# SECTION SEC
# SECURITY CONTROL SYSTEM

## CONTENTS

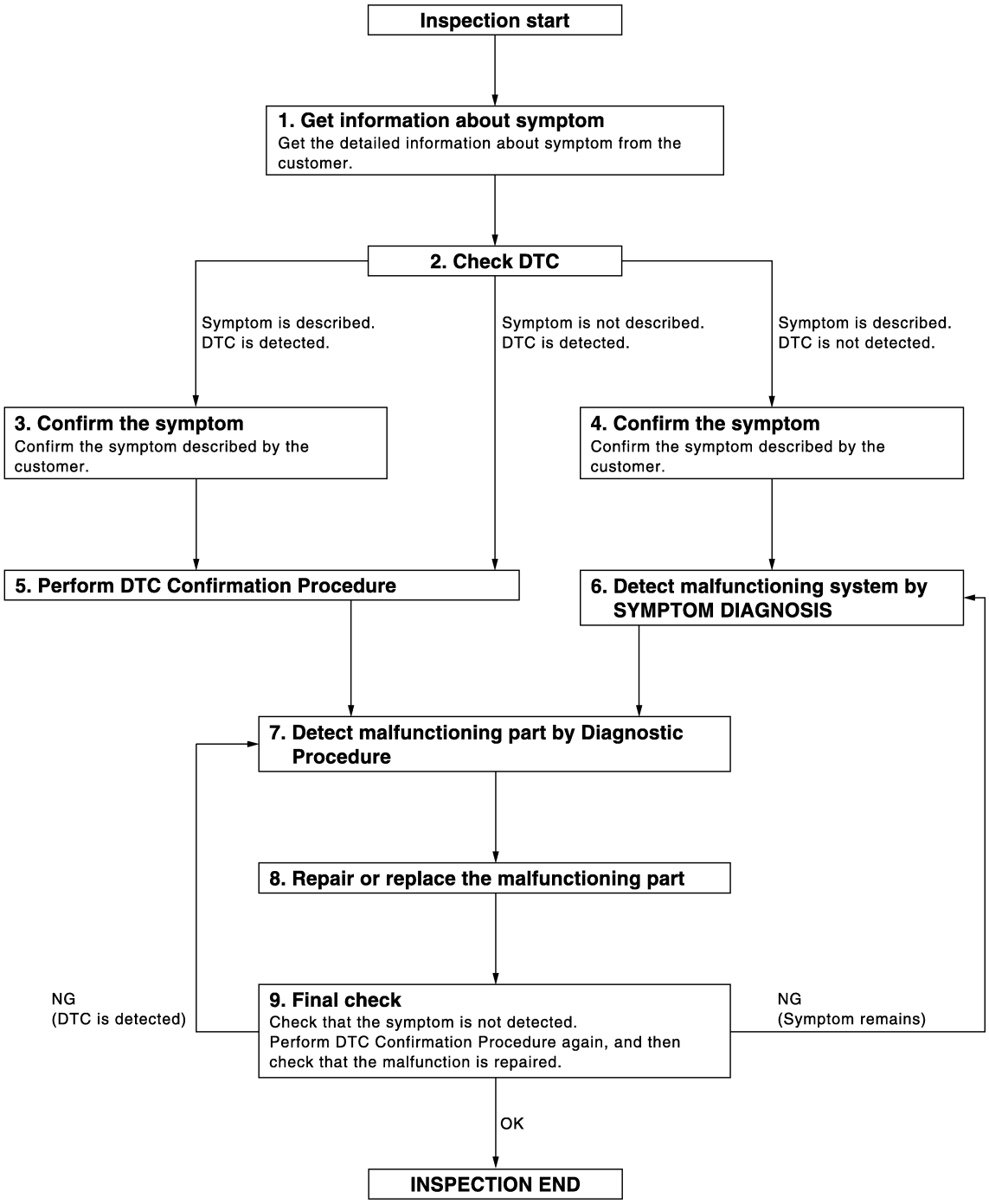
# BASIC INSPECTION

## DIAGNOSIS AND REPAIR WORK FLOW

### Work Flow

INFOID:0000000005491899

#### OVERALL SEQUENCE

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#### DETAILED FLOW

## 1.GET INFORMATION ABOUT SYMPTOM

Get detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurrs).

>> GO TO 2.

## 2.CHECK DTC

1. Check BCM and IPDM E/R for DTC.
2. Perform the following procedure if DTC is detected.

- Record DTC and freeze frame data (Print them out using CONSULT-III.)
- 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

Confirm the symptom described by the customer.
Connect CONSULT-III to the vehicle in the “DATA MONITOR” mode and check real time diagnosis results.
Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 5.

## 4.CONFIRM THE SYMPTOM

Confirm the symptom described by the customer.
Connect CONSULT-III to the vehicle in the “DATA MONITOR ” mode and check real time diagnosis results.
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-III to the vehicle, and check diagnostic results in real time.
If two or more DTCs are detected, refer to SEC-173, "DTC Inspection Priority Chart" (BCM) or SEC-189, "DTC Index" (IPDM E/R), and determine trouble diagnosis order.

Is DTC detected?

YES >> GO TO 7.
NO >> Refer to GI-35, "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.

>> GO TO 7.

## 7.DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

Inspect according to Diagnostic Procedure of the system.
**NOTE:**
The Diagnostic Procedure is described based on open and short circuit inspection.

Is malfunctioning part detected?

YES >> GO TO 8.
NO >> Check voltage of related BCM terminals using CONSULT-III.

## 8.REPAIR OR REPLACE THE MALFUNCTIONING PART

1. Repair or replace the malfunctioning part.

2. Reconnect parts or connectors disconnected during Diagnostic Procedure again 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 or Component Function Check 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.

Does the symptom reappear?

YES (DTC is detected)>>GO TO 7.
YES (Symptom remains)>>GO TO 6.
NO >> INSPECTION END

# INSPECTION AND ADJUSTMENT
## ECM RECOMMUNICATING FUNCTION

### ECM RECOMMUNICATING FUNCTION : Description

INFOID:0000000005491900

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 a virgin ECM that is never energized on-board.
(In this step, initialization procedure by CONSULT-III is not necessary)
**NOTE:**
- **When registering new Key IDs or replacing the ECM that is not brand new, refer to CONSULT-III Operation Manual NATS-IVIS/NVIS.**
- **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 RECOMMUNICATING FUNCTION : Special Repair Requirement

INFOID:0000000005491901

#### 1.PERFORM ECM RECOMMUNICATING FUNCTION

1. Install ECM.
2. Contact backside of registered Intelligent Key* to push-button ignition switch, 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 5 seconds or more.
4. Turn ignition switch to “OFF”.
5. Start engine.

Can engine be started?

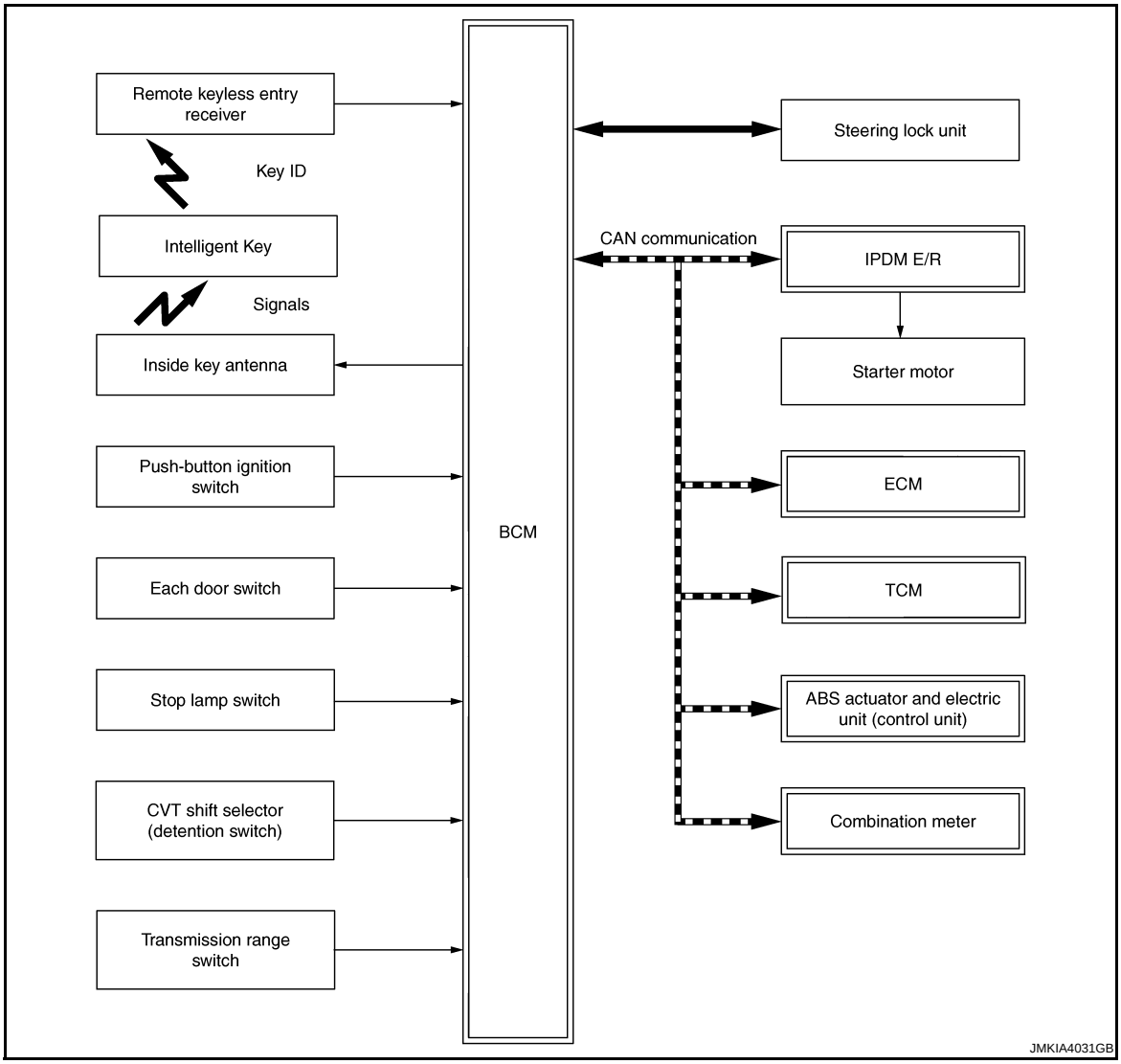
YES >> Procedure is complete.
NO >> Initialize control unit. Refer to CONSULT-III Operation Manual NATS-IVIS/NVIS.

# SYSTEM DESCRIPTION

## INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

### System Diagram

INFOID:0000000005491902




### System Description

INFOID:0000000005491903

SYSTEM DESCRIPTION

- The engine start function of Intelligent Key system is a system that makes it possible to start and stop the engine without removing the key. It verifies an electronic ID using two-way communication when pressing the push-button ignition switch while carrying the Intelligent Key, which operates based on the results of electronic ID verification of Intelligent Key using two-way communication between the Intelligent Key and the vehicle.
  **NOTE:**
  The driver should carry the Intelligent Key at all times.
- Intelligent Key has 2 IDs [Intelligent Key and NVIS (NATS)]. 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, verification is performed by immobilizer ID.
- If the ID is successfully verified, when push-button ignition switch is pressed, steering lock is released and the engine can be started.

- Up to 4 Intelligent Keys can be registered (Including the standard Intelligent Key) upon request from the customer.
  **NOTE:**
  Refer to DLK-16, "INTELLIGENT KEY SYSTEM : System Description" for any functions other than engine start function of Intelligent Key system.

## PRECAUTIONS FOR INTELLIGENT KEY SYSTEM

**In the Intelligent Key system, the transponder [the chip for NVIS (NATS) ID verification] is integrated into the Intelligent Key. (For the conventional models, it is integrated into the mechanical key.) Therefore, ID verification cannot be performed by mechanical key only and engine cannot be started.**
**In that case, immobilizer 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 via the remote keyless entry receiver.
3. The Intelligent Key receives the Intelligent Key ID signal and verifies it with the registered ID.
4. BCM transmits the steering lock unlock signal to steering lock unit and IPDM E/R if the verification results are OK.
5. IPDM E/R turns the steering lock relay ON and supplies power supply to the steering lock unit.
6. The steering lock releases.
7. BCM transmits the power supply stop signal to IPDM E/R when detecting that the steering lock is in the unlock condition.
8. IPDM E/R turns the steering lock relay OFF and stops power supply to the steering lock unit.
9. BCM turns ACC relay ON and transmits the ignition power supply ON signal to IPDM E/R.
10. IPDM E/R turns the ignition relay ON and starts the ignition power supply.
11. BCM detects that the selector lever position and brake pedal operating condition.
12. BCM transmits the starter request signal via CAN communication to IPDM E/R and turns the starter relay in IPDM E/R ON if BCM judges that the engine start condition is satisfied.
13. IPDM E/R turns the starter control relay ON when receiving the starter request signal.
14. Power supply is supplied through the starter relay and the starter control relay to operate the starter motor and start cranking.
    **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.**
15. 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 “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 HELD CLOSE TO PUSH-BUTTON IGNITION SWITCH

When Intelligent Key battery is discharged, immobilizer ID verification between transponder in Intelligent Key and BCM is performed when Intelligent Key backside is contacted to push-button ignition switch. Engine can be started.

## BATTERY SAVER SYSTEM

When all the following conditions are met for 60 minutes, the battery saver system cuts off the power supply to prevent battery discharge.
- The ignition switch is in the ACC position
- All doors are closed
- Selector lever is in the P position

Reset Condition of Battery Saver System

In order to prevent the battery from discharging, the battery saver system cuts off the power supply when all doors are closed, the selector lever is in the P position, and the ignition switch is left in the ACC position for 60 minutes. If any of the following conditions are met the battery saver system is released and the steering changes automatically to the lock position from the OFF position.
- Opening any door
- Operating door lock using door request switch
- Operating door lock using Intelligent Key

Press push-button ignition switch and ignition switch changes to the ACC position from the OFF position.

## STEERING LOCK OPERATION

Steering is locked by steering lock unit when ignition switch is in the OFF position, selector lever is in the P position, and any of the following conditions are met.
- Opening door
- Closing door
- Door is locked using door request switch
- Door is locked using Intelligent Key

## 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<br>ACC → START<br>ON → START | P or N position | Depressed | 1 |
| Engine is running → OFF | — | — | 1 |

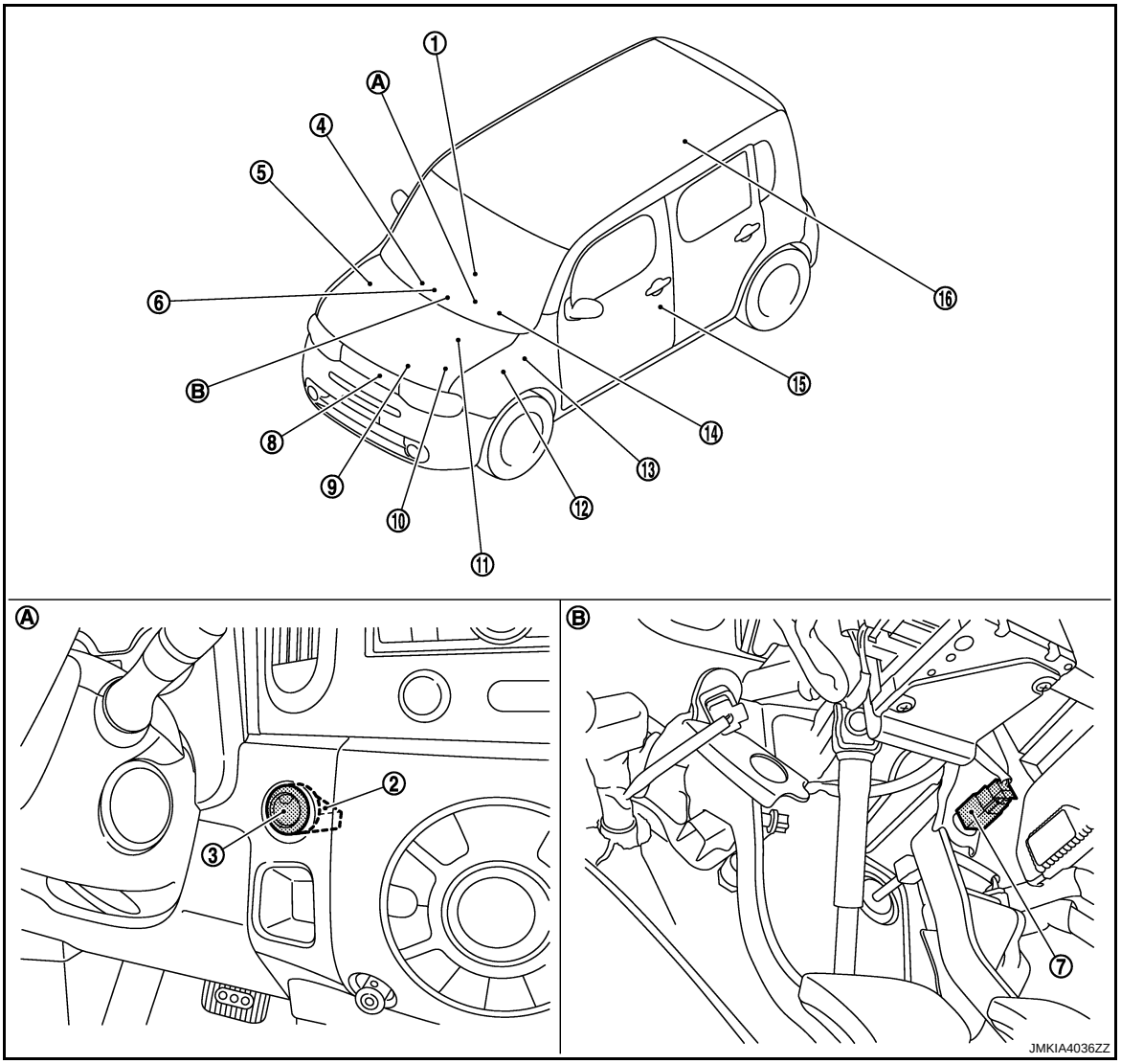
Vehicle speed: 4 km/h (2.5 MPH) or more

| 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.

## Component Parts Location

INFOID:0000000005491904




| | | |
|---|---|---|
| 1. CVT shift selector (detention switch) M58 | 2. NATS antenna amp. M26 | 3. Push-button ignition switch M101 |
| 4. Remote keyless entry receiver M52 Refer to DLK-18, "INTELLIGENT KEY SYSTEM : Component Parts Location" | 5. ABS actuator and electric unit (control unit) E36 Refer to BRC-12, "Component Parts Location". | 6. Inside key antenna (instrument center) M105 |
| 7. Stop lamp switch E115 | 8. Horn E50, E51 | 9. Transmission range switch F21 |
| 10. IPDM E/R E10, E11, E12, E13, E14, E15, E17 Refer to PCS-6, "Component Parts Location". | 11. ECM E16 | 12. TCM E18 |
| 13. BCM M68, M69, M70, M71 Refer to BCS-9, "Component Parts Location". | 14. Security indicator lamp (combination meter) M34 | 15. Front door switch (driver side) B34 |
| 16. Inside key antenna (luggage room) B82 | | |
| A. Behind push-button ignition switch | B. Behind instrument lower cover LH | |

## Component Description

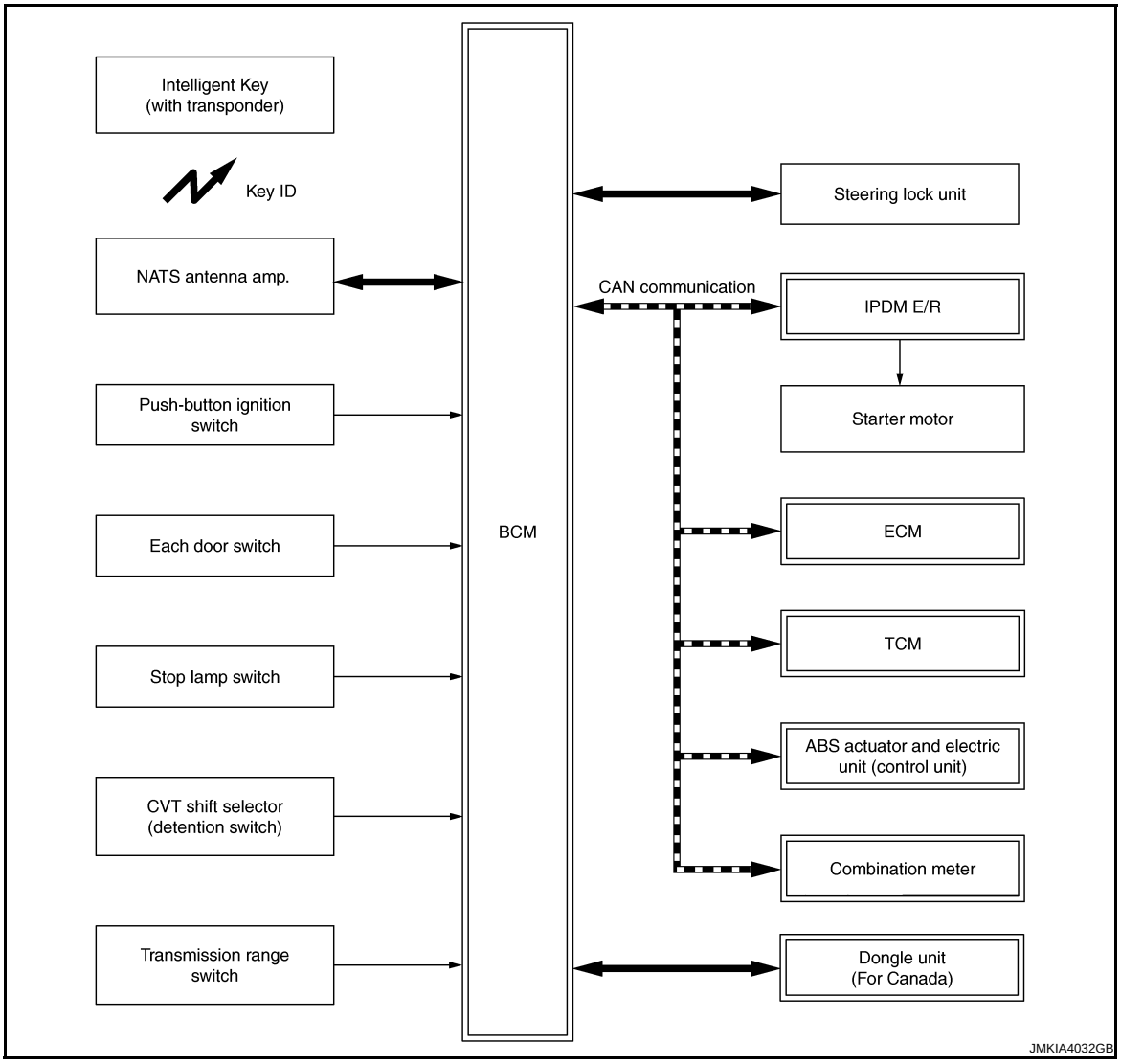
INFOID:0000000005491905

| Component | Reference |
|---|---|
| BCM | SEC-82 |
| Steering lock unit | SEC-75 |
| Push-button ignition switch | SEC-51 |
| Door switch | DLK-55 |
| CVT shift selector (detention switch) | SEC-106 |
| Inside key antenna | DLK-44 |
| Remote keyless entry receiver | DLK-75 |
| Stop lamp switch | SEC-49 |
| TCM | SEC-65 |
| Steering lock relay | SEC-84 |
| Starter relay | SEC-70 |
| Starter control relay | SEC-101 |
| Security indicator lamp | SEC-113 |
| Key warning lamp | DLK-88 |

# NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS

## System Diagram

INFOID:0000000005491906




## System Description

INFOID:0000000005491907

### SYSTEM DESCRIPTION

- The NVIS (NATS) is an anti-theft system that registers an Intelligent Key ID to the vehicle and prevents the engine from being started by an unregistered Intelligent Key. It has higher protection against auto theft involving the duplication of mechanical keys.
- It performs ID verification when starting the engine in the same way as the Intelligent system, but it performs the NVIS (NATS) ID verification when inserting the Intelligent Key and performs the Intelligent Key ID verification when carrying the Intelligent Key.
- The mechanical key integrated in the Intelligent Key cannot start the engine. When the Intelligent Key battery is discharged, the NVIS (NATS) ID verification memorized to the transponder integrated with 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 onboard the model.
- Security indicator lamp always blinks when the power supply position is in any position except the ON position.
- 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 the registrations procedures for NVIS (NATS) and Intelligent Key when installing the BCM, refer to CONSULT-III Operation Manual NATS-IVIS/NVIS.
- Possible symptom of NVIS (NATS) malfunction is “Engine cannot start”. The engine can be started with the Intelligent Key system and NVIS (NATS). Identify the possible causes according to “Work Flow”. Refer to SEC-6, "Work Flow".
- If ECM other than genuine part is installed, the engine cannot be started. For ECM replacement procedure, refer to EC-16, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

## PRECAUTIONS FOR KEY REGISTRATION

- The key registration is a procedure that erases the current NVIS (NATS) ID once, and then reregisters a new ID operation. Therefore a registered Intelligent Key is necessary for this procedure. 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).
  The NVIS (NATS) ID registration is the procedure that registers the ID stored into the transponder (integrated in Intelligent Key) to BCM.
  The Intelligent key ID registration is the procedure that registers the ID to BCM.
- When performing the Intelligent Key system registration only, the engine cannot be started by Intelligent Key backside is contacted to push-button ignition switch. When performing the NVIS (NATS) registration only, the engine cannot be started by the operation when carrying the key. The registrations of both systems should be performed.

## SECURITY INDICATOR LAMP

- Warns that the vehicle is equipped with NVIS (NATS).
- Security indicator lamp always blinks when the ignition switch is in any position except the ON position.

**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 brake pedal is depressed while selector lever is in the P position, BCM activates immobilizer antenna amplifier that is located on push-button ignition switch backside.
2. When Intelligent Key (transponder built-in) backside is contacted to push-button ignition switch, immobilizer ID verification is started between Intelligent Key built-in transponder and immobilizer antenna amplifier.
3. When immobilizer ID verification result is OK, buzzer in combination meter sounds.
4. BCM transmits immobilizer ID verification result to ECM via CAN communication.
5. When push-button ignition switch is pressed, BCM transmits steering unlock signal to steering lock unit and IPDM E/R.
6. IPDM E/R supplies power supply to steering lock unit via steering lock relay.
7. When unlocking steering lock, steering lock unit unlocks steering lock.
8. When BCM detects that steering is unlocked, power supply stop signal is transmitted to IPDM E/R.
9. IPDM E/R turns steering lock relay OFF and stops power supply to steering lock unit.
10. BCM turns ACC relay ON and transmits ignition power supply ON signal to IPDM E/R.
11. IPDM E/R turns ignition relay ON and starts ignition power supply.
12. BCM detects that the shift position is P or N.
13. BCM transmits starter request signal to IPDM E/R via CAN communication.
    When engine start conditions* are satisfied, BCM turns starter motor relay in IPDM E/R ON.
14. When starter request signal is received, IPDM E/R turns starter motor control relay ON.
15. IPDM E/R supplies power supply via starter motor relay and starter motor control relay, activates starter motor, and starts cranking.
16. When BCM receives engine start or speed feedback signal from ECM, BCM transmits stop signal to IPDM E/R, turns starter motor relay OFF, and stops cranking.

## 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<br>ACC → START<br>ON → START | P or N position | Depressed | 1 |
| Engine is running → OFF | — | — | 1 |

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

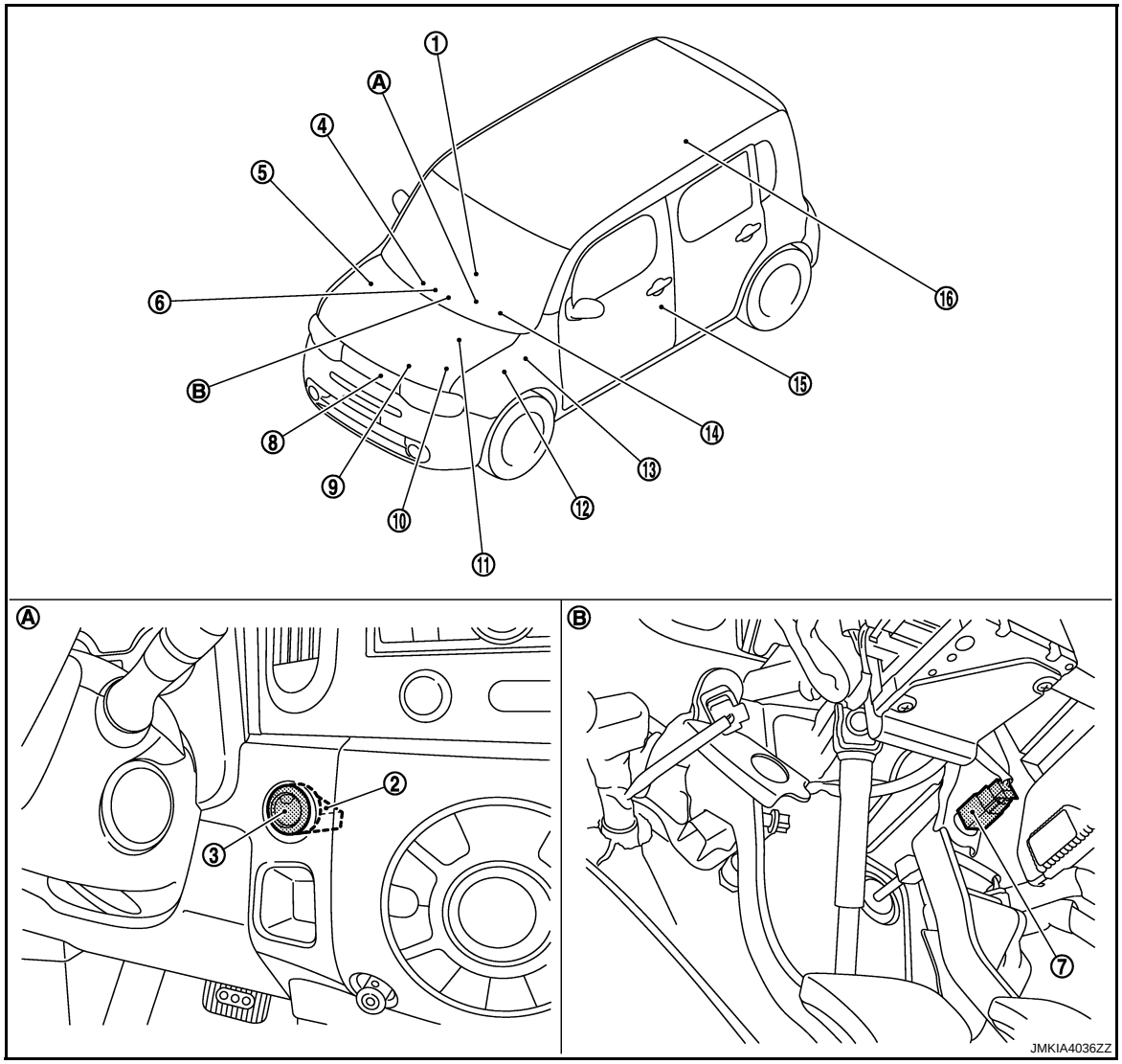
| Power supply position | Engine start/stop condition | | Push-button ignition switch operation frequency |
|---|---|---|---|
| | Selector lever | Brake pedal operation condition | |
| Engine is running → ACC | — | — | Emergency stop operation |
| Engine stall return operation while driving | N position | 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.

## Component Parts Location

INFOID:0000000005491908




1. CVT shift selector (detention switch) M58
2. NATS antenna amp. M26
3. Push-button ignition switch M101
4. Remote keyless entry receiver M52 Refer to DLK-18, "INTELLIGENT KEY SYSTEM : Component Parts Location"
5. ABS actuator and electric unit (control unit) E36 Refer to BRC-12, "Component Parts Location".
6. Inside key antenna (instrument center) M105
7. Stop lamp switch E115
8. Horn E50, E51
9. Transmission range switch F21
10. IPDM E/R E10, E11, E12, E13, E14, E15, E17 Refer to PCS-6, "Component Parts Location".
11. ECM E16
12. TCM E18
13. BCM M68, M69, M70, M71 Refer to BCS-9, "Component Parts Location".
14. Security indicator lamp (combination meter) M34
15. Front door switch (driver side) B34
16. Inside key antenna (luggage room) B82

A. Behind push-button ignition switch
B. Behind instrument lower cover LH

## Component Description

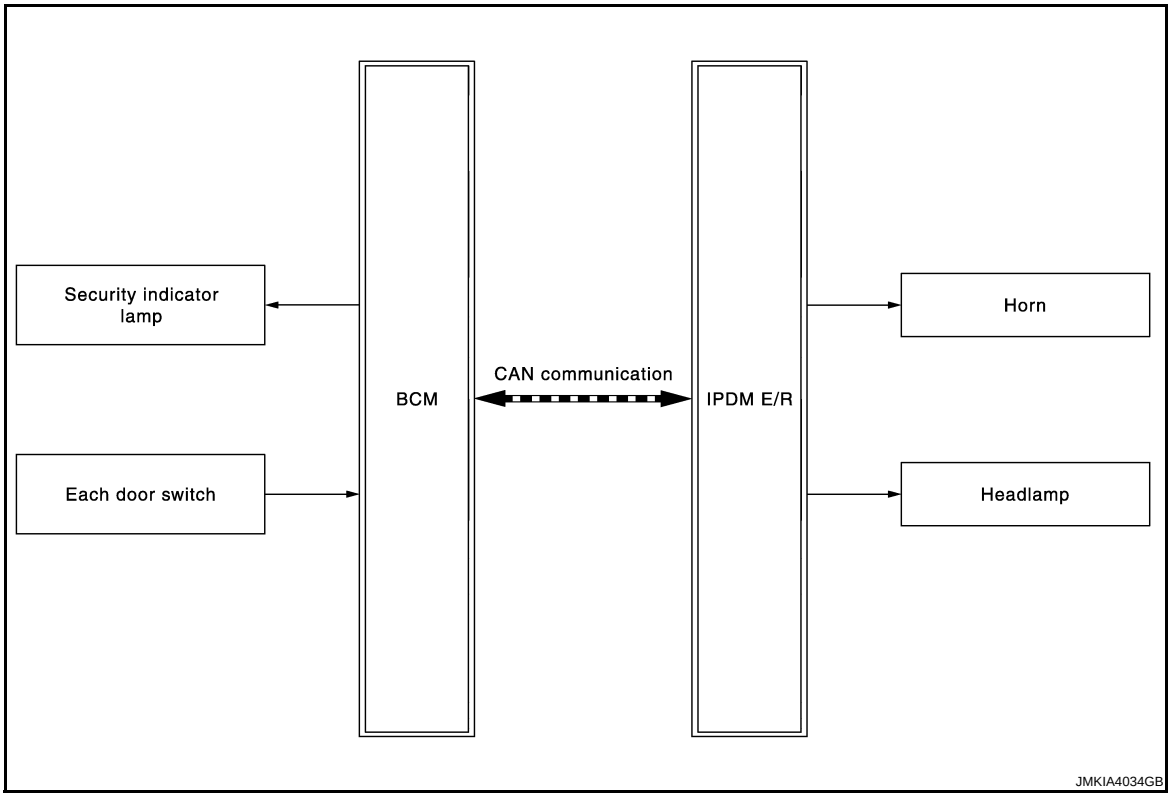
INFOID:0000000005491909

| Component | Reference |
|---|---|
| BCM | SEC-82 |
| Steering lock unit | SEC-75 |
| Push-button ignition switch | SEC-51 |
| Door switch | DLK-55 |
| CVT shift selector (detention switch) | SEC-106 |
| Stop lamp switch | SEC-49 |
| TCM | SEC-65 |
| Steering lock relay | SEC-84 |
| Starter relay | SEC-70 |
| Starter control relay | SEC-101 |
| Security indicator lamp | SEC-113 |

# VEHICLE SECURITY SYSTEM

## System Diagram

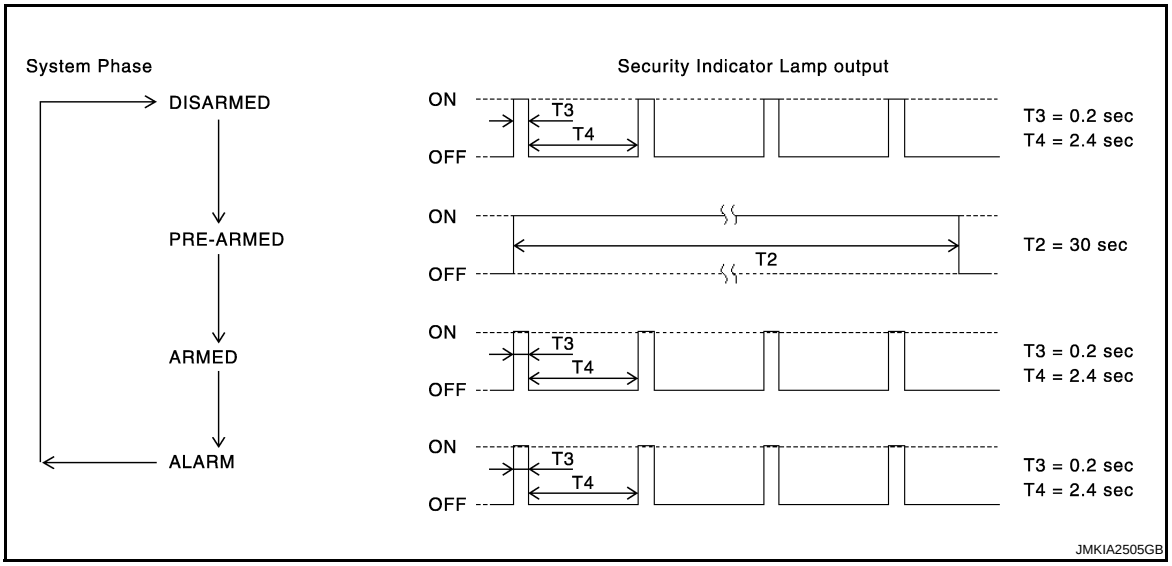
INFOID:0000000005491910




## System Description

INFOID:0000000005491911

### OPERATION FLOW




### SETTING THE VEHICLE SECURITY SYSTEM

Initial Condition

- Ignition switch is in the OFF position.

Disarmed Phase

- When any door is open, the vehicle security system is set in the disarmed phase on the assumption that the owner is inside or near the vehicle.

- When the vehicle security system is in the disarmed phase, the security indicator lamp blinks every 2.4 seconds.

Pre-armed Phase and Armed Phase

When the following operation 1 or 2 is performed, the vehicle security system turns into the “pre-armed” phase. (Security indicator lamp illuminates.)

1. BCM receives LOCK signal from door lock and unlock switch, door key cylinder switch door request switch or Intelligent Key, after all doors are closed.
2. All doors are closed after all doors are locked by mechanical key or door lock and unlock switch.

## CANCELING THE ARMED PHASE VEHICLE SECURITY SYSTEM

When one of the following operations is performed, the armed phase is canceled.

1. Unlock all doors with the door lock and unlock switch, door key cylinder switch door request switch or Intelligent Key.
2. Turn ignition switch “ON” or “ACC” position.

## CANCELING THE ALARM OPERATION OF THE VEHICLE SECURITY SYSTEM

When on of the following operations is performed, the alarm operation is canceled.

1. Unlock all doors with the door request switch or Intelligent Key.
2. Turn ignition switch “ON” or “ACC” position.

## ACTIVATING THE ALARM OPERATION OF THE VEHICLE SECURITY SYSTEM

Check that the system is in the armed phase. (Security indicator lamp blinks every 2.4 seconds.)
When the following operations 1 or 2 is performed, the system sounds the horns and blinks the headlamps for about 50 seconds.

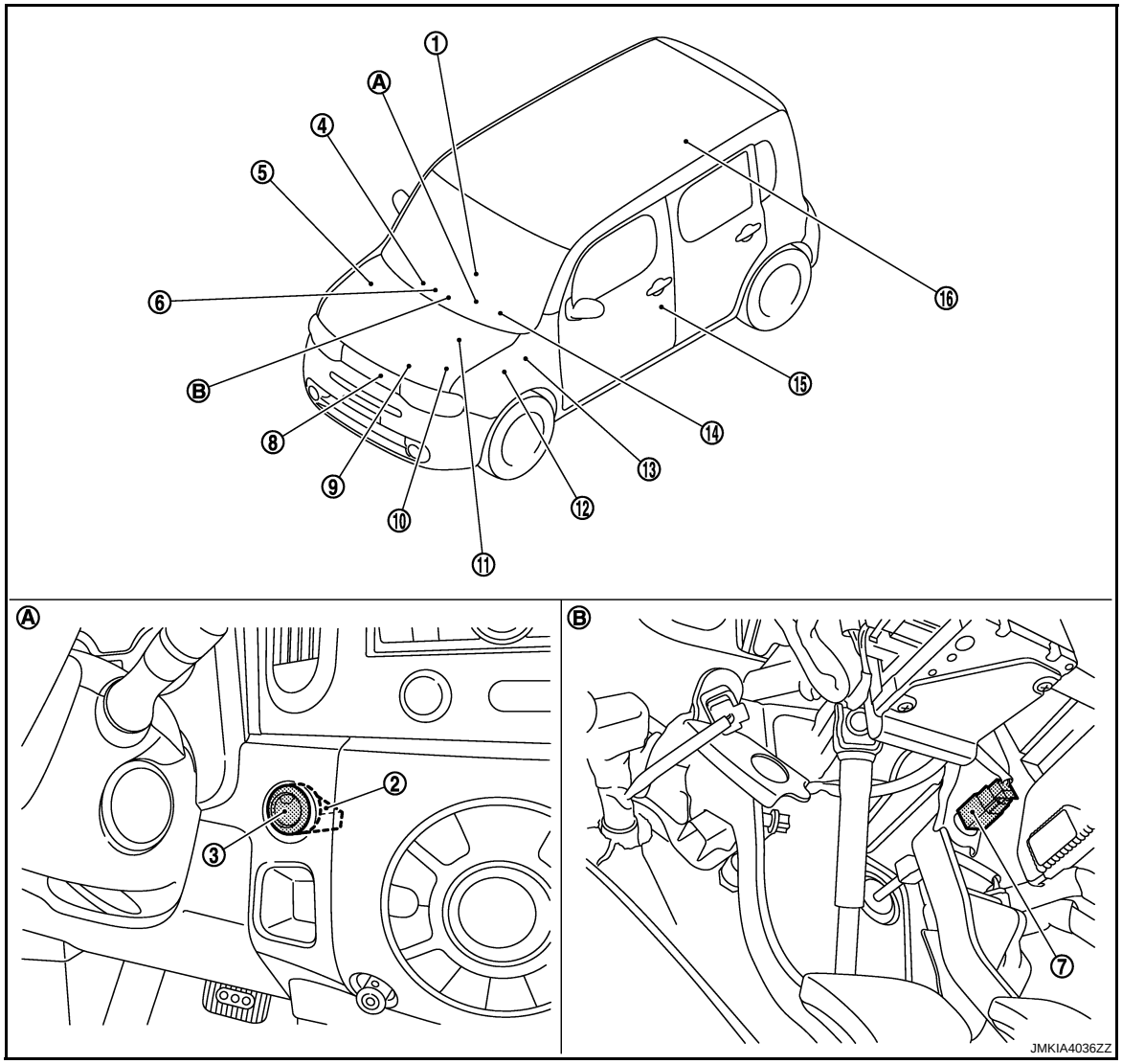
1. Any door is open during the armed phase.
2. Disconnecting and connecting the battery connector before canceling the armed phase.

## PANIC ALARM OPERATION

When BCM receives panic alarm signal from Intelligent Key, ground is supplied intermittently to both headlamp relay and horn relay.
When headlamp relay and horn relay are energized, then power is supplied to headlamps (HI) and horn.
The headlamp (HI) blinks and the horn sounds intermittently.
The alarm automatically turns off after 50 seconds or when BCM receives any signal from Intelligent Key or door request switch.

## Component Parts Location

INFOID:0000000005491912




| | | |
|---|---|---|
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| 7. Stop lamp switch E115 | 8. Horn E50, E51 | 9. Transmission range switch F21 |
| 10. IPDM E/R E10, E11, E12, E13, E14, E15, E17 Refer to PCS-6, "Component Parts Location". | 11. ECM E16 | 12. TCM E18 |
| 13. BCM M68, M69, M70, M71 Refer to BCS-9, "Component Parts Location". | 14. Security indicator lamp (combination meter) M34 | 15. Front door switch (driver side) B34 |
| 16. Inside key antenna (luggage room) B82 | | |
| A. Behind push-button ignition switch | B. Behind instrument lower cover LH | |

## Component Description

INFOID:0000000005491913

| Component | Reference |
|---|---|
| BCM | SEC-82 |
| Security indicator lamp | SEC-113 |
| Door switch | DLK-55 |
| Headlamp | SEC-117 |
| Horn | SEC-115 |

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

INFOID:0000000005491914

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

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

#### SYSTEM APPLICATION
BCM can perform the following functions for each system.
**NOTE:**
It can perform the diagnosis modes except the following for all sub system selection items.

×: Applicable item

| System | Sub system selection item | Diagnosis mode | | |
|---|---|---|---|---|
| | | Work Support | Data Monitor | Active Test |
| Door lock | DOOR LOCK | × | × | × |
| Rear window defogger | REAR DEFOGGER | | × | × |
| Warning chime | BUZZER | | × | × |
| Interior room lamp timer | INT LAMP | × | × | × |
| Exterior lamp | HEAD LAMP | × | × | × |
| Wiper and washer | WIPER | × | × | × |
| Turn signal and hazard warning lamps | FLASHER | × | × | × |
| Automatic air conditioner | AIR CONDITONER | | × | × |
| • Intelligent Key system<br>• Engine start system | INTELLIGENT KEY | × | × | × |
| Combination switch | COMB SW | | × | |
| Body control system | BCM | × | | |
| NVIS - NATS | IMMU | × | × | × |
| Interior room lamp battery saver | BATTERY SAVER | × | × | × |
| Back door | TRUNK | | × | |
| Vehicle security system | THEFT ALM | × | × | × |
| RAP system | RETAINED PWR | | × | |
| Signal buffer system | SIGNAL BUFFER | | × | × |
| TPMS | TPMS (AIR PRESSURE MONITOR) | × | × | × |

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

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

# INTELLIGENT KEY

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

INFOID:0000000005491915

### WORK SUPPORT

| Monitor item | Description |
|---|---|
| CONFIRM KEY FOB ID | It can be checked whether Intelligent Key ID code is registered or not in this mode |
| AUTO LOCK SET | Auto door lock time can be changed in this mode<br>• MODE 1: OFF<br>• MODE 2: 30 sec<br>• MODE 3: 1 minute<br>• MODE 4: 2 minutes<br>• MODE 5: 3 minutes<br>• MODE 6: 4 minutes<br>• MODE 7: 5 minutes |
| LOCK/UNLOCK BY I-KEY | Door lock/unlock function by door request switch mode can be changed to operation in this mode<br>• On: Operate<br>• Off: Non-operation |
| ENGINE START BY I-KEY | Engine start function mode can be changed to operation with this mode<br>• On: Operate<br>• Off: Non-operation |
| TRUNK/GLASS HATCH OPEN | **NOTE:**<br>This item is displayed, but cannot be monitored |
| PANIC ALARM SET | Panic alarm button pressing time on Intelligent Key remote control button can be selected from the following with this mode<br>• MODE 1: 0.5 sec<br>• MODE 2: Non-operation<br>• MODE 3: 1.5 sec |
| TRUNK OPEN DELAY | **NOTE:**<br>This item is displayed, but cannot be monitored |
| LO- BATT OF KEY FOB WARN | Intelligent Key low battery warning mode can be changed to operation with this mode<br>• On: Operate<br>• Off: Non-operation |
| ANTI KEY LOCK IN FUNCTI | Key reminder function mode can be changed to operation with this mode<br>• On: Operate<br>• Off: Non-operation |
| HAZARD ANSWER BACK | Hazard reminder function mode by door request switch and Intelligent Key button can be selected from the following with this mode<br>• Lock Only: Door lock operation only<br>• Unlock Only: Door unlock operation only<br>• Lock/Unlock: Lock/unlock operation<br>• Off: Non-operation |
| ANS BACK I-KEY LOCK | Buzzer reminder function (lock operation) mode by door request switch (driver side and passenger side) can be selected from the following with this mode<br>• Horn Chirp: Sound horn<br>• Buzzer: Sound Intelligent Key warning buzzer<br>• Off: Non-operation |
| ANS BACK I-KEY UNLOCK | Buzzer reminder function (unlock operation) mode by door request switch can be changed to operation with this mode<br>• On: Operate<br>• Off: Non-operation |
| SHORT CRANKING OUTPUT | Starter motor can operate during the times below |
| INSIDE ANT DIAGNOSIS | This function allows inside key antenna self-diagnosis |
| HORN WITH KEYLESS LOCK | Horn reminder function mode by Intelligent Key button can be changed to operate (ON) or not operate (OFF) with this mode<br>• On: Operate<br>• Off: Non-operation |

## SELF-DIAG RESULT

Refer to SEC-174, "DTC Index".

## DATA MONITOR

| Monitor Item | Condition |
|---|---|
| REQ SW -DR | Indicates [On/Off] condition of door request switch (driver side) |
| REQ SW -AS | Indicates [On/Off] condition of door request switch (passenger side) |
| REQ SW -BD/TR | Indicates [On/Off] condition of back door request switch |
| PUSH SW | Indicates [On/Off] condition of push-button ignition switch |
| CLUTCH SW*1 | Indicates [On/Off] condition of clutch switch |
| BRAKE SW 1 | Indicates [On/Off]*2 condition of brake switch power supply |
| BRAKE SW 2 | Indicates [On/Off] condition of brake switch |
| DETE/CANCL SW | Indicates [On/Off] condition of P position |
| SFT PN/N SW | Indicates [On/Off] condition of P or N position |
| S/L -LOCK | Indicates [On/Off] condition of steering lock unit (LOCK) |
| S/L -UNLOCK | Indicates [On/Off] condition of steering lock unit (UNLOCK) |
| S/L RELAY -F/B | Indicates [On/Off] condition of steering lock relay |
| UNLK SEN -DR | Indicates [On/Off] condition of driver door UNLOCK status |
| PUSH SW -IPDM | Indicates [On/Off] condition of push-button ignition switch |
| IGN RLY1 -F/B | Indicates [On/Off] condition of ignition relay 1 |
| DETE SW -IPDM | Indicates [On/Off] condition of P position |
| SFT PN -IPDM | Indicates [On/Off] condition of P or N position |
| SFT P -MET | Indicates [On/Off] condition of P position |
| SFT N -MET | Indicates [On/Off] condition of N position |
| ENGINE STATE | Indicates [Stop/Stall/Crank/Run] condition of engine states |
| S/L LOCK-IPDM | Indicates [On/Off] condition of steering lock unit (LOCK) |
| S/L UNLK-IPDM | Indicates [On/Off] condition of steering lock unit (UNLOCK) |
| S/L RELAY-REQ | Indicates [On/Off] condition of steering lock relay |
| VEH SPEED 1 | Display the vehicle speed signal received from combination meter by numerical value [Km/h] |
| VEH SPEED 2 | Display the vehicle speed signal received from ABS or VDC or TCM by numerical value [Km/h] |
| DOOR STAT-DR | Indicates [LOCK/READY/UNLK] condition of driver side door status |
| DOOR STAT-AS | Indicates [LOCK/READY/UNLK] condition of passenger side door status |
| ID OK FLAG | Indicates [Set/Reset] condition of key ID |
| PRMT ENG STRT | Indicates [Set/Reset] condition of engine start possibility |
| PRMT RKE STRT | **NOTE:**<br>This item is displayed, but cannot be monitored |
| TRNK/HAT MNTR | **NOTE:**<br>This item is displayed, but cannot be monitored |
| RKE-LOCK | Indicates [On/Off] condition of LOCK signal from Intelligent Key |
| RKE-UNLOCK | Indicates [On/Off] condition of UNLOCK signal from Intelligent Key |
| RKE-TR/BD | **NOTE:**<br>This item is displayed, but cannot be monitored |
| RKE-PANIC | Indicates [On/Off] condition of PANIC button of Intelligent Key |
| RKE-MODE CHG | Indicates [On/Off] condition of MODE CHANGE signal from Intelligent Key |
| RKE OPE COUN1 | When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing |
| RKE OPE COUN2 | **NOTE:**<br>This item is displayed, but cannot be monitored |

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

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

ACTIVE TEST

| Test item | Description |
|---|---|
| BATTERY SAVER | This test is able to check interior room lamp operation<br>• On: Operate<br>• Off: Non-operation |
| OUTSIDE BUZZER | This test is able to check Intelligent Key warning buzzer operation<br>• On: Operate<br>• Off: Non-operation |
| INSIDE BUZZER | This test is able to check warning chime in combination meter operation<br>• Take out: Take away warning chime sounds when CONSULT-III screen is touched<br>• Key: Key warning chime sounds when CONSULT-III screen is touched<br>• Knob: OFF position warning chime sounds when CONSULT-III screen is touched |
| INDICATOR | This test is able to check warning lamp operation<br>• KEY ON: “KEY” Warning lamp illuminates when CONSULT-III screen is touched<br>• “KEY” Warning lamp blinks when CONSULT-III screen is touched |
| INT LAMP | This test is able to check interior room lamp operation<br>• On: Operate<br>• Off: Non-operation |
| LCD | This test is able to check meter display information<br>• BP N: Engine start operation indicator lamp indicate when CONSULT-III screen is touched<br>• BP I: Engine start operation indicator lamp indicate when CONSULT-III screen is touched<br>• ID NG: This item is displayed, but cannot be monitored<br>• ROTAT: This item is displayed, but cannot be monitored<br>• SFT P: Shift P warning lamp indicate when CONSULT-III screen is touched<br>• INSRT: This item is displayed, but cannot be monitored<br>• BATT: Key warning lamp indicator when CONSULT-III screen is touched<br>• NO KY: This item is displayed, but cannot be monitored<br>• OUTKEY: Engine start operation indicator lamp indicate when CONSULT-III screen is touched<br>• LK WN: Engine start operation indicator lamp indicate when CONSULT-III screen is touched |
| FLASHER | This test is able to check security hazard lamp operation<br>The hazard lamps are activated after “LH/RH/Off” on CONSULT-III screen is touched |
| HORN | This test is able to check horn operation<br>The horn is activated after “ON” on CONSULT-III screen is touched |
| P RANGE | This test is able to check CVT shift selector power supply<br>• On: Operate<br>• Off: Non-operation |
| ENGINE SW ILLUMI | This test is able to check push-ignition switch illumination operation<br>Push-ignition switch illumination illuminates when “ON” on CONSULT-III screen is touched |
| PUSH SWITCH INDICATOR | This test is able to check LOCK indicator in push-ignition switch operation<br>LOCK indicator in push-ignition switch illuminates when “ON” on CONSULT-III screen is touched |
| TRUNK/BACK DOOR | **NOTE:**<br>This item is displayed, but cannot be monitored |

# THEFT ALM

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

INFOID:0000000005491916

### DATA MONITOR

| Monitored Item | Description |
|---|---|
| REQ SW -DR | Indicates [ON/OFF] condition of door request switch (driver side). |
| REQ SW -AS | Indicates [ON/OFF] condition of door request switch (passenger side). |
| REQ SW -RR | **NOTE:**<br>This is displayed even when it is not equipped. |

| Monitored Item | Description |
|---|---|
| REQ SW -RL | **NOTE:**<br>This is displayed even when it is not equipped. |
| REQ SW -BD/TR | Indicates [ON/OFF] condition of back door request switch. |
| PUSH SW | Indicates [ON/OFF] condition of push-button ignition switch |
| UNLK SEN -DR | Indicates [ON/OFF] condition of driver door UNLOCK status. |
| DOOR SW-DR | Indicates [ON/OFF] condition of front door switch (driver side). |
| DOOR SW-AS | Indicates [ON/OFF] condition of front door switch (passenger side). |
| DOOR SW-RR | Indicates [ON/OFF] condition of rear door switch RH. |
| DOOR SW-RL | Indicates [ON/OFF] condition of rear door switch LH. |
| DOOR SW-BK | Indicates [ON/OFF] condition of back door switch. |
| CDL LOCK SW | Indicates [ON/OFF] condition of lock signal from door lock/unlock switch LH and RH. |
| CDL UNLOCK SW | Indicates [ON/OFF] condition of unlock signal from door lock/unlock switch LH and RH. |
| KEY CYL LK-SW | Indicates [ON/OFF] condition of lock signal from door key cylinder. |
| KEY CYL UN-SW | Indicates [ON/OFF] condition of unlock signal from door key cylinder. |
| TR/BD OPEN SW | **NOTE:**<br>This is displayed even when it is not equipped. |
| TRNK/HAT MNTR | **NOTE:**<br>This is displayed even when it is not equipped. |
| RKE-LOCK | Indicates [ON/OFF] condition of LOCK signal from Intelligent Key. |
| RKE-UNLOCK | Indicates [ON/OFF] condition of UNLOCK signal from Intelligent Key. |
| RKE-TR/BD | **NOTE:**<br>This is displayed even when it is not equipped. |

## WORK SUPPORT

| Service Item | Description |
|---|---|
| SECURITY ALARM SET | This mode is able to confirm and change security alarm ON-OFF setting. |
| THEFT ALM TRG | The switch which triggered vehicle security alarm is recorded.<br>This mode is able to confirm and erase the record of vehicle security alarm.<br>The trigger data can be erased by touching “CLEAR” on CONSULT-III screen. |

## ACTIVE TEST

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

# IMMU

## IMMU : CONSULT-III Function (BCM - IMMU)

INFOID:0000000005491917

### DATA MONITOR

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

## ACTIVE TEST

| Test item | Description |
|---|---|
| THEFT IND | This test is able to check security indicator lamp operation.<br>Security indicator lamp is turned on when “ON” on CONSULT-III screen touched. |

## WORK SUPPORT

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

# DTC/CIRCUIT DIAGNOSIS

## P1610 LOCK MODE

### Description

INFOID:0000000005491918

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 Logic

INFOID:0000000005491919

#### DTC DETECTION LOGIC

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| P1610 | LOCK MODE | When ECM detects a communication malfunction between ECM and BCM 5 times or more | — |

#### DTC CONFIRMATION PROCEDURE

**1.** PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-31, "Diagnosis Procedure".
NO >> INSPECTION END

### Diagnosis Procedure

INFOID:0000000005491920

**1.** CHECK ENGINE START FUNCTION

1. Perform the check for DTC except DTC P1610.
2. Use CONSULT-III to erase DTC after fixing.
3. Turn ignition switch OFF.
4. Turn ignition switch ON when registered Intelligent Key backside is contacted to push-button ignition switch and wait for 5 seconds.
5. Turn the ignition switch OFF and wait 5 seconds.
6. Repeat steps 4 and 5 twice (a total of 3 times).
7. Check that engine can start when registered Intelligent Key backside is contacted to push-button ignition switch.

>> INSPECTION END

# P1611 ID DISCORD, IMMU-ECM

## Description

INFOID:0000000005491921

BCM performs the ID verification with ECM that allows the engine to start. Start the engine if the ID is successfully verified. ECM prevents the engine from starting if the ID is not registered. BCM starts the communication with ECM if ignition switch is turned ON.

## DTC Logic

INFOID:0000000005491922

### DTC DETECTION LOGIC

**NOTE:**

- If DTC P1611 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".
- If DTC P1611 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-40, "DTC Logic".

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| P1611 | ID DISCORD, IMMU-ECM | The ID verification results between BCM and ECM are NG. | • BCM<br>• ECM |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions.
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-32, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005491923

#### 1.PERFORM INITIALIZATION

Perform initialization using CONSULT-III. Reregister all Intelligent Keys.
For initialization and registration of Intelligent Key, refer to “CONSULT-III Operation Manual NATS-IVIS/NVIS”.

Can the system be initialized and can the engine be started with reregistered Intelligent Key?

YES >> INSPECTION END
NO >> GO TO 2.

#### 2.CHECK SELF-DIAGNOSIS RESULT

1. Perform “Self-diagnosis result” of ECM using CONSULT-III.
2. Erase DTC.
3. Perform DTC confirmation Procedure. Refer to EC-442, "DTC Inspection Priority Chart".

Is DTC detected?

YES >> GO TO 3.
NO >> INSPECTION END

#### 3.REPLACE BCM

1. Replace BCM. Refer to BCS-81, "Removal and Installation".
2. Perform initialization using CONSULT-III.
   For initialization, refer to “CONSULT-III Operation Manual NATS-IVIS/NVIS”.

Can the system be initialized and can the engine be started with reregistered Intelligent Key?

YES >> INSPECTION END
NO >> GO TO 4.

## 4.REPLACE ECM

1. Replace ECM. Refer to EC-16, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".
2. Perform initialization using CONSULT-III.
   For initialization, refer to “CONSULT-III Operation Manual NATS-IVIS/NVIS”.

Can the system be initialized and can the engine be started with reregistered Intelligent Key?

YES >> INSPECTION END
NO >> GO TO 5.

## 5.CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

# P1612 CHAIN OF ECM-IMMU

## Description

INFOID:0000000005491924

BCM performs ID verification with ECM that allows the engine to start. Start the engine if the ID is successfully verified. ECM prevents the engine from starting if the ID is not registered. BCM starts the communication with ECM if ignition switch is turned ON.

## DTC Logic

INFOID:0000000005491925

### DTC DETECTION LOGIC

**NOTE:**

- If DTC P1612 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".
- If DTC P1612 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-40, "DTC Logic".

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| P1612 | CHAIN OF ECM-IMMU | Inactive communication between ECM and BCM | • Harness or connectors (The CAN communication line is open or shorted)<br>• BCM<br>• ECM |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions.
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-34, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005491926

#### 1.REPLACE BCM

1. Replace BCM. Refer to BCS-81, "Removal and Installation".
2. Perform initialization using CONSULT-III.
   For initialization, refer to “CONSULT-III Operation Manual NATS-IVIS/NVIS”.

Does the engine start?

YES >> INSPECTION END
NO >> GO TO 2.

#### 2.REPLACE ECM

Replace ECM. Refer to EC-16, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

>> INSPECTION END

# B2192 ID DISCORD, IMMU-ECM

## Description

INFOID:0000000005491927

BCM performs ID verification with ECM that allows the engine to start. Start the engine if the ID is successfully verified. ECM prevents the engine from starting if the ID is not registered. BCM starts the communication with ECM if ignition switch is turned ON.

## DTC Logic

INFOID:0000000005491928

### DTC DETECTION LOGIC

**NOTE:**

- If DTC B2192 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".
- If DTC B2192 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-40, "DTC Logic".

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B2192 | ID DISCORD, BCM-ECM | The ID verification results between BCM and ECM are NG. | • BCM<br>• ECM |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions.
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-35, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005491929

#### 1.PERFORM INITIALIZATION

Perform initialization using CONSULT-III. Reregister all Intelligent Keys.
For initialization and registration of Intelligent Key, refer to “CONSULT-III Operation Manual NATS-IVIS/NVIS”.

Can the system be initialized and can the engine be started with reregistered Intelligent Key?

YES >> INSPECTION END
NO >> GO TO 2.

#### 2.CHECK SELF-DIAGNOSIS RESULT

1. Perform “Self-diagnosis result” of BCM using CONSULT-III.
2. Erase DTC.
3. Perform DTC Confirmation Procedure. Refer to SEC-173, "DTC Inspection Priority Chart".

Is DTC detected?

YES >> GO TO 3.
NO >> INSPECTION END

#### 3.REPLACE BCM

1. Replace BCM. Refer to BCS-81, "Removal and Installation".
2. Perform initialization using CONSULT-III.
   For initialization, refer to “CONSULT-III Operation Manual NATS-IVIS/NVIS”.

Can the system be initialized and can the engine be started with reregistered Intelligent Key?

YES >> INSPECTION END
NO >> GO TO 4.

#### 4.REPLACE ECM

1. Replace ECM. Refer to EC-16, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".
2. Perform initialization using CONSULT-III.
   For initialization, refer to “CONSULT-III Operation Manual NATS-IVIS/NVIS”.

Can the system be initialized and can the engine be started with reregistered Intelligent Key?

YES >> INSPECTION END
NO >> GO TO 5.

## 5. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

# B2193 CHAIN OF ECM-IMMU

## Description

INFOID:0000000005491930

BCM performs the ID verification with ECM that allows the engine to start. Start the engine if the ID is successfully verified. ECM prevents the engine from starting if the ID is not registered. BCM starts the communication with ECM if ignition switch is turned ON.

## DTC Logic

INFOID:0000000005491931

### DTC DETECTION LOGIC

**NOTE:**

- If DTC B2193 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".
- If DTC B2193 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-40, "DTC Logic".

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B2193 | CHAIN OF ECM-BCM | Inactive communication between ECM and BCM | • Harness or connectors (The CAN communication line is open or shorted)<br>• BCM<br>• ECM |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions.
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-37, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005491932

#### 1.REPLACE BCM

1. Replace BCM. Refer to BCS-81, "Removal and Installation".
2. Perform initialization using CONSULT-III.
   For initialization, refer to “CONSULT-III Operation Manual NATS-IVIS/NVIS”.

Does the engine start?

YES >> INSPECTION END
NO >> GO TO 2.

#### 2.REPLACE ECM

Replace ECM. Refer to EC-16, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

>> INSPECTION END

# B2195 ANTI-SCANNING

## Description

INFOID:0000000005491933

When ignition switch is turned ON, BCM performs ID verification with ECM. If ID verification that is out of the specified specification is detected, BCM prohibits further ID verification and engine cranking.

## DTC Logic

INFOID:0000000005491934

### DTC DETECTION LOGIC

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B2195 | ANTI SCANNING | ID verification between BCM and ECM that is out of the specified specification is detected | ID verification request out of the specified specification |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions.
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Refer to SEC-38, "Diagnosis Procedure".
NO >> INSPECTION END.

## Diagnosis Procedure

INFOID:0000000005491935

#### 1.CHECK SELF-DIAGNOSIS RESULT-1

1. Perform “Self-diagnosis result” of BCM using CONSULT-III.
2. Erase DTC.
3. Perform DTC Confirmation Procedure. Refer to SEC-38, "DTC Logic".

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 >> Replace BCM. Refer to BCS-81, "Removal and Installation".

#### 3.CHECK SELF-DIAGNOSIS RESULT-2

1. Obtain the customers approval to remove unspecified accessory part related to engine start, and then remove it.
2. Perform “Self-diagnosis result” of BCM using CONSULT-III.
3. Erase DTC.
4. Perform DTC Confirmation Procedure. Refer to SEC-38, "DTC Logic".

Is DTC detected?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".
NO >> INSPECTION END

# B2196 DONGLE UNIT

## Description

INFOID:0000000005491936

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

## DTC Logic

INFOID:0000000005491937

### DTC DETECTION LOGIC

**NOTE:**

- If DTC B2196 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".
- If DTC B2196 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-40, "DTC Logic".

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B2196 | DONGLE NG | The ID verification results between BCM and dongle unit is NG. | • Dongle unit<br>• Harness or connectors<br>(Dongle unit circuit is open or shorted.) |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions.
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Turn ignition switch OFF.
3. Turn ignition switch ON under the following conditions.
- Selector lever is in the P or N position
- Do not depress brake pedal
4. Check “Self-diagnosis result” using CONSULT-III.

Is the DTC detected?

YES >> Refer to SEC-39, "Diagnosis Procedure".
NO >> INSPECTION END.

## Diagnosis Procedure

INFOID:0000000005491938

#### 1.PERFORM INITIALIZATION

1. Perform initialization with CONSULT-III. Reregister all mechanical keys. Refer to “CONSULT-III Operation Manual NATS-IVIS/NVIS”.
2. Start the engine.

Dose 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 | |
| M68 | 24 | M75 | 7 | Existed |

4. Check continuity between BCM harness connector and ground.

| BCM | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M68 | 24 | | Not existed |

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 | | |
| M75 | 1 | | Existed |

Is the inspection result normal?

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

# B2198 NATS ANTENNA AMP.

## Description

INFOID:0000000005491939

Performs ID verification through BCM and Intelligent Key when push-button ignition switch is pressed.
Prohibits the release of steering lock or start of engine when an unregistered ID of Intelligent Key is used.

## DTC Logic

INFOID:0000000005491940

### DTC DETECTION LOGIC

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B2198 | NATS ANTENNA AMP. | Inactive communication between NATS antenna amp. and BCM. | • Harness or connectors<br>• NATS antenna amp.<br>• BCM |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE 1

1. Intelligent Key backside is contacted to push-button ignition switch.
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-41, "Diagnosis Procedure".
NO >> GO TO 2.

#### 2.PERFORM DTC CONFIRMATION PROCEDURE 2

1. Press the push-button ignition switch.
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-41, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005491941

#### 1.CHECK FUSE

Check that the following IPDM E/R fuse is not blown.

| Signal name | Fuse No. |
|---|---|
| Battery power supply | 43 |

Is the fuse fusing?

YES >> Is the blown fuse after repairing the affected circuit if a fuse is blown.
NO >> GO TO 2.

#### 2.CHECK NATS ANTENNA AMP. POWER SUPPLY

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

| (+) | | (–) | Voltage (V) (Approx.) |
|---|---|---|---|
| NATS antenna amp. | | | |
| Connector | Terminal | | |
| M26 | 1 | Ground | Battery voltage |

Is the inspection result normal?

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

## 3. CHECK NATS ANTENNA AMP. POWER SUPPLY CIRCUIT

1. Disconnect IPDM E/R connector.
2. Check continuity between IPDM E/R harness connector and NATS antenna amp. connector.

| IPDM E/R | | NATS antenna amp. | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| E14 | 45 | M26 | 1 | Existed |

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

| IPDM E/R | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| E14 | 45 | | Not existed |

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-34, "Removal and Installation".
NO >> Repair or replace harness.

## 4. CHECK NATS ANTENNA AMP. OUTPUT SIGNAL 1

1. Connect NATS antenna amp. connector.
2. Disconnect BCM connector.
3. Check voltage between BCM harness connector and ground.

| (+) | | (–) | Voltage (V) (Approx.) |
|---|---|---|---|
| BCM | | | |
| Connector | Terminal | | |
| M68 | 21 | Ground | Battery voltage |

Is the inspection result normal?

YES >> GO TO 6.
NO >> GO TO 5.

## 5. CHECK NATS ANTENNA AMP. OUTPUT SIGNAL CIRCUIT 1

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

| BCM | | NATS antenna amp. | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M68 | 21 | M26 | 2 | Existed |

3. Check continuity between BCM harness connector and ground.

| BCM | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M68 | 21 | | Not existed |

Is the inspection result normal?

YES >> Replace NATS antenna amp.. Refer to SEC-198, "Removal and Installation".
NO >> Repair or replace harness.

## 6. CHECK NATS ANTENNA AMP. COMMUNICATION SIGNAL

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

| (+) BCM Connector | (+) BCM Terminal | (–) | Condition | Voltage (V) (Approx.) |
|---|---|---|---|---|
| M68 | 21 | Ground | Intelligent Key backside is contacted to push-button ignition switch, turn ignition switch ON. | Just after pressing push-button ignition switch. Pointer of analog tester should move. |

Is the inspection result normal?

YES >> GO TO 7.
NO >> Replace NATS antenna amp. Refer to SEC-198, "Removal and Installation".

## 7. CHECK NATS ANTENNA AMP. OUTPUT SIGNAL 2

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

| (+) BCM Connector | (+) BCM Terminal | (–) | Voltage (V) (Approx.) |
|---|---|---|---|
| M68 | 25 | Ground | Battery voltage |

Is the inspection result normal?

YES >> GO TO 9.
NO >> GO TO 8.

## 8. CHECK NATS ANTENNA AMP. OUTPUT SIGNAL CIRCUIT 2

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

| BCM Connector | BCM Terminal | NATS antenna amp. Connector | NATS antenna amp. Terminal | Continuity |
|---|---|---|---|---|
| M68 | 25 | M26 | 3 | Existed |

3. Check continuity between BCM harness connector and ground.

| BCM Connector | BCM Terminal | Ground | Continuity |
|---|---|---|---|
| M68 | 25 | | Not existed |

Is the inspection result normal?

YES >> Replace NATS antenna amp. Refer to SEC-198, "Removal and Installation".
NO >> Repair or replace harness.

## 9. CHECK NATS ANTENNA AMP. COMMUNICATION SIGNAL

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

| (+) BCM Connector | (+) BCM Terminal | (–) | Condition | Voltage (V) (Approx.) |
|---|---|---|---|---|
| M68 | 25 | Ground | Intelligent Key backside is contacted to push-button ignition switch, turn ignition switch ON. | Just after pressing push-button ignition switch. Pointer of analog tester should move. |

Is the inspection result normal?

YES >> GO TO 10.
NO >> Replace NATS antenna amp. Refer to SEC-198, "Removal and Installation".

## 10. CHECK NATS ANTENNA AMP. GROUND CIRCUIT

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

| NATS antenna amp. | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M68 | 4 | | Existed |

Is the inspection result normal?

YES >> GO TO 11.
NO >> Repair or replace harness.

## 11. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

# B2013 STEERING LOCK UNIT

## Description

INFOID:0000000005491942

BCM performs the ID verification with the steering lock unit and releases the steering lock if both BCM and steering lock unit ID are same. BCM starts the communication with the steering lock unit when Intelligent Key is carried into the passenger compartment and the push-button ignition switch is pressed.

## DTC Logic

INFOID:0000000005491943

### DTC DETECTION LOGIC

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B2013 | ID DISCORD BCM-S/L | The ID verification results between BCM and steering lock unit are NG. | Steering lock unit |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Lock steering.
2. Press the push-button ignition switch.
3. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-45, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005491944

#### 1.PERFORM INITIALIZATION

Perform initialization using CONSULT-III.
For initialization, refer to “CONSULT-III Operation Manual NATS-IVIS/NVIS”.

Does steering lock operate?

YES >> INSPECTION END
NO >> GO TO 2.

#### 2.REPLACE STEERING LOCK UNIT

1. Replace steering lock unit.
2. Perform initialization using CONSULT-III.
   For initialization, refer to “CONSULT-III Operation Manual NATS-IVIS/NVIS”.

Does steering lock operate?

YES >> INSPECTION END
NO >> GO TO 3.

#### 3.CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

# B2014 CHAIN OF STRG-IMMU

## Description

INFOID:0000000005491945

BCM performs the ID verification with the steering lock unit to release the steering. BCM starts the communication with the steering lock unit when Intelligent Key is carried into the passenger compartment and the push-button ignition switch is pressed.

## DTC Logic

INFOID:0000000005491946

### DTC DETECTION LOGIC

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B2014 | CHAIN OF S/L-BCM | Inactive communication between steering lock unit and BCM. | • Harness or connectors (Steering lock unit circuit is open or shorted)<br>• Steering lock unit<br>• BCM |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Lock steering.
2. Press the push-button ignition switch.
3. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-46, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005491947

#### 1.CHECK STEERING LOCK UNIT POWER SUPPLY

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

| (+) | | (–) | Condition | | Voltage (V) (Approx.) |
|---|---|---|---|---|---|
| Steering lock unit | | | | | |
| Connector | Terminal | | | | |
| M12 | 7 | Ground | Ignition switch | OFF or ACC | Battery voltage |
| | | | | ON | 0 |

Is the inspection result normal?

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

#### 2.CHECK STEERING LOCK UNIT POWER SUPPLY CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between steering lock unit harness connector and BCM harness connector.

| Steering lock unit | | BCM | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M12 | 7 | M71 | 95 | Existed |

3. Check continuity between steering lock unit harness connector and ground.

| Steering lock unit | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M12 | 7 | | Not existed |

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".
NO >> Repair or replace harness.

## 3. CHECK STEERING LOCK UNIT GROUND CIRCUIT

Check continuity between steering lock unit and ground.

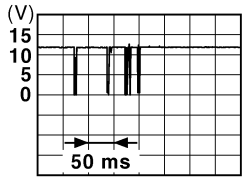
| Steering lock unit | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M12 | 5 | | Existed |
| | 6 | | |

Is the inspection result normal?

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

## 4. CHECK STEERING LOCK UNIT COMMUNICATION SIGNAL

1. Connect steering lock unit connector and BCM connector.
2. Read voltage signal between steering lock unit harness connector and ground.

| (+) Steering lock unit | | (–) | Condition | | Voltage (V) (Approx.) |
|---|---|---|---|---|---|
| Connector | Terminal | | | | |
| M12 | 2 | Ground | Steering lock unit | Lock status | 12 |
| | | | | Lock or unlock |   JMKIA0066GB |
| | | | | For 15 seconds after unlock | 12 |
| | | | | 15 seconds or later after unlock. | 0 |

**Steering is locked : Opening the door when ignition switch is ON to OFF.**
**Steering is unlocked : Ignition switch is OFF to ACC.**

Is the inspection result normal?

YES >> Replace steering lock unit.
NO >> GO TO 5.

## 5. CHECK STEERING LOCK UNIT COMMUNICATION CIRCUIT

1. Disconnect steering lock unit and BCM connector.
2. Check continuity between steering lock unit harness connector and BCM harness connector.

| Steering lock unit | | BCM | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M12 | 2 | M71 | 94 | Existed |

3. Check continuity between steering lock unit harness connector and ground.

| Steering lock unit | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M12 | 2 | | Not existed |

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".
NO >> Repair or replace harness.

# B2555 STOP LAMP

## Description

INFOID:0000000005491948

BCM detects the stop lamp status and confirms the stop lamp switch ON/OFF status. BCM confirms the engine start condition according to the stop lamp switch ON/OFF status.

## DTC Logic

INFOID:0000000005491949

### DTC DETECTION LOGIC

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B2555 | STOP LAMP | 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. | • Harness or connectors (Stop lamp switch circuit is open or shorted)<br>• Stop lamp switch<br>• Fuse |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Depress the brake pedal and wait 1 second or more.
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-49, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005491950

#### 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 | | |
| M71 | 105 | Ground | Battery voltage |

Is the inspection normal?

YES >> GO TO 2.
NO-1 >> Check 10 A fuse [No. 7, 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 harness connector and ground.

| (+) | | (–) | Voltage (V) (Approx.) |
|---|---|---|---|
| Stop lamp switch | | | |
| Connector | Terminal | | |
| E115 | 1 | Ground | Battery voltage |

Is the inspection result normal?

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

#### 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 | | | | |
| M68 | 9 | Ground | Brake pedal | Depressed | Battery voltage |
| | | | | Not depressed | 0 |

Is the inspecting result normal?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".
NO >> GO TO 4.

## 4.CHECK STOP LAMP SWITCH CIRCUIT

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

| Stop lamp switch | | BCM | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| E115 | 2 | M68 | 9 | Existed |

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

| Stop lamp switch | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| E115 | 2 | | Not existed |

Is the inspection result normal?

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

## 5.CHECK STOP LAMP SWITCH

Refer to SEC-50, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6.
NO >> Replace stop lamp switch. Refer to BR-17, "Exploded View".

## 6.CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

# Component Inspection

INFOID:0000000005491951

## 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 |
|---|---|---|---|---|
| Terminal | | | | |
| 1 | 2 | Brake pedal | Not depressed | Not existed |
| | | | Depressed | Existed |

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace stop lamp switch. Refer to BR-17, "Exploded View".

# B2556 PUSH-BUTTON IGNITION SWITCH

## Description

INFOID:0000000005491952

The switch changes the power supply position. BCM maintains the power supply position status. BCM changes the power supply position with the operation of the push-button ignition switch.

## DTC Logic

INFOID:0000000005491953

### DTC DETECTION LOGIC

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B2556 | PUSH-BTN IGN SW | BCM detects the push-button ignition switch stuck at ON for 100 seconds or more. | • Harness or connectors (Push-button ignition switch circuit is shorted.)<br>• Push-button ignition switch<br>• BCM |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine and wait 100 seconds or more.
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-51, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005491954

#### 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 (V) (Approx.) |
|---|---|---|---|
| Push-button ignition switch | | | |
| Connector | Terminal | | |
| M101 | 8 | Ground | 12 |

Is the inspection result normal?

YES >> GO TO 3.
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 | |
| M101 | 8 | M71 | 100 | Existed |

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

| Push-button ignition switch | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M101 | 8 | | Not existed |

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".
NO >> Repair or replace harness.

## 3.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 | | |
| M101 | 4 | | Existed |

Is the inspection result normal?

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

## 4.CHECK PUSH-BUTTON IGNITION SWITCH

Refer to SEC-52, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace push-button ignition switch. Refer to PCS-145, "Removal and Installation".

## 5.CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

# Component Inspection

INFOID:0000000005491955

## 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 |
|---|---|---|---|---|
| Terminal | | | | |
| 4 | 8 | Push-button ignition switch | Pressed | Existed |
| | | | Not pressed | Not existed |

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace push-button ignition switch. Refer to PCS-145, "Removal and Installation".

# B2557 VEHICLE SPEED

## Description

INFOID:0000000005491956

BCM receives 2 vehicle speed signals via CAN communication. 1 signal is transmitted by the “combination meter”. Another signal is transmitted by “ABS actuator and electric unit (control unit.)”. BCM compares both signals to detect the vehicle speed.

## DTC Logic

INFOID:0000000005491957

### DTC DETECTION LOGIC

**NOTE:**

- If DTC B2557 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".
- If DTC B2557 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-40, "DTC Logic".

| DTC No. | Self-diagnosis name | DTC detecting condition | Possible causes |
|---|---|---|---|
| B2557 | VEHICLE SPEED | BCM detects the following difference between the vehicle speed signal from “combination meter” and the one from “ABS actuator and electric unit” for 10 seconds continuously.<br>• One is 10 km/h (6.2 MPH) or more and the other is 4 km/h (2.5 MPH) or less | • Combination meter<br>• ABS actuator and electric unit (control unit) |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Drive the vehicle at the vehicle speed of 10 km/h (6.2 MPH) or more and wait 10 seconds or more.
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-53, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005491958

#### 1.CHECK DTC WITH “ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)”

Check “Self-diagnosis result” using CONSULT-III. Refer to BRC-88, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

#### 2.CHECK DTC WITH “COMBINATION METER”

Check “Self-diagnosis result” using CONSULT-III. Refer to MWI-63, "DTC Index".

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace the malfunctioning parts.

#### 3.CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

# B2601 SHIFT POSITION

## Description

INFOID:0000000005491959

BCM confirms the shift position with the following 4 signals.
- Selector lever
- Transmission range switch
- P position signal from IPDM E/R (CAN)
- P position signal from TCM (CAN)

## DTC Logic

INFOID:0000000005491960

### DTC DETECTION LOGIC

**NOTE:**
- If DTC B2601 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".
- If DTC B2601 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-40, "DTC Logic".
- If DTC B2601 is displayed with DTC B2603, first perform the trouble diagnosis for DTC B2603. Refer to SEC-54, "DTC Logic".

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B2601 | SHIFT POSITION | When there is a difference between P range signal from CVT shift selector and shift position signal from IPDM E/R | • Harness or connectors (CVT shift selector circuit is open or shorted)<br>• CVT shift selector (detention switch)<br>• BCM<br>• CAN communication malfunction between BCM and IPDM E/R |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions and wait 2 seconds or more.
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-54, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005491961

#### 1.CHECK CVT SHIFT SELECTOR POWER SUPPLY

1. Turn ignition switch OFF.
2. Disconnect CVT shift selector (detention switch) connector.
3. Check voltage between CVT shift selector (detention switch) harness connector and ground.

| (+) | | (–) | Voltage (V) (Approx.) |
|---|---|---|---|
| CVT shift selector (detention switch) | | | |
| Connector | Terminal | | |
| M58 | 7 | Ground | 12 |

Is the inspection result normal?

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

#### 2.CHECK CVT SHIFT SELECTOR POWER SUPPLY CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between CVT shift selector (detention switch) harness connector and BCM harness connector.

| CVT shift selector (detention switch) | | BCM | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M58 | 7 | M71 | 104 | Existed |

3. Check continuity between CVT shift selector (detention switch) harness connector and ground.

| CVT shift selector (detention switch) | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M58 | 7 | | Not existed |

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".
NO >> Repair or replace harness.

## 3.CHECK CVT SHIFT SELECTOR CIRCUIT (BCM)

1. Disconnect BCM connector and IPDM E/R connector.
2. Check continuity between CVT shift selector (detention switch) harness connector and BCM harness connector.

| CVT shift selector (detention switch) | | BCM | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M58 | 8 | M68 | 37 | Existed |

3. Check continuity between CVT shift selector (detention switch) harness connector and ground.

| CVT shift selector (detention switch) | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M58 | 8 | | Not existed |

Is the inspection result normal?

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

## 4.CHECK CVT SHIFT SELECTOR CIRCUIT (IPDM E/R)

Check continuity between CVT shift selector (detention switch) harness connector and IPDM E/R harness connector.

| CVT shift selector (detention switch) | | IPDM E/R | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M58 | 8 | E17 | 64 | Existed |

Is the inspection result normal?

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

## 5.CHECK CVT SHIFT SELECTOR (DETENTION SWITCH)

Refer to SEC-56, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6.
NO >> Replace CVT shift selector. Refer to TM-211, "Removal and Installation".

## 6.CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

## Component Inspection

INFOID:0000000005491962

### 1. CHECK CVT SHIFT SELECTOR (DETENTION SWITCH)

1. Turn ignition switch OFF.
2. Disconnect CVT shift selector connector.
3. Check continuity between CVT shift selector (detention switch) terminals.

| CVT shift selector (detention switch) Terminal | | Condition | | Continuity |
|---|---|---|---|---|
| 7 | 8 | Selector lever | P position | Not existed |
| | | | Other than above | Existed |

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace CVT shift selector. Refer to TM-211, "Removal and Installation".

# B2602 SHIFT POSITION

## Description

INFOID:0000000005491963

BCM confirms the shift position with the following 4 signals.
- Selector lever
- Transmission range switch
- P position signal from IPDM E/R (CAN)
- P position signal from TCM (CAN)

## DTC Logic

INFOID:0000000005491964

### DTC DETECTION LOGIC

**NOTE:**
- If DTC B2602 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".
- If DTC B2602 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-40, "DTC Logic".

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B2602 | SHIFT POSITION | BCM detects the following status for 10 seconds.<br>• Shift position is in the P position<br>• Vehicle speed is 4 km/h (2.5 MPH) or more<br>• Ignition switch is in the ON position | • Harness or connectors (CVT shift selector circuit is open or shorted)<br>• CVT shift selector (detention switch)<br>• BCM |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine under the following conditions and wait 10 seconds or more.
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-57, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005491965

#### 1.CHECK DTC WITH “ABS ACTUATOR AND ELECTRIC UNIT”

Check “Self-diagnosis result” using CONSULT-III. Refer to BRC-88, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

#### 2.CHECK CVT SHIFT SELECTOR POWER SUPPLY

1. Turn ignition switch OFF.
2. Disconnect CVT shift selector (detention switch) connector.
3. Check voltage between CVT shift selector (detention switch) harness connector and ground.

| (+) | | (–) | Voltage (V) (Approx.) |
|---|---|---|---|
| CVT shift selector (detention switch) | | | |
| Connector | Terminal | | |
| M58 | 7 | Ground | Battery voltage |

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

## 3.CHECK CVT SHIFT SELECTOR POWER SUPPLY CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between CVT shift selector (detention switch) harness connector and BCM harness connector.

| CVT shift selector (detention switch) | | BCM | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M58 | 7 | M71 | 104 | Existed |

3. Check continuity between CVT shift selector (detention switch) harness connector and ground.

| CVT shift selector (detention switch) | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M58 | 7 | | Not existed |

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".
NO >> Repair or replace harness.

## 4.CHECK CVT SHIFT SELECTOR CIRCUIT

1. Disconnect BCM connector and IPDM E/R connector.
2. Check continuity between CVT shift selector (detention switch) harness connector and BCM harness connector.

| CVT shift selector (detention switch) | | BCM | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M58 | 8 | M68 | 37 | Existed |

3. Check continuity between CVT shift selector (detention switch) harness connector and ground.

| CVT shift selector (detention switch) | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M58 | 8 | | Not existed |

Is the inspection result normal?

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

## 5.CHECK CVT SHIFT SELECTOR (DETENTION SWITCH)

Refer to SEC-58, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6.
NO >> Replace CVT shift selector. Refer to TM-211, "Removal and Installation".

## 6.CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

# Component Inspection

INFOID:0000000005491966

## 1.CHECK CVT SHIFT SELECTOR (DETENTION SWITCH)

1. Turn ignition switch OFF.
2. Disconnect CVT shift selector connector.
3. Check continuity between CVT shift selector (detention switch) terminals.

| CVT shift selector (detention switch) | | Condition | | Continuity |
|---|---|---|---|---|
| Terminal | | | | |
| 7 | 8 | Selector lever | P position | Not existed |
| | | | Other than above | Existed |

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace CVT shift selector. Refer to TM-211, "Removal and Installation".

# B2603 SHIFT POSITION

## Description

INFOID:0000000005491967

BCM confirms the shift position with the following 4 signals.
- Selector lever
- Transmission range switch
- P position signal from IPDM E/R (CAN)
- P position signal from TCM (CAN)

## DTC Logic

INFOID:0000000005491968

### DTC DETECTION LOGIC

**NOTE:**
- If DTC B2603 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".
- If DTC B2603 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-40, "DTC Logic".
- If DTC B2603 is displayed with DTC B2601, first perform the trouble diagnosis for DTC B2601. Refer to SEC-54, "DTC Logic".

| DTC No. | Self-diagnosis name | DTC detecting condition | Possible causes |
|---|---|---|---|
| B2603 | SHIFT POSI STATUS | BCM detects the following status when ignition switch is in the ON position.<br>• Transmission range switch: approx. 0 V<br>• CVT shift selector (detention switch): approx. 0 V | • Harness or connector (CVT shift selector circuit is open or shorted)<br>• Harness or connectors (Transmission renge switch circuit is open or shorted)<br>• CVT shift selector (detention switch)<br>• Transmission range switch<br>• BCM<br>• IPDM E/R |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE 1

1. Turn ignition switch ON under the following conditions and wait 1 second or more.
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-60, "Diagnosis Procedure".
NO >> GO TO 2.

#### 2.PERFORM DTC CONFIRMATION PROCEDURE 2

1. After step 1 of DTC confirmation procedure, shift selector lever to a position other than P or N
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-60, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005491969

#### 1.INSPECTION START

Perform inspection in accordance with procedure that confirms DTC.

Which procedure confirms DTC?

DTC confirmation procedure 1>>GO TO 2.
DTC confirmation procedure 2>>GO TO 7.

## 2.CHECK TRANSMISSION RANGE SWITCH POWER SUPPLY

1. Turn ignition switch OFF.
2. Disconnect transmission range switch connector.
3. Turn ignition switch ON.
4. Check voltage between transmission range switch harness connector and ground.

| (+) | | (–) | Voltage (V) (Approx.) |
|---|---|---|---|
| Transmission range switch | | | |
| Connector | Terminal | | |
| F21 | 1 | Ground | Battery voltage |

Is the inspection result normal?

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

## 3.CHECK TRANSMISSION RANGE SWITCH POWER SUPPLY CIRCUIT

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

| Transmission range switch | | IPDM E/R | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| F21 | 1 | E15 | 59 | Existed |

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

| A/T assembly | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| F21 | 1 | | Not existed |

Is the inspection result normal?

YES >> Check 10 A fuse (No. 56, located in the IPDM E/R).
NO >> Repair or replace harness.

## 4.CHECK BCM INPUT SIGNAL

1. Turn ignition switch OFF.
2. Connect transmission range switch connector.
3. Turn ignition switch ON.
4. Check voltage between BCM harness connector and ground.

| (+) | | (–) | Condition | | Voltage (V) (Approx.) |
|---|---|---|---|---|---|
| BCM | | | | | |
| Connector | Terminal | | | | |
| M71 | 102 | Ground | Selector lever | P or N position | Battery voltage |
| | | | | Other than above | 0 |

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".
NO >> GO TO 5.

## 5.CHECK BCM INPUT SIGNAL CIRCUIT

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

| Transmission range switch | | BCM | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| F21 | 2 | M71 | 102 | Existed |

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

| Transmission range switch | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| F21 | 2 | | Not existed |

Is the inspection result normal?

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

## 6. CHECK TRANSMISSION RANGE SWITCH

Refer to SEC-63, "Component Inspection (Transmission Range Switch)".

Is the inspection result normal?

YES >> GO TO 12.
NO >> Replace transaxle assembly. Refer to TM-230, "Exploded View".

## 7. CHECK CVT SHIFT SELECTOR POWER SUPPLY

1. Turn ignition switch OFF.
2. Disconnect CVT shift selector (detention switch) connector.
3. Check voltage between CVT shift selector (detention switch) harness connector and ground.

| (+) | | (–) | Voltage (V) (Approx.) |
|---|---|---|---|
| CVT shift selector (detention switch) | | | |
| Connector | Terminal | | |
| M58 | 7 | Ground | 12 |

Is the inspection result normal?

YES >> GO TO 9.
NO >> GO TO 8.

## 8. CHECK CVT SHIFT SELECTOR POWER SUPPLY CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between CVT shift selector (detention switch) harness connector and BCM harness connector.

| CVT shift selector (detention switch) | | BCM | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M58 | 7 | M71 | 104 | Existed |

3. Check continuity between CVT shift selector (detention switch) harness connector and ground.

| CVT shift selector (detention switch) | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M58 | 7 | | Not existed |

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".
NO >> Repair or replace harness.

## 9. CHECK CVT SHIFT SELECTOR CIRCUIT (BCM)

1. Disconnect BCM connector and IPDM E/R connector.
2. Check continuity between CVT shift selector (detention switch) harness connector and BCM harness connector.

| CVT shift selector (detention switch) | | BCM | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M58 | 8 | M68 | 37 | Existed |

3. Check continuity between CVT shift selector (detention switch) harness connector and ground.

| CVT shift selector (detention switch) | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M58 | 8 | | Not existed |

Is the inspection result normal?

YES >> GO TO 10.
NO >> Repair or replace harness.

## 10. CHECK CVT SHIFT SELECTOR CIRCUIT (IPDM E/R)

Check continuity between CVT shift selector (detention switch) harness connector and IPDM E/R harness connector.

| CVT shift selector (detention switch) | | IPDM E/R | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M58 | 8 | E17 | 64 | Existed |

Is the inspection result normal?

YES >> GO TO 11.
NO >> Repair or replace harness.

## 11. CHECK CVT SHIFT SELECTOR (DETENTION SWITCH)

Refer to SEC-63, "Component Inspection [CVT Shift Selector (Detention Switch)]".

Is the inspection result normal?

YES >> GO TO 12.
NO >> Replace CVT shift selector. Refer to TM-211, "Removal and Installation".

## 12. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

# Component Inspection (Transmission Range Switch)

INFOID:0000000005491970

## 1. CHECK TRANSMISSION RANGE SWITCH

1. Turn ignition switch OFF.
2. Disconnect transmission range switch connector.
3. Check continuity between transmission range switch terminals.

| Transmission range switch | | Condition | Continuity |
|---|---|---|---|
| Terminal | | | |
| 1 | 2 | P or N position | Existed |
| | | Other than above | Not existed |

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace transaxle assembly. Refer to TM-230, "Exploded View".

# Component Inspection [CVT Shift Selector (Detention Switch)]

INFOID:0000000005491971

## 1. CHECK CVT SHIFT SELECTOR (DETENTION SWITCH)

1. Turn ignition switch OFF.
2. Disconnect CVT shift selector connector.
3. Check continuity between CVT shift selector (detention switch) terminals.

| CVT shift selector (detention switch) Terminal | | Condition | | Continuity |
|---|---|---|---|---|
| 7 | 8 | Selector lever | P position | Not existed |
| | | | Other than above | Existed |

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace CVT shift selector. Refer to TM-211, "Removal and Installation".

# B2604 SHIFT POSITION

## Description

INFOID:0000000005491972

BCM confirms the shift position with the following 4 signals.
- Selector lever
- Transmission range switch
- P position signal from IPDM E/R (CAN)
- P position signal from TCM (CAN)

## DTC Logic

INFOID:0000000005491973

### DTC DETECTION LOGIC

**NOTE:**
- If DTC B2604 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".
- If DTC B2604 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-40, "DTC Logic".

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B2604 | PNP/CLUTCH SW | The following states are detected while ignition switch is ON.<br>• There is park/neutral position signal input but shift position signal input (CAN) from TCM is other than P or N<br>• There is not park/neutral position signal input but shift position signal input (CAN) from TCM is P or N | • Harness or connectors (Transmission range switch circuit is open or shorted)<br>• Transmission range switch<br>• BCM<br>• IPDM E/R |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions and wait 1 second or more.
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-65, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005491974

#### 1.CHECK TRANSMISSION RANGE SWITCH POWER SUPPLY

1. Turn ignition switch OFF.
2. Disconnect transmission range switch connector.
3. Turn ignition switch ON.
4. Check voltage between transmission range switch harness connector and ground.

| (+) | | (–) | Voltage (V) (Approx.) |
|---|---|---|---|
| Transmission range switch | | | |
| Connector | Terminal | | |
| F21 | 1 | Ground | Battery voltage |

Is the inspection result normal?

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

#### 2.CHECK TRANSMISSION RANGE SWITCH POWER SUPPLY CIRCUIT

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

| Transmission range switch | | IPDM E/R | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| F21 | 1 | E15 | 59 | Existed |

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

| Transmission range switch | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| F21 | 1 | | Not existed |

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-34, "Removal and Installation".
NO >> Repair or replace harness.

## 3. CHECK BCM INPUT SIGNAL

1. Turn ignition switch OFF.
2. Connect transmission range switch connector.
3. Turn ignition switch ON.
4. Check voltage between BCM harness connector and ground.

| (+) | | (–) | Condition | | Voltage (V) (Approx.) |
|---|---|---|---|---|---|
| BCM | | | | | |
| Connector | Terminal | | | | |
| M71 | 102 | Ground | Selector lever | P or N position | Battery voltage |
| | | | | Other than above | 0 |

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".
NO >> GO TO 4.

## 4. CHECK BCM INPUT SIGNAL CIRCUIT

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

| Transmission range switch | | BCM | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| F21 | 2 | M71 | 102 | Existed |

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

| Transmission range switch | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| F21 | 2 | | Not existed |

Is the inspection result normal?

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

## 5. CHECK TRANSMISSION RANGE SWTICH

Refer to SEC-67, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace transaxle assembly. Refer to TM-230, "Exploded View".

## 6. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

## Component Inspection

INFOID:0000000005491975

## 1. CHECK TRANSMISSION RANGE SWITCH

1. Turn ignition switch OFF.
2. Disconnect transmission range switch connector.
3. Check continuity between transmission range switch terminals.

| Transmission range switch | | Condition | Continuity |
|---|---|---|---|
| Terminal | | | |
| 1 | 2 | P or N position | Existed |
| | | Other than above | Not existed |

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace transaxle assembly. Refer to TM-230, "Exploded View".

# B2605 SHIFT POSITION

## Description

INFOID:0000000005491976

BCM confirms the shift position with the following 4 signals.
- Selector lever
- Transmission range switch
- P position signal from IPDM E/R (CAN)
- P position signal from TCM (CAN)

## DTC Logic

INFOID:0000000005491977

### DTC DETECTION LOGIC

**NOTE:**
- If DTC B2605 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".
- If DTC B2605 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-40, "DTC Logic".

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B2605 | PNP/CLUTCH SW | When ignition switch is ON, N range signal input and shift position signal (CAN) input from IPDM E/R do not match. | • Harness or connectors (Transmission range switch circuit is open or shorted)<br>• Transmission range switch<br>• IPDM E/R<br>• BCM |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions and wait 1 second or more.
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-68, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005491978

#### 1.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 (V) (Approx.) |
|---|---|---|---|---|---|
| IPDM E/R | | | | | |
| Connector | Terminal | | | | |
| E15 | 47 | Ground | Selector lever | P or N position | Battery voltage |
| | | | | Other than above | 0 |

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-34, "Removal and Installation".
NO >> GO TO 2.

#### 2.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 BCM harness connector.

| IPDM E/R | | BCM | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| E15 | 47 | M71 | 102 | Existed |

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

| IPDM E/R | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| E15 | 47 | | Not existed |

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".
NO >> Repair or replace harness.

# B2608 STARTER RELAY

## Description

INFOID:0000000005491979

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 the START position. IPDM E/R transmits the starter relay ON signal to BCM via CAN communication.

## DTC Logic

INFOID:0000000005491980

### DTC DETECTION LOGIC

**NOTE:**

- If DTC B2608 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".
- If DTC B2608 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-40, "DTC Logic".

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B2608 | STARTER RELAY | BCM outputs starter motor relay OFF but IPDM E/R receives starter motor relay ON signal. | • Harness or connectors (Starter relay circuit is open or shorted.)<br>• IPDM E/R |

### DTC CONFIRMATION PROCEDURE

#### 1. PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions.
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-70, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005491981

#### 1. CHECK DTC WITH IPDM E/R

Check “Self-diagnosis result” using CONSULT-III. Refer to PCS-32, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

#### 2. CHECK BCM POWER SUPPLY CIRCUIT

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

| (+) | | (–) | Condition | | Voltage (V) (Approx.) |
|---|---|---|---|---|---|
| BCM | | | | | |
| Connector | Terminal | | | | |
| M71 | 97 | Ground | Selector lever | N or P position | 12 |
| | | | | Other than above | 0 |

Is the measurement value within the specification?

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

#### 3. CHECK STARTER RELAY CIRCUIT

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

| IPDM E/R | | BCM | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| E13 | 30 | M71 | 97 | Existed |

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

| IPDM E/R | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| E13 | 30 | | Not existed |

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-34, "Removal and Installation".
NO >> Repair or replace harness.

## 4. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

# B2609 STEERING STATUS

## Description

INFOID:0000000005491982

There are 2 switches in the steering lock unit (steering lock/unlock switch 1 and 2). BCM compares the 2 switch conditions to judge the present steering status.

## DTC Logic

INFOID:0000000005491983

### DTC DETECTION LOGIC

**NOTE:**

- If DTC B2609 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".
- If DTC B2609 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-40, "DTC Logic".

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B2609 | S/L STATUS | Combination of steering lock state switch and steering unlock state switch is not normal or steering lock (or unlock) state that BCM recognizes is different from combination of steering lock state switch/ steering unlock state switch. | • Harness or connectors (Steering lock unit circuit is open or shorted)<br>• Steering lock unit<br>• BCM |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE-1

1. Press the push-button ignition switch and wait 1 second or more under the following conditions.
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-72, "Diagnosis Procedure".
NO >> GO TO 2.

#### 2.PERFORM DTC CONFIRMATION PROCEDURE-2

1. Turn ignition switch ON.
2. Turn ignition switch OFF.
3. Press driver side door switch and wait 1second or more.
4. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-72, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005491984

#### 1.INSPECTION START

Perform inspection in accordance with procedure that confirms DTC.

Which procedure confirms DTC?

DTC confirmation procedure 1>>GO TO 2.
DTC confirmation procedure 2>>GO TO 4.

#### 2.CHECK IPDM E/R INPUT SIGNAL

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

| (+) | | (–) | Condition | | Voltage (V) (Approx.) |
|---|---|---|---|---|---|
| IPDM E/R | | | | | |
| Connector | Terminal | | | | |
| E17 | 65 | Ground | Steering lock unit | Lock | 0 |
| | | | | Unlock | Battery voltage |
| | 68 | | | Lock | Battery voltage |
| | | | | Unlock | 0 |

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-34, "Removal and Installation".
NO >> GO TO 3.

## 3. CHECK IPDM E/R INPUT SIGNAL CIRCUIT

1. Disconnect IPDM E/R connector and steering lock unit connector.
2. Check continuity between IPDM E/R harness connector and steering lock unit harness connector.

| IPDM E/R | | Steering lock unit | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| E17 | 65 | M12 | 3 | Existed |
| | 68 | | 8 | |

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

| IPDM E/R | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| E17 | 65 | | Not existed |
| | 68 | | |

Is the inspection result normal?

YES >> Replace steering lock unit.
NO >> Repair or replace harness.

## 4. CHECK BCM INPUT SIGNAL

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

| (+) | | (–) | Condition | | Voltage (V) (Approx.) |
|---|---|---|---|---|---|
| BCM | | | | | |
| Connector | Terminal | | | | |
| M71 | 107 | Ground | Steering lock unit | Lock | 0 |
| | | | | Unlock | Battery voltage |
| | 108 | | | Lock | Battery voltage |
| | | | | Unlock | 0 |

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".
NO >> GO TO 5.

## 5. CHECK BCM INPUT SIGNAL CIRCUIT

1. Disconnect BCM connector and steering lock unit connector.
2. Check continuity between BCM harness connector and steering lock unit harness connector.

| BCM | | Steering lock unit | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M71 | 107 | M12 | 3 | Existed |
| | 108 | | 8 | |

3. Check continuity between BCM harness connector and ground.

| BCM | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M71 | 107 | | Not existed |
| | 108 | | |

Is the inspection result normal?

YES >> Replace steering lock unit.
NO >> Repair or replace harness.

# B260B STEERING LOCK UNIT

## Description

INFOID:0000000005491985

The steering lock unit performs the check by itself according to the steering status.

## DTC Logic

INFOID:0000000005491986

### DTC DETECTION LOGIC

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B260B | STEERING LOCK UNIT | BCM detects malfunctioning of steering lock unit before steering unlocking. | Steering lock unit |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Turn ignition switch OFF.
3. Press front door switch (driver side).
4. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-75, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005491987

#### 1.INSPECTION START

1. Turn ignition switch ON.
2. Check “Self-diagnosis result” using CONSULT-III.
3. Touch “ERASE”.
4. Perform DTC Confirmation Procedure.
   See SEC-75, "DTC Logic".

Is DTC detected?

YES >> Replace steering lock unit.
NO >> INSPECTION END

# B260C STEERING LOCK UNIT

## Description

INFOID:0000000005491988

The steering lock unit performs the check by itself according to the steering status.

## DTC Logic

INFOID:0000000005491989

### DTC DETECTION LOGIC

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B260C | STEERING LOCK UNIT | BCM detects malfunctioning of steering lock unit before steering locking. | Steering lock unit |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Turn ignition switch OFF.
3. Press front door switch (driver side).
4. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-76, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005491990

#### 1.INSPECTION START

1. Turn ignition switch ON.
2. Check “Self-diagnosis result” using CONSULT-III.
3. Touch “ERASE”.
4. Perform DTC Confirmation Procedure.
   See SEC-76, "DTC Logic".

Is DTC detected?

YES >> Replace steering lock unit.
NO >> INSPECTION END

# B260D STEERING LOCK UNIT

## Description

INFOID:0000000005491991

The steering lock unit performs the check by itself according to the steering lock status (before lock, after lock and unlock).

## DTC Logic

INFOID:0000000005491992

### DTC DETECTION LOGIC

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B260D | STEERING LOCK UNIT | BCM detects malfunctioning of steering lock unit after steering locking. | Steering lock unit |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Turn ignition switch OFF.
3. Press front door switch (driver side).
4. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-77, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005491993

#### 1.INSPECTION START

1. Turn ignition switch ON.
2. Check “Self-diagnosis result” using CONSULT-III.
3. Touch “ERASE”.
4. Perform DTC Confirmation Procedure.
   See SEC-77, "DTC Logic".

Is DTC detected?

YES >> Replace steering lock unit.
NO >> INSPECTION END

# B260F ENGINE STATUS

## Description

INFOID:0000000005491994

BCM receives the engine status signal from ECM via CAN communication.

## DTC Logic

INFOID:0000000005491995

### DTC DETECTION LOGIC

**NOTE:**

- If DTC B260F is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".
- If DTC B260F is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-40, "DTC Logic".

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B260F | ENG STATE SIG LOST | BCM has not yet received the engine status signal from ECM when ignition switch is in the ON position. | ECM |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions.
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-78, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005491996

#### 1.INSPECTION START

1. Turn ignition switch ON.
2. Check “Self-diagnosis result” using CONSULT-III.
3. Touch “ERASE”.
4. Perform DTC Confirmation Procedure.
   See SEC-78, "DTC Logic".

Is the DTC B260F displayed again?

YES >> GO TO 2.
NO >> INSPECTION END

#### 2.REPLACE ECM

Replace ECM. Refer to EC-16, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

>> INSPECTION END

# B2612 STEERING STATUS

## Description

INFOID:0000000005491997

There are 2 switches in the steering unit. IPDM E/R compares the 2 switch conditions to judge the present steering status and transmits the result to BCM via CAN communication.

## DTC Logic

INFOID:0000000005491998

### DTC DETECTION LOGIC

**NOTE:**

- If DTC B2612 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".
- If DTC B2612 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-40, "DTC Logic".

| DTC No. | Self-diagnosis name | DTC detecting condition | Possible causes |
|---|---|---|---|
| B2612 | S/L STATUS | The following 2 state signals are different.<br>• Steering lock state recognition of BCM<br>• Steering lock state signal from IPDM E/R | • Harness or connectors (Steering lock unit circuit is open or shorted)<br>• Steering lock unit<br>• BCM |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE-1

1. Turn ignition switch ON under the following conditions and wait 1 second or more.
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-79, "Diagnosis Procedure".
NO >> GO TO 2.

#### 2.PERFORM DTC CONFIRMATION PROCEDURE-2

1. Turn ignition switch ON.
2. Turn ignition switch OFF.
3. Press door switch.
4. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-79, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005491999

#### 1.INSPECTION START

Perform inspection in accordance with procedure that confirms DTC.

Which procedure confirms DTC?

DTC confirmation procedure 1>>GO TO 2.
DTC confirmation procedure 2>>GO TO 4.

#### 2.CHECK IPDM E/R INPUT SIGNAL

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

| (+) | | (–) | Condition | | Voltage (V) (Approx.) |
|---|---|---|---|---|---|
| IPDM E/R | | | | | |
| Connector | Terminal | | | | |
| E17 | 65 | Ground | Steering lock unit | Lock | 0 |
| | | | | Unlock | Battery voltage |
| | 68 | | | Lock | Battery voltage |
| | | | | Unlock | 0 |

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-34, "Removal and Installation".
NO >> GO TO 3.

## 3. CHECK IPDM E/R INPUT SIGNAL CIRCUIT

1. Disconnect IPDM E/R connector and steering lock unit connector.
2. Check continuity between IPDM E/R harness connector and steering lock unit harness connector.

| IPDM E/R | | Steering lock unit | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| E17 | 65 | M12 | 3 | Existed |
| | 68 | | 8 | |

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

| IPDM E/R | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| E17 | 65 | | Not existed |
| | 68 | | |

Is the inspection result normal?

YES >> Replace steering lock unit.
NO >> Repair or replace harness.

## 4. CHECK BCM INPUT SIGNAL

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

| (+) | | (–) | Condition | | Voltage (V) (Approx.) |
|---|---|---|---|---|---|
| BCM | | | | | |
| Connector | Terminal | | | | |
| M71 | 107 | Ground | Steering lock unit | Lock | 0 |
| | | | | Unlock | Battery voltage |
| | 108 | | | Lock | Battery voltage |
| | | | | Unlock | 0 |

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".
NO >> GO TO 5.

## 5. CHECK BCM INPUT SIGNAL CIRCUIT

1. Disconnect BCM connector and steering lock unit connector.
2. Check continuity between BCM harness connector and steering lock unit harness connector.

| BCM | | Steering lock unit | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M71 | 107 | M12 | 3 | Existed |
| | 108 | | 8 | |

3. Check continuity between BCM harness connector and ground.

| BCM | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M71 | 107 | | Not existed |
| | 108 | | |

Is the inspection result normal?

YES >> Replace steering lock unit.
NO >> Repair or replace harness.

# B2619 BCM

## Description

INFOID:0000000005492000

BCM (Body Control Module) controls the various electrical components. It inputs the information required to the control from CAN communication and the signal received from each switch and sensor.

## DTC Logic

INFOID:0000000005492001

### DTC DETECTION LOGIC

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B2619 | BCM | There is a difference between power supply output to steering lock unit and steering lock unit F/B result. | BCM |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions and wait 1 second or more.
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-82, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005492002

#### 1.INSPECTION START

1. Turn ignition switch ON.
2. Check “Self-diagnosis result” using CONSULT-III.
3. Touch “ERASE”.
4. Perform DTC Confirmation Procedure.
   See SEC-82, "DTC Logic".

Is DTC detected?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".
NO >> INSPECTION END

# B26E9 STEERING STATUS

## Description

INFOID:0000000005492003

There are 2 switches in the steering lock unit (steering lock/unlock switch 1 and 2). BCM compares the 2 switch conditions to judge the present steering status.

## DTC Logic

INFOID:0000000005492004

### DTC DETECTION LOGIC

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B26E9 | LOCK MALFUNC-TION | BCM activates steering lock but steering state that BCM recognizes is unlock. | Steering lock unit |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Turn ignition switch OFF.
3. Press driver side door switch.
4. Turn ignition switch ON.
5. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Refer to SEC-83, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005492005

#### 1.INSPECTION START

1. Turn ignition switch ON.
2. Check “Self-diagnosis result” using CONSULT-III.
3. Touch “ERASE”.
4. Perform DTC Confirmation Procedure.
   Refer to SEC-83, "DTC Logic".

Is DTC detected?

YES >> Replace steering lock unit.
NO >> INSPECTION END

# B26EF STEERING LOCK RELAY

## Description

INFOID:0000000005492006

The steering lock relay ON signal is transmitted to IPDM E/R by BCM via CAN communication.
IPDM E/R turns the steering lock relay ON and transmits the release of the steering to BCM.

## DTC Logic

INFOID:0000000005492007

### DTC DETECTION LOGIC

**NOTE:**

- If DTC B26EF is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".
- If DTC B26EF is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-40, "DTC Logic".
- If DTC B26EF is displayed with DTC B2612, first perform the trouble diagnosis for DTC B2612. Refer to SEC-79, "DTC Logic".

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B26EF | STRG LCK RELAY OFF | BCM requests to turn steering lock relay in IPDM E/R ON but BCM cannot receive steering lock relay ON signal from IPDM E/R via CAN communication within 2 seconds. | • Harness or connector (Steering lock unit circuit is open or short)<br>• Steering lock unit<br>• IPDM E/R |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions and wait 1 second or more.
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-84, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005492008

#### 1.CHECK STEERING LOCK UNIT POWER SUPPLY

Check voltage between steering lock unit harness connector and ground.

| (+) | | (–) | Condition | | Voltage (V) (Approx.) |
|---|---|---|---|---|---|
| Steering lock unit | | | | | |
| Connector | Terminal | | | | |
| M12 | 1 | Ground | Ignition switch OFF | A few seconds after opening the driver door | Battery voltage |
| | | | Ignition switch LOCK | Press the push-button ignition switch | Battery voltage |
| | | | Ignition switch ACC or ON | | 0 |

Is the inspection normal?

YES >> Replace steering lock unit.
NO >> GO TO 2.

#### 2.CHECK STEERING LOCK RELAY CIRCUIT

1. Disconnect IPDM E/R connector and steering lock unit connector.
2. Check continuity IPDM E/R harness connector and steering lock unit harness connector.

| IPDM E/R | | Steering lock unit | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| E14 | 42 | M12 | 1 | Existed |

3. Check continuity IPDM E/R harness connector and ground.

| IPDM E/R | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| E14 | 42 | | Not existed |

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-34, "Removal and Installation".
NO >> Repair or replace harness.

# B26F0 STEERING LOCK RELAY

## Description

INFOID:0000000005492009

The steering lock relay ON signal is transmitted to IPDM E/R by BCM via CAN communication.
IPDM E/R turns the steering lock relay ON and transmits the release of the steering to BCM.

## DTC Logic

INFOID:0000000005492010

### DTC DETECTION LOGIC

**NOTE:**

- If DTC B26F0 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".
- If DTC B26F0 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-40, "DTC Logic".

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B26F0 | STRG LCK RELAY ON | BCM requests to turn steering lock relay in IPDM E/R OFF but BCM cannot receive steering lock relay OFF signal from IPDM E/R via CAN communication within 2 seconds. | • Harness or connector (Steering lock unit circuit is open or short circuit)<br>• IPDM E/R<br>• BCM |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions and wait 2 seconds or more.
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-86, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005492011

#### 1.CHECK DTC WITH IPDM E/R

Check “Self-diagnosis result” using CONSULT-III. Refer to PCS-32, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning part.

#### 2.CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

# B26F3 STARTER CONTROL RELAY

## Description

INFOID:0000000005492012

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 parallel to the starter relay.

## DTC Logic

INFOID:0000000005492013

### DTC DETECTION LOGIC

**NOTE:**

- If DTC B26F3 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".
- If DTC B26F3 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-40, "DTC Logic".

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B26F3 | START CONT RLY ON | BCM requests IPDM E/R to turn starter motor control relay OFF but starter motor control relay OFF state signal is not transmitted from IPDM E/R. | IPDM E/R |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn the power supply position to start under the following conditions and wait 1 second or more.
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-87, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005492014

#### 1.CHECK DTC WITH IPDM E/R

Check “Self-diagnosis result” using CONSULT-III. Refer to PCS-32, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning part.

#### 2.CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

# B26F4 STARTER CONTROL RELAY

## Description

INFOID:0000000005492015

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 the START position. IPDM E/R transmits the starter relay ON signal to BCM via CAN communication.

## DTC Logic

INFOID:0000000005492016

### DTC DETECTION LOGIC

**NOTE:**

- If DTC B26F4 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".
- If DTC B26F4 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-40, "DTC Logic".

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B26F4 | START CONT RELAY OFF | BCM requests IPDM E/R to turn starter motor control relay ON but starter motor control relay ON state signal is not transmitted from IPDM E/R. | • Harness or connector (Transmission range switch circuit is open or short).<br>• IPDM E/R<br>• BCM |

### DTC CONFIRMATION PROCEDURE

#### 1. PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions and wait 1 second or more.
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-88, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005492017

#### 1. 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 (V) (Approx.) |
|---|---|---|---|---|---|
| IPDM E/R | | | | | |
| Connector | Terminal | | | | |
| E15 | 47 | Ground | Selector lever | P or N position | Battery voltage |
| | | | | Other than above | 0 |

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-34, "Removal and Installation".
NO >> GO TO 2.

#### 2. CHECK IPDM E/R INPUT SIGNAL CIRCUIT

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

| BCM | | IPDM E/R | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M71 | 102 | E15 | 47 | Existed |

4. Check continuity between BCM harness connector and ground.

| BCM | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M71 | 102 | | Not existed |

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".
NO >> Repair or replace harness.

# B26F5 STEERING LOCK STATUS SWITCH

## Description

INFOID:0000000005492018

There are 2 switches in the steering unit. IPDM E/R compares the 2 switch conditions to judge the present steering status and transmits the result to BCM via CAN communication.

## DTC Logic

INFOID:0000000005492019

### DTC DETECTION LOGIC

**NOTE:**

- If DTC B210A is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".
- If DTC B210A is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-40, "DTC Logic".

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B26F5 | STRG LCK STS SW | When BCM performs steering lock request to IPDM E/R, steering lock state signal from IPDM E/R is already in lock state. | • Harness or connectors (Steering lock unit status switch circuit is open or shorted)<br>• Steering lock unit<br>• IPDM E/R<br>• BCM |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE-1

1. Turn ignition switch ON under the following conditions and wait 1 second or more.
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-90, "Diagnosis Procedure".
NO >> GO TO 2.

#### 2.PERFORM DTC CONFIRMATION PROCEDURE-2

1. Turn ignition switch ON.
2. Turn ignition switch OFF.
3. Press driver side door switch and wait 1 second or more.
4. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-90, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005492020

#### 1.INSPECTION START

Perform inspection in accordance with procedure that confirms DTC.

Which procedure confirms DTC?

DTC confirmation procedure 1>>GO TO 2.
DTC confirmation procedure 2>>GO TO 4.

#### 2.CHECK IPDM E/R INPUT SIGNAL

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

| (+) | | (–) | Condition | | Voltage (V) (Approx.) |
|---|---|---|---|---|---|
| IPDM E/R | | | | | |
| Connector | Terminal | | | | |
| E17 | 65 | Ground | Steering lock unit | Lock | 0 |
| | | | | Unlock | Battery voltage |
| | 68 | | | Lock | Battery voltage |
| | | | | Unlock | 0 |

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-34, "Removal and Installation".
NO >> GO TO 3.

## 3. CHECK IPDM E/R INPUT SIGNAL CIRCUIT

1. Disconnect IPDM E/R connector and steering lock unit connector.
2. Check continuity between IPDM E/R harness connector and steering lock unit harness connector.

| IPDM E/R | | Steering lock unit | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| E17 | 65 | M12 | 3 | Existed |
| | 68 | | 8 | |

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

| IPDM E/R | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| E17 | 65 | | Not existed |
| | 68 | | |

Is the inspection result normal?

YES >> Replace steering lock unit.
NO >> Repair or replace harness.

## 4. CHECK BCM INPUT SIGNAL

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

| (+) | | (–) | Condition | | Voltage (V) (Approx.) |
|---|---|---|---|---|---|
| BCM | | | | | |
| Connector | Terminal | | | | |
| M71 | 107 | Ground | Steering lock unit | Lock | 0 |
| | | | | Unlock | Battery voltage |
| | 108 | | | Lock | Battery voltage |
| | | | | Unlock | 0 |

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".
NO >> GO TO 5.

## 5. CHECK BCM INPUT SIGNAL CIRCUIT

1. Disconnect BCM connector and steering lock unit connector.
2. Check continuity between BCM harness connector and steering lock unit harness connector.

| BCM | | Steering lock unit | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M71 | 107 | M12 | 3 | Existed |
| | 108 | | 8 | |

3. Check continuity between BCM harness connector and ground.

| BCM | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M71 | 107 | | Not existed |
| | 108 | | |

Is the inspection result normal?

YES >> Replace steering lock unit.
NO >> Repair or replace harness.

# B26F7 BCM

## Description

INFOID:0000000005492021

BCM (Body Control Module) controls the various electrical components. It inputs the information required to the control from CAN communication and the signal received from each switch and sensor.

## DTC Logic

INFOID:0000000005492022

### DTC DETECTION LOGIC

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B26F7 | BCM | Inside key antenna output circuit in BCM is malfunctioning. | BCM |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Press door request switch.
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-94, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005492023

#### 1.INSPECTION START

1. Turn ignition switch ON.
2. Check “Self-diagnosis result” using CONSULT-III.
3. Touch “ERASE”.
4. Perform DTC Confirmation Procedure.
   See SEC-94, "DTC Logic".

Is DTC detected?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".
NO >> INSPECTION END

# B26F8 BCM

## Description

INFOID:0000000005492024

BCM (Body Control Module) controls the various electrical components. It inputs the information required to the control from CAN communication and the signal received from each switch and sensor.

## DTC Logic

INFOID:0000000005492025

### DTC DETECTION LOGIC

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B26F8 | BCM | When BCM turns starter motor control replay in IPDM E/R ON, input from feedback circuit does not match. | BCM |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Press push-button ignition switch under the following conditions and wait 1 second or more.
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-94, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005492026

#### 1.INSPECTION START

1. Turn ignition switch ON.
2. Check “Self-diagnosis result” using CONSULT-III.
3. Touch “ERASE”.
4. Perform DTC Confirmation Procedure.
   See SEC-94, "DTC Logic".

Is DTC detected?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".
NO >> INSPECTION END

# B26FC KEY REGISTRATION

## Description

INFOID:0000000005492027

When door request switch or push-button ignition switch is pressed, BCM verifies Intelligent Key that is registered to the vehicle. If verification result is OK, door lock, door unlock, and engine start are allowed.

## DTC Logic

INFOID:0000000005492028

### DTC DETECTION LOGIC

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B26FC | KEY REGISTRATION | Intelligent Key that does not match the vehicle is registered. | • Improper registration operation<br>• Intelligent Key<br>• BCM |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Perform initialization using CONSULT-III. Reregister all Intelligent Keys.
   For initialization and registration of Intelligent Key, refer to “CONSULT-III Operation Manual NATS-IVIS/NVIS”.
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-95, "Diagnosis Procedure"
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005492029

#### 1.REPLACE INTELLIGENT KEY

1. Replace Intelligent Key that matches the vehicle.
2. Perform initialization using CONSULT-III. For initialization, refer to “CONSULT-III Operation Manual NATS-IVIS/NVIS”.
3. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".
NO >> INSPECTION END

# B2108 STEERING LOCK RELAY

## Description

INFOID:0000000005492030

The steering lock relay ON signal is transmitted to IPDM E/R by BCM via CAN communication.
IPDM E/R turns the steering lock relay ON and transmits the release of the steering to BCM.

## DTC Logic

INFOID:0000000005492031

### DTC DETECTION LOGIC

**NOTE:**
If DTC B2108 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B2108 | STRG LCK RELAY ON | When comparing steering lock state switches 1 and 2, a malfunction is detected for 1 second. | IPDM E/R |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions and wait 1 second or more.
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-96, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005492032

#### 1.CHECK STEERING LOCK RELAY

Check voltage between IPDM E/R harness connector and ground.

| (+) | | (–) | Condition | | Voltage (V) (Approx.) |
|---|---|---|---|---|---|
| IPDM E/R | | | | | |
| Connector | Terminal | | | | |
| E14 | 42 | Ground | Ignition switch OFF | A few seconds after opening the driver door | Battery voltage |
| | | | Ignition switch LOCK | Press the push-button ignition switch | Battery voltage |
| | | | Ignition switch ACC or ON | | 0 |

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace IPDM E/R. Refer to PCS-34, "Removal and Installation".

#### 2.CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

# B2109 STEERING LOCK RELAY

## Description

INFOID:0000000005492033

The steering lock relay ON signal is transmitted to IPDM E/R by BCM via CAN communication.
IPDM E/R turns the steering lock relay ON and transmits the release of the steering to BCM.

## DTC Logic

INFOID:0000000005492034

### DTC DETECTION LOGIC

**NOTE:**

- If DTC B2109 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".
- When IPDM E/R power supply voltage is low (Approx. 7 - 8 V for about 1 second), the DTC B2109 may be detected.

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B2109 | STRG LCK RELAY OFF | When comparing steering lock state switches 1 and 2, a malfunction is detected for 1 second. | • Harness or connector (Power supply circuit)<br>• IPDM E/R<br>• Battery |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Press push-button ignition switch under the following conditions and wait 1 second or more.
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-97, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005492035

#### 1.CHECK POWER SUPPLY CIRCUIT

Check IPDM E/R power supply circuit. Refer to SEC-111, "IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) : Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning part.

#### 2.CHECK FUSE

1. Turn ignition switch OFF.
2. Check 10 A fuse (No. 44, located in IPDM E/R).

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-34, "Removal and Installation".
NO >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

# B210A STEERING LOCK UNIT

## Description

INFOID:0000000005492036

There are 2 switches in the steering unit. IPDM E/R compares the 2 switch conditions to judge the present steering status and transmits the result to BCM via CAN communication.

## DTC Logic

INFOID:0000000005492037

### DTC DETECTION LOGIC

**NOTE:**
If DTC B210A is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B210A | STRG LCK STATE SW | When comparing steering lock state switches 1 and 2, input malfunctions of ON/OFF and others are simultaneously detected continuously for 1 second. | • Harness or connectors (Steering lock unit status switch circuit is open or shorted)<br>• Steering lock unit<br>• IPDM E/R<br>• BCM |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE-1

1. Press push-button ignition switch under the following conditions and wait 1 second or more.
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-98, "Diagnosis Procedure".
NO >> GO TO 2.

#### 2.PERFORM DTC CONFIRMATION PROCEDURE-2

1. Turn ignition switch ON.
2. Turn ignition switch OFF.
3. Press driver side door switch and wait 1 second or more.
4. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-98, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005492038

#### 1.INSPECTION START

Perform inspection in accordance with procedure that confirms DTC.

Which procedure confirms DTC?

DTC confirmation procedure 1>>GO TO 2.
DTC confirmation procedure 2>>GO TO 4.

#### 2.CHECK IPDM E/R INPUT SIGNAL

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

| (+) | | (–) | Condition | | Voltage (V) (Approx.) |
|---|---|---|---|---|---|
| IPDM E/R | | | | | |
| Connector | Terminal | | | | |
| E17 | 65 | Ground | Steering lock unit | Lock | 0 |
| | | | | Unlock | Battery voltage |
| | 68 | | | Lock | Battery voltage |
| | | | | Unlock | 0 |

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-34, "Removal and Installation".
NO >> GO TO 3.

## 3. CHECK IPDM E/R INPUT SIGNAL CIRCUIT

1. Disconnect IPDM E/R connector and steering lock unit connector.
2. Check continuity between IPDM E/R harness connector and steering lock unit harness connector.

| IPDM E/R | | Steering lock unit | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| E17 | 65 | M12 | 3 | Existed |
| | 68 | | 8 | |

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

| IPDM E/R | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| E17 | 65 | | Not existed |
| | 68 | | |

Is the inspection result normal?

YES >> Replace steering lock unit.
NO >> Repair or replace harness.

## 4. CHECK BCM INPUT SIGNAL

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

| (+) | | (–) | Condition | | Voltage (V) (Approx.) |
|---|---|---|---|---|---|
| BCM | | | | | |
| Connector | Terminal | | | | |
| M71 | 107 | Ground | Steering lock unit | Lock | 0 |
| | | | | Unlock | Battery voltage |
| | 108 | | | Lock | Battery voltage |
| | | | | Unlock | 0 |

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".
NO >> GO TO 5.

## 5. CHECK BCM INPUT SIGNAL CIRCUIT

1. Disconnect BCM connector and steering lock unit connector.
2. Check continuity between BCM harness connector and steering lock unit harness connector.

| BCM | | Steering lock unit | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M71 | 107 | M12 | 3 | Existed |
| | 108 | | 8 | |

3. Check continuity between BCM harness connector and ground.

| BCM | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M71 | 107 | | Not existed |
| | 108 | | |

Is the inspection result normal?

YES >> Replace steering lock unit.
NO >> Repair or replace harness.

# B210B STARTER CONTROL RELAY

## Description

INFOID:0000000005492039

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 parallel to the starter relay.

## DTC Logic

INFOID:0000000005492040

### DTC DETECTION LOGIC

**NOTE:**
If DTC B210B is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B210B | START CONT RLY ON | When comparing the following items, a malfunction is detected for 1 second or more.<br>• Starter motor relay ON signal (CAN) from BCM<br>• Starter motor control relay conditions of contact side and coil side<br>• Transmission range switch input | IPDM E/R |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions and wait 1 second or more.
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-101, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005492041

#### 1.INSPECTION START

1. Turn ignition switch ON.
2. Check “Self-diagnosis result” for IPDM E/R using CONSULT-III.
3. Touch “ERASE”.
4. Perform DTC Confirmation Procedure.
   See SEC-101, "DTC Logic".

Is DTC detected?

YES >> Replace IPDM E/R. Refer PCS-34, "Removal and Installation".
NO >> INSPECTION END

# B210C STARTER CONTROL RELAY

## Description

INFOID:0000000005492042

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 parallel to the starter relay.

## DTC Logic

INFOID:0000000005492043

### DTC DETECTION LOGIC

**NOTE:**

- If DTC B210C is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".
- When IPDM E/R power supply voltage is low (Approx. 7 - 8 V for about 1 second), the DTC B210C may be detected.

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B210C | START CONT RLY OFF | When comparing the following items, a malfunction is detected for 1 second or more.<br>• Starter motor relay ON signal (CAN) from BCM<br>• Starter motor control relay conditions of contact side and coil side<br>• Transmission range switch input | IPDM E/R |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions and wait 1 second or more.
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-102, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005492044

#### 1.INSPECTION START

1. Turn ignition switch ON.
2. Check “Self-diagnosis result” for IPDM E/R using CONSULT-III.
3. Touch “ERASE”.
4. Perform DTC Confirmation Procedure.
   See SEC-102, "DTC Logic".

Is DTC detected?

YES >> Replace IPDM E/R. Refer to PCS-34, "Removal and Installation".
NO >> INSPECTION END

# B210D STARTER RELAY

## Description

INFOID:0000000005492045

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 the START position. IPDM E/R transmits the starter relay ON signal to BCM via CAN communication.

## DTC Logic

INFOID:0000000005492046

### DTC DETECTION LOGIC

**NOTE:**
If DTC B210D is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B210D | STARTER RELAY ON | When comparing the following items, a malfunction is detected for 1 second or more.<br>• Starter motor relay ON signal (CAN) from BCM<br>• Starter motor control relay conditions of contact side and coil side<br>• Transmission range switch input | IPDM E/R |

### DTC CONFIRMATION PROCEDURE

#### 1. PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions and wait for 1 second or more.
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-103, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005492047

#### 1. INSPECTION START

1. Turn ignition switch ON.
2. Check “Self-diagnosis result” for IPDM E/R using CONSULT-III.
3. Touch “ERASE”.
4. Perform DTC Confirmation Procedure.
   See SEC-103, "DTC Logic".

Is DTC detected?

YES >> Replace IPDM E/R. Refer to PCS-34, "Removal and Installation".
NO >> INSPECTION END

# B210E STARTER RELAY

## Description

INFOID:0000000005492048

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 the START position. IPDM E/R transmits the starter relay ON signal to BCM via CAN communication.

## DTC Logic

INFOID:0000000005492049

### DTC DETECTION LOGIC

**NOTE:**

- If DTC B210E is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".
- If DTC B210E is displayed with DTC B2605, first perform the trouble diagnosis for DTC B2605. Refer to SEC-68, "DTC Logic".
- When IPDM E/R power supply voltage is low (Approx. 7 - 8 V for about 1 second), the DTC B210F may be detected.

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B210E | STARTER RELAY OFF | When comparing the following items, a malfunction is detected for 1 second or more.<br>• Starter motor relay ON signal (CAN) from BCM<br>• Starter motor control relay conditions of contact side and coil side<br>• Transmission range switch input | • Harness or connector (Starter relay circuit is open or short)<br>• IPDM E/R<br>• Battery<br>• BCM |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions and wait 1 second or more.
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-104, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005492050

#### 1.CHECK STARTER RELAY OUTPUT SIGNAL

1. Check voltage between BCM harness connector and ground.

| (+) | | (–) | Condition | | | Voltage (V) (Approx.) |
|---|---|---|---|---|---|---|
| BCM connector | | | | | | |
| Connector | Terminal | | Ignition switch | Brake pedal | Selector lever | |
| M71 | 97 | Ground | ON | Depressed | P or N | 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. Turn ignition switch OFF.
2. Disconnect BCM connector M71.
3. Disconnect IPDM E/R connector E13.
4. Check continuity between BCM harness connector and IPDM E/R harness connector.

| BCM | | IPDM E/R | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M71 | 97 | E13 | 30 | Existed |

5. Check continuity between BCM harness connector and ground.

| BCM | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M71 | 97 | | Not existed |

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-34, "Removal and Installation".
NO >> Repair or replace harness.

## 3.CHECK STARTER RELAY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector E10.
3. Check voltage between IPDM E/R harness connector and ground.

| (+) | | (–) | Voltage (V) (Approx.) |
|---|---|---|---|
| IPDM E/R | | | |
| Connector | Terminal | | |
| E10 | 4 | Ground | Battery voltage |

Is the inspection result normal?

YES >> GO TO 4.
NO >> Check harness for open or short between IPDM E/R and battery. Refer to PCS-27, "Wiring Diagram — IPDM E/R —".

## 4.REPLACE BCM

1. Replace BCM. Refer to BCS-5, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Special Repair Requirement" and BCS-81, "Removal and Installation".
2. Perform DTC CONFIRMATION PROCEDIURE. Refer to SEC-104, "DTC Logic".

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace IPDM E/R. Refer to PCS-34, "Removal and Installation".

# B210F SHIFT POSITION/CLUTCH INTERLOCK SWITCH

## Description

INFOID:0000000005492051

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

## DTC Logic

INFOID:0000000005492052

### DTC DETECTION LOGIC

**NOTE:**
- If DTC B210F is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".
- If DTC B210F is displayed with DTC B2603, first perform the trouble diagnosis for DTC B2603. Refer to SEC-60, "DTC Logic".

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B210F | INTER LOCK/PNP SW ON | There is a difference between input from transmission range switch and shift position signal from BCM. | • Harness or connectors (Transmission range switch circuit is open or shorted)<br>• Transmission range switch<br>• IPDM E/R<br>• BCM |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions and wait 1 second or more.
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-106, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005492053

#### 1.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 (V) (Approx.) |
|---|---|---|---|---|---|
| IPDM E/R | | | | | |
| Connector | Terminal | | | | |
| E15 | 47 | Ground | Selector lever | N or P position | Battery voltage |
| | | | | Other than above | 0 |

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-34, "Removal and Installation".
NO >> GO TO 2.

#### 2.CHECK IPDM E/R SIGNAL CIRCUIT SHORT

1. Disconnect transmission range switch connector.
2. Check continuity between IPDM E/R harness connector and ground.

| (+) | | (–) | Voltage (V) (Approx.) |
|---|---|---|---|
| IPDM E/R | | | |
| Connector | Terminal | | |
| E15 | 47 | Ground | 0 |

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-34, "Removal and Installation".
NO >> Repair or replace harness.

# B2110 SHIFT POSITION/CLUTCH INTERLOCK SWITCH

## Description

INFOID:0000000005492054

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

## DTC Logic

INFOID:0000000005492055

### DTC DETECTION LOGIC

**NOTE:**
If DTC B2110 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B2110 | INTER LOCK/PNP SW | There is a difference between input from transmission range switch and shift position signal from BCM. | • Harness or connectors (Transmission range switch circuit is open or shorted)<br>• Transmission range switch<br>• IPDM E/R |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn the ignition switch ON under the following conditions and wait 1 second or more.
- Selector lever is in the P or N position
- Do not depress brake pedal
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-108, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005492056

#### 1.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 (V) (Approx.) |
|---|---|---|---|---|---|
| IPDM E/R | | | | | |
| Connector | Terminal | | | | |
| E15 | 47 | Ground | Selector lever | P or N position | Battery voltage |
| | | | | Other than above | 0 |

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-34, "Removal and Installation".
NO >> GO TO 2.

#### 2.CHECK IPDM E/R INPUT SIGNAL CIRCUIT

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

| Transmission range switch | | IPDM E/R | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| F21 | 2 | E15 | 59 | Existed |

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

| Transmission range switch | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| F21 | 2 | | Not existed |

Is the inspection result normal?

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

## 3. CHECK TRANSMISSION RANGE SWITCH POWER SUPPLY

1. Connect IPDM E/R connector.
2. Turn ignition switch ON.
3. Check voltage between transmission range switch harness connector and ground.

| (+) | | (–) | Voltage (V) (Approx.) |
|---|---|---|---|
| Transmission range switch | | | |
| Connector | Terminal | | |
| F21 | 1 | Ground | Battery voltage |

Is the inspection result normal?

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

## 4. CHECK TRANSMISSION RANGE SWITCH POWER SUPPLY CIRCUIT

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

| Transmission range switch | | IPDM E/R | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| F21 | 1 | E15 | 59 | Existed |

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

| Transmission range switch | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| F21 | 1 | | Not existed |

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-34, "Removal and Installation".
NO >> Repair or replace harness.

## 5. CHECK TRANSMISSION RANGE SWTICH

Refer to SEC-110, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6.
NO >> Replace transaxle assembly. Refer to TM-230, "Exploded View".

## 6. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

## Component Inspection

INFOID:0000000005492057

### 1. CHECK TRANSMISSION RANGE SWITCH

1. Turn ignition switch OFF.
2. Disconnect transmission range switch connector.
3. Check continuity between transmission range switch terminals.

| Transmission range switch | | Condition | Continuity |
|---|---|---|---|
| Terminal | | | |
| 1 | 2 | P or N position | Existed |
| | | Other than above | Not existed |

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace transaxle assembly. Refer to TM-230, "Exploded View".

# POWER SUPPLY AND GROUND CIRCUIT

## BCM

### BCM : Diagnosis Procedure

INFOID:0000000005492058

#### 1.CHECK FUSE AND FUSIBLE LINK

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

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

Is the fuse fusing?

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

#### 2.CHECK POWER SUPPLY CIRCUIT

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

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

Is the measurement value normal?

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

#### 3.CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

| BCM | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M70 | 67 | | Existed |

Does continuity exist?

YES >> INSPECTION END
NO >> Repair harness or connector.

## IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

### IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) : Diagnosis Procedure

INFOID:0000000005492059

#### 1.CHECK FUSES AND FUSIBLE LINK

Check that the following IPDM E/R fuses or fusible links are not blown.

| Signal name | Fuses and fusible link No. |
|---|---|
| Battery power supply | C |
| | D |
| | J |

Is the fuse fusing?

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

## 2.CHECK POWER SUPPLY CIRCUIT

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

| Terminals | | | Voltage (Approx.) |
|---|---|---|---|
| (+) | | (–) | |
| IPDM E/R | | | |
| Connector | Terminal | Ground | |
| E9 | 1 | | Battery voltage |
| | 2 | | |
| E10 | 8 | | |

Is the measurement value normal?

YES >> GO TO 3.
NO >> Repair the harness or connector.

## 3.CHECK GROUND CIRCUIT

Check continuity between IPDM E/R harness connectors and the ground.

| IPDM E/R | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| E11 | 9 | | Existed |
| E12 | 19 | | |

Does continuity exist?

YES >> INSPECTION END
NO >> Repair the harness or connector.

# SECURITY INDICATOR LAMP

## Description

INFOID:0000000005492060

- Security indicator lamp is located on combination meter.
- NVIS (Nissan Vehicle Immobilizer System) and vehicle security system conditions are indicated by blink or illumination of security indicator lamp.

## Component Function Check

INFOID:0000000005492061

### 1.CHECK FUNCTION

1. Perform “THEFT IND” in the “ACTIVE TEST” mode using CONSULT-III.
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-113, "Diagnosis Procedure".

## Diagnosis Procedure

INFOID:0000000005492062

### 1.CHECK SECURITY INDICATOR LAMP POWER SUPPLY CIRCUIT

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

| (+) | | (–) | Voltage (V) (Approx.) |
|---|---|---|---|
| Combination meter | | | |
| Connector | Terminal | | |
| M34 | 27 | Ground | Battery voltage |

Is the inspection result normal?

YES >> GO TO 2.
NO-1 >> Check 10 A fuse [No. 13, located in the fuse block (J/B)].
NO-2 >> Check harness for open or short between combination meter and fuse.

### 2.CHECK SECURITY INDICATOR LAMP SIGNAL

1. Connect combination meter connector.
2. Disconnect BCM connector.
3. Check voltage between BCM harness connector and ground.

| (+) | | (–) | Voltage (V) (Approx.) |
|---|---|---|---|
| BCM | | | |
| Connector | Terminal | | |
| M68 | 23 | Ground | Battery voltage |

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".
NO >> GO TO 3.

### 3.CHECK SECURITY INDICATOR LAMP CIRCUIT

1. Disconnect combination meter connector.
2. Check continuity between combination meter harness connector and BCM harness connector.

| Combination meter | | BCM | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M34 | 18 | M68 | 23 | Existed |

3. Check continuity between combination meter harness connector and ground.

| Combination meter | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M34 | 18 | | Not existed |

Is the inspection result normal?

YES >> Replace combination meter. Refer to MWI-97, "Removal and Installation".
NO >> Repair or replace harness.

# HORN FUNCTION

## Description

INFOID:0000000005492063

Perform answer-back for each operation with horn.

## Component Function Check

INFOID:0000000005492064

### 1.CHECK FUNCTION

1. Perform “VEHICLE SECURITY HORN” in the “ACTIVE TEST” mode using CONSULT-III.
2. Check the horn operation.

| Test item | | Description | |
|---|---|---|---|
| VEHICLE SECURITY HORN | ON | Horn | Sounds (for 20 ms) |

Is the operation normal?

YES >> Horn function is OK.
NO >> Go to SEC-115, "Diagnosis Procedure".

## Diagnosis Procedure

INFOID:0000000005492065

### 1.CHECK HORN FUNCTION

Check horn function with horn switch.

Do the horn sound?

YES >> GO TO 2.
NO >> Refer to HRN-2, "Wiring Diagram - HORN -".

### 2.CHECK IPDM E/R POWER SUPPLY

1. Disconnect IPDM E/R connector.
2. Check voltage between IPDM E/R harness connector and ground.

| (+) | | (–) | Voltage (V) (Approx.) |
|---|---|---|---|
| IPDM E/R | | | |
| Connector | Terminal | | |
| E13 | 34 | Ground | Battery voltage |

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-64, "Removal and Installation".
NO >> GO TO 3.

### 3.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 | |
| E13 | 34 | E5 | 1 | Existed |

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

| IPDM E/R | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| E13 | 34 | | Not existed |

Is the inspection result normal?

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

4.CHECK INTERMITTENT INCIDENT

>> INSPECTION END

# HEADLAMP FUNCTION

## Description

INFOID:0000000005492066

Headlamp lighting when vehicle security system is alarm phase.

## Component Function Check

INFOID:0000000005492067

### 1.CHECK FUNCTION

1. Perform “HEAD LAMP(HI)” in the “ACTIVE TEST” mode using CONSULT-III.
2. Check headlamp operation.

| Test item | | Description | |
|---|---|---|---|
| HEAD LAMP (HI) | ON | HEADLAMP (HI) | Lighting |
| | OFF | | Does not lighting |

Is the inspection result normal?

YES >> INSPECTION END
NO >> Refer to SEC-117, "Diagnosis Procedure".

## Diagnosis Procedure

INFOID:0000000005492068

### 1.CHECK HEADLAMP FUNCTION

Refer to EXL-47, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

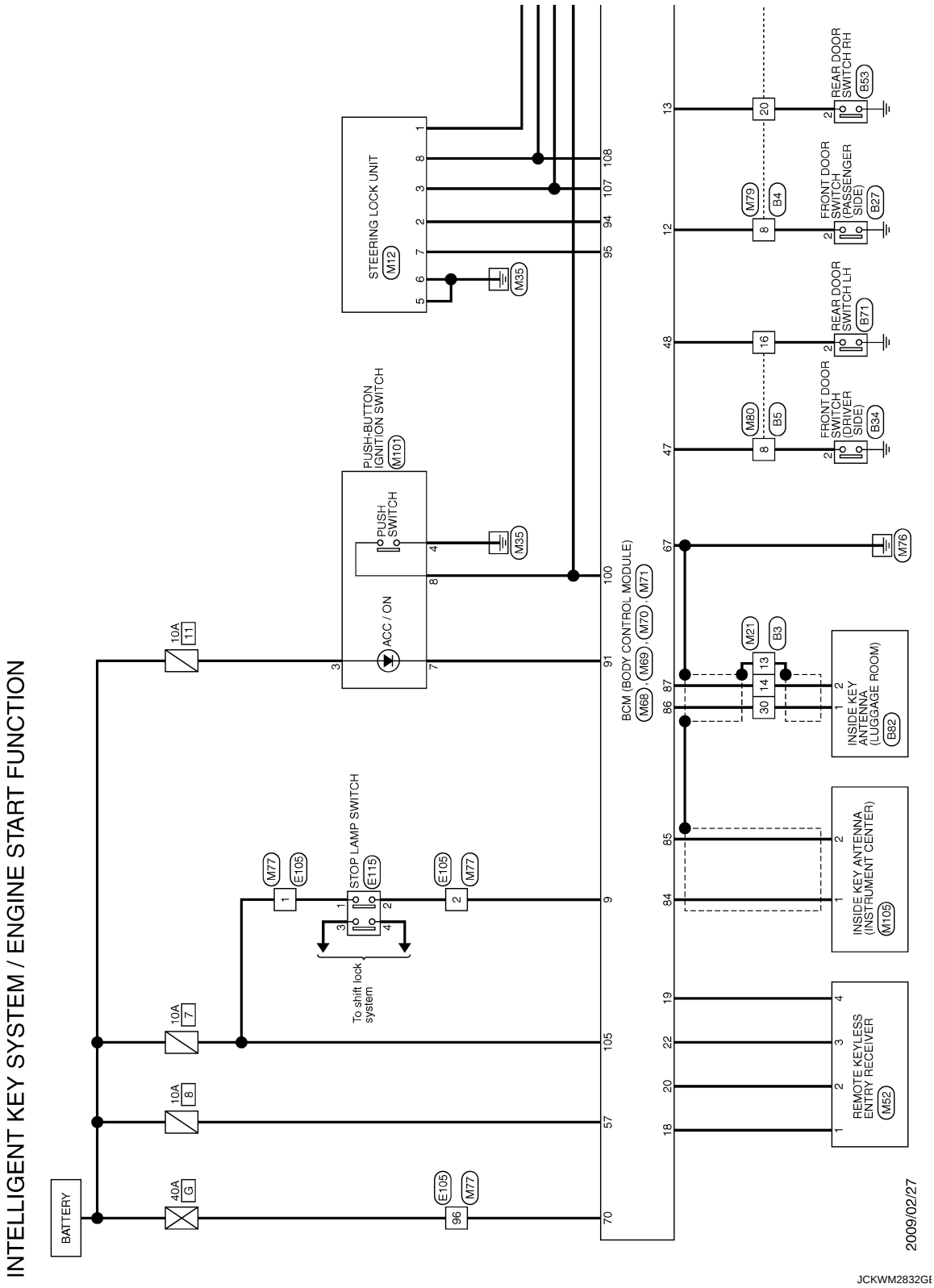
### 2.CHECK INTERMITTENT INCIDENT

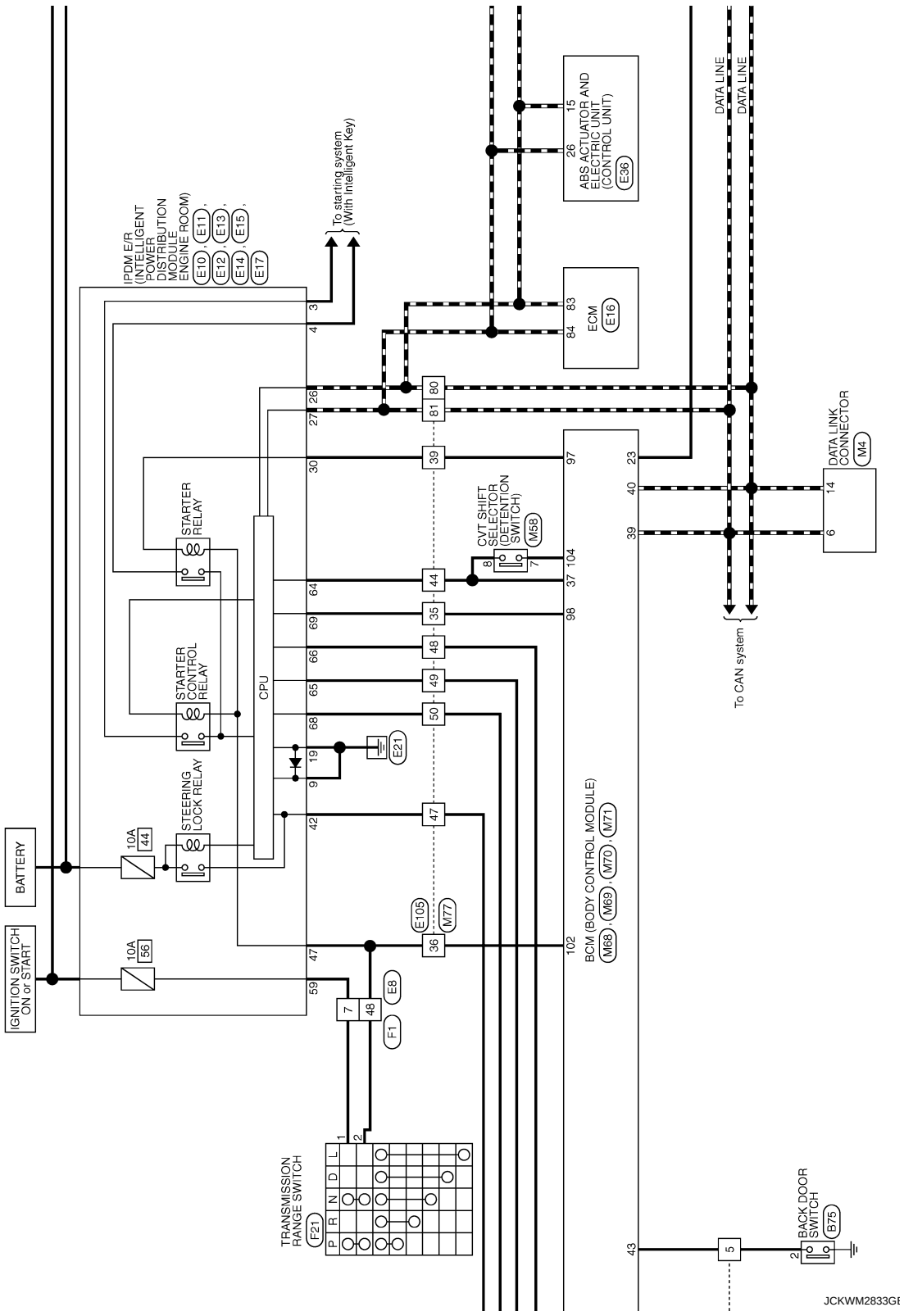
>> INSPECTION END

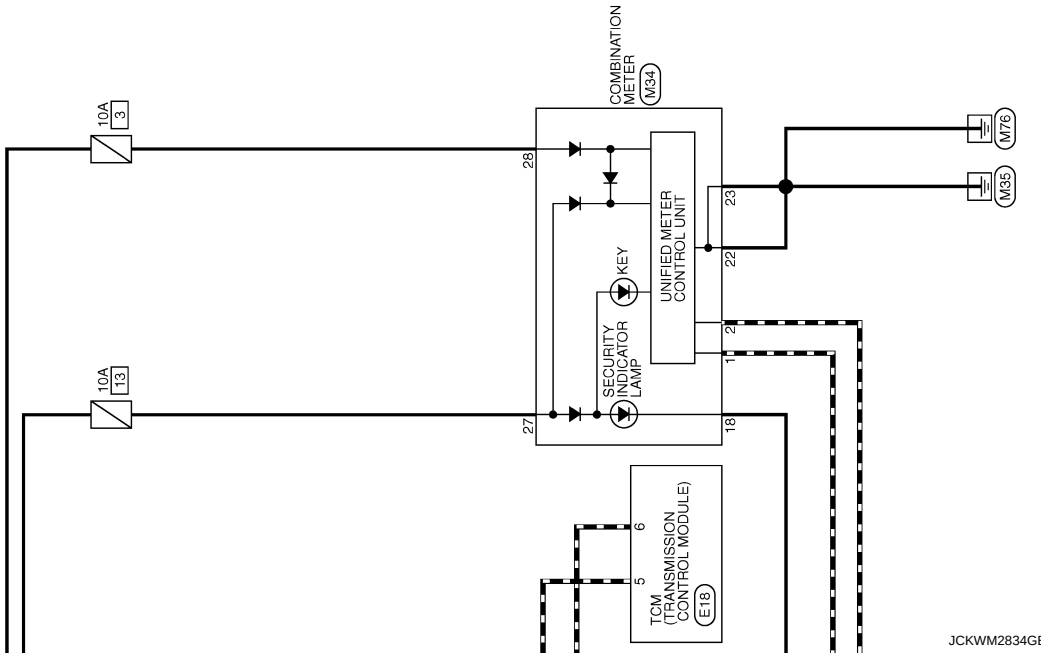
# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

## Wiring Diagram - INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION -

INFOID:0000000005492069

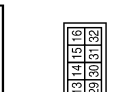



IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) E10, E11, E12, E13, E14, E15, E17
To starting system (With Intelligent Key)
ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) E36
ECM E16
DATA LINE
DATA LINE
DATA LINK CONNECTOR M4
STARTER RELAY
CVT SHIFT SELECTOR (DETENTION SWITCH) M58
STARTER CONTROL RELAY
CPU
STEERING LOCK RELAY
BATTERY
IGNITION SWITCH ON or START
10A 44
10A 56
E21
E105
M77
E8
F1
BCM (BODY CONTROL MODULE) M68, M69, M70, M71
To CAN system
TRANSMISSION RANGE SWITCH F21
P R N D L
BACK DOOR SWITCH B75
JCKWM2833GB


COMBINATION METER
M34
10A
3
10A
13
28
27
UNIFIED METER CONTROL UNIT
KEY
SECURITY INDICATOR LAMP
23
22
2
1
18
M76
M35
TCM (TRANSMISSION CONTROL MODULE)
E18
6
5
JCKWM2834GB

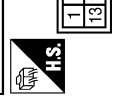
## INTELLIGENT KEY SYSTEM / ENGINE START FUNCTION

| Connector No. | B3 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH32MW-NH |



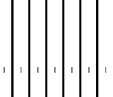
| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | SB | – |
| 2 | L | – |
| 3 | R | – |
| 4 | SHIELD | – |
| 5 | LG | – |
| 6 | SB | – |
| 7 | P | – |
| 8 | V | – |
| 9 | SHIELD | – |
| 10 | R | – |
| 11 | SHIELD | – |
| 12 | G | – |
| 13 | SHIELD | – |
| 14 | G | – |
| 15 | SB | – |
| 16 | SB | – |
| 17 | LG | – |
| 18 | SHIELD | – |
| 19 | BR | – |
| 20 | Y | – |
| 21 | L | – |
| 22 | O | – |
| 23 | GR | – |
| 24 | L | – |
| 25 | W | – |
| 26 | B | – |
| 27 | R | – |
| 28 | B | – |
| 29 | W | – |
| 30 | R | – |
| 31 | LG | – |
| 32 | LG | – |

| Connector No. | B4 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH24MW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | W | – |
| 2 | V | – |
| 3 | O | – |
| 4 | P | – |
| 5 | W | – |
| 6 | W | – |
| 7 | P | – |
| 8 | SB | – |
| 11 | G | – |
| 12 | SB | – |
| 13 | L | – |
| 15 | R | – |
| 16 | GR | – |
| 17 | BR | – |
| 18 | L | – |
| 19 | Y | – |
| 20 | LG | – |
| 22 | Y | – |
| 23 | BR | – |
| 24 | O | – |

| Connector No. | B5 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH16MW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | – |
| 2 | GR | – |

| 5 | V | – |
|---|---|---|
| 6 | W | – |
| 8 | LG | – |
| 9 | R | – |
| 11 | O | – |
| 13 | GR | – |
| 14 | P | – |
| 16 | W | – |

| Connector No. | B27 |
|---|---|
| Connector Name | FRONT DOOR SWITCH (PASSENGER SIDE) |
| Connector Type | A03FW |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | SB | – |

| Connector No. | B34 |
|---|---|
| Connector Name | FRONT DOOR SWITCH (DRIVER SIDE) |
| Connector Type | A03FW |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | LG | – |

| Connector No. | B53 |
|---|---|
| Connector Name | REAR DOOR SWITCH RH |
| Connector Type | A03FW |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | LG | – |

| Connector No. | B71 |
|---|---|
| Connector Name | REAR DOOR SWITCH LH |
| Connector Type | A03FW |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | W | – |

| Connector No. | B75 |
|---|---|
| Connector Name | BACK DOOR SWITCH |
| Connector Type | A03FW |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | L | – |
| 2 | W | – |

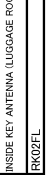
JCKWM3595GB

INTELLIGENT KEY SYSTEM / ENGINE START FUNCTION

| Connector No. | B82 |
|---|---|
| Connector Name | INSIDE KEY ANTENNA (LUGGAGE ROOM) |
| Connector Type | RK02FL |

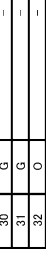
| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | Y/G | – |
| 2 | Y/L | – |

| Connector No. | E8 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | SAA36MB-RS10-SJZ2 |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | BR | – |
| 2 | LG | – |
| 3 | Y | – |
| 4 | W | – |
| 7 | Y | – |
| 8 | SB | – |
| 9 | L | – |
| 10 | V | – |
| 11 | P | – |
| 12 | BR | – |
| 13 | LG | – |
| 14 | Y | – |
| 15 | SB | – |
| 16 | L | – |
| 17 | W | – |
| 18 | O | – |
| 21 | G | – |
| 23 | SB | – |
| 24 | W | – |
| 25 | BR | – |
| 26 | B | – |
| 27 | GR | – |
| 28 | P | – |
| 29 | V | – |
| 30 | G | – |
| 31 | G | – |
| 32 | O | – |
| 33 | W | – |
| 34 | Y | – |
| 35 | V | – |
| 36 | P | – |
| 37 | LG | – |
| 39 | SB | – |
| 40 | GR | – |
| 41 | O | – |
| 42 | V | – |
| 43 | R | – [With CVT]<br>– [With M/T] |
| 44 | R | – |
| 46 | W | – |
| 47 | G | – |
| 48 | BR | – |

| Connector No. | E10 |
|---|---|
| Connector Name | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Type | M06FW-LC |

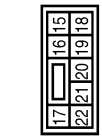


| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 3 | BR | – |
| 4 | SB | – |
| 5 | LG | – |
| 6 | SB | – |
| 7 | Y | – |
| 8 | V | – |

| Connector No. | E11 |
|---|---|
| Connector Name | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Type | M06FB-LC |

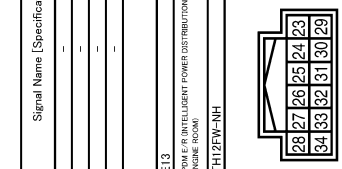
| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 9 | B/W | – |
| 10 | L | – |
| 13 | W | – |

| Connector No. | E12 |
|---|---|
| Connector Name | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Type | NS08FBR-CS |



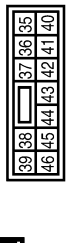
| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 18 | Y | – |
| 19 | B/W | – |
| 21 | W | – |
| 22 | V | – |

| Connector No. | E13 |
|---|---|
| Connector Name | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Type | TH12FW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 24 | LG | – |
| 25 | Y | – |
| 26 | P | – |
| 27 | L | – |
| 28 | P | – |
| 30 | SB | – |
| 31 | W | – |
| 33 | O | – |
| 34 | R | – |

| Connector No. | E14 |
|---|---|
| Connector Name | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Type | NS12FBR-CS |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 36 | Y | – |
| 37 | V | – |
| 38 | G | – |
| 39 | V | – |
| 40 | R | – |
| 41 | SB | – |
| 42 | W | – |
| 43 | G | – |
| 44 | P | – |
| 45 | Y | – |
| 46 | O | – |

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INTELLIGENT KEY SYSTEM / ENGINE START FUNCTION

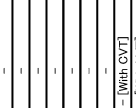
| Connector No. | E15 |
|---|---|
| Connector Name | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Type | NS16FW-CS |

H.S.


| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 47 | BR | – |
| 49 | W | – |
| 50 | GR | – |
| 51 | R | – |
| 52 | P | – |
| 54 | GR | – |
| 55 | P | – |
| 56 | SB | – |
| 57 | G | – |
| 58 | R | – [With CVT]<br>– [With M/T] |
| 58 | Y | |
| 59 | Y | – |
| 60 | V | – |
| 61 | W | – |
| 62 | L | – |

| Connector No. | E16 |
|---|---|
| Connector Name | ECM |
| Connector Type | RH24FB-RZ8-L-RH |

H.S.

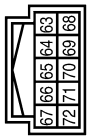



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 83 | P | CAN-L |
| 84 | L | CAN-H |
| 88 | LG | K LINE |
| 93 | L | IGNSW |
| 94 | SB | ASCDSW |
| 95 | BR | GNDA-ASCDSW |
| 99 | W | BRAKE |

| 100 | SB | BNCSW |
|---|---|---|
| 102 | O | AVCC-APS2 |
| 103 | G | APS2 |
| 104 | R | GNDA-APS2 |
| 105 | G | VBR |
| 106 | V | AVCC-APS1 |
| 108 | B | GND |
| 110 | BR | APS1 |
| 111 | Y | GNDA-APS1 |

| Connector No. | E17 |
|---|---|
| Connector Name | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Type | TH10FB-NH |

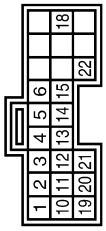
H.S.




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 64 | R | – |
| 65 | Y | – |
| 66 | L | – |
| 68 | W | – |
| 69 | Y | – |

| Connector No. | E18 |
|---|---|
| Connector Name | TCM (TRANSMISSION CONTROL MODULE) |
| Connector Type | TK24FW |

H.S.

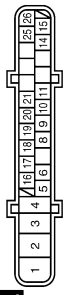



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | Y | – |
| 2 | LG | – |
| 3 | BR | – |
| 4 | O | – |
| 5 | L | – |
| 6 | P | – |

| 10 | R | – |
|---|---|---|
| 11 | W | – |
| 12 | L | – |
| 13 | SB | – |
| 14 | P | – |
| 15 | V | – |
| 18 | BR | – |
| 19 | R | – |
| 20 | SB | – |
| 21 | Y | – |
| 22 | GR | – |

| Connector No. | E36 |
|---|---|
| Connector Name | ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) |
| Connector Type | BAA22FB-AHZ4-RH |

H.S.




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | B | GND (MTR) |
| 2 | Y | BAT (MTR) |
| 3 | L | BAT (SOL) |
| 4 | B | GND (SOL) |
| 5 | Y | DS FL |
| 6 | W | DP RL |
| 8 | O | DP RR |
| 9 | L | DP FR |
| 10 | R | DS FR |
| 11 | LG | K LINE |
| 14 | GR | CAN-L |
| 15 | P | CAN-L |
| 16 | BR | DP FL |
| 17 | G | DS RL |
| 18 | V | IGN |
| 19 | SB | DS RR |
| 20 | W | STOP LAMP SW |
| 21 | P | VDC OFF SW |
| 25 | R | CAN-H |
| 26 | L | CAN-H |

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INTELLIGENT KEY SYSTEM / ENGINE START FUNCTION

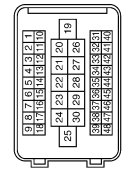
| Connector No. | E105 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80MW-CS16-TM4 |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | – |
| 2 | W | – |
| 3 | SB | – |
| 4 | G | – |
| 5 | P | – |
| 6 | R | – |
| 7 | Y | – |
| 8 | O | – |
| 9 | W | – |
| 10 | SB | – |
| 31 | V | – |
| 32 | R | – |
| 33 | GR | – |
| 34 | P | – |
| 35 | Y | – |
| 36 | BR | – |
| 39 | SB | – |
| 44 | R | – |
| 45 | V | – |
| 46 | P | – |
| 47 | W | – |
| 48 | L | – |
| 49 | Y | – |
| 50 | W | – |
| 51 | BR | – [With CVT] |
| 51 | B | – [With M/T] |
| 53 | SB | – |
| 54 | W | – [With CVT] |
| 54 | O | – [With M/T] |
| 57 | LG | – |
| 59 | L | – |
| 60 | O | – |
| 61 | G | – |
| 62 | W | – |
| 63 | L | – |
| 67 | GR | – [With CVT] |
| 67 | V | – [With M/T] |
| 69 | P | – |
| 70 | SHIELD | – |
| 71 | GR | – |
| 72 | LG | – |
| 73 | P | – |
| 74 | V | – |
| 76 | Y | – |
| 77 | LG | – |
| 78 | O | – |
| 79 | G | – |
| 80 | P | – |
| 81 | L | – |
| 82 | W | – |
| 83 | BR | – |
| 84 | B | – |
| 87 | GR | – |
| 91 | W | – |
| 92 | Y | – |
| 93 | Y | – |
| 94 | R | – |
| 95 | V | – |
| 96 | LG | – |
| 97 | R | – |
| 98 | SB | – |
| 99 | G | – |
| 100 | P | – |

| Connector No. | E115 |
|---|---|
| Connector Name | STOP LAMP SWITCH |
| Connector Type | M04FW-LC |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | – |
| 2 | W | – |
| 3 | O | – |
| 4 | G | – |

| Connector No. | F1 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | SAA36FB-RS10-SJZ2 |

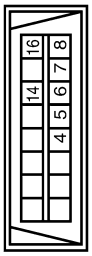


| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | SB | – |
| 2 | LG | – |
| 3 | R | – |
| 4 | Y | – |
| 7 | V | – |
| 8 | G | – |
| 9 | SB | – |
| 10 | L | – |
| 11 | Y | – |
| 12 | GR | – |
| 13 | BR | – |
| 14 | G | – |
| 15 | W | – |
| 16 | Y | – |
| 17 | P | – |
| 18 | BR | – |
| 21 | G | – |
| 23 | W | – |
| 24 | R | – |
| 25 | R | – |
| 26 | B | – |
| 27 | SB | – |
| 28 | V | – |
| 29 | V | – |
| 30 | BR | – |
| 31 | GR | – |
| 32 | BR | – |
| 33 | W | – |
| 34 | LG | – |
| 35 | Y | – |
| 36 | Y | – |
| 37 | W | – |
| 39 | G | – |
| 40 | P | – |
| 41 | O | – |
| 42 | G | – |
| 43 | R | – |
| 44 | P | – |
| 46 | GR | – |
| 47 | Y | – |
| 48 | BR | – |

| Connector No. | F21 |
|---|---|
| Connector Name | TRANSMISSION RANGE SWITCH |
| Connector Type | RK08FG |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | – |
| 2 | BR | – |
| 3 | R | – |
| 4 | GR | – |
| 5 | SB | – |
| 6 | W | – |
| 7 | Y | – |
| 8 | G | – |

| Connector No. | M4 |
|---|---|
| Connector Name | DATA LINK CONNECTOR |
| Connector Type | BD16FW |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 4 | B | – |
| 5 | B | – |
| 6 | L | – |
| 7 | GR/R | – |
| 8 | O | – |
| 14 | P | – |
| 16 | LG/R | – |

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## INTELLIGENT KEY SYSTEM / ENGINE START FUNCTION

| Connector No. | M12 |
|---|---|
| Connector Name | STEERING LOCK UNIT |
| Connector Type | TH08FW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | BR/Y | S/L 12V (MECHANICAL) |
| 2 | Y/R | K LINE |
| 3 | L/W | S/L CONDITION 1 |
| 5 | B | GND |
| 6 | B | GND |
| 7 | W/G | S/L 12V (CPU) |
| 8 | P/L | S/L CONDITION 2 |

| Connector No. | M21 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH32FW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | SB | – |
| 2 | G | – |
| 3 | V | – |
| 4 | SHIELD | – |
| 5 | O | – |
| 6 | G/O | – |
| 7 | GR/R | – |
| 8 | L/Y | – |
| 9 | SHIELD | – |
| 10 | G/R | – |
| 11 | SHIELD | – |
| 12 | G | – |
| 13 | SHIELD | – |
| 14 | L | – |
| 15 | SB | – |
| 16 | SB | – |
| 17 | LG | – |
| 18 | SHIELD | – |
| 19 | BR | – |
| 20 | Y | – |
| 21 | L/Y | – |
| 22 | V | – |
| 23 | W/G | – |
| 24 | L/B | – |
| 25 | G/Y | – |
| 26 | G/O | – |
| 27 | R | – |
| 28 | B | – |
| 29 | W | – |
| 30 | P | – |
| 31 | LG | – |
| 32 | LG | – |

| Connector No. | M34 |
|---|---|
| Connector Name | COMBINATION METER |
| Connector Type | TH40FW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | L | CAN-H |
| 2 | P | CAN-L |
| 3 | V | VEHICLE SPEED SIGNAL (2-PULSE) |
| 4 | L | VEHICLE SPEED SIGNAL (8-PULSE) |
| 6 | BR/Y | FUEL LEVEL SENSOR SIGNAL |
| 7 | R/G | AIR BAG SIGNAL |
| 8 | P | OVERDRIVE CONTROL SWITCH SIGNAL |
| 9 | O | SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE) |
| 10 | SB | PARKING BRAKE SWITCH SIGNAL |
| 11 | G/R | BRAKE FLUID LEVEL SWITCH SIGNAL |
| 13 | B/R | ILLUMINATION CONTROL SIGNAL |
| 15 | L/Y | ACC POWER SUPPLY |
| 17 | G | WASHER LEVEL SWITCH SIGNAL |
| 18 | R/Y | SECURITY SIGNAL |
| 19 | V/W | AMBIENT SENSOR SIGNAL |
| 20 | R/W | AMBIENT SENSOR GROUND |
| 21 | B | GROUND |
| 22 | B | GROUND |
| 23 | B | GROUND |
| 24 | V | FUEL LEVEL SENSOR GROUND |
| 25 | B | VDC GROUND |
| 27 | LG | BATTERY POWER SUPPLY |
| 28 | GR | IGNITION SIGNAL |
| 29 | BR | PASSENGER SEAT BELT WARNING SIGNAL |
| 31 | R | A/C AUTO AMP. CONNECTION RECOGNITION SIGNAL |
| 35 | BR | ENGINE COOLANT TEMPERATURE SIGNAL |
| 38 | GR | ALTERNATOR SIGNAL |

| Connector No. | M62 |
|---|---|
| Connector Name | REMOTE KEYLESS ENTRY RECEIVER |
| Connector Type | JAB04FB |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | GND |
| 2 | G/Y | SIGNAL |
| 3 | W/G | RSSI |
| 4 | BR | POWER |

| Connector No. | M58 |
|---|---|
| Connector Name | CVT SHIFT SELECTOR |
| Connector Type | TK08FW |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | P | – |
| 2 | B | – |
| 3 | W | – |
| 4 | B/R | – |
| 5 | LG | – |
| 6 | B | – |
| 7 | Y/R | – |
| 8 | G/O | – |

| Connector No. | M68 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FB-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | BR/W | COMBI SW INPUT 5 |
| 3 | GR | COMBI SW INPUT 4 |
| 4 | L/Y | COMBI SW INPUT 3 |
| 5 | G | COMBI SW INPUT 2 |
| 6 | L/R | COMBI SW INPUT 1 |
| 7 | W/R | KEY CYL UNLOCK SW |
| 8 | W/B | KEY CYL LOCK SW |
| 9 | R | STOP LAMP SW 1 |
| 10 | V/W | TIRE PRESS WARNING CHECK SW |
| 11 | L/Y | ACC F/B |
| 12 | SB | PASSENGER DOOR SW |
| 13 | GR/L | REAR RH DOOR SW |
| 14 | L/B | OPTICAL SENSOR |
| 15 | W/L | REAR WINDOW DEFOGGER SW |
| 17 | R/G | OPTICAL SENSOR POWER SUPPLY |
| 18 | V | RECEIVER / SENSOR GND |
| 19 | BR | KEYLESS ENTRY RECEIVER POWER SUPPLY |
| 20 | G/Y | KEYLESS ENTRY RECEIVER COMM |
| 21 | P/L | NATS ANTENNA AMP. |
| 22 | W/G | KEYLESS ENTRY RECEIVER RSSI |
| 23 | R/Y | SECURITY INDICATOR LAMP |
| 24 | GR/R | DONGLE LINK |
| 25 | LG | NATS ANTENNA AMP. |
| 27 | Y/R | A/C SW |
| 28 | G/W | BLOWER FAN SW |
| 29 | L/W | HAZARD SW |
| 31 | G/B | DR DOOR UNLOCK SENSOR |
| 32 | LG | COMBI SW OUTPUT 5 |
| 33 | Y/L | COMBI SW OUTPUT 4 |
| 34 | W | COMBI SW OUTPUT 3 |
| 35 | R/L | COMBI SW OUTPUT 2 |
| 36 | L/O | COMBI SW OUTPUT 1 |
| 37 | G/O | SHIFT P |
| 38 | O | IGN F/B |
| 39 | L | CAN-H |
| 40 | P | CAN-L |

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INTELLIGENT KEY SYSTEM / ENGINE START FUNCTION

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

H.S.

| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 |
|---|---|---|---|---|---|---|---|---|
| 50 | 51 | 52 | 53 | 54 | 55 | | | |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 43 | W | BACK DOOR SW |
| 44 | LG | REAR WIPER STOP POSITION |
| 45 | GR | CENTRAL DOOR LOCK SW |
| 46 | BR | CENTRAL DOOR UNLOCK SW |
| 47 | BR/Y | DRIVER DOOR SW |
| 48 | W/G | REAR LH DOOR SW |
| 54 | L/W | REAR WIPER OUTPUT |
| 55 | G | REAR DOOR UNLOCK OUTPUT |

| Connector No. | M70 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | FEA09FB-FHA6-SA |

H.S.

| 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 |
|---|---|---|---|---|---|---|---|---|
| 65 | 66 | 67 | 68 | 69 | 70 | | | |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 56 | L | INTERIOR ROOM LAMP POWER SUPPLY |
| 57 | Y | BAT (FUSE) |
| 59 | G | PASSENGER DOOR UNLOCK OUTPUT |
| 60 | W/B | TURN SIGNAL LH OUTPUT |
| 61 | W/L | TURN SIGNAL RH OUTPUT |
| 63 | BR | ROOM LAMP TIMER CONTROL |
| 65 | V | ALL DOOR LOCK OUTPUT |
| 66 | L/B | DRIVER DOOR UNLOCK OUTPUT |
| 67 | B | GND |
| 68 | L | POWER WINDOW POWER SUPPLY (IGN) |
| 69 | L/W | POWER WINDOW POWER SUPPLY (BAT) |
| 70 | Y | BAT (F/L) |

| Connector No. | M71 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FW-NH |

H.S.

| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 |

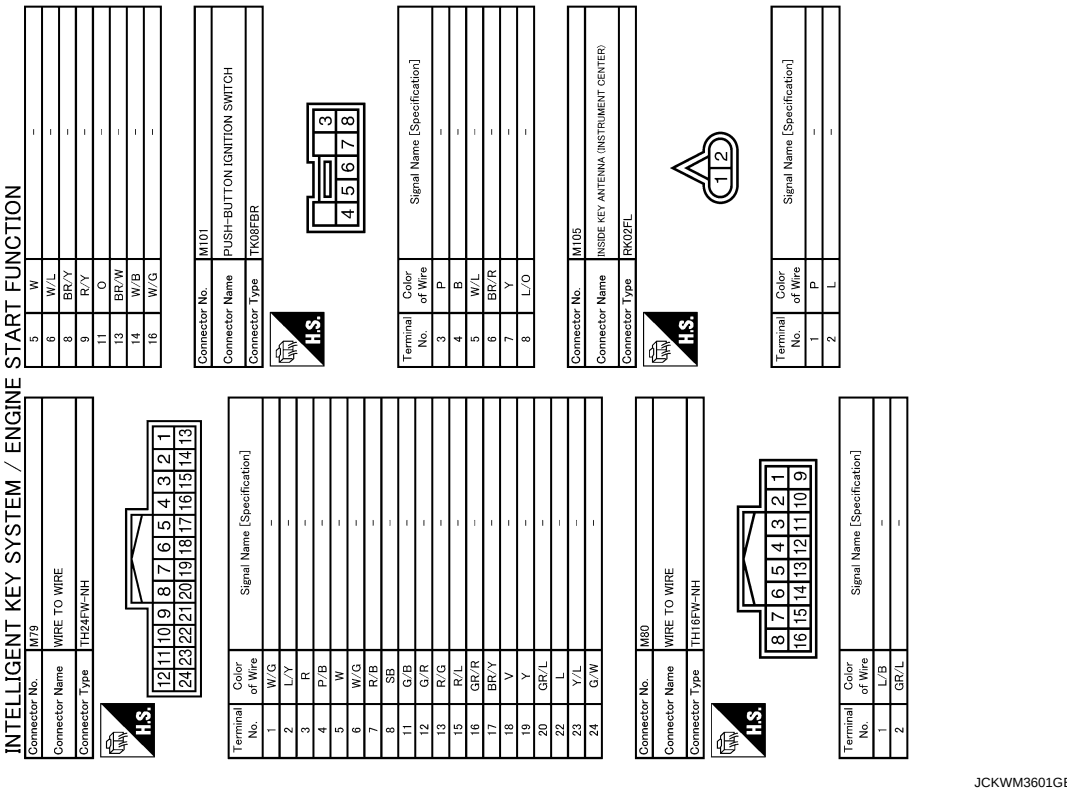
| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 71 | R | TIRE PRESS RECEIVER COMM |
| 72 | R/W | BK DR LOCK ACT RELAY CONT |
| 75 | SB | DRIVER DOOR REQUEST SW |
| 76 | G | PASSENGER DOOR REQUEST SW |
| 77 | W | BACK DOOR REQUEST SW |
| 78 | LG | DRIVER DOOR ANT+ |
| 79 | V | DRIVER DOOR ANT– |
| 80 | BR/Y | PASSENGER DOOR ANT+ |
| 81 | L/Y | PASSENGER DOOR ANT– |
| 82 | W/B | BACK DOOR ANT+ |
| 83 | B/W | BACK DOOR ANT– |
| 84 | Y/G | ROOM ANT+ |
| 85 | Y/L | ROOM ANT– |
| 86 | P | LUGGAGE ROOM ANT+ |
| 87 | L | LUGGAGE ROOM ANT– |
| 90 | W/L | PUSH-BUTTON IGNITION SW ILL POWER |
| 91 | Y | ACC/ON IND |
| 92 | BR/R | PUSH-BUTTON IGNITION SW ILL GND |
| 93 | GR/W | I-KEY WARN BUZZER |
| 94 | Y/R | S/L UNIT COMM |
| 95 | W/G | S/L UNIT POWER SUPPLY |
| 96 | G | ACC RELAY CONT |
| 97 | L/R | STARTER RELAY CONT |
| 98 | BR | IGN RELAY (IPDM E/R) CONT |
| 99 | W/R | IGN RELAY CONT |
| 100 | L/O | PUSH SW |
| 102 | G | SHIFT N/P |
| 104 | Y/R | CVT SHIFT SELECTOR POWER SUPPLY |
| 105 | B/O | STOP LAMP SW 2 |
| 106 | Y/B | BLOWER FAN MOTOR RELAY CONT |
| 107 | L/W | S/L CONDITION 1 |
| 108 | P/L | S/L CONDITION 2 |
| 110 | BR/W | TIRE PRESS POWER SUPPLY |

| Connector No. | M77 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80FW-CS16-TM4 |

H.S.

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | B/O | – |
| 2 | R | – |
| 3 | G/R | – |
| 4 | G/B | – |
| 5 | L | – |
| 6 | L | – |
| 7 | W/R | – |
| 8 | G/W | – |
| 9 | Y/L | – |
| 10 | W | – |
| 31 | GR/L | – |
| 32 | L/B | – |
| 33 | R/Y | – |
| 34 | SB | – |
| 35 | BR | – |
| 36 | G | – |
| 39 | L/R | – |
| 44 | G/O | – |
| 45 | LG/R | – |
| 46 | GR/W | – |
| 47 | BR/Y | – |
| 48 | L/O | – |
| 49 | L/W | – |
| 50 | P/L | – |
| 51 | B/W | – |
| 53 | R/L | – |
| 54 | O | – |
| 57 | GR | – |
| 59 | V | – |
| 60 | R/W | – |
| 61 | V/W | – |
| 62 | W/L | – |
| 63 | W/B | – |
| 67 | Y/R | – |
| 69 | LG | – |
| 70 | SHIELD | – |
| 71 | P/B | – |
| 72 | R/G | – |
| 73 | R | – |
| 74 | L/Y | – |
| 76 | W/G | – |
| 77 | GR/R | – |
| 78 | O | – |
| 79 | LG | – |
| 80 | P | – |
| 81 | L | – |
| 82 | GR | – |
| 83 | G/R | – |
| 84 | B | – |
| 87 | G | – |
| 91 | R | – |
| 92 | O | – |
| 93 | Y | – |
| 94 | R/B | – |
| 95 | L/W | – |
| 96 | Y | – |
| 97 | L | – |
| 98 | BR/W | – |
| 99 | W | – |
| 100 | G/R | – |

JCKWM3600GB

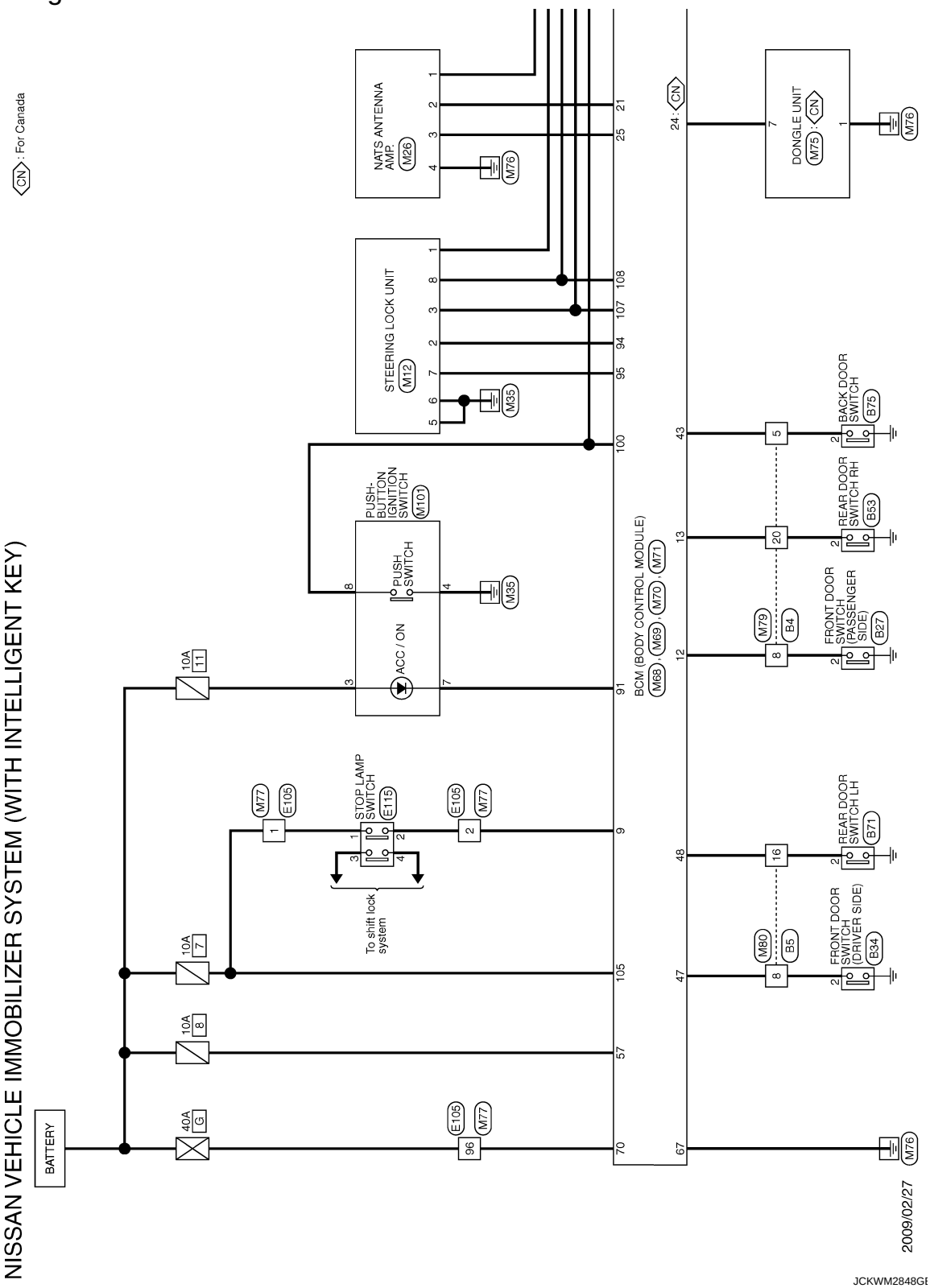


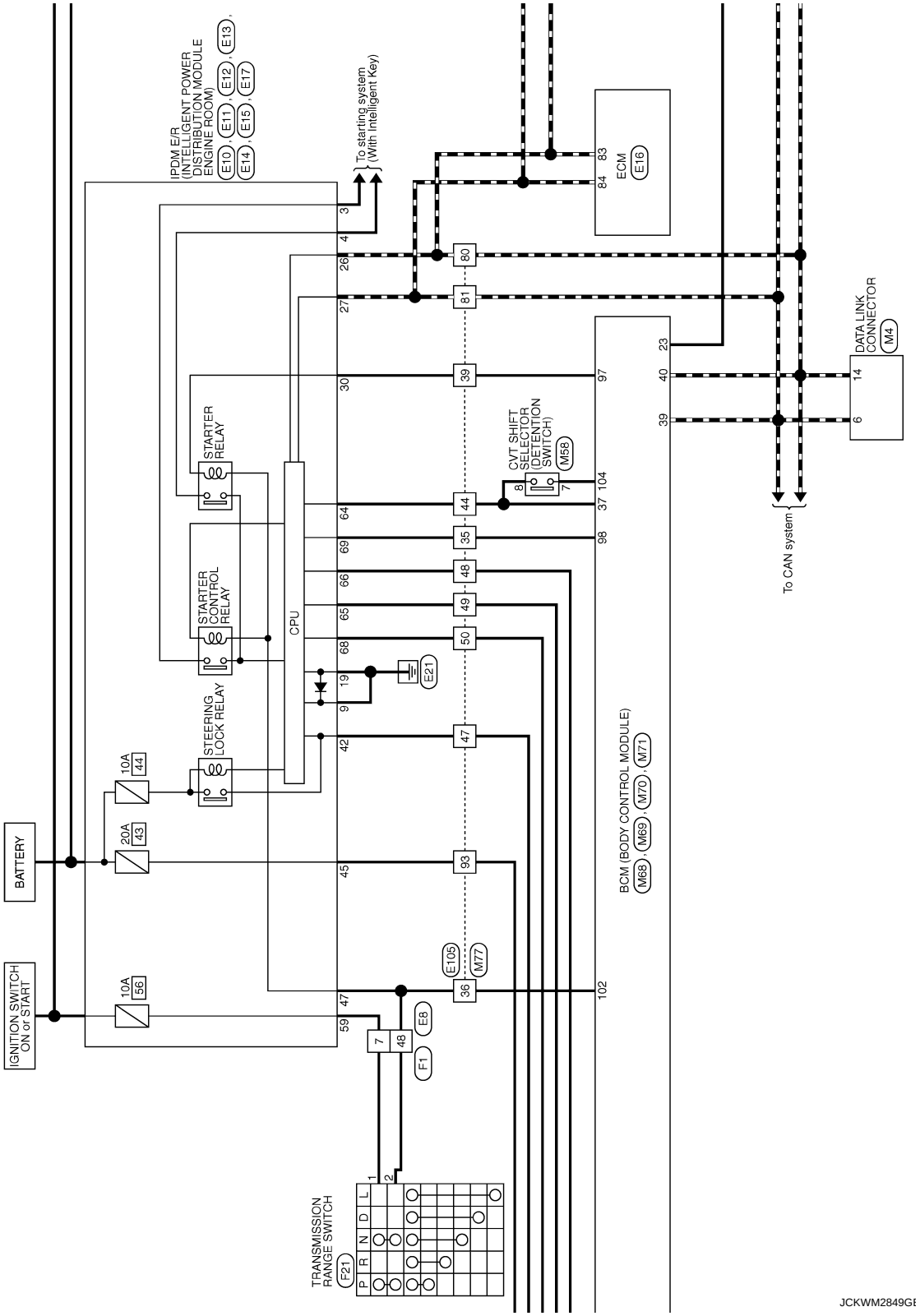

JCKWM3601GB

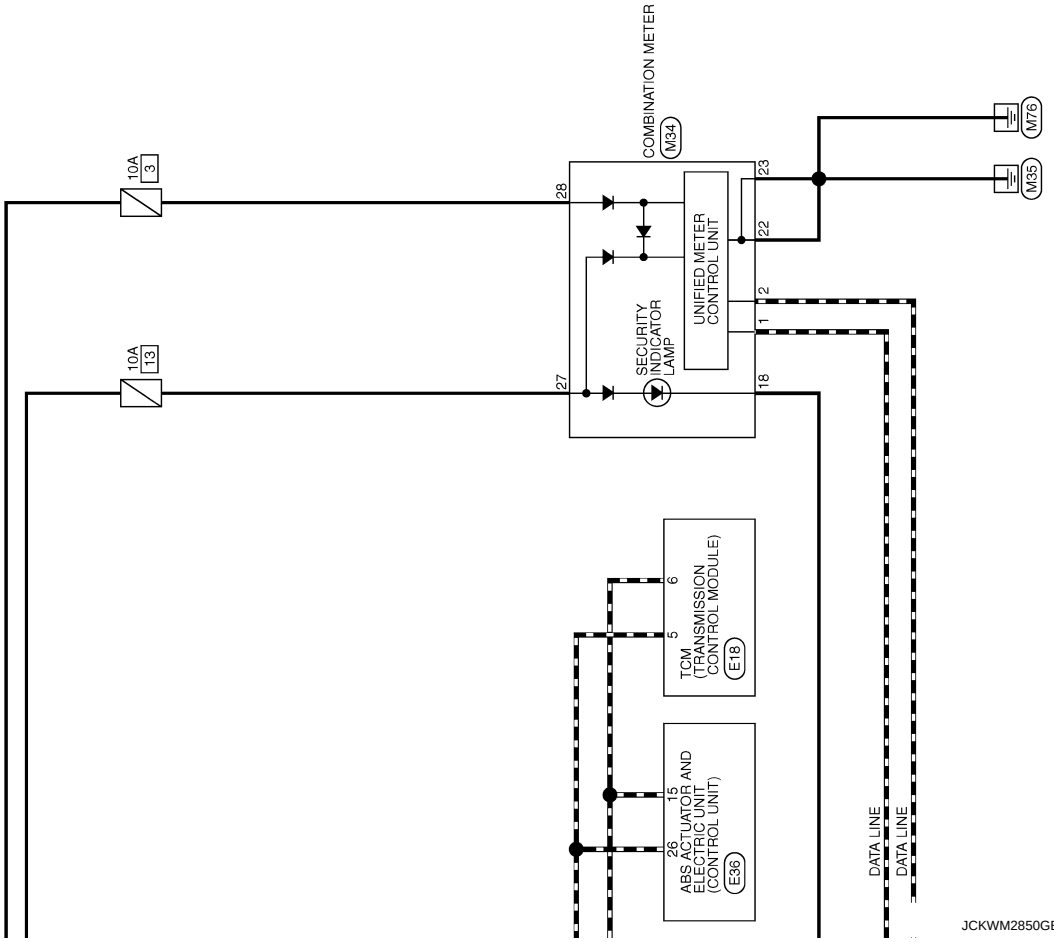
# NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS

## Wiring Diagram - NISSAN VEHICLE IMMOBILIZER SYSTEM -

INFOID:0000000005492070




IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E10, E11, E12, E13, E14, E15, E17
To starting system (With Intelligent Key)
ECM
E16
DATA LINK CONNECTOR
M4
To CAN system
STARTER RELAY
STARTER CONTROL RELAY
STEERING LOCK RELAY
CPU
CVT SHIFT SELECTOR (DETENTION SWITCH)
M58
E21
BATTERY
IGNITION SWITCH ON or START
10A 44
20A 43
10A 56
BCM (BODY CONTROL MODULE)
M68, M69, M70, M71
E105
M77
E8
F1
TRANSMISSION RANGE SWITCH
F21
P R N D L
JCKWM2849GB


COMBINATION METER
M34
10A
3
10A
13
28
27
SECURITY INDICATOR LAMP
UNIFIED METER CONTROL UNIT
23
22
2
1
18
M76
M35
TCM (TRANSMISSION CONTROL MODULE)
E18
6
5
ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)
E36
15
26
DATA LINE
DATA LINE
JCKWM2850GB

NISSAN VEHICLE IMMOBILIZER SYSTEM (WITH INTELLIGENT KEY)

| Connector No. | B4 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH24MW-NH |

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 |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | W | – |
| 2 | V | – |
| 3 | O | – |
| 4 | P | – |
| 5 | W | – |
| 6 | W | – |
| 7 | P | – |
| 8 | SB | – |
| 11 | G | – |
| 12 | SB | – |
| 13 | L | – |
| 15 | R | – |
| 16 | GR | – |
| 17 | BR | – |
| 18 | L | – |
| 19 | Y | – |
| 20 | LG | – |
| 22 | Y | – |
| 23 | BR | – |
| 24 | O | – |

| 5 | V | – |
|---|---|---|
| 6 | W | – |
| 8 | LG | – |
| 9 | R | – |
| 11 | O | – |
| 13 | GR | – |
| 14 | P | – |
| 16 | W | – |

| Connector No. | B27 |
|---|---|
| Connector Name | FRONT DOOR SWITCH (PASSENGER SIDE) |
| Connector Type | A03FW |

H.S.

| 1 | 2 |
|---|---|

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | SB | – |

| Connector No. | B34 |
|---|---|
| Connector Name | FRONT DOOR SWITCH (DRIVER SIDE) |
| Connector Type | A03FW |

H.S.

| 1 | 2 |
|---|---|

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | LG | – |

| Connector No. | B53 |
|---|---|
| Connector Name | REAR DOOR SWITCH RH |
| Connector Type | A03FW |

H.S.

| 1 | 2 |
|---|---|

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | LG | – |

| Connector No. | B71 |
|---|---|
| Connector Name | REAR DOOR SWITCH LH |
| Connector Type | A03FW |

H.S.

| 1 | 2 |
|---|---|

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | W | – |

| Connector No. | B75 |
|---|---|
| Connector Name | BACK DOOR SWITCH |
| Connector Type | A03FW |

H.S.

| 1 | 2 |
|---|---|

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | L | – |
| 2 | W | – |

| Connector No. | B5 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH16MW-NH |

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 [Specification] |
|---|---|---|
| 1 | V | – |
| 2 | GR | – |

JCKWM3608GB

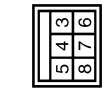
NISSAN VEHICLE IMMOBILIZER SYSTEM (WITH INTELLIGENT KEY)

| Connector No. | E8 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | SAA36MB-RS10-SJZ2 |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | BR | – |
| 2 | LG | – |
| 3 | Y | – |
| 4 | W | – |
| 7 | Y | – |
| 8 | SB | – |
| 9 | L | – |
| 10 | V | – |
| 11 | P | – |
| 12 | BR | – |
| 13 | LG | – |
| 14 | Y | – |
| 15 | SB | – |
| 16 | L | – |
| 17 | W | – |
| 18 | O | – |
| 21 | G | – |
| 23 | SB | – |
| 24 | W | – |
| 25 | BR | – |
| 26 | B | – |
| 27 | GR | – |
| 28 | P | – |
| 29 | V | – |
| 30 | G | – |
| 31 | G | – |
| 32 | O | – |
| 33 | W | – |
| 34 | Y | – |
| 35 | V | – |
| 36 | P | – |
| 37 | LG | – |
| 39 | SB | – |
| 40 | GR | – |
| 41 | O | – |
| 42 | V | – |
| 43 | R | – [With CVT] |
| 43 | LG | – [With M/T] |
| 44 | R | – |
| 46 | W | – |
| 47 | G | – |
| 48 | BR | – |

| Connector No. | E10 |
|---|---|
| Connector Name | 2PDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Type | M06FW-LC |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 3 | BR | – |
| 4 | SB | – |
| 5 | LG | – |
| 6 | SB | – |
| 7 | Y | – |
| 8 | V | – |

| Connector No. | E11 |
|---|---|
| Connector Name | 2PDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Type | M06FB-LC |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 9 | B/W | – |
| 10 | L | – |
| 13 | W | – |

| Connector No. | E12 |
|---|---|
| Connector Name | 2PDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Type | NS08FBR-CS |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 18 | Y | – |
| 19 | B/W | – |
| 21 | W | – |
| 22 | V | – |

| Connector No. | E13 |
|---|---|
| Connector Name | 2PDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Type | TH12FW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 24 | LG | – |
| 25 | Y | – |
| 26 | P | – |
| 27 | L | – |
| 28 | P | – |
| 30 | SB | – |
| 31 | W | – |
| 33 | O | – |
| 34 | R | – |

| Connector No. | E14 |
|---|---|
| Connector Name | 2PDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Type | NS12FBR-CS |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 36 | Y | – |
| 37 | V | – |
| 38 | G | – |
| 39 | V | – |
| 40 | R | – |
| 41 | SB | – |
| 42 | W | – |
| 43 | G | – |
| 44 | P | – |
| 45 | Y | – |
| 46 | O | – |

JCKWM3609GB

NISSAN VEHICLE IMMOBILIZER SYSTEM (WITH INTELLIGENT KEY)

| Connector No. | E15 |
|---|---|
| Connector Name | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Type | NS16FW-CS |

H.S.

| 53 | 52 | 51 | 50 | | 49 | 48 | 47 |
|---|---|---|---|---|---|---|---|
| 62 | 61 | 60 | 59 | 58 | 57 | 56 | 55 | 54 |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 47 | BR | – |
| 48 | W | – |
| 50 | GR | – |
| 51 | R | – |
| 52 | P | – |
| 54 | GR | – |
| 55 | P | – |
| 56 | SB | – |
| 57 | G | – |
| 58 | R | – [With CVT]<br>– [With M/T] |
| 58 | Y | |
| 59 | Y | – |
| 60 | V | – |
| 61 | W | – |
| 62 | L | – |

| Connector No. | E16 |
|---|---|
| Connector Name | ECM |
| Connector Type | RH24FB-RZ8-L-RH |

H.S.

| 111 | | 93 | | 105 | 109 |
|---|---|---|---|---|---|
| | | 94 | 102 | 106 | 110 |
| 83 | | 95 | 99 | 103 | 107 | 111 |
| 84 | 88 | | 100 | 104 | 108 | 112 |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 83 | P | CAN–L |
| 84 | L | CAN–H |
| 88 | LG | K LINE |
| 93 | L | IGNSW |
| 94 | SB | ASCDSW |
| 95 | BR | GNDA–ASCDSW |
| 99 | W | BRAKE |

| 100 | SB | BNCSW |
|---|---|---|
| 102 | O | AVCC–APS2 |
| 103 | G | APS2 |
| 104 | R | GNDA–APS2 |
| 105 | G | VBR |
| 106 | V | AVCC–APS1 |
| 108 | B | GND |
| 110 | BR | APS1 |
| 111 | Y | GNDA–APS1 |

| Connector No. | E17 |
|---|---|
| Connector Name | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Type | TH10FB-NH |

H.S.

| 67 | 66 | 65 | 64 | 63 |
|---|---|---|---|---|
| 72 | 71 | 70 | 69 | 68 |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 64 | R | – |
| 65 | Y | – |
| 66 | L | – |
| 68 | W | – |
| 69 | Y | – |

| Connector No. | E18 |
|---|---|
| Connector Name | TCM (TRANSMISSION CONTROL MODULE) |
| Connector Type | TK24FW |

H.S.

| 1 | 2 | 3 | 4 | 5 | 6 | | |
|---|---|---|---|---|---|---|---|
| 10 | 11 | 12 | 13 | 14 | 15 | | 18 |
| 19 | 20 | 21 | | | | 22 | |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | Y | – |
| 2 | LG | – |
| 3 | BR | – |
| 4 | O | – |
| 5 | L | – |
| 6 | P | – |

| 10 | R | – |
|---|---|---|
| 11 | W | – |
| 12 | L | – |
| 13 | SB | – |
| 14 | P | – |
| 15 | V | – |
| 18 | BR | – |
| 19 | R | – |
| 20 | SB | – |
| 21 | Y | – |
| 22 | GR | – |

| Connector No. | E36 |
|---|---|
| Connector Name | ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) |
| Connector Type | BAA22FB-AHZ4-RH |

H.S.

| 1 | 2 | 3 | 4 | 16 | 17 | 18 | 19 | 20 | 21 | | | 25 | 26 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 5 | 6 | 8 | 9 | 10 | 11 | | | 14 | 15 |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | B | GND (MTR) |
| 2 | Y | BAT (MTR) |
| 3 | L | BAT (SOL) |
| 4 | B | GND (SOL) |
| 5 | Y | DS FL |
| 6 | W | DP RL |
| 8 | O | DP RR |
| 9 | L | DP FR |
| 10 | R | DS FR |
| 11 | LG | K LINE |
| 14 | GR | CAN–L |
| 15 | P | CAN–L |
| 16 | BR | DP FL |
| 17 | G | DS RL |
| 18 | V | IGN |
| 19 | SB | DS RR |
| 20 | W | STOP LAMP SW |
| 21 | P | VDC OFF SW |
| 25 | R | CAN–H |
| 26 | L | CAN–H |

JCKWM3610GB

NISSAN VEHICLE IMMOBILIZER SYSTEM (WITH INTELLIGENT KEY)

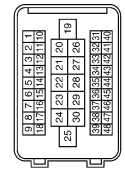
| Connector No. | E105 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80MW-CS16-TM4 |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | – |
| 2 | W | – |
| 3 | SB | – |
| 4 | G | – |
| 5 | P | – |
| 6 | R | – |
| 7 | Y | – |
| 8 | O | – |
| 9 | W | – |
| 10 | SB | – |
| 31 | V | – |
| 32 | R | – |
| 33 | GR | – |
| 34 | P | – |
| 35 | Y | – |
| 36 | BR | – |
| 39 | SB | – |
| 44 | R | – |
| 45 | V | – |
| 46 | P | – |
| 47 | W | – |
| 48 | L | – |
| 49 | Y | – |
| 50 | W | – |
| 51 | BR | – [With CVT] |
| 51 | B | – [With M/T] |
| 53 | SB | – |
| 54 | W | – [With CVT] |
| 54 | O | – [With M/T] |
| 57 | LG | – |
| 59 | L | – |
| 60 | O | – |
| 61 | G | – |
| 62 | W | – |
| 63 | L | – |
| 67 | GR | – [With CVT] |
| 67 | V | – [With M/T] |
| 69 | P | – |
| 70 | SHIELD | – |
| 71 | GR | – |
| 72 | LG | – |
| 73 | P | – |
| 74 | V | – |
| 76 | Y | – |
| 77 | LG | – |
| 78 | O | – |
| 79 | G | – |
| 80 | P | – |
| 81 | L | – |
| 82 | W | – |
| 83 | BR | – |
| 84 | B | – |
| 87 | GR | – |
| 91 | W | – |
| 92 | Y | – |
| 93 | Y | – |
| 94 | R | – |
| 95 | V | – |
| 96 | LG | – |
| 97 | R | – |
| 98 | SB | – |
| 99 | G | – |
| 100 | P | – |

| Connector No. | E115 |
|---|---|
| Connector Name | STOP LAMP SWITCH |
| Connector Type | M04FW-LC |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | – |
| 2 | W | – |
| 3 | O | – |
| 4 | G | – |

| Connector No. | F1 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | SAA36FB-RS10-SJZ2 |

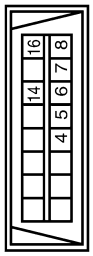


| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | SB | – |
| 2 | LG | – |
| 3 | R | – |
| 4 | Y | – |
| 7 | V | – |
| 8 | G | – |
| 9 | SB | – |
| 10 | L | – |
| 11 | Y | – |
| 12 | GR | – |
| 13 | BR | – |
| 14 | G | – |
| 15 | W | – |
| 16 | Y | – |
| 17 | P | – |
| 18 | BR | – |
| 21 | G | – |
| 23 | W | – |
| 24 | R | – |
| 25 | R | – |
| 26 | B | – |
| 27 | SB | – |
| 28 | V | – |
| 29 | V | – |
| 30 | BR | – |
| 31 | GR | – |
| 32 | BR | – |
| 33 | W | – |
| 34 | LG | – |
| 35 | V | – |
| 36 | Y | – |
| 37 | W | – |
| 39 | G | – |
| 40 | P | – |
| 41 | O | – |
| 42 | G | – |
| 43 | R | – |
| 44 | P | – |
| 46 | GR | – |
| 47 | Y | – |
| 48 | BR | – |

| Connector No. | F21 |
|---|---|
| Connector Name | TRANSMISSION RANGE SWITCH |
| Connector Type | RK08FG |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | – |
| 2 | BR | – |
| 3 | R | – |
| 4 | GR | – |
| 5 | SB | – |
| 6 | W | – |
| 7 | Y | – |
| 8 | G | – |

| Connector No. | M4 |
|---|---|
| Connector Name | DATA LINK CONNECTOR |
| Connector Type | BD16FW |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 4 | B | – |
| 5 | B | – |
| 6 | L | – |
| 7 | GR/R | – |
| 8 | O | – |
| 14 | P | – |
| 16 | LG/R | – |

JCKWM3611GE

NISSAN VEHICLE IMMOBILIZER SYSTEM (WITH INTELLIGENT KEY)

| Connector No. | M12 |
|---|---|
| Connector Name | STEERING LOCK UNIT |
| Connector Type | TH08FW-NH |




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | BR/Y | S/L 12V (MECHANICAL) |
| 2 | Y/R | K LINE |
| 3 | L/W | S/L CONDITION 1 |
| 5 | B | GND |
| 6 | B | GND |
| 7 | W/G | S/L 12V (CPU) |
| 8 | P/L | S/L CONDITION 2 |

| Connector No. | M34 |
|---|---|
| Connector Name | COMBINATION METER |
| Connector Type | TH40FW-NH |




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | L | CAN-H |
| 2 | P | CAN-L |
| 3 | V | VEHICLE SPEED SIGNAL (2-PULSE) |
| 4 | L | VEHICLE SPEED SIGNAL (8-PULSE) |
| 6 | BR/Y | FUEL LEVEL SENSOR SIGNAL |
| 7 | R/G | AIR BAG SIGNAL |
| 8 | P | OVERDRIVE CONTROL SWITCH SIGNAL |
| 9 | O | SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE) |
| 10 | SB | PARKING BRAKE SWITCH SIGNAL |
| 11 | G/R | BRAKE FLUID LEVEL SWITCH SIGNAL |
| 13 | B/R | ILLUMINATION CONTROL SIGNAL |
| 15 | L/Y | ACC POWER SUPPLY |
| 17 | G | WASHER LEVEL SWITCH SIGNAL |
| 18 | R/Y | SECURITY SIGNAL |
| 19 | V/W | AMBIENT SENSOR SIGNAL |
| 20 | R/W | AMBIENT SENSOR GROUND |
| 21 | B | GROUND |
| 22 | B | GROUND |
| 23 | B | GROUND |
| 24 | V | FUEL LEVEL SENSOR GROUND |
| 25 | B | VDC GROUND |
| 27 | LG | BATTERY POWER SUPPLY |
| 28 | GR | IGNITION SIGNAL |
| 29 | BR | PASSENGER SEAT BELT WARNING SIGNAL |
| 31 | R | A/C AUTO AMP. CONNECTION RECOGNITION SIGNAL |
| 35 | BR | ENGINE COOLANT TEMPERATURE SIGNAL |
| 38 | GR | ALTERNATOR SIGNAL |

| Connector No. | M26 |
|---|---|
| Connector Name | NATS ANTENNA AMP. |
| Connector Type | TH04FW-NH |




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | Y | BAT |
| 2 | P/L | CLK |
| 3 | LG | DATA [With Intelligent Key] |
| 3 | B | GND [Without Intelligent Key] |
| 4 | B | GND [With Intelligent Key] |
| 4 | LG | DATA [Without Intelligent Key] |

| Connector No. | M68 |
|---|---|
| Connector Name | CVT SHIFT SELECTOR |
| Connector Type | TK08FW |




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | P | – |
| 2 | B | – |
| 3 | W | – |
| 4 | B/R | – |
| 5 | LG | – |
| 6 | B | – |
| 7 | Y/R | – |
| 8 | G/O | – |

| Connector No. | M68 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FB-NH |




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | BR/W | COMBI SW INPUT 5 |
| 3 | GR | COMBI SW INPUT 4 |
| 4 | L/Y | COMBI SW INPUT 3 |
| 5 | G | COMBI SW INPUT 2 |
| 6 | L/R | COMBI SW INPUT 1 |
| 7 | W/R | KEY CYL UNLOCK SW |
| 8 | W/B | KEY CYL LOCK SW |
| 9 | R | STOP LAMP SW 1 |
| 10 | V/W | TIRE PRESS WARNING CHECK SW |
| 11 | L/Y | ACC F/B |
| 12 | SB | PASSENGER DOOR SW |
| 13 | GR/L | REAR RH DOOR SW |
| 14 | L/B | OPTICAL SENSOR |
| 15 | W/L | REAR WINDOW DEFOGGER SW |
| 17 | R/G | OPTICAL SENSOR POWER SUPPLY |
| 18 | V | RECEIVER / SENSOR GND |
| 19 | BR | KEYLESS ENTRY RECEIVER POWER SUPPLY |
| 20 | G/Y | KEYLESS ENTRY RECEIVER COMM |
| 21 | P/L | NATS ANTENNA AMP. |
| 22 | W/G | KEYLESS ENTRY RECEIVER RSSI |
| 23 | R/Y | SECURITY INDICATOR LAMP |
| 24 | GR/R | DONGLE LINK |
| 25 | LG | NATS ANTENNA AMP. |
| 27 | Y/R | A/C SW |
| 28 | G/W | BLOWER FAN SW |
| 29 | L/W | HAZARD SW |
| 31 | G/B | DR DOOR UNLOCK SENSOR |
| 32 | LG | COMBI SW OUTPUT 5 |
| 33 | Y/L | COMBI SW OUTPUT 4 |
| 34 | W | COMBI SW OUTPUT 3 |
| 35 | R/L | COMBI SW OUTPUT 2 |
| 36 | L/O | COMBI SW OUTPUT 1 |
| 37 | G/O | SHIFT P |
| 38 | O | IGN F/B |
| 39 | L | CAN-H |
| 40 | P | CAN-L |

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




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 43 | W | BACK DOOR SW |
| 44 | LG | REAR WIPER STOP POSITION |
| 45 | GR | CENTRAL DOOR LOCK SW |
| 46 | BR | CENTRAL DOOR UNLOCK SW |
| 47 | BR/Y | DRIVER DOOR SW |
| 48 | W/G | REAR LH DOOR SW |
| 54 | L/W | REAR WIPER OUTPUT |
| 55 | G | REAR DOOR UNLOCK OUTPUT |

JCKWM3612GB

NISSAN VEHICLE IMMOBILIZER SYSTEM (WITH INTELLIGENT KEY)

| Connector No. | M70 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | FEA09FB-FHA6-SA |




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 56 | L | INTERIOR ROOM LAMP POWER SUPPLY |
| 57 | Y | BAT (FUSE) |
| 59 | G | PASSENGER DOOR UNLOCK OUTPUT |
| 60 | W/B | TURN SIGNAL LH OUTPUT |
| 61 | W/L | TURN SIGNAL RH OUTPUT |
| 63 | BR | ROOM LAMP TIMER CONTROL |
| 65 | V | ALL DOOR LOCK OUTPUT |
| 66 | L/B | DRIVER DOOR UNLOCK OUTPUT |
| 67 | B | GND |
| 68 | L | POWER WINDOW POWER SUPPLY (IGN) |
| 69 | L/W | POWER WINDOW POWER SUPPLY (BAT) |
| 70 | Y | BAT (F/L) |

| Connector No. | M71 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FW-NH |




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 71 | R | TIRE PRESS RECEIVER COMM |
| 72 | R/W | BK DR LOCK ACT RELAY CONT |
| 75 | SB | DRIVER DOOR REQUEST SW |
| 76 | G | PASSENGER DOOR REQUEST SW |
| 77 | W | BACK DOOR REQUEST SW |
| 78 | LG | DRIVER DOOR ANT+ |
| 79 | V | DRIVER DOOR ANT− |
| 80 | BR/Y | PASSENGER DOOR ANT+ |
| 81 | L/Y | PASSENGER DOOR ANT− |
| 82 | W/B | BACK DOOR ANT+ |
| 83 | B/W | BACK DOOR ANT− |
| 84 | Y/G | ROOM ANT+ |
| 85 | Y/L | ROOM ANT− |
| 86 | P | LUGGAGE ROOM ANT+ |
| 87 | L | LUGGAGE ROOM ANT− |
| 90 | W/L | PUSH-BUTTON IGNITION SW ILL POWER |
| 91 | Y | ACC/ON IND |
| 92 | BR/R | PUSH-BUTTON IGNITION SW ILL GND |
| 93 | GR/W | I-KEY WARN BUZZER |
| 94 | Y/R | S/L UNIT COMM |
| 95 | W/G | S/L UNIT POWER SUPPLY |
| 96 | G | ACC RELAY CONT |
| 97 | L/R | STARTER RELAY CONT |
| 98 | BR | IGN RELAY (PDM E/R) CONT |
| 99 | W/R | IGN RELAY CONT |
| 100 | L/O | PUSH SW |
| 102 | G | SHIFT N/P |
| 104 | Y/R | CVT SHIFT SELECTOR POWER SUPPLY |
| 105 | B/O | STOP LAMP SW 2 |
| 106 | Y/B | BLOWER FAN MOTOR RELAY CONT |
| 107 | L/W | S/L CONDITION 1 |
| 108 | P/L | S/L CONDITION 2 |
| 110 | BR/W | TIRE PRESS POWER SUPPLY |

| Connector No. | M75 |
|---|---|
| Connector Name | DONGLE UNIT |
| Connector Type | NS08FBR-CS |




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | B | – |
| 7 | GR/R | – |

| Connector No. | M77 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80FW-CS16-TM4 |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | B/O | – |
| 2 | R | – |
| 3 | G/R | – |
| 4 | G/B | – |
| 5 | L | – |
| 6 | L | – |
| 7 | W/R | – |
| 8 | G/W | – |
| 9 | Y/L | – |
| 10 | W | – |
| 31 | GR/L | – |
| 32 | L/B | – |
| 33 | R/Y | – |
| 34 | SB | – |
| 35 | BR | – |
| 36 | G | – |
| 39 | L/R | – |
| 44 | G/O | – |
| 45 | LG/R | – |
| 46 | GR/W | – |
| 47 | BR/Y | – |
| 48 | L/O | – |
| 49 | L/W | – |
| 50 | P/L | – |
| 51 | B/W | – |
| 53 | R/L | – |
| 54 | O | – |
| 57 | GR | – |
| 59 | V | – |
| 60 | R/W | – |
| 61 | V/W | – |
| 62 | W/L | – |
| 63 | W/B | – |
| 67 | Y/R | – |
| 69 | LG | – |
| 70 | SHIELD | – |
| 71 | P/B | – |
| 72 | R/G | – |
| 73 | R | – |
| 74 | L/Y | – |
| 76 | W/G | – |
| 77 | GR/R | – |
| 78 | O | – |
| 79 | LG | – |
| 80 | P | – |
| 81 | L | – |
| 82 | GR | – |
| 83 | G/R | – |
| 84 | B | – |
| 87 | G | – |
| 91 | R | – |
| 92 | O | – |
| 93 | Y | – |
| 94 | R/B | – |
| 95 | L/W | – |
| 96 | Y | – |
| 97 | L | – |
| 98 | BR/W | – |
| 99 | W | – |
| 100 | G/R | – |

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NISSAN VEHICLE IMMOBILIZER SYSTEM (WITH INTELLIGENT KEY)

| Connector No. | M79 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH24FW-NH |

H.S.

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

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | W/G | – |
| 2 | L/Y | – |
| 3 | R | – |
| 4 | P/B | – |
| 5 | W | – |
| 6 | W/G | – |
| 7 | R/B | – |
| 8 | SB | – |
| 11 | G/B | – |
| 12 | G/R | – |
| 13 | R/G | – |
| 15 | R/L | – |
| 16 | GR/R | – |
| 17 | BR/Y | – |
| 18 | V | – |
| 19 | Y | – |
| 20 | GR/L | – |
| 22 | L | – |
| 23 | Y/L | – |
| 24 | G/W | – |

| 5 | W | – |
|---|---|---|
| 6 | W/L | – |
| 8 | BR/Y | – |
| 9 | R/Y | – |
| 11 | O | – |
| 13 | BR/W | – |
| 14 | W/B | – |
| 16 | W/G | – |

| Connector No. | M101 |
|---|---|
| Connector Name | PUSH-BUTTON IGNITION SWITCH |
| Connector Type | TK08FBR |

H.S.

| 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|
| | | | | 3 |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 3 | P | – |
| 4 | B | – |
| 5 | W/L | – |
| 6 | BR/R | – |
| 7 | Y | – |
| 8 | L/O | – |

| Connector No. | M80 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH16FW-NH |

H.S.

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

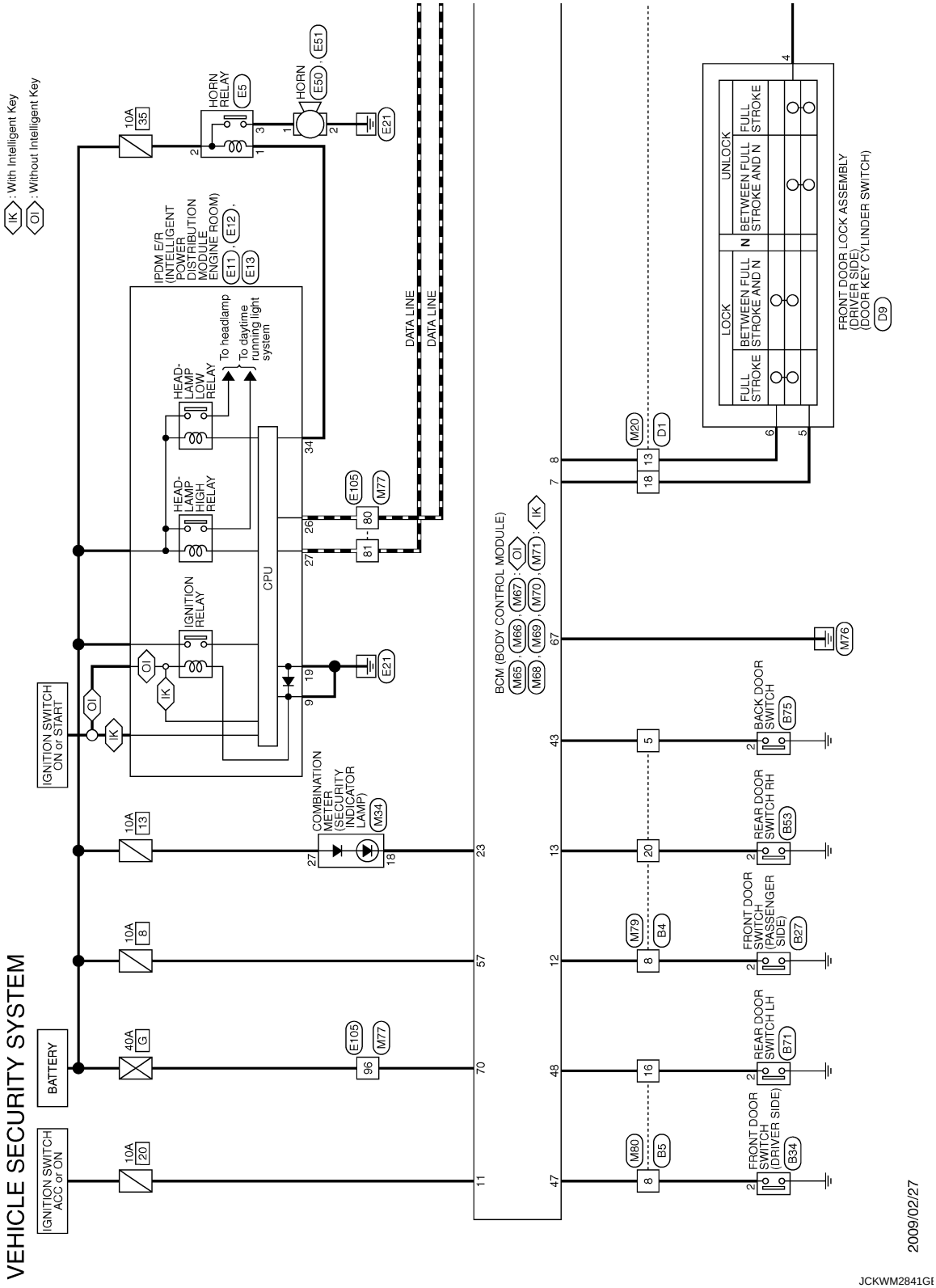
| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | L/B | – |
| 2 | GR/L | – |

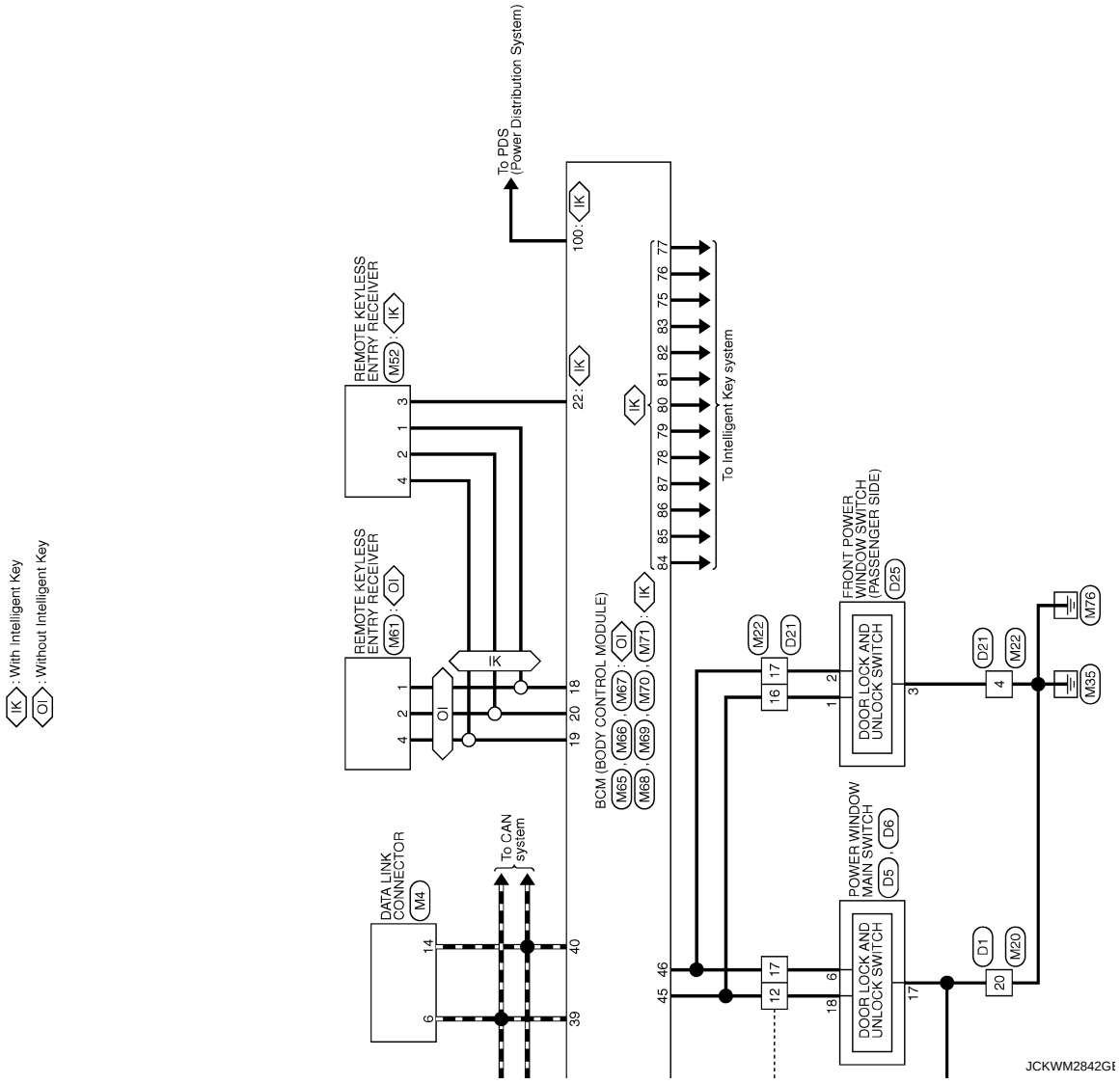
JCKWM3614GB

# VEHICLE SECURITY SYSTEM

## Wiring Diagram - VEHICLE SECURITY SYSTEM -

INFOID:0000000005492071




IK : With Intelligent Key
OI : Without Intelligent Key
To PDS (Power Distribution System)
100 : IK
REMOTE KEYLESS ENTRY RECEIVER M52 : IK
22 : IK
REMOTE KEYLESS ENTRY RECEIVER M61 : OI
IK
OI
BCM (BODY CONTROL MODULE) M65, M66, M68, M67 : OI, M69, M70, M71 : IK
To Intelligent Key system
DATA LINK CONNECTOR M4
To CAN system
FRONT POWER WINDOW SWITCH (PASSENGER SIDE) D25
DOOR LOCK AND UNLOCK SWITCH
POWER WINDOW MAIN SWITCH D5, D6
DOOR LOCK AND UNLOCK SWITCH
M22
D21
M76
M35
D1
M20
JCKWM2842GB

VEHICLE SECURITY SYSTEM

| Connector No. | B4 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH24MW-NH |

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 |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | W | – |
| 2 | V | – |
| 3 | O | – |
| 4 | P | – |
| 5 | W | – |
| 6 | W | – |
| 7 | P | – |
| 8 | SB | – |
| 11 | G | – |
| 12 | SB | – |
| 13 | L | – |
| 15 | R | – |
| 16 | GR | – |
| 17 | BR | – |
| 18 | L | – |
| 19 | Y | – |
| 20 | LG | – |
| 22 | Y | – |
| 23 | BR | – |
| 24 | O | – |

| Connector No. | B5 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH16MW-NH |

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 [Specification] |
|---|---|---|
| 1 | V | – |
| 2 | GR | – |

| 5 | V | – |
|---|---|---|
| 6 | W | – |
| 8 | LG | – |
| 9 | R | – |
| 11 | O | – |
| 13 | GR | – |
| 14 | P | – |
| 16 | W | – |

| Connector No. | B27 |
|---|---|
| Connector Name | FRONT DOOR SWITCH (PASSENGER SIDE) |
| Connector Type | A03FW |

H.S.

| 1 | 2 |
|---|---|

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | SB | – |

| Connector No. | B34 |
|---|---|
| Connector Name | FRONT DOOR SWITCH (DRIVER SIDE) |
| Connector Type | A03FW |

H.S.

| 1 | 2 |
|---|---|

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | LG | – |

| Connector No. | B53 |
|---|---|
| Connector Name | REAR DOOR SWITCH RH |
| Connector Type | A03FW |

H.S.

| 1 | 2 |
|---|---|

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | LG | – |

| Connector No. | B71 |
|---|---|
| Connector Name | REAR DOOR SWITCH LH |
| Connector Type | A03FW |

H.S.

| 1 | 2 |
|---|---|

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | W | – |

| Connector No. | B75 |
|---|---|
| Connector Name | BACK DOOR SWITCH |
| Connector Type | A03FW |

H.S.

| 1 | 2 |
|---|---|

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | L | – |
| 2 | W | – |

| Connector No. | D1 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | NH10FW-CS10 |

H.S.

| 6 | 5 | 4 | | 3 | 2 | 1 |
|---|---|---|---|---|---|---|
| | | 13 | 12 | 11 | 10 | 9 | 8 | 7 |
| 20 | 19 | 18 | 17 | 16 | 15 | 14 | | |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | P | – |
| 2 | SB | – |
| 3 | Y | – |
| 5 | LG | – |
| 6 | R | – |
| 7 | L | – |
| 8 | W | – |
| 9 | BR | – |
| 10 | P | – |
| 12 | GR | – |
| 13 | W | – |
| 14 | G | – |
| 15 | V | – |
| 17 | R | – |
| 18 | L | – |
| 19 | O | – |
| 20 | B | – |

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VEHICLE SECURITY SYSTEM

| Connector No. | D5 |
|---|---|
| Connector Name | POWER WINDOW MAIN SWITCH |
| Connector Type | NS16FW-CS |



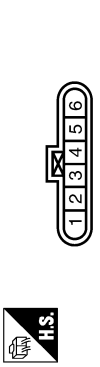
| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | R | – |
| 2 | LG | – |
| 3 | O | – |
| 5 | Y | – |
| 6 | R | – |
| 7 | LG | – |
| 8 | BR | – |
| 9 | V | – |
| 10 | L | – |
| 11 | GR | – |
| 12 | SB | – |
| 13 | W | – |
| 15 | G | – |
| 16 | W | – |

| Connector No. | D6 |
|---|---|
| Connector Name | POWER WINDOW MAIN SWITCH |
| Connector Type | NS03FW-CS |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 17 | B | – |
| 18 | GR | – |
| 19 | P | – |

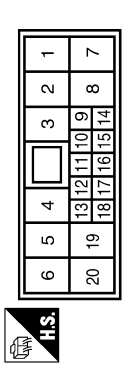
| Connector No. | D9 |
|---|---|
| Connector Name | FRONT DOOR LOCK ASSEMBLY (DRIVER SIDE) |
| Connector Type | E06FGY-RS |





| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | – |
| 2 | SB | – |
| 3 | G | – |
| 4 | B | – |
| 5 | L | – |
| 6 | W | – |

| Connector No. | D21 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | NH10FW-CS10 |

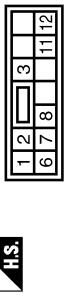




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | G | – |
| 2 | Y | – |
| 4 | B | – |
| 5 | L | – |
| 6 | SB | – |
| 7 | R | – |
| 8 | V | – |
| 9 | R | – |
| 10 | W | – |
| 11 | L | – |
| 12 | LG | – |
| 13 | P | – |
| 14 | B | – |
| 15 | G | – |
| 16 | GR | – |
| 17 | BR | – |

| 18 | V | – |
|---|---|---|
| 20 | W | – |

| Connector No. | D25 |
|---|---|
| Connector Name | FRONT POWER WINDOW SWITCH (PASSENGER SIDE) |
| Connector Type | NS12FW-CS |





| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | GR | – |
| 2 | BR | – |
| 3 | B | – |
| 6 | Y | – |
| 7 | R | – |
| 8 | L | – |
| 11 | SB | – |
| 12 | W | – |

| Connector No. | E5 |
|---|---|
| Connector Name | HORN RELAY |
| Connector Type | – |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | R | – |
| 2 | G | – |
| 3 | V | – |

| Connector No. | E11 |
|---|---|
| Connector Name | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Type | M06FB-LC |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 9 | B/W | – |
| 10 | L | – |
| 13 | W | – |

| Connector No. | E12 |
|---|---|
| Connector Name | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Type | NS08FBR-CS |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 18 | Y | – |
| 19 | B/W | – |
| 21 | W | – |
| 22 | V | – |

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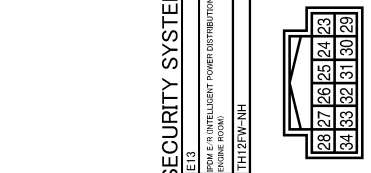
| Connector No. | E13 |
|---|---|
| Connector Name | BCM (E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)) |
| Connector Type | TH12FW-NH |

H.S.




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 24 | LG | – |
| 25 | Y | – |
| 26 | P | – |
| 27 | L | – |
| 28 | P | – |
| 30 | SB | – |
| 31 | W | – |
| 33 | O | – |
| 34 | R | – |

| Connector No. | E50 |
|---|---|
| Connector Name | HORN |
| Connector Type | P01FB-A |

H.S.




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | – |

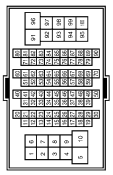
| Connector No. | E51 |
|---|---|
| Connector Name | HORN |
| Connector Type | P01FB-A |

H.S.


| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | B/W | – |

| Connector No. | E105 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80MW-CS16-TM4 |

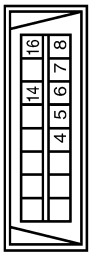
H.S.



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | – |
| 2 | W | – |
| 3 | SB | – |
| 4 | G | – |
| 5 | P | – |
| 6 | R | – |
| 7 | Y | – |
| 8 | O | – |
| 9 | W | – |
| 10 | SB | – |
| 31 | V | – |
| 32 | R | – |
| 33 | GR | – |
| 34 | P | – |
| 35 | Y | – |
| 36 | BR | – |
| 39 | SB | – |
| 44 | R | – |
| 45 | V | – |
| 46 | P | – |
| 47 | W | – |
| 48 | L | – |
| 49 | Y | – |
| 50 | W | – |
| 51 | BR | – [With CVT] |
| | | – [With M/T] |
| 51 | B | – |
| 53 | SB | – |
| 54 | W | – [With CVT] |
| 54 | O | – [With M/T] |
| 57 | LG | – |
| 59 | L | – |
| 60 | O | – |
| 61 | G | – |
| 62 | W | – |
| 63 | L | – [With CVT] |
| 67 | GR | – [With M/T] |
| 67 | V | – |
| 69 | P | – |
| 70 | SHIELD | – |
| 71 | GR | – |
| 72 | LG | – |
| 73 | P | – |
| 74 | V | – |
| 76 | Y | – |
| 77 | LG | – |
| 78 | O | – |
| 79 | G | – |
| 80 | P | – |
| 81 | L | – |
| 82 | W | – |
| 83 | BR | – |
| 84 | B | – |
| 87 | GR | – |
| 91 | W | – |
| 92 | Y | – |
| 93 | Y | – |
| 94 | R | – |
| 95 | V | – |
| 96 | LG | – |
| 97 | R | – |
| 98 | SB | – |
| 99 | G | – |
| 100 | P | – |

| Connector No. | M4 |
|---|---|
| Connector Name | DATA LINK CONNECTOR |
| Connector Type | BD16FW |

H.S.




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 4 | B | – |
| 5 | B | – |
| 6 | L | – |
| 7 | GR/R | – |
| 8 | O | – |
| 14 | P | – |
| 16 | LG/R | – |

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VEHICLE SECURITY SYSTEM

| Connector No. | M20 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | NH10MW-CS10 |




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | L/W | – |
| 2 | W/R | – |
| 3 | Y | – |
| 5 | L/B | – |
| 6 | R | – |
| 7 | L | – |
| 8 | Y/R | – |
| 9 | SB | – |
| 10 | LG | – |
| 12 | GR | – |
| 13 | W/B | – |
| 14 | G/B | – |
| 15 | V | – |
| 17 | BR | – |
| 18 | W/R | – |
| 19 | L/R | – |
| 20 | B | – |

| Connector No. | M22 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | NH10MW-CS10 |




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | G | – |
| 2 | G | – |
| 4 | B | – |
| 5 | L | – |
| 6 | W/R | – |

| 7 | R | – |
|---|---|---|
| 8 | V | – |
| 9 | G/R | – |
| 10 | LG | – |
| 11 | R | – |
| 12 | G | – |
| 13 | BR/Y | – |
| 14 | B | – |
| 15 | G/B | – |
| 16 | GR | – |
| 17 | BR | – |
| 18 | L/Y | – |
| 20 | Y/R | – |

| Connector No. | M34 |
|---|---|
| Connector Name | COMBINATION METER |
| Connector Type | TH40FW-NH |




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | L | CAN–H |
| 2 | P | CAN–L |
| 3 | V | VEHICLE SPEED SIGNAL (2–PULSE) |
| 4 | L | VEHICLE SPEED SIGNAL (8–PULSE) |
| 6 | BR/Y | FUEL LEVEL SENSOR SIGNAL |
| 7 | R/G | AIR BAG SIGNAL |
| 8 | P | OVERDRIVE CONTROL SWITCH SIGNAL |
| 9 | O | SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE) |
| 10 | SB | PARKING BRAKE SWITCH SIGNAL |
| 11 | G/R | BRAKE FLUID LEVEL SWITCH SIGNAL |
| 13 | B/R | ILLUMINATION CONTROL SIGNAL |
| 15 | L/Y | ACC POWER SUPPLY |
| 17 | G | WASHER LEVEL SWITCH SIGNAL |
| 18 | R/Y | SECURITY SIGNAL |
| 19 | V/W | AMBIENT SENSOR SIGNAL |
| 20 | R/W | AMBIENT SENSOR GROUND |
| 21 | B | GROUND |
| 22 | B | GROUND |
| 23 | B | GROUND |
| 24 | V | FUEL LEVEL SENSOR GROUND |
| 25 | B | VDC GROUND |
| 27 | LG | BATTERY POWER SUPPLY |
| 28 | GR | IGNITION SIGNAL |

| 29 | BR | PASSENGER SEAT BELT WARNING SIGNAL |
|---|---|---|
| 31 | R | A/C AUTO AMP. CONNECTION RECOGNITION SIGNAL |
| 35 | BR | ENGINE COOLANT TEMPERATURE SIGNAL |
| 38 | GR | ALTERNATOR SIGNAL |

| Connector No. | M62 |
|---|---|
| Connector Name | REMOTE KEYLESS ENTRY RECEIVER |
| Connector Type | JAB04FB |




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | GND |
| 2 | G/Y | SIGNAL |
| 3 | W/G | RSSI |
| 4 | BR | POWER |

| Connector No. | M61 |
|---|---|
| Connector Name | REMOTE KEYLESS ENTRY RECEIVER |
| Connector Type | TK04FW |




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | – |
| 2 | G/Y | – |
| 4 | BR | – |

| Connector No. | M65 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FW-NH |




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | BR/W | COMBI SW INPUT 5 |
| 3 | GR | COMBI SW INPUT 4 |
| 4 | L/Y | COMBI SW INPUT 3 |
| 5 | G | COMBI SW INPUT 2 |
| 6 | L/R | COMBI SW INPUT 1 |
| 7 | W/R | KEY CYL UNLOCK SW |
| 8 | W/B | KEY CYL LOCK SW |
| 9 | R | STOP LAMP SW |
| 10 | W/L | REAR WINDOW DEFOGGER SW |
| 11 | L/Y | ACC |
| 12 | SB | PASSENGER DOOR SW |
| 13 | GR/L | REAR RH DOOR SW |
| 14 | L/B | OPTICAL SENSOR |
| 15 | V/W | TIRE PRESS WARNING CHECK SW |
| 17 | R/G | OPTICAL SENSOR POWER SUPPLY |
| 18 | V | RECEIVER/SENSOR GND |
| 19 | BR | KEYLESS ENTRY RECEIVER POWER SUPPLY |
| 20 | G/Y | KEYLESS ENTRY RECEIVER COMM |
| 21 | P/L | NATS ANTENNA AMP. |
| 23 | R/Y | SECURITY INDICATOR LAMP |
| 24 | GR/R | DONGLE LINK |
| 25 | LG | NATS ANTENNA AMP. |
| 26 | GR | THERMO CONTROL AMP. |
| 27 | Y/G | A/C SW [With auto A/C] |
| 27 | Y/R | A/C SW [With manual A/C] |
| 28 | G/W | BLOWER FAN SW |
| 29 | L/W | HAZARD SW |
| 31 | G/Y | FR DEFROSTER SW |
| 32 | LG | COMBI SW OUTPUT 5 |
| 33 | Y/L | COMBI SW OUTPUT 4 |
| 34 | W | COMBI SW OUTPUT 3 |
| 35 | R/L | COMBI SW OUTPUT 2 |
| 36 | L/O | COMBI SW OUTPUT 1 |
| 37 | R/W | KEY SWITCH |
| 38 | O | IGN |
| 39 | L | CAN–H |
| 40 | P | CAN–L |

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VEHICLE SECURITY SYSTEM

| Connector No. | M66 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | FEA09FW-FHA6-SA |

H.S.

| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 |
|---|---|---|---|---|---|---|---|---|
| 50 | 51 | 52 | 53 | 54 | 55 | | | |

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

| Connector No. | M67 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | FEA09FB-FHA6-SA |

H.S.

| 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 |
|---|---|---|---|---|---|---|---|---|
| 65 | 66 | 67 | 68 | 69 | 70 | | | |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 56 | L | INTERIOR ROOM LAMP POWER SUPPLY |
| 57 | Y | BAT (FUSE) |
| 59 | L/B | DRIVER DOOR UNLOCK OUTPUT |
| 60 | W/B | TURN SIGNAL LH OUTPUT |
| 61 | W/L | TURN SIGNAL RH OUTPUT |
| 63 | BR | ROOM LAMP TIMER CONTROL |
| 65 | V | ALL DOOR LOCK OUTPUT |
| 66 | G | PASSENGER DOOR: REAR DOOR UNLOCK OUTPUT |
| 67 | B | GND |
| 68 | L | POWER WINDOW POWER SUPPLY (IGN) |
| 69 | L/W | POWER WINDOW POWER SUPPLY (BAT) |
| 70 | Y | BAT (F/L) |

| Connector No. | M68 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FB-NH |

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 [Specification] |
|---|---|---|
| 2 | BR/W | COMBI SW INPUT 5 |
| 3 | GR | COMBI SW INPUT 4 |
| 4 | L/Y | COMBI SW INPUT 3 |
| 5 | G | COMBI SW INPUT 2 |
| 6 | L/R | COMBI SW INPUT 1 |
| 7 | W/R | KEY CYL UNLOCK SW |
| 8 | W/B | KEY CYL LOCK SW |
| 9 | R | STOP LAMP SW 1 |
| 10 | V/W | TIRE PRESS WARNING CHECK SW |
| 11 | L/Y | ACC F/B |
| 12 | SB | PASSENGER DOOR SW |
| 13 | GR/L | REAR RH DOOR SW |
| 14 | L/B | OPTICAL SENSOR |
| 15 | W/L | REAR WINDOW DEFOGGER SW |
| 17 | R/G | OPTICAL SENSOR POWER SUPPLY |
| 18 | V | RECEIVER / SENSOR GND |
| 19 | BR | KEYLESS ENTRY RECEIVER POWER SUPPLY |
| 20 | G/Y | KEYLESS ENTRY RECEIVER COMM |
| 21 | P/L | NATS ANTENNA AMP |
| 22 | W/G | KEYLESS ENTRY RECEIVER RSSI |
| 23 | R/Y | SECURITY INDICATOR LAMP |
| 24 | GR/R | DONGLE LINK |
| 25 | LG | NATS ANTENNA AMP. |
| 27 | Y/R | A/C SW |
| 28 | G/W | BLOWER FAN SW |
| 29 | L/W | HAZARD SW |
| 31 | G/B | DR DOOR UNLOCK SENSOR |
| 32 | LG | COMBI SW OUTPUT 5 |
| 33 | Y/L | COMBI SW OUTPUT 4 |
| 34 | W | COMBI SW OUTPUT 3 |
| 35 | R/L | COMBI SW OUTPUT 2 |
| 36 | L/O | COMBI SW OUTPUT 1 |
| 37 | G/O | SHIFT P |
| 38 | O | IGN F/B |
| 39 | L | CAN-H |
| 40 | P | CAN-L |

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

H.S.

| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 |
|---|---|---|---|---|---|---|---|---|
| 50 | 51 | 52 | 53 | 54 | 55 | | | |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 43 | W | BACK DOOR SW |
| 44 | LG | REAR WIPER STOP POSITION |
| 45 | GR | CENTRAL DOOR LOCK SW |
| 46 | BR | CENTRAL DOOR UNLOCK SW |
| 47 | BR/Y | DRIVER DOOR SW |
| 48 | W/G | REAR LH DOOR SW |
| 54 | L/W | REAR WIPER OUTPUT |
| 55 | G | REAR DOOR UNLOCK OUTPUT |

| Connector No. | M70 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | FEA09FB-FHA6-SA |

H.S.

| 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 |
|---|---|---|---|---|---|---|---|---|
| 65 | 66 | 67 | 68 | 69 | 70 | | | |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 56 | L | INTERIOR ROOM LAMP POWER SUPPLY |
| 57 | Y | BAT (FUSE) |
| 59 | G | PASSENGER DOOR UNLOCK OUTPUT |
| 60 | W/B | TURN SIGNAL LH OUTPUT |
| 61 | W/L | TURN SIGNAL RH OUTPUT |
| 63 | BR | ROOM LAMP TIMER CONTROL |
| 65 | V | ALL DOOR LOCK OUTPUT |
| 66 | L/B | DRIVER DOOR UNLOCK OUTPUT |
| 67 | B | GND |
| 68 | L | POWER WINDOW POWER SUPPLY (IGN) |
| 69 | L/W | POWER WINDOW POWER SUPPLY (BAT) |
| 70 | Y | BAT (F/L) |

| Connector No. | M71 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FW-NH |

H.S.

| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 71 | R | TIRE PRESS RECEIVER COMM |
| 72 | R/W | BK DR LOCK ACT RELAY CONT |
| 75 | SB | DRIVER DOOR REQUEST SW |
| 76 | G | PASSENGER DOOR REQUEST SW |
| 77 | W | BACK DOOR REQUEST SW |
| 78 | LG | DRIVER DOOR ANT+ |
| 79 | V | DRIVER DOOR ANT– |
| 80 | BR/Y | PASSENGER DOOR ANT+ |
| 81 | L/Y | PASSENGER DOOR ANT– |
| 82 | W/B | BACK DOOR ANT+ |
| 83 | B/W | BACK DOOR ANT– |
| 84 | Y/G | ROOM ANT+ |
| 85 | Y/L | ROOM ANT– |
| 86 | P | LUGGAGE ROOM ANT+ |
| 87 | L | LUGGAGE ROOM ANT– |
| 90 | W/L | PUSH-BUTTON IGNITION SW ILL POWER |
| 91 | Y | ACC/ON IND |
| 92 | BR/R | PUSH-BUTTON IGNITION SW ILL GND |
| 93 | GR/W | I-KEY WARN BUZZER |
| 94 | Y/R | S/L UNIT COMM |
| 95 | W/G | S/L UNIT POWER SUPPLY |
| 96 | G | ACC RELAY CONT |
| 97 | L/R | STARTER RELAY CONT |
| 98 | BR | IGN RELAY (DPDM E/R) CONT |
| 99 | W/R | IGN RELAY CONT |
| 100 | L/O | PUSH SW |
| 102 | G | SHIFT N/P |
| 104 | Y/R | CVT SHIFT SELECTOR POWER SUPPLY |
| 105 | B/O | STOP LAMP SW 2 |
| 106 | Y/B | BLOWER FAN MOTOR RELAY CONT |
| 107 | L/W | S/L CONDITION 1 |
| 108 | P/L | S/L CONDITION 2 |
| 110 | BR/W | TIRE PRESS POWER SUPPLY |

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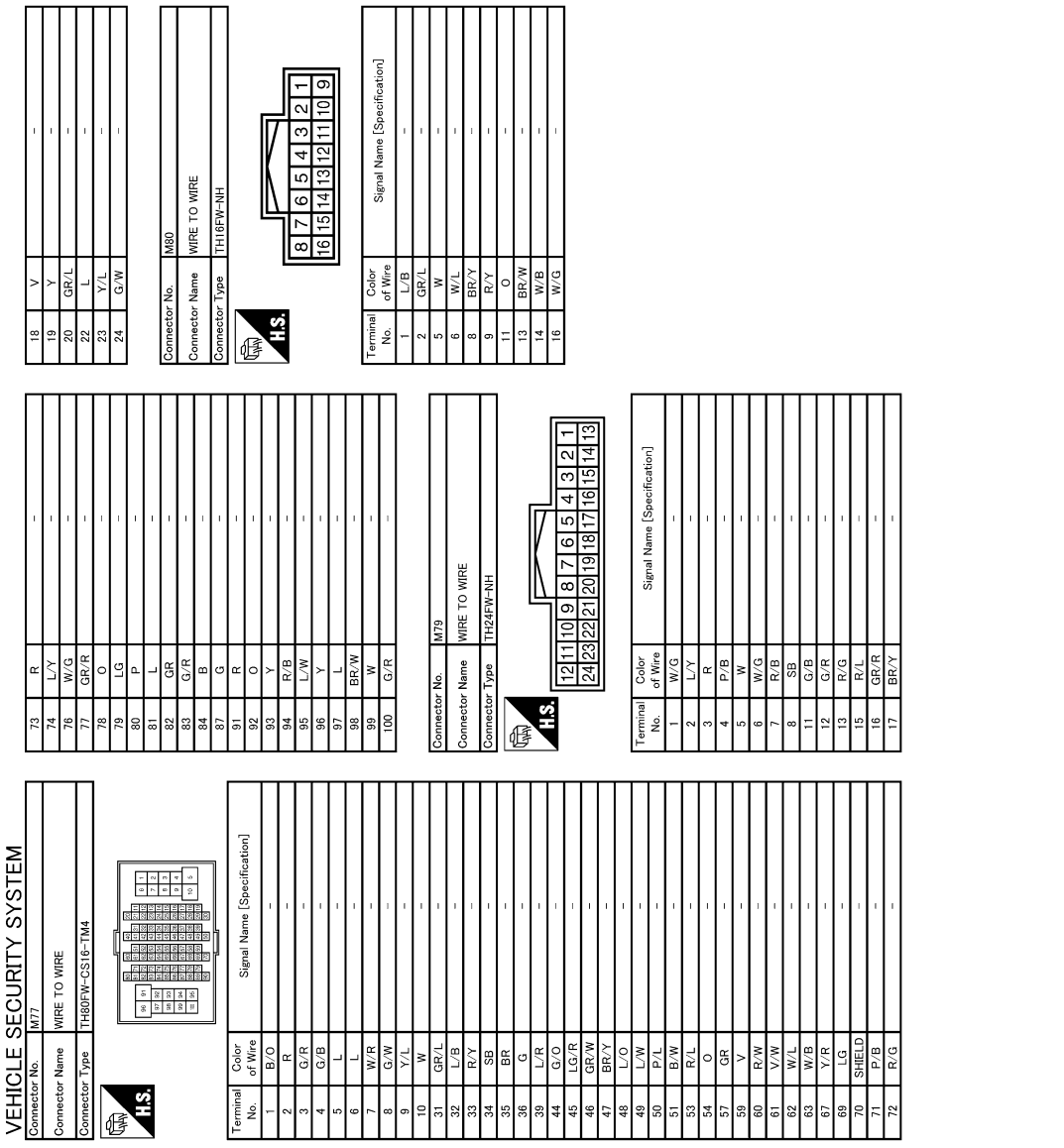



JCKWM3607GB

# ECU DIAGNOSIS INFORMATION

## BCM (BODY CONTROL MODULE)

### Reference Value

INFOID:0000000005819877

#### VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

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

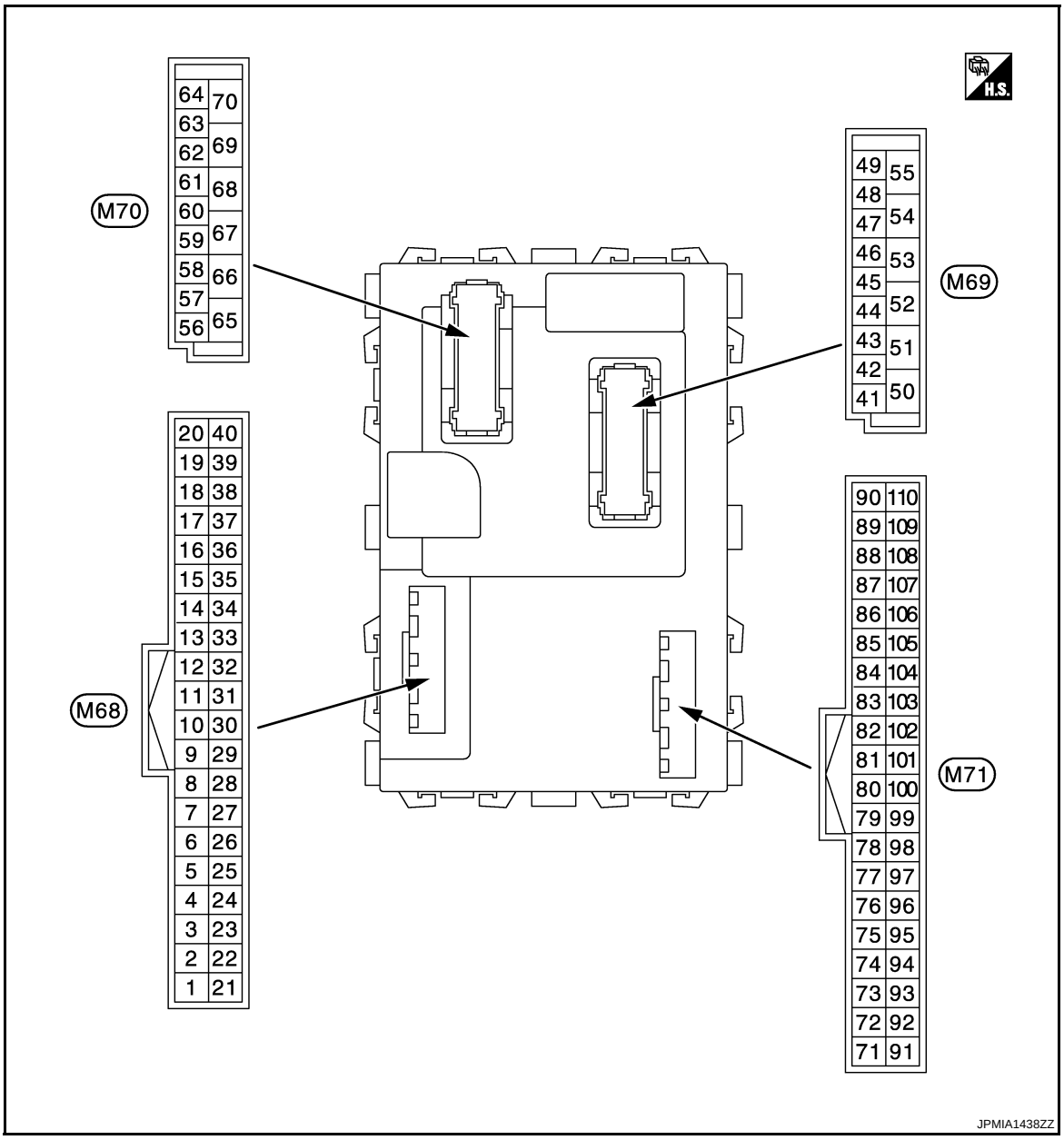
| Monitor Item | Condition | Value/Status |
|---|---|---|
| DOOR SW-DR | Driver door closed | Off |
| | Driver door opened | On |
| DOOR SW-AS | Passenger door closed | Off |
| | Passenger door opened | On |
| DOOR SW-RR | Rear RH door closed | Off |
| | Rear RH door opened | On |
| DOOR SW-RL | Rear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

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

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

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

TERMINAL LAYOUT

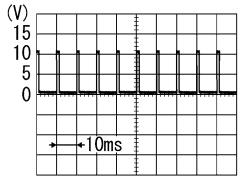
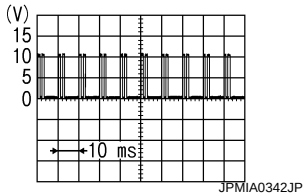
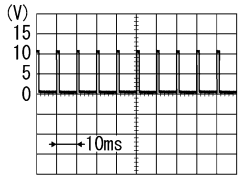
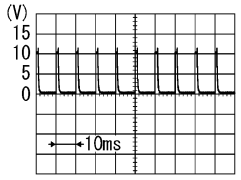
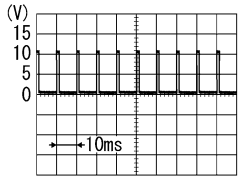


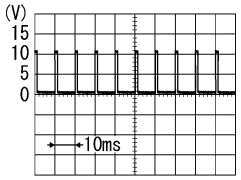
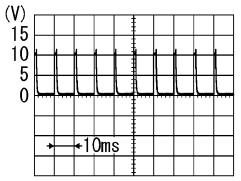
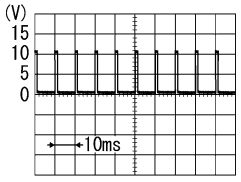
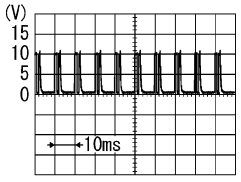
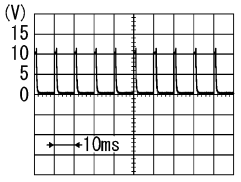

**NOTE:**

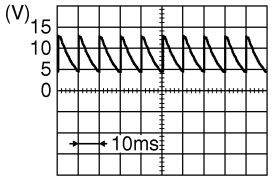
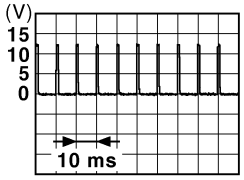
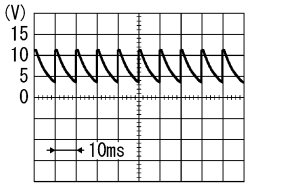
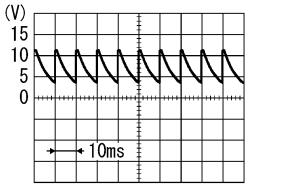
Connector color

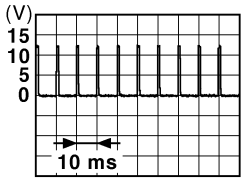
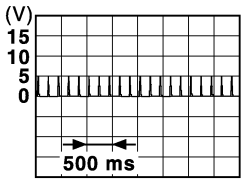
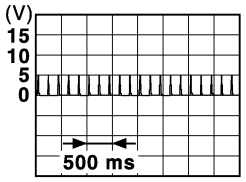
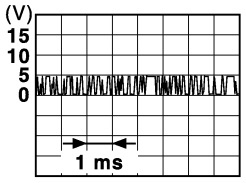
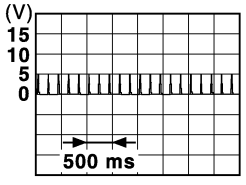
- M68, M70: Black
- M69, M71: White

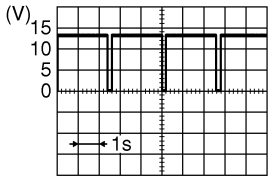
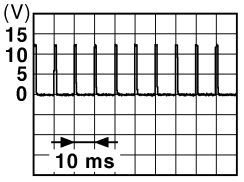
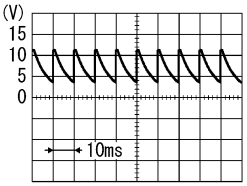
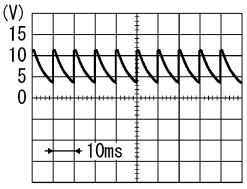
PHYSICAL VALUES

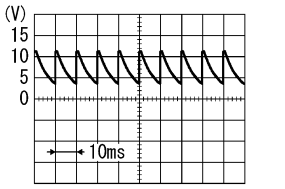
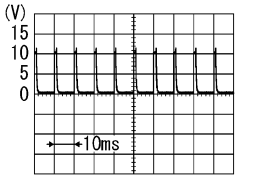
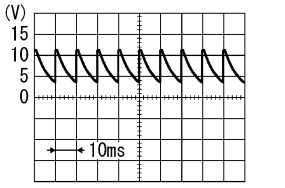
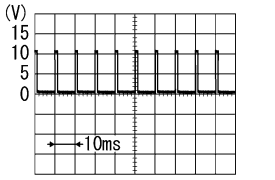
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| | | Signal name | Input/ Output | | | |
| + | – | | | | | |
| 2 (BR/W) | Ground | Combination switch INPUT 5 | Input | Combination switch (Wiper intermittent dial 4) | All switch OFF | 0 V |
| | | | | | Turn signal switch RH<br>Lighting switch HI<br>Lighting switch 1ST |  <br>PKIB4958J<br>1.0 V |
| | | | | | Lighting switch 2ND |  <br>JPMIA0342JP<br>2.0 V |
| 3 (GR) | Ground | Combination switch INPUT 4 | Input | Combination switch (Wiper intermittent dial 4) | All switch OFF | 0 V |
| | | | | | Turn signal switch LH<br>Lighting switch PASS<br>Lighting switch 2ND |  <br>PKIB4958J<br>1.0 V |
| | | | | | Front fog lamp switch ON |  <br>PKIB4956J<br>0.8 V |
| 4 (L/Y) | Ground | Combination switch INPUT 3 | Input | Combination switch (Wiper intermittent dial 4) | All switch OFF | 0 V |
| | | | | | Front wiper switch LO<br>Front wiper switch MIST<br>Front wiper switch INT<br>Lighting switch AUTO |  <br>PKIB4958J<br>1.0 V |

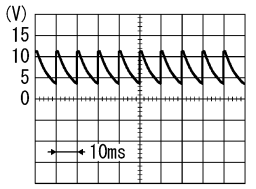
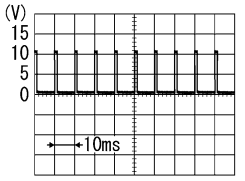
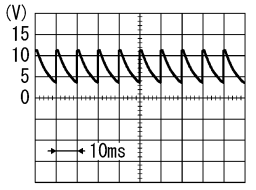
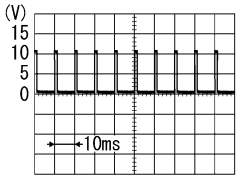
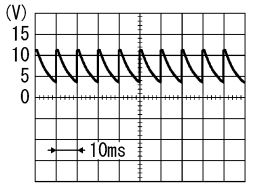
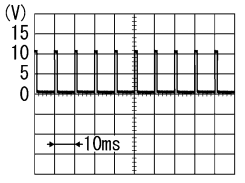
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 5 (G) | Ground | Combination switch INPUT 2 | Input | Combination switch | All switch OFF (Wiper intermittent dial 4) | 0 V |
| | | | | | Front washer switch (Wiper intermittent dial 4) |  PKIB4958J 1.0 V |
| | | | | | Rear washer ON (Wiper intermittent dial 4) | |
| | | | | | Any of the condition below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6 | |
| | | | | | Rear wiper switch ON (Wiper intermittent dial 4) |  PKIB4956J 0.8 V |
| 6 (L/R) | Ground | Combination switch INPUT 1 | Input | Combination switch | All switch OFF (Wiper intermittent dial 4) | 0 V |
| | | | | | Front wiper switch HI (Wiper intermittent dial 4) |  PKIB4958J 1.0 V |
| | | | | | Rear wiper switch INT (Wiper intermittent dial 4) | |
| | | | | | Wiper intermittent dial 3 (All switch OFF) | |
| | | | | | Any of the condition below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 |  PKIB4952J 1.9 V |
| | | | | | Any of the condition below with all switch OFF • Wiper intermittent dial 6 • Wiper intermittent dial 7 |  PKIB4956J 0.8 V |

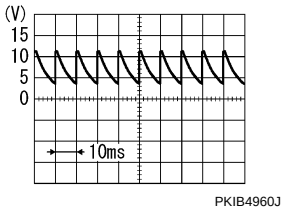
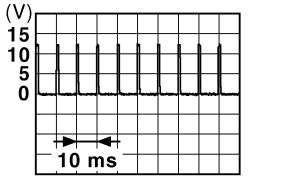
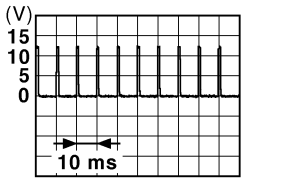
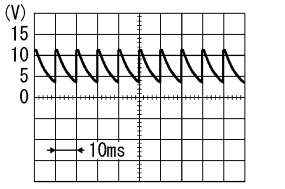
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 7 (W/R) | Ground | Door key cylinder switch UNLOCK | Input | Door key cylinder switch | NEUTRAL position |  JPMIA0587GB 8.0 - 8.5 V |
| | | | | | UNLOCK position | 0 V |
| 8 (W/B) | Ground | Door key cylinder switch LOCK | Input | Door key cylinder switch | NEUTRAL position | 12 V |
| | | | | | LOCK position | 0 V |
| 9 (R) | Ground | Stop lamp switch 1 | Input | Stop lamp switch | OFF (Brake pedal is not depressed) | 0 V |
| | | | | | ON (Brake pedal is depressed) | Battery voltage |
| 10 (V/W) | Ground | Tire pressure warning check switch | Input | Ignition switch OFF | |  JPMIA0012GB 1.0 - 1.5 V |
| 11 (L/Y) | Ground | ACC feedback | Input | Ignition switch OFF | | 0 V |
| | | | | Ignition switch ACC or ON | | Battery voltage |
| 12 (SB) | Ground | Passenger door switch | Input | Passenger door switch | OFF (When passenger door closed) |  PKIB4960J 7.0 - 8.0 V |
| | | | | | ON (When passenger door opened) | 0 V |
| 13 (GR/L) | Ground | Rear RH door switch | Input | Rear RH door switch | OFF (When rear RH door closed) |  PKIB4960J 7.0 - 8.0 V |
| | | | | | ON (When rear RH door opened) | 0 V |
| 14 (L/B) | Ground | Optical sensor | Input | Ignition switch ON | When bright outside of the vehicle | Close to 5 V |
| | | | | | When dark outside of the vehicle | Close to 0 V |

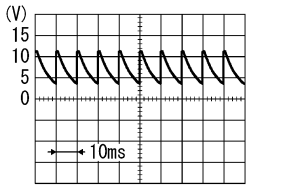
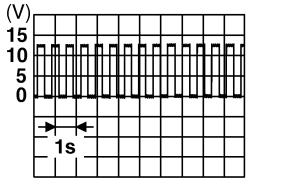
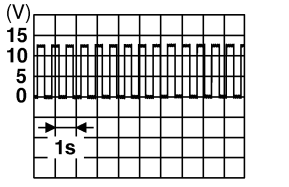
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 15 (W/L) | Ground | Rear window defogger switch | Input | Rear window defogger switch | Not pressed |  JPMIA0012GB<br>1.0 - 1.5 V |
| | | | | |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

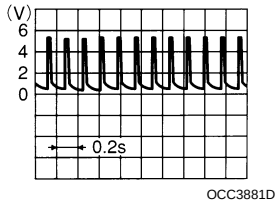
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 23 (R/Y) | Ground | Security indicator lamp | Output | Security indicator | ON | 0 V |
| | | | | | Blinking (Ignition switch OFF) |  JPMIA0590GB 12.0 V |
| | | | | | OFF | Battery voltage |
| 24* (GR/R) | Ground | Dongle link | Input/ Output | Ignition switch OFF | | 5 V |
| 25 (LG) | Ground | NATS antenna amp. | Input/ Output | During waiting | Ignition switch is pressed while inserting the key into the key slot. | Just after pressing ignition switch. Pointer of tester should move. |
| 27 (Y/G) | Ground | A/C switch | Input | Air conditioner | OFF (A/C switch indicator: OFF) |  JPMIA0012GB 1.0 - 1.5 V |
| | | | | | ON (A/C switch indicator: ON) | 0 V |
| 28 (G/W) | Ground | Blower fan switch | Input | Blower fan | OFF | 0 V |
| | | | | | ON |  PKIB4960J 7.0 - 8.0 V |
| 29 (L/W) | Ground | Hazard switch | Input | Hazard switch | OFF | 12 V |
| | | | | | ON | 0 V |
| 31 (G/B) | Ground | Front door lock assembly driver side (Unlock sensor) | Input | Driver door | LOCK status (Unlock sensor switch OFF) |  PKIB4960J 7.0 - 8.0 V |
| | | | | | UNLOCK status (Unlock sensor switch ON) | 0 V |

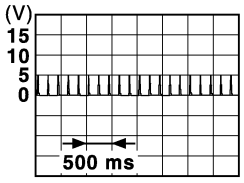
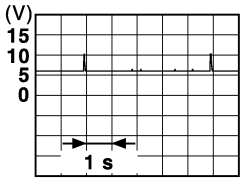
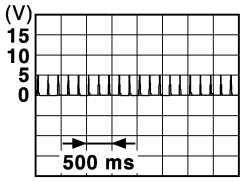
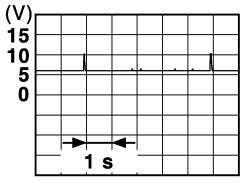
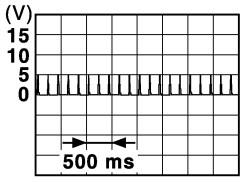
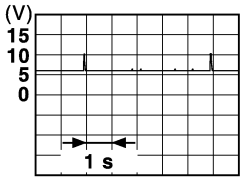
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 32 (LG) | Ground | Combination switch OUTPUT 5 | Output | Combination switch | All switch OFF<br>(Wiper intermittent dial 4) |  <br>PKIB4960J<br>7.0 - 8.0 V |
| | | | | | Front fog lamp switch ON<br>(Wiper intermittent dial 4)<br>Rear wiper switch ON<br>(Wiper intermittent dial 4)<br>Any of the condition below with all switch OFF<br>• Wiper intermittent dial 1<br>• Wiper intermittent dial 2<br>• Wiper intermittent dial 6<br>• Wiper intermittent dial 7 |  <br>PKIB4956J<br>1.0 V |
| 33 (Y/L) | Ground | Combination switch OUTPUT 4 | Output | Combination switch | All switch OFF<br>(Wiper intermittent dial 4) |  <br>PKIB4960J<br>7.0 - 8.0 V |
| | | | | | Lighting switch 1ST<br>(Wiper intermittent dial 4)<br>Lighting switch AUTO<br>(Wiper intermittent dial 4)<br>Rear wiper switch INT<br>(Wiper intermittent dial 4)<br>Any of the condition below with all switch OFF<br>• Wiper intermittent dial 1<br>• Wiper intermittent dial 5<br>• Wiper intermittent dial 6 |  <br>PKIB4958J<br>1.2 V |

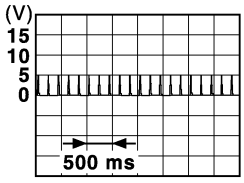
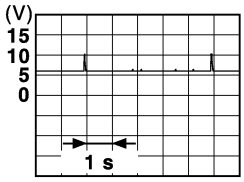
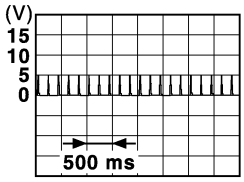
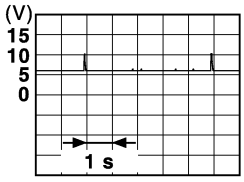
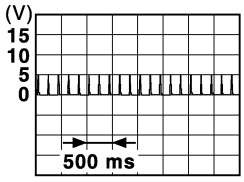
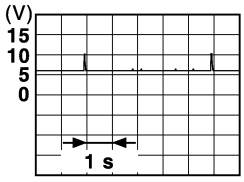
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 34 (W) | Ground | Combination switch OUTPUT 3 | Output | Combination switch | All switch OFF (Wiper intermittent dial 4) |  PKIB4960J 7.0 - 8.0 V |
| | | | | | Lighting switch 2ND (Wiper intermittent dial 4)<br>Lighting switch HI (Wiper intermittent dial 4)<br>Rear washer switch ON (Wiper intermittent dial 4)<br>Any of the condition below with all switch OFF<br>• Wiper intermittent dial 1<br>• Wiper intermittent dial 2<br>• Wiper intermittent dial 3 |  PKIB4958J 1.2 V |
| 35 (R/L) | Ground | Combination switch OUTPUT 2 | Output | Combination switch (Wiper intermittent dial 4) | All switch OFF |  PKIB4960J 7.0 - 8.0 V |
| | | | | | Lighting switch 2ND<br>Lighting switch PASS<br>Front wiper switch INT<br>Front wiper switch HI |  PKIB4958J 1.2 V |
| 36 (L/O) | Ground | Combination switch OUTPUT 1 | Output | Combination switch (Wiper intermittent dial 4) | All switch OFF |  PKIB4960J 7.0 - 8.0 V |
| | | | | | Turn signal switch RH<br>Turn signal switch LH<br>Front wiper switch LO (Front wiper switch MIST)<br>Front washer switch ON |  PKIB4958J 1.2 V |

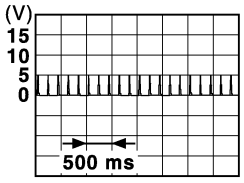
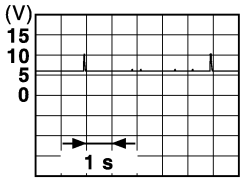
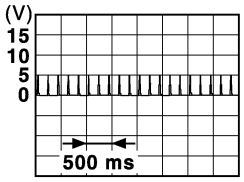
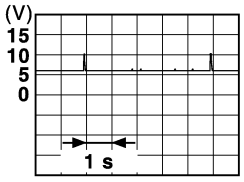
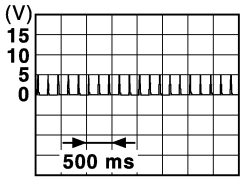
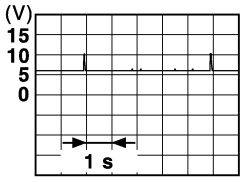
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 37 (G/O) | Ground | Selector lever P position switch | Input | Selector lever | P position | 0 V |
| | | | | | Any position other than P | 12 V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

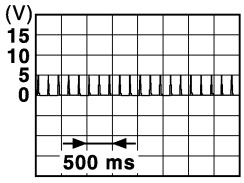
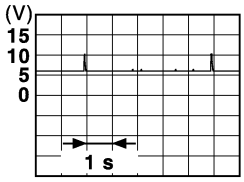
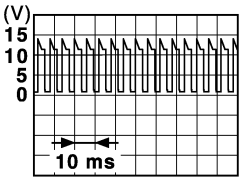
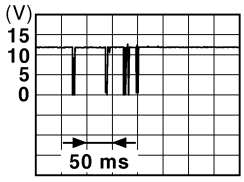
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 48 (W/G) | Ground | Rear LH door switch | Input | Rear LH door switch | OFF (When rear LH door closed) |  PKIB4960J 7.0 - 8.0 V |
| | | | | | ON (When rear door LH opened) | 0 V |
| 54 (L/W) | Ground | Rear wiper | Output | Rear wiper | OFF (Stopped) | 0 V |
| | | | | | ON (Activated) | 12 V |
| 55 (G) | Ground | Rear door UNLOCK | Output | Rear door | UNLOCK (Actuator is activated) | 12 V |
| | | | | | Other then UNLOCK (Actuator is not activated) | 0 V |
| 56 (L) | Ground | Interior room lamp power supply | Output | Interior room lamp battery saver is activated. (Cuts the interior room lamp power supply) | | 0 V |
| | | | | Interior room lamp battery saver is not activated. (Outputs the interior room lamp power supply) | | 12 V |
| 57 (Y) | Ground | Battery power supply | Input | Ignition switch OFF | | Battery voltage |
| 59 (G) | Ground | Passenger door UNLOCK | Output | Passenger door | UNLOCK (Actuator is activated) | 12 V |
| | | | | | Other then UNLOCK (Actuator is not activated) | 0 V |
| 60 (W/B) | Ground | Turn signal LH | Output | Ignition switch ON | Turn signal switch OFF | 0 V |
| | | | | | Turn signal switch LH |  PKIC6370E 6.0 V |
| 61 (W/L) | Ground | Turn signal RH | Output | Ignition switch ON | Turn signal switch OFF | 0 V |
| | | | | | Turn signal switch RH |  PKIC6370E 6.0 V |
| 63 (BR) | Ground | Interior room lamp timer control | Output | Interior room lamp | OFF | 12 V |
| | | | | | ON | 0 V |

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 65 (V) | Ground | All doors LOCK | Output | All doors | LOCK (Actuator is activated) | 12 V |
| | | | | | Other then LOCK (Actuator is not activated) | 0 V |
| 66 (L/B) | Ground | Driver door UNLOCK | Output | Driver door | UNLOCK (Actuator is activated) | 12 V |
| | | | | | Other then UNLOCK (Actuator is not activated) | 0 V |
| 67 (B) | Ground | Ground | Output | Ignition switch ON | | 0 V |
| 68 (L) | Ground | P/W power supply (IGN) | Output | Ignition switch ON | | 12 V |
| 69 (L/W) | Ground | P/W power supply (BAT) | Output | Ignition switch OFF | | 12 V |
| 70 (Y) | Ground | Battery power supply | Input | Ignition switch OFF | | Battery voltage |
| 71 (R) | Ground | Tire pressure receiver communication | Input/ Output | Ignition switch ON | Standby state |  OCC3881D |
| | | | | | When receiving the signal from the transmitter |  OCC3880D |
| 72 (R/W) | Ground | Back door lock actuator relay control | Output | Back door | LOCK (Actuator is activated) | 0 V |
| | | | | | Other than LOCK (Actuator is not activated) | Battery voltage |
| 75 (SB) | Ground | Driver door request switch | Input | Driver door request switch | ON (Pressed) | 0 V |
| | | | | | OFF (Not pressed) | 12 V |
| 76 (G) | Ground | Passenger door request switch | Input | Passenger door request switch | ON (Pressed) | 0 V |
| | | | | | OFF (Not pressed) | 12 V |
| 77 (W) | Ground | Back door request switch | Input | Back door request switch | ON (Pressed) | 0 V |
| | | | | | OFF (Not pressed) | 12 V |

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 78 (LG) | Ground | Driver door antenna (+) | Output | When the driver door request switch is operated with ignition switch OFF | When Intelligent Key is not in the antenna detection area |  JMKIA3838GB |
| | | | | | When Intelligent Key is in the antenna detection area |  JMKIA3839GB |
| 79 (V) | Ground | Driver door antenna (-) | Output | When the driver door request switch is operated with ignition switch OFF | When Intelligent Key is not in the antenna detection area |  JMKIA3838GB |
| | | | | | When Intelligent Key is in the antenna detection area |  JMKIA3839GB |
| 80 (BR/Y) | Ground | Passenger door antenna (+) | Output | When the passenger door request switch is operated with ignition switch OFF | When Intelligent Key is not in the antenna detection area |  JMKIA3838GB |
| | | | | | When Intelligent Key is in the antenna detection area |  JMKIA3839GB |

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 81 (L/Y) | Ground | Passenger door antenna (-) | Output | When the passenger door request switch is operated with ignition switch OFF | When Intelligent Key is not in the antenna detection area |  JMKIA3838GB |
| | | | | | When Intelligent Key is in the antenna detection area |  JMKIA3839GB |
| 82 (W/B) | Ground | Back door antenna (+) | Output | When the back door request switch is operated with ignition switch OFF | When Intelligent Key is not in the antenna detection area |  JMKIA3838GB |
| | | | | | When Intelligent Key is in the antenna detection area |  JMKIA3839GB |
| 83 (B/W) | Ground | Back door antenna (-) | Output | When the back door request switch is operated with ignition switch OFF | When Intelligent Key is not in the antenna detection area |  JMKIA3838GB |
| | | | | | When Intelligent Key is in the antenna detection area |  JMKIA3839GB |

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 84 (Y/G) | Ground | Room antenna (+) (Instrument panel) | Output | Ignition switch OFF | When Intelligent Key is not in the antenna detection area |  JMKIA3838GB |
| | | | | | When Intelligent Key is in the antenna detection area |  JMKIA3839GB |
| 85 (Y/L) | Ground | Room antenna (-) (Instrument panel) | Output | Ignition switch OFF | When Intelligent Key is not in the antenna detection area |  JMKIA3838GB |
| | | | | | When Intelligent Key is in the antenna detection area |  JMKIA3839GB |
| 86 (P) | Ground | Luggage room antenna (+) | Output | Ignition switch OFF | When Intelligent Key is not in the antenna detection area |  JMKIA3838GB |
| | | | | | When Intelligent Key is in the antenna detection area |  JMKIA3839GB |

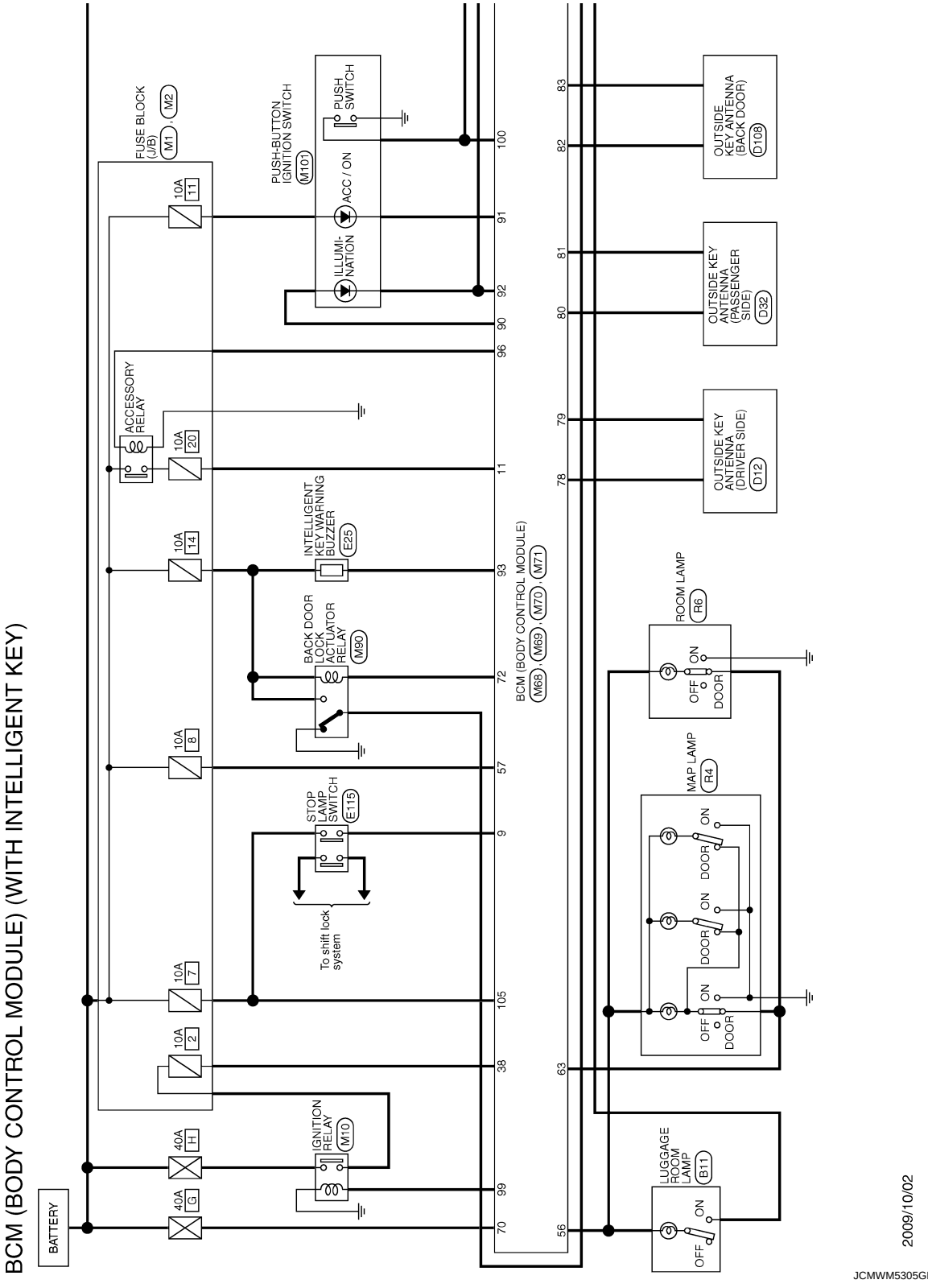
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 87 (L) | Ground | Luggage room antenna (-) | Output | Ignition switch OFF | When Intelligent Key is not in the antenna detection area |  JMKIA3838GB |
| | | | | | When Intelligent Key is in the antenna detection area |  JMKIA3839GB |
| 90 (W/L) | Ground | Push-button ignition switch illumination | Output | Push-button ignition switch illumination | ON | 12 V |
| | | | | | OFF | 0 V |
| 91 (Y) | Ground | ACC/ON indicator lamp | Output | Ignition switch | OFF | Battery voltage |
| | | | | | ACC or ON | 0.5 V |
| 92 (BR/R) | Ground | Push-button ignition switch illumination ground | Output | Tail lamp | OFF | 0 V |
| | | | | | ON | **NOTE:**<br>When the illumination brightening/dimming level is in the neutral position<br>  JPMIA1554GB<br>6.0 - 7.0 V |
| 93 (GR/W) | Ground | Intelligent Key warning buzzer | Output | Intelligent Key warning buzzer | Sounding | 0 V |
| | | | | | Not sounding | 12 V |
| 94 (Y/R) | Ground | Steering lock unit communication | Input/ Output | Steering lock | LOCK status | 12 V |
| | | | | | LOCK or UNLOCK |  JMKIA0066GB |
| | | | | | For 15 seconds after UNLOCK | 12 V |
| | | | | | 15 seconds or later after UNLOCK | 0 V |
| 95 (W/G) | Ground | Steering lock unit power supply | Output | Ignition switch | OFF or ACC | 12 V |
| | | | | | ON | 0 V |

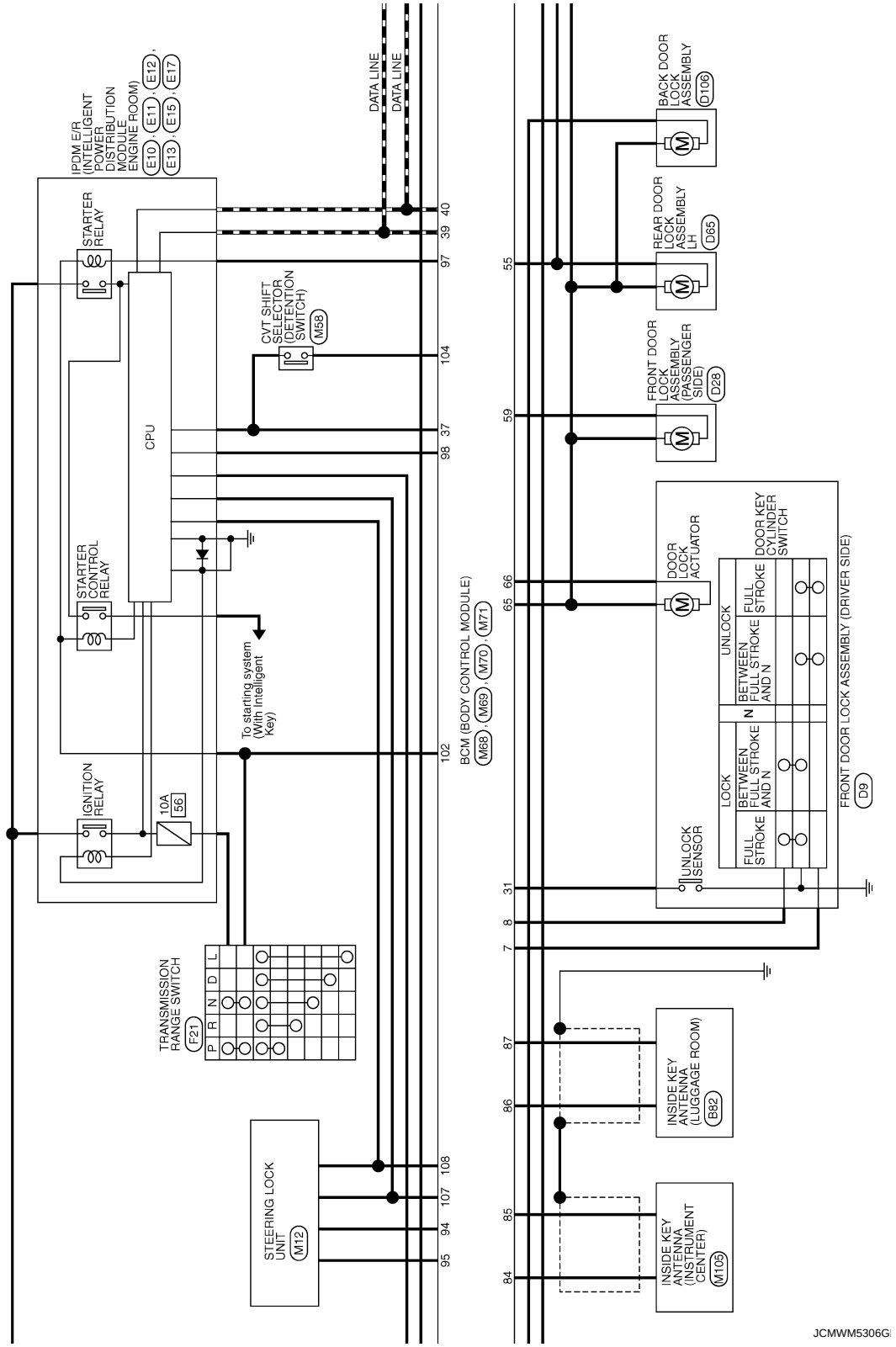
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 96 (G) | Ground | ACC relay control | Output | Ignition switch | OFF | 0 V |
| | | | | | ACC or ON | 12 V |
| 97 (L/R) | Ground | Starter relay control | Output | Ignition switch ON | When selector lever is in P or N position | Battery voltage |
| | | | | | When selector lever is not in P or N position | 0 V |
| 98 (BR) | Ground | Ignition relay (IPDM E/R) control | Output | Ignition switch | OFF or ACC | 12 V |
| | | | | | ON | 0 V |
| 99 (W/R) | Ground | Ignition relay control | Output | Ignition switch | OFF or ACC | 0 V |
| | | | | | ON | 12 V |
| 100 (L/O) | Ground | Push-button ignition switch (push switch) | Input | Push-button ignition switch (push switch) | Pressed | 0 V |
| | | | | | Not pressed | 12 V |
| 102 (G) | Ground | Selector lever P/N position | Input | Selector lever | P or N position | Battery voltage |
| | | | | | Except P and N positions | 0 V |
| 104 (Y/R) | Ground | CVT shift selector (detention switch) power supply | Output | Ignition switch ON | | 12 V |
| 105 (B/O) | Ground | Stop lamp switch 2 | Input | Ignition switch OFF | | Battery voltage |
| 106 (Y/B) | Ground | Blower fan motor relay control | Output | Ignition switch | OFF or ACC | 0 V |
| | | | | | ON | 12 V |
| 107 (L/W) | Ground | Steering lock condition No. 1 | Input | Steering lock | LOCK status | 0 V |
| | | | | | UNLOCK status | 12 V |
| 108 (P/L) | Ground | Steering lock condition No. 2 | Input | Steering lock | LOCK status | 12 V |
| | | | | | UNLOCK status | 0 V |
| 110 (BR/W) | Ground | Tire pressure receiver power supply | Output | Ignition switch | OFF or ACC | 0 V |
| | | | | | ON | 5 V |

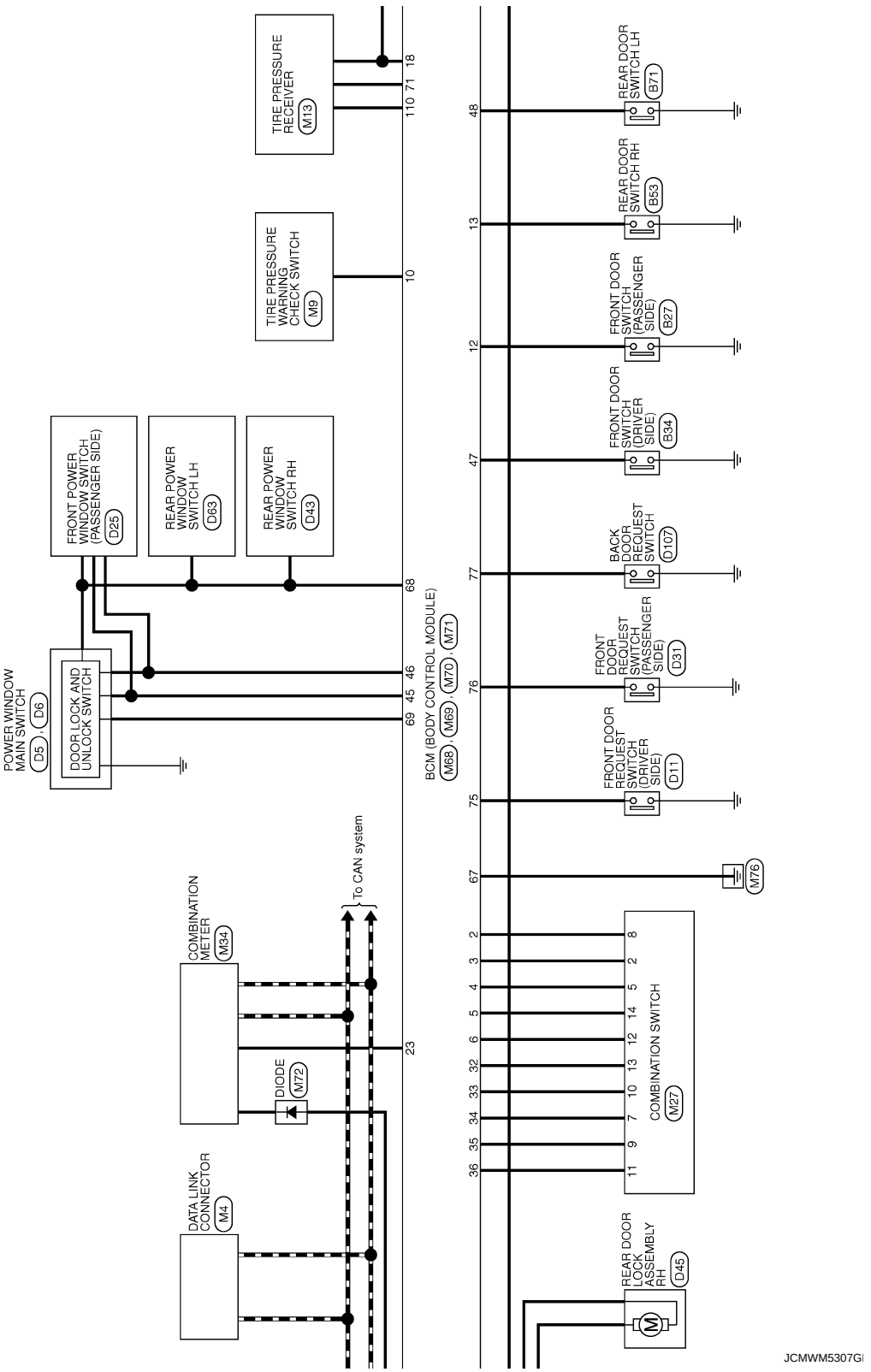
*: For Canada

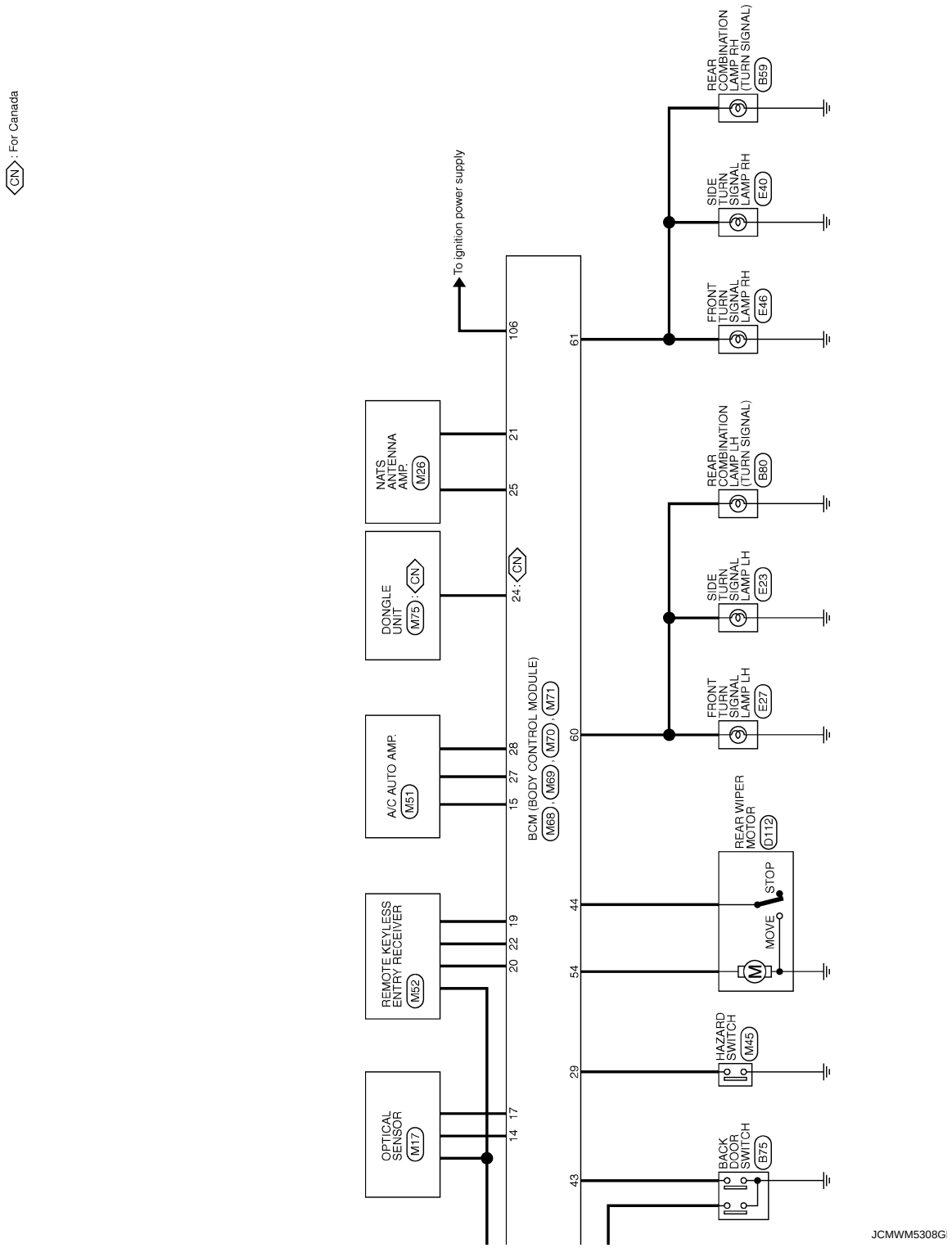
## Wiring Diagram - BCM -

INFOID:0000000005819878




IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) E10, E11, E12, E13, E15, E17
STARTER RELAY
CPU
STARTER CONTROL RELAY
IGNITION RELAY
10A 56
CVT SHIFT SELECTOR (DETENTION SWITCH) M58
To starting system (With intelligent Key)
TRANSMISSION RANGE SWITCH F21
P R N D L
STEERING LOCK UNIT M12
DATA LINE
DATA LINE
BCM (BODY CONTROL MODULE) M68, M69, M70, M71
40 39 97 104 37 98 102 108 107 94 95
BACK DOOR LOCK ASSEMBLY D106
REAR DOOR LOCK ASSEMBLY LH D65
FRONT DOOR LOCK ASSEMBLY (PASSENGER SIDE) D28
DOOR LOCK ACTUATOR
UNLOCK SENSOR
DOOR KEY CYLINDER SWITCH
LOCK
UNLOCK
FULL STROKE
BETWEEN FULL STROKE AND N
N
FRONT DOOR LOCK ASSEMBLY (DRIVER SIDE) D9
55 59 66 65 31 8 7
INSIDE KEY ANTENNA (LUGGAGE ROOM) B82
INSIDE KEY ANTENNA (INSTRUMENT CENTER) M105
87 86 85 84
JCMWM5306G


TIRE PRESSURE RECEIVER M13
TIRE PRESSURE WARNING CHECK SWITCH M9
FRONT POWER WINDOW SWITCH (PASSENGER SIDE) D25
REAR POWER WINDOW SWITCH LH D63
REAR POWER WINDOW SWITCH RH D43
POWER WINDOW MAIN SWITCH D5, D6
DOOR LOCK AND UNLOCK SWITCH
BCM (BODY CONTROL MODULE) M68, M69, M70, M71
COMBINATION METER M34
DIODE M72
DATA LINK CONNECTOR M4
To CAN system
REAR DOOR SWITCH LH B71
REAR DOOR SWITCH RH B53
FRONT DOOR SWITCH (PASSENGER SIDE) B27
FRONT DOOR SWITCH (DRIVER SIDE) B34
BACK DOOR REQUEST SWITCH D107
FRONT DOOR REQUEST SWITCH (PASSENGER SIDE) D31
FRONT DOOR REQUEST SWITCH (DRIVER SIDE) D11
M76
COMBINATION SWITCH M27
REAR DOOR LOCK ASSEMBLY RH D45
JCMWM5307GI


CN : For Canada
To ignition power supply
106
61
REAR COMBINATION LAMP RH (TURN SIGNAL) B59
SIDE TURN SIGNAL LAMP RH E40
FRONT TURN SIGNAL LAMP RH E46
NATS ANTENNA AMP. M26
21
25
REAR COMBINATION LAMP LH (TURN SIGNAL) B80
DONGLE UNIT M75 : CN
24 : CN
SIDE TURN SIGNAL LAMP LH E23
FRONT TURN SIGNAL LAMP LH E27
A/C AUTO AMP. M51
28
27
15
60
BCM (BODY CONTROL MODULE) M68 , M69 , M70 , M71
REAR WIPER MOTOR D112
STOP
MOVE
44
54
REMOTE KEYLESS ENTRY RECEIVER M52
19
22
20
HAZARD SWITCH M45
29
OPTICAL SENSOR M17
17
14
BACK DOOR SWITCH B75
43
JCMWM5308G

BCM (BODY CONTROL MODULE) (WITH INTELLIGENT KEY)

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

H.S.

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

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | O | WASHER (RR) |
| 2 | GR | INPUT 4 |
| 3 | L | WASHER (FR) |
| 4 | W | IGN |
| 5 | L/Y | INPUT 3 |
| 6 | B | GND |
| 7 | W | OUTPUT 3 |
| 8 | BR/W | INPUT 5 |
| 9 | R/L | OUTPUT 2 |
| 10 | Y/L | OUTPUT 4 |
| 11 | L/O | OUTPUT 1 |
| 12 | L/R | INPUT 1 |
| 13 | LG | OUTPUT 5 |
| 14 | G | INPUT 2 |

| Connector No. | M68 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FB-NH |

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 [Specification] |
|---|---|---|
| 2 | BR/W | COMBI SW INPUT 5 |
| 3 | GR | COMBI SW INPUT 4 |
| 4 | L/Y | COMBI SW INPUT 3 |
| 5 | G | COMBI SW INPUT 2 |
| 6 | L/R | COMBI SW INPUT 1 |
| 7 | W/R | KEY CYL UNLOCK SW |
| 8 | W/B | KEY CYL LOCK SW |
| 9 | R | STOP LAMP SW 1 |
| 10 | V/W | TIRE PRESS WARNING CHECK SW |
| 11 | L/Y | ACC F/B |
| 12 | SB | PASSENGER DOOR SW |
| 13 | GR/L | REAR RH DOOR SW |
| 14 | L/B | OPTICAL SENSOR |
| 15 | W/L | REAR WINDOW DEFOGGER SW |
| 17 | R/G | OPTICAL SENSOR POWER SUPPLY |
| 18 | V | RECEIVER / SENSOR GND |
| 19 | BR | KEYLESS ENTRY RECEIVER POWER SUPPLY |
| 20 | G/Y | KEYLESS ENTRY RECEIVER COMM |
| 21 | P/L | NATS ANTENNA AMP |
| 22 | W/G | KEYLESS ENTRY RECEIVER RSSI |
| 23 | R/Y | SECURITY INDICATOR LAMP |
| 24 | GR/R | DONGLE LINK |
| 25 | LG | NATS ANTENNA AMP |
| 27 | Y/R | A/C SW |
| 28 | G/W | BLOWER FAN SW |
| 29 | L/W | HAZARD SW |
| 31 | G/B | DR DOOR UNLOCK SENSOR |
| 32 | LG | COMBI SW OUTPUT 5 |
| 33 | Y/L | COMBI SW OUTPUT 4 |
| 34 | W | COMBI SW OUTPUT 3 |
| 35 | R/L | COMBI SW OUTPUT 2 |
| 36 | L/O | COMBI SW OUTPUT 1 |
| 37 | G/O | SHIFT P |
| 38 | O | IGN F/B |
| 39 | L | CAN-H |
| 40 | P | CAN-L |

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

H.S.

| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 |
|---|---|---|---|---|---|---|---|---|
| 50 | 51 | 52 | 53 | 54 | 55 |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 43 | W | BACK DOOR SW |
| 44 | LG | REAR WIPER STOP POSITION |
| 45 | GR | CENTRAL DOOR LOCK SW |
| 46 | BR | CENTRAL DOOR UNLOCK SW |
| 47 | BR/Y | DRIVER DOOR SW |
| 48 | W/G | REAR LH DOOR SW |
| 54 | L/W | REAR WIPER OUTPUT |
| 55 | G | REAR DOOR UNLOCK OUTPUT |
| 56 | L | INTERIOR ROOM LAMP POWER SUPPLY |
| 57 | Y | BAT (FUSE) |
| 59 | G | PASSENGER DOOR UNLOCK OUTPUT |
| 60 | W/B | TURN SIGNAL LH OUTPUT |
| 61 | W/L | TURN SIGNAL RH OUTPUT |
| 63 | BR | ROOM LAMP TIMER CONTROL |
| 65 | V | ALL DOOR LOCK OUTPUT |
| 66 | L/B | DRIVER DOOR UNLOCK OUTPUT |
| 67 | B | GND |
| 68 | L | POWER WINDOW POWER SUPPLY (IGN) |
| 69 | L/W | POWER WINDOW POWER SUPPLY (BAT) |
| 70 | Y | BAT (F/L) |

| Connector No. | M70 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | FEA09FB-FHA6-SA |

H.S.

| 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 |
|---|---|---|---|---|---|---|---|---|
| 65 | 66 | 67 | 68 | 69 | 70 |

| Connector No. | M71 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FW-NH |

H.S.

| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 71 | R | TIRE PRESS RECEIVER COMM |
| 72 | R/W | BK DR LOCK ACT RELAY CONT |
| 75 | SB | DRIVER DOOR REQUEST SW |
| 76 | G | PASSENGER DOOR REQUEST SW |
| 77 | W | BACK DOOR REQUEST SW |
| 78 | LG | DRIVER DOOR ANT+ |
| 79 | V | DRIVER DOOR ANT– |
| 80 | BR/Y | PASSENGER DOOR ANT+ |
| 81 | L/Y | PASSENGER DOOR ANT– |
| 82 | W/B | BACK DOOR ANT+ |
| 83 | B/W | BACK DOOR ANT– |
| 84 | Y/G | ROOM ANT+ |
| 85 | Y/L | ROOM ANT– |
| 86 | P | LUGGAGE ROOM ANT+ |
| 87 | L | LUGGAGE ROOM ANT– |
| 90 | W/L | PUSH-BUTTON IGNITION SW ILL POWER |
| 91 | Y | ACC/ON IND |
| 92 | BR/R | PUSH-BUTTON IGNITION SW ILL GND |
| 93 | GR/W | I-KEY WARN BUZZER |
| 94 | Y/R | S/L UNIT COMM |
| 95 | W/G | S/L UNIT POWER SUPPLY |
| 96 | G | ACC RELAY CONT |
| 97 | L/R | STARTER RELAY CONT |
| 98 | BR | IGN RELAY (PDM E/R) CONT |
| 99 | W/R | IGN RELAY CONT |
| 100 | L/O | PUSH SW |
| 102 | G | SHIFT N/P |
| 104 | Y/R | CVT SHIFT SELECTOR POWER SUPPLY |
| 105 | B/O | STOP LAMP SW 2 |
| 106 | Y/B | BLOWER FAN MOTOR RELAY CONT |
| 107 | L/W | S/L CONDITION 1 |
| 108 | P/L | S/L CONDITION 2 |
| 110 | BR/W | TIRE PRESS POWER SUPPLY |

JCMWM5309GI

## Fail-safe

INFOID:0000000005819879

### FAIL-SAFE CONTROL BY DTC

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

| Display contents of CONSULT | Fail-safe | Cancellation |
|---|---|---|
| B2013: ID DISCORD BCM-S/L | Inhibit engine cranking | When communication between BCM and steering lock unit are communicated normally. |
| B2014: CHAIN OF S/L-BCM | Inhibit engine cranking | When communication between BCM and steering lock unit are communicated normally. |
| B2192: ID DISCORD BCM-ECM | Inhibit engine cranking | Erase DTC |
| B2193: CHAIN OF BCM-ECM | Inhibit engine cranking | Erase DTC |
| B2195: ANTI-SCANNING | Inhibit engine cranking | Ignition switch ON → OFF |
| B2196: DONGLE NG | Inhibit engine cranking | Erase DTC |
| B2198: NATS ANTENNA AMP | Inhibit engine cranking | Erase DTC |
| B2557: VEHICLE SPEED | Inhibit steering lock | When the following CAN signal status (vehicle speed signal) becomes consistent<br>• Vehicle speed signal (ABS)<br>• Vehicle speed signal (Meter) |
| B2601: SHIFT POSITION | Inhibit steering lock | 500 ms after the following signal reception status becomes consistent<br>• Selector lever P position switch signal<br>• P range signal (CAN) |
| B2602: SHIFT POSITION | Inhibit steering lock | 5 seconds after the following BCM recognition conditions are fulfilled<br>• Ignition switch is in the ON position<br>• Selector lever P position switch signal: Except P position (battery voltage)<br>• Vehicle speed: 4 km/h (2.5 MPH) or more |
| B2603: SHIFT POSI STATUS | Inhibit steering lock | 500 ms after any of the following BCM recognition conditions are fulfilled<br>• Status 1<br>- Ignition switch is in the ON position<br>- Selector lever P position switch signal: Except P position (12 V)<br>- Selector lever P/N position signal: Except P and N positions (0 V)<br>• Status 2<br>- Ignition switch is in the ON position<br>- Selector lever P position switch signal: P position (0 V)<br>- Selector lever P/N position signal: P or N positions (12 V) |
| B2604: PNP/CLUTCH SW | Inhibit steering lock | 500 ms after any of the following BCM recognition conditions are fulfilled<br>• Status 1<br>- Ignition switch is in the ON position<br>- Selector lever P/N position signal: P or N position (12 V)<br>- Shift position signal (CAN): P or N position<br>• Status 2<br>- Ignition switch is in the ON position<br>- Selector lever P/N position signal: Except P and N positions (0 V)<br>- Shift position signal (CAN): Except P and N position |
| B2605: PNP/CLUTCH SW | Inhibit steering lock | 500 ms after any of the following BCM recognition conditions are fulfilled<br>• Status 1<br>- Power position: IGN<br>- Selector lever P/N position signal: Except P and N positions (0 V)<br>- Interlock/PNP switch signal (CAN): OFF<br>• Status 2<br>- Ignition switch is in the ON position<br>- Selector lever P/N position signal: P or N position (12 V)<br>- Interlock/PNP switch signal (CAN): ON |
| B2608: STARTER RELAY | Inhibit engine cranking | 500 ms after the following signal communication status becomes consistent<br>• Starter motor relay control signal<br>• Starter relay status signal (CAN) |
| B2609: S/L STATUS | • Inhibit engine cranking<br>• Inhibit steering lock | When the following steering lock conditions agree<br>• BCM steering lock control status<br>• Steering lock condition No. 1 signal status<br>• Steering lock condition No. 2 signal status |
| B260B: STEERING LOCK UNIT | Inhibit steering lock | Erase DTC |

| Display contents of CONSULT | Fail-safe | Cancellation |
|---|---|---|
| B260D: STEERING LOCK UNIT | Inhibit steering lock | Erase DTC |
| B260F: ENG STATE SIG LOST | Inhibit engine cranking | When any of the following conditions are fulfilled<br>• Power position changes to ACC<br>• Receives engine status signal (CAN) |
| B2612: S/L STATUS | • Inhibit engine cranking<br>• Inhibit steering lock | When any of the following conditions are fulfilled<br>• Steering lock unit status signal (CAN) is received normally<br>• The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R) |
| B2619: BCM | Inhibit engine cranking | 1 second after the steering lock unit power supply output control inside BCM becomes normal |
| B26EF: STRG LCK RELAY OFF | Inhibit engine cranking | When the following conditions are fulfilled<br>• Steering lock relay signal (CAN): ON<br>• Steering lock unit status signal (CAN): ON |
| B26F0: STRG LCK RELAY ON | Inhibit engine cranking | When the following conditions are fulfilled<br>• Steering lock relay signal (CAN): OFF<br>• Steering lock unit status signal (CAN): OFF |
| B26F1: IGN RELAY OFF | Inhibit engine cranking | When the following conditions are fulfilled<br>• Ignition switch ON signal (CAN: Transmitted from BCM): ON<br>• Ignition switch ON signal (CAN: Transmitted from IPDM E/R): ON |
| B26F2: IGN RELAY ON | Inhibit engine cranking | When the following conditions are fulfilled<br>• Ignition switch ON signal (CAN: Transmitted from BCM): OFF<br>• Ignition switch ON signal (CAN: Transmitted from IPDM E/R): OFF |
| B26F3: START CONT RLY ON | Inhibit engine cranking | When the following conditions are fulfilled<br>• Starter control relay signal (CAN: Transmitted from BCM): OFF<br>• Starter control relay signal (CAN: Transmitted from IPDM E/R): OFF |
| B26F4: START CONT RLY OFF | Inhibit engine cranking | When the following conditions are fulfilled<br>• Starter control relay signal (CAN: Transmitted from BCM): ON<br>• Starter control relay signal (CAN: Transmitted from IPDM E/R): ON |
| B26F7: BCM | Inhibit engine cranking by Intelligent Key system | When room antenna and luggage room antenna functions normally |
| U0415: VEHICLE SPEED | Inhibit steering lock | When vehicle speed signal (Meter) (CAN) is received normally |

## REAR WIPER MOTOR PROTECTION

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

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

## DTC Inspection Priority Chart

INFOID:0000000005819880

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

| Priority | DTC |
|---|---|
| 1 | B2562: LOW VOLTAGE |
| 2 | • U1000: CAN COMM CIRCUIT<br>• U1010: CONTROL UNIT (CAN) |
| 3 | • B2192: ID DISCORD BCM-ECM<br>• B2193: CHAIN OF BCM-ECM<br>• B2195: ANTI-SCANNING<br>• B2196: DONGLE NG<br>• B2198: NATS ANTENNA AMP |

| Priority | DTC |
|---|---|
| 4 | • B2013: ID DISCORD BCM-S/L<br>• B2014: CHAIN OF S/L-BCM<br>• B2553: IGNITION RELAY<br>• B2555: STOP LAMP<br>• B2556: PUSH-BTN IGN SW<br>• B2557: VEHICLE SPEED<br>• B2601: SHIFT POSITION<br>• B2602: SHIFT POSITION<br>• B2603: SHIFT POSI STATUS<br>• B2604: PNP/CLUTCH SW<br>• B2605: PNP/CLUTCH SW<br>• B2608: STARTER RELAY<br>• B2609: S/L STATUS<br>• B260B: STEERING LOCK UNIT<br>• B260C: STEERING LOCK UNIT<br>• B260D: STEERING LOCK UNIT<br>• B260F: ENG STATE SIG LOST<br>• B2612: S/L STATUS<br>• B2614: BCM<br>• B2615: BCM<br>• B2616: BCM<br>• B2618: BCM<br>• B2619: BCM<br>• B261A: PUSH-BTN IGN SW<br>• B26E9: LOCK MALFUNCTION<br>• B26EF: STRG LCK RELAY OFF<br>• B26F0: STRG LCK RELAY ON<br>• B26F1: IGN RELAY OFF<br>• B26F2: IGN RELAY ON<br>• B26F3: START CONT RLY ON<br>• B26F4: START CONT RLY OFF<br>• B26F5: STRG LCK STS SW<br>• B26F6: BCM<br>• B26F7: BCM<br>• B26F8: BCM<br>• B26FC: KEY REGISTRATION<br>• C1729: VHCL SPEED SIG ERR<br>• U0415: VEHICLE SPEED |
| 5 | • C1704: LOW PRESSURE FL<br>• C1705: LOW PRESSURE FR<br>• C1706: LOW PRESSURE RR<br>• C1707: LOW PRESSURE RL<br>• C1708: [NO DATA] FL<br>• C1709: [NO DATA] FR<br>• C1710: [NO DATA] RR<br>• C1711: [NO DATA] RL<br>• C1716: [PRESSDATA ERR] FL<br>• C1717: [PRESSDATA ERR] FR<br>• C1718: [PRESSDATA ERR] RR<br>• C1719: [PRESSDATA ERR] RL<br>• C1734: CONTROL UNIT |
| 6 | • B2621: INSIDE ANTENNA<br>• B2622: INSIDE ANTENNA |
| 7 | • B2626: OUTSIDE ANTENNA<br>• B2627: OUTSIDE ANTENNA<br>• B2628: OUTSIDE ANTENNA |

## DTC Index

INFOID:0000000005819881

**NOTE:**
The details of time display are as follows.
- CRNT: A malfunction is detected now.
- PAST: A malfunction was detected in the past.

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

| CONSULT display | Fail-safe | Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition | Intelligent Key warning lamp ON | Tire pressure monitor warning lamp ON | Reference page |
|---|---|---|---|---|---|
| No DTC is detected. further testing may be required. | — | — | — | — | — |
| U1000: CAN COMM | — | — | — | — | BCS-39 |
| U1010: CONTROL UNIT (CAN) | — | — | — | — | BCS-40 |
| U0415: VEHICLE SPEED | × | — | × | — | BCS-41 |
| B2013: ID DISCORD BCM-S/L | × | × | × | — | SEC-45 |
| B2014: CHAIN OF S/L-BCM | × | × | × | — | SEC-46 |
| B2192: ID DISCORD BCM-ECM | × | — | — | — | SEC-35 |
| B2193: CHAIN OF BCM-ECM | × | — | — | — | SEC-37 |
| B2195: ANTI-SCANNING | × | — | — | — | SEC-38 |
| B2196: DONGLE NG | × | — | — | — | SEC-39 |
| B2198: NATS ANTENNA AMP | × | — | — | — | SEC-41 |
| B2553: IGNITION RELAY | — | × | × | — | PCS-77 |
| B2555: STOP LAMP | — | × | × | — | SEC-49 |
| B2556: PUSH-BTN IGN SW | — | × | × | — | SEC-51 |
| B2557: VEHICLE SPEED | × | × | × | — | SEC-53 |
| B2562: LOW VOLTAGE | — | × | — | — | BCS-42 |
| B2601: SHIFT POSITION | × | × | × | — | SEC-54 |
| B2602: SHIFT POSITION | × | × | × | — | SEC-57 |
| B2603: SHIFT POSI STATUS | × | × | × | — | SEC-60 |
| B2604: PNP/CLUTCH SW | × | × | × | — | SEC-65 |
| B2605: PNP/CLUTCH SW | × | × | × | — | SEC-68 |
| B2608: STARTER RELAY | × | × | × | — | SEC-70 |
| B2609: S/L STATUS | × | × | × | — | SEC-72 |
| B260B: STEERING LOCK UNIT | × | × | × | — | SEC-75 |
| B260C: STEERING LOCK UNIT | — | × | × | — | SEC-76 |
| B260D: STEERING LOCK UNIT | × | × | × | — | SEC-77 |
| B260F: ENG STATE SIG LOST | × | × | × | — | SEC-78 |
| B2612: S/L STATUS | × | × | × | — | SEC-79 |
| B2614: BCM | — | × | × | — | PCS-79 |
| B2615: BCM | — | × | × | — | PCS-82 |
| B2616: BCM | — | × | × | — | PCS-85 |
| B2618: BCM | — | × | × | — | PCS-88 |
| B2619: BCM | × | × | × | — | SEC-82 |
| B261A: PUSH-BTN IGN SW | — | × | × | — | PCS-89 |
| B2621: INSIDE ANTENNA | — | × | — | — | DLK-44 |
| B2622: INSIDE ANTENNA | — | × | — | — | DLK-46 |
| B2626: OUTSIDE ANTENNA | — | × | — | — | DLK-48 |

| CONSULT display | Fail-safe | Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition | Intelligent Key warning lamp ON | Tire pressure monitor warning lamp ON | Reference page |
|---|---|---|---|---|---|
| B2627: OUTSIDE ANTENNA | — | × | — | — | DLK-50 |
| B2628: OUTSIDE ANTENNA | — | × | — | — | DLK-52 |
| B26E9: LOCK MALFUNCTION | — | × | × (Turn ON for 15 seconds) | — | SEC-83 |
| B26EF: STRG LCK RELAY OFF | × | × | × | — | SEC-84 |
| B26F0: STRG LCK RELAY ON | × | × | × | — | SEC-86 |
| B26F1: IGN RELAY OFF | × | × | × | — | PCS-91 |
| B26F2: IGN RELAY ON | × | × | × | — | PCS-94 |
| B26F3: START CONT RLY ON | × | × | × | — | SEC-87 |
| B26F4: START CONT RLY OFF | × | × | × | — | SEC-88 |
| B26F5: STRG LCK STS SW | — | × | × | — | SEC-90 |
| B26F6: BCM | — | × | × | — | PCS-97 |
| B26F7: BCM | × | × | × | — | SEC-93 |
| B26F8: BCM | — | × | × | — | SEC-94 |
| B26FC: KEY REGISTRATION | — | × | × | — | SEC-95 |
| C1704: LOW PRESSURE FL | — | — | — | × | WT-30 |
| C1705: LOW PRESSURE FR | — | — | — | × | |
| C1706: LOW PRESSURE RR | — | — | — | × | |
| C1707: LOW PRESSURE RL | — | — | — | × | |
| C1708: [NO DATA] FL | — | — | — | × | WT-32 |
| C1709: [NO DATA] FR | — | — | — | × | |
| C1710: [NO DATA] RR | — | — | — | × | |
| C1711: [NO DATA] RL | — | — | — | × | |
| C1716: [PRESSDATA ERR] FL | — | — | — | × | WT-35 |
| C1717: [PRESSDATA ERR] FR | — | — | — | × | |
| C1718: [PRESSDATA ERR] RR | — | — | — | × | |
| C1719: [PRESSDATA ERR] RL | — | — | — | × | |
| C1729: VHCL SPEED SIG ERR | — | — | — | × | WT-37 |
| C1734: CONTROL UNIT | — | — | — | × | WT-39 |

# IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

## Reference Value

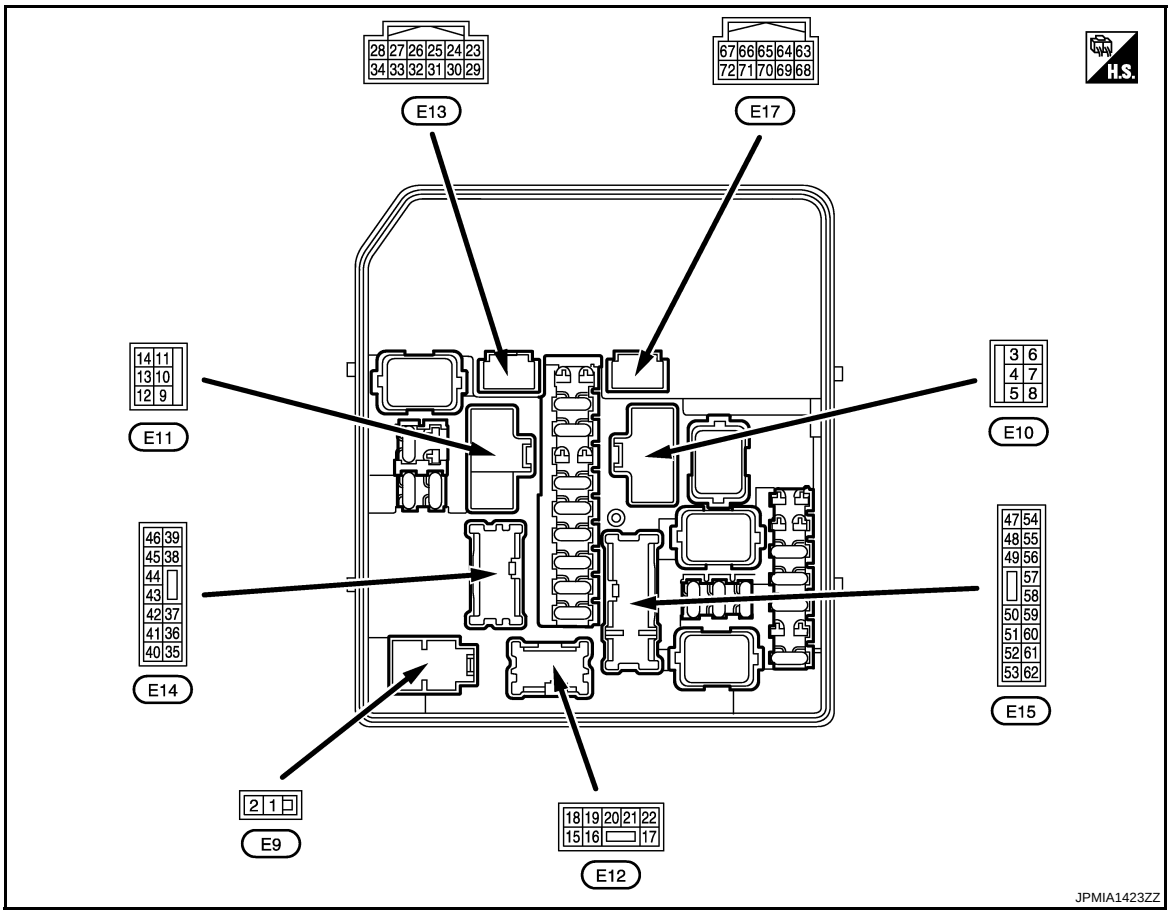
INFOID:0000000005819887

### VALUES ON THE DIAGNOSIS TOOL

| Monitor Item | Condition | | Value/Status |
|---|---|---|---|
| MOTOR FAN REQ | Engine idle speed | Changes depending on engine coolant temperature, air conditioner operation status, vehicle speed, etc. | 1/2/3/4 |
| AC COMP REQ | Engine running | A/C switch OFF | Off |
| | | A/C switch ON (Compressor is operating) | On |
| TAIL&CLR REQ | Lighting switch OFF | | Off |
| | Lighting switch 1ST, 2ND, HI or AUTO (Light is illuminated) | | On |
| HL LO REQ | Lighting switch OFF | | Off |
| | Lighting switch 2ND, HI or AUTO (Light is illuminated) | | On |
| HL HI REQ | Lighting switch OFF | | Off |
| | Lighting switch HI | | On |
| FR FOG REQ | Lighting switch 2ND or AUTO (Light is illuminated) | Front fog lamp switch OFF | Off |
| | | Front fog lamp switch ON | On |
| FR WIP REQ | Ignition switch ON | Front wiper switch OFF | Stop |
| | | Front wiper switch INT | 1LOW |
| | | Front wiper switch LO | Low |
| | | Front wiper switch HI | Hi |
| WIP AUTO STOP | Ignition switch ON | Front wiper stop position | STOP P |
| | | Any position other than front wiper stop position | ACT P |
| WIP PROT | Ignition switch ON | Front wiper operates normally | Off |
| | | Front wiper stops at fail-safe operation | BLOCK |
| IGN RLY1 -REQ | Ignition switch OFF or ACC | | Off |
| | Ignition switch ON | | On |
| IGN RLY | Ignition switch OFF or ACC | | Off |
| | Ignition switch ON | | On |
| PUSH SW | Release the push-button ignition switch | | Off |
| | Press the push-button ignition switch | | On |
| INTER/NP SW | Ignition switch ON | • Selector lever in any position other than P or N (CVT models)<br>• Release clutch pedal (M/T models) | Off |
| | | • Selector lever in P or N position (CVT models)<br>• Depress clutch pedal (M/T models) | On |
| ST RLY CONT | Ignition switch ON | | Off |
| | At engine cranking | | On |

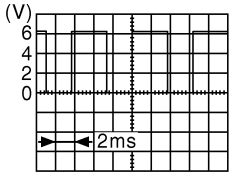
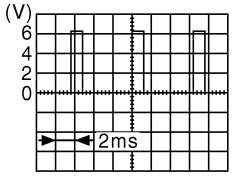
| Monitor Item | Condition | | Value/Status |
|---|---|---|---|
| IHBT RLY -REQ | Ignition switch ON | | Off |
| | At engine cranking | | On |
| ST/INHI RLY | Ignition switch ON | | Off |
| | At engine cranking | | INHI ON → ST ON |
| | The status of starter relay or starter control relay cannot be recognized by the battery voltage malfunction, etc. when the starter relay is ON and the starter control relay is OFF | | UNKWN |
| DETENT SW | Ignition switch ON | • Pull the selector lever with selector lever in P position<br>• Selector lever in any position other than P | Off |
| | Release the selector lever with selector lever in P position<br>**NOTE:**<br>Fixed On for M/T models | | On |
| S/L RLY -REQ | None of the conditions below are present | | Off |
| | • Open the driver door after the ignition switch is turned OFF (for a few seconds)<br>• Press the push-button ignition switch when the steering lock is activated | | On |
| S/L STATE | Steering lock is activated | | LOCK |
| | Steering lock is deactivated | | UNLOCK |
| | [DTC: B210A] is detected | | UNKWN |
| DTRL REQ<br>**NOTE:**<br>This item is monitored only on the vehicle with the daytime running light system. | Not operation | | Off |
| | Daytime running light system is operated. | | On |
| OIL P SW | Ignition switch OFF, ACC or engine running | | Open |
| | Ignition switch ON | | Close |
| HOOD SW | **NOTE:**<br>The item is indicated, but not monitored. | | Off |
| THFT HRN REQ | Not operation | | Off |
| | • Panic alarm is activated<br>• Horn is activated with VEHICLE SECURITY (THEFT WARNING) SYSTEM | | On |
| HORN CHIRP | Not operating | | Off |
| | Door locking with Intelligent Key (horn chirp mode) | | On |

TERMINAL LAYOUT




PHYSICAL VALUES

| Terminal NO. (Wire color) | | Description | | Condition | Value (Approx.) |
|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | |
| 1 (R) | Ground | Battery power supply | Input | Ignition switch OFF | Battery voltage |
| 2 (G) | Ground | Battery power supply | Input | Ignition switch OFF | Battery voltage |
| 3 (BR) | Ground | Starter motor | Output | Ignition switch ON | 0 V |
| | | | | At engine cranking | Battery voltage |
| 4 (SB) | Ground | Battery power supply | Input | Ignition switch OFF | Battery voltage |
| 5 (LG) | Ground | Cooling fan relay-1 power supply | Output | Cooling fan OFF | 0 V |
| | | | | Cooling fan operated | Battery voltage |
| 7 (Y) | Ground | Cooling fan relay-2 power supply | Output | Cooling fan OFF | 0 V |
| | | | | Cooling fan LO operated | 9.0 V |
| | | | | Cooling fan HI operated | Battery voltage |
| 8 (V) | Ground | Battery power supply | Input | Ignition switch OFF | Battery voltage |
| 9 (B/W) | Ground | Ground | — | Ignition switch ON | 0 V |
| 10 (L) | Ground | Cooling fan motor ground | Output | Cooling fan OFF | 0 V |
| | | | | Cooling fan LO operated | 5.0 V |
| | | | | Cooling fan HI operated | 0 V |

| Terminal NO. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 13 (W) | Ground | Rear window defogger | Output | Ignition switch ON | Rear window defogger switch OFF | 0 V |
| | | | | | Rear window defogger switch ON | Battery voltage |
| 19 (B/W) | Ground | Ground | — | Ignition switch ON | | 0 V |
| 21 (W) | Ground | Front fog lamp (RH) | Output | Lighting switch 2ND | Front fog lamp switch OFF | 0 V |
| | | | | | Front fog lamp switch ON | Battery voltage |
| 22 (V) | Ground | Front fog lamp (LH) | Output | Lighting switch 2ND | Front fog lamp switch OFF | 0 V |
| | | | | | Front fog lamp switch ON | Battery voltage |
| 24 (LG) | Ground | Oil pressure switch | Input | Ignition switch ON | Engine stopped | 0 V |
| | | | | | Engine running | Battery voltage |
| 25 (Y) | Ground | Front wiper auto stop | Input | Ignition switch ON | Front wiper stop position | 0 V |
| | | | | | Any position other than front wiper stop position | Battery voltage |
| 26 (P) | Ground | CAN-L | Input/ Output | — | | — |
| 27 (L) | Ground | CAN-H | Input/ Output | — | | — |
| 28*1 (P) | Ground | Daytime running light relay-1 control | Output | Daytime running light deactivated | | 0 V |
| | | | | Daytime running light activated | | Battery voltage |
| 30 (SB) | Ground | Starter relay control | Output | At engine cranking | | 0 V |
| | | | | Ignition switch ON | | Battery voltage |
| 31 (W) | Ground | Fuel pump relay control | Output | • Approximately 1 second after turning the ignition switch ON<br>• Engine running | | 0 - 1.5 V |
| | | | | Approximately 1 second or more after turning the ignition switch ON | | Battery voltage |
| 33 (O) | Ground | Power generation command signal | Output | Ignition switch ON | | Battery voltage |
| | | | | 40 % is set on “ACTIVE TEST”, “ALTERNATOR DUTY” of “ENGINE” | |  JPMIA0002GB 3.8 V |
| | | | | 80 % is set on “ACTIVE TEST”, “ALTERNATOR DUTY” of “ENGINE” | |  JPMIA0003GB 1.4 V |

| Terminal NO. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 34 (R) | Ground | Horn relay control | Output | The horn is deactivated | | Battery voltage |
| | | | | The horn is activated | | 0 V |
| 36 (Y) | Ground | Parking lamp (LH) | Output | Ignition switch ON | Lighting switch OFF | 0 V |
| | | | | | Lighting switch 1ST | Battery voltage |
| 37 (V) | Ground | Parking lamp (RH) | Output | Ignition switch ON | Lighting switch OFF | 0 V |
| | | | | | Lighting switch 1ST | Battery voltage |
| 38 (G) | Ground | Tail lamp (RH) & illuminations | Output | Ignition switch ON | Lighting switch OFF | 0 V |
| | | | | | Lighting switch 1ST | Battery voltage |
| 39 (V) | Ground | Front wiper HI | Output | Ignition switch ON | Front wiper switch OFF | 0 V |
| | | | | | Front wiper switch HI | Battery voltage |
| 40 (R) | Ground | ECM relay control | Output | Ignition switch OFF (More than a few seconds after turning ignition switch OFF) | | Battery voltage |
| | | | | • Ignition switch ON<br>• Ignition switch OFF (For a few seconds after turning ignition switch OFF) | | 0 - 1.5 V |
| 41 (SB) | Ground | Tail lamp (LH) & license plate lamps | Output | Ignition switch ON | Lighting switch OFF | 0 V |
| | | | | | Lighting switch 1ST | Battery voltage |
| 42 (W) | Ground | Steering lock unit power supply | Output | Ignition switch ACC or ON | | 0 V |
| | | | | Ignition switch ON | A few seconds after opening the driver door | Battery voltage |
| | | | | Ignition switch LOCK | Press the push-button ignition switch | Battery voltage |
| 43 (G) | Ground | ECM relay power supply | Output | Ignition switch OFF (More than a few seconds after turning ignition switch OFF) | | 0 V |
| | | | | • Ignition switch ON<br>• Ignition switch OFF (For a few seconds after turning ignition switch OFF) | | Battery voltage |
| 44 (P) | Ground | ECM relay power supply | Output | Ignition switch OFF (More than a few seconds after turning ignition switch OFF) | | 0 V |
| | | | | • Ignition switch ON<br>• Ignition switch OFF (For a few seconds after turning ignition switch OFF) | | Battery voltage |
| 45 (Y) | Ground | TCM power supply | Output | Ignition switch OFF | | Battery voltage |
| 46 (O) | Ground | Front wiper LO | Output | Ignition switch ON | Front wiper switch OFF | 0 V |
| | | | | | Front wiper switch LO | Battery voltage |

| Terminal NO. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 47 (BR) | Ground | Transmission range switch*2 | Input | Select lever in any position other than P or N (Ignition switch ON) | | 0 V |
| | | | | Select lever P or N (Ignition switch ON) | | Battery voltage |
| | | Clutch interlockk switch*3 | | Release the clutch pedal | | 0 V |
| | | | | Depress the clutch pedal | | Battery voltage |
| 49 (W) | Ground | Headlamp HI (RH) | Output | Ignition switch ON | Lighting switch OFF | 0 V |
| | | | | | • Lighting switch HI<br>• Lighting switch PASS | Battery voltage |
| | | | | Daytime running light activated*1 | | 7.0 V |
| 50 (GR) | Ground | Headlamp HI (LH) | Output | Ignition switch ON | Lighting switch OFF | 0 V |
| | | | | | • Lighting switch HI<br>• Lighting switch PASS | Battery voltage |
| | | | | Daytime running light activated*1 | | 7.0 V |
| 51 (R) | Ground | Headlamp LO (LH) | Output | Ignition switch ON | Lighting switch OFF | 0 V |
| | | | | | Lighting switch 2ND | Battery voltage |
| 52 (P) | Ground | Headlamp LO (RH) | Output | Ignition switch ON | Lighting switch OFF | 0 V |
| | | Daytime running light relay-2*1 | | | Lighting switch 2ND | Battery voltage |
| 54 (GR) | Ground | Throttle control motor relay power supply | Output | Ignition switch OFF (More than a few seconds after turning ignition switch OFF) | | 0 V |
| | | | | • Ignition switch ON<br>• Ignition switch OFF (For a few seconds after turning ignition switch OFF) | | Battery voltage |
| 55 (P) | Ground | Fuel pump power supply | Output | Approximately 1 second or more than after turning the ignition switch ON | | 0 V |
| | | | | • Approximately 1 second after turning the ignition switch ON<br>• Engine running | | Battery voltage |
| 56 (SB) | Ground | A/C relay power supply | Output | Engine running | A/C switch OFF | 0 V |
| | | | | | A/C switch ON (A/C compressor is operating) | Battery voltage |
| 57 (G) | Ground | Throttle control motor relay control | Output | Ignition switch ON → OFF | | 0 - 1.0 V<br>↓<br>Battery voltage<br>↓<br>0 V |
| | | | | Ignition switch ON | | 0 - 1.0 V |
| 58 (R)*2 (Y)*3 | Ground | Ignition relay power supply | Output | Ignition switch OFF | | 0 V |
| | | | | Ignition switch ON | | Battery voltage |
| 59 (Y) | Ground | Ignition relay power supply | Output | Ignition switch OFF | | 0 V |
| | | | | Ignition switch ON | | Battery voltage |
| 60 (V) | Ground | Ignition relay power supply | Output | Ignition switch OFF | | 0 V |
| | | | | Ignition switch ON | | Battery voltage |

| Terminal NO. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 61 (W) | Ground | Ignition relay power supply | Output | Ignition switch OFF | | 0 V |
| | | | | Ignition switch ON | | Battery voltage |
| 62 (L) | Ground | Ignition relay power supply | Output | Ignition switch OFF | | 0 V |
| | | | | Ignition switch ON | | Battery voltage |
| 64*2 (R) | Ground | CVT shift selector (Detention switch) | Input | Ignition switch ON | Select lever P | 0 V |
| | | | | | Select lever in any position other than P | Battery voltage |
| 65 (Y) | Ground | Steering lock unit condition-1 | Input | Steering lock is activated | | 0 V |
| | | | | Steering lock is deactivated | | Battery voltage |
| 66 (L) | Ground | Push-button ignition switch | Input | Press the push-button ignition switch | | 0 V |
| | | | | Release the push-button ignition switch | | Battery voltage |
| 68 (W) | Ground | Steering lock unit condition-2 | Input | Steering lock is activated | | Battery voltage |
| | | | | Steering lock is deactivated | | 0 V |
| 69 (Y) | Ground | Ignition relay monitor | Input | Ignition switch OFF or ACC | | Battery voltage |
| | | | | Ignition switch ON | | 0 V |

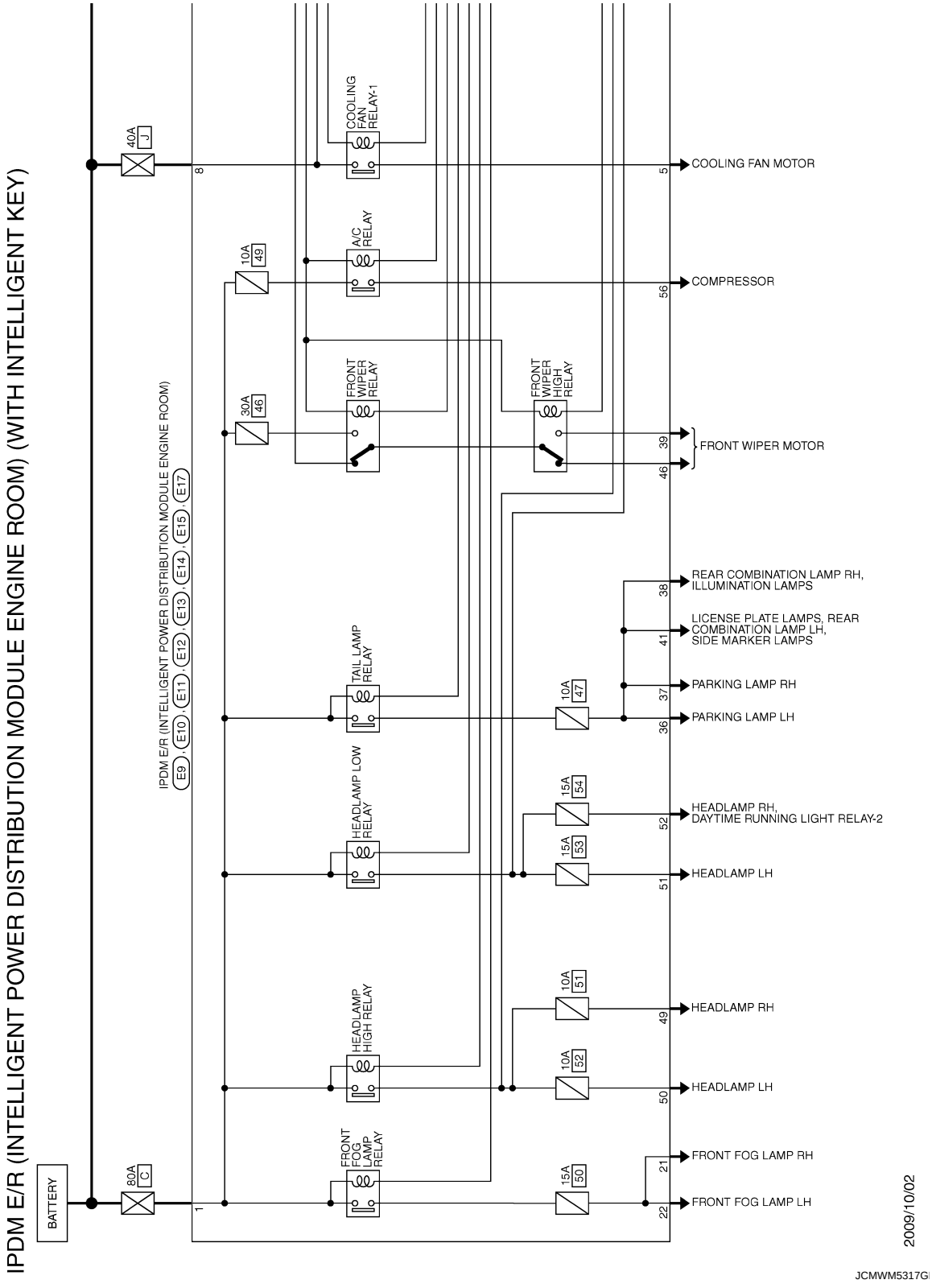
*1: With daytime running light system

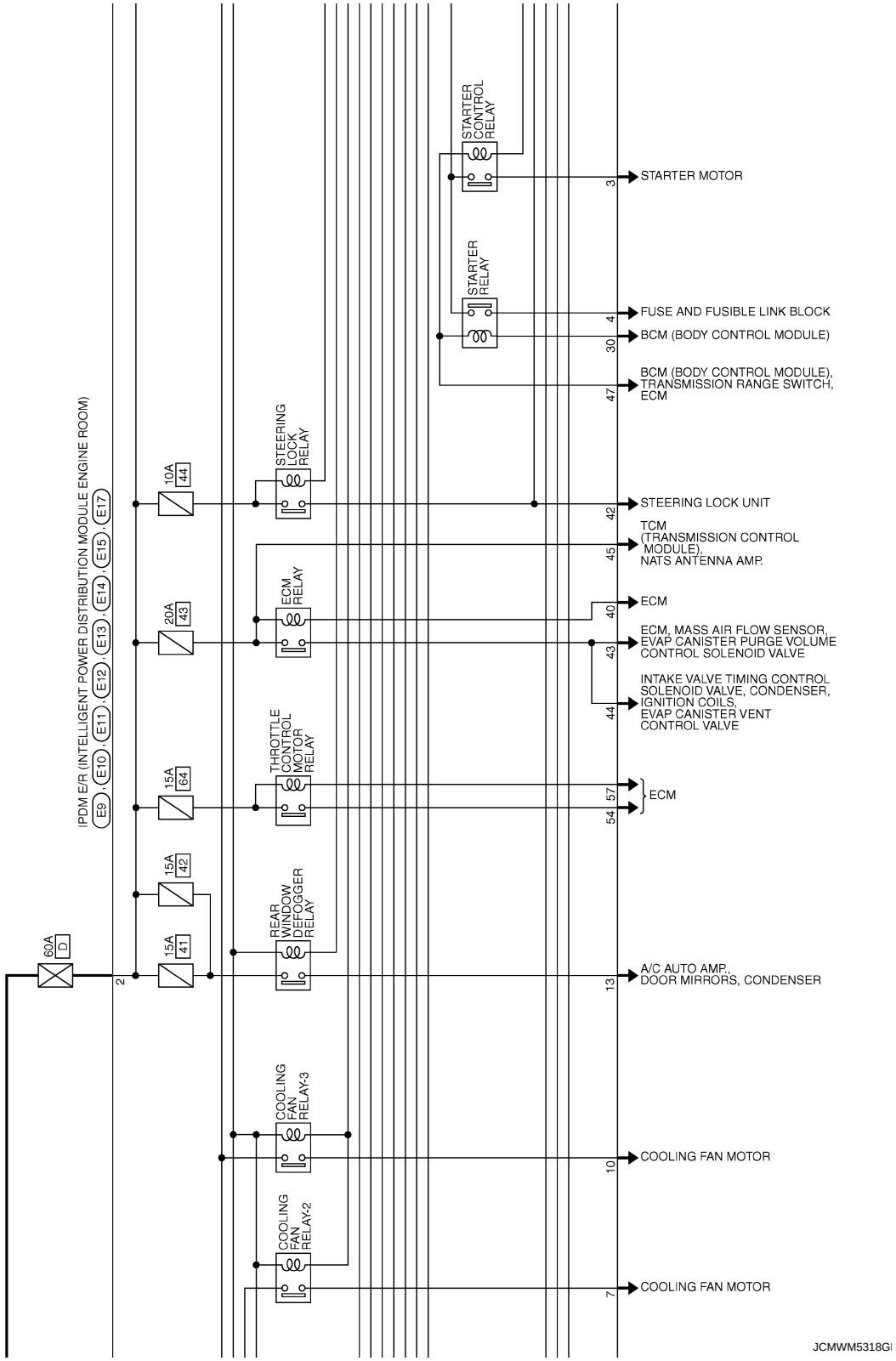
*2: CVT models

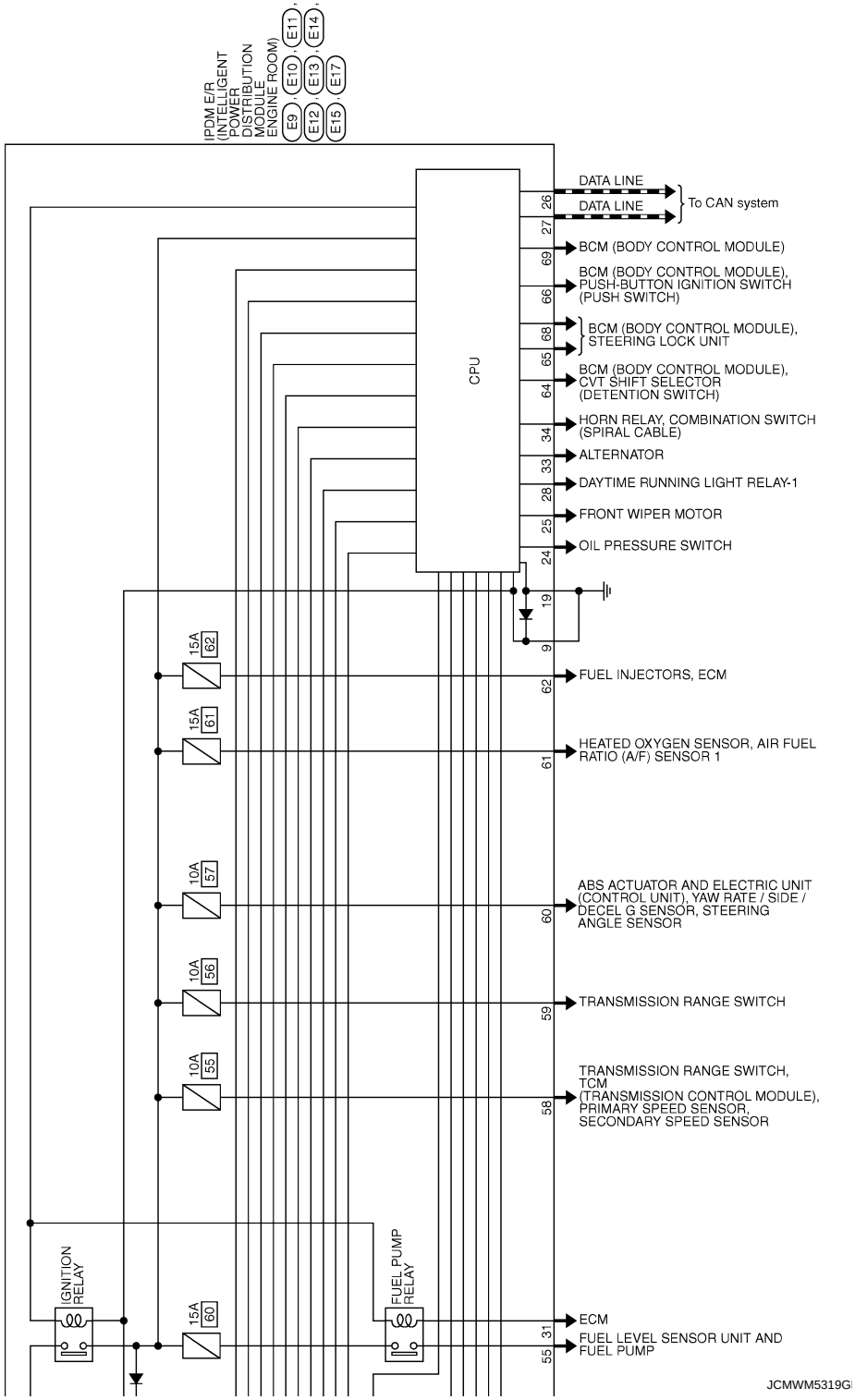
*3: M/T models

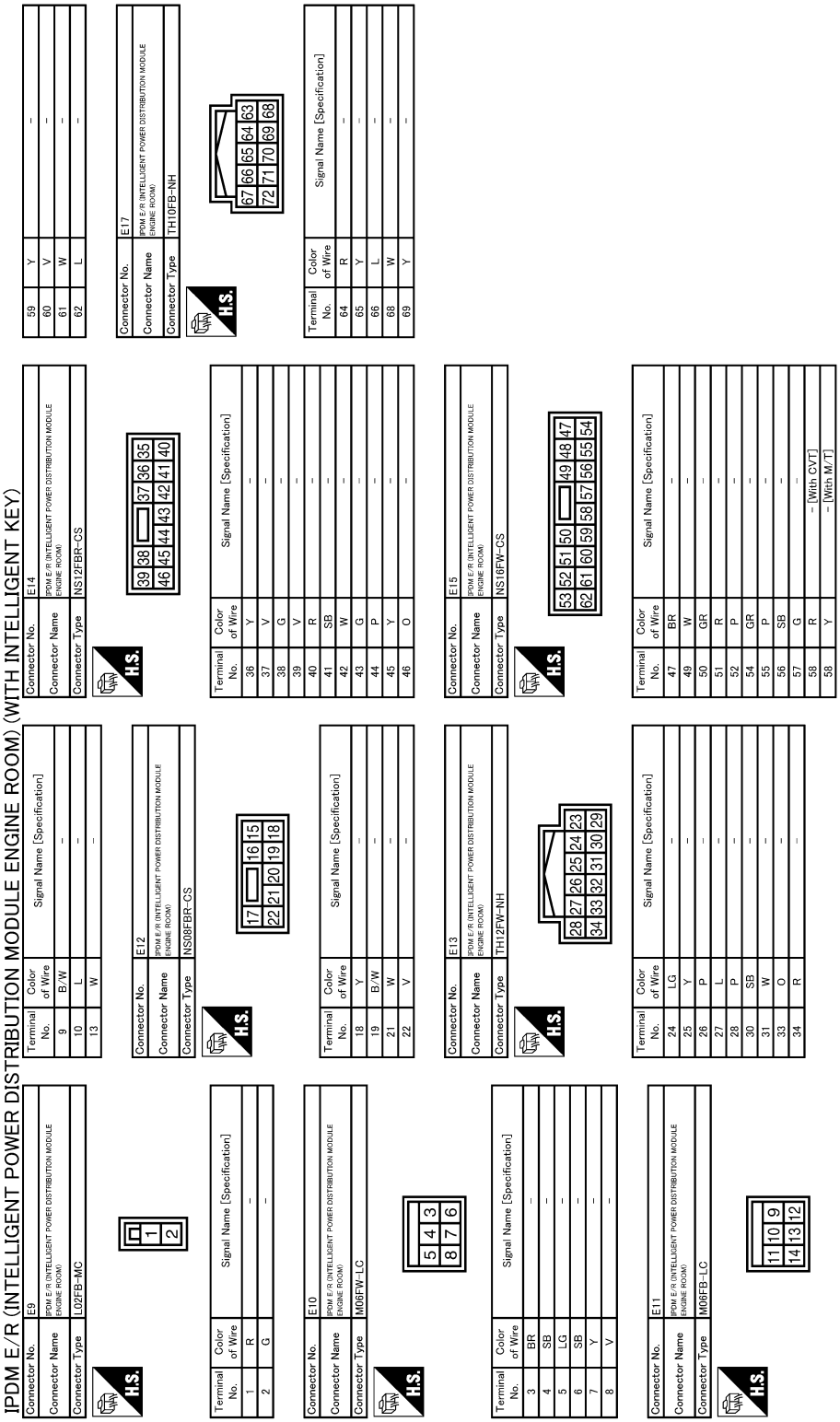
## Wiring Diagram — IPDM E/R —

INFOID:0000000005819888




IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E9, E10, E11, E12, E13, E14, E15, E17
60A D
10A 44
20A 43
15A 64
15A 42
15A 41
STEERING LOCK RELAY
ECM RELAY
THROTTLE CONTROL MOTOR RELAY
REAR WINDOW DEFOGGER RELAY
COOLING FAN RELAY-3
COOLING FAN RELAY-2
STARTER CONTROL RELAY
STARTER RELAY
2
3 STARTER MOTOR
4 FUSE AND FUSIBLE LINK BLOCK
30 BCM (BODY CONTROL MODULE)
47 BCM (BODY CONTROL MODULE), TRANSMISSION RANGE SWITCH, ECM
42 STEERING LOCK UNIT
45 TCM (TRANSMISSION CONTROL MODULE), NATS ANTENNA AMP.
40 ECM
43 ECM, MASS AIR FLOW SENSOR, EVAP CANISTER PURGE VOLUME CONTROL SOLENOID VALVE
44 INTAKE VALVE TIMING CONTROL SOLENOID VALVE, CONDENSER, IGNITION COILS, EVAP CANISTER VENT CONTROL VALVE
57, 54 ECM
13 A/C AUTO AMP., DOOR MIRRORS, CONDENSER
10 COOLING FAN MOTOR
7 COOLING FAN MOTOR
JCMWM5318GB


IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E9, E10, E11, E12, E13, E14, E15, E17
CPU
DATA LINE
DATA LINE
To CAN system
BCM (BODY CONTROL MODULE)
BCM (BODY CONTROL MODULE), PUSH-BUTTON IGNITION SWITCH (PUSH SWITCH)
BCM (BODY CONTROL MODULE), STEERING LOCK UNIT
BCM (BODY CONTROL MODULE), CVT SHIFT SELECTOR (DETENTION SWITCH)
HORN RELAY, COMBINATION SWITCH (SPIRAL CABLE)
ALTERNATOR
DAYTIME RUNNING LIGHT RELAY-1
FRONT WIPER MOTOR
OIL PRESSURE SWITCH
FUEL INJECTORS, ECM
HEATED OXYGEN SENSOR, AIR FUEL RATIO (A/F) SENSOR 1
ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT), YAW RATE / SIDE / DECEL G SENSOR, STEERING ANGLE SENSOR
TRANSMISSION RANGE SWITCH
TRANSMISSION RANGE SWITCH, TCM (TRANSMISSION CONTROL MODULE), PRIMARY SPEED SENSOR, SECONDARY SPEED SENSOR
ECM
FUEL LEVEL SENSOR UNIT AND FUEL PUMP
IGNITION RELAY
FUEL PUMP RELAY
15A 62
15A 61
10A 57
10A 56
10A 55
15A 60
JCMWM5319G




JCMWM5320GI

## Fail-Safe

INFOID:0000000005819889

### CAN COMMUNICATION CONTROL

When CAN communication with ECM and BCM is impossible, IPDM E/R performs fail-safe control. After CAN communication recovers normally, it also returns to normal control.

If No CAN Communication Is Available With ECM

| Control part | Fail-safe operation |
|---|---|
| Cooling fan | • The cooling fan relay-1, the cooling fan relay-2 and the cooling fan relay-3 turn ON when the ignition switch is turned ON (Cooling fan HI operation)<br>• The cooling fan relay-1, the cooling fan relay-2 and the cooling fan relay-3 turn OFF when the ignition switch is turned OFF |
| A/C compressor | A/C relay OFF |
| Alternator | Outputs the power generation command signal (PWM signal) 0% |

If No CAN Communication Is Available With BCM

| Control part | Fail-safe operation |
|---|---|
| Headlamp | • Turns ON the headlamp low relay when the ignition switch is turned ON<br>• Turns OFF the headlamp low relay when the ignition switch is turned OFF<br>• Headlamp high relay OFF<br>• Daytime running light relay OFF* |
| • Parking lamps<br>• Side marker lamps<br>• License plate lamps<br>• Illuminations<br>• Tail lamps | • Turns ON the tail lamp relay when the ignition switch is turned ON<br>• Turns OFF the tail lamp relay when the ignition switch is turned OFF |
| Front wiper | • The status just before activation of fail-safe control is maintained until the ignition switch is turned OFF while the front wiper is operating at LO or HI speed.<br>• The wiper is operated at LO speed until the ignition switch is turned OFF if the fail-safe control is activated while the front wiper is set in the INT mode and the front wiper motor is operating. |
| Front fog lamps | Front fog lamp relay OFF |
| Horn | Horn OFF |
| Ignition relay | The status just before activation of fail-safe is maintained. |
| Starter motor | Starter control relay OFF |
| Steering lock unit | Steering lock relay OFF |

*: With daytime running light system

## IGNITION RELAY MALFUNCTION DETECTION FUNCTION

- IPDM E/R monitors the voltage at the contact circuit and excitation coil circuit of the ignition relay inside it.
- IPDM E/R judges the ignition relay error if the voltage differs between the contact circuit and the excitation coil circuit.
- If the ignition relay cannot turn OFF due to contact seizure, it activates the tail lamp relay for 10 minutes to alert the user to the ignition relay malfunction when the ignition switch is turned OFF.

| Voltage judgment | | IPDM E/R judgment | Operation |
|---|---|---|---|
| Ignition relay contact side | Ignition relay excitation coil side | | |
| ON | ON | Ignition relay ON normal | — |
| OFF | OFF | Ignition relay OFF normal | — |
| ON | OFF | Ignition relay ON stuck | • Detects DTC “B2098: IGN RELAY ON”<br>• Turns ON the tail lamp relay for 10 minutes |
| OFF | ON | Ignition relay OFF stuck | Detects DTC “B2099: IGN RELAY OFF” |

## FRONT WIPER CONTROL

IPDM E/R detects front wiper stop position by a front wiper stop position signal.
When a front wiper stop position signal is in the conditions listed below, IPDM E/R stops power supply to wiper after repeating a front wiper 10 seconds activation and 20 seconds stop five times.

| Ignition switch | Front wiper switch | Front wiper stop position signal |
|---|---|---|
| ON | OFF | The front wiper stop position signal (stop position) cannot be input for 10 seconds. |
| | ON | The front wiper stop position signal does not change for 10 seconds. |

**NOTE:**
This operation status can be confirmed on the IPDM E/R “Data Monitor” that displays “BLOCK” for the item “WIP PROT” while the wiper is stopped.

### STARTER MOTOR PROTECTION FUNCTION

IPDM E/R turns OFF the starter control relay to protect the starter motor when the starter control relay remains active for 90 seconds.

## DTC Index

INFOID:0000000005819890

**NOTE:**
- The details of time display are as follows.
- CRNT: A malfunction is detected now.
- PAST: A malfunction was detected in the past.
- IGN counter is displayed on FFD (Freeze Frame data).
- The number is 0 when is detected now.
- The number increases like 1 → 2 ··· 38 → 39 after returning to the normal condition whenever IGN OFF → ON.
- The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.

×: Applicable

| CONSULT display | Fail-safe | Refer to |
|---|---|---|
| No DTC is detected. further testing may be required. | — | — |
| U1000: CAN COMM CIRCUIT | × | PCS-16 |
| B2098: IGN RELAY ON | × | PCS-17 |
| B2099: IGN RELAY OFF | — | PCS-18 |
| B2108: STRG LCK RELAY ON | — | SEC-96 |
| B2109: STRG LCK RELAY OFF | — | SEC-97 |
| B210A: STRG LCK STATE SW | — | SEC-98 |
| B210B: START CONT RLY ON | — | SEC-101 |
| B210C: START CONT RLY OFF | — | SEC-102 |
| B210D: STARTER RELAY ON | — | SEC-103 |
| B210E: STARTER RELAY OFF | — | SEC-104 |
| B210F: INTRLCK/PNP SW ON | — | SEC-106 |
| B2110: INTRLCK/PNP SW OFF | — | SEC-108 |

# SYMPTOM DIAGNOSIS

## ENGINE DOES NOT START WHEN INTELLIGENT KEY IS INSIDE OF VEHICLE

### Description

INFOID:0000000005492081

Engine does not start when push-button ignition switch is pressed while carrying Intelligent Key.

**NOTE:**

- Check that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis, 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.

#### Conditions of Vehicle (Operating Conditions)

- “ENGINE START BY I-KEY” in “WORK SUPPORT” is ON when setting on CONSULT-III.
- Intelligent Key is not inserted in key slot.
- One or more of Intelligent Keys with registered Intelligent Key ID is in the vehicle.

### Diagnosis Procedure

INFOID:0000000005492082

#### 1.PERFORM WORK SUPPORT

Perform “INSIDE ANT DIAGNOSIS” on Work Support in “INTELLIGENT KEY”.
Refer to SEC-25, "INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY)".

>> GO TO 2.

#### 2.PERFORM SELF-DIAGNOSIS RESULT

Perform Self-Diagnosis Result in “BCM”, and check whether or not DTC of inside key antenna is detected.

Is DTC detected?

YES >> Refer to DLK-44, "DTC Logic" (instrument center) or DLK-46, "DTC Logic" (luggage room).
NO >> GO TO 3.

#### 3.CHECK PUSH-BUTTON IGNITION SWITCH

Check push-button ignition switch.
Refer to PCS-99, "Component Function Check".

Is the operation normal?

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

#### 4.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection normal?

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".
NO >> GO TO 1.

# STEERING DOES NOT LOCK

## Description

INFOID:0000000005492083

Steering does not lock when door is open while ignition switch is OFF.

**NOTE:**

Before performing the diagnosis, check “Work Flow”. Refer to SEC-6, "Work Flow".

## Diagnosis Procedure

INFOID:0000000005492084

### 1.CHECK DOOR SWITCH

Check door switch.

Refer to DLK-55, "Component Function Check".

Is the inspection normal?

YES >> GO TO 2.

NO >> Repair or replace malfunctioning parts.

### 2.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection normal?

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

NO >> GO TO 1.

# SECURITY INDICATOR LAMP DOES NOT TURN ON OR BLINK

## Description

INFOID:0000000005492085

Security indicator lamp does not blink when ignition switch is in a position other than ON

**NOTE:**

- Before performing the diagnosis, check “Work Flow”. Refer to SEC-6, "Work Flow".
- Check that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis, and check each symptom.

### Conditions of Vehicle (Operating Conditions)

Ignition switch is not in the ON position.

## Diagnosis Procedure

INFOID:0000000005492086

### 1.CHECK SECURITY INDICATOR LAMP

Check security indicator lamp.

Refer to SEC-113, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

### 2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

NO >> GO TO 1.

# VEHICLE SECURITY SYSTEM CANNOT BE SET

## INTELLIGENT KEY

### INTELLIGENT KEY : Description

INFOID:0000000005492087

Armed phase is not activated when door is locked using Intelligent Key.

**NOTE:**

Check that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis, and check each symptom.

CONDITION OF VEHICLE (OPERATING CONDITION)

Confirm the setting of “SECURITY ALARM SET” in “WORK SUPPORT” in “THEFT ALM” using CONSULT-III.

### INTELLIGENT KEY : Diagnosis Procedure

INFOID:0000000005492088

#### 1.CHECK INTELLIGENT KEY SYSTEM (REMOTE KEYLESS ENTRY FUNCTION)

Lock/unlock door with Intelligent Key.

Refer to DLK-25, "REMOTE KEYLESS ENTRY FUNCTION : System Description".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check Intelligent Key system (remote keyless entry function). Refer to DLK-149, "Diagnosis Procedure".

#### 2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

NO >> GO TO 1.

## DOOR REQUEST SWITCH

### DOOR REQUEST SWITCH : Description

INFOID:0000000005492089

Armed phase is not activated when door is locked using door request switch.

**NOTE:**

Check that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis, and check each symptom.

CONDITION OF VEHICLE (OPERATING CONDITION)

Confirm the setting of “SECURITY ALARM SET” in “WORK SUPPORT” in “THEFT ALM” using CONSULT-III.

### DOOR REQUEST SWITCH : Diagnosis Procedure

INFOID:0000000005492090

#### 1.CHECK INTELLIGENT KEY SYSTEM (DOOR LOCK FUNCTION)

Lock/unlock door with door request switch.

Refer to DLK-20, "DOOR LOCK FUNCTION : System Description".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check Intelligent Key system (door lock function). Refer to DLK-146, "ALL DOOR : Diagnosis Procedure".

#### 2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

NO >> GO TO 1.

## DOOR KEY CYLINDER

## DOOR KEY CYLINDER : Description

INFOID:0000000005492091

Armed phase is not activated when door is locked using mechanical key.

**NOTE:**

Check that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis, and check each symptom.

### CONDITION OF VEHICLE (OPERATING CONDITION)

Confirm the setting of “SECURITY ALARM SET” in “WORK SUPPORT” in “THEFT ALM” using CONSULT-III.

## DOOR KEY CYLINDER : Diagnosis Procedure

INFOID:0000000005492092

### 1.CHECK POWER DOOR LOCK SYSTEM

Lock/unlock door with mechanical key.

Refer to DLK-13, "System Description".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check power door lock system. Refer to DLK-145, "Diagnosis Procedure".

### 2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

NO >> GO TO 1.

# VEHICLE SECURITY ALARM DOES NOT ACTIVATE

## Description

INFOID:0000000005492093

Alarm does not operate when alarm operating condition is satisfied.

**NOTE:**

Check that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis, and check each symptom.

### CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

“SECURITY ALARM SET” in “WORK SUPPORT” of “THEFT ALM” is ON when setting on CONSULT-III.

## Diagnosis Procedure

INFOID:0000000005492094

### 1.CHECK DOOR SWITCH

Check door switch.

Refer to DLK-55, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the malfunctioning door switch

### 2.CHECK HEADLAMP FUNCTION

Check headlamp function.

Refer to SEC-117, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

### 3.CHECK HORN FUNCTION

Check horn function.

Refer to SEC-115, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

### 4.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

NO >> GO TO 1.

# PRECAUTION

## PRECAUTIONS

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

INFOID:0000000005839347

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

**WARNING:**

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

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

**WARNING:**

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

### Precaution Necessary for Steering Wheel Rotation after Battery Disconnect

INFOID:0000000005839349

**NOTE:**

- Before removing and installing any control units, first turn the push-button ignition switch to the LOCK position, then disconnect both battery cables.
- After finishing work, confirm that all control unit connectors are connected properly, then re-connect both battery cables.
- Always use CONSULT-III to perform self-diagnosis as a part of each function inspection after finishing work. If a DTC is detected, perform trouble diagnosis according to self-diagnosis results.

For vehicle with steering lock unit, if the battery is disconnected or discharged, the steering wheel will lock and cannot be turned.
If turning the steering wheel is required with the battery disconnected or discharged, follow the operation procedure below before starting the repair operation.

#### OPERATION PROCEDURE

1. Connect both battery cables.
   **NOTE:**
   Supply power using jumper cables if battery is discharged.
2. Turn the push-button ignition switch to ACC position.
   (At this time, the steering lock will be released.)
3. Disconnect both battery cables. The steering lock will remain released with both battery cables disconnected and the steering wheel can be turned.
4. Perform the necessary repair operation.

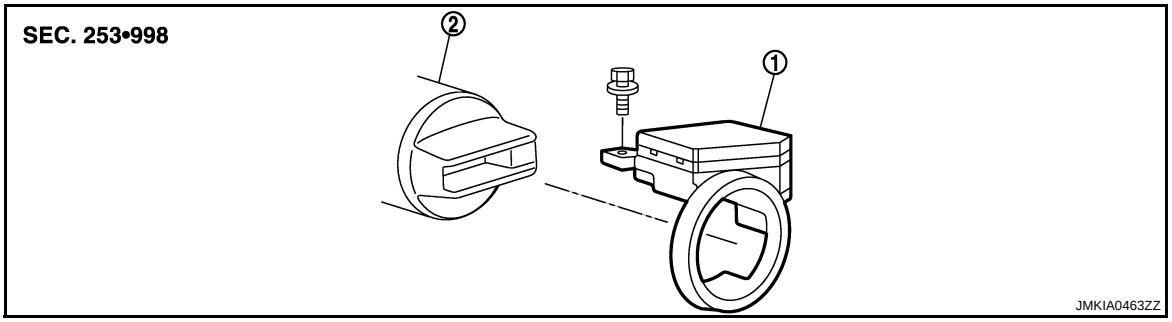
5. When the repair work is completed, re-connect both battery cables. With the brake pedal released, turn the push-button ignition switch from ACC position to ON position, then to LOCK position. (The steering wheel will lock when the push-button ignition switch is turned to LOCK position.)
6. Perform self-diagnosis check of all control units using CONSULT-III.

# REMOVAL AND INSTALLATION

## NATS ANTENNA AMP.

### Exploded View

INFOID:0000000005492097



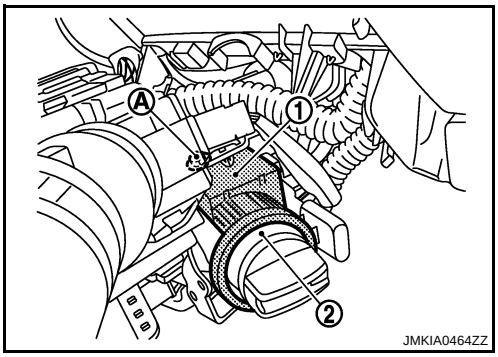

1. NATS antenna amp.
2. Steering lock assembly

### Removal and Installation

INFOID:0000000005492098

REMOVAL

1. Remove the steering column cover.
   Refer to IP-13, "Removal and Installation".
2. Remove the NATS antenna amp. mounting screw (A), and then remove NATS antenna amp. (1) from steering lock assembly (2).




INSTALLATION

Install in the reverse order of removal.

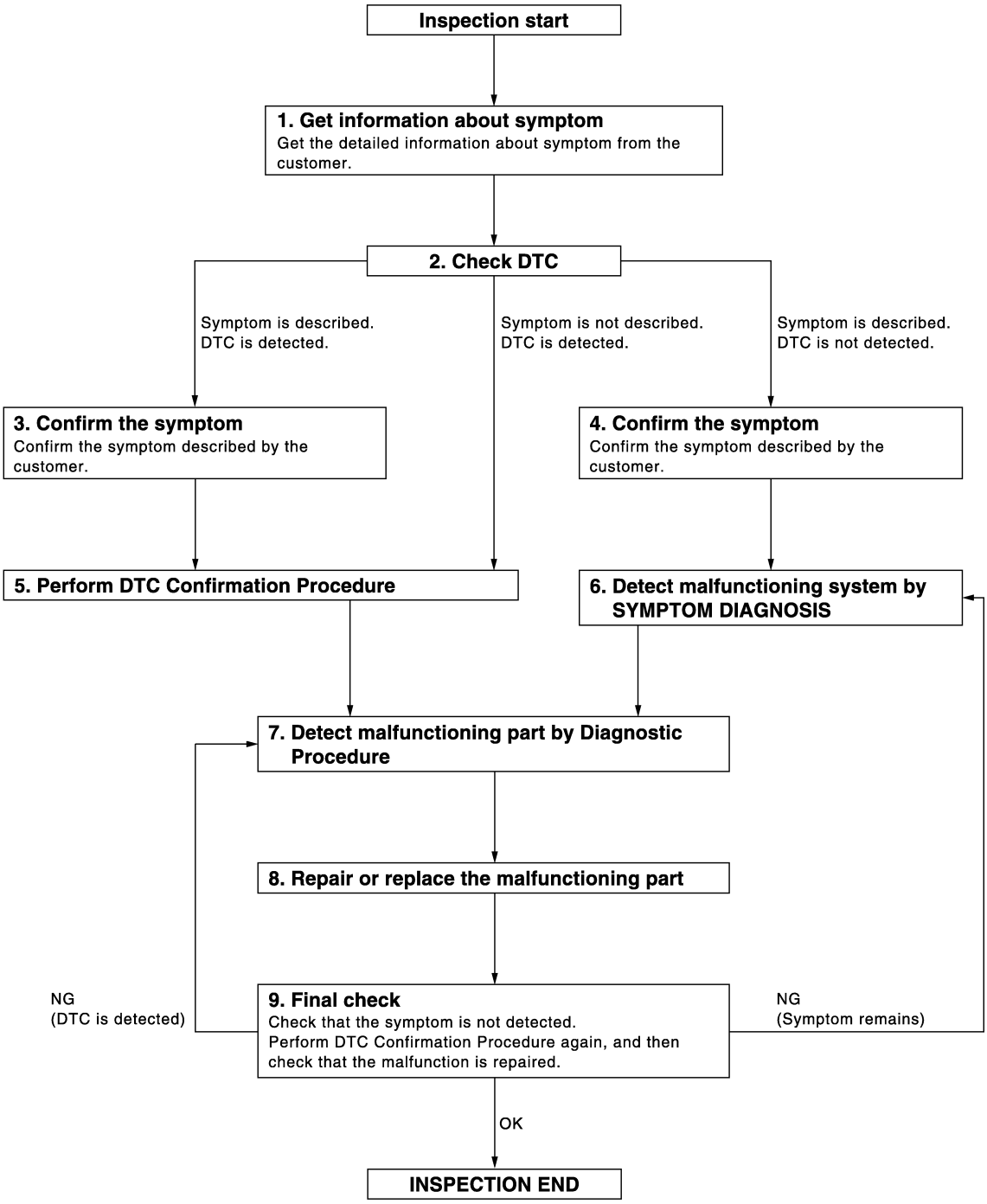
# BASIC INSPECTION

## DIAGNOSIS AND REPAIR WORK FLOW

### Work Flow

INFOID:0000000005492099

#### OVERALL SEQUENCE




JMKIA3449GB

#### DETAILED FLOW

## 1.GET INFORMATION ABOUT SYMPTOM

Get the detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurred).

>> GO TO 2.

## 2.CHECK DTC

1. Check DTC for BCM.
2. Perform the following procedure if DTC is displayed.

- 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.

Is any symptom described and any DTC detected?

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

## 3.CONFIRM THE SYMPTOM

Confirm the symptom described by the customer.
Connect CONSULT-III to the vehicle in “DATA MONITOR” mode and check real-time diagnosis results.
Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 5.

## 4.CONFIRM THE SYMPTOM

Confirm the symptom described by the customer.
Connect CONSULT-III to the vehicle in “DATA MONITOR ” mode and check real-time diagnosis results.
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 displayed DTC, and then check that DTC is detected again.
If two or more DTCs are detected, refer to SEC-268, "DTC Inspection Priority Chart" (BCM) and determine trouble diagnosis order.

Is DTC detected?

YES >> GO TO 7.
NO >> Refer to GI-35, "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.

>> GO TO 7.

## 7.DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

Inspect according to Diagnostic Procedure of the system.

>> GO TO 8.

## 8.REPAIR OR REPLACE THE MALFUNCTIONING PART

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

>> GO TO 9.

## 9. FINAL CHECK

When DTC was detected in step 9, perform DTC Confirmation Procedure or Component Function Check again, and then check that the malfunctions have been fully repaired.
When symptom was described by the customer, refer to the confirmed symptom in step 3 or 4, and check that the symptom is not detected.

Does the symptom reappear?

YES (DTC is detected)>>GO TO 7.
YES (Symptom remains)>>GO TO 6.
NO >> INSPECTION END

# INSPECTION AND ADJUSTMENT
# ECM RECOMMUNICATING FUNCTION

## ECM RECOMMUNICATING FUNCTION : Description

INFOID:0000000005492100

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 a virgin ECM that is never energized on-board.
(In this step, initialization procedure by CONSULT-III is not necessary)
**NOTE:**
- **When registering new Key IDs or replacing the ECM that is not brand new, refer to CONSULT-III Operation Manual NATS-IVIS/NVIS.**
- **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 RECOMMUNICATING FUNCTION : Special Repair Requirement

INFOID:0000000005492101

### 1.PERFORM ECM RECOMMUNICATING FUNCTION

1. Install ECM.
2. Insert the registered ignition key* into key cylinder, 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 5 seconds or more.
4. Turn ignition switch to “OFF”.
5. Start engine.

Can engine be started?

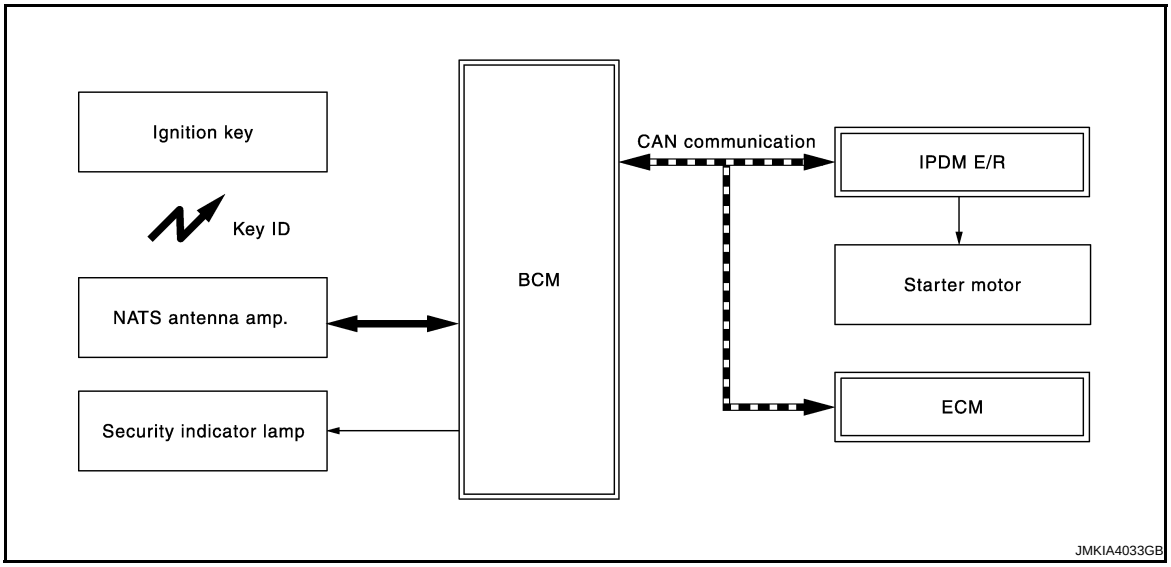
YES >> Procedure is complete.
NO >> Initialize control unit. Refer to CONSULT-III Operation Manual NATS-IVIS/NVIS.

# SYSTEM DESCRIPTION

## NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS

### System Diagram

INFOID:0000000005492102




### System Description

INFOID:0000000005492103

#### SYSTEM DESCRIPTION

NVIS (Nissan Vehicle Immobilizer System-NATS) has the following immobilizer functions:

- Engine immobilizer shows high anti-theft performance to prevent engine start by other than the owner.
- Only a key with key ID registered in BCM and ECM can start engine, and shows high anti-theft performance to prevent key from being copied or stolen.
- If system detects malfunction, security indicator lamp illuminate when ignition switch is turned to ON position.
- If the owner requires, ignition key ID can be registered for up to 5 keys.
- During trouble diagnosis or when the following parts have been replaced, and if ignition key is added, registration* is required.
  *: All keys kept by the owner of the vehicle should be registered with ignition key.

- ECM
- BCM
- Ignition key

- NVIS(NATS) trouble diagnosis, system initialization and additional registration of other Ignition key IDs must be carried out using CONSULT-III hardware and SECURITY CARD.
  When NVIS(NATS) initialization has been completed, the ID of the inserted ignition key or ignition key IDs can be carried out.
- Possible symptom of NVIS(NATS) malfunction is “Engine cannot start”. The engine can be started with the NVIS(NATS). Identify the possible causes according to “Work Flow”. Refer to SEC-199, "Work Flow".
- If ECM other than Genuine NISSAN is installed, the engine cannot be started. For ECM replacement procedure, refer to EC-16, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

#### PRECAUTIONS FOR KEY REGISTRATION

- The key registration is a procedure that erases the current NVIS(NATS) ID once, and then reregisters a new ID. Therefore the registered ignition key is necessary for this procedure. Before starting the registration operation collect all registered ignition keys from the customer
- NVIS(NATS) ID registration is the procedure that registers the ID stored into the transponder (integrated in ignition key) to BCM.

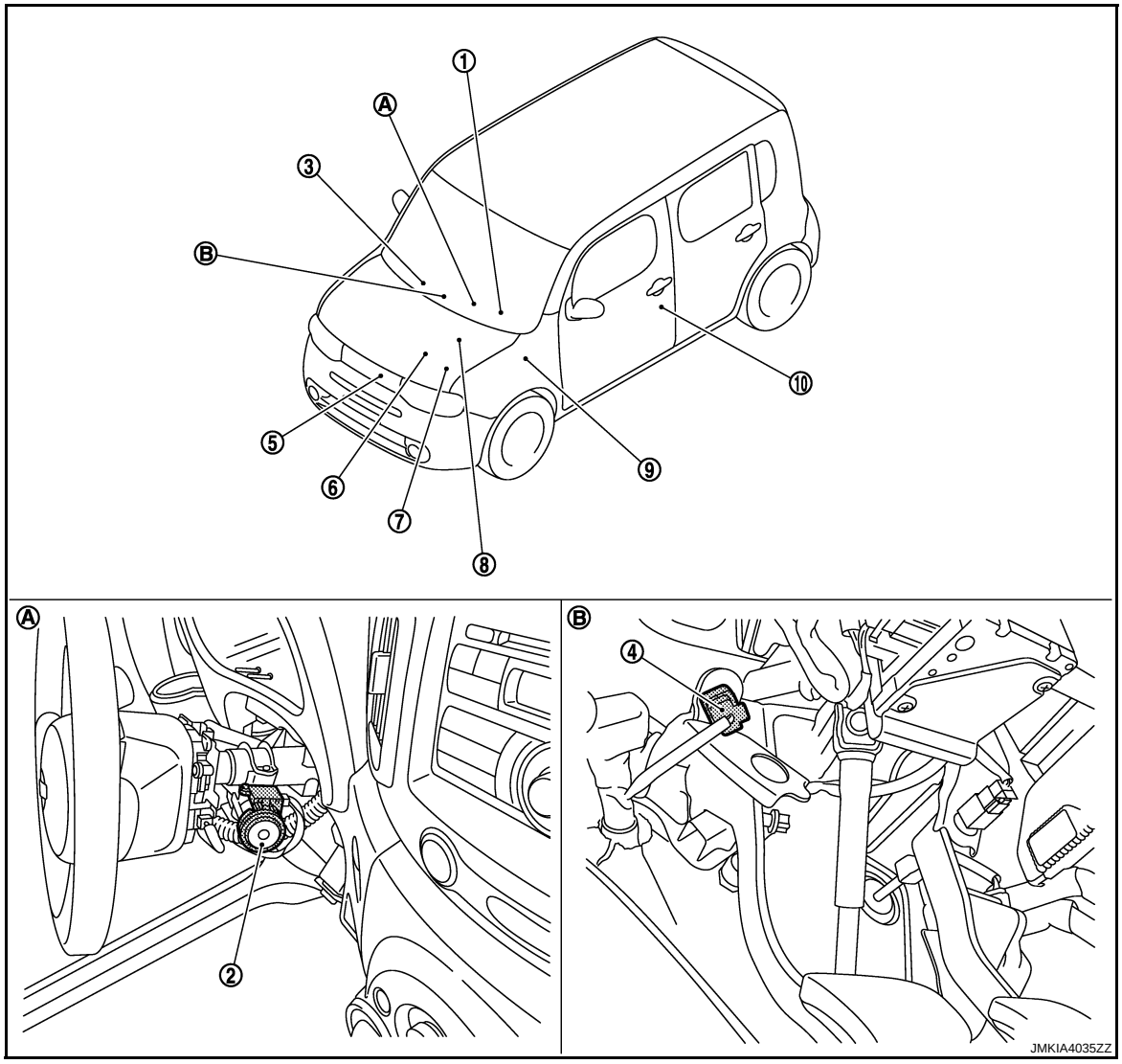
#### SECURITY INDICATOR LAMP

- Warns that the vehicle is equipped with NVIS(NATS).
- Security indicator lamp always blinks, when the ignition switch is in any position except the ON position.

• Security indicator lamp turns OFF, when the ignition switch is in ON position.

## Component Parts Location

INFOID:0000000005492104




1. Security indicator lamp (combination meter M34)
2. NATS antenna amp. M26
3. Remote keyless entry tuner M61
4. Clutch interlock switch E113 (with M/T)
5. Horn E50, E51
6. Transmission range switch F21 (with CVT)
7. IPDM E/R E10, E11, E12, E13, E14, E15
8. ECM E16
9. BCM M65, M66, M67
10. Front door switch (driver side) B34

A. Behind steering column cover
B. Behind instrument lower panel LH

## Component Description

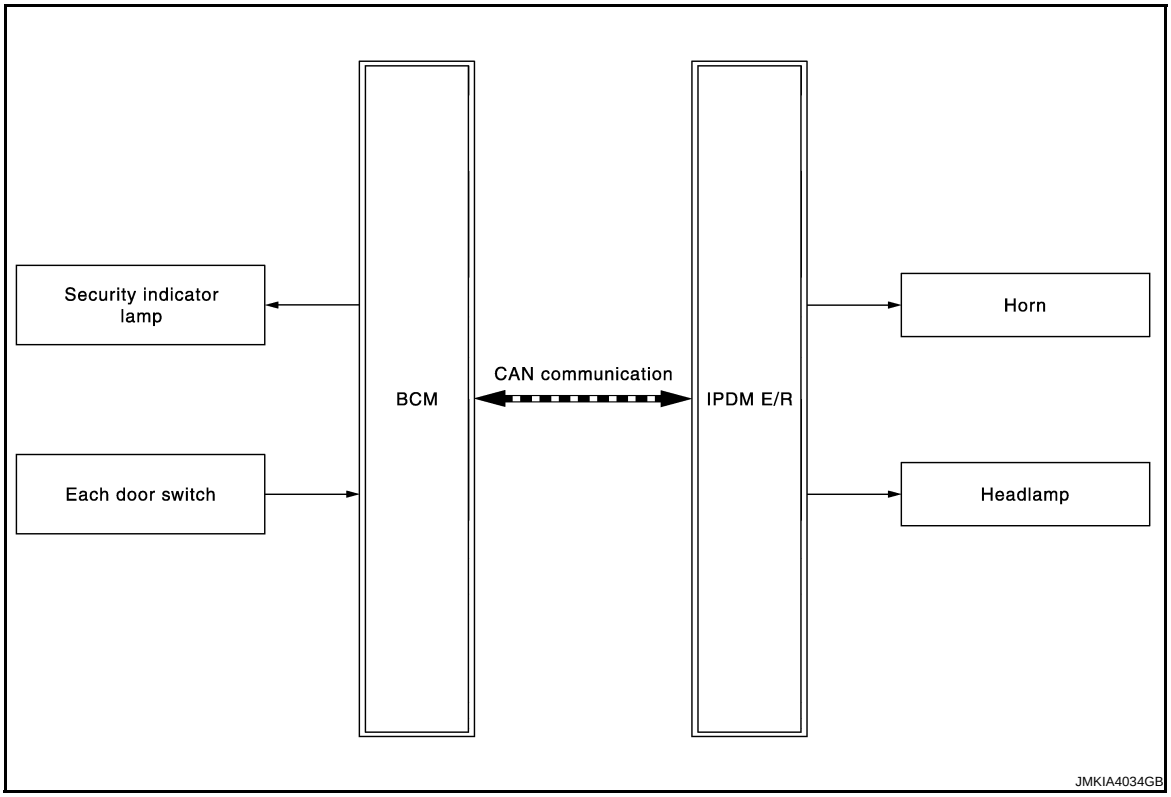
INFOID:0000000005492105

| Component | Reference |
|---|---|
| BCM | BCS-86 |
| NATS antenna amp. | SEC-219 |
| Security indicator lamp | SEC-230 |

# VEHICLE SECURITY SYSTEM

## System Diagram

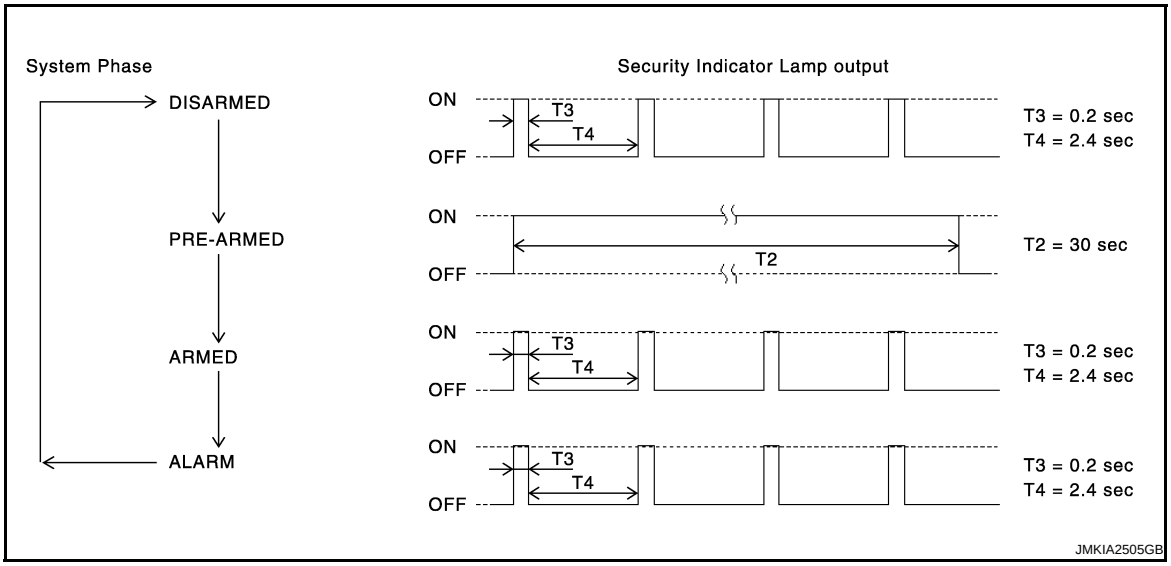
INFOID:0000000005492106




## System Description

INFOID:0000000005492107

### OPERATION FLOW




### SETTING THE VEHICLE SECURITY SYSTEM

Initial Condition

- Ignition switch is in OFF position.

Disarmed Phase

- When any door is open, the vehicle security system is set in the disarmed phase on the assumption that the owner is inside or near the vehicle.

- When the vehicle security system is in the disarmed phase, the security indicator lamp blinks every 2.4 seconds.

Pre-armed Phase and Armed Phase

When the following operation 1 or 2 is performed, the vehicle security system turns into the “pre-armed” phase. (Security indicator lamp illuminates.)

1. BCM receives LOCK signal from door key cylinder switch, door lock and unlock switch or keyfob, after all doors are closed.
2. All doors are closed after all doors are locked by ignition key or door lock and unlock switch.

## CANCELING THE ARMED PHASE VEHICLE SECURITY SYSTEM

When one of the following operations is performed, the armed phase is canceled.

1. Unlock all doors ignition key, door lock and unlock switch or keyfob.
2. Turn ignition switch “ON” position.

## CANCELING THE ALARM OPERATION OF THE VEHICLE SECURITY SYSTEM

When one of the following operations is performed, the alarm operation is canceled.

1. Unlock all doors with the keyfob.
2. Turn ignition switch “ON” position.

## ACTIVATING THE ALARM OPERATION OF THE VEHICLE SECURITY SYSTEM

Check that the system is in the armed phase. (Security indicator lamp blinks every 2.4 seconds.)
When the following operation 1 or 2 is performed, the system sounds the horns and blinks the headlamps for approx. 50 seconds.

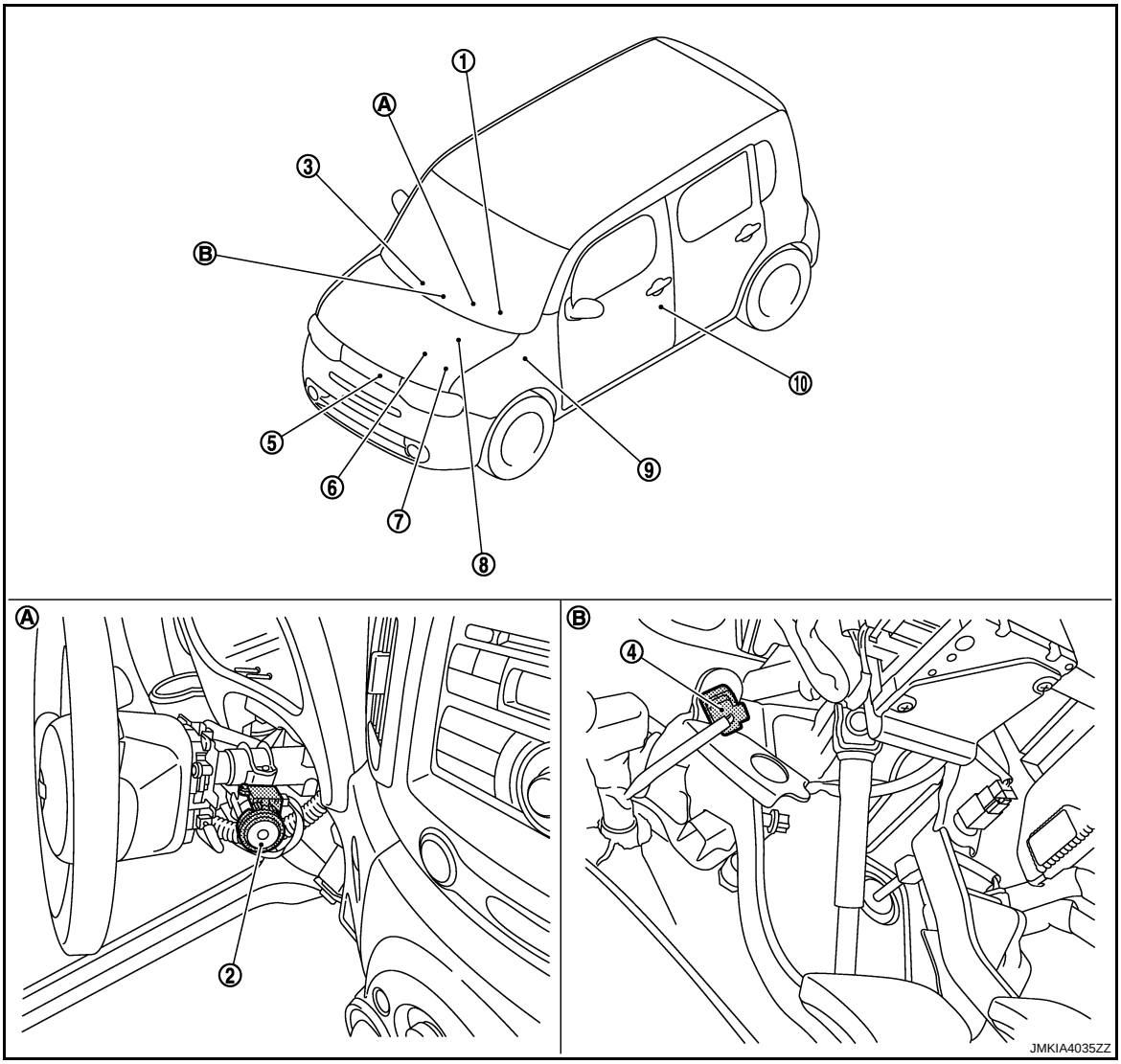
1. Any door is opened during armed phase.
2. Disconnecting and connecting the battery connector before canceling armed phase.

## PANIC ALARM OPERATION

When BCM receives panic alarm signal from keyfob, ground is supplied intermittently to both headlamp relay and horn relay.
When headlamp relay and horn relay are energized, then power is supplied to headlamps (HI) and horn.
The headlamp blinks and the horn sounds intermittently.
The alarm automatically turns off after 50 seconds or when BCM receives any signal from keyfob.

## Component Parts Location

INFOID:0000000005492108




1. Security indicator lamp (combination meter M34)
2. NATS antenna amp. M26
3. Remote keyless entry tuner M61
4. Clutch interlock switch E113 (with M/T)
5. Horn E50, E51
6. Transmission range switch F21 (with CVT)
7. IPDM E/R E10, E11, E12, E13, E14, E15
8. ECM E16
9. BCM M65, M66, M67
10. Front door switch (driver side) B34

A. Behind steering column cover
B. Behind instrument lower panel LH

## Component Description

INFOID:0000000005492109

| Component | Reference |
|---|---|
| BCM | BCS-86 |
| Security indicator lamp | SEC-230 |
| Door switch | DLK-243 |
| Horn | SEC-232 |
| Headlamp | SEC-234 |

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

INFOID:0000000005492110

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

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

#### SYSTEM APPLICATION
BCM can perform the following functions for each system.
**NOTE:**
It can perform the diagnosis modes except the following for all sub system selection items.

×: Applicable item

| System | Sub system selection item | Diagnosis mode | | |
|---|---|---|---|---|
| | | Work Support | Data Monitor | Active Test |
| Door lock | DOOR LOCK | × | × | × |
| Rear window defogger | REAR DEFOGGER | | × | × |
| Warning chime | BUZZER | | × | × |
| Interior room lamp control | INT LAMP | × | × | × |
| Remote keyless entry system | MULTI REMOTE ENT | × | × | × |
| Exterior lamp | HEAD LAMP | × | × | × |
| Wiper and washer | WIPER | × | × | × |
| Turn signal and hazard warning lamps | FLASHER | | × | × |
| • Automatic air conditioner<br>• Manual air conditioner | AIR CONDITONER | | × | × |
| Combination switch | COMB SW | | × | |
| Body control system | BCM | × | | |
| NVIS - NATS | IMMU | × | × | × |
| Interior room lamp battery saver | BATTERY SAVER | × | × | × |
| Back door | TRUNK | | × | |
| Vehicle security system | THEFT ALM | × | × | × |
| RAP system | RETAINED PWR | | × | × |
| Signal buffer system | SIGNAL BUFFER | | × | × |
| TPMS | TPMS (AIR PRESSURE MONITOR) | × | × | × |
| Panic alarm system | PANIC ALARM | | | × |

## IMMU

## IMMU : CONSULT-III Function (BCM - IMMU)

INFOID:0000000005492111

### DATA MONITOR

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

### ACTIVE TEST

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

## THEFT ALM

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

INFOID:0000000005492112

### DATA MONITOR

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

### WORK SUPPORT

| Test Item | Description |
|---|---|
| SECURITY ALARM SET | This mode is able to confirm and change security alarm ON-OFF setting. |
| THEFT ALM TRG | The switch which triggered vehicle security alarm is recorded. This mode is able to confirm and erase the record of vehicle security alarm. The trigger data can be erased by touching “CLEAR” on CONSULT-III screen. |

### ACTIVE TEST

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

## PANIC ALARM

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

INFOID:0000000005492113

### ACTIVE TEST

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

# DTC/CIRCUIT DIAGNOSIS

## P1610 LOCK MODE

### Description

INFOID:0000000005492114

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, and when engine start operation is performed 5 times or more by unregistered ignition key.

### DTC Logic

INFOID:0000000005492115

#### DTC DETECTION LOGIC

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| P1610 | LOCK MODE | When ECM detects any of the following 2 states<br>• Ignition switch ON 5 times or more during communication between ECM and BCM is malfunctioning<br>• Ignition switch ON by unregistered ignition key 5 times or more | — |

#### DTC CONFIRMATION PROCEDURE

**1.** PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Check “Self diagnosis result” with CONSULT-III.

Is DTC detected?

YES >> Refer to SEC-211, "Diagnosis Procedure".
NO >> INSPECTION END

### Diagnosis Procedure

INFOID:0000000005492116

**1.** CHECK ENGINE START FUNCTION

1. Perform the check for DTC except DTC P1610.
2. Use CONSULT-III to erase DTC after fixing.
3. Turn ignition switch OFF.
4. Turn ignition switch ON when registered ignition key is inserted into key cylinder and wait for 5 seconds.
5. Turn the ignition switch OFF and wait 5 seconds.
6. Repeat steps 4 and 5 twice (a total of 3 times).
7. Check that engine can start when registered ignition key is inserted into key cylinder.

>> INSPECTION END

# P1611 ID DISCORD, IMMU-ECM

## Description

INFOID:0000000005492117

BCM performs the ID verification with ECM that allows the engine to start. BCM starts the communication with ECM if ignition switch is turned ON starts the engine if the ID is OK. ECM prevents the engine from starting if the ID is not registered.

## DTC Logic

INFOID:0000000005492118

### DTC DETECTION LOGIC

**NOTE:**

- If DTC P1611 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".
- If DTC P1611 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-40, "DTC Logic".

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| P1611 | ID DISCORD IMMU-ECM | The ID verification results between BCM and ECM are NG. | • BCM<br>• ECM |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Check “Self diagnosis result” with CONSULT-III.

Is DTC detected?

YES >> Refer to SEC-212, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005492119

#### 1.PERFORM INITIALIZATION

Perform initialization with CONSULT-III. Reregister all ignition keys.
For initialization and registration of ignition key. Refer to “CONSULT-III Operation Manual NATS-IVIS/NVIS”.

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

YES >> INSPECTION END
NO >> GO TO 2.

#### 2.REPLACE BCM

1. Replace BCM. Refer to BCS-81, "Removal and Installation".
2. Perform initialization with CONSULT-III. Reregister all ignition keys.
   For initialization and registration of ignition key. Refer to “CONSULT-III Operation Manual NATS-IVIS/NVIS”.

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

YES >> INSPECTION END
NO >> GO TO 3.

#### 3.REPLACE ECM

1. Replace ECM.
2. Perform initialization with CONSULT-III. Reregister all ignition keys.
   For initialization and registration of ignition key. Refer to “CONSULT-III Operation Manual NATS-IVIS/NVIS”.

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

YES >> INSPECTION END
NO >> GO TO 4.

#### 4.CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

# P1612 CHAIN OF ECM-IMMU

## Description

INFOID:0000000005492120

BCM performs the ID verification with ECM that allows the engine to start. BCM starts the communication with ECM if ignition switch is turned ON and starts the engine if the ID is OK. ECM prevents the engine from starting if the ID is not registered.

## DTC Logic

INFOID:0000000005492121

### DTC DETECTION LOGIC

**NOTE:**

- If DTC P1612 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".
- If DTC P1612 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-40, "DTC Logic".

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| P1612 | CHAIN OF ECM-IMMU | Inactive communication between ECM and BCM | • Harness or connectors (The CAN communication line is open or short)<br>• BCM<br>• ECM |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Check “Self diagnosis result” with CONSULT-III.

Is DTC detected?

YES >> Refer to SEC-214, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005492122

#### 1.REPLACE BCM

1. Replace BCM. Refer to BCS-81, "Removal and Installation".
2. Perform initialization with CONSULT-III.
   For initialization, refer to “CONSULT-III Operation Manual NATS-IVIS/NVIS”.

Does the engine start?

YES >> INSPECTION END
NO >> GO TO 2.

#### 2.REPLACE ECM

Replace ECM. Refer to EC-16, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

>> INSPECTION END

# P1614 CHAIN OF IMMU-KEY

## Description

INFOID:0000000005492123

Performs ID verification through BCM and NATS antenna amp. when ignition switch is ON position.
Prohibits the release of steering lock or start of engine when an unregistered ID of ignition key is used.

## DTC Logic

INFOID:0000000005492124

### DTC DETECTION LOGIC

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| P1614 | NATS ANTENNA AMP. | • Inactive communication between NATS antenna amp. and BCM<br>• Ignition key is malfunctioning | • Harness or connectors (The NATS antenna amp. circuit is open or short)<br>• Ignition key<br>• NATS antenna amp.<br>• BCM |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Insert ignition key into the key cylinder.
2. Turn ignition switch ON.
3. Check “Self diagnosis result” with CONSULT-III.

Is DTC detected?

YES >> Refer to SEC-215, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005492125

#### 1.CHECK FUSE

Check that the following IPDM E/R fuse is not blown.

| Signal name | Fuse No. |
|---|---|
| Battery power supply | 43 |

Is the fuse fusing?

YES >> Is the blown fuse after repairing the affected circuit if a fuse is blown.
NO >> GO TO 2.

#### 2.CHECK NATS ANTENNA AMP. INSTALLATION

Check NATS antenna amp. Installation. Refer to SEC-219, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 3.
NO >> Reinstall NATS antenna amp. correctly.

#### 3.CHECK IGNITION KEY

Start engine with another registered ignition key.

Does the engine start?

YES >> Replace ignition key. Perform initialization and registration and registration of ignition key. Refer to “CONSULT-III Operation Manual NATS-IVIS/NVIS”.
NO >> GO TO 4.

#### 4.CHECK NATS ANTENNA AMP. POWER SUPPLY

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

| (+) | | (–) | Voltage (V) (Approx.) |
|---|---|---|---|
| NATS antenna amp. | | | |
| Connector | Terminal | | |
| M26 | 1 | Ground | Battery voltage |

Is the inspection result normal?

YES >> GO TO 6.
NO >> GO TO 5.

## 5.CHECK NATS ANTENNA AMP. POWER SUPPLY CIRCUIT

1. Disconnect IPDM E/R connector.
2. Check continuity between IPDM E/R harness connector and NATS antenna amp. connector.

| IPDM E/R | | NATS antenna amp. | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| E14 | 45 | M26 | 1 | Existed |

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

| IPDM E/R | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| E14 | 45 | | Not existed |

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-64, "Removal and Installation".
NO >> Repair or replace harness.

## 6.CHECK NATS ANTENNA AMP. GROUND CIRCUIT

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

| NATS antenna amp. | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M26 | 3 | | Existed |

Is the inspection result normal?

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

## 7.CHECK NATS ANTENNA AMP. SIGNAL

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

| (+) | | (–) | Condition | Voltage (V) (Approx.) |
|---|---|---|---|---|
| BCM | | | | |
| Connector | Terminal | | | |
| M65 | 21 | Ground | Just after inserting ignition key in key cylinder | Pointer of tester should move |
| | | | Other than above | 0 |
| | 25 | | Just after inserting ignition key in key cylinder | Pointer of tester should move |
| | | | Other than above | 0 |

Is the inspection result normal?

YES >> GO TO 9.
NO >> GO TO 8.

## 8.CHECK NATS ANTENNA AMP. SIGNAL CIRCUIT

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

| BCM | | NATS antenna amp. | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M65 | 21 | M26 | 2 | Existed |
| | 25 | | 4 | |

3. Check continuity between BCM harness connector and ground.

| BCM | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M65 | 21 | | Not existed |
| | 25 | | |

Is the inspection result normal?

YES >> Replace NATS antenna amp. Refer to SEC-274, "Removal and Installation".
NO >> Repair or replace harness.

## 9. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

# P1615 DIFFRENCE OF KEY

## Description

INFOID:0000000005492126

Performs ID verification through BCM when ignition switch is ON position.
Prohibits the release of steering lock or start of engine when an unregistered key is used.

## DTC Logic

INFOID:0000000005492127

### DTC DETECTION LOGIC

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| P1615 | DIFFERENCE OF KEY | The ID verification results between BCM and ignition key are NG. | • Ignition key<br>• BCM |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Insert ignition key into the key cylinder.
2. Turn ignition switch ON.
3. Check “Self diagnosis result” with CONSULT-III.

Is DTC detected?

YES >> Refer to SEC-218, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005492128

#### 1.PERFORM INITIALIZATION

Perform initialization with CONSULT-III. Reregister all ignition keys.
For initialization and registration of ignition key. Refer to “CONSULT-III Operation Manual NATS-IVIS/NVIS”.

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

YES >> INSPECTION END
NO >> GO TO 2.

#### 2.REPLACE IGNITION KEY

1. Replace ignition key.
2. Perform initialization with CONSULT-III. Reregister all ignition keys.
   For initialization and registration of ignition key. Refer to “CONSULT-III Operation Manual NATS-IVIS/NVIS”.

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

YES >> INSPECTION END
NO >> GO TO 3.

#### 3.REPLACE BCM

Replace BCM. Refer to BCS-81, "Removal and Installation".

>> INSPECTION END

# B2190 NATS ANTENNA AMP.

## Description

INFOID:0000000005492129

Performs ID verification through BCM and NATS antenna amp. when ignition switch is ON position.
Prohibits the release of steering lock or start of engine when an unregistered ID of ignition key is used.

## DTC Logic

INFOID:0000000005492130

### DTC DETECTION LOGIC

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B2190 | NATS ANTENNA AMP. | • Inactive communication between NATS antenna amp. and BCM.<br>• Ignition key is malfunctioning. | • Harness or connectors (The NATS antenna amp. circuit is open or short)<br>• Ignition key<br>• NATS antenna amp.<br>• BCM |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Insert ignition key into the key cylinder.
2. Turn ignition switch ON.
3. Check “Self diagnosis result” with CONSULT-III.

Is DTC detected?

YES >> Refer to SEC-219, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005492131

#### 1.CHECK FUSE

Check that the following IPDM E/R fuse is not blown.

| Signal name | Fuse No. |
|---|---|
| Battery power supply | 43 |

Is the fuse fusing?

YES >> Is the blown fuse after repairing the affected circuit if a fuse is blown.
NO >> GO TO 2.

#### 2.CHECK NATS ANTENNA AMP. INSTALLATION

Check NATS antenna amp. Installation. Refer to SEC-219, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 3.
NO >> Reinstall NATS antenna amp. correctly.

#### 3.CHECK IGNITION KEY

Start engine with another registered ignition key.

Does the engine start?

YES >> Replace ignition key. Perform initialization and registration and registration of ignition key. Refer to “CONSULT-III Operation Manual NATS-IVIS/NVIS”.
NO >> GO TO 4.

#### 4.CHECK NATS ANTENNA AMP. POWER SUPPLY

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

| (+) | | (–) | Voltage (V) (Approx.) |
|---|---|---|---|
| NATS antenna amp. | | | |
| Connector | Terminal | | |
| M26 | 1 | Ground | Battery voltage |

Is the inspection result normal?

YES >> GO TO 6.
NO >> GO TO 5.

## 5.CHECK NATS ANTENNA AMP. POWER SUPPLY CIRCUIT

1. Disconnect IPDM E/R connector.
2. Check continuity between IPDM E/R harness connector and NATS antenna amp. connector.

| IPDM E/R | | NATS antenna amp. | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| E14 | 45 | M26 | 1 | Existed |

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

| IPDM E/R | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| E14 | 45 | | Not existed |

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-64, "Removal and Installation".
NO >> Repair or replace harness.

## 6.CHECK NATS ANTENNA AMP. GROUND CIRCUIT

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

| NATS antenna amp. | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M26 | 3 | | Existed |

Is the inspection result normal?

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

## 7.CHECK NATS ANTENNA AMP. SIGNAL

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

| (+) | | (–) | Condition | Voltage (V) (Approx.) |
|---|---|---|---|---|
| BCM | | | | |
| Connector | Terminal | | | |
| M65 | 21 | Ground | Just after inserting ignition key in key cylinder | Pointer of tester should move |
| | | | Other than above | 0 |
| | 25 | | Just after inserting ignition key in key cylinder | Pointer of tester should move |
| | | | Other than above | 0 |

Is the inspection result normal?

YES >> GO TO 9.
NO >> GO TO 8.

## 8.CHECK NATS ANTENNA AMP. SIGNAL CIRCUIT

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

| BCM | | NATS antenna amp. | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M65 | 21 | M26 | 2 | Existed |
| | 25 | | 4 | |

3. Check continuity between BCM harness connector and ground.

| BCM | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M65 | 21 | | Not existed |
| | 25 | | |

Is the inspection result normal?

YES >> Replace NATS antenna amp. Refer to SEC-274, "Removal and Installation".
NO >> Repair or replace harness.

## 9. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

# B2191 DIFFERENCE OF KEY

## Description

INFOID:0000000005492132

Performs ID verification through BCM when ignition switch is ON position.
Prohibits the release of steering lock or start of engine when an unregistered key is used.

## DTC Logic

INFOID:0000000005492133

### DTC DETECTION LOGIC

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B2191 | DIFFERENCE OF KEY | The ID verification results between BCM and ignition key are NG. | • Ignition key<br>• BCM |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Insert ignition key into the key cylinder.
2. Turn ignition switch ON.
3. Check “Self diagnosis result” with CONSULT-III.

Is DTC detected?

YES >> Refer to SEC-222, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005492134

#### 1.PERFORM INITIALIZATION

Perform initialization with CONSULT-III. Reregister all ignition keys.
For initialization and registration of ignition key. Refer to “CONSULT-III Operation Manual NATS-IVIS/NVIS”.

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

YES >> INSPECTION END
NO >> GO TO 2.

#### 2.REPLACE IGNITION KEY

1. Replace ignition key.
2. Perform initialization with CONSULT-III. Reregister all ignition keys.
   For initialization and registration of ignition key. Refer to “CONSULT-III Operation Manual NATS-IVIS/NVIS”.

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

YES >> INSPECTION END
NO >> GO TO 3.

#### 3.REPLACE BCM

Replace BCM. Refer to BCS-81, "Removal and Installation".

>> INSPECTION END

# B2192 ID DISCORD, IMMU-ECM

## Description

INFOID:0000000005492135

BCM performs the ID verification with ECM that allows the engine to start. BCM starts the communication with ECM if ignition switch is turned ON starts the engine if the ID is OK. ECM prevents the engine from starting if the ID is not registered.

## DTC Logic

INFOID:0000000005492136

### DTC DETECTION LOGIC

**NOTE:**

- If DTC B2192 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".
- If DTC B2192 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-40, "DTC Logic".

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B2192 | ID DISCORD BCM-ECM | The ID verification results between BCM and ECM are NG. | • BCM<br>• ECM |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Check “Self diagnosis result” with CONSULT-III.

Is DTC detected?

YES >> Refer to SEC-223, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005492137

#### 1.PERFORM INITIALIZATION

Perform initialization with CONSULT-III. Reregister all ignition keys.
For initialization and registration of ignition key. Refer to “CONSULT-III Operation Manual NATS-IVIS/NVIS”.

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

YES >> INSPECTION END
NO >> GO TO 2.

#### 2.REPLACE BCM

1. Replace BCM. Refer to BCS-81, "Removal and Installation".
2. Perform initialization with CONSULT-III. Reregister all ignition keys.
   For initialization and registration of ignition key. Refer to “CONSULT-III Operation Manual NATS-IVIS/NVIS”.

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

YES >> INSPECTION END
NO >> GO TO 3.

#### 3.REPLACE ECM

1. Replace ECM.
2. Perform initialization with CONSULT-III. Reregister all ignition keys.
   For initialization and registration of ignition key. Refer to “CONSULT-III Operation Manual NATS-IVIS/NVIS”.

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

YES >> INSPECTION END
NO >> GO TO 4.

#### 4.CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

# B2193 CHAIN OF ECM-IMMU

## Description

INFOID:0000000005492138

BCM performs the ID verification with ECM that allows the engine to start. BCM starts the communication with ECM if ignition switch is turned ON and starts the engine if the ID is OK. ECM prevents the engine from starting if the ID is not registered.

## DTC Logic

INFOID:0000000005492139

### DTC DETECTION LOGIC

**NOTE:**

- If DTC B2193 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".
- If DTC B2193 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-40, "DTC Logic".

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B2193 | CHAIN OF BCM-ECM | Inactive communication between ECM and BCM | • Harness or connectors (The CAN communication line is open or short)<br>• BCM<br>• ECM |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Check “Self diagnosis result” with CONSULT-III.

Is DTC detected?

YES >> Refer to SEC-225, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000005492140

#### 1.REPLACE BCM

1. Replace BCM. Refer to BCS-81, "Removal and Installation".
2. Perform initialization with CONSULT-III.
   For initialization, refer to “CONSULT-III Operation Manual NATS-IVIS/NVIS”.

Does the engine start?

YES >> INSPECTION END
NO >> GO TO 2.

#### 2.REPLACE ECM

Replace ECM. Refer to EC-16, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

>> INSPECTION END

# B2195 ANTI-SCANNING

## Description

INFOID:0000000005492141

When ignition switch is turned ON, BCM performs ID verification with ECM. If ID verification that is out of the specified specification is detected, BCM prohibits further ID verification and engine cranking.

## DTC Logic

INFOID:0000000005492142

### DTC DETECTION LOGIC

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B2195 | ANTI SCANNING | ID verification between BCM and ECM that is out of the specified specification is detected | ID verification request out of the specified specification |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Check “Self-diagnosis result” using CONSULT-III.

Is DTC detected?

YES >> Refer to SEC-226, "Diagnosis Procedure".
NO >> INSPECTION END.

## Diagnosis Procedure

INFOID:0000000005492143

#### 1.CHECK SELF-DIAGNOSIS RESULT-1

1. Perform “Self-diagnosis result” of BCM using CONSULT-III.
2. Erase DTC.
3. Perform DTC Confirmation Procedure. Refer to SEC-226, "DTC Logic".

Is DTC 2195 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 >> Replace BCM. Refer to BCS-81, "Removal and Installation".

#### 3.CHECK SELF-DIAGNOSIS RESULT-2

1. Obtain the customers approval to remove unspecified accessory part related to engine start, and then remove it.
2. Perform “Self-diagnosis result” of BCM using CONSULT-III.
3. Erase DTC.
4. Perform DTC Confirmation Procedure. Refer to SEC-226, "DTC Logic".

Is DTC 2195 detected?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".
NO >> INSPECTION END

# B2196 DONGLE UNIT

## Description

INFOID:0000000005492144

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

## DTC Logic

INFOID:0000000005492145

### DTC DETECTION LOGIC

**NOTE:**

- If DTC B2196 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-39, "DTC Logic".
- If DTC B2196 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-40, "DTC Logic".

| DTC No. | Trouble diagnosis name | DTC detecting condition | Possible cause |
|---|---|---|---|
| B2196 | DONGLE NG | The ID verification results between BCM and dongle unit is NG. | • Dongle unit<br>• Harness or connectors<br>(Dongle unit circuit is open or shorted.) |

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Turn ignition switch OFF.
3. Turn ignition switch ON.
4. Check “Self-diagnosis result” using CONSULT-III.

Is the DTC detected?

YES >> Refer to SEC-227, "Diagnosis Procedure".
NO >> INSPECTION END.

## Diagnosis Procedure

INFOID:0000000005492146

#### 1.PERFORM INITIALIZATION

1. Perform initialization with CONSULT-III. Reregister all ignition keys. Refer to “CONSULT-III Operation Manual NATS-IVIS/NVIS”.
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 | |
| M65 | 24 | M75 | 7 | Existed |

4. Check continuity between BCM harness connector and ground.

| BCM | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M65 | 24 | | Not existed |

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 | | |
| M75 | 1 | | Existed |

Is the inspection result normal?

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

# POWER SUPPLY AND GROUND CIRCUIT
## BCM
## BCM : Diagnosis Procedure

INFOID:0000000005492147

### 1.CHECK FUSES AND FUSIBLE LINK

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

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

Is the fuse fusing?

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

### 2.CHECK POWER SUPPLY CIRCUIT

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

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

Is the measurement value normal?

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

### 3.CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

| BCM | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M67 | 67 | | Existed |

Does continuity exist?

YES >> INSPECTION END
NO >> Repair harness or connector.

# SECURITY INDICATOR LAMP

## Description

INFOID:0000000005492148

- Security indicator lamp is located on combination meter.
- NVIS (Nissan Vehicle Immobilizer System) and vehicle security system conditions are indicated by blink or illumination of security indicator lamp.

## Component Function Check

INFOID:0000000005492149

### 1.CHECK FUNCTION

1. Perform “THEFT IND” in the “ACTIVE TEST” mode using CONSULT-III.
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-230, "Diagnosis Procedure".

## Diagnosis Procedure

INFOID:0000000005492150

### 1.CHECK SECURITY INDICATOR LAMP POWER SUPPLY CIRCUIT

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

| (+) | | (–) | Voltage (V) (Approx.) |
|---|---|---|---|
| Combination meter | | | |
| Connector | Terminal | | |
| M34 | 27 | Ground | Battery voltage |

Is the inspection result normal?

YES >> GO TO 2.
NO-1 >> Check 10 A fuse [No. 13, located in the fuse block (J/B)].
NO-2 >> Check harness for open or short between combination meter and fuse.

### 2.CHECK SECURITY INDICATOR LAMP SIGNAL

1. Connect combination meter connector.
2. Disconnect BCM connector.
3. Check voltage between BCM harness connector and ground.

| (+) | | (–) | Voltage (V) (Approx.) |
|---|---|---|---|
| BCM | | | |
| Connector | Terminal | | |
| M65 | 23 | Ground | Battery voltage |

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".
NO >> GO TO 3.

### 3.CHECK COMBINATION METER CIRCUIT

1. Disconnect combination meter connector.
2. Check continuity between combination meter harness connector and BCM harness connector.

| Combination meter | | BCM | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M34 | 18 | M65 | 23 | Existed |

3. Check continuity between combination meter harness connector and ground.

| Combination meter | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M34 | 18 | | Not existed |

Is the inspection result normal?

YES >> Replace combination meter. Refer to MWI-97, "Removal and Installation".
NO >> Repair or replace harness.

# HORN FUNCTION

## Description

INFOID:0000000005492151

Perform answer-back for each operation with horn.

## Component Function Check

INFOID:0000000005492152

### 1.CHECK FUNCTION

1. Perform “VEHICLE SECURITY HORN” in the “ACTIVE TEST” mode using CONSULT-III.
2. Check the horn operation.

| Test item | | Description | |
|---|---|---|---|
| VEHICLE SECURITY HORN | ON | Horn | Sounds (for 20 ms) |

Is the operation normal?

YES >> Horn function is OK.
NO >> Go to SEC-232, "Diagnosis Procedure".

## Diagnosis Procedure

INFOID:0000000005492153

### 1.CHECK HORN FUNCTION

Check horn function with horn switch.

Do the horn sound?

YES >> GO TO 2.
NO >> Refer to HRN-2, "Wiring Diagram - HORN -".

### 2.CHECK IPDM E/R POWER SUPPLY

1. Disconnect IPDM E/R connector.
2. Check voltage between IPDM E/R harness connector and ground.

| (+) | | (–) | Voltage (V) (Approx.) |
|---|---|---|---|
| IPDM E/R | | | |
| Connector | Terminal | | |
| E13 | 34 | Ground | Battery voltage |

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-64, "Removal and Installation".
NO >> GO TO 3.

### 3.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 | |
| E13 | 34 | E5 | 1 | Existed |

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

| IPDM E/R | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| E13 | 34 | | Not existed |

Is the inspection result normal?

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

4.CHECK INTERMITTENT INCIDENT

>> INSPECTION END

# HEADLAMP FUNCTION

## Description

INFOID:0000000005492154

Headlamp lighting when vehicle security system is alarm phase.

## Component Function Check

INFOID:0000000005492155

### 1.CHECK FUNCTION

1. Perform “HEAD LAMP(HI)” in the “ACTIVE TEST” mode using CONSULT-III.
2. Check headlamp operation.

| Test item | | Description | |
|---|---|---|---|
| HEAD LAMP (HI) | ON | HEADLAMP (HI) | Lighting |
| | OFF | | Does not lighting |

Is the inspection result normal?

YES >> INSPECTION END
NO >> Refer to SEC-234, "Diagnosis Procedure".

## Diagnosis Procedure

INFOID:0000000005492156

### 1.CHECK HEADLAMP FUNCTION

Refer to EXL-47, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

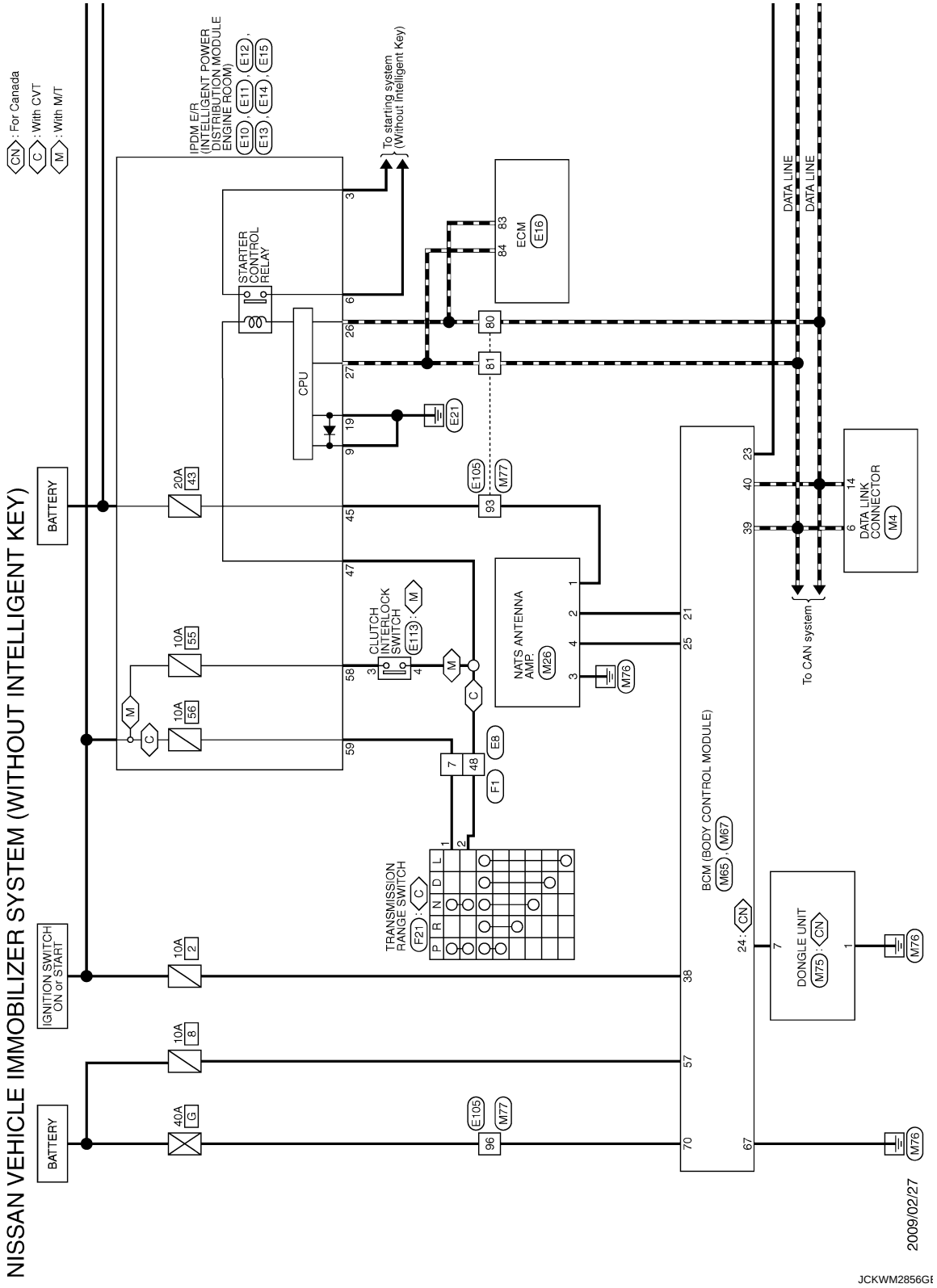
### 2.CHECK INTERMITTENT INCIDENT

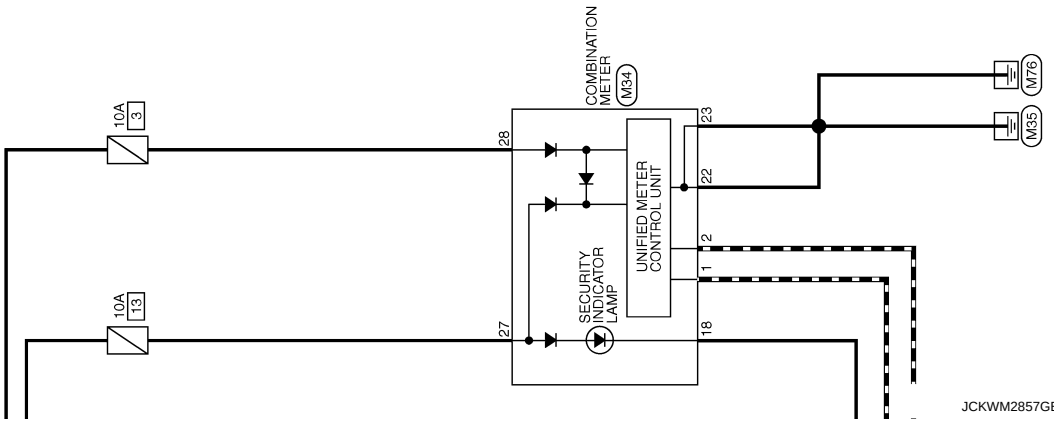
>> INSPECTION END

# NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS

## Wiring Diagram - NISSAN VEHICLE IMMOBILIZER SYSTEM -

INFOID:0000000005492157




COMBINATION METER
M34
10A
3
10A
13
28
27
SECURITY INDICATOR LAMP
UNIFIED METER CONTROL UNIT
23
22
2
1
18
M76
M35
JCKWM2857GB

NISSAN VEHICLE IMMOBILIZER SYSTEM (WITHOUT INTELLIGENT KEY)

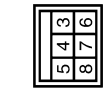
| Connector No. | E8 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | SAA36MB-RS10-SJZ2 |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | BR | – |
| 2 | LG | – |
| 3 | Y | – |
| 4 | W | – |
| 7 | Y | – |
| 8 | SB | – |
| 9 | L | – |
| 10 | V | – |
| 11 | P | – |
| 12 | BR | – |
| 13 | LG | – |
| 14 | Y | – |
| 15 | SB | – |
| 16 | L | – |
| 17 | W | – |
| 18 | O | – |
| 21 | G | – |
| 23 | SB | – |
| 24 | W | – |
| 25 | BR | – |
| 26 | B | – |
| 27 | GR | – |
| 28 | P | – |
| 29 | V | – |
| 30 | G | – |
| 31 | G | – |
| 32 | O | – |
| 33 | W | – |
| 34 | Y | – |
| 35 | V | – |
| 36 | P | – |
| 37 | LG | – |
| 39 | SB | – |
| 40 | GR | – |
| 41 | O | – |
| 42 | V | – |
| 43 | R | = [With CVT] |
| 43 | LG | = [With M/T] |

| Connector No. | E8 | |
|---|---|---|
| | 44 | R |
| | 46 | W |
| | 47 | G |
| | 48 | BR |

| Connector No. | E10 |
|---|---|
| Connector Name | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Type | M06FW-LC |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 3 | BR | – |
| 4 | SB | – |
| 5 | LG | – |
| 6 | SB | – |
| 7 | Y | – |
| 8 | V | – |

| Connector No. | E11 |
|---|---|
| Connector Name | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Type | M06FB-LC |

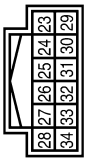
| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 9 | B/W | – |
| 10 | L | – |
| 13 | W | – |

| Connector No. | E12 |
|---|---|
| Connector Name | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Type | NS08FBR-CS |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 18 | Y | – |
| 19 | B/W | – |
| 21 | W | – |
| 22 | V | – |

| Connector No. | E13 |
|---|---|
| Connector Name | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Type | TH12FW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 24 | LG | – |
| 25 | Y | – |
| 26 | P | – |
| 27 | L | – |
| 28 | P | – |
| 30 | SB | – |
| 31 | W | – |
| 33 | O | – |
| 34 | R | – |

| Connector No. | E14 |
|---|---|
| Connector Name | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Type | NS12FBR-CS |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 36 | Y | – |
| 37 | V | – |
| 38 | G | – |
| 39 | V | – |
| 40 | R | – |
| 41 | SB | – |
| 42 | W | – |
| 43 | G | – |
| 44 | P | – |
| 45 | Y | – |
| 46 | O | – |

JCKWM3615GB

NISSAN VEHICLE IMMOBILIZER SYSTEM (WITHOUT INTELLIGENT KEY)

| Connector No. | E15 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | NS16FW-CS |






| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 47 | BR | – |
| 49 | W | – |
| 50 | GR | – |
| 51 | R | – |
| 52 | P | – |
| 54 | GR | – |
| 55 | P | – |
| 56 | SB | – |
| 57 | G | – |
| 58 | R | – [With CVT] |
| 58 | Y | – [With M/T] |
| 59 | Y | – |
| 60 | V | – |
| 61 | W | – |
| 62 | L | – |

| Connector No. | E16 |
|---|---|
| Connector Name | ECM |
| Connector Type | RH24FB-RZ8-L-RH |




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 83 | P | CAN-L |
| 84 | L | CAN-H |
| 88 | LG | K LINE |
| 93 | L | IGNSW |
| 94 | SB | ASCDSW |
| 95 | BR | GNDA-ASCDSW |
| 99 | W | BRAKE |
| 100 | SB | BNCSW |
| 102 | O | AVCC-APS2 |
| 103 | G | APS2 |
| 104 | R | GNDA-APS2 |
| 105 | G | VBR |
| 106 | V | AVCC-APS1 |
| 108 | B | GND |
| 110 | BR | APS1 |
| 111 | Y | GNDA-APS1 |

| Connector No. | E105 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80MW-CS16-TM4 |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | – |
| 2 | W | – |
| 3 | SB | – |
| 4 | G | – |
| 5 | P | – |
| 6 | R | – |
| 7 | Y | – |
| 8 | O | – |
| 9 | W | – |
| 10 | SB | – |
| 31 | V | – |
| 32 | R | – |
| 33 | GR | – |
| 34 | P | – |
| 35 | Y | – |
| 36 | BR | – |
| 39 | SB | – |
| 44 | R | – |
| 45 | V | – |
| 46 | P | – |
| 47 | W | – |
| 48 | L | – |
| 49 | Y | – |
| 50 | W | – |
| 51 | BR | – [With CVT] |
| 51 | B | – [With M/T] |
| 53 | SB | – |
| 54 | W | – [With CVT] |
| 54 | O | – [With M/T] |
| 57 | LG | – |
| 59 | L | – |
| 60 | O | – |
| 61 | G | – |
| 62 | W | – |
| 63 | L | – |
| 67 | GR | – [With CVT] |
| 67 | V | – [With M/T] |
| 69 | P | – |
| 70 | SHIELD | – |
| 71 | GR | – |
| 72 | LG | – |
| 73 | P | – |
| 74 | V | – |
| 76 | Y | – |
| 77 | LG | – |
| 78 | O | – |
| 79 | G | – |
| 80 | P | – |
| 81 | L | – |
| 82 | W | – |
| 83 | BR | – |
| 84 | B | – |
| 87 | GR | – |
| 91 | W | – |
| 92 | Y | – |
| 93 | Y | – |
| 94 | R | – |
| 95 | V | – |
| 96 | LG | – |
| 97 | R | – |
| 98 | SB | – |
| 99 | G | – |
| 100 | P | – |

| Connector No. | E113 |
|---|---|
| Connector Name | CLUTCH INTERLOCK SWITCH |
| Connector Type | M04FW-LC |


| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 3 | Y | – |
| 4 | BR | – |

JCKWM3616GB

NISSAN VEHICLE IMMOBILIZER SYSTEM (WITHOUT INTELLIGENT KEY)

| Connector No. | F1 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | SAA36FB-RS10-SJZ2 |

| 46 | GR | – |
|---|---|---|
| 47 | Y | – |
| 48 | BR | – |

| Connector No. | F21 |
|---|---|
| Connector Name | TRANSMISSION RANGE SWITCH |
| Connector Type | RK08FG |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | – |
| 2 | BR | – |
| 3 | R | – |
| 4 | GR | – |
| 5 | SB | – |
| 6 | W | – |
| 7 | Y | – |
| 8 | G | – |

| Connector No. | M4 |
|---|---|
| Connector Name | DATA LINK CONNECTOR |
| Connector Type | BD16FW |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 4 | B | – |
| 5 | B | – |
| 6 | L | – |
| 7 | GR/R | – |
| 8 | O | – |
| 14 | P | – |
| 16 | LG/R | – |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | SB | – |
| 2 | LG | – |
| 3 | R | – |
| 4 | Y | – |
| 7 | V | – |
| 8 | G | – |
| 9 | SB | – |
| 10 | L | – |
| 11 | Y | – |
| 12 | GR | – |
| 13 | BR | – |
| 14 | G | – |
| 15 | W | – |
| 16 | Y | – |
| 17 | P | – |
| 18 | BR | – |
| 21 | G | – |
| 23 | W | – |
| 24 | R | – |
| 26 | B | – |
| 27 | SB | – |
| 28 | V | – |
| 29 | V | – |
| 30 | BR | – |
| 31 | GR | – |
| 32 | BR | – |
| 33 | W | – |
| 34 | LG | – |
| 35 | V | – |
| 36 | Y | – |
| 37 | W | – |
| 39 | G | – |
| 40 | P | – |
| 41 | O | – |
| 42 | G | – |
| 43 | R | – |
| 44 | P | – |

| Connector No. | M26 |
|---|---|
| Connector Name | NATS ANTENNA AMP. |
| Connector Type | TH04FW-NH |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | Y | BAT |
| 2 | P/L | CLK |
| 3 | LG | DATA [With Intelligent Key] |
| 3 | B | GND [Without Intelligent Key] |
| 4 | B | GND [With Intelligent Key] |
| 4 | LG | DATA [Without Intelligent Key] |

| Connector No. | M34 |
|---|---|
| Connector Name | COMBINATION METER |
| Connector Type | TH40FW-NH |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | L | CAN-H |
| 2 | P | CAN-L |
| 3 | V | VEHICLE SPEED SIGNAL (2-PULSE) |
| 4 | L | VEHICLE SPEED SIGNAL (8-PULSE) |
| 6 | BR/Y | FUEL LEVEL SENSOR SIGNAL |
| 7 | R/G | AIR BAG SIGNAL |
| 8 | P | OVERDRIVE CONTROL SWITCH SIGNAL |
| 9 | O | SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE) |
| 10 | SB | PARKING BRAKE SWITCH SIGNAL |
| 11 | G/R | BRAKE FLUID LEVEL SWITCH SIGNAL |
| 13 | B/R | ILLUMINATION CONTROL SIGNAL |
| 15 | L/Y | ACC POWER SUPPLY |
| 17 | G | WASHER LEVEL SWITCH SIGNAL |
| 18 | R/Y | SECURITY SIGNAL |
| 19 | V/W | AMBIENT SENSOR SIGNAL |
| 20 | R/W | AMBIENT SENSOR GROUND |

| 21 | B | GROUND |
|---|---|---|
| 22 | B | GROUND |
| 23 | B | GROUND |
| 24 | V | FUEL LEVEL SENSOR GROUND |
| 25 | B | VDC GROUND |
| 27 | LG | BATTERY POWER SUPPLY |
| 28 | GR | IGNITION SIGNAL |
| 29 | BR | PASSENGER SEAT BELT WARNING SIGNAL |
| 31 | R | A/C AUTO AMP. CONNECTION RECOGNITION SIGNAL |
| 35 | BR | ENGINE COOLANT TEMPERATURE SIGNAL |
| 38 | GR | ALTERNATOR SIGNAL |

JCKWM3617GB

NISSAN VEHICLE IMMOBILIZER SYSTEM (WITHOUT INTELLIGENT KEY)

| Connector No. | M65 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FW-NH |

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 [Specification] |
|---|---|---|
| 2 | BR/W | COMBI SW INPUT 5 |
| 3 | GR | COMBI SW INPUT 4 |
| 4 | L/Y | COMBI SW INPUT 3 |
| 5 | G | COMBI SW INPUT 2 |
| 6 | L/R | COMBI SW INPUT 1 |
| 7 | W/R | KEY CYL UNLOCK SW |
| 8 | W/B | KEY CYL LOCK SW |
| 9 | R | STOP LAMP SW |
| 10 | W/L | REAR WINDOW DEFOGGER SW |
| 11 | L/Y | ACC |
| 12 | SB | PASSENGER DOOR SW |
| 13 | GR/L | REAR RH DOOR SW |
| 14 | L/B | OPTICAL SENSOR |
| 15 | V/W | TIRE PRESS WARNING CHECK SW |
| 17 | R/G | OPTICAL SENSOR POWER SUPPLY |
| 18 | V | RECEIVER/SENSOR GND |
| 19 | BR | KEYLESS ENTRY RECEIVER POWER SUPPLY |
| 20 | G/Y | KEYLESS ENTRY RECEIVER COMM |
| 21 | P/L | NATS ANTENNA AMP. |
| 23 | R/Y | SECURITY INDICATOR LAMP |
| 24 | GR/R | DONGLE LINK |
| 25 | LG | NATS ANTENNA AMP. |
| 26 | GR | THERMO CONTROL AMP. |
| 27 | Y/G | A/C SW [With auto A/C] |
| 27 | Y/R | A/C SW [With manual A/C] |
| 28 | G/W | BLOWER FAN SW |
| 29 | L/W | HAZARD SW |
| 31 | G/Y | FR DEFROSTER SW |
| 32 | LG | COMBI SW OUTPUT 5 |
| 33 | Y/L | COMBI SW OUTPUT 4 |
| 34 | W | COMBI SW OUTPUT 3 |
| 35 | R/L | COMBI SW OUTPUT 2 |
| 36 | L/O | COMBI SW OUTPUT 1 |
| 37 | R/W | KEY SWITCH |
| 38 | O | IGN |
| 39 | L | CAN-H |
| 40 | P | CAN-L |

| Connector No. | M67 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | FEA09FB-FHA6-SA |

H.S.

| 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 |
|---|---|---|---|---|---|---|---|---|
| 65 | 66 | 67 | 68 | 69 | 70 | | | |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 56 | L | INTERIOR ROOM LAMP POWER SUPPLY |
| 57 | Y | BAT (FUSE) |
| 59 | L/B | DRIVER DOOR UNLOCK OUTPUT |
| 60 | W/B | TURN SIGNAL LH OUTPUT |
| 61 | W/L | TURN SIGNAL RH OUTPUT |
| 63 | BR | ROOM LAMP TIMER CONTROL |
| 65 | V | ALL DOOR LOCK OUTPUT |
| 66 | G | PASSENGER DOOR, REAR DOOR UNLOCK OUTPUT |
| 67 | B | GND |
| 68 | L | POWER WINDOW POWER SUPPLY (IGN) |
| 69 | L/W | POWER WINDOW POWER SUPPLY (BAT) |
| 70 | Y | BAT (F/L) |

| Connector No. | M75 |
|---|---|
| Connector Name | DONGLE UNIT |
| Connector Type | NS08FBR-CS |

H.S.

| 1 | | |
|---|---|---|
| | | 7 |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | B | – |
| 7 | GR/R | – |

| Connector No. | M77 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80FW-CS16-TM4 |

H.S.

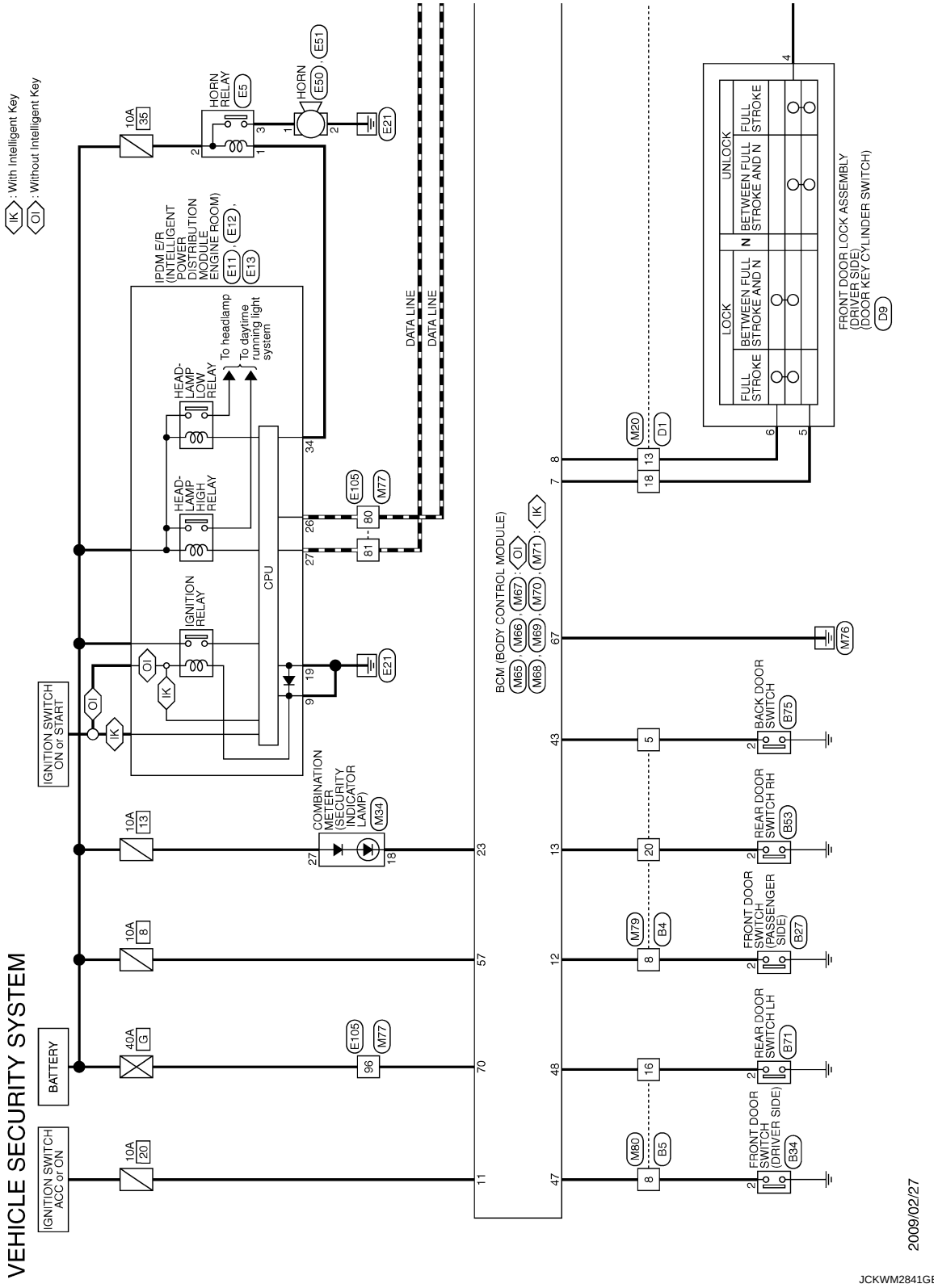
| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | B/O | – |
| 2 | R | – |
| 3 | G/R | – |
| 4 | G/B | – |
| 5 | L | – |
| 6 | L | – |
| 7 | W/R | – |
| 8 | G/W | – |
| 9 | Y/L | – |
| 10 | W | – |
| 31 | GR/L | – |
| 32 | L/B | – |
| 33 | R/Y | – |
| 34 | SB | – |
| 35 | BR | – |
| 36 | G | – |
| 39 | L/R | – |
| 44 | G/O | – |
| 45 | LG/R | – |
| 46 | GR/W | – |
| 47 | BR/Y | – |
| 48 | L/O | – |
| 49 | L/W | – |
| 50 | P/L | – |
| 51 | B/W | – |
| 53 | R/L | – |
| 54 | O | – |
| 57 | GR | – |
| 59 | V | – |
| 60 | R/W | – |
| 61 | V/W | – |
| 62 | W/L | – |
| 63 | W/B | – |
| 67 | Y/R | – |
| 69 | LG | – |
| 70 | SHIELD | – |
| 71 | P/B | – |
| 72 | R/G | – |
| 73 | R | – |
| 74 | L/Y | – |
| 76 | W/G | – |
| 77 | GR/R | – |
| 78 | O | – |
| 79 | LG | – |
| 80 | P | – |
| 81 | L | – |
| 82 | GR | – |
| 83 | G/R | – |
| 84 | B | – |
| 87 | G | – |
| 91 | R | – |
| 92 | O | – |
| 93 | Y | – |
| 94 | R/B | – |
| 95 | L/W | – |
| 96 | Y | – |
| 97 | L | – |
| 98 | BR/W | – |
| 99 | W | – |
| 100 | G/R | – |

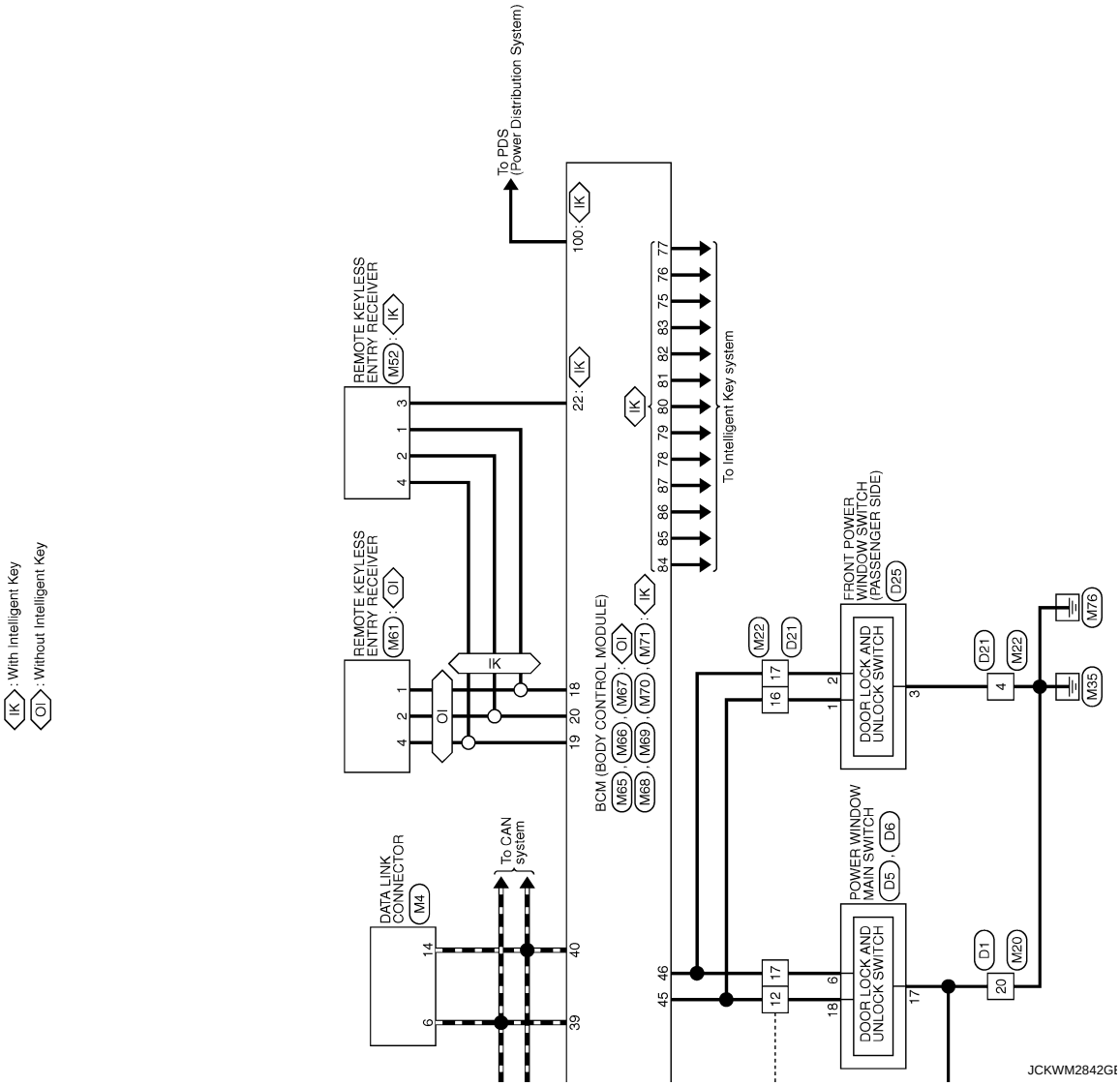
JCKWM3618GB

# VEHICLE SECURITY SYSTEM

## Wiring Diagram - VEHICLE SECURITY SYSTEM -

INFOID:0000000005492158




IK : With Intelligent Key
OI : Without Intelligent Key
To PDS
(Power Distribution System)
100 : IK
REMOTE KEYLESS ENTRY RECEIVER
M52 : IK
22 : IK
REMOTE KEYLESS ENTRY RECEIVER
M61 : OI
IK
OI
BCM (BODY CONTROL MODULE)
M65 , M66 , M67 , M68 , M69 , M70 , M71 : OI
IK
84 85 86 87 78 79 80 81 82 83 75 76 77
To Intelligent Key system
DATA LINK CONNECTOR
M4
To CAN system
14 6
40 39
19 20 18
FRONT POWER WINDOW SWITCH (PASSENGER SIDE)
D25
DOOR LOCK AND UNLOCK SWITCH
M22 D21
16 17
2 1 3
D21 M22
4
M76
M35
POWER WINDOW MAIN SWITCH
D5 , D6
DOOR LOCK AND UNLOCK SWITCH
45 46
12 17
6 18 17
D1 M20
20
JCKWM2842GB

VEHICLE SECURITY SYSTEM

| Connector No. | B4 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH24MW-NH |

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 |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | W | – |
| 2 | V | – |
| 3 | O | – |
| 4 | P | – |
| 5 | W | – |
| 6 | W | – |
| 7 | P | – |
| 8 | SB | – |
| 11 | G | – |
| 12 | SB | – |
| 13 | L | – |
| 15 | R | – |
| 16 | GR | – |
| 17 | BR | – |
| 18 | L | – |
| 19 | Y | – |
| 20 | LG | – |
| 22 | Y | – |
| 23 | BR | – |
| 24 | O | – |

| Connector No. | B5 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH16MW-NH |

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 [Specification] |
|---|---|---|
| 1 | V | – |
| 2 | GR | – |

| 5 | V | – |
|---|---|---|
| 6 | W | – |
| 8 | LG | – |
| 9 | R | – |
| 11 | O | – |
| 13 | GR | – |
| 14 | P | – |
| 16 | W | – |

| Connector No. | B27 |
|---|---|
| Connector Name | FRONT DOOR SWITCH (PASSENGER SIDE) |
| Connector Type | A03FW |

H.S.

| 1 | 2 |
|---|---|

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | SB | – |

| Connector No. | B34 |
|---|---|
| Connector Name | FRONT DOOR SWITCH (DRIVER SIDE) |
| Connector Type | A03FW |

H.S.

| 1 | 2 |
|---|---|

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | LG | – |

| Connector No. | B53 |
|---|---|
| Connector Name | REAR DOOR SWITCH RH |
| Connector Type | A03FW |

H.S.

| 1 | 2 |
|---|---|

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | LG | – |

| Connector No. | B71 |
|---|---|
| Connector Name | REAR DOOR SWITCH LH |
| Connector Type | A03FW |

H.S.

| 1 | 2 |
|---|---|

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | W | – |

| Connector No. | B75 |
|---|---|
| Connector Name | BACK DOOR SWITCH |
| Connector Type | A03FW |

H.S.

| 1 | 2 |
|---|---|

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | L | – |
| 2 | W | – |

| Connector No. | D1 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | NH10FW-CS10 |

H.S.

| 6 | 5 | 4 | | 3 | 2 | 1 |
|---|---|---|---|---|---|---|
| 20 | 19 | 13 | 12 | 11 | 10 | 9 | 8 | 7 |
| | | 18 | 17 | 16 | 15 | 14 | | |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | P | – |
| 2 | SB | – |
| 3 | Y | – |
| 5 | LG | – |
| 6 | R | – |
| 7 | L | – |
| 8 | W | – |
| 9 | BR | – |
| 10 | P | – |
| 12 | GR | – |
| 13 | W | – |
| 14 | G | – |
| 15 | V | – |
| 17 | R | – |
| 18 | L | – |
| 19 | O | – |
| 20 | B | – |

JCKWM3602GB

VEHICLE SECURITY SYSTEM

| Connector No. | D5 |
|---|---|
| Connector Name | POWER WINDOW MAIN SWITCH |
| Connector Type | NS16FW-CS |

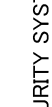
H.S.




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | R | – |
| 2 | LG | – |
| 3 | O | – |
| 5 | Y | – |
| 6 | R | – |
| 7 | LG | – |
| 8 | BR | – |
| 9 | V | – |
| 10 | L | – |
| 11 | GR | – |
| 12 | SB | – |
| 13 | W | – |
| 15 | G | – |
| 16 | W | – |

| Connector No. | D6 |
|---|---|
| Connector Name | POWER WINDOW MAIN SWITCH |
| Connector Type | NS03FW-CS |

H.S.




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 17 | B | – |
| 18 | GR | – |
| 19 | P | – |

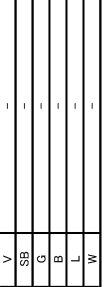
| Connector No. | D9 |
|---|---|
| Connector Name | FRONT DOOR LOCK ASSEMBLY (DRIVER SIDE) |
| Connector Type | E06FGY-RS |

H.S.


| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | – |
| 2 | SB | – |
| 3 | G | – |
| 4 | B | – |
| 5 | L | – |
| 6 | W | – |

| Connector No. | D21 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | NH10FW-CS10 |

H.S.

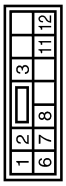



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | G | – |
| 2 | Y | – |
| 4 | B | – |
| 5 | L | – |
| 6 | SB | – |
| 7 | R | – |
| 8 | V | – |
| 9 | R | – |
| 10 | W | – |
| 11 | L | – |
| 12 | LG | – |
| 13 | P | – |
| 14 | B | – |
| 15 | G | – |
| 16 | GR | – |
| 17 | BR | – |

| 18 | V | – |
|---|---|---|
| 20 | W | – |

| Connector No. | D25 |
|---|---|
| Connector Name | FRONT POWER WINDOW SWITCH (PASSENGER SIDE) |
| Connector Type | NS12FW-CS |

H.S.




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | GR | – |
| 2 | BR | – |
| 3 | B | – |
| 6 | Y | – |
| 7 | R | – |
| 8 | L | – |
| 11 | SB | – |
| 12 | W | – |

| Connector No. | E5 |
|---|---|
| Connector Name | HORN RELAY |
| Connector Type | – |

H.S.


| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | R | – |
| 2 | G | – |
| 3 | V | – |

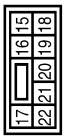
| Connector No. | E11 |
|---|---|
| Connector Name | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Type | M06FB-LC |

H.S.


| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 9 | B/W | – |
| 10 | L | – |
| 13 | W | – |

| Connector No. | E12 |
|---|---|
| Connector Name | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Type | NS08FBR-CS |

H.S.




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 18 | Y | – |
| 19 | B/W | – |
| 21 | W | – |
| 22 | V | – |

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VEHICLE SECURITY SYSTEM

| Connector No. | E13 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH12FW-NH |

H.S.

| 28 | 27 | 26 | 25 | 24 | 23 |
|---|---|---|---|---|---|
| 34 | 33 | 32 | 31 | 30 | 29 |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 24 | LG | – |
| 25 | Y | – |
| 26 | P | – |
| 27 | L | – |
| 28 | P | – |
| 30 | SB | – |
| 31 | W | – |
| 33 | O | – |
| 34 | R | – |

| Connector No. | E50 |
|---|---|
| Connector Name | HORN |
| Connector Type | P01FB-A |

H.S.

1

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | – |

| Connector No. | E51 |
|---|---|
| Connector Name | HORN |
| Connector Type | P01FB-A |

H.S.

2

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | B/W | – |

| Connector No. | E105 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80MW-CS16-TM4 |

H.S.

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | – |
| 2 | W | – |
| 3 | SB | – |
| 4 | G | – |
| 5 | P | – |
| 6 | R | – |
| 7 | Y | – |
| 8 | O | – |
| 9 | W | – |
| 10 | SB | – |
| 31 | V | – |
| 32 | R | – |
| 33 | GR | – |
| 34 | P | – |
| 35 | Y | – |
| 36 | BR | – |
| 39 | SB | – |
| 44 | R | – |
| 45 | V | – |
| 46 | P | – |
| 47 | W | – |
| 48 | L | – |
| 49 | Y | – |
| 50 | W | – |
| 51 | BR | – [With CVT] |
| 51 | B | – [With M/T] |
| 53 | SB | – |
| 54 | W | – [With CVT] |
| 54 | O | – [With M/T] |
| 57 | LG | – |
| 59 | L | – |
| 60 | O | – |
| 61 | G | – |
| 62 | W | – |
| 63 | L | – [With CVT] |
| 67 | GR | – [With M/T] |
| 67 | V | – |
| 69 | P | – |
| 70 | SHIELD | – |
| 71 | GR | – |
| 72 | LG | – |
| 73 | P | – |
| 74 | V | – |
| 76 | Y | – |
| 77 | LG | – |
| 78 | O | – |
| 79 | G | – |
| 80 | P | – |
| 81 | L | – |
| 82 | W | – |
| 83 | BR | – |
| 84 | B | – |
| 87 | GR | – |
| 91 | W | – |
| 92 | Y | – |
| 93 | Y | – |
| 94 | R | – |
| 95 | V | – |
| 96 | LG | – |
| 97 | R | – |
| 98 | SB | – |
| 99 | G | – |
| 100 | P | – |

| Connector No. | M4 |
|---|---|
| Connector Name | DATA LINK CONNECTOR |
| Connector Type | BD16FW |

H.S.

| 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|
| 14 | | | | 16 |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 4 | B | – |
| 5 | B | – |
| 6 | L | – |
| 7 | GR/R | – |
| 8 | O | – |
| 14 | P | – |
| 16 | LG/R | – |

JCKWM3604GB

VEHICLE SECURITY SYSTEM

| Connector No. | M20 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | NH10MW-CS10 |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | L/W | – |
| 2 | W/R | – |
| 3 | Y | – |
| 5 | L/B | – |
| 6 | R | – |
| 7 | L | – |
| 8 | Y/R | – |
| 9 | SB | – |
| 10 | LG | – |
| 12 | GR | – |
| 13 | W/B | – |
| 14 | G/B | – |
| 15 | V | – |
| 17 | BR | – |
| 18 | W/R | – |
| 19 | L/R | – |
| 20 | B | – |

| Connector No. | M22 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | NH10MW-CS10 |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | G | – |
| 2 | G | – |
| 4 | B | – |
| 5 | L | – |
| 6 | W/R | – |
| 7 | R | – |
| 8 | V | – |
| 9 | G/R | – |
| 10 | LG | – |
| 11 | R | – |
| 12 | G | – |
| 13 | BR/Y | – |
| 14 | B | – |
| 15 | G/B | – |
| 16 | GR | – |
| 17 | BR | – |
| 18 | L/Y | – |
| 20 | Y/R | – |

| Connector No. | M34 |
|---|---|
| Connector Name | COMBINATION METER |
| Connector Type | TH40FW-NH |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | L | CAN–H |
| 2 | P | CAN–L |
| 3 | V | VEHICLE SPEED SIGNAL (2-PULSE) |
| 4 | L | VEHICLE SPEED SIGNAL (8-PULSE) |
| 6 | BR/Y | FUEL LEVEL SENSOR SIGNAL |
| 7 | R/G | AIR BAG SIGNAL |
| 8 | P | OVERDRIVE CONTROL SWITCH SIGNAL |
| 9 | O | SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE) |
| 10 | SB | PARKING BRAKE SWITCH SIGNAL |
| 11 | G/R | BRAKE FLUID LEVEL SWITCH SIGNAL |
| 13 | B/R | ILLUMINATION CONTROL SIGNAL |
| 15 | L/Y | ACC POWER SUPPLY |
| 17 | G | WASHER LEVEL SWITCH SIGNAL |
| 18 | R/Y | SECURITY SIGNAL |
| 19 | V/W | AMBIENT SENSOR SIGNAL |
| 20 | R/W | AMBIENT SENSOR GROUND |
| 21 | B | GROUND |
| 22 | B | GROUND |
| 23 | B | GROUND |
| 24 | V | FUEL LEVEL SENSOR GROUND |
| 25 | B | VDC GROUND |
| 27 | LG | BATTERY POWER SUPPLY |
| 28 | GR | IGNITION SIGNAL |

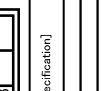
| Connector No. | M52 |
|---|---|
| Connector Name | REMOTE KEYLESS ENTRY RECEIVER |
| Connector Type | JAB04FB |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | GND |
| 2 | G/Y | SIGNAL |
| 3 | W/G | RSSI |
| 4 | BR | POWER |

| Connector No. | M61 |
|---|---|
| Connector Name | REMOTE KEYLESS ENTRY RECEIVER |
| Connector Type | TK04FW |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | – |
| 2 | G/Y | – |
| 4 | BR | – |

| Connector No. | M65 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | BR/W | COMBI SW INPUT 5 |
| 3 | GR | COMBI SW INPUT 4 |
| 4 | L/Y | COMBI SW INPUT 3 |
| 5 | G | COMBI SW INPUT 2 |
| 6 | L/R | COMBI SW INPUT 1 |
| 7 | W/R | KEY CYL UNLOCK SW |
| 8 | W/B | KEY CYL LOCK SW |
| 9 | R | STOP LAMP SW |
| 10 | W/L | REAR WINDOW DEFOGGER SW |
| 11 | L/Y | ACC |
| 12 | SB | PASSENGER DOOR SW |
| 13 | GR/L | REAR RH DOOR SW |
| 14 | L/B | OPTICAL SENSOR |
| 15 | V/W | TIRE PRESS WARNING CHECK SW |
| 17 | R/G | OPTICAL SENSOR POWER SUPPLY |
| 18 | V | RECEIVER/SENSOR GND |
| 19 | BR | KEYLESS ENTRY RECEIVER POWER SUPPLY |
| 20 | G/Y | KEYLESS ENTRY RECEIVER COMM |
| 21 | P/L | NATS ANTENNA AMP. |
| 23 | R/Y | SECURITY INDICATOR LAMP |
| 24 | GR/R | DONGLE LINK |
| 25 | LG | NATS ANTENNA AMP. |
| 26 | GR | THERMO CONTROL AMP. |
| 27 | Y/G | A/C SW [With auto A/C] |
| 27 | Y/R | A/C SW [With manual A/C] |
| 28 | G/W | BLOWER FAN SW |
| 29 | L/W | HAZARD SW |
| 31 | G/Y | FR DEFROSTER SW |
| 32 | LG | COMBI SW OUTPUT 5 |
| 33 | Y/L | COMBI SW OUTPUT 4 |
| 34 | W | COMBI SW OUTPUT 3 |
| 35 | R/L | COMBI SW OUTPUT 2 |
| 36 | L/O | COMBI SW OUTPUT 1 |
| 37 | R/W | KEY SWITCH |
| 38 | O | IGN |
| 39 | L | CAN–H |
| 40 | P | CAN–L |

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VEHICLE SECURITY SYSTEM

| Connector No. | M66 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | FEA09FW-FHA6-SA |

H.S.

| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 |
|---|---|---|---|---|---|---|---|---|
| 50 | 51 | 52 | 53 | 54 | 55 | | | |

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

| Connector No. | M67 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | FEA09FB-FHA6-SA |

H.S.

| 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 |
|---|---|---|---|---|---|---|---|---|
| 65 | 66 | 67 | 68 | 69 | 70 | | | |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 56 | L | INTERIOR ROOM LAMP POWER SUPPLY |
| 57 | Y | BAT (FUSE) |
| 59 | L/B | DRIVER DOOR UNLOCK OUTPUT |
| 60 | W/B | TURN SIGNAL LH OUTPUT |
| 61 | W/L | TURN SIGNAL RH OUTPUT |
| 63 | BR | ROOM LAMP TIMER CONTROL |
| 65 | V | ALL DOOR LOCK OUTPUT |
| 66 | G | PASSENGER DOOR, REAR DOOR UNLOCK OUTPUT |
| 67 | B | GND |
| 68 | L | POWER WINDOW POWER SUPPLY (IGN) |
| 69 | L/W | POWER WINDOW POWER SUPPLY (BAT) |
| 70 | Y | BAT (F/L) |

| Connector No. | M68 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FB-NH |

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 [Specification] |
|---|---|---|
| 2 | BR/W | COMBI SW INPUT 5 |
| 3 | GR | COMBI SW INPUT 4 |
| 4 | L/Y | COMBI SW INPUT 3 |
| 5 | G | COMBI SW INPUT 2 |
| 6 | L/R | COMBI SW INPUT 1 |
| 7 | W/R | KEY CYL UNLOCK SW |
| 8 | W/B | KEY CYL LOCK SW |
| 9 | R | STOP LAMP SW 1 |
| 10 | V/W | TIRE PRESS WARNING CHECK SW |
| 11 | L/Y | ACC F/B |
| 12 | SB | PASSENGER DOOR SW |
| 13 | GR/L | REAR RH DOOR SW |
| 14 | L/B | OPTICAL SENSOR |
| 15 | W/L | REAR WINDOW DEFOGGER SW |
| 17 | R/G | OPTICAL SENSOR POWER SUPPLY |
| 18 | V | RECEIVER / SENSOR GND |
| 19 | BR | KEYLESS ENTRY RECEIVER POWER SUPPLY |
| 20 | G/Y | KEYLESS ENTRY RECEIVER COMM |
| 21 | P/L | NATS ANTENNA AMP |
| 22 | W/G | KEYLESS ENTRY RECEIVER RSSI |
| 23 | R/Y | SECURITY INDICATOR LAMP |
| 24 | GR/R | DONGLE LINK |
| 25 | LG | NATS ANTENNA AMP |
| 27 | Y/R | A/C SW |
| 28 | G/W | BLOWER FAN SW |
| 29 | L/W | HAZARD SW |
| 31 | G/B | DR DOOR UNLOCK SENSOR |
| 32 | LG | COMBI SW OUTPUT 5 |
| 33 | Y/L | COMBI SW OUTPUT 4 |
| 34 | W | COMBI SW OUTPUT 3 |
| 35 | R/L | COMBI SW OUTPUT 2 |
| 36 | L/O | COMBI SW OUTPUT 1 |
| 37 | G/O | SHIFT P |
| 38 | O | IGN F/B |
| 39 | L | CAN-H |
| 40 | P | CAN-L |

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

H.S.

| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 |
|---|---|---|---|---|---|---|---|---|
| 50 | 51 | 52 | 53 | 54 | 55 | | | |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 43 | W | BACK DOOR SW |
| 44 | LG | REAR WIPER STOP POSITION |
| 45 | GR | CENTRAL DOOR LOCK SW |
| 46 | BR | CENTRAL DOOR UNLOCK SW |
| 47 | BR/Y | DRIVER DOOR SW |
| 48 | W/G | REAR LH DOOR SW |
| 54 | L/W | REAR WIPER OUTPUT |
| 55 | G | REAR DOOR UNLOCK OUTPUT |

| Connector No. | M70 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | FEA09FB-FHA6-SA |

H.S.

| 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 |
|---|---|---|---|---|---|---|---|---|
| 65 | 66 | 67 | 68 | 69 | 70 | | | |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 56 | L | INTERIOR ROOM LAMP POWER SUPPLY |
| 57 | Y | BAT (FUSE) |
| 59 | G | PASSENGER DOOR UNLOCK OUTPUT |
| 60 | W/B | TURN SIGNAL LH OUTPUT |
| 61 | W/L | TURN SIGNAL RH OUTPUT |
| 63 | BR | ROOM LAMP TIMER CONTROL |
| 65 | V | ALL DOOR LOCK OUTPUT |
| 66 | L/B | DRIVER DOOR UNLOCK OUTPUT |
| 67 | B | GND |
| 68 | L | POWER WINDOW POWER SUPPLY (IGN) |
| 69 | L/W | POWER WINDOW POWER SUPPLY (BAT) |
| 70 | Y | BAT (F/L) |

| Connector No. | M71 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FW-NH |

H.S.

| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 |

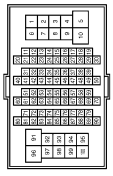
| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 71 | R | TIRE PRESS RECEIVER COMM |
| 72 | R/W | BK DR LOCK ACT RELAY CONT |
| 75 | SB | DRIVER DOOR REQUEST SW |
| 76 | G | PASSENGER DOOR REQUEST SW |
| 77 | W | BACK DOOR REQUEST SW |
| 78 | LG | DRIVER DOOR ANT+ |
| 79 | V | DRIVER DOOR ANT– |
| 80 | BR/Y | PASSENGER DOOR ANT+ |
| 81 | L/Y | PASSENGER DOOR ANT– |
| 82 | W/B | BACK DOOR ANT+ |
| 83 | B/W | BACK DOOR ANT– |
| 84 | Y/G | ROOM ANT+ |
| 85 | Y/L | ROOM ANT– |
| 86 | P | LUGGAGE ROOM ANT+ |
| 87 | L | LUGGAGE ROOM ANT– |
| 90 | W/L | PUSH-BUTTON IGNITION SW ILL POWER |
| 91 | Y | ACC/ON IND |
| 92 | BR/R | PUSH-BUTTON IGNITION SW ILL GND |
| 93 | GR/W | I-KEY WARN BUZZER |
| 94 | Y/R | S/L UNIT COMM |
| 95 | W/G | S/L UNIT POWER SUPPLY |
| 96 | G | ACC RELAY CONT |
| 97 | L/R | STARTER RELAY CONT |
| 98 | BR | IGN RELAY (IPDM E/R) CONT |
| 99 | W/R | IGN RELAY CONT |
| 100 | L/O | PUSH SW |
| 102 | G | SHIFT N/P |
| 104 | Y/R | CVT SHIFT SELECTOR POWER SUPPLY |
| 105 | B/O | STOP LAMP SW 2 |
| 106 | Y/B | BLOWER FAN MOTOR RELAY CONT |
| 107 | L/W | S/L CONDITION 1 |
| 108 | P/L | S/L CONDITION 2 |
| 110 | BR/W | TIRE PRESS POWER SUPPLY |

JCKWM3606GB

VEHICLE SECURITY SYSTEM

| Connector No. | M77 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80FW-CS16-TM4 |

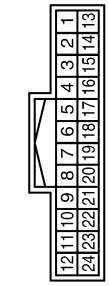
H.S.



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | B/O | – |
| 2 | R | – |
| 3 | G/R | – |
| 4 | G/B | – |
| 5 | L | – |
| 6 | L | – |
| 7 | W/R | – |
| 8 | G/W | – |
| 9 | Y/L | – |
| 10 | W | – |
| 31 | GR/L | – |
| 32 | L/B | – |
| 33 | R/Y | – |
| 34 | SB | – |
| 35 | BR | – |
| 36 | G | – |
| 39 | L/R | – |
| 44 | G/O | – |
| 45 | LG/R | – |
| 46 | GR/W | – |
| 47 | BR/Y | – |
| 48 | L/O | – |
| 49 | L/W | – |
| 50 | P/L | – |
| 51 | B/W | – |
| 53 | R/L | – |
| 54 | O | – |
| 57 | GR | – |
| 59 | V | – |
| 60 | R/W | – |
| 61 | V/W | – |
| 62 | W/L | – |
| 63 | W/B | – |
| 67 | Y/R | – |
| 69 | LG | – |
| 70 | SHIELD | – |
| 71 | P/B | – |
| 72 | R/G | – |
| 73 | R | – |
| 74 | L/Y | – |
| 76 | W/G | – |
| 77 | GR/R | – |
| 78 | O | – |
| 79 | LG | – |
| 80 | P | – |
| 81 | L | – |
| 82 | GR | – |
| 83 | G/R | – |
| 84 | B | – |
| 87 | G | – |
| 91 | R | – |
| 92 | O | – |
| 93 | Y | – |
| 94 | R/B | – |
| 95 | L/W | – |
| 96 | Y | – |
| 97 | L | – |
| 98 | BR/W | – |
| 99 | W | – |
| 100 | G/R | – |

| Connector No. | M79 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH24FW-NH |

H.S.



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | W/G | – |
| 2 | L/Y | – |
| 3 | R | – |
| 4 | P/B | – |
| 5 | W | – |
| 6 | W/G | – |
| 7 | R/B | – |
| 8 | SB | – |
| 11 | G/B | – |
| 12 | G/R | – |
| 13 | R/G | – |
| 15 | R/L | – |
| 16 | GR/R | – |
| 17 | BR/Y | – |
| 18 | V | – |
| 19 | Y | – |
| 20 | GR/L | – |
| 22 | L | – |
| 23 | Y/L | – |
| 24 | G/W | – |

| Connector No. | M80 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH16FW-NH |

H.S.



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | L/B | – |
| 2 | GR/L | – |
| 5 | W | – |
| 6 | W/L | – |
| 8 | BR/Y | – |
| 9 | R/Y | – |
| 11 | O | – |
| 13 | BR/W | – |
| 14 | W/B | – |
| 16 | W/G | – |

JCKWM3607GB

# ECU DIAGNOSIS INFORMATION

## BCM (BODY CONTROL MODULE)

### Reference Value

INFOID:0000000005819882

#### VALUES ON THE DIAGNOSIS TOOL

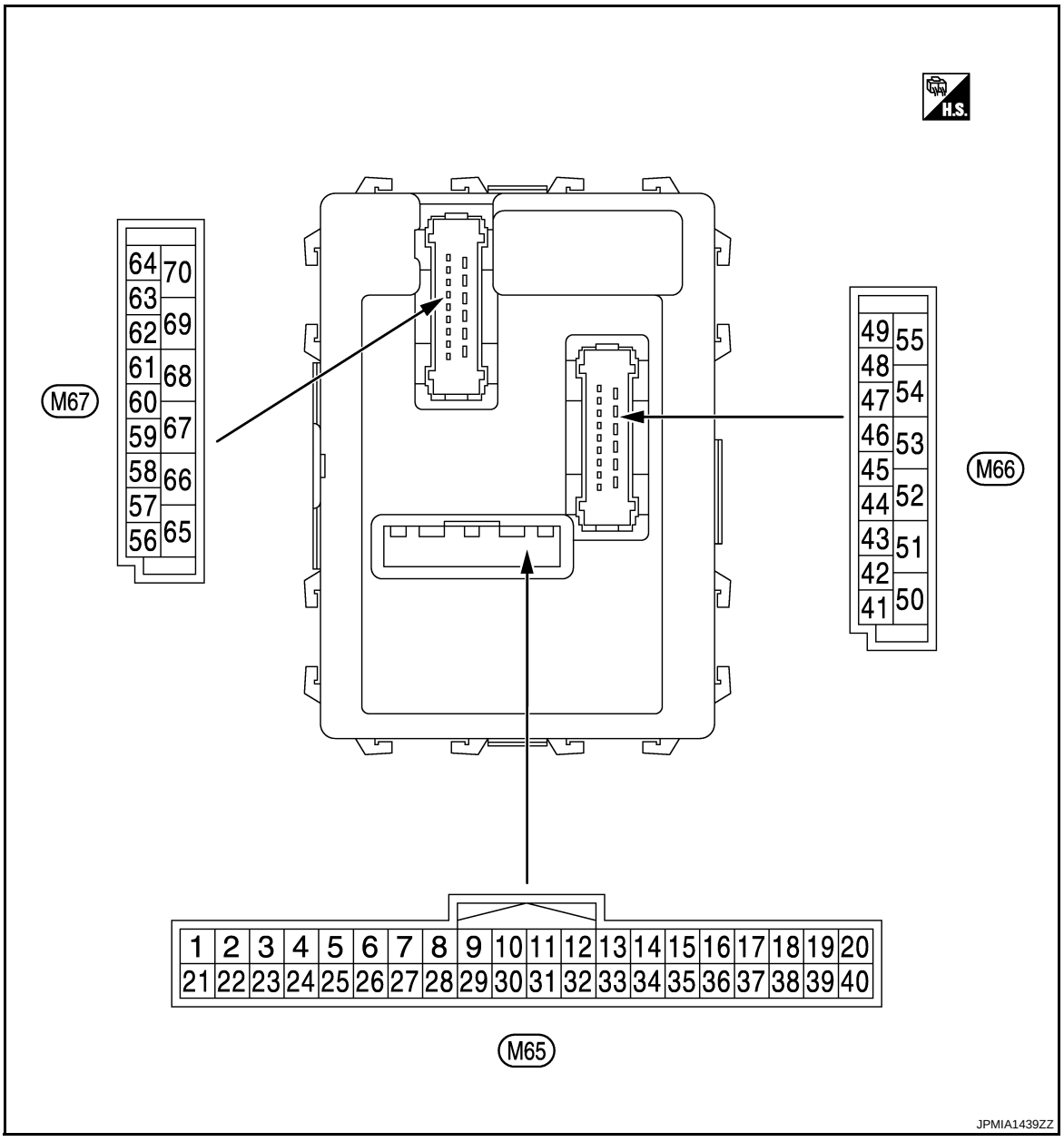
| Monitor Item | Condition | Value/Status |
|---|---|---|
| IGN ON SW | Ignition switch OFF or ACC | Off |
| | Ignition switch ON | On |
| KEY ON SW | Mechanical key is removed from key cylinder | Off |
| | Mechanical key is inserted to key cylinder | On |
| CDL LOCK SW | Door lock/unlock switch does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

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

| Monitor Item | Condition | Value/Status |
|---|---|---|
| FR WIPER INT | Front wiper switch OFF | Off |
| | Front wiper switch INT | On |
| FR WASHER SW | Front washer switch OFF | Off |
| | Front washer switch ON | On |
| INT VOLUME | Wiper intermittent dial is in a dial position 1 - 7 | 1 - 7 |
| FR WIPER STOP | Any position other than front wiper stop position | Off |
| | Front wiper stop position | On |
| RR WIPER ON | Rear wiper switch OFF | Off |
| | Rear wiper switch ON | On |
| RR WIPER INT | Rear wiper switch OFF | Off |
| | Rear wiper switch INT | On |
| RR WASHER SW | Rear washer switch OFF | Off |
| | Rear washer switch ON | On |
| RR WIPER STOP | Rear wiper stop position | Off |
| | Other than rear wiper stop position | On |
| RAIN SENSOR | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| HAZARD SW | Hazard switch OFF | Off |
| | Hazard switch ON | On |
| FAN ON SIG | Blower control dial OFF | Off |
| | Other than blower control dial OFF | On |
| AIR COND SW | • Air conditioner OFF (A/C switch indicator OFF) (Automatic air conditioner)<br>• A/C switch OFF (Manual air conditioner) | Off |
| | • Air conditioner ON (A/C switch indicator ON) (Automatic air conditioner)<br>• A/C switch ON (Manual air conditioner) | On |
| THERMO AMP<br>**NOTE:**<br>At models with automatic air conditioner this item is not monitored. | Ignition switch ON | Off |
| | Evaporator is extremely low temperature | On |
| FR DEF SW | Other than A/C mode defroster ON position | Off |
| | A/C mode defroster ON position | On |
| KEYLESS TRUNK | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| TRNK OPNR SW | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| TRNK OPN MNTR | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| HOOD SW | Close the hood | Off |
| | Open the hood | On |
| TRANSPONDER | Other than the ignition switch is ON by key registered to BCM. | Off |
| | The ignition switch is ON by key registered to BCM. | On |
| INTELLI KEY | **NOTE:**<br>The item is indicated, but not used. | Off |
| AUTO RELOCK | **NOTE:**<br>The item is indicated, but not monitored. | Off |

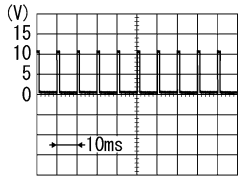
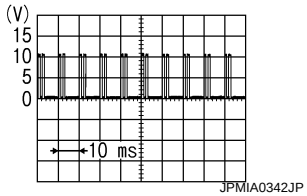
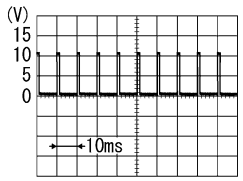
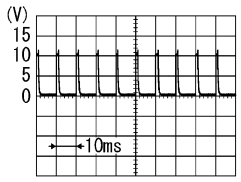
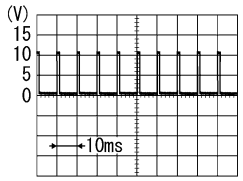
| Monitor Item | Condition | Value/Status |
|---|---|---|
| OIL PRESS SW | • Ignition switch OFF or ACC<br>• Engine running | Off |
| | Ignition switch ON | On |
| BRAKE SW | Brake pedal is not depressed | Off |
| | Brake pedal is depressed | On |

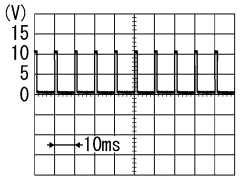
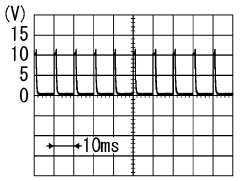
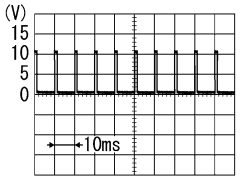
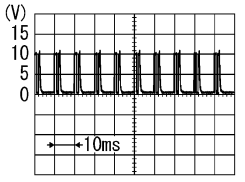
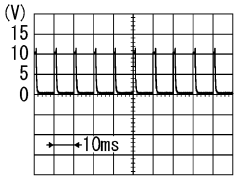
TERMINAL LAYOUT

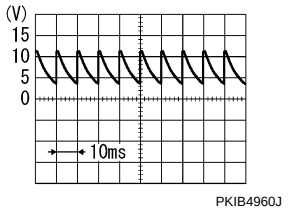
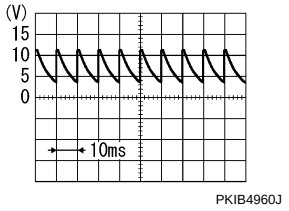
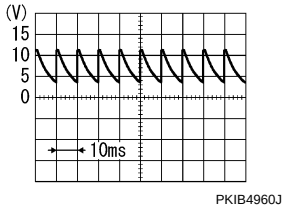


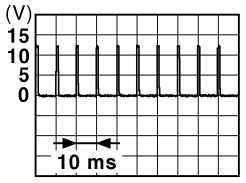
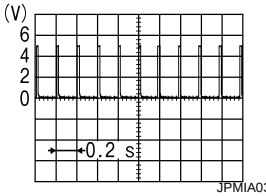
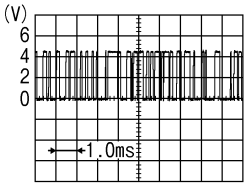
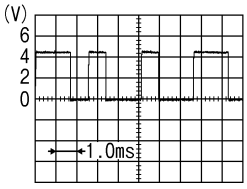

**NOTE:**
- M65, M66: White
- M67: Black

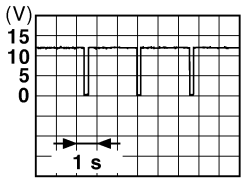
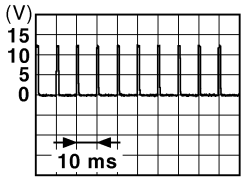
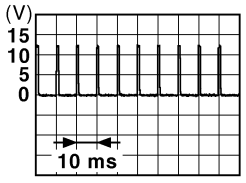
PHYSICAL VALUES

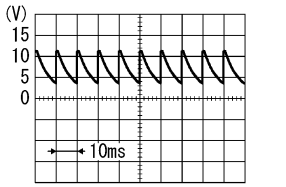
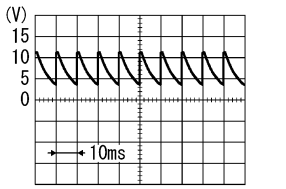
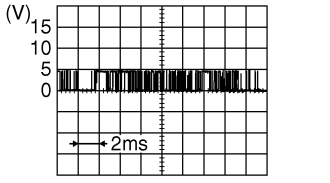
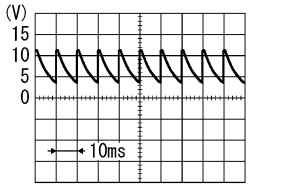
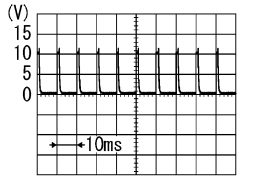
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 2 (BR/W) | Ground | Combination switch INPUT 5 | Input | Combination switch (Wiper intermittent dial 4) | All switch OFF | 0 V |
| | | | | | Turn signal switch RH<br>Lighting switch HI<br>Lighting switch 1ST |  PKIB4958J 1.0 V |
| | | | | | Lighting switch 2ND |  JPMIA0342JP 2.0 V |
| 3 (GR) | Ground | Combination switch INPUT 4 | Input | Combination switch (Wiper intermittent dial 4) | All switch OFF | 0 V |
| | | | | | Turn signal switch LH<br>Lighting switch PASS<br>Lighting switch 2ND |  PKIB4958J 1.0 V |
| | | | | | Front fog lamp switch ON |  PKIB4956J 0.8 V |
| 4 (L/Y) | Ground | Combination switch INPUT 3 | Input | Combination switch (Wiper intermittent dial 4) | All switch OFF | 0 V |
| | | | | | Front wiper switch LO<br>Front wiper switch MIST<br>Front wiper switch INT<br>Lighting switch AUTO |  PKIB4958J 1.0 V |

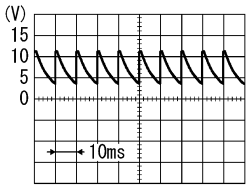
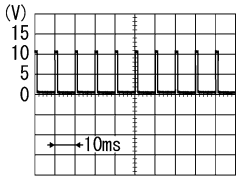
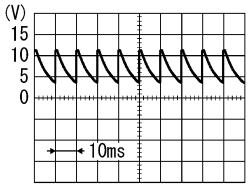
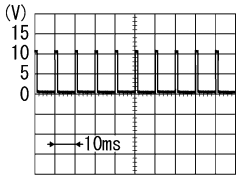
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 5 (G) | Ground | Combination switch INPUT 2 | Input | Combination switch | All switch OFF (Wiper intermittent dial 4) | 0 V |
| | | | | | Front washer switch (Wiper intermittent dial 4) |  PKIB4958J 1.0 V |
| | | | | | Rear washer switch ON (Wiper intermittent dial 4) | |
| | | | | | Any of the condition below with all switch OFF<br>• Wiper intermittent dial 1<br>• Wiper intermittent dial 5<br>• Wiper intermittent dial 6 | |
| | | | | | Rear wiper switch ON (Wiper intermittent dial 4) |  PKIB4956J 0.8 V |
| 6 (L/R) | Ground | Combination switch INPUT 1 | Input | Combination switch | All switch OFF (Wiper intermittent dial 4) | 0 V |
| | | | | | Front wiper switch HI (Wiper intermittent dial 4) |  PKIB4958J 1.0 V |
| | | | | | Rear wiper switch INT (Wiper intermittent dial 4) | |
| | | | | | Wiper intermittent dial 3 (All switch OFF) | |
| | | | | | Any of the condition below with all switch OFF<br>• Wiper intermittent dial 1<br>• Wiper intermittent dial 2 |  PKIB4952J 1.9 V |
| | | | | | Any of the condition below with all switch OFF<br>• Wiper intermittent dial 6<br>• Wiper intermittent dial 7 |  PKIB4956J 0.8 V |

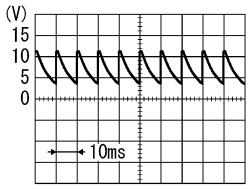
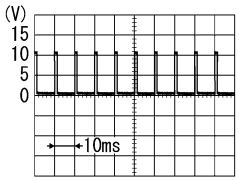
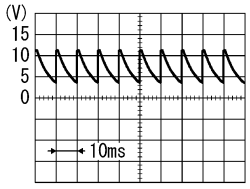
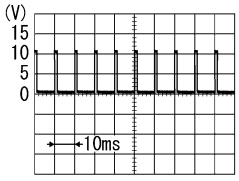
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 7 (W/R) | Ground | Door key cylinder switch UNLOCK | Input | Door key cylinder switch | NEUTRAL position |  7.0 - 8.0 V |
| | | | | | UNLOCK position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

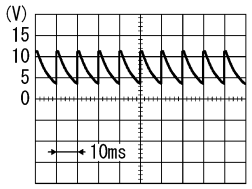
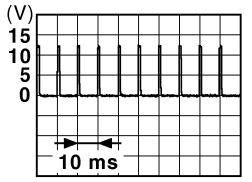
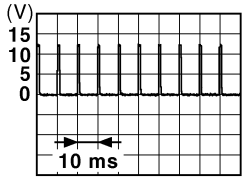
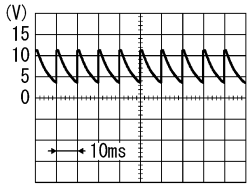
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 15 (V/W) | Ground | Tire pressure warning check switch | Input | Ignition switch OFF | |  JPMIA0012GB<br>1.0 - 1.5 V |
| 17 (R/G) | Ground | Optical sensor power supply | Output | Ignition switch | OFF, ACC | 0 V |
| | | | | | ON | 5 V |
| 18 (V) | Ground | Receiver and sensor ground | Input | Ignition switch ON | | 0 V |
| 19 (BR) | Ground | Remote keyless entry receiver power supply | Input | Ignition switch OFF | Insert mechanical key into ignition key cylinder | 0 V |
| | | | | | Remove mechanical key from ignition key cylinder (Any door opened) | 5 V |
| | | | | | Remove mechanical key from ignition key cylinder (Any door closed) |  JPMIA0338JP |
| 20 (G/Y) | Ground | Remote keyless entry receiver communication | Input | Ignition switch OFF | Insert mechanical key into ignition key cylinder | 0 V |
| | | | | | Waiting |  PIIB7728J |
| | | | | | Signal receiving |  PIIB7729J |
| 21 (P/L) | Ground | Immobilizer antenna (Clock) | Input/ Output | During waiting | Ignition switch is pressed while inserting the key into the key slot. | Just after pressing ignition switch. Pointer of tester should move. |

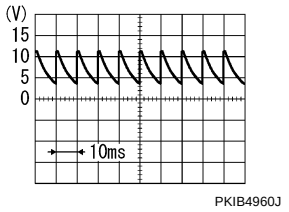
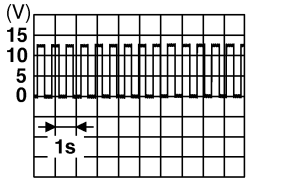
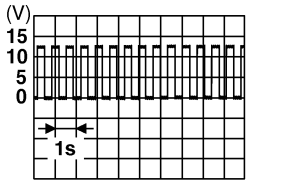
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 23 (R/Y) | Ground | Security indicator | Input | Security indicator | ON | 0 V |
| | | | | | Blinking (Ignition switch OFF) |  JPMIA0014GB 11.3 V |
| | | | | | OFF | 12 V |
| 24 (GR/R) | Ground | Dongle link | Input/ Output | Ignition switch OFF | | 5 V |
| 25 (LG) | Ground | Immobilizer antenna (Rx, Tx) | Input/ Output | During waiting | Ignition switch is pressed while inserting the key into the key slot. | Just after pressing ignition switch. Pointer of tester should move. |
| 26*1 (GR) | Ground | Thermo control amp. | Input | Ignition switch ON | | 0 V |
| | | | | Evaporator is extremely low temperature | | 12 V |
| 27 (Y/G)*2 (Y/R)*3 | Ground | A/C switch (Automatic air conditioner) | Input | A/C | OFF (A/C switch indicator: OFF) |  JPMIA0012GB 1.0 - 1.5 V |
| | | | | | ON (A/C switch indicator: ON) | 0 V |
| | | A/C switch (Manual air conditioner) | | A/C switch | OFF |  JPMIA0012GB 1.0 - 1.5 V |
| | | | | | ON | 0 V |

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 28 (G/W) | Ground | Blower fan switch (Automatic air conditioner) | Input | Fan switch | Blower fan switch OFF | 0 V |
| | | | | | Blower fan switch ON |  PKIB4960J 7.0 - 8.0 V |
| | | Blower fan switch (Manual air conditioner) | | Fan switch | Blower fan switch OFF |  PKIB4960J 7.0 - 8.0 V |
| | | | | | Blower fan switch ON | 0 V |
| 29 (L/W) | Ground | Hazard switch | Input | Hazard switch | OFF | Battery voltage |
| | | | | | ON | 0 V |
| 31 (G/Y) | Ground | Front defroster switch | Input | Ignition switch ON | A/C mode defroster ON position | 0 V |
| | | | | | Other than A/C mode defroster ON position |  JPMIA0589GB 8.0 - 9.0 V |
| 32 (LG) | Ground | Combination switch OUTPUT 5 | Output | Combination switch | All switch OFF (Wiper intermittent dial 4) |  PKIB4960J 7.0 - 8.0 V |
| | | | | | Front fog lamp switch ON (Wiper intermittent dial 4) |  PKIB4956J 1.0 V |
| | | | | | Rear wiper switch ON (Wiper intermittent dial 4) | |
| | | | | | Any of the condition below with all switch OFF<br>• Wiper intermittent dial 1<br>• Wiper intermittent dial 2<br>• Wiper intermittent dial 6<br>• Wiper intermittent dial 7 | |

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 33 (Y/L) | Ground | Combination switch OUTPUT 4 | Output | Combination switch | All switch OFF (Wiper intermittent dial 4) |  PKIB4960J 7.0 - 8.0 V |
| | | | | | Lighting switch 1ST (Wiper intermittent dial 4) |  PKIB4958J 1.2 V |
| | | | | | Lighting switch AUTO (Wiper intermittent dial 4) | |
| | | | | | Rear wiper switch INT (Wiper intermittent dial 4) | |
| | | | | | Any of the condition below with all switch OFF<br>• Wiper intermittent dial 1<br>• Wiper intermittent dial 5<br>• Wiper intermittent dial 6 | |
| 34 (W) | Ground | Combination switch OUTPUT 3 | Output | Combination switch | All switch OFF (Wiper intermittent dial 4) |  PKIB4960J 7.0 - 8.0 V |
| | | | | | Lighting switch 2ND (Wiper intermittent dial 4) |  PKIB4958J 1.2 V |
| | | | | | Lighting switch HI (Wiper intermittent dial 4) | |
| | | | | | Rear washer switch ON (Wiper intermittent dial 4) | |
| | | | | | Any of the condition below with all switch OFF<br>• Wiper intermittent dial 1<br>• Wiper intermittent dial 2<br>• Wiper intermittent dial 3 | |

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 35 (R/L) | Ground | Combination switch OUTPUT 2 | Output | Combination switch (Wiper intermittent dial 4) | All switch OFF |  PKIB4960J 7.0 - 8.0 V |
| | | | | | Lighting switch 2ND<br>Lighting switch PASS<br>Front wiper switch INT<br>Front wiper switch HI |  PKIB4958J 1.2 V |
| 36 (L/O) | Ground | Combination switch OUTPUT 1 | Output | Combination switch (Wiper intermittent dial 4) | All switch OFF |  PKIB4960J 7.0 - 8.0 V |
| | | | | | Turn signal switch RH<br>Turn signal switch LH<br>Front wiper switch LO (Front wiper switch MIST)<br>Front washer switch ON |  PKIB4958J 1.2 V |
| 37 (R/W) | Ground | Key switch | Input | Insert mechanical key into ignition key cylinder | | Battery voltage |
| | | | | Remove mechanical key from ignition key cylinder | | 0 V |
| 38 (O) | Ground | Ignition switch ON | Input | Ignition switch OFF or ACC | | 0 V |
| | | | | Ignition switch ON | | Battery voltage |
| 39 (L) | Ground | CAN-H | Input/ Output | — | | — |
| 40 (P) | Ground | CAN-L | Input/ Output | — | | — |

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 43 (W) | Ground | Back door switch | Input | Back door switch | OFF (When back door closed) |  PKIB4960J 7.0 - 8.0 V |
| | | | | | ON (When back door opened) | 0 V |
| 44 (LG) | Ground | Rear wiper stop position | Input | Ignition switch ON | Rear wiper stop position | 12 V |
| | | | | | Any position other than rear wiper stop position | 0 V |
| 45 (GR) | Ground | Door lock and unlock switch LOCK | Input | Door lock and unlock switch | NEUTRAL position |  JPMIA0012GB 1.0 - 1.5 V |
| | | | | | LOCK position | 0 V |
| 46 (BR) | Ground | Door lock and unlock switch UNLOCK | Input | Door lock and unlock switch | NEUTRAL position |  JPMIA0012GB 1.0 - 1.5 V |
| | | | | | UNLOCK position | 0 V |
| 47 (BR/Y) | Ground | Driver door switch | Input | Driver door switch | OFF (When driver door closed) |  PKIB4960J 7.0 - 8.0 V |
| | | | | | ON (When driver door opened) | 0 V |

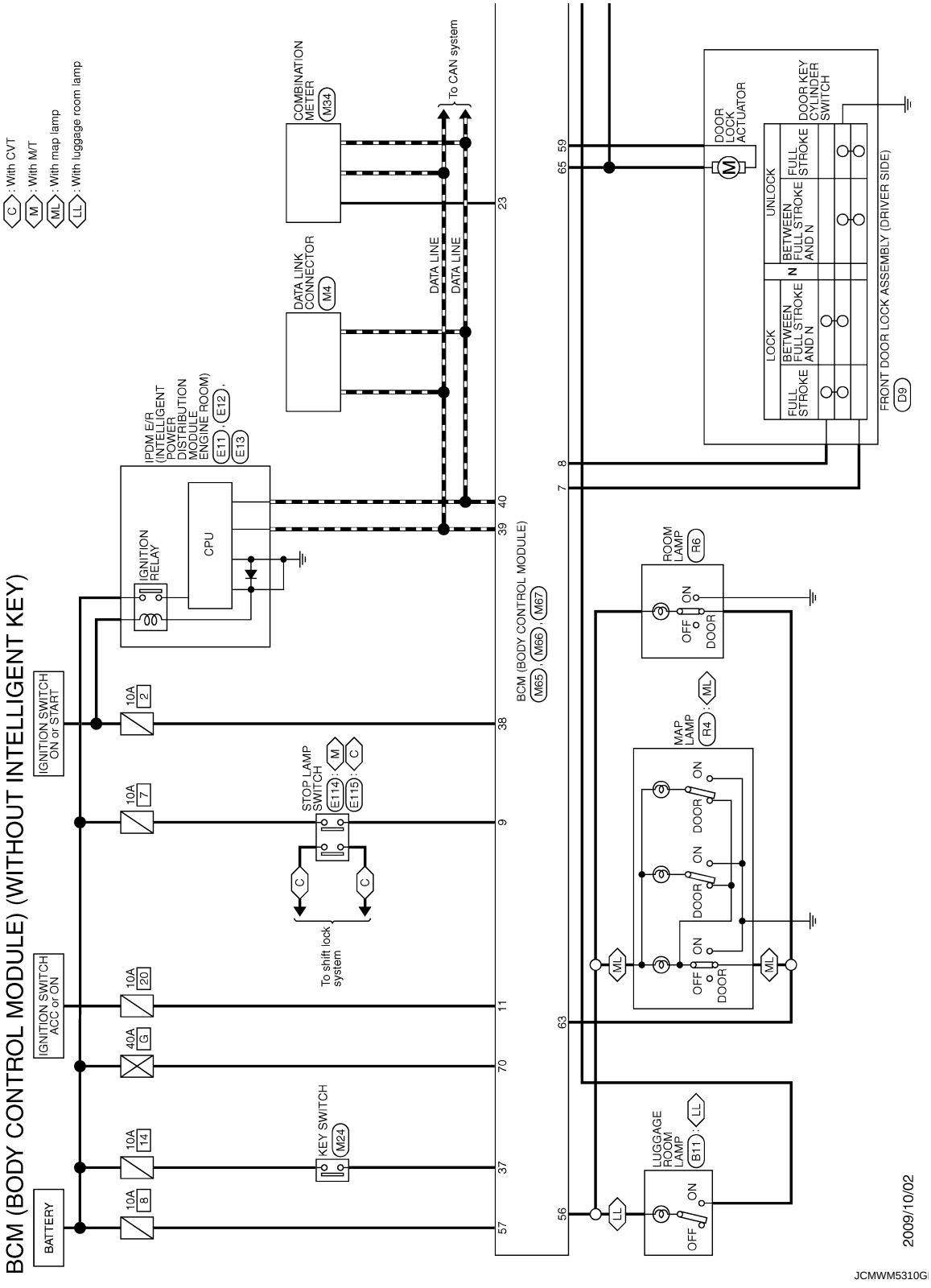
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 48 (W/G) | Ground | Rear LH door switch | Input | Rear LH door switch | OFF (When rear LH door closed) |  PKIB4960J 7.0 - 8.0 V |
| | | | | | ON (When rear LH door opened) | 0 V |
| 50*1 (SB) | Ground | A/C indicator | Output | A/C indicator | OFF | 12 V |
| | | | | | ON | 0 V |
| 54 (L/W) | Ground | Rear wiper | Output | Ignition switch ON | Rear wiper switch OFF | 0 V |
| | | | | | Rear wiper switch ON | 12 V |
| 56 (L) | Ground | Interior room lamp power supply | Output | Interior room lamp battery saver is activated. (Cuts the interior room lamp power supply) | | 0 V |
| | | | | Interior room lamp battery saver is not activated. (Outputs the interior room lamp power supply) | | 12 V |
| 57 (Y) | Ground | Battery power supply | Input | Ignition switch OFF | | Battery voltage |
| 59 (L/B) | Ground | Driver door UNLOCK | Output | Driver door | UNLOCK (Actuator is activated) | 12 V |
| | | | | | Other then UNLOCK (Actuator is not activated) | 0 V |
| 60 (W/B) | Ground | Turn signal LH | Output | Ignition switch ON | Turn signal switch OFF | 0 V |
| | | | | | Turn signal switch LH |  PKIC6370E 6.0 V |
| 61 (W/L) | Ground | Turn signal RH | Output | Ignition switch ON | Turn signal switch OFF | 0 V |
| | | | | | Turn signal switch RH |  PKIC6370E 6.0 V |
| 63 (BR) | Ground | Interior room lamp timer control | Output | Interior room lamp | OFF | 12 V |
| | | | | | ON | 0 V |

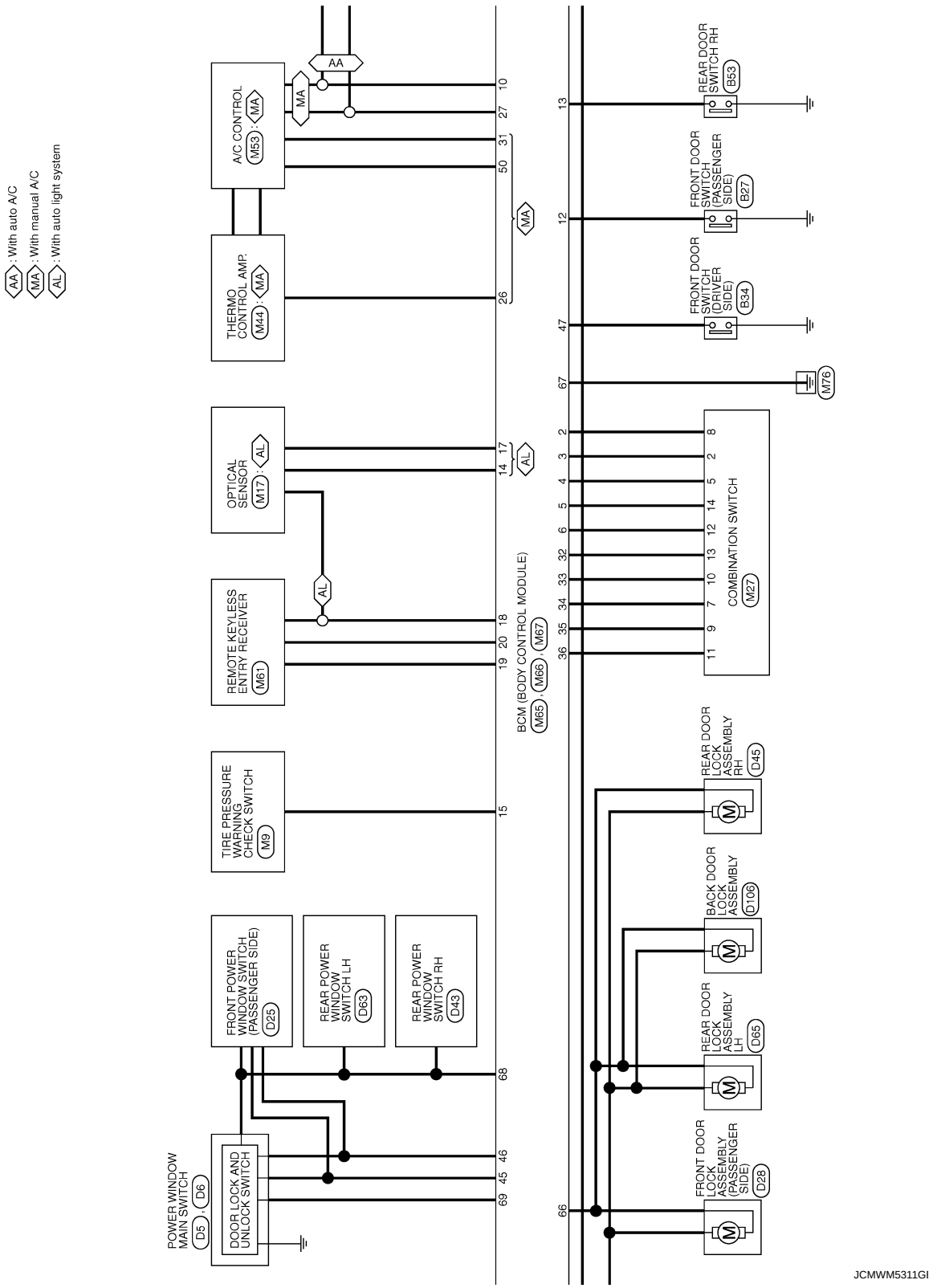
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 65 (V) | Ground | All doors LOCK | Output | All doors | LOCK (Actuator is activated) | 12 V |
| | | | | | Other then LOCK (Actuator is not activated)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

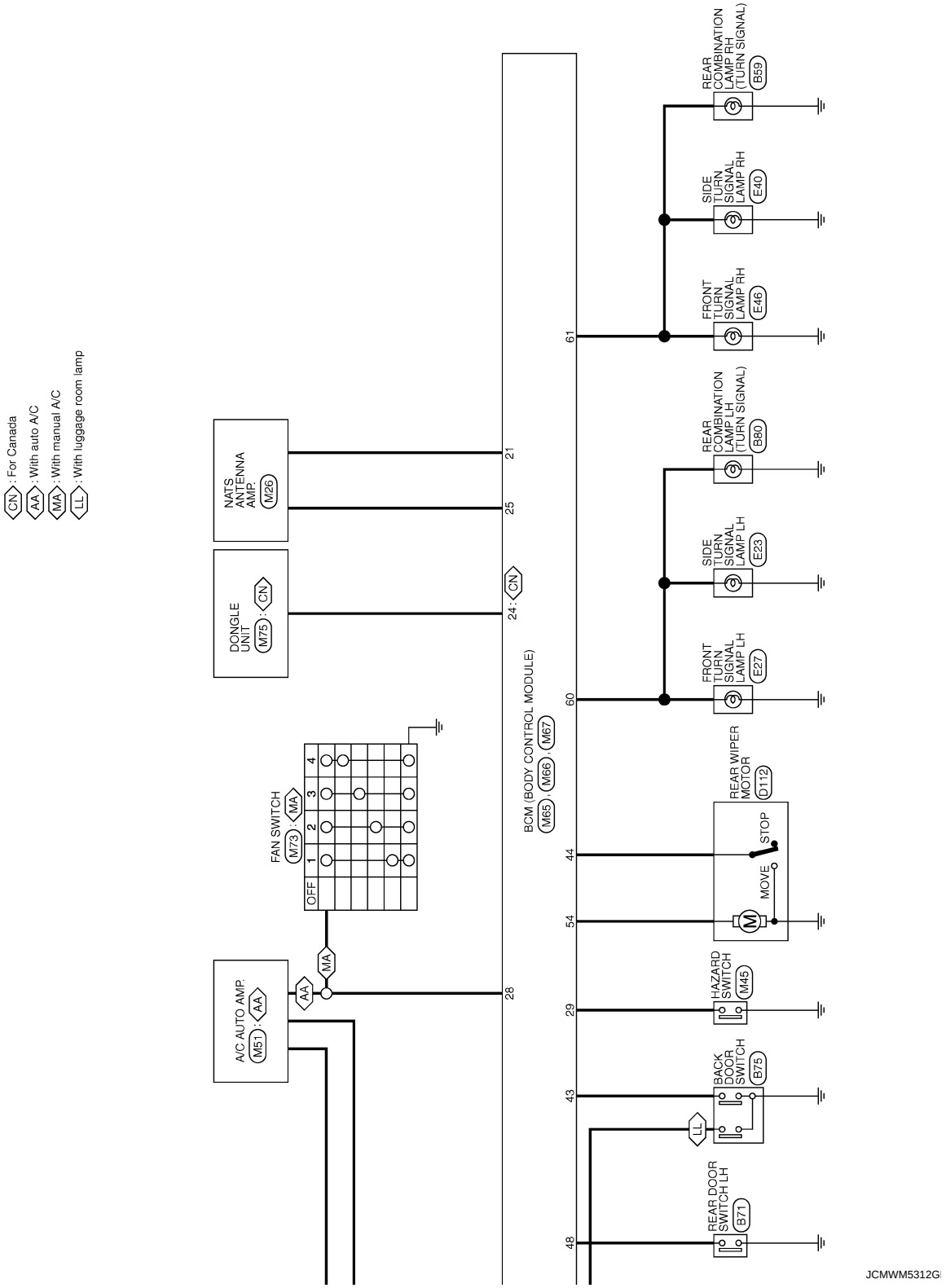
- *1: Only manual air conditioner
- *2: Automatic air conditioner
- *3: Manual air conditioner

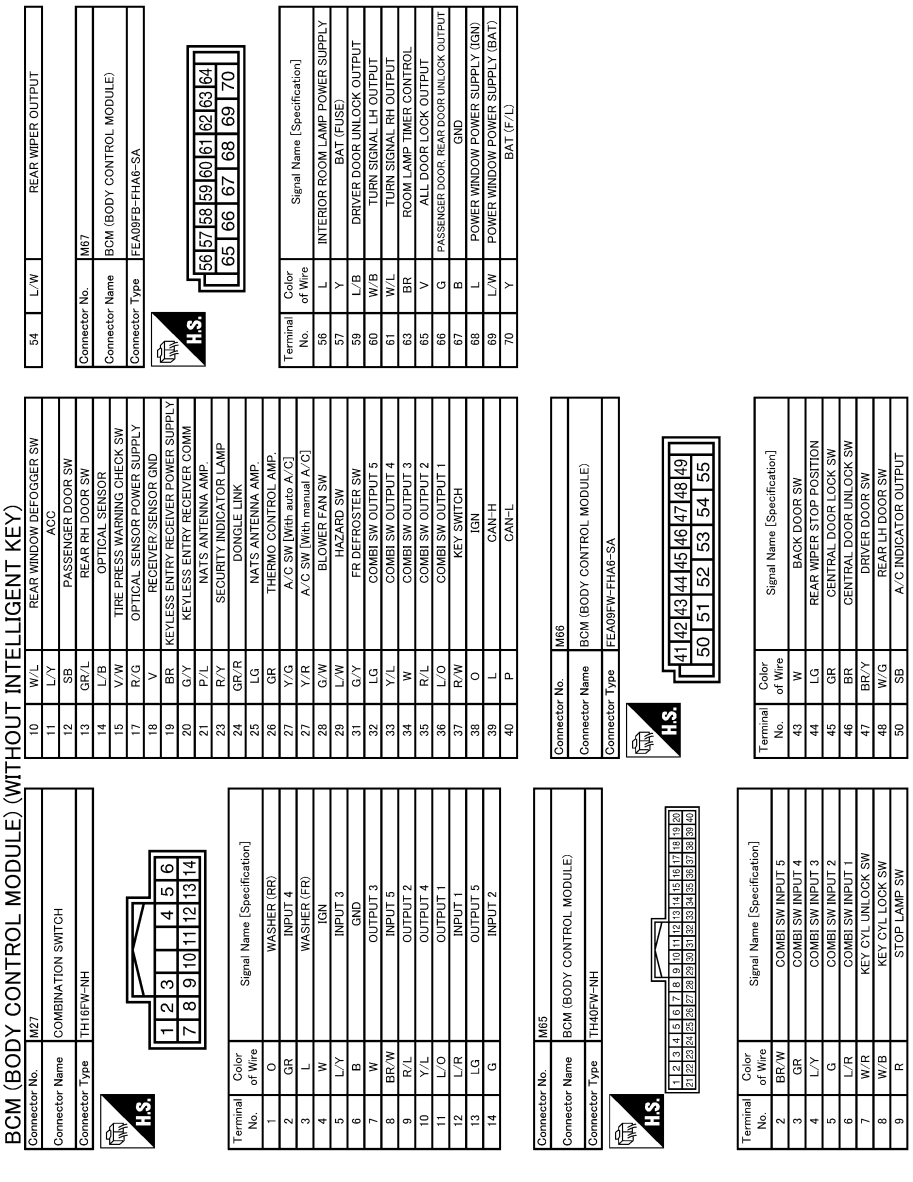
## Wiring Diagram - BCM -

INFOID:0000000005819883




AA : With auto A/C
MA : With manual A/C
AL : With auto light system
A/C CONTROL (M53)
THERMO CONTROL AMP. (M44)
OPTICAL SENSOR (M17)
REMOTE KEYLESS ENTRY RECEIVER (M61)
TIRE PRESSURE WARNING CHECK SWITCH (M9)
FRONT POWER WINDOW SWITCH (PASSENGER SIDE) (D25)
REAR POWER WINDOW SWITCH LH (D63)
REAR POWER WINDOW SWITCH RH (D43)
POWER WINDOW MAIN SWITCH (D5), (D6)
DOOR LOCK AND UNLOCK SWITCH
BCM (BODY CONTROL MODULE) (M65), (M66), (M67)
REAR DOOR SWITCH RH (B53)
FRONT DOOR SWITCH (PASSENGER SIDE) (B27)
FRONT DOOR SWITCH (DRIVER SIDE) (B34)
(M76)
COMBINATION SWITCH (M27)
REAR DOOR LOCK ASSEMBLY RH (D45)
BACK DOOR LOCK ASSEMBLY (D106)
REAR DOOR LOCK ASSEMBLY LH (D65)
FRONT DOOR LOCK ASSEMBLY (PASSENGER SIDE) (D28)
JCMWM5311GI


CN : For Canada
AA : With auto A/C
MA : With manual A/C
LL : With luggage room lamp
NATS ANTENNA AMP. M26
DONGLE UNIT M75 : CN
A/C AUTO AMP. M51 : AA
FAN SWITCH M73 : MA
OFF 1 2 3 4
BCM (BODY CONTROL MODULE) M65 M66 : M67
21
25
24 : CN
28
61
60
44
54
29
43
48
REAR COMBINATION LAMP RH (TURN SIGNAL) B59
SIDE TURN SIGNAL LAMP RH E40
FRONT TURN SIGNAL LAMP RH E46
REAR COMBINATION LAMP LH (TURN SIGNAL) B80
SIDE TURN SIGNAL LAMP LH E23
FRONT TURN SIGNAL LAMP LH E27
REAR WIPER MOTOR D112
STOP
MOVE
HAZARD SWITCH M45
BACK DOOR SWITCH B75
REAR DOOR SWITCH LH B71
JCMWM5312G




JCMWM5313GI

## Fail-safe

*INFOID:0000000005819884*

FAIL-SAFE CONTROL BY DTC

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

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

### REAR WIPER MOTOR PROTECTION

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

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

## DTC Inspection Priority Chart

INFOID:0000000005819885

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

| Priority | DTC |
|---|---|
| 1 | • U1000: CAN COMM<br>• U1010: CONTROL UNIT (CAN) |
| 2 | • B2190: NATS ANTENNA AMP<br>• B2191: DIFFERENCE OF KEY<br>• B2192: ID DISCORD BCM-ECM<br>• B2193: CHAIN OF BCM-ECM<br>• B2195: ANTI SCANNING<br>• B2196: DONGLE NG |
| 3 | C1735: IGN CIRCUIT OPEN |
| 4 | • C1704: LOW PRESSURE FL<br>• C1705: LOW PRESSURE FR<br>• C1706: LOW PRESSURE RR<br>• C1707: LOW PRESSURE RL<br>• C1708: [NO DATA] FL<br>• C1709: [NO DATA] FR<br>• C1710: [NO DATA] RR<br>• C1711: [NO DATA] RL<br>• C1716: [PRESSDATA ERR] FL<br>• C1717: [PRESSDATA ERR] FR<br>• C1718: [PRESSDATA ERR] RR<br>• C1719: [PRESSDATA ERR] RL<br>• C1729: VHCL SPEED SIG ERR<br>• C1734: CONTROL UNIT |

## DTC Index

INFOID:0000000005819886

**NOTE:**
Details of time display
- CRNT: Displays when there is a malfunction now or after returning to the normal condition until turning ignition switch OFF → ON again.
- 1 - 39: Displayed if any previous malfunction is present when current condition is normal. It increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. The counter remains at 39 even if the number of cycles exceeds it. It is counted from 1 again when turning ignition switch OFF → ON after returning to the normal condition if the malfunction is detected again.

| CONSULT display | Fail-safe | Tire pressure monitor warning lamp ON | Reference |
|---|---|---|---|
| U1000: CAN COMM | — | — | BCS-115 |
| U1010: CONTROL UNIT (CAN) | — | — | BCS-116 |
| B2190: NATS ANTENNA AMP | × | — | SEC-219 |
| B2191: DIFFERENCE OF KEY | × | — | SEC-222 |
| B2192: ID DISCORD BCM-ECM | × | — | SEC-223 |
| B2193: CHAIN OF BCM-ECM | × | — | SEC-225 |
| B2195: ANTI SCANNING | × | — | SEC-226 |
| B2196: DONGLE NG | × | — | SEC-227 |
| C1704: LOW PRESSURE FL | — | × | WT-30 |
| C1705: LOW PRESSURE FR | — | × | |
| C1706: LOW PRESSURE RR | — | × | |
| C1707: LOW PRESSURE RL | — | × | |
| C1708: [NO DATA] FL | — | × | WT-32 |
| C1709: [NO DATA] FR | — | × | |
| C1710: [NO DATA] RR | — | × | |
| C1711: [NO DATA] RL | — | × | |
| C1716: [PRESS DATA ERR] FL | — | × | WT-35 |
| C1717: [PRESS DATA ERR] FR | — | × | |
| C1718: [PRESS DATA ERR] RR | — | × | |
| C1719: [PRESS DATA ERR] RL | — | × | |
| C1729: VHCL SPEED SIG ERR | — | × | WT-37 |
| C1734: CONTROL UNIT | — | × | WT-39 |
| C1735: IGN CIRCUIT OPEN | — | — | BCS-117 |

# SYMPTOM DIAGNOSIS

## SECURITY INDICATOR LAMP DOES NOT TURN ON OR BLINK

### Description

INFOID:0000000005492164

Security indicator lamp does not blink when ignition switch is in a position other than ON

**NOTE:**

- Before performing the diagnosis, check “Work Flow”. Refer to SEC-6, "Work Flow".
- Check that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis, and check each symptom.

CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

Ignition switch is not in the ON position.

### Diagnosis Procedure

INFOID:0000000005492165

#### 1.CHECK SECURITY INDICATOR LAMP

Check security indicator lamp.

Refer to SEC-113, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

#### 2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

NO >> GO TO 1.

# VEHICLE SECURITY SYSTEM CANNOT BE SET

## Description

INFOID:0000000005492166

Armed phase is not activated when door is locked using keyfob.

**NOTE:**

Check that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis, and check each symptom.

### CONDITION OF VEHICLE (OPERATING CONDITION)

Confirm the setting of “SECURITY ALARM SET” in “WORK SUPPORT” in “THEFT ALM” using CONSULT-III.

## Diagnosis Procedure

INFOID:0000000005492167

### 1.CHECK REMOTE KEYLESS ENTRY SYSTEM

Lock/unlock door with keyfob.

Refer to DLK-233, "System Description".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check remote keyless entry system. Refer to DLK-308, "Diagnosis Procedure".

### 2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

NO >> GO TO 1.

# VEHICLE SECURITY ALARM DOES NOT ACTIVATE

## Description

INFOID:0000000005492168

Alarm does not operate when alarm operating condition is satisfied.

**NOTE:**

Check that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis, and check each symptom.

### CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

“SECURITY ALARM SET” in “WORK SUPPORT” of “THEFT ALM” is ON when setting on CONSULT-III.

## Diagnosis Procedure

INFOID:0000000005492169

### 1.CHECK DOOR SWITCH

Check door switch.

Refer to DLK-243, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the malfunctioning door switch

### 2.CHECK HEADLAMP FUNCTION

Check headlamp function.

Refer to SEC-234, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

### 3.CHECK HORN FUNCTION

Check horn function.

Refer to SEC-232, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

### 4.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

NO >> GO TO 1.

# PRECAUTION

## PRECAUTIONS

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

INFOID:0000000005839351

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

**WARNING:**

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

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

**WARNING:**

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

# REMOVAL AND INSTALLATION

## NATS ANTENNA AMP.

### Exploded View

INFOID:0000000005492171

Refer to IP-12, "Exploded View".

### Removal and Installation

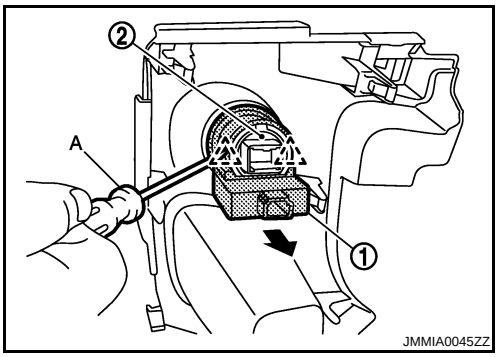
INFOID:0000000005492172

REMOVAL

1. Remove the switch panel finisher.
   Refer to IP-13, "Removal and Installation".
2. Disengage pawl with flat blade screwdriver.

   : Pawl

3. Pull NATS antenna amp.(1) forward and then remove push-button ignition switch (2).




INSTALLATION

Install in the reverse order of removal.