Diagnostic Result” mode of “BCM”.
4. Check DTC.

Is DTC detected?

YES >> Go to SEC-103, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000014391338

Regarding Wiring Diagram information, refer to SEC-27, "Wiring Diagram".

1.CHECK A/T SHIFT SELECTOR SWITCH FUNCTION

CONSULT

1. Turn ignition switch ON.
2. Select “DETE/CANCEL SW” and “VEH SPEED 1” in “Data Monitor” mode.
3. Check “DETE/CANCEL SW” and “VEH SPEED 1” indication under the following conditions:

Monitor item	Condition		Indication
DETE/CANCEL SW	A/T Shift selector	In any position other than P (Park)	OFF
		P (Park)	ON
VEH SPEED 1	Vehicle not moving		0
	Vehicle moving		Varies

Is the inspection result normal?

YES >> Refer to GI-47, "Intermittent Incident".
NO-1 >> If “DETE/CANCEL SW” is incorrect. GO TO 4.
NO-2 >> If “VEH SPEED 1” is incorrect. GO TO 2.

2.CHECK DTC OF COMBINATION METER

CONSULT
Check DTC in “Self Diagnostic Result” mode of “METER/M&A”.

Is DTC detected?

YES >> Perform the trouble diagnosis related to the detected DTC. Refer to MWI-36, "DTC Index".
NO >> GO TO 3.

3.CHECK DTC OF ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)

CONSULT
Check DTC in “Self Diagnostic Result” mode of “ABS”.

Is DTC detected?

YES >> Perform the trouble diagnosis related to the detected DTC. Refer to BRC-55, "DTC Index".
NO >> GO TO 6.

4.CHECK A/T SHIFT SELECTOR CIRCUIT

1. Disconnect BCM connector and IPDM E/R connector.
2. Check continuity between A/T shift selector (park position switch) harness connector and BCM harness connector.

A/T shift selector (park position switch)		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M68	4	M18	20	Yes

3. Check continuity between A/T shift selector (park position switch) harness connector and ground.

A/T shift selector (park position switch)		Ground	Continuity
Connector	Terminal		
M68	4		No

Is the inspection result normal?

YES >> GO TO 5.
NO >> Repair or replace harness.

5.CHECK A/T SHIFT SELECTOR (PARK POSITION SWITCH)

Refer to SEC-105, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6.
NO >> Replace A/T shift selector. Refer to TM-219, "Removal and Installation".

6.CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> Inspection End.

Component Inspection

INFOID:0000000014391339

1. CHECK A/T SHIFT SELECTOR (PARK POSITION SWITCH)

1. Turn ignition switch OFF.
2. Disconnect A/T shift selector connector.
3. Check continuity between A/T shift selector (park position switch) terminals.

A/T shift selector (park position switch) Terminals		Condition		Continuity
5	4	Selector lever	P (Park) position	No
			Other than above	Yes

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace A/T shift selector. Refer to TM-219, "Removal and Installation".

B2603 SHIFT POSITION

DTC Description

INFOID:0000000014391340

DTC DETECTION LOGIC

NOTE:

- If DTC B2603 is displayed with DTC B2601, first perform the trouble diagnosis for DTC B2601. Refer to SEC-100, "DTC Description".

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2603	SHIFT POSI STATUS	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	BCM detects the following status when ignition switch is in the ON position: • P (Park) position signal from TCM: approx. 0V • A/T shift selector (park position switch) signal: approx. 0V
		Diagnosis delay time	—

POSSIBLE CAUSE

- Harness or connector
  [A/T shift selector (park position switch) circuit is open or shorted.]
- Harness or connectors
  (TCM circuit is open or shorted.)
- A/T shift selector (park position switch)
- A/T assembly (TCM)
- BCM

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE 1

CONSULT

1. Shift the selector lever to the P (Park) position.
2. Turn ignition switch ON and wait 1 second or more.
3. Select “Self Diagnostic Result” mode of “BCM”.
4. Check DTC.

Is DTC detected?

YES >> Go to SEC-106, "Diagnosis Procedure".
NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE 2

CONSULT

1. Shift the selector lever to any position other than P (Park) and wait 1 second or more.
2. Select “Self Diagnostic Result” mode of “BCM”.
3. Check DTC.

Is DTC detected?

YES >> Go to SEC-106, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000014391341

Regarding Wiring Diagram information, refer to SEC-27, "Wiring Diagram".

1.CHECK A/T SHIFT SELECTOR SWITCH FUNCTION

1. Turn ignition switch ON.
2. Select “DETE/CANCEL SW” and “SFT PN/N SW” in “Data Monitor” mode.
3. Check “DETE/CANCEL SW” and “SFT PN/N SW” indication under the following conditions:

Monitor item	Condition		Indication
DETE/CANCEL SW	A/T Shift selector	In any position other than P (Park)	OFF
		P (Park)	ON
SFT PN/N SW	A/T Shift selector	In any position other than P (Park)	OFF
		P (Park)	ON

Is the inspection result normal?

YES >> Refer to GI-47, "Intermittent Incident".
NO-1 >> If “DETE/CANCEL SW” is incorrect. GO TO 6.
NO-2 >> If “SFT PN/N SW” is incorrect. GO TO 2.

2.CHECK BCM INPUT SIGNAL

1. Turn ignition switch ON.
2. Check voltage between BCM harness connector and ground.

(+)		(–)	Condition		Voltage (Approx.)
BCM					
Connector	Terminal				
M18	39	Ground	Selector lever	P or N position	Battery voltage
				Other than above	0

Is the inspection result normal?

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

3.CHECK BCM INPUT SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Disconnect transmission range switch connector.
4. Check continuity between transmission range switch harness connector and BCM harness connector.

Transmission range switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
F212	8	M18	39	Yes

5. Check continuity between transmission range switch harness connector and ground.

Transmission range switch		Ground	Continuity
Connector	Terminal		
F212	8		No

Is the inspection result normal?

YES >> GO TO 4.
NO >> GO TO 5.

4.REPLACE BCM

1. Replace BCM. Refer to BCS-79, "Removal and Installation".
2. Perform initialization of BCM and registration of all Intelligent Keys using CONSULT.

>> Inspection End.

5.CHECK DTC OF TCM

CONSULT
Check DTC in “Self Diagnostic Result” mode of “TCM”.

Is DTC detected?

YES >> Perform the trouble diagnosis related to the detected DTC. Refer to TM-69, "DTC Index".
NO >> Perform the trouble diagnosis related to the TCM power and ground circuits. Refer to TM-209, "Diagnosis Procedure".

6.CHECK A/T SHIFT SELECTOR POWER SUPPLY

1. Turn ignition switch OFF.
2. Disconnect A/T shift selector (park position switch) connector.
3. Check voltage between A/T shift selector (park position switch) harness connector and ground.

(+)		(–)	Voltage (Approx.)
A/T shift selector (park position switch)			
Connector	Terminal		
M68	5	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 7.
NO >> Repair or replace harness.

7.CHECK A/T SHIFT SELECTOR POWER SUPPLY CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between A/T shift selector (park position switch) harness connector and BCM harness connector.

A/T shift selector (park position switch)		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M68	5	M19	69	Yes

3. Check continuity between A/T shift selector (park position switch) harness connector and ground.

A/T shift selector (park position switch)		Ground	Continuity
Connector	Terminal		
M68	5		No

Is the inspection result normal?

YES >> GO TO 8.
NO >> Repair or replace harness.

8.CHECK A/T SHIFT SELECTOR CIRCUIT

1. Disconnect BCM connector and IPDM E/R connector.
2. Check continuity between A/T shift selector (park position switch) harness connector and BCM harness connector.

A/T shift selector (park position switch)		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M68	4	M18	20	Yes

3. Check continuity between A/T shift selector (park position switch) harness connector and ground.

A/T shift selector (park position switch)		Ground	Continuity
Connector	Terminal		
M68	4		No

Is the inspection result normal?

YES >> GO TO 9.
NO >> Repair or replace harness.

9.CHECK A/T SHIFT SELECTOR (PARK POSITION SWITCH)

Refer to TM-220, "Inspection and Adjustment".

Is the inspection result normal?

YES >> GO TO 10.
NO >> Replace A/T shift selector. Refer to TM-219, "Removal and Installation".

10.REPLACE BCM

1. Replace BCM. Refer to BCS-79, "Removal and Installation".
2. Perform initialization of BCM and registration of all Intelligent Keys using CONSULT.

>> Inspection End.

Component Inspection

INFOID:0000000014391342

1.CHECK A/T SHIFT SELECTOR (PARK POSITION SWITCH)

1. Turn ignition switch OFF.
2. Disconnect A/T shift selector connector.
3. Check continuity between A/T shift selector (park position switch) terminals.

A/T shift selector (park position switch) Terminals		Condition		Continuity
5	4	Selector lever	P (Park) position	No
			Other than above	Yes

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace A/T shift selector. Refer to TM-219, "Removal and Installation".

B2604 SHIFT POSITION

DTC Description

INFOID:0000000014391343

DTC DETECTION LOGIC

NOTE:

- If DTC B2604 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
- If DTC B2604 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2604	PNP/CLUTCH SW	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	The following states are detected for 5 seconds while ignition switch is ON: • P/N position signal is sent from TCM but shift position signal input (CAN) from TCM is other than P (Park) and N (Neutral) • P/N position signal is not sent from TCM but shift position signal input (CAN) from TCM is P (Park) or N (Neutral)
		Diagnosis delay time	—

POSSIBLE CAUSE

- Harness or connectors
  (CAN communication line is open or shorted.)
- BCM
- TCM
- Harness or connector
  (TCM circuit is open or shorted.)

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Shift the selector lever to the P (Park) position.
2. Turn ignition switch ON and wait 5 seconds or more.
3. Shift the selector lever to the N (Neutral) position and wait 5 seconds or more.
4. Shift the selector lever to any position other than P (Park) and N (Neutral) and wait 5 seconds or more.
5. Select “Self Diagnostic Result” mode of “BCM”.
6. Check DTC.

Is DTC detected?

YES >> Go to SEC-110, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000014391344

Regarding Wiring Diagram information, refer to SEC-27, "Wiring Diagram".

1.CHECK A/T SHIFT SELECTOR SWITCH FUNCTION

1. Turn ignition switch ON.
2. Select “SFT P -MET”, “SFT N -MET” and “SFT PN/N SW” in “Data Monitor” mode.
3. Check “SFT P -MET”, “SFT N -MET” and “SFT PN/N SW” indication under the following conditions:

Monitor item	Condition		Indication
SFT P -MET	A/T Shift selector	Selector lever is in any position except the P (Park) position	OFF
		Selector lever is in the P (Park) position	ON
SFT N -MET	A/T Shift selector	Selector lever is in any position except the N (Neutral) position	OFF
		Selector lever is in the N (Neutral) position	ON
SFT PN/N SW	A/T Shift selector	Selector lever is in and position except the P (Park) or N (Neutral) position	OFF
		Selector lever is in the P (Park) or N (Neutral) position	ON

Is the inspection result normal?

YES >> Refer to GI-47, "Intermittent Incident".
NO-1 >> If “SFT N -MET” or “SFT P -MET” is incorrect. GO TO 7.
NO-2 >> If “SFT PN/N SW” is incorrect. GO TO 2.

2.CHECK DTC OF TCM

CONSULT
Check DTC in “Self Diagnostic Result” mode of “TCM”.

Is DTC detected?

YES >> Perform the trouble diagnosis related to the detected DTC. Refer to TM-69, "DTC Index".
NO >> GO TO 3.

3.CHECK BCM INPUT SIGNAL

1. Turn ignition switch ON.
2. Check voltage between BCM harness connector and ground.

(+) BCM Connector	(+) BCM Terminal	(–)	Condition		Voltage (V) (Approx.)
M18	39	Ground	Selector lever	P (Park) or N (Neutral) position	Battery voltage
				Other than above	0

Is the inspection result normal?

YES >> GO TO 4.
NO >> GO TO 5.

4.REPLACE BCM

1. Replace BCM. Refer to BCS-79, "Removal and Installation".
2. Perform initialization of BCM and registration of all Intelligent Keys using CONSULT.

>> Inspection End.

5.CHECK BCM INPUT SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect transmission range switch connector.
3. Disconnect BCM connector.
4. Check continuity between transmission range switch harness connector and BCM harness connector.

Transmission range switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
F212	8	M18	39	Yes

5. Check continuity between transmission range switch harness connector and ground.

Transmission range switch		Ground	Continuity
Connector	Terminal		
F212	8		No

Is the inspection result normal?

YES >> GO TO 6.
NO >> Repair or replace harness.

6. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> Inspection End.

7. CHECK TRANSMISSION RANGE SWITCH FUNCTION (METER)

CONSULT
1. Turn ignition switch ON.
2. Select “SHIFT IND” in “Data Monitor” mode of "METER".
3. Check “SHIFT IND” indication under the following conditions:

Monitor item	Condition		Indication
SHIFT IND	A/T Shift selector	P (Park) position	P
		N (Neutral) position	N

Is the inspection result normal?

YES >> Inspection End.
NO >> Refer to SEC-109, "Component Inspection".

B2605 SHIFT POSITION

DTC Description

INFOID:0000000014391345

DTC DETECTION LOGIC

NOTE:

- If DTC B2605 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
- If DTC B2605 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2605	PNP/CLUTCH SW	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	When ignition switch is ON, P/N position signal input from TCM and P/N position signal (CAN) input from IPDM E/R do not match
		Diagnosis delay time	—

POSSIBLE CAUSE

- IPDM E/R
- BCM
- Harness or connectors
  (TCM circuit is open or shorted.)
- Harness or connector
  (The CAN communication line is open or shorted.)

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Shift the selector lever to the P (Park) position.
2. Turn ignition switch ON and wait 1 second or more.
3. Shift the selector lever to the N (Neutral) position and wait 1 second or more.
4. Shift the selector lever to any position other than P (Park) and N (Neutral) and wait 1 second or more.
5. Select “Self Diagnostic Result” mode of “BCM”.
6. Check DTC.

Is DTC detected?

YES >> Go to SEC-113, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000014391346

Regarding Wiring Diagram information, refer to SEC-27, "Wiring Diagram".

1.CHECK A/T SHIFT SELECTOR SWITCH FUNCTION

CONSULT

1. Turn ignition switch ON.
2. Select “SFT PN-IPDM” and “SFT PN/N SW” in “Data Monitor” mode.
3. Check “SFT PN-IPDM” and “SFT PN/N SW” indication under the following conditions:

Monitor item	Condition		Indication
SFT PN-IPDM	A/T Shift selector	Any position other than P (Park) or N (Neutral) position	OFF
		P (Park) or N (Neutral) position	ON
SFT PN/N SW	A/T Shift selector	Any position other than P (Park) or N (Neutral) position	OFF
		P (Park) or N (Neutral) position	ON

Is the inspection result normal?

YES >> Refer to GI-47, "Intermittent Incident".
NO-1 >> If “SFT PN-IPDM” is incorrect. GO TO 2.
NO-2 >> If “SFT PN/N SW” is incorrect. GO TO 5.

2.CHECK IPDM E/R INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Turn ignition switch ON.
4. Check voltage between IPDM E/R harness connector and ground.

(+)		(–)	Condition		Voltage (Approx.)
IPDM E/R					
Connector	Terminal				
E119	4	Ground	Selector lever	P (Park) or N (Neutral) position	Battery voltage
				Other than above	0

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-43, "Removal and Installation of IPDM E/R".
NO >> GO TO 3.

3.CHECK IPDM E/R INPUT SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Check continuity between IPDM E/R harness connector and transmission range switch harness connector.

IPDM E/R		Transmission range switch		Continuity
Connector	Terminal	Connector	Terminal	
E119	4	F212	8	Yes

4. Check continuity between IPDM E/R harness connector and ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		
E119	4		No

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace harness.

4.REPLACE IPDM E/R

1. Replace IPDM E/R. Refer to PCS-43, "Removal and Installation of IPDM E/R".

>> Inspection End.

5.CHECK BCM INPUT SIGNAL

1. Turn ignition switch ON.
2. Check voltage between BCM harness connector and ground.

(+) BCM		(–)	Condition		Voltage (Approx.)
Connector	Terminal				
M18	39	Ground	Selector lever	P (Park) or N (Neutral) position	Battery voltage
				Other than above	0

Is the inspection result normal?

YES >> GO TO 6.
NO >> GO TO 7.

6. REPLACE BCM

1. Replace BCM. Refer to BCS-79, "Removal and Installation".
2. Perform initialization of BCM and registration of all Intelligent Keys using CONSULT.

>> Inspection End.

7. CHECK BCM INPUT SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect transmission range switch connector.
3. Disconnect BCM connector.
4. Check continuity between transmission range switch harness connector and BCM harness connector.

Transmission range switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
F212	8	M18	39	Yes

5. Check continuity between transmission range switch harness connector and ground.

Transmission range switch		Ground	Continuity
Connector	Terminal		
F212	8		No

Is the inspection result normal?

YES >> GO TO 8.
NO >> Repair or replace harness.

8. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> Inspection End.

B2608 STARTER RELAY

DTC Description

INFOID:0000000014391347

DTC DETECTION LOGIC

NOTE:

- If DTC B2608 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
- If DTC B2608 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2608	STARTER RELAY	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	BCM outputs starter motor relay OFF signal but BCM receives starter motor relay ON signal from IPDM E/R (CAN)
		Diagnosis delay time	—

POSSIBLE CAUSE

- IPDM E/R
- Harness or connectors
  (Starter relay circuit is open or shorted.)
- Harness or connector
  (The CAN communication line is open or shorted.)

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Press push-button ignition switch under the following conditions to start engine:
- Shift selector lever: In the P (Park) position
- Brake pedal: Depressed
2. Wait 1 second after engine started.
3. Select “Self Diagnostic Result” mode of “BCM”.
4. Check DTC.

Is DTC detected?

YES >> Go to SEC-116, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000014391348

Regarding Wiring Diagram information, refer to SEC-27, "Wiring Diagram".

1.CHECK DTC OF IPDM E/R

CONSULT

Check DTC in “Self Diagnostic Result” mode of “IPDM E/R”.

Is DTC detected?

YES >> Perform the trouble diagnosis related to the detected DTC. Refer to PCS-23, "DTC Index".
NO >> GO TO 2.

2.CHECK BCM POWER SUPPLY CIRCUIT

1. Turn ignition switch ON.

2. Check voltage between BCM harness connector and ground.

(+)		(–)	Condition		Voltage (Approx.)
BCM					
Connector	Terminal				
M19	62	Ground	Selector lever	N (Neutral) or P (Park) position	Battery voltage
				Other than above	0

Is the inspection result normal?

YES >> GO TO 4.
NO >> GO TO 3.

3. CHECK STARTER RELAY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Disconnect BCM connector.
4. Check continuity between IPDM E/R harness connector and BCM harness connector.

IPDM E/R		BCM		Continuity
Connector	Terminal	Connector	Terminal	
E122	44	M19	62	Yes

5. Check continuity between IPDM E/R harness connector and ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		
E122	44		No

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-43, "Removal and Installation of IPDM E/R".
NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> Inspection End.

B260F ENGINE STATUS

DTC Description

INFOID:0000000014391349

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B260F	ENG STATE SIG LOST	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	BCM has not yet received the engine status signal from ECM when ignition switch is in the ON position.
		Diagnosis delay time	—

POSSIBLE CAUSE

- Harness or connectors
  (The CAN communication line is open or shorted.)
- ECM

FAIL-SAFE

Inhibit engine cranking

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC B260F is displayed with DTC U1000 or U1010, first perform the trouble diagnosis for DTC U1000 or U1010.

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. U1000: Refer to BCS-67, "DTC Description". U1010: Refer to BCS-68, "DTC Description".
NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

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

Is DTC detected?

YES >> Refer to SEC-118, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014391350

1.CHECK DTC PRIORITY

If DTC B260F is displayed with DTC U1000 or U1010, first perform the trouble diagnosis for DTC U1000 or U1010.

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. U1000: Refer to BCS-67, "DTC Description". U1010: Refer to BCS-68, "DTC Description".
NO >> GO TO 2.

2.INSPECTION START

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “BCM” using CONSULT.
3. Touch “ERASE”.
4. Perform DTC CONFIRMATION PROCEDURE for DTC B260F. Refer to SEC-118, "DTC Description".

Is DTC detected?

YES >> GO TO 3.
NO >> Inspection End.

3.REPLACE ECM

Replace ECM. Refer EC-1993, "Removal and Installation".

>> Inspection End.

B261B REMOTE ENGINE START

DTC Description

INFOID:0000000014391351

DTC DETECTION LOGIC

NOTE:

- If DTC B261B is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
- If DTC B261B is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B261B	BCM	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	The BCM has requested ignition OFF but ECM keeps the engine running for more than 10 seconds after the OFF request was made
		Diagnosis delay time	—

POSSIBLE CAUSE

- ECM

FAIL-SAFE

—

Diagnosis Procedure

INFOID:0000000014391352

1. CHECK ECM IGNITION, POWER AND GROUND CIRCUITS

Check ECM ignition power and ground circuits.

Is the inspection result normal?

YES >> Replace ECM. Refer to EC-1993, "Removal and Installation". GO TO 2.
NO >> Repair or replace harness or connectors.

2. INSPECTION

CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode.
3. Touch “ERASE”.
4. Perform vehicle remote start operation.

Does DTC B261B return?

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

B261E VEHICLE TYPE

DTC Description

INFOID:0000000014391353

There are two types of vehicles.
- HEV
- Conventional

DTC DETECTION LOGIC

NOTE:
- If DTC B261E is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
- If DTC B261E is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B261E	VEHICLE TYPE	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	Difference of BCM configuration
		Diagnosis delay time	—

POSSIBLE CAUSE

- BCM mis-configuration
- Wrong ECM installed

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON under the following conditions:
- Shift selector lever is in the P (Park) or N (Neutral) position.
- Do not depress brake pedal.
2. Select “Self Diagnostic Result” mode.
3. Check DTC.

Is DTC detected?

YES >> GO TO SEC-121, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000014391354

1.INSPECTION START

CONSULT
1. Turn ignition switch ON.
2. Check “Self Diagnostic Result” mode.
3. Touch “ERASE”.
4. Perform DTC Confirmation Procedure. Refer to SEC-121, "DTC Description".

Is the 1st trip DTC B261E displayed again?

YES >> GO TO 2.
NO >> Inspection End.

2.PERFORM BCM CONFIGURATION.

Perform the BCM configuration. Refer to BCS-63, "CONFIGURATION (BCM) : Work Procedure".

>> GO TO 3.

3.INSPECTION START

CONSULT
1. Turn ignition switch ON.
2. Check “Self Diagnostic Result” mode.
3. Touch “ERASE”.
4. Perform DTC Confirmation Procedure.
   Refer to SEC-121, "DTC Description".

Is the 1st trip DTC B261E displayed again?

YES >> GO TO 4.
NO >> Inspection End.

4.CONFIRM ECM PART NUMBER.

Confirm the part number of the installed ECM is correct.

Is the ECM part number correct?

YES >> Replace BCM. Refer to BCS-79, "Removal and Installation".
NO >> Replace ECM. Refer to EC-1993, "Removal and Installation".

B26F3 STARTER CONTROL RELAY

DTC Description

INFOID:0000000014391355

DTC DETECTION LOGIC

NOTE:

- If DTC B26F3 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
- If DTC B26F3 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B26F3	START CONT RLY ON	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	BCM requests IPDM E/R to turn starter control relay OFF, but BCM cannot receive starter control relay OFF state signal from IPDM E/R (CAN)
		Diagnosis delay time	—

POSSIBLE CAUSE

- IPDM E/R
- Harness or connector
  (The CAN communication line is open or shorted.)

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Press push-button ignition switch under the following conditions to start engine:
- Shift selector lever: In the P (Park) position.
- Brake pedal: Depressed
2. Wait 2 seconds after engine started.
3. Select “Self Diagnostic Result” mode of “BCM”.
4. Check DTC.

Is DTC detected?

YES >> GO TO SEC-123, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000014391356

1.CHECK DTC OF IPDM E/R

CONSULT

Check DTC in “Self Diagnostic Result” mode of “IPDM E/R”.

Is DTC detected?

YES >> Perform the diagnosis procedure related to the detected DTC. Refer to PCS-23, "DTC Index".
NO >> GO TO 2.

2.CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> Inspection End.

B26F4 STARTER CONTROL RELAY

DTC Description

INFOID:0000000014391357

DTC DETECTION LOGIC

NOTE:

- If DTC B26F4 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
- If DTC B26F4 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B26F4	START CONT RELAY OFF	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	BCM requests IPDM E/R to turn starter control relay ON, but BCM cannot receive starter control relay ON state signal from IPDM E/R
		Diagnosis delay time	—

POSSIBLE CAUSE

- IPDM E/R
- Harness or connector
  (The CAN communication line is open or shorted.)

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Press push-button ignition switch under the following conditions to start engine, and wait 1 second or more:
- Shift selector lever: In the P (Park) position
- Brake pedal: Depressed
2. Select “Self Diagnostic Result” mode of “BCM”.
3. Check DTC.

Is DTC detected?

YES >> GO TO SEC-124, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000014391358

1.CHECK DTC OF IPDM E/R

CONSULT

Check DTC in “Self Diagnostic Result” mode of “IPDM E/R”.

Is DTC detected?

YES >> Perform the diagnosis procedure related to the detected DTC. Refer to PCS-23, "DTC Index".
NO >> GO TO 2.

2.CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> Inspection End.

B26FC KEY REGISTRATION

DTC Description

INFOID:0000000014391359

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B26FC	KEY REGISTRATION	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	Intelligent Key that does not match the vehicle is registered
		Diagnosis delay time	—

POSSIBLE CAUSE

- Improper registration operation
- Intelligent Key
- BCM

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Perform initialization of BCM and reregistration of all Intelligent Keys.
2. Select “Self Diagnostic Result” mode of “BCM”.
3. Check DTC.

Is DTC detected?

YES >> Go to SEC-125, "Diagnosis Procedure"
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000014391360

1.REPLACE INTELLIGENT KEY

CONSULT

1. Prepare Intelligent Key that matches the vehicle.
2. Perform initialization of BCM and registration of Intelligent Key using CONSULT.
3. Select “Self Diagnostic Result” mode of “BCM”.
4. Check DTC.

Is DTC detected?

YES >> GO TO 2.
NO >> Inspection End.

2.REPLACE BCM

1. Replace BCM. Refer to BCS-79, "Removal and Installation".
2. Perform initialization of BCM and registration of all Intelligent Keys. For initialization and registration of Intelligent Keys, refer to CONSULT Immobilizer mode and follow the on-screen instructions.

>> Inspection End.

B26F7 BCM

DTC Description

INFOID:0000000014391361

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B26F7	BCM	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	Inside key antenna output circuit in BCM is malfunctioning
		Diagnosis delay time	—

POSSIBLE CAUSE

- BCM

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Press door request switch.
2. Turn ignition switch ON.
3. Select “Self Diagnostic Result” mode of “BCM”.
4. Check DTC.

Is DTC detected?

YES >> GO TO SEC-126, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000014391362

1.INSPECTION START

CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “BCM”.
3. Touch “ERASE”.
4. Perform DTC CONFIRMATION PROCEDURE for DTC B26F7. Refer to SEC-126, "DTC Description".

Is DTC detected?

YES >> GO TO 2.
NO >> Inspection End.

2.REPLACE BCM

1. Replace BCM. Refer to BCS-79, "Removal and Installation".
2. Perform initialization of BCM and registration of all Intelligent Keys using CONSULT.

>> Inspection End.

B210B STARTER CONTROL RELAY

DTC Description

INFOID:0000000014391363

Starter control relay, integrated in IPDM E/R, permits the starter relay operation when in N (Neutral) or P (Park) position. It is installed in parallel with the starter relay.

DTC DETECTION LOGIC

NOTE:

- If DTC B210B is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
- If DTC B210B is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B210B	START CONT RLY ON	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	IPDM E/R detects that the relay is stuck at ON position even if the following conditions are met for about 1 second: • Starter control relay ON/OFF signal from BCM • Transmission range switch input signal
		Diagnosis delay time	—

POSSIBLE CAUSE

- IPDM E/R
- Harness or connector

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn the power supply position to start under the following conditions and wait for at least 1 second:
- A/T selector lever is in the P (Park) or N (Neutral) position.
- Depress the brake pedal
2. Check “Self Diagnostic Result” mode.

Is DTC detected?

YES >> Refer to SEC-127, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000014391364

1.INSPECTION START

CONSULT

1. Turn ignition switch ON.
2. Check “Self Diagnostic Result” mode.
3. Touch “ERASE”.
4. **Perform DTC Confirmation Procedure.**
   See PCS-23, "DTC Index".

Is the DTC B210B displayed again?

YES >> Replace IPDM E/R. Refer to PCS-43, "Removal and Installation of IPDM E/R".
NO >> Inspection End.

B210C STARTER CONTROL RELAY

DTC Description

INFOID:0000000014391365

Starter control relay, integrated in IPDM E/R, permits the starter relay operation when in N (Neutral) or P (Park) position. It is installed in parallel with the starter relay.

DTC DETECTION LOGIC

NOTE:

- If DTC B210C is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
- If DTC B210C is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B210C	START CONT RLY OFF	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	IPDM E/R detects that the relay is stuck at OFF position even if the following conditions are met for about 1 second: • Starter control relay ON/OFF signal from BCM • Transmission range switch input signal
		Diagnosis delay time	—

POSSIBLE CAUSE

- IPDM E/R
- Harness or connector

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn the power supply position to start under the following conditions and wait for at least 1 second:
- A/T selector lever is in the P (Park) or N (Neutral) position.
- Depress the brake pedal
2. Check “Self Diagnostic Result” mode.

Is DTC detected?

YES >> Refer to SEC-128, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000014391366

1.INSPECTION START

CONSULT

1. Turn ignition switch ON.
2. Check “Self Diagnostic Result” mode.
3. Touch “ERASE”.
4. **Perform DTC Confirmation Procedure.**
   Refer to PCS-23, "DTC Index".

Is the DTC B210C displayed again?

YES >> Replace IPDM E/R. Refer to PCS-43, "Removal and Installation of IPDM E/R".
NO >> Inspection End.

B210D STARTER RELAY

DTC Description

INFOID:0000000014391367

Located in IPDM E/R, the starter relay runs the starter motor. The starter relay is turned ON by the BCM when the ignition switch is in START position. IPDM E/R transmits the starter relay ON signal to BCM via CAN communication.

DTC DETECTION LOGIC

NOTE:

- If DTC B210D is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
- If DTC B210D is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B210D	STARTER RELAY ON	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	IPDM E/R terminal 20
		Threshold	IPDM E/R detects that the relay is stuck at ON position even if the following conditions are met for about 1 second: • Starter control relay ON/OFF signal from BCM • Transmission range switch input
		Diagnosis delay time	—

POSSIBLE CAUSE

- IPDM E/R
- Harness or connector

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Ignition switch ON under the following conditions and wait for at least 1 second:
- A/T selector lever is in the P (Park) or N (Neutral) position
- Do not depress the brake pedal
2. Select “Self Diagnostic Result” mode.
3. Check DTC.

Is DTC detected?

YES >> Refer to SEC-129, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000014391368

Regarding Wiring Diagram information, refer to SEC-27, "Wiring Diagram".

1.CHECK STARTER RELAY POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R harness connector.
3. Check voltage between IPDM E/R harness connector and ground.

IPDM E/R		Ground	Voltage (Approx.)
Connector	Terminal		
E120	20		Battery voltage

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-43, "Removal and Installation of IPDM E/R".
NO >> Check harness for open or short between IPDM E/R and battery.

B210E STARTER RELAY

DTC Description

INFOID:0000000014391369

Located in IPDM E/R, it runs the starter motor. The starter relay is turned ON by the BCM when the ignition switch is in START position. IPDM E/R transmits the starter relay ON signal to BCM via CAN communication.

DTC DETECTION LOGIC

NOTE:

- If DTC B210E is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
- If DTC B210E is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B210E	STARTER RELAY OFF	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	IPDM E/R detects that the relay is stuck at ON position even if the following conditions are met for about 1 second: • Starter control relay ON/OFF signal from BCM • Transmission range switch input
		Diagnosis delay time	—

POSSIBLE CAUSE

- IPDM E/R
- Harness or connector

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON under the following conditions and wait for at least 1 second:
- A/T selector lever is in the P (Park) or N (Neutral) position.
- Do not depress the brake pedal.
2. Select “Self Diagnostic Result” mode.
3. Check DTC.

Is DTC detected?

YES >> Refer to SEC-131, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000014391370

Regarding Wiring Diagram information, refer to SEC-27, "Wiring Diagram".

1.CHECK STARTER RELAY OUTPUT SIGNAL A/T MODELS

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

BCM connector		Ground	Condition			Voltage (Approx.)
Connector	Terminal		Ignition switch	Brake pedal	A/T selector lever	
M19	62	Ground	ON	Depressed	P (Park) or N (Neutral)	Battery voltage
					Other than above	0

Is the inspection result normal?

YES >> GO TO 3.
NO >> GO TO 2.

2.CHECK STARTER RELAY OUTPUT SIGNAL CIRCUIT

1. Disconnect IPDM E/R harness connector.
2. Check continuity between IPDM E/R harness connector and BCM harness connector.

IPDM E/R		BCM		Continuity
Connector	Terminal	Connector	Terminal	
E122	44	M19	62	Yes

3. Check continuity between BCM harness connector and ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		
E122	44	Ground	No

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-43, "Removal and Installation of IPDM E/R".
NO >> Repair harness connector.

3.CHECK STARTER RELAY POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R harness connector.
3. Check voltage between IPDM E/R harness connector and ground.

IPDM E/R		Ground	Voltage (Approx.)
Connector	Terminal		
E122	44	Ground	Battery voltage

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-43, "Removal and Installation of IPDM E/R".
NO >> Check harness for open or short between IPDM E/R and battery.

B210F TRANSMISSION RANGE SWITCH

DTC Description

INFOID:0000000014391371

IPDM E/R confirms the shift position with the following signals:
- Transmission range switch
- Shift position signal from BCM (CAN)

DTC DETECTION LOGIC

NOTE:
- If DTC B210F is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
- If DTC B210F is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B210F	TRANSMISSION RANGE SWITCH	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	IPDM E/R detects a mismatch between the signals below for 1 second or more: • Transmission range switch input signal • Shift position signal from BCM (CAN)
		Diagnosis delay time	—

FAIL-SAFE

—

POSSIBLE CAUSE

- Transmission range switch
- Harness or connector
  Transmission range switch circuit is open or shorted

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON under the following conditions and wait for at least 1 second:
- A/T selector lever is in the P (Park) or N (Neutral) position
- Do not depress the brake pedal
2. Select “Self Diagnostic Result” mode.
3. Check DTC.

Is DTC detected?

YES >> Refer to SEC-133, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000014391372

Regarding Wiring Diagram information, refer to SEC-27, "Wiring Diagram".

1.CHECK DTC WITH BCM

Refer to BCS-52, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace malfunctioning parts.

2.CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R harness connector.
3. Turn ignition switch ON.
4. Check voltage between IPDM E/R harness connector and ground under following condition:

IPDM E/R		Ground	Condition		Voltage (Approx.)
Connector	Terminal				
E119	4	Ground	A/T selector lever	P (Park) or N (Neutral)	Battery voltage
				Other than above	0

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-43, "Removal and Installation of IPDM E/R".
NO >> GO TO 3.

3. CHECK TRANSMISSION RANGE SWITCH CIRCUIT FOR CONTINUITY

1. Turn ignition switch OFF.
2. Check continuity between IPDM E/R harness connector.

IPDM E/R		Condition		Continuity
Connector	Terminals			
E119	13	Transmission range switch	P or N	Yes
	4		Other	No

Is the inspection result normal?

YES >> GO TO 4.
NO >> GO TO 5.

4. CHECK TRANSMISSION RANGE SWITCH CIRCUIT FOR SHORT

Check continuity between IPDM E/R harness connector and ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		
E119	13	Ground	No
	4		

Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to PCS-43, "Removal and Installation of IPDM E/R".
NO >> Repair or replace harness.

5. CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL CIRCUIT

1. Disconnect transmission range switch harness connector.
2. Check continuity between transmission range switch and IPDM E/R harness connectors.

Transmission range switch		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
F212	9	E119	13	Yes
	8		4	

3. Check continuity between transmission range switch harness connector and ground.

Transmission range switch		Ground	Continuity
Connector	Terminal		
F212	9	Ground	No
	8		

Is the inspection result normal?

YES >> GO TO 6.
NO >> Repair harness or connector.

6. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> Inspection End.

B2110 TRANSMISSION RANGE SWITCH

DTC Description

INFOID:0000000014391373

IPDM E/R confirms the shift position with the following signals:
- Transmission range switch
- Shift position signal from BCM (CAN)

DTC DETECTION LOGIC

NOTE:
- If DTC B2110 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
- If DTC B2110 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2110	TRANSMISSION RANGE SWITCH	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	IPDM E/R terminals 4 and 13
		Threshold	IPDM E/R detects mismatch between the signal below for 1 second or more: • Transmission range switch input signal
		Diagnosis delay time	—

POSSIBLE CAUSE

- Transmission range switch
- Transmission range switch circuit is open or shorted.
- Harness or connector

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn the ignition switch ON under the following conditions and wait for at least 1 second:
- A/T selector lever is in the P (Park) or N (Neutral) position.
- Do not depress the brake pedal.
2. Select “Self Diagnostic Result” mode.
3. Check DTC.

Is DTC detected?

YES >> Refer to SEC-136, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000014391374

Regarding Wiring Diagram information, refer to SEC-27, "Wiring Diagram".

1.CHECK DTC WITH BCM

Refer to BCS-52, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace malfunctioning parts.

2.CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.

2. Disconnect IPDM E/R harness connector.
3. Turn ignition switch ON.
4. Check voltage between IPDM E/R harness connector and ground under following condition:

IPDM E/R		Ground	Condition		Voltage (Approx.)
Connector	Terminal				
E119	4	Ground	A/T selector lever	P (Park) or N (Neutral)	Battery voltage
				Other than above	0

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-43, "Removal and Installation of IPDM E/R".
NO >> GO TO 3.

3. CHECK TRANSMISSION RANGE SWITCH CIRCUIT FOR CONTINUITY

1. Turn ignition switch OFF.
2. Check continuity between IPDM E/R harness connector.

IPDM E/R		Condition		Continuity
Connector	Terminals			
E119	13	Transmission range switch	P or N	Yes
	4		Other	No

Is the inspection result normal?

YES >> GO TO 4.
NO >> GO TO 5.

4. CHECK TRANSMISSION RANGE SWITCH CIRCUIT FOR SHORT

Check continuity between IPDM E/R harness connector and ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		
E119	13	Ground	No
	4		

Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to PCS-43, "Removal and Installation of IPDM E/R".
NO >> Repair or replace harness.

5. CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL CIRCUIT

1. Disconnect transmission range switch harness connector.
2. Check continuity between transmission range switch and IPDM E/R harness connectors.

Transmission range switch		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
F212	9	E119	13	Yes
	8		4	

3. Check continuity between transmission range switch harness connector and ground.

Transmission range switch		Ground	Continuity
Connector	Terminal		
F212	9	Ground	No
	8		

Is the inspection result normal?

YES >> GO TO 6.
NO >> Repair harness or connector.

6.CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> Inspection End.

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM : Diagnosis Procedure

INFOID:0000000014664561

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

1. CHECK FUSE AND FUSIBLE LINK

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

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

Is the fuse or fusible link blown?

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

2. CHECK POWER SUPPLY CIRCUIT

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

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

Is the inspection result normal?

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

3. CHECK GROUND CIRCUIT

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

BCM		Ground	Continuity
Connector	Terminal		
M81	134	—	Yes
	143		

Is the inspection result normal?

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

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) : Diagnosis Procedure

INFOID:0000000014664562

Regarding Wiring Diagram information, refer to PCS-25, "CUMMINS 5.0L : Wiring Diagram".

1. CHECK FUSIBLE LINKS

Check that the following fusible links are not blown.

Terminal	Signal name	Fusible link No.	
		Cummins 5.0L	VK56VD
1	Battery power supply	A (250A), D (100A)	A (250A), B (80A)
2		C (100A)	E (60A)
20		F (250A), J (100A), P (40A)	A (250A), C (100A), U (40A)

Is the fusible link blown?

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

2. CHECK POWER SUPPLY CIRCUIT

1. Disconnect IPDM E/R connectors E118 and E120.
2. Check voltage between IPDM E/R connectors and ground.

IPDM E/R		Ground	Voltage (Approx.)
Connector	Terminal		
E118	1	(—)	Battery voltage
	2		
E120	20		

Is the inspection result normal?

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

3. CHECK GROUND CIRCUIT

1. Disconnect IPDM E/R connectors E123 and E124.
2. Check continuity between IPDM E/R connectors and ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		
E123	52	—	Yes
E124	62		

Is the inspection result normal?

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

SECURITY INDICATOR LAMP

Component Function Check

INFOID:0000000014391377

1.CHECK FUNCTION

CONSULT
1. Perform “THEFT IND” in “Active Test” mode of “IMMU” of “BCM”.
2. Check security indicator lamp operation.

Test item		Description	
THEFT IND	ON	Security indicator lamp	Illuminates
	OFF		Does not illuminate

Is the inspection result normal?

YES >> Inspection End.
NO >> Go to SEC-141, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000014391378

Regarding Wiring Diagram information, refer to SEC-50, "Wiring Diagram".

1.CHECK FUSE

1. Turn power switch OFF.
2. Check that the following fuse in the fuse block (J/B) is not blown.

Signal name	Fuse No.
Battery power supply	13 (10 A)

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace the blown fuse after repairing the cause of blowing.

2.CHECK SECURITY INDICATOR LAMP POWER SUPPLY CIRCUIT

1. Disconnect combination meter connector.
2. Check voltage between combination meter harness connector and ground.

Type A meter

(+) Combination meter		(–)	Condition		Voltage (Approx.)
Connector	Terminal				
M25	42	Ground	Ignition switch	OFF	Battery voltage
				ON	

Type B meter

(+) Combination meter		(–)	Condition		Voltage (Approx.)
Connector	Terminal				
M163	6	Ground	Ignition switch	OFF	Battery voltage
				ON	

Is the inspection result normal?

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

3.CHECK SECURITY INDICATOR LAMP SIGNAL

1. Connect combination meter connector.
2. Disconnect BCM connector.
3. Check voltage between BCM harness connector and ground.

(+)		(–)	Voltage (Approx.)
BCM			
Connector	Terminal		
M18	18	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 4.
NO >> GO TO 5.

4. REPLACE BCM

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

>> Inspection End.

5. CHECK SECURITY INDICATOR LAMP CIRCUIT

1. Disconnect combination meter connector.
2. Check continuity between combination meter harness connector and BCM harness connector.

Type A meter

Combination meter		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M24	7	M18	18	Yes

Type B meter

Combination meter		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M163	7	M18	18	Yes

3. Check continuity between combination meter harness connector and ground.

Type A meter

Combination meter		Ground	Continuity
Connector	Terminal		
M24	7		No

Type B meter

Combination meter		Ground	Continuity
Connector	Terminal		
M163	7		No

Is the inspection result normal?

YES >> Replace combination meter. Refer to MWI-108, "Removal and Installation" (type A meter) and MWI-187, "Removal and Installation" (type B meter)
NO >> Repair or replace harness.

HORN FUNCTION

Component Function Check

INFOID:0000000014391379

1.CHECK FUNCTION

CONSULT
1. Perform “VEHICLE SECURITY HORN” in “Active Test” mode of “THEFT ALM” of “BCM”.
2. Check the horn operation.

Test item		Description	
VEHICLE SECURITY HORN	ON	Horn	Sounds (for 0.5 sec.)

Is the operation normal?

YES >> Horn function is OK.
NO >> Go to SEC-143, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000014391380

Regarding Wiring Diagram information, refer to SEC-50, "Wiring Diagram".

1.CHECK HORN FUNCTION

Check horn function with horn switch.

Do horns sound?

YES >> GO TO 2.
NO >> Perform the trouble diagnosis for horn circuit. Refer to HRN-3, "Wiring Diagram".

2.CHECK IPDM E/R POWER SUPPLY CIRCUIT

1. Disconnect horn relay connector.
2. Check continuity between IPDM E/R harness connector and horn relay harness connector.

IPDM E/R		Horn relay		Continuity
Connector	Terminal	Connector	Terminal	
E122	48	H-1	1	Yes

3. Check continuity between IPDM E/R harness connector and ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		
E122	48		No

Is the inspection result normal?

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

3.CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> Inspection End.

SYMPTOM DIAGNOSIS

INTELLIGENT KEY SYSTEM SYMPTOMS

Diagnosis Procedure

INFOID:0000000014391381

NOTE:
Perform the self-diagnosis with CONSULT before the symptom diagnosis. Perform the trouble diagnosis if any DTC is detected.

SYMPTOM TABLE 1 (BOTH INTELLIGENT KEYS HAVE THE SAME SYMPTOMS)

No.	Door lock operation (remote keyless entry)	Door lock operation (request switch)	Engine started with push-button ignition switch operation (registered Intelligent Key is within the detection area of inside key antenna)	Engine started with push-button ignition switch operation (registered Intelligent Key placed next to push-button ignition switch)	Symptom
1	OK	OK	No start	No start	SEC-145
2	OK	NG	OK	OK	DLK-135
3	OK	NG	No crank, No start	OK	DLK-129
4	NG	NG	No crank, No start	OK	DLK-131
5	NG	NG	No start	No start	DLK-132
6	OK	OK	No crank, No start	OK	SEC-146
7	NG	OK	OK	OK	DLK-134
8	NG	NG	OK	OK	DLK-135
9	Poor range	OK	OK	OK	DLK-136

SYMPTOM TABLE 2 (ONE INTELLIGENT KEY HAS THE SYMPTOM, OTHER KEYS OPERATE NORMALLY)

No.	Door lock operation (remote keyless entry)	Door lock operation (request switch)	Engine started with push-button ignition switch operation (Intelligent Key is within the detection area of inside key antenna)	Engine started with push-button ignition switch operation (registered Intelligent Key placed next to push-button ignition switch)	Symptom
1	NG	OK	OK	OK	DLK-138
2	NG	NG	No crank, No start	OK	DLK-139
3	NG	NG	No crank, No start	No crank, No start	DLK-141
4	OK	OK	No crank, No start	No crank, No start	SEC-148
5	OK	NG	No crank, No start	OK	SEC-149
6	Poor range	OK	OK	OK	DLK-143

ENGINE CAN NOT START

Description

INFOID:0000000014391382

Engine does not start when push-button ignition switch is pressed.

SYMPTOM TABLE (BOTH INTELLIGENT KEYS HAVE THE SAME SYMPTOMS)

Door lock operation (remote keyless entry)	Door lock operation (request switch)	Engine started with push-button ignition switch operation (registered Intelligent Key is within the detection area of inside key antenna)	Engine started with push-button ignition switch operation (registered Intelligent Key placed next to push-button ignition switch)
OK	OK	No start	No start

CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

“ENGINE START BY I-KEY” setting in “Work support” mode of “INTELLIGENT KEY” of “BCM” is ON.

DIAGNOSIS PROCEDURE

Refer to SEC-145, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000014391383

1.CHECK INTELLIGENT KEY SYSTEM SYMPTOM TABLE

Check Intelligent Key system symptom table.
Refer to SEC-144, "Diagnosis Procedure".

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS RESULT

Select “Self Diagnostic Result” mode of all systems, and check if DTC is detected.

>> Follow troubleshooting for each DTC.

ENGINE DOES NOT START WHEN INTELLIGENT KEY IS INSIDE OF VEHICLE

Description

INFOID:0000000014391384

Engine does not start when push-button ignition switch is pressed while carrying Intelligent Key.

NOTE:

- Before starting diagnosis check that vehicle condition is as shown in “Conditions of vehicle”, and check each symptom.
- The engine start function, door lock function, power distribution system, and NATS-IVIS/NVIS in the Intelligent Key system are closely related to each other regarding control. The vehicle security function can operate only when the door lock and power distribution system are operating normally.

SYMPTOM TABLE (BOTH INTELLIGENT KEYS HAVE THE SAME SYMPTOMS)

Door lock operation (remote keyless entry)	Door lock operation (request switch)	Engine started with push-button ignition switch operation (registered Intelligent Key is within the detection area of inside key antenna)	Engine started with push-button ignition switch operation (registered Intelligent Key placed next to push-button ignition switch)
OK	OK	No crank, No start	OK

CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

- “ENGINE START BY I-KEY” setting in “Work support” mode of “INTELLIGENT KEY” of “BCM” is ON.
- One or more Intelligent Keys with a registered Intelligent Key ID are in the vehicle.

DIAGNOSIS PROCEDURE

Refer to SEC-146, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000014391385

1.CHECK INTELLIGENT KEY SYSTEM SYMPTOM TABLE

Check Intelligent Key system symptom table.

Refer to SEC-144, "Diagnosis Procedure".

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS RESULT

Select “Self Diagnostic Result” mode of “BCM”, and check if DTC is detected.

Is DTC detected?

YES >> Perform the trouble diagnosis for the detected DTC.
NO >> GO TO 3.

3.CHECK “ENGINE START BY I-KEY” SETTING IN “WORK SUPPORT”

1. Select “INTELLIGENT KEY” of “BCM” using CONSULT.
2. Select “ENGINE START BY I-KEY” of “Work support” mode.
3. Check “ENGINE START BY I-KEY” in “Work support”.

Is the inspection result normal?

YES >> GO TO 4.
NO >> Set “On” in “ENGINE START BY I-KEY”.

4.CHECK INSIDE KEY ANTENNA

Use SIGNAL TECH II to check each inside key antenna. For the inspection method and how to use SIGNAL TECH II, refer to “NISSAN/INFINITI SIGNAL TECH II USER GUIDE”.

Is the inspection result normal?

YES >> GO TO 5.
NO >> Repair or replace malfunctioning parts.

5.REPLACE BCM

1. Replace BCM. Refer to BCS-79, "Removal and Installation".
2. Check operation after replacement.

Is the inspection result normal?

YES >> Inspection End.
NO >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".

ENGINE DOES NOT START WHEN INTELLIGENT KEY IS INSIDE OF VEHICLE (ONE KEY)

Description

INFOID:0000000014391386

Engine does not start when push-button ignition switch is pressed. (One Intelligent Key has the symptom, other keys operate normally.)

SYMPTOM TABLE (ONE INTELLIGENT KEY HAS THE SYMPTOM, OTHER KEYS OPERATE NORMALLY)

Door lock operation (remote keyless entry)	Door lock operation (request switch)	Engine started with push-button ignition switch operation (Intelligent Key is within the detection area of inside key antenna)	Engine started with push-button ignition switch operation (registered Intelligent Key placed next to push-button ignition switch)
OK	OK	No crank, No start	No crank, No start

DIAGNOSIS PROCEDURE

Refer to SEC-148, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000014391387

1.CHECK INTELLIGENT KEY SYSTEM SYMPTOM TABLE

Check Intelligent Key system symptom table.
Refer to SEC-144, "Diagnosis Procedure".

>> GO TO 2.

2.REGISTER INTELLIGENT KEY

1. Register the Intelligent Key.
2. Check operation after replacement.

Is the inspection result normal?

YES >> Inspection End.
NO >> GO TO 3.

3.REPLACE INTELLIGENT KEY

1. Replace the Intelligent Key and perform registration again.
2. Check operation after replacement.

Is the inspection result normal?

YES >> Inspection End.
NO >> GO TO 4.

4.REPLACE BCM

1. Replace BCM. Refer to BCS-79, "Removal and Installation".
2. Check operation after replacement.

Is the inspection result normal?

YES >> Inspection End.
NO >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".

DOOR DOES NOT LOCK/UNLOCK AND ENGINE DOES NOT START (REQ SW/PUSH SW) (ONE KEY)

Description

INFOID:0000000014391388

Door does not lock/unlock with door request switch, and engine does not start when push-button ignition switch is pressed while carrying Intelligent Key. (One Intelligent Key has the symptom, other keys operate normally.)

SYMPTOM TABLE (ONE INTELLIGENT KEY HAS THE SYMPTOM, OTHER KEYS OPERATE NORMALLY)

Door lock operation (remote keyless entry)	Door lock operation (request switch)	Engine started with push-button ignition switch operation (Intelligent Key is within the detection area of inside key antenna)	Engine started with push-button ignition switch operation (registered Intelligent Key placed next to push-button ignition switch)
OK	NG	No crank, No start	OK

DIAGNOSIS PROCEDURE

Refer to SEC-149, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000014391389

1.CHECK INTELLIGENT KEY SYSTEM SYMPTOM TABLE

Check Intelligent Key system symptom table.
Refer to SEC-144, "Diagnosis Procedure".

>> GO TO 2.

2.CHECK INTELLIGENT KEY LOW BATTERY WARNING

Check that the Intelligent Key low battery warning operates.

Is the Intelligent Key low battery warning operated?

YES >> Replace Intelligent Key battery. Refer to DLK-198, "Removal and Installation".
NO >> GO TO 3.

3.CHECK INTELLIGENT KEY BATTERY

Check the Intelligent Key battery.

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace Intelligent Key battery. Refer to DLK-198, "Removal and Installation".

4.REGISTER INTELLIGENT KEY

1. Register the Intelligent Key.
2. Check operation after replacement.

Is the inspection result normal?

YES >> Inspection End.
NO >> GO TO 5.

5.REPLACE INTELLIGENT KEY

1. Replace the Intelligent Key and perform registration again.
2. Check operation after replacement.

Is the inspection result normal?

YES >> Inspection End.
NO >> GO TO 6.

6.REPLACE BCM

1. Replace BCM. Refer to BCS-79, "Removal and Installation".
2. Check operation after replacement.

Is the inspection result normal?

YES >> Inspection End.
NO >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".

REMOVAL AND INSTALLATION

NATS ANTENNA AMP.

Removal and Installation

INFOID:0000000014391390

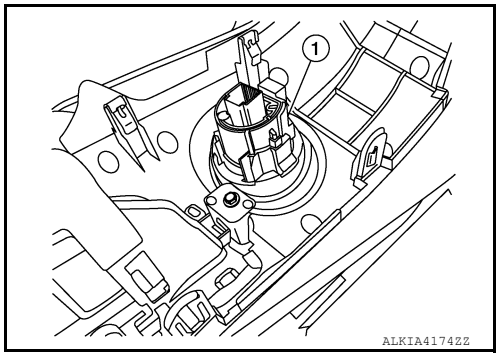
NATS ANTENNA AMP.

NOTE:

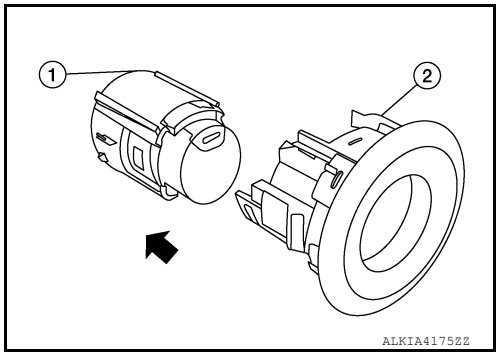
- If NATS antenna amp. is not installed correctly, NVIS (NATS) system will not operate properly and “SELF DIAGNOSTIC RESULT” on CONSULT screen will show “LOCK MODE" or "CHAIN OF IMMU-KEY".
- Initialization is not necessary when only the NATS antenna amp. is replaced with a new one.

Removal

1. Disconnect the battery or batteries. Refer to PG-185, "Battery Disconnect".
2. Remove the cluster lid C finisher (LH). Refer to IP-16, "CLUSTER LID C FINISHER : Removal and Installation".
3. Disconnect the harness connectors from the NATS antenna amp. and push-button ignition switch.
4. Remove the NATS antenna amp. and push-button ignition switch (1).



5. Release the pawls and separate the push-button ignition switch (1) from the NATS antenna amp. (2).



Installation

Installation is in the reverse order of removal.

REMOTE KEYLESS ENTRY RECEIVER

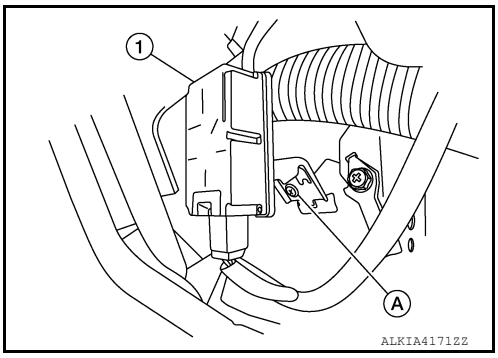
Removal and Installation

INFOID:0000000014391391

REMOTE KEYLESS ENTRY RECEIVER

Removal

1. Remove instrument upper panel. Refer to IP-17, "INSTRUMENT UPPER PANEL : Removal and Installation".
2. Disconnect the harness connector from the remote keyless entry receiver (1).
3. Remove screw (A) and remote keyless entry receiver.



4. Remove remote keyless entry receiver from bracket.

Installation

Installation is in the reverse order of removal.

PUSH BUTTON IGNITION SWITCH

Removal and Installation

INFOID:0000000014391392

For removal and installation of the push-button ignition switch, refer to PCS-98, "Removal and Installation".

BCM (BODY CONTROL MODULE)

Removal and Installation

INFOID:0000000014391393

For removal and installation of the Body Control Module (BCM), refer to BCS-79, "Removal and Installation".