# SECTION WT
# ROAD WHEELS & TIRES



## CONTENTS

**Nismo 370Z**

# BASIC INSPECTION

## DIAGNOSIS AND REPAIR WORK FLOW

### Work Flow

INFOID:0000000004529891

DETAILED FLOW

#### 1.COLLECT THE INFORMATION FROM THE CUSTOMER

It is also important to clarify customer concerns before starting the inspection. Reproduce the symptom, and understand it fully. Interview the customer about the concerns carefully. In some cases, it is necessary to check the symptoms by driving the vehicle with the customer.

**CAUTION:**

**Customers are not professionals. Never assume“maybe the customer means...” or “maybe the customer mentioned this symptom.**

>> GO TO 2.

#### 2.CRUISE TEST

Start the engine and drive the vehicle.

Dose the symptom that customer concerns occur?

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

#### 3.BASIC INSPECTION

Check the tire pressure for all wheels and adjust to the specified value. Refer to WT-100, "Tire Air Pressure".

Is the malfunction corrected?

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

#### 4.PERFORM SELF-DIAGNOSIS

**With CONSULT-III**

Perform self-diagnosis.

Is any DTC detected?

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

#### 5.CHECK SYMPTOM

Perform trouble diagnosis for the applicable symptom. Refer to WT-80, "Symptom Table".

Is the cause of the malfunction detected?

YES >> GO TO 7.
NO >> GO TO 9.

#### 6.CIRCUIT DIAGNOSIS

Inspect the malfunctioning system indicated by the DTC code that is detected during self-diagnosis. Refer to WT-77, "DTC Index".

>> GO TO 7.

#### 7.REPAIR WORK

Repair or replace the malfunctioning part.

>> GO TO 8.

#### 8.PERFORM SELF-DIAGNOSIS

1. Erase the self-diagnosis results memory of the low tire pressure warning control unit.
2. Drive the vehicle.

3. Perform self-diagnosis.

Is any DTC detected?

YES >> GO TO 6.
NO >> GO TO 9.

## 9. FINAL CHECK

1. Perform a cruise test.
2. Check that the low tire pressure warning lamp turns OFF.

Dose the tire pressure warning lamp turn OFF?

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

# INSPECTION AND ADJUSTMENT
# TRANSMITTER WAKE UP OPERATION

## TRANSMITTER WAKE UP OPERATION : Description

INFOID:0000000004470652

This procedure must be done after replacement of a transmitter, BCM, or rotation of wheels.

## TRANSMITTER WAKE UP OPERATION : Special Repair Requirement

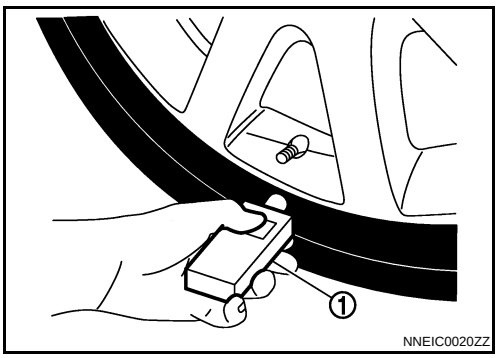
INFOID:0000000004470653

### 1. TRANSMITTER WAKE-UP PROCEDURE

1. Turn the ignition switch ON.
2. Contact the transmitter activation tool (J-45295) (1) to the side of the tire at the location to the transmitter.
3. Press and hold the activation tool button while pushing the tool to the tire surface. (approximately for 5 seconds)

**CAUTION:**

**Perform the wake-up procedure starting from the vehicle front left wheel, then repeat the procedure in the order of the front right wheel, rear right wheel, and rear left wheel.**




4. Check that the low tire pressure warning lamp blinks in the pattern shown as per the following. The pattern indicates that the transmitter wake-up procedure for the wheel is completed.

| Low tire pressure warning lamp blinking timing | Activation tire position |
|---|---|
| ON / OFF: a, b — a : 0.3 sec., b : 1.3 sec. | Front LH |
| ON / OFF: a, a, a, b — a : 0.3 sec., b : 1.3 sec. | Front RH |
| ON / OFF: a, a, a, a, b — a : 0.3 sec., b : 1.3 sec. | Rear RH |
| ON / OFF: a, a, a, a, a, b — a : 0.3 sec., b : 1.3 sec. | Rear LH |
| ON / OFF: a, b — a : 2 sec., b : 0.2 sec. | All tires |

SEIA0762E

5. Check that the turn signal lamps blink twice when the transmitter wake-up procedure for all wheels is completed.
6. Check that the low tire pressure warning lamp turns OFF, after the transmitter wake-up procedure is completed for all wheels and turns OFF.

Is the transmitter wake-up procedure completed?

YES >> Perform the transmitter ID registration procedure. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

NO >> Perform trouble diagnosis for the transmitter. Refer to WT-18, "Diagnosis Procedure".

# ID REGISTRATION PROCEDURE

## ID REGISTRATION PROCEDURE : Description

INFOID:0000000004470654

This procedure must be done after replacing or rotating wheels, replacing transmitter or BCM.

## ID REGISTRATION PROCEDURE : Special Repair Requirement

INFOID:0000000004470655

### 1. TRANSMITTER ID REGISTRATION PROCEDURE

With CONSULT-III.

1. Display the “WORK SUPPORT” screen and select “ID REGIST”.

Is the transmitter activation tool (J-45295) used for the transmitter ID registration procedure?

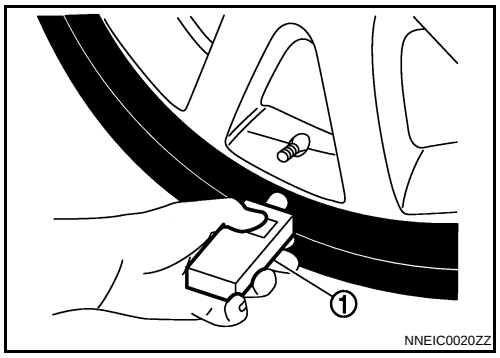
YES >> GO TO 2.
NO >> GO TO 3.

## 2. TRANSMITTER ID REGISTRATION PROCEDURE (WITH TRANSMITTER ACTIVATION TOOL)

1. Turn the ignition switch ON.
2. Select the start button on the “ID REGIST” screen.
3. Contact the transmitter activation tool (J-45295) (1) to the side of the tire at the location to the transmitter.
4. Press and hold the activation tool button while pushing the tool to the tire surface. (approximately for 5 seconds)

**CAUTION:**

**Perform the ID registration procedure starting from the vehicle front left wheel, then repeat the procedure in the order of the front right wheel, rear right wheel, and rear left wheel.**




5. When ID registration is completed, check the following pattern at each wheel.

| Sequence | ID registration position | Turn signal lamp | CONSULT-III |
|---|---|---|---|
| 1 | Front left wheel | 2 blinks | “Red” ↓ “Green” |
| 2 | Front right wheel | | |
| 3 | Rear right wheel | | |
| 4 | Rear left wheel | | |

6. After the ID registration procedure for all wheels is completed, press “END” to end ID registration, and check that ID registration for all wheels is completed.

Is the check result normal?

YES >> ID registration END.
NO >> Performs trouble-diagnosis of the Tire Pressure Monitoring System (TPMS). Refer to WT-12, "AIR PRESSURE MONITOR : Diagnosis Description".

## 3. TRANSMITTER ID REGISTRATION PROCEDURE (WITHOUT TRANSMITTER ACTIVATION TOOL)

1. Adjust the tire pressure for all wheels to match the list below.

| Tire position | Tire pressure kPa (kg/cm$^2$, psi) |
|---|---|
| Front LH | 240 (2.4, 35) |
| Front RH | 220 (2.2, 31) |
| Rear RH | 200 (2.0, 29) |
| Rear LH | 180 (1.8, 26) |

2. Drive the vehicle at a speed at more than 40 km/h (25 MPH) for 3 minutes or more, then perform the transmitter ID registration procedure.
3. After ID registration for all wheels is completed, press “END” to end ID registration.

| ID registration position | CONSULT-III |
|---|---|
| Front LH | “Red” ↓ “Green” |
| Front RH | |
| Rear RH | |
| Rear LH | |

4. Adjust the tire pressures for all wheels to the specified value. Refer to WT-100, "Tire Air Pressure".

Is ID registrations for all wheels completed?

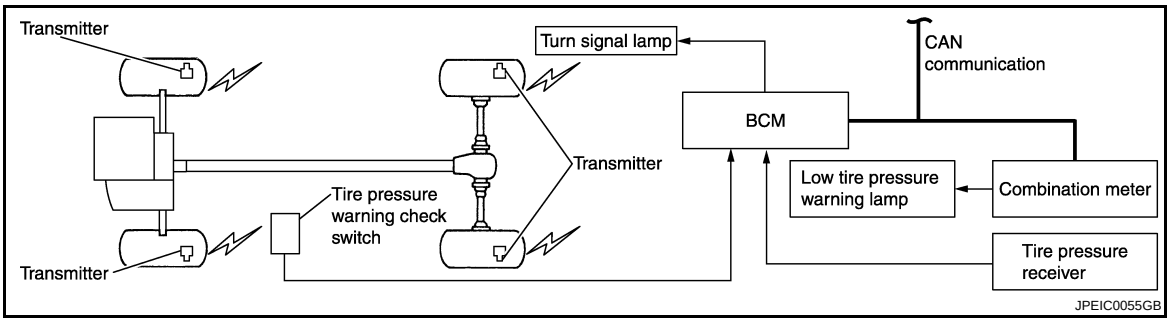
YES >> ID registration END.
NO >> Performs trouble-diagnosis of the Tire Pressure Monitoring System (TPMS). Refer to WT-12, "AIR PRESSURE MONITOR : Diagnosis Description".

# SYSTEM DESCRIPTION

## TPMS

### System Diagram

INFOID:0000000004470656




### System Description

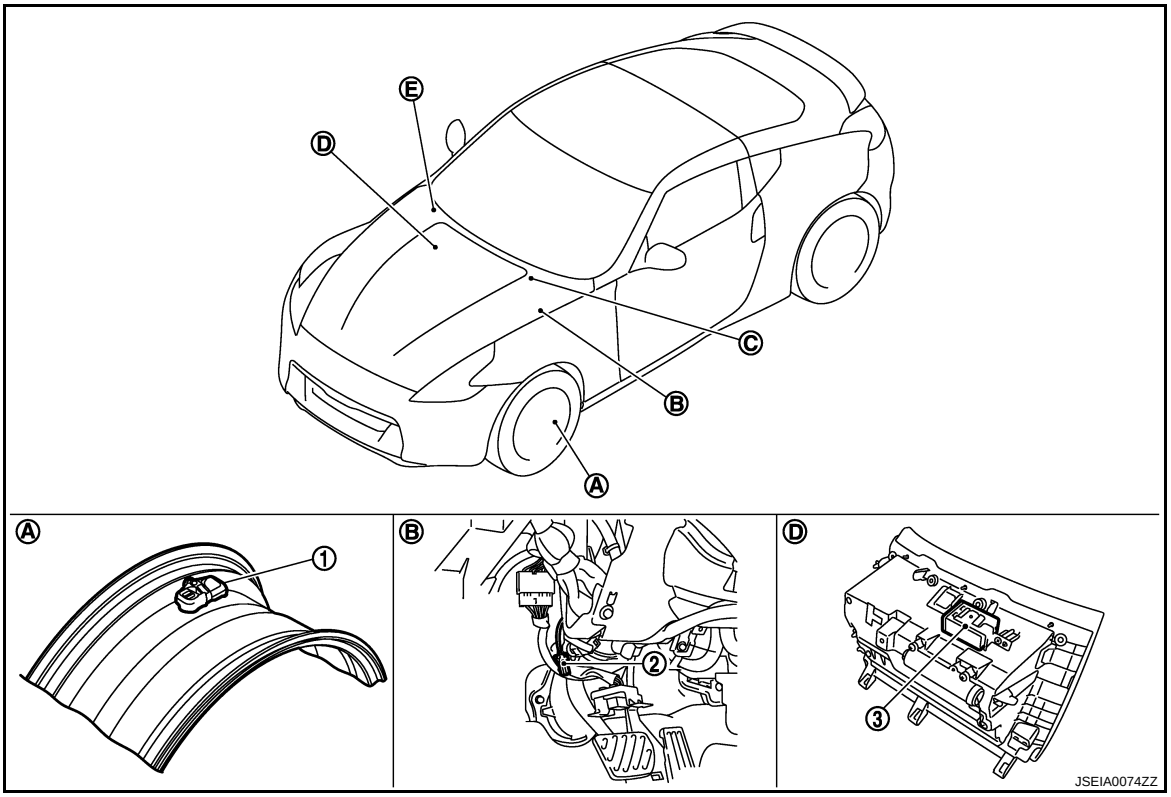
INFOID:0000000004470657

DESCRIPTION

During driving, the TPMS (Tire Pressure Monitoring System) receives the signal transmitted from transmitter installed in each wheel. The BCM (Body Control Module) of this system has pressure judgment and trouble diagnosis functions. When the tire pressure monitoring system detects low inflation pressure or another unusual symptom, the low tire pressure warning lamps in the combination meter comes on.

### Component Parts Location

INFOID:0000000004470658




1. Transmitter
2. Tire pressure warning check switch
3. Tire pressure receiver

A. Wheel
B. Behind instrument lower panel LH
C. Low tire pressure warning lamp (On the combination meter)
D. Glove box assembly
E. BCM Refer to BCS-8, "Component Parts Location"

## Component Description

INFOID:0000000004470659

| Component parts | Function |
|---|---|
| BCM (Body Control Module) | WT-34, "Description". |
| Transmitter | WT-18, "Description". |
| Tire pressure receiver | WT-36, "Description". |
| Tire pressure warning check switch | WT-38, "Description". |
| Turn signal lamp | ID registration of each wheel has been completed, turn signal lamp flashes. |
| Combination meter | Transmits the vehicle speed signal via CAN communication to BCM. |
| | Receives the following signals via CAN communication for BCM.<br>• Low tire pressure warning lamp signal<br>• Hazard lamp signal<br>• Buzzer signal |
| Low tire pressure warning lamp | Illuminates if malfunction is detected in electrical system of TPMS. |

# DIAGNOSIS SYSTEM (BCM)

## COMMON ITEM

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

INFOID:0000000004692754

#### 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 | × | × | × |
| — | AIR CONDITONER* | | | |
| • Intelligent Key system<br>• Engine start system | INTELLIGENT KEY | × | × | × |
| Combination switch | COMB SW | | × | |
| Body control system | BCM | × | | |
| IVIS - NATS | IMMU | | × | × |
| Interior room lamp battery saver | BATTERY SAVER | × | × | × |
| Trunk lid open | TRUNK | | × | × |
| Vehicle security system | THEFT ALM | × | × | × |
| RAP system | RETAINED PWR | | × | |
| Signal buffer system | SIGNAL BUFFER | | × | × |
| TPMS | TPMS (AIR PRESSURE MONITOR) | × | × | × |

**NOTE:**

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

#### FREEZE FRAME DATA (FFD)

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

# AIR PRESSURE MONITOR

## AIR PRESSURE MONITOR : Diagnosis Description

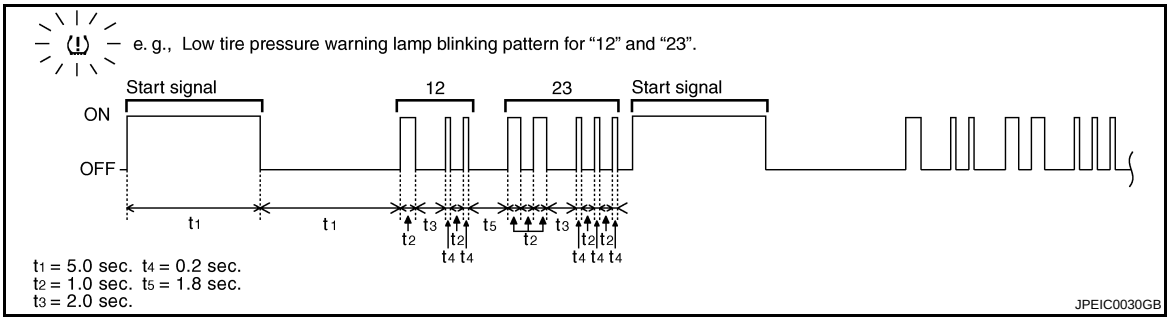
INFOID:0000000004470661

### DESCRIPTION

During driving, the transmitter installed at each road wheel transmits the tire pressure information signal to the receiver. The receiver receives the tire pressure signal and transmits it to the BCM. The BCM judges whether or not the tire pressure is OK based on the tire pressure information signal, and if it judges that the tire pressure is low, it transmits the information via CAN communication to the combination meter.
After receiving the tire pressure information via CAN communication from the BCM, the combination meter illuminates the low tire pressure warning lamp and displays.

### SELF DIAGNOSTIC PROCEDURE

1. Initiate diagnosis mode by short-circuiting the low tire pressure warning check switch to the ground.
2. The blinking pattern of the low tire pressure warning lamp indicates the conditions of the malfunction.




**NOTE:**
If the low tire pressure warning lamp is blinking repeatedly at 5 Hz, there is no malfunction occurring in the system.

| Blinking pattern | Items | Diagnostic items detected when··· | Check item |
|---|---|---|---|
| 15 | Tire pressure value (Front LH) | Front LH tire pressure drops to 189.6 kPa (1.9 kg/cm$^2$, 27 psi) or less. | WT-16 |
| 16 | Tire pressure value (Front RH) | Front RH tire pressure drops to 189.6 kPa (1.9 kg/cm$^2$, 27 psi) or less. | |
| 17 | Tire pressure value (Rear RH) | Rear RH tire pressure drops to 189.6 kPa (1.9 kg/cm$^2$, 27 psi) or less. | |
| 18 | Tire pressure value (Rear LH) | Rear LH tire pressure drops to 189.6 kPa (1.9 kg/cm$^2$, 27 psi) or less. | |
| 21 | Transmitter no data (Front LH) | Data from front LH transmitter cannot be received. | WT-18 |
| 22 | Transmitter no data (Front RH) | Data from front RH transmitter cannot be received. | |
| 23 | Transmitter no data (Rear RH) | Data from rear RH transmitter cannot be received. | |
| 24 | Transmitter no data (Rear LH) | Data from rear LH transmitter cannot be received. | |
| 31 | Transmitter checksum error (Front LH) | Checksum data from front LH transmitter is malfunctioning. | WT-21 |
| 32 | Transmitter checksum error (Front RH) | Checksum data from front RH transmitter is malfunctioning. | |
| 33 | Transmitter checksum error (Rear RH) | Checksum data from rear RH transmitter is malfunctioning. | |
| 34 | Transmitter checksum error (Rear LH) | Checksum data from rear LH transmitter is malfunctioning. | |
| 35 | Transmitter pressure data error (Front LH) | Air pressure data from front LH transmitter is malfunction. | WT-24 |
| 36 | Transmitter pressure data error (Front RH) | Air pressure data from front RH transmitter is malfunction. | |
| 37 | Transmitter pressure data error (Rear RH) | Air pressure data from rear RH transmitter is malfunction. | |
| 38 | Transmitter pressure data error (Rear LH) | Air pressure data from rear LH transmitter is malfunction. | |
| 41 | Transmitter function code error (Front LH) | Function code data from front LH transmitter is malfunction. | WT-26 |
| 42 | Transmitter function code error (Front RH) | Function code data from front RH transmitter is malfunction. | |
| 43 | Transmitter function code error (Rear RH) | Function code data from rear RH transmitter is malfunction. | |
| 44 | Transmitter function code error (Rear LH) | Function code data from rear LH transmitter is malfunction. | |

| Blinking pattern | Items | Diagnostic items detected when··· | Check item |
|---|---|---|---|
| 45 | Transmitter battery voltage low (Front LH) | Battery voltage of front LH transmitter drops. | WT-29 |
| 46 | Transmitter battery voltage low (Front RH) | Battery voltage of front RH transmitter drops. | |
| 47 | Transmitter battery voltage low (Rear RH) | Battery voltage of rear RH transmitter drops. | |
| 48 | Transmitter battery voltage low (Rear LH) | Battery voltage of rear LH transmitter drops. | |
| 52 | Vehicle speed signal error | Vehicle speed signal error. | WT-32 |
| 53 | Control unit | Tire pressure monitoring system malfunction in BCM. | WT-34 |
| No blinking | Tire pressure warning check switch | Tire pressure warning switch circuit is open. | – |

## ERASE SELF-DIAGNOSIS

After performing self-diagnosis by short-circuiting the tire pressure warning check switch to the body, turn the ignition switch OFF.

# AIR PRESSURE MONITOR : CONSULT-III Function

INFOID:0000000004470662

## FUNCTION

The diagnosis functions (main functions) include the following: “WORK SUPPORT”, “SELF DIAGNOSTIC RESULT”, “DATA MONITOR” and “ACTIVE TEST”.

| Diagnostic test mode | Function |
|---|---|
| Work support | In this mode, it is possible to make quick and accurate adjustments by following the instructions on the CONSULT-III display. |
| Self diagnostic result | Receives self-diagnosis results from the low tire pressure warning control unit, and indicates DTCs and the number of malfunctions. |
| Data monitor | Receives input/output signals from the low tire pressure warning control unit and indicates and stores them to facilitate locating the causes of malfunctions. |
| Active test | Transmits command to the low tire pressure warning control unit to change output signals and check operation of output system. |

## WORK SUPPORT MODE

Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

## SELF-DIAG RESULTS MODE

Refer to WT-77, "DTC Index".

## DATA MONITOR MODE

Screen of data monitor mode is displayed.

**NOTE:**

When malfunction is detected, CONSULT-III perform REAL-TIME DIAGNOSIS.
Also, any malfunction detected while in this mode will be displayed at real time.

| Monitor item (Unit) | Remark |
|---|---|
| AIR PRESS FL (kPa), (kg/cm$^2$), (Psi) | Air pressure of tires |
| AIR PRESS FR (kPa), (kg/cm$^2$), (Psi) | |
| AIR PRESS RR (kPa), (kg/cm$^2$), (Psi) | |
| AIR PRESS RL (kPa), (kg/cm$^2$), (Psi) | |

| Monitor item (Unit) | Remark |
|---|---|
| ID REGST FL1 | ID is registered: Done<br>ID is not registered: Yet |
| ID REGST FR1 | |
| ID REGST RR1 | |
| ID REGST RL1 | |
| WARNING LAMP | Low tire pressure warning lamp ON: On<br>Low tire pressure warning lamp OFF: Off |
| BUZZER | Combination meter buzzer ON: On<br>Combination meter buzzer OFF: Off |

**NOTE:**
Before performing the self-diagnosis, be sure to register the ID, or erase the actual malfunction location may be different from that displayed on CONSULT-III.

## ACTIVE TEST MODE

**NOTE:**
Before performing the self-diagnosis, be sure to register the ID, or erase the actual malfunction may be different from that displayed on CONSULT-III.

TEST ITEM LIST

| Test item | Content |
|---|---|
| WARNING LAMP | This test is able to check to check that the low tire pressure warning lamp turns on. |
| ID REGIST WARNING | This test is able to check to check that the buzzer sounds or the low tire pressure warning lamp turns on. |
| FLASHER | This test is able to check to check that each turn signal lamp turns on. |
| HORN | This test is able to check to check that the horn sounds. |

# DTC/CIRCUIT DIAGNOSIS

## C1704, C1705, C1706, C1707 LOW TIRE PRESSURE

### Description

INFOID:0000000004470663

When the tire pressure monitoring system detects low inflation pressure, the low tire pressure warning lamps in the combination meter comes on.

### DTC Logic

INFOID:0000000004470664

#### DTC DETECTION LOGIC

| DTC | Display item | Malfunction detected condition | Possible cause |
|---|---|---|---|
| C1704 | LOW PRESSURE FL | Front LH tire pressure drops to 189.6 kPa (1.9 kg/cm$^2$, 27 psi) or less. | Low tire pressure |
| C1705 | LOW PRESSURE FR | Front RH tire pressure drops to 189.6 kPa (1.9 kg/cm$^2$, 27 psi) or less. | |
| C1706 | LOW PRESSURE RR | Rear RH tire pressure drops to 189.6 kPa (1.9 kg/cm$^2$, 27 psi) or less. | |
| C1707 | LOW PRESSURE RL | Rear LH tire pressure drops to 189.6 kPa (1.9 kg/cm$^2$, 27 psi) or less. | |

#### DTC CONFIRMATION PROCEDURE

##### 1.DTC REPRODUCTION PROCEDURE

With CONSULT-III
1. Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes.
2. Perform BCM (AIR PRESSURE MONITOR) self-diagnosis.

Is DTC “C1704”, “C1705”, “C1706”, “C1707” detected?

YES >> Perform trouble diagnosis. Refer to WT-16, "Diagnosis Procedure".
NO >> INSPECTION END

### Diagnosis Procedure

INFOID:0000000004470665

#### 1.CHECK TIRE PRESSURE

Check the internal pressure of all wheels. Refer to WT-100, "Tire Air Pressure".

Is the inspection result normal?

YES >> Replace the DTC-detected malfunctioning transmitter. Refer to WT-97, "Exploded View".
NO >> After adjusting the air pressure, GO TO 2.

#### 2.CHECK TIRE PRESSURE SIGNAL

With CONSULT-III
1. Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes.
2. On “DATA MONITOR”, select “AIR PRESS FL”, “AIR PRESS FR”, “AIR PRESS RR” and “AIR PRESS RL”, and check that the tire pressures match the standard value.

| Monitor item | Condition | Displayed value |
|---|---|---|
| AIR PRESS FL | Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes. | Internal pressure of tires |
| AIR PRESS FR | | |
| AIR PRESS RR | | |
| AIR PRESS RL | | |

**CAUTION:**
**Stop the vehicle and within 5 minutes, use CONSULT-III “DATA MONITOR” to display the tire pressure for all wheels.**

Is the inspection result normal?

YES >> Inspect or repair the tires or wheels and adjust the tire pressure to the specification.
NO >> GO TO 1.

## Special Repair Requirement

INFOID:0000000004470666

### 1.CHECK TIRE PRESSURE

Check all tires for tire pressures. Refer to WT-100, "Tire Air Pressure".

Does all tire pressure data meet the specification?

YES >> GO TO 2.
NO >> Inspect or repair the tires or wheels and adjust the tire pressure to the specification.

### 2.PERFORM ID REGISTRATION

Perform ID registration. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

>> END

# C1708, C1709, C1710, C1711 TRANSMITTER

## Description

INFOID:0000000004470667

The transmitter integrated with a valve is installed on a wheel, and transmits a detected tire pressure signal by radio wave.

## DTC Logic

INFOID:0000000004470668

### DTC DETECTION LOGIC

| DTC | Display item | Malfunction detected condition | Possible cause |
|---|---|---|---|
| C1708 | [NO DATA] FL | Tire pressure data signal from the front left wheel transmitter cannot be detected. | • Harness or connector (Tire pressure receiver, BCM)<br>• ID registration is not finished<br>• Transmitter malfunction<br>• BCM malfunction |
| C1709 | [NO DATA] FR | Tire pressure data signal from the front right wheel transmitter cannot be detected. | |
| C1710 | [NO DATA] RR | Tire pressure data signal from the rear right wheel transmitter cannot be detected. | |
| C1711 | [NO DATA] RL | Tire pressure data signal from the rear left wheel transmitter cannot be detected. | |

### DTC CONFIRMATION PROCEDURE

#### 1.DTC REPRODUCTION PROCEDURE

With CONSULT-III
1. Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes.
2. Perform BCM (AIR PRESSURE MONITOR) self-diagnosis.

Is DTC “C1708”, “C1709”, “C1710”, “C1711” detected?

YES >> Perform trouble diagnosis. Refer to WT-18, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000004470669

#### 1.CHECK TIRE PRESSURE SIGNAL

With CONSULT-III
1. Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes.
2. On “DATA MONITOR”, select “AIR PRESS FL”, “AIR PRESS FR”, “AIR PRESS RR” and “AIR PRESS RL”, and check that the tire pressures match the standard value.

| Monitor item | Condition | Displayed value |
|---|---|---|
| AIR PRESS FL | Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes. | Internal pressure of tires |
| AIR PRESS FR | | |
| AIR PRESS RR | | |
| AIR PRESS RL | | |

**CAUTION:**
**Stop the vehicle and within 5 minutes, use CONSULT-III “DATA MONITOR” to display the tire pressure for all wheels.**

Is a tire pressure of 0 kPa (0 Psi) displayed for all wheels?

YES >> GO TO 2.
NO >> GO TO 5.

#### 2.CHECK HARNESS BETWEEN BCM AND TIRE PRESSURE RECEIVER

1. Turn the ignition switch OFF.
2. Disconnect BCM harness connector and tire pressure receiver harness connector.
3. Check the continuity between BCM harness connector and tire pressure receiver harness connector.

| BCM | | Tire pressure receiver | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M123 | 137 | M101 | 1 | Existed |
| | 138 | | 4 | |
| | 139 | | 2 | |

4. Check the continuity between BCM harness connector and ground.

| BCM | | — | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M123 | 137 | Ground | Not existed |
| | 138 | | |
| | 139 | | |

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace damaged parts.

## 3. CHECK TIRE PRESSURE RECEIVER POWER SUPPLY CIRCUIT

1. Connect the BCM harness connector.
2. Turn the ignition switch ON.

**CAUTION:**
**Never start the engine.**

3. Check the voltage between the BCM harness connector and ground.

| BCM | | — | Voltage |
|---|---|---|---|
| Connector | Terminal | | |
| M123 | 138 | Ground | 5 V |

Is the inspection result normal?

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

## 4. CHECK TIRE PRESSURE RECEIVER

Check tire pressure receiver. Refer to WT-36, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace tire pressure receiver. Refer to WT-99, "Exploded View".

## 5. CHECK ID REGISTRATION

Perform ID registration of all transmitters. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

Can ID registration of all transmitters be completed?

YES >> GO TO 6.
NO >> Replace transmitter. Refer to WT-97, "Exploded View".

## 6. CHECK TIRE PRESSURE MONITORING SYSTEM

With CONSULT-III

1. Drive at a speed of 40 km/h (25 MPH) or more for several minutes without stopping.
2. On “DATA MONITOR”, select “AIR PRESS FL”, “AIR PRESS FR”, “AIR PRESS RR” and “AIR PRESS RL”, and check that the tire pressures match the standard value.

| Monitor item | Condition | Displayed value |
|---|---|---|
| AIR PRESS FL | Drive at a speed of 40 km/h (25 MPH) or more, for several minutes without stopping. | Internal pressure of tires |
| AIR PRESS FR | | |
| AIR PRESS RR | | |
| AIR PRESS RL | | |

**CAUTION:**
**Stop the vehicle and within 15 minutes use the CONSULT-III "DATA MONITOR" to read the tire pressure for all wheels.**

Is the inspection result normal?

YES >> Replace the DTC-detected malfunctioning transmitter. Refer to WT-97, "Exploded View".
NO >> Replace BCM. Refer to BCS-84, "Exploded View".

## Special Repair Requirement

INFOID:0000000004546513

### 1. CHECK TIRE PRESSURE

Check all tires for tire pressures. Refer to WT-100, "Tire Air Pressure".

Does all tire pressure data meet the specification?

YES >> GO TO 2.
NO >> Inspect or repair the tires or wheels and adjust the tire pressure to the specification.

### 2. PERFORM ID REGISTRATION

Perform ID registration. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

>> END

# C1712, C1713, C1714, C1715 TRANSMITTER

## Description

INFOID:0000000004472073

The transmitter integrated with a valve is installed on a wheel, and transmits a detected tire pressure signal by radio wave.

## DTC Logic

INFOID:0000000004470672

### DTC DETECTION LOGIC

| DTC | Display item | Malfunction detected condition | Possible case |
|---|---|---|---|
| C1712 | [CHECKSUM ERR] FL | Checksum data from front LH transmitter is malfunctioning. | • Tire pressure receiver malfunction<br>• Transmitter malfunction<br>• BCM malfunction<br>• Harness or connector |
| C1713 | [CHECKSUM ERR] FR | Checksum data from front RH transmitter is malfunctioning. | |
| C1714 | [CHECKSUM ERR] RR | Checksum data from rear RH transmitter is malfunctioning. | |
| C1715 | [CHECKSUM ERR] RL | Checksum data from rear LH transmitter is malfunctioning. | |

### DTC CONFIRMATION PROCEDURE

#### 1.DTC REPRODUCTION PROCEDURE

With CONSULT-III
1. Drive at a speed of 40 km/h (25 MPH) or more, then stop the vehicle for several minutes.
2. Perform BCM (AIR PRESSURE MONITOR) self-diagnosis.

Is DTC “C1712”, “C1713”, “C1714“, “C1715” detected?

YES >> Perform trouble diagnosis. Refer to WT-21, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000004470673

#### 1.CHECK ID REGISTRATION

With CONSULT-III
1. Perform the ID registration of all transmitters. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".
2. On “DATA MONITOR”, select “AIR PRESS FL”, “AIR PRESS FR”, “AIR PRESS RR” and “AIR PRESS RL”, and check that the tire pressures match the standard value.

| Monitor item | Condition | Displayed value |
|---|---|---|
| AIR PRESS FL | Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes. | Internal pressure of tires |
| AIR PRESS FR | | |
| AIR PRESS RR | | |
| AIR PRESS RL | | |

**CAUTION:**
**Stop the vehicle and within 5 minutes, use CONSULT-III “DATA MONITOR” to display the tire pressure for all wheels.**

Is the inspection result normal?

YES >> GO TO 7.
NO >> GO TO 2.

#### 2.CHECK TIRE PRESSURE SIGNAL

With CONSULT-III
1. Select “DATA MONITOR” mode for “AIR PRESSURE MONITOR” with CONSULT-III.
2. Read out the value of “AIR PRESS FL”, “AIR PRESS FR”, “AIR PRESS RR” and “AIR PRESS RL”.

3. Check that the tire pressure is the specified value.

| Monitor item | Condition | Displayed value |
|---|---|---|
| AIR PRESS FL | Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes. | Internal pressure of tires |
| AIR PRESS FR | | |
| AIR PRESS RR | | |
| AIR PRESS RL | | |

**CAUTION:**
**Stop the vehicle and within 5 minutes, use CONSULT-III "DATA MONITOR" to display the tire pressure for all wheels.**

Is the inspection 0 kPa (0 Psi)?

YES >> GO TO 3.
NO >> GO TO 6.

## 3. CHECK HARNESS BETWEEN BCM AND TIRE PRESSURE RECEIVER

1. Turn the ignition switch OFF.
2. Disconnect BCM harness connector and tire pressure receiver harness connector.
3. Check the continuity between BCM harness connector and tire pressure receiver harness connector.

| BCM | | Tire pressure receiver | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M123 | 137 | M101 | 1 | Existed |
| | 138 | | 4 | |
| | 139 | | 2 | |

4. Check the continuity between BCM harness connector and ground.

| BCM | | — | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M123 | 137 | Ground | Not existed |
| | 138 | | |
| | 139 | | |

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace error-detected parts.

## 4. CHECK TIRE PRESSURE RECEIVER POWER SUPPLY CIRCUIT

1. Connect the BCM harness connector.
2. Turn the ignition switch ON.
   **CAUTION:**
   **Never start the engine.**
3. Check the voltage between the BCM harness connector and ground.

| BCM | | — | Voltage |
|---|---|---|---|
| Connector | Terminal | | |
| M123 | 138 | Ground | 5 V |

Is the inspection result normal?

YES >> GO TO 5.
NO >> Repair or replace error-detected parts.

## 5. CHECK TIRE PRESSURE RECEIVER

Check the tire pressure receiver. Refer to WT-36, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace tire pressure receiver. Refer to WT-99, "Exploded View".
NO >> GO TO 6.

## 6. CHECK ID REGISTRATION

Perform ID registration of all transmitters. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

Can ID registration of all transmitters be completed?

YES >> GO TO 7.
NO >> Replace the DTC-detected malfunctioning transmitter. Refer to WT-97, "Exploded View".

## 7. CHECK TIRE PRESSURE MONITORING SYSTEM

With CONSULT-III

1. Drive at a speed of 40 km/h (25 MPH) or more for several minutes without stopping.
2. On “DATA MONITOR”, select “AIR PRESS FL”, “AIR PRESS FR”, “AIR PRESS RR” and “AIR PRESS RL”, and check that the tire pressures match the standard value.

| Monitored item | Condition | Display value |
|---|---|---|
| AIR PRESS FL | Start the engine and drive at a 40 km/h (25 MPH) or more for several minutes. | Approximately equal to the indication on vehicle information display. |
| AIR PRESS FR | | |
| AIR PRESS RR | | |
| AIR PRESS RL | | |

**CAUTION:**
**Stop the vehicle and within 15 minutes use the CONSULT-III “DATA MONITOR” to read the tire pressure for all wheels.**

Is the inspection result normal?

YES >> Replace the DTC-detected malfunctioning transmitter. Refer to WT-97, "Exploded View".
NO >> Replace BCM. Refer to BCS-84, "Exploded View".

# Special Repair Requirement

INFOID:0000000004543192

## 1. CHECK TIRE PRESSURE

Check all tires for tire pressures. Refer to WT-100, "Tire Air Pressure".

Does all tire pressure data meet the specification?

YES >> GO TO 2.
NO >> Inspect or repair the tires or wheels and adjust the tire pressure to the specification.

## 2. PERFORM ID REGISTRATION

Perform ID registration. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

>> END

# C1716, C1717, C1718, C1719 TRANSMITTER

## Description

INFOID:0000000004476222

The transmitter integrated with a valve is installed on a wheel, and transmits a detected tire pressure signal by radio wave.

## DTC Logic

INFOID:0000000004470676

### DTC DETECTION LOGIC

| DTC | Display item | Malfunction detected condition | Possible case |
|---|---|---|---|
| C1716 | [PRESSDATA ERR] FL | Malfunction in the tire pressure data from the front left wheel transmitter. | • ID registration is not finished<br>• Transmitter malfunction |
| C1717 | [PRESSDATA ERR] FR | Malfunction in the tire pressure data from the front right wheel transmitter. | |
| C1718 | [PRESSDATA ERR] RR | Malfunction in the tire pressure data from the rear right wheel transmitter. | |
| C1719 | [PRESSDATA ERR] RL | Malfunction in the tire pressure data from the rear left wheel transmitter. | |

### DTC CONFIRMATION PROCEDURE

#### 1.DTC REPRODUCTION PROCEDURE

With CONSULT-III

1. Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes.
2. Perform BCM (AIR PRESSURE MONITOR) self-diagnosis.

Is DTC “C1716”, “C1717”, “C1718”, “C1719” detected?

YES >> Perform trouble diagnosis. Refer to WT-24, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000004470677

#### 1.CHECK TIRE PRESSURE

Check the internal pressure of all wheels. Refer to WT-100, "Tire Air Pressure".

Is the inspection result normal?

YES >> Replace the DTC-detected malfunctioning transmitter. Refer to WT-97, "Exploded View".
NO >> After adjusting the tire pressure, GO TO 2.

#### 2.CHECK TIRE PRESSURE SIGNAL

With CONSULT-III

1. Check and adjust the tire pressure for all wheels. Refer to WT-100, "Tire Air Pressure".
2. Perform transmitter ID registration for all wheels. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".
3. Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes.
4. On “DATA MONITOR”, select “AIR PRESS FL”, “AIR PRESS FR”, “AIR PRESS RR” and “AIR PRESS RL”, and check that the tire pressures match the standard value.
   **CAUTION:**
   **Stop the vehicle and within 15 minutes, use CONSULT-III “DATA MONITOR” to display the tire pressure for all wheels.**
5. Check that “DATA MONITOR” displays tire pressure of 438.60 kPa (63.60 Psi).

Is the inspection 438.60 kPa (63.60 Psi)?

YES >> Replace transmitter the tire pressure 438.60 kPa (63.60 Psi) displayed. Refer to WT-97, "Exploded View".
NO >> GO TO 1.

## Special Repair Requirement

INFOID:0000000004543305

### 1.CHECK TIRE PRESSURE

Check all tires for tire pressures. Refer to WT-100, "Tire Air Pressure".

Does all tire pressure data meet the specification?

YES >> GO TO 2.
NO >> Inspect or repair the tires or wheels and adjust the tire pressure to the specification.

### 2.PERFORM ID REGISTRATION

Perform ID registration. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

>> END

# C1720, C1721, C1722, C1723 TRANSMITTER

## Description

INFOID:0000000004476223

The transmitter integrated with a valve is installed on a wheel, and transmits a detected tire pressure signal by radio wave.

## DTC Logic

INFOID:0000000004470681

### DTC DETECTION LOGIC

| DTC | Display item | Malfunction detected condition | Possible case |
|---|---|---|---|
| C1720 | [CODE ERR] FL | Malfunction in the tire pressure data from the front left wheel transmitter. | • Tire pressure receiver malfunction<br>• Transmitter malfunction<br>• BCM malfunction<br>• Harness or connector |
| C1721 | [CODE ERR] FR | Malfunction in the tire pressure data from the front right wheel transmitter. | |
| C1722 | [CODE ERR] RR | Malfunction in the tire pressure data from the rear right wheel transmitter. | |
| C1723 | [CODE ERR] RL | Malfunction in the tire pressure data from the rear left wheel transmitter. | |

### DTC CONFIRMATION PROCEDURE

#### 1.DTC REPRODUCTION PROCEDURE

With CONSULT-III
1. Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes.
2. Perform BCM (AIR PRESSURE MONITOR) self-diagnosis.

Is DTC “C1720”, “C1721”, “C1722”, “C1723” detected?

YES >> Perform trouble diagnosis. Refer to WT-26, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000004470682

#### 1.CHECK ID REGISTRATION

With CONSULT-III
1. Perform the ID registration of all transmitters. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".
2. Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes.
3. On “DATA MONITOR”, select “AIR PRESS FL”, “AIR PRESS FR”, “AIR PRESS RR” and “AIR PRESS RL”, and check that the tire pressures match the standard value.

| Monitor item | Condition | Displayed value |
|---|---|---|
| AIR PRESS FL | Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes. | Internal pressure of tires |
| AIR PRESS FR | | |
| AIR PRESS RR | | |
| AIR PRESS RL | | |

**CAUTION:**
**Stop the vehicle and within 5 minutes, use CONSULT-III “DATA MONITOR” to display the tire pressure for all wheels.**

Is the inspection result normal?

YES >> GO TO 6.
NO >> GO TO 2.

#### 2.CHECK TIRE PRESSURE SIGNAL

With CONSULT-III
1. Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes.

2. On “DATA MONITOR”, select “AIR PRESS FL”, “AIR PRESS FR”, “AIR PRESS RR” and “AIR PRESS RL”, and check that the tire pressures match the standard value.

| Monitor item | Condition | Displayed value |
|---|---|---|
| AIR PRESS FL | Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes. | Internal pressure of tires |
| AIR PRESS FR | | |
| AIR PRESS RR | | |
| AIR PRESS RL | | |

Are all tire pressure displayed 0 kPa (0 Psi)?

YES >> GO TO 3.
NO >> GO TO 6.

## 3. CHECK HARNESS BETWEEN BCM AND TIRE PRESSURE RECEIVER

1. Turn the ignition switch OFF.
2. Disconnect BCM harness connector and tire pressure receiver harness connector.
3. Check continuity between BCM harness connector and tire pressure receiver harness connector.

| BCM | | Tire pressure receiver | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M123 | 137 | M101 | 1 | Existed |
| | 138 | | 4 | |
| | 139 | | 2 | |

4. Check continuity between BCM harness connector and ground.

| BCM | | — | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M123 | 137 | Ground | Not existed |
| | 138 | | |
| | 139 | | |

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace error-detected parts.

## 4. CHECK TIRE PRESSURE RECEIVER POWER SUPPLY CIRCUIT

1. Connect the BCM harness connector.
2. Turn the ignition switch ON.

**CAUTION:**
**Never start the engine.**

3. Check the voltage between the BCM harness connector and ground.

| BCM | | — | Voltage |
|---|---|---|---|
| Connector | Terminal | | |
| M123 | 138 | Ground | 5 V |

Is the inspection result normal?

YES >> GO TO 5.
NO >> Repair or replace damaged parts.

## 5. CHECK TIRE PRESSURE RECEIVER

Check tire pressure receiver. Refer to WT-36, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 6.
NO >> Replace tire pressure receiver. Refer to WT-99, "Exploded View".

## 6.CHECK TIRE PRESSURE MONITORING SYSTEM

With CONSULT-III

1. Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes.
2. On “DATA MONITOR”, select “AIR PRESS FL”, “AIR PRESS FR”, “AIR PRESS RR” and “AIR PRESS RL”, and check that the tire pressures match the standard value.

| Monitor item | Condition | Displayed value |
|---|---|---|
| AIR PRESS FL | Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes. | Internal pressure of tires |
| AIR PRESS FR | | |
| AIR PRESS RR | | |
| AIR PRESS RL | | |

**CAUTION:**

**Stop the vehicle and within 5 minutes, use CONSULT-III “DATA MONITOR” to display the tire pressure for all wheels.**

Is the inspection result normal?

YES >> Replace the DTC-detected malfunctioning transmitter. Refer to WT-97, "Exploded View".
NO >> Replace BCM. Refer to BCS-84, "Exploded View".

# Special Repair Requirement

INFOID:0000000004543306

## 1.CHECK TIRE PRESSURE

Check all tires for tire pressures. Refer to WT-100, "Tire Air Pressure".

Does all tire pressure data meet the specification?

YES >> GO TO 2.
NO >> Inspect or repair the tires or wheels and adjust the tire pressure to the specification.

## 2.PERFORM ID REGISTRATION

Perform ID registration. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

>> END

# C1724, C1725, C1726, C1727 TRANSMITTER

## Description

INFOID:0000000004476224

The transmitter integrated with a valve is installed on a wheel, and transmits a detected tire pressure signal by radio wave.

## DTC Logic

INFOID:0000000004470685

### DTC DETECTION LOGIC

| DTC | Display item | Malfunction detected condition | Possible case |
|---|---|---|---|
| C1724 | [BATT VOLT LOW] FL | Battery voltage of front LH transmitter drops. | • Transmitter malfunction<br>• Tire pressure receiver malfunction<br>• BCM malfunction<br>• Harness or connector |
| C1725 | [BATT VOLT LOW] FR | Battery voltage of front RH transmitter drops. | |
| C1726 | [BATT VOLT LOW] RR | Battery voltage of rear RH transmitter drops. | |
| C1727 | [BATT VOLT LOW] RL | Battery voltage of rear LH transmitter drops. | |

### DTC CONFIRMATION PROCEDURE

#### 1.DTC REPRODUCTION PROCEDURE

With CONSULT-III
1. Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes.
2. Perform BCM (AIR PRESSURE MONITOR) self-diagnosis.

Is DTC “C1724”, “C1725”, “C1726”, “C1727” detected?

YES >> Perform trouble diagnosis. Refer to WT-29, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000004470686

#### 1.CHECK ID REGISTRATION

With CONSULT-III
1. Perform the ID registration of all transmitters. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".
2. Drive at a 40 km/h (25 MPH) or more, then drive normally for 10 minutes.

Can ID registration of all transmitters be completed?

YES >> GO TO 2.
NO >> GO TO 5.

#### 2.CHECK TIRE PRESSURE SIGNAL

With CONSULT-III
1. Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes.
2. On “DATA MONITOR”, select “AIR PRESS FL”, “AIR PRESS FR”, “AIR PRESS RR” and “AIR PRESS RL”, and check that the tire pressures match the standard value.

| Monitor item | Condition | Displayed value |
|---|---|---|
| AIR PRESS FL | Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes. | Internal pressure of tires |
| AIR PRESS FR | | |
| AIR PRESS RR | | |
| AIR PRESS RL | | |

**CAUTION:**
**Stop the vehicle and within 5 minutes, use CONSULT-III “DATA MONITOR” to display the tire pressure for all wheels.**

Are all tire pressures displayed 0 kPa?

YES >> GO TO 3.
NO >> GO TO 6.

## 3. CHECK HARNESS BETWEEN BCM AND TIRE PRESSURE RECEIVER

1. Turn the ignition switch OFF.
2. Disconnect BCM harness connector and tire pressure receiver harness connector.
3. Check the continuity between BCM harness connector and tire pressure receiver harness connector.

| BCM | | Tire pressure receiver | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M123 | 137 | M101 | 1 | Existed |
| | 138 | | 4 | |
| | 139 | | 2 | |

4. Check continuity between BCM harness connector and ground.

| BCM | | — | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M123 | 137 | Ground | Not existed |
| | 138 | | |
| | 139 | | |

Is the inspection result normal?

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

## 4. CHECK TIRE PRESSURE RECEIVER POWER SUPPLY CIRCUIT

1. Connect the BCM harness connector.
2. Turn the ignition switch ON.
   **CAUTION:**
   **Never start the engine.**
3. Check the voltage between the BCM harness connector and ground.

| BCM | | — | Voltage |
|---|---|---|---|
| Connector | Terminal | | |
| M123 | 138 | Ground | 5 V |

Is the inspection result normal?

YES >> GO TO 5.
NO >> Repair or replace damaged parts.

## 5. CHECK TIRE PRESSURE RECEIVER

Check tire pressure receiver. Refer to WT-36, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace tire pressure receiver. Refer to WT-99, "Exploded View".
NO >> GO TO 6.

## 6. CHECK ID REGISTRATION

Perform ID registration of all transmitters. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

Can ID registration of all transmitters be completed?

YES >> GO TO 7.
NO >> Replace the malfunctioning transmitter. Refer to WT-97, "Exploded View".

## 7. CHECK TIRE PRESSURE MONITORING SYSTEM

With CONSULT-III

1. Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes.
2. On “DATA MONITOR”, select “AIR PRESS FL”, “AIR PRESS FR”, “AIR PRESS RR” and “AIR PRESS RL”, and check that the tire pressures match the standard value.

| Monitor item | Condition | Displayed value |
|---|---|---|
| AIR PRESS FL | Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes. | Internal pressure of tires |
| AIR PRESS FR | | |
| AIR PRESS RR | | |
| AIR PRESS RL | | |

**CAUTION:**
**Stop the vehicle and within 5 minutes, use CONSULT-III "DATA MONITOR" to display the tire pressure for all wheels.**

Is the inspection result normal?

YES >> Replace the malfunctioning transmitter. Refer to WT-97, "Exploded View".
NO >> Replace BCM. Refer to WT-100, "Tire Air Pressure".

## Special Repair Requirement

INFOID:0000000004543307

### 1. CHECK TIRE PRESSURE

Check all tires for tire pressures. Refer to WT-100, "Tire Air Pressure".

Does all tire pressure data meet the specification?

YES >> GO TO 2.
NO >> Inspect or repair the tires or wheels and adjust the tire pressure to the specification.

### 2. PERFORM ID REGISTRATION

Perform ID registration. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

>> END

# C1729 VEHICLE SPEED SIGNAL

## Description

INFOID:0000000004470688

BCM detects no vehicle speed signal.

## DTC Logic

INFOID:0000000004470689

### DTC DETECTION LOGIC

| DTC number | Trouble diagnosis name | DTC detecting condition | Possible case |
|---|---|---|---|
| C1729 | VHCL SPEED SIG ERR | Vehicle speed signal not detected. | • CAN communication error<br>• Combination meter malfunction |

### DTC CONFIRMATION PROCEDURE

#### 1.DTC REPRODUCTION PROCEDURE

With CONSULT-III
1. Drive for several minutes at a speed of 40 km/h (25 MPH) or more, then stop the vehicle.
2. Perform BCM (AIR PRESSURE MONITOR) self-diagnosis.

Is DTC “C1729” detected?

YES >> Perform trouble diagnosis. Refer to WT-32, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000004470690

#### 1.PERFORM COMBINATION METER SELF-DIAGNOSIS

With CONSULT-III
Perform combination meter self-diagnosis.

Is any DTC detected?

YES >> Check the DTC. Refer to MWI-71, "DTC Index".
NO >> GO TO 2.

#### 2.PERFORM SELF-DIAGNOSIS

With CONSULT-III
Perform BCM (AIR PRESSURE MONITOR) self-diagnosis.

Is DTC “C1729” detected?

YES >> Replace BCM. Refer to BCS-17, "COMMON ITEM : CONSULT-III Function (BCM - COMMON ITEM)".
NO >> GO TO 3.

#### 3.CHECK INFORMATION

With CONSULT-III
Use CONSULT-III “DATA MONITOR” to check the input/output values. Refer to WT-45, "Reference Value".

Is the inspection result normal?

YES >> Check pin terminal and connection of each harness connector for malfunctioning conditions.
NO >> Replace BCM. Refer to BCS-84, "Exploded View".

## Special Repair Requirement

INFOID:0000000004543315

#### 1.CHECK TIRE PRESSURE

Check all tires for tire pressures. Refer to WT-100, "Tire Air Pressure".

Does all tire pressure data meet the specification?

YES >> GO TO 2.
NO >> Inspect or repair the tires or wheels and adjust the tire pressure to the specification.

## 2.PERFORM ID REGISTRATION

Perform ID registration. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

>> END

# C1734 BCM

## Description

INFOID:0000000004470692

The BCM reads the tire pressure signal received by the tire pressure receiver, and controls the low tire pressure warning lamp and the buzzer operations. It also has a judgment function to detect a system malfunction.

## DTC Logic

INFOID:0000000004470693

### DTC DETECTION LOGIC

| DTC | Display item | Malfunction detected condition | Possible case |
|---|---|---|---|
| C1734 | CONTROL UNIT | Tire pressure monitoring system malfunction in BCM | BCM malfunction |

### DTC CONFIRMATION PROCEDURE

#### 1.DTC REPRODUCTION PROCEDURE

With CONSULT-III

1. Drive at a speed of 40 km/h (25 MPH) or more for several minutes without stopping.
2. Perform BCM (AIR PRESSURE MONITOR) self-diagnosis.

**CAUTION:**

**Perform within 15 minutes after stop the vehicle.**

Is DTC “C1734” detected?

YES >> Perform trouble diagnosis. Refer to WT-34, "Diagnosis Procedure".
NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000004470694

#### 1.CHECK BCM POWER SUPPLY

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

| BCM | | — | Voltage |
|---|---|---|---|
| Connector | Terminal | | |
| M118 | 1 | Ground | Battery voltage |
| M119 | 11 | | |

Is the power supply normal?

YES >> GO TO 2.
NO >> Check the following. If any items are damaged, repair or replace damage parts.
- 40A fusible link [No. K located in the fuse block]. Refer to PG-85, "Fuse and Fusible Link Arrangement".
- 10A fuse [No. 10 located in the fuse block (J/B)]. Refer to PG-84, "Fuse, Connector and Terminal Arrangement".
- Harness for short or open between battery and BCM harness connector M118 terminal 1.
- Harness for short or open between battery and BCM harness connector M119 terminal 11.
- Check the Battery voltage.

#### 2.CHECK BCM GROUND

Check the continuity between BCM harness connector and ground.

| BCM | | — | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M119 | 13 | Ground | Existed |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace damaged parts.

## 3.CHECK HARNESS BETWEEN BCM AND TIRE PRESSURE RECEIVER

1. Disconnect tire pressure receiver harness connector.
2. Check the continuity between BCM harness connector and tire pressure receiver harness connector.

| BCM | | Tire pressure receiver | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M123 | 137 | M101 | 1 | Existed |
| | 138 | | 4 | |
| | 139 | | 2 | |

3. Check the continuity between BCM harness connector and ground.

| BCM | | — | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M123 | 137 | Ground | Not existed |
| | 138 | | |
| | 139 | | |

Is the inspection result normal?

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

## 4.CHECK BCM

Check the BCM input/output signal. Refer to WT-45, "Reference Value".

Is the inspection result normal?

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

## 5.CHECK BCM HARNESS CONNECTOR

Check the BCM pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-84, "Exploded View".
NO >> Check for looseness or damage at the harness connector pins of the low tire pressure warning control unit. Repair or replace if necessary.

# Special Repair Requirement

INFOID:0000000004543870

## 1.CHECK TIRE PRESSURE

Check all tires for tire pressures. Refer to WT-100, "Tire Air Pressure".

Does all tire pressure data meet the specification?

YES >> GO TO 2.
NO >> Inspect or repair the tires or wheels and adjust the tire pressure to the specification.

## 2.PERFORM ID REGISTRATION

Perform ID registration. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

>> END

# TIRE PRESSURE RECEIVER

## Description

INFOID:0000000004470696

The tire pressure receiver receives the tire pressure signal transmitted by the transmitter in each wheel.

## Component Function Check

INFOID:0000000004470697

### 1. TIRE PRESSURE MONITORING SYSTEM OPERATION

With CONSULT-III

1. Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes.
2. On “DATA MONITOR”, select “AIR PRESS FL”, “AIR PRESS FR”, “AIR PRESS RR” and “AIR PRESS RL”, and check that the tire pressures match the standard value.

| Monitor item | Condition | Displayed value |
|---|---|---|
| AIR PRESS FL | Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes. | Internal pressure of tires |
| AIR PRESS FR | | |
| AIR PRESS RR | | |
| AIR PRESS RL | | |

**CAUTION:**

**Stop the vehicle and within 5 minutes, use CONSULT-III “DATA MONITOR” to display the tire pressure for all wheels.**

Is the inspection result normal?

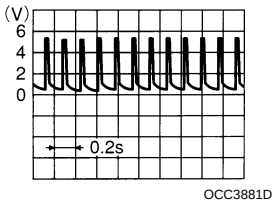
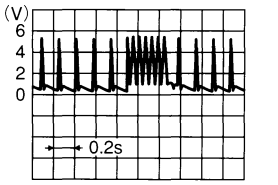
YES >> INSPECTION END
NO >> Perform trouble diagnosis. Refer to WT-36, "Diagnosis Procedure".

## Diagnosis Procedure

INFOID:0000000004470698

### 1. CHECK TIRE PRESSURE RECEIVER SIGNAL

1. Turn the ignition switch ON.
   **CAUTION:**
   **Never start the engine.**
2. Check tire pressure receiver connector and ground signal with oscilloscope.

| Tire pressure receiver | | — | Condition | Voltage (Approx.) |
|---|---|---|---|---|
| Connector | Terminal | | | |
| M101 | 2 | Ground | Stand by state |   OCC3881D |
| | | | When receiving the signal from the transmitter |   OCC3880D |

Is the inspection result normal?

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

## 2.CHECK TIRE PRESSURE RECEIVER INPUT VOLTAGE

1. Disconnect tire pressure receiver connector.
2. Check voltage between tire pressure receiver connector and ground.

| Tire pressure receiver | | — | Voltage (Approx.) |
|---|---|---|---|
| Connector | Terminal | | |
| M101 | 4 | Ground | 5.0 V |

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace damaged parts.

## 3.CHECK TIRE PRESSURE RECEIVER GROUND CIRCUIT

1. Disconnect BCM harness connector.
2. Check continuity between BCM harness connector and tire pressure receiver connector.

| BCM | | Tire pressure receiver | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M123 | 137 | M101 | 1 | Existed |

3. Check continuity between BCM harness connector and ground.

| BCM | | — | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M123 | 137 | Ground | Not existed |

Is the inspection result normal?

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

## 4.CHECK BCM CIRCUIT

Inspect the BCM circuit. Refer to WT-34, "Diagnosis Procedure".

Is the BCM circuit normal?

YES >> Replace tire pressure receiver. Refer to WT-99, "Exploded View".
NO >> Replace BCM. Refer to BCS-84, "Exploded View".

# TIRE PRESSURE WARNING CHECK SWITCH

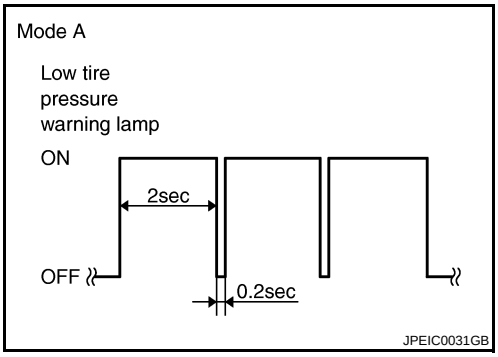
## Description

INFOID:0000000004470699

Self-diagnosis can be performed by short-circuiting the tire pressure warning check switch to the ground.(Self-diagnosis indicates the location of the malfunction by the blinking of the low tire pressure warning lamp on the combination meter.)

**NOTE:**
If low tire pressure warning lamp blinks as shown in the figure, the system is normal.

- This mode shows transmitter status is in OFF-mode.
  Perform transmitter wake up operation. Refer to WT-6, "TRANSMITTER WAKE UP OPERATION : Special Repair Requirement".




## Component Function Check

INFOID:0000000004470700

### 1.CHECK THE ILLUMINATION OF THE LOW TIRE PRESSURE WARNING LAMP

1. Turn the ignition switch ON.
   **CAUTION:**
   **Never start the engine.**
2. Short-circuit the tire pressure warning check switch connector terminal to the ground.
3. Check that the low tire pressure warning lamp blinking.

Is inspection result normal?

YES >> INSPECTION END
NO >> Perform diagnosis. Refer to WT-38, "Diagnosis Procedure".

## Diagnosis Procedure

INFOID:0000000004470701

### 1.CHECK TIRE PRESSURE WARNING CHECK SWITCH SIGNAL

1. Turn the ignition switch ON.
   **CAUTION:**
   **Never start the engine.**
2. Check the voltage between tire pressure warning check switch connector and ground.

| Tire pressure warning check switch | | — | Voltage (Approx.) |
|---|---|---|---|
| Connector | Terminal | | |
| M23 | 1 | Ground | 12 V |

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-84, "Exploded View".
NO >> GO TO 2.

### 2.CHECK TIRE PRESSURE WARNING CHECK SWITCH CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect BCM harness connector
3. Check the continuity between BCM harness connector and tire pressure warning check switch connector.

| BCM | | Tire pressure warning check switch | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | Existed |
| M123 | 149 | M23 | 1 | |

4. Check the continuity between BCM harness connector and ground.

| BCM | | — | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M123 | 149 | Ground | Not existed |

Is the inspection result normal?

YES >> Check BCM pin terminals for damage or loose connection with harness connector. If any items are damaged, repair or replace damaged parts. Replace BCM. Refer to BCS-84, "Exploded View".

NO >> Repair or replace damaged parts.

# LOW TIRE PRESSURE WARNING LAMP

## Description

INFOID:0000000004470702

Uses CAN communication from the BCM to illuminate the low tire pressure warning lamp on the combination meter.

| Condition | Low tire pressure warning lamp |
|---|---|
| Ignition switch OFF. | OFF |
| Ignition switch ON. | Illuminates for 1 second, then turns OFF. |
| Less than 189.6 kPa (1.9 kg/cm$^2$, 27 psi) [NOTE] | ON |
| Tire pressure monitoring system malfunction [Other diagnostic item] | Flashes for 1 minute, then stays illuminated. |

NOTE: Standard tire pressure is for 240 kPa (2.4 kg/cm$^2$, 35 psi) vehicles.

## Component Function Check

INFOID:0000000004470703

### 1.CHECK THE ILLUMINATION OF THE LOW TIRE PRESSURE WARNING LAMP

Check that the low tire pressure warning lamp is turned OFF after illuminating for approximately 1 second, when the ignition switch is turned ON.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Perform trouble diagnosis. Refer to WT-40, "Diagnosis Procedure".

## Diagnosis Procedure

INFOID:0000000004470704

### 1.POWER SUPPLY AND GROUND CIRCUIT

Check power supply and ground circuit. Refer to WT-41, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace damaged parts.

### 2.PERFORM SELF-DIAGNOSIS

With CONSULT-III
Perform BCM (AIR PRESSURE MONITOR) self-diagnosis.

Is any DTC detected?

YES >> Check the DTC. Refer to WT-77, "DTC Index".
NO >> GO TO 3.

### 3.CHECK LOW TIRE PRESSURE WARNING LAMP SIGNAL

With CONSULT-III
1. Turn the ignition switch ON.
   **CAUTION:**
   **Never start the engine.**
2. On “DATA MONITOR”, select “WARNING LAMP”.
3. Check that the low tire pressure warning lamp is turned OFF after illuminating for approximately 1 second, when the ignition switch is turned ON.

Is the inspection result normal?

YES >> Check the combination meter. Refer to MWI-32, "Diagnosis Description".
NO >> Replace the BCM. Refer to BCS-84, "Exploded View".

# POWER SUPPLY AND GROUND CIRCUIT

## Diagnosis Procedure

INFOID:0000000004476225

### 1. POWER SUPPLY SYSTEM CHECK

1. Turn the ignition switch OFF.
2. Disconnect the BCM harness connector.
3. Turn the ignition switch ON.
   **CAUTION:**
   **Never start the engine.**
4. Check the voltage between the BCM harness connector and the ground.

| BCM | | — | Voltage |
|---|---|---|---|
| Connector | Terminal | | |
| M118 | 1 | Ground | Battery voltage |
| M119 | 11 | | |

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace damaged parts.

### 2. GROUND SYSTEM INSPECTION

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

| BCM | | — | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M119 | 13 | Ground | Existed |

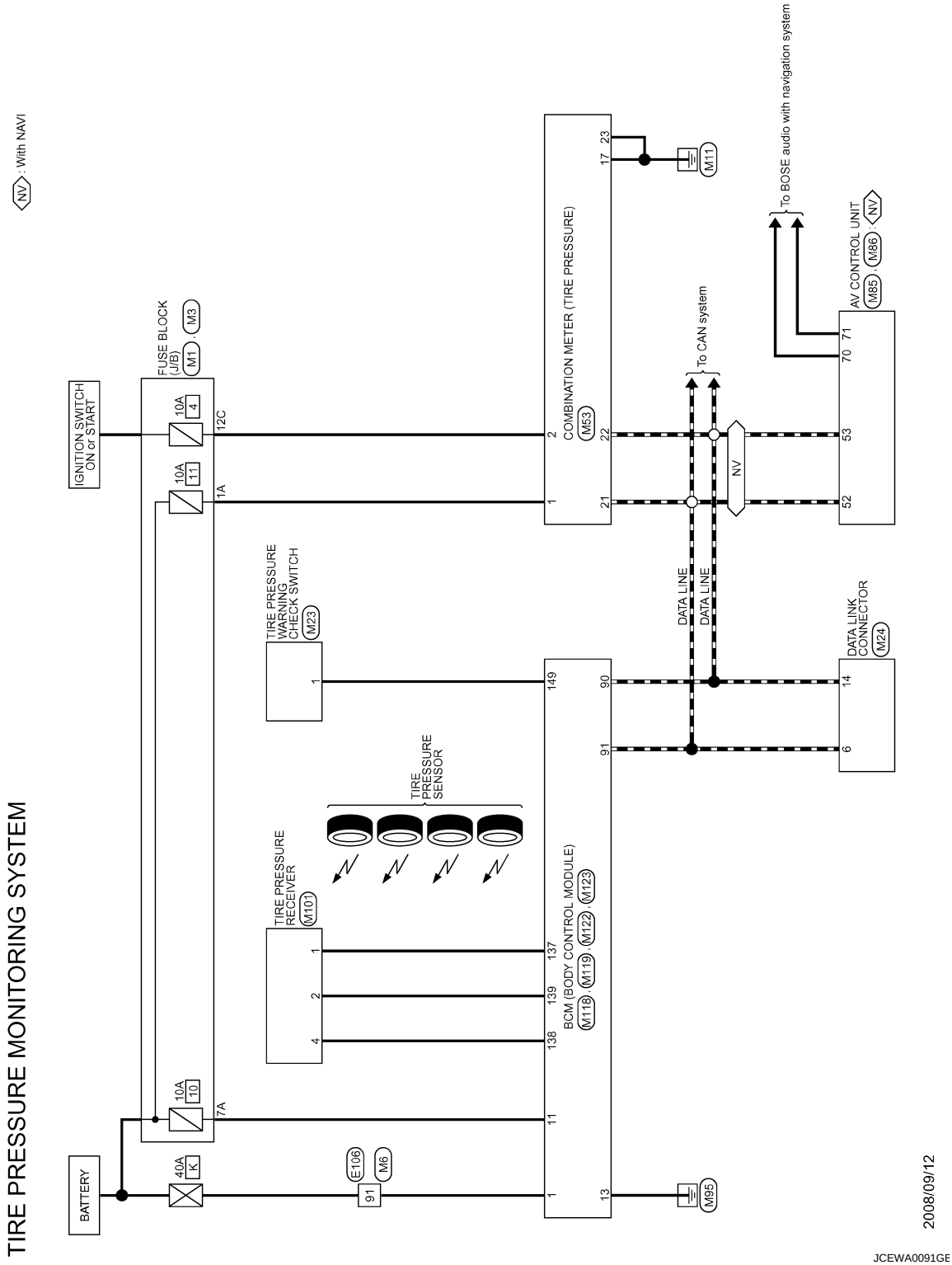
Is the inspection result normal?

YES >> • Check the 10 A fuse [No. 10 in fuse block (J/B)].
• Check the 40 A fusible link [No. K in fuse block].
NO >> Repair or replace damaged parts.

# TPMS

## Wiring Diagram - TIRE PRESSURE MONITORING SYSTEM -

INFOID:0000000004470707



TIRE PRESSURE MONITORING SYSTEM

| Connector No. | E106 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80FW-CS16-TM4 |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 91 | W | – |

| Connector No. | M1 |
|---|---|
| Connector Name | FUSE BLOCK (J/B) |
| Connector Type | NS06FW-M2 |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1A | V | – |
| 7A | BR | – |

| Connector No. | M3 |
|---|---|
| Connector Name | FUSE BLOCK (J/B) |
| Connector Type | NS12FW-CS |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 12C | O | – |

| Connector No. | M6 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80MW-CS16-TM4 |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 91 | W | – |

| Connector No. | M23 |
|---|---|
| Connector Name | TIRE PRESSURE WARNING CHECK SWITCH |
| Connector Type | TK02FW |



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

| Connector No. | M24 |
|---|---|
| Connector Name | DATA LINK CONNECTOR |
| Connector Type | BD16FW |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 6 | L | – |
| 14 | P | – |

| Connector No. | M53 |
|---|---|
| Connector Name | COMBINATION METER |
| Connector Type | TH24FW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | BATTERY POWER SUPPLY |
| 2 | O | IGNITION SIGNAL |
| 17 | B | GROUND |
| 21 | L | CAN-H |
| 22 | P | CAN-L |
| 23 | B | GROUND |

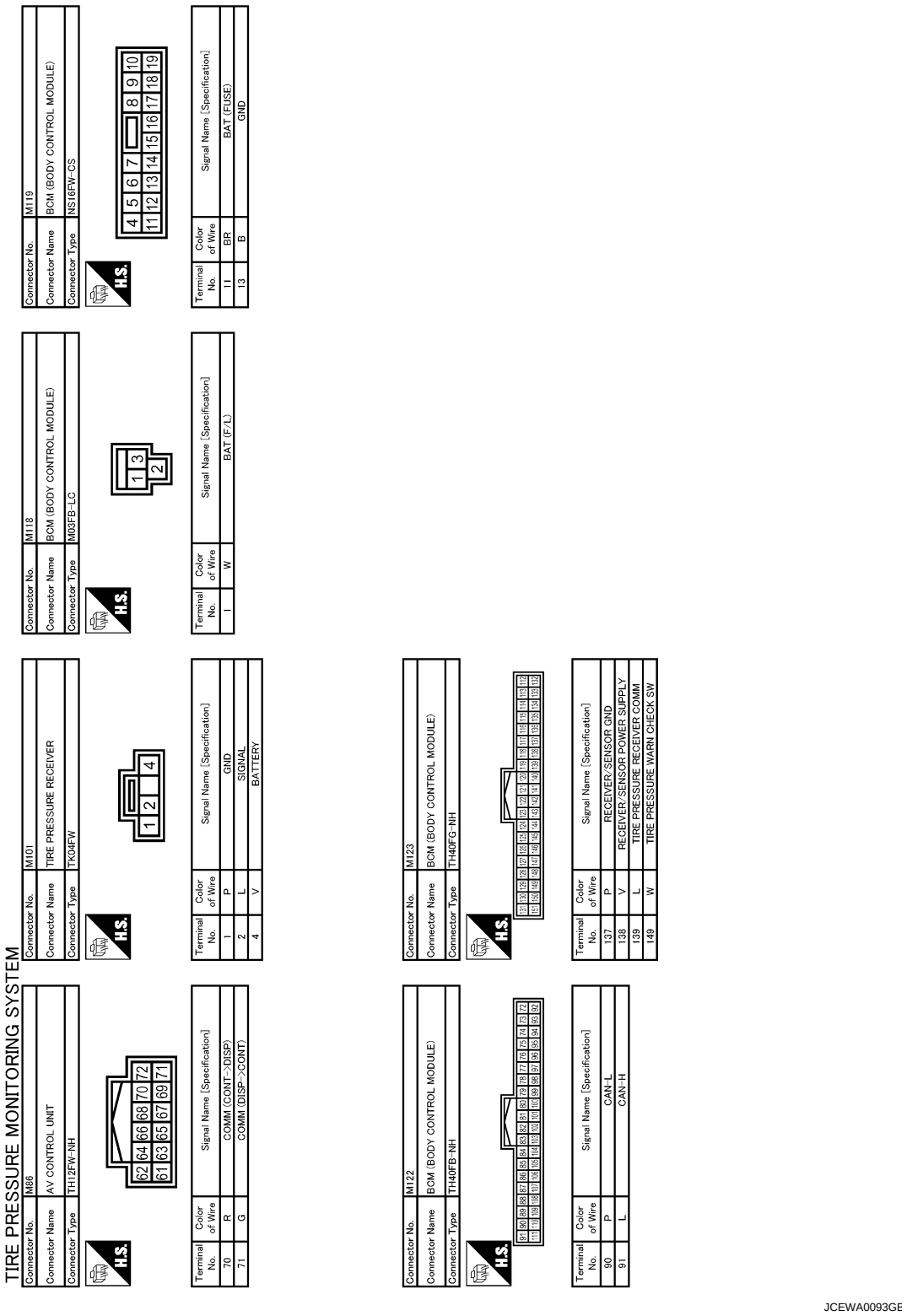
| Connector No. | M85 |
|---|---|
| Connector Name | AV CONTROL UNIT |
| Connector Type | TH40FW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 52 | L | CAN-H |
| 53 | P | CAN-L |

JCEWA0092GE

TIRE PRESSURE MONITORING SYSTEM




JCEWA0093GE

# ECU DIAGNOSIS INFORMATION

## BCM (BODY CONTROL MODULE)

### Reference Value

INFOID:0000000004692749

#### 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 | Off |
| | Front wiper switch INT | 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 |
| 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 | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| RR FOG SW | Rear fog lamp switch OFF | Off |
| | Rear fog lamp switch ON | On |
| DOOR SW-DR | Driver door closed | Off |
| | Driver door opened | On |
| DOOR SW-AS | Passenger door closed | Off |
| | Passenger door opened | On |
| DOOR SW-RR | **NOTE:**<br>The item is indicated, but not monitored. | Off |

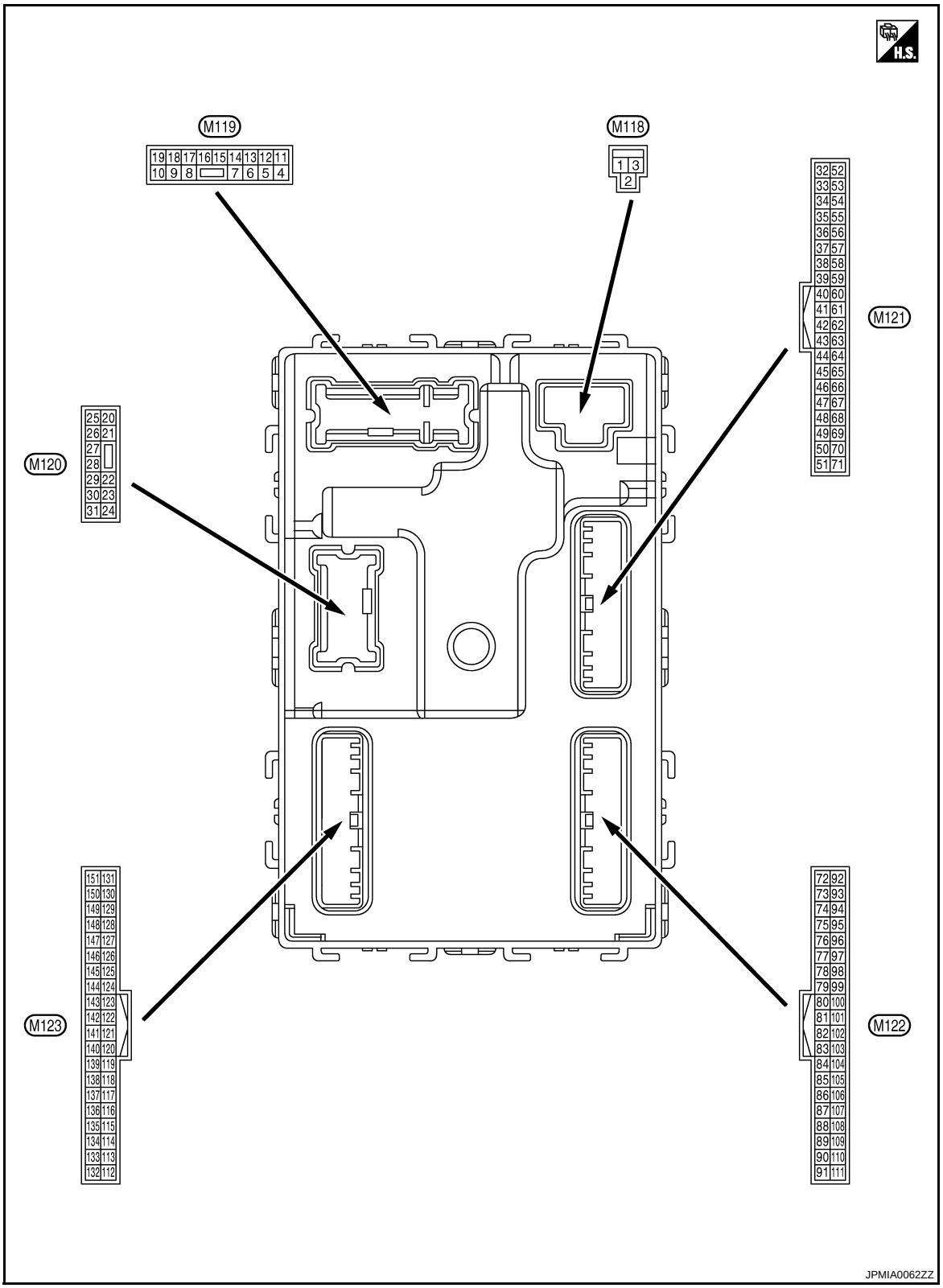
| Monitor Item | Condition | Value/Status |
|---|---|---|
| DOOR SW-RL | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| DOOR SW-BK | Back door closed | Off |
| | Back door opened | On |
| CDL LOCK SW | Other than door lock and unlock switch LOCK | Off |
| | Door lock and unlock switch LOCK | On |
| CDL UNLOCK SW | Other than door lock and unlock switch UNLOCK | Off |
| | Door lock and unlock 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 |
| KEY CYL SW-TR | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| HAZARD SW | Hazard switch is OFF | Off |
| | Hazard switch is ON | On |
| REAR DEF SW<br>**NOTE:**<br>At models with NAVI this item is not monitored. | Rear window defogger switch OFF | Off |
| | Rear window defogger switch ON | On |
| H/L WASH SW | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| TR CANCEL SW | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| TR/BD OPEN SW | Back door opener switch OFF | Off |
| | While the back door opener switch is turned ON | On |
| TRNK/HAT MNTR | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| RKE-LOCK | LOCK button of the Intelligent Key is not pressed | Off |
| | LOCK button of the Intelligent Key is pressed | On |
| RKE-UNLOCK | UNLOCK button of the Intelligent Key is not pressed | Off |
| | UNLOCK button of the Intelligent Key is pressed | On |
| RKE-TR/BD | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| RKE-PANIC | PANIC button of the Intelligent Key is not pressed | Off |
| | PANIC button of the Intelligent Key is pressed | On |
| RKE-P/W OPEN | UNLOCK button of the Intelligent Key is not pressed | Off |
| | UNLOCK button of the Intelligent Key is pressed and held | On |
| RKE-MODE CHG | LOCK/UNLOCK button of the Intelligent Key is not pressed and held simultaneously | Off |
| | LOCK/UNLOCK button of the Intelligent Key is pressed and held simultaneously | On |
| OPTICAL SENSOR | Bright outside of the vehicle | Close to 5 V |
| | Dark outside of the vehicle | Close to 0 V |
| 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 |

| Monitor Item | Condition | Value/Status |
|---|---|---|
| REQ SW -RR | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| REQ SW -RL | **NOTE:**<br>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 |
| IGN RLY2 -F/B | Ignition switch in OFF or ACC position | Off |
| | Ignition switch in ON position | On |
| ACC RLY -F/B | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| CLUCH SW<br>**NOTE:**<br>At A/T models this item is not monitored. | The clutch pedal is not depressed | Off |
| | The clutch pedal is depressed | On |
| BRAKE SW 1 | Stop lamp switch 1 signal circuit is open | Off |
| | Stop lamp switch 1 signal circuit is normal | On |
| BRAKE SW 2 | The brake pedal is not depressed | Off |
| | The brake pedal is depressed | On |
| DETE/CANCL SW<br>**NOTE:**<br>At M/T models with SynchroRev Match mode this item is not monitored. | • Selector lever in P position (A/T models)<br>• The clutch pedal is depressed (M/T models without SynchroRev Match mode) | Off |
| | • Selector lever in any position other than P (A/T models)<br>• The clutch pedal is not depressed (M/T models without SynchroRev Match mode) | On |
| SFT PN/N SW<br>**NOTE:**<br>At M/T models without SynchroRev Match mode this item is not monitored. | • Selector lever in any position other than P and N (A/T models)<br>• Control lever in any position other than neutral position (M/T models with SynchroRev Match mode) | Off |
| | • Selector lever in P or N position (A/T models)<br>• Control lever in neutral position (M/T models with SynchroRev Match mode) | On |
| S/L -LOCK | Steering is unlocked | Off |
| | Steering is locked | On |
| S/L -UNLOCK | Steering is locked | Off |
| | Steering is unlocked | On |
| S/L RELAY-F/B | Ignition switch in OFF or ACC position | Off |
| | Ignition switch in ON position | On |
| UNLK SEN -DR | Driver door is unlocked | Off |
| | Driver door is locked | 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 |

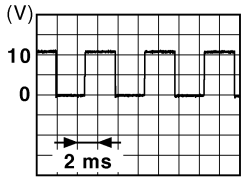
| Monitor Item | Condition | Value/Status |
|---|---|---|
| SFT PN -IPDM | • Selector lever in any position other than P and N (A/T models)<br>• The clutch pedal is not depressed (M/T models) | Off |
| | • Selector lever in P or N position (A/T models)<br>• The clutch pedal is depressed (M/T models) | On |
| SFT P -MET | Selector lever in any position other than P | Off |
| | Selector lever in P position | On |
| 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 unlocked | Off |
| | Steering is locked | On |
| S/L UNLK-IPDM | Steering is locked | Off |
| | Steering is unlocked | On |
| S/L RELAY-REQ | Steering lock system is not the LOCK condition and the changing condition from LOCK to UNLOCK | Off |
| | Steering lock system are not the LOCK condition or the changing condition from LOCK to UNLOCK | On |
| VEH SPEED 1 | While driving | Equivalent to speedometer reading |
| VEH SPEED 2 | While driving | Equivalent to speedometer reading |
| DOOR STAT-DR | Driver door is locked | LOCK |
| | Wait with selective UNLOCK operation (60 seconds) | READY |
| | Driver door is unlocked | UNLOCK |
| DOOR STAT-AS | Passenger door is locked | LOCK |
| | Wait with selective UNLOCK operation (60 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 |
| KEY SW -SLOT | The Intelligent Key is not inserted into key slot | Off |
| | The Intelligent Key is inserted into key slot | On |
| RKE OPE COUN1 | During the operation of the Intelligent Key | Operation frequency of the Intelligent 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 |

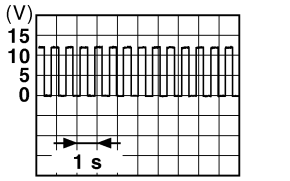
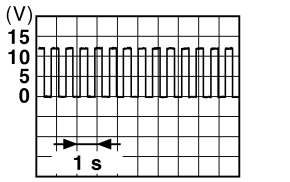
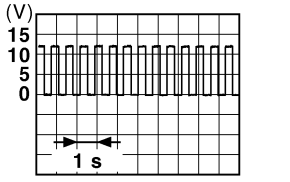
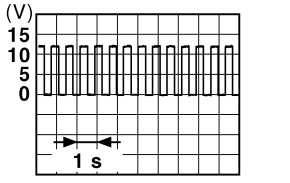
| Monitor Item | Condition | Value/Status |
|---|---|---|
| CONFIRM ID4 | The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM. | Yet |
| | The key ID that the key slot receives is recognized by the fourth key ID registered to BCM. | Done |
| CONFIRM ID3 | The 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 |
| 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 |
| TP 4 | The ID of fourth Intelligent Key is not registered to BCM | Yet |
| | The ID of fourth Intelligent Key is registered to BCM | Done |
| TP 3 | The ID of third Intelligent Key is not registered to BCM | Yet |
| | The ID of third Intelligent Key is registered to BCM | Done |
| TP 2 | The ID of second Intelligent Key is not registered to BCM | Yet |
| | The ID of second Intelligent Key is registered to BCM | Done |
| TP 1 | The ID of first Intelligent Key is not registered to BCM | Yet |
| | The ID of first Intelligent 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 |

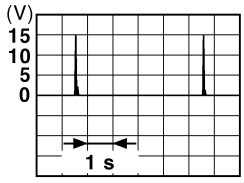
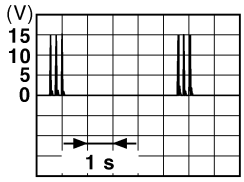
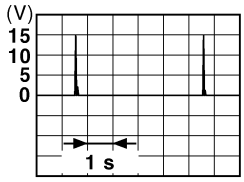
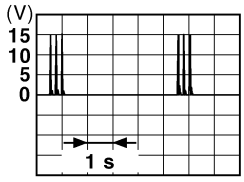
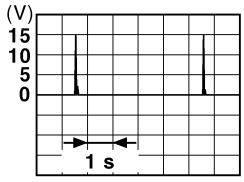
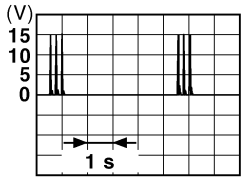
TERMINAL LAYOUT

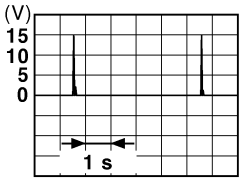
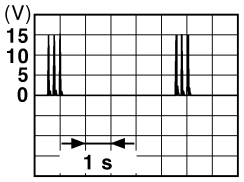
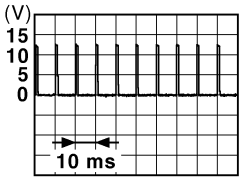
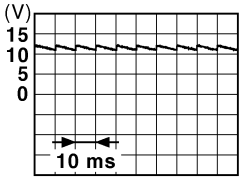


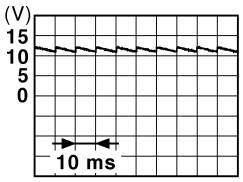
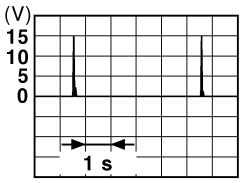
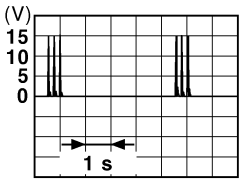
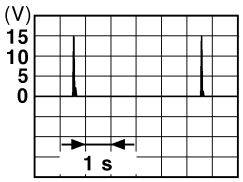
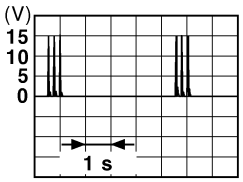

PHYSICAL VALUES

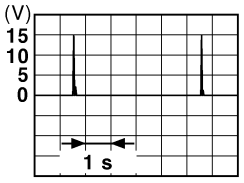
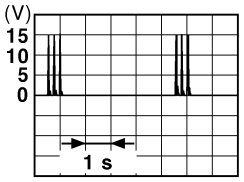
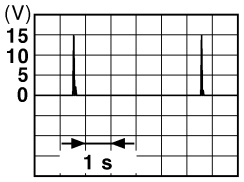
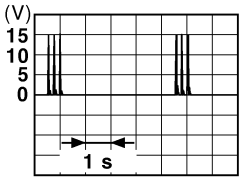
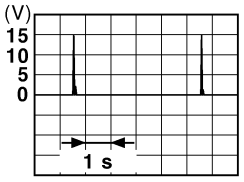
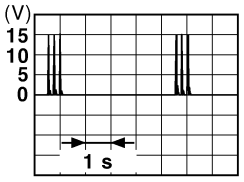
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| | | Signal name | Input/ Output | | | |
| + | – | | | | | |
| 1 (W) | Ground | Battery power supply | Input | Ignition switch OFF | | Battery voltage |
| 2 (W) | Ground | P/W power supply (BAT) | Output | Ignition switch OFF | | 12 V |
| 3 (Y) | Ground | P/W power supply (RAP) | Output | Ignition switch ON | | 12 V |
| 4 (R) | 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 |
| 5 (G) | Ground | Passenger door UNLOCK | Output | Passenger door | UNLOCK (Actuator is activated) | 12 V |
| | | | | | Other than UNLOCK (Actuator is not activated) | 0 V |
| 8 (V) | Ground | All doors, fuel lid LOCK | Output | All doors, fuel lid | LOCK (Actuator is activated) | 12 V |
| | | | | | Other than LOCK (Actuator is not activated) | 0 V |
| 9 (G) | Ground | Driver door, fuel lid UNLOCK | Output | Driver door, fuel lid | UNLOCK (Actuator is activated) | 12 V |
| | | | | | Other than UNLOCK (Actuator is not activated) | 0 V |
| 11 (BR) | Ground | Battery power supply | Input | Ignition switch OFF | | Battery voltage |
| 13 (B) | Ground | Ground | — | Ignition switch ON | | 0 V |
| 14 (R) | Ground | Push-button ignition switch illumination ground | Output | Tail lamp | OFF | 0 V |
| | | | | | ON | **NOTE:** When the illumination brightening/dimming level is in the neutral position.   JSNIA0010GB |
| 15 (Y) | Ground | ACC indicator lamp | Output | Ignition switch | OFF (LOCK indicator is not illuminated) | Battery voltage |
| | | | | | ACC | 0 V |

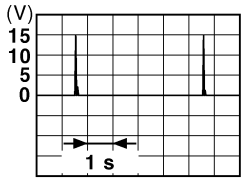
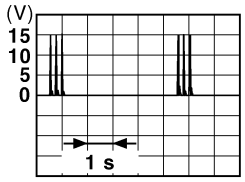
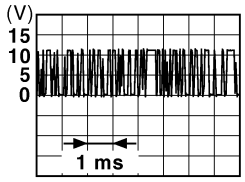
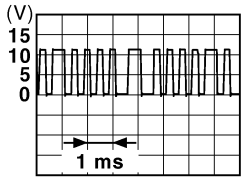
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 17 (W) | Ground | Turn signal RH (Front and side) | Output | Ignition switch ON | Turn signal switch OFF | 0 V |
| | | | | | Turn signal switch RH |  PKID0926E 6.5 V |
| 18 (O) | Ground | Turn signal LH (Front and side) | Output | Ignition switch ON | Turn signal switch OFF | 0 V |
| | | | | | Turn signal switch LH |  PKID0926E 6.5 V |
| 19 (V) | Ground | Room lamp timer control | Output | Interior room lamp | OFF | 12 V |
| | | | | | ON | 0 V |
| 20 (V) | Ground | Turn signal RH (Rear) | Output | Ignition switch ON | Turn signal switch OFF | 0 V |
| | | | | | Turn signal switch RH |  PKID0926E 6.5 V |
| 23 (L) | Ground | Back door open | Output | Back door | OPEN (Back door opener actuator is activated) | 12 V |
| | | | | | Other than OPEN (Back door opener actuator is not activated) | 0 V |
| 24*1 (O) | Ground | Rear fog lamp | Output | Rear fog lamp | OFF | 0 V |
| | | | | | ON | 12 V |
| 25 (LG) | Ground | Turn signal LH (Rear) | Output | Ignition switch ON | Turn signal switch OFF | 0 V |
| | | | | | Turn signal switch LH |  PKID0926E 6.5 V |
| 30 (R) | Ground | Luggage room lamp | Output | Luggage room lamp | ON | 0 V |
| | | | | | OFF | 12 V |

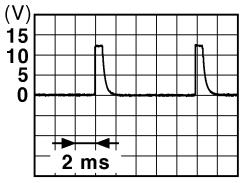
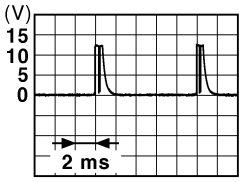
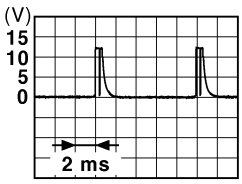
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 34 (G) | Ground | Luggage room antenna (–) | Output | Ignition switch OFF | When Intelligent Key is in the passenger compartment |  JMKIA0062GB |
| | | | | | When Intelligent Key is not in the passenger compartment |  JMKIA0063GB |
| 35 (R) | Ground | Luggage room antenna (+) | Output | Ignition switch OFF | When Intelligent Key is in the passenger compartment |  JMKIA0062GB |
| | | | | | When Intelligent Key is not in the passenger compartment |  JMKIA0063GB |
| 38 (B) | Ground | Rear bumper antenna (–) | Output | When the back door request switch is operated with ignition switch OFF | When Intelligent Key is in the antenna detection area |  JMKIA0062GB |
| | | | | | When Intelligent Key is not in the antenna detection area |  JMKIA0063GB |

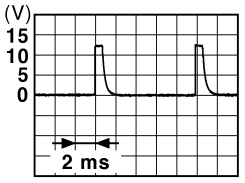
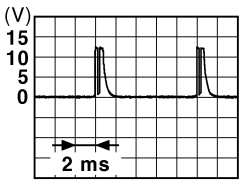
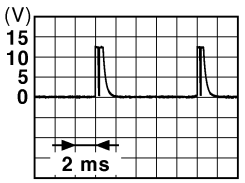
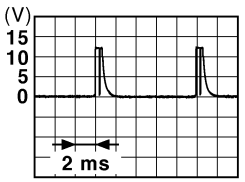
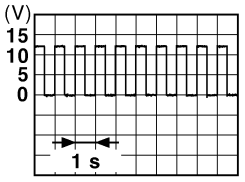
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 39 (W) | Ground | Rear bumper antenna (+) | Output | When the back door request switch is operated with ignition switch OFF | When Intelligent Key is in the antenna detection area |  JMKIA0062GB |
| | | | | | When Intelligent Key is not in the antenna detection area |  JMKIA0063GB |
| 47 (V) | Ground | Ignition relay (IPDM E/R) control | Output | Ignition switch | OFF or ACC | 12 V |
| | | | | | ON | 0 V |
| 52 (SB) | Ground | Starter relay control | Output | Ignition switch ON (A/T models) | When selector lever is in P or N position | 12 V |
| | | | | | When selector lever is not in P or N position | 0 V |
| | | | | Ignition switch ON (M/T models) | When the clutch pedal is depressed | Battery voltage |
| | | | | | When the clutch pedal is not depressed | 0 V |
| 61 (W) | Ground | Back door request switch | Input | Back door request switch | ON (Pressed) | 0 V |
| | | | | | OFF (Not pressed) |  JPMIA0016GB<br>1.0 V |
| 64 (G) | Ground | Intelligent Key warning buzzer | Output | Intelligent Key warning buzzer | Sounding | 0 V |
| | | | | | Not sounding | 12 V |
| 66 (R) | Ground | Back door switch | Input | Back door switch | OFF (Door close) |  JPMIA0011GB<br>11.8 V |
| | | | | | ON (Door open) | 0 V |

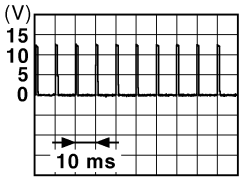
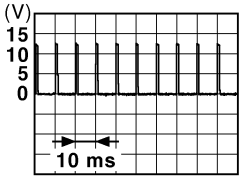
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 67 (GR) | Ground | Back door opener switch | Input | Back door opener switch | Pressed | 0 V |
| | | | | | Not pressed |  JPMIA0011GB<br>11.8 V |
| 72 (L) | Ground | Room antenna (–) (Center console) | Output | Ignition switch OFF | When Intelligent Key is in the passenger compartment |  JMKIA0062GB |
| | | | | | When Intelligent Key is not in the passenger compartment |  JMKIA0063GB |
| 73 (P) | Ground | Room antenna (+) (Center console) | Output | Ignition switch OFF | When Intelligent Key is in the passenger compartment |  JMKIA0062GB |
| | | | | | When Intelligent Key is not in the passenger compartment |  JMKIA0063GB |

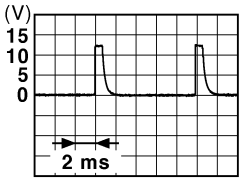
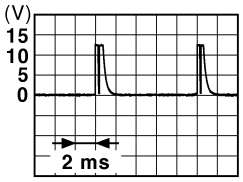
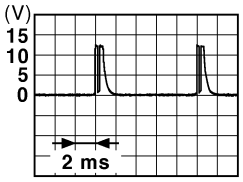
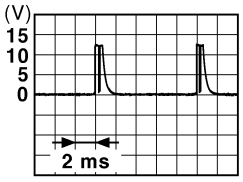
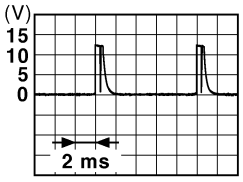
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 74 (SB) | Ground | Passenger door antenna (–) | Output | When the passenger door request switch is operated with ignition switch OFF | When Intelligent Key is in the antenna detection area |  JMKIA0062GB |
| | | | | | When Intelligent Key is not in the antenna detection area |  JMKIA0063GB |
| 75 (BR) | Ground | Passenger door antenna (+) | Output | When the passenger door request switch is operated with ignition switch OFF | When Intelligent Key is in the antenna detection area |  JMKIA0062GB |
| | | | | | When Intelligent Key is not in the antenna detection area |  JMKIA0063GB |
| 76 (V) | Ground | Driver door antenna (–) | Output | When the driver door request switch is operated with ignition switch OFF | When Intelligent Key is in the antenna detection area |  JMKIA0062GB |
| | | | | | When Intelligent Key is not in the antenna detection area |  JMKIA0063GB |

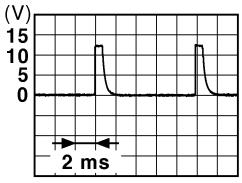
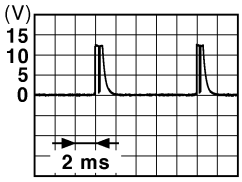
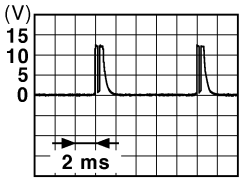
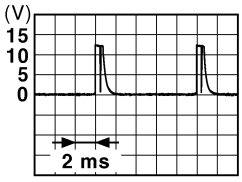
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 77 (LG) | Ground | Driver door antenna (+) | Output | When the driver door request switch is operated with ignition switch OFF | When Intelligent Key is in the antenna detection area |  JMKIA0062GB |
| | | | | | When Intelligent Key is not in the antenna detection area |  JMKIA0063GB |
| 80 (GR) | Ground | NATS antenna amp (Built in key slot) | Input/ Output | During waiting | Ignition switch is pressed while inserting the Intelligent Key into the key slot. | Just after pressing ignition switch. Pointer of tester should move. |
| 81 (W) | Ground | NATS antenna amp (Built in key slot) | Input/ Output | During waiting | Ignition switch is pressed while inserting the Intelligent Key into the key slot. | Just after pressing ignition switch. Pointer of tester should move. |
| 82 (R) | Ground | Ignition relay [Fuse block (J/B)] control | Output | Ignition switch | OFF or ACC | 0 V |
| | | | | | ON | 12 V |
| 83 (GR) | Ground | Remote keyless entry receiver communication | Input/ Output | During waiting | |  JMKIA0064GB |
| | | | | When operating either button on the Intelligent Key | |  JMKIA0065GB |

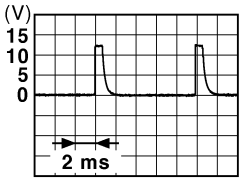
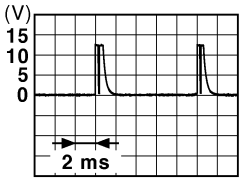
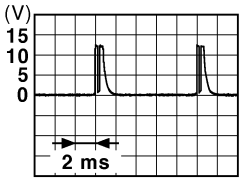
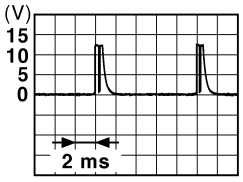
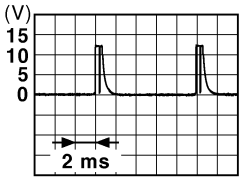
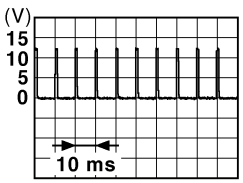
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 87 (BR) | Ground | Combination switch INPUT 5 | Input | Combination switch | All switches OFF (Wiper intermittent dial 4) |  JPMIA0041GB<br>1.4 V |
| | | | | | Rear fog lamp switch ON (Wiper intermittent dial 4) |  JPMIA0038GB<br>1.3 V |
| | | | | | Any of the conditions below with all switches OFF<br>• Wiper intermittent dial 1<br>• Wiper intermittent dial 2<br>• Wiper intermittent dial 6<br>• Wiper intermittent dial 7 |  JPMIA0040GB<br>1.3 V |

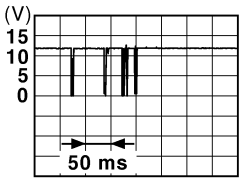
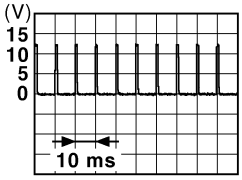
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 88 (V) | Ground | Combination switch INPUT 3 | Input | Combination switch | All switches OFF (Wiper intermittent dial 4) |  JPMIA0041GB 1.4 V |
| | | | | | Lighting switch HI (Wiper intermittent dial 4) |  JPMIA0036GB 1.3 V |
| | | | | | Lighting switch 2ND (Wiper intermittent dial 4) |  JPMIA0037GB 1.3 V |
| | | | | | Any of the conditions below with all switches OFF<br>• Wiper intermittent dial 1<br>• Wiper intermittent dial 2<br>• Wiper intermittent dial 3 |  JPMIA0040GB 1.3 V |
| 89 (BR) | Ground | Push-button ignition switch (Push switch) | Input | Push-button ignition switch (push switch) | Pressed | 0 V |
| | | | | | Not pressed | Battery voltage |
| 90 (P) | Ground | CAN-L | Input/ Output | — | | — |
| 91 (L) | Ground | CAN-H | Input/ Output | — | | — |
| 92 (LG) | Ground | Key slot illumination | Output | Key slot illumination | OFF | 0 V |
| | | | | | Blinking |  JPMIA0015GB 6.5 V |
| | | | | | ON | 12 V |

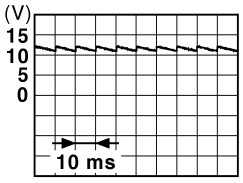
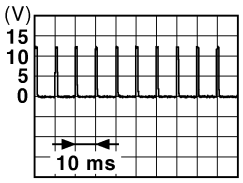
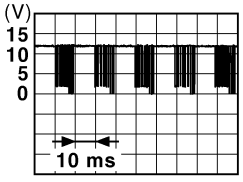
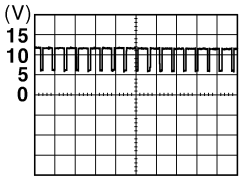
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| | | Signal name | Input/ Output | | | |
| + | – | | | | | |
| 93 (V) | Ground | ON indicator lamp | Output | Ignition switch | OFF (LOCK indicator is not illuminated) | Battery voltage |
| | | | | | ON | 0 V |
| 95 (O) | Ground | ACC relay control | Output | Ignition switch | OFF | 0 V |
| | | | | | ACC or ON | 12 V |
| 96*2 (Y) | Ground | A/T shift selector (Detention switch) power supply | Output | — | | 12 V |
| 97 (L) | Ground | Steering lock condition No. 1 | Input | Steering lock | LOCK status | 0 V |
| | | | | | UNLOCK status | 12 V |
| 98 (P) | Ground | Steering lock condition No. 2 | Input | Steering lock | LOCK status | 12 V |
| | | | | | UNLOCK status | 0 V |
| 99*3 (R)*2 (BR)*4 | Ground | Selector lever P position switch (A/T models) | Input | Selector lever | P position | 0 V |
| | | | | | Any position other than P | 12 V |
| | | Clutch pedal position switch (M/T models without SynchroRev Match mode) | | Clutch pedal position switch | OFF (Clutch pedal is depressed) | 0 V |
| | | | | | ON (Clutch pedal is not depressed) | Battery voltage |
| 100 (GR) | Ground | Passenger door request switch | Input | Passenger door request switch | ON (Pressed) | 0 V |
| | | | | | OFF (Not pressed) |  JPMIA0016GB 1.0 V |
| 101 (Y) | Ground | Driver door request switch | Input | Driver door request switch | ON (Pressed) | 0 V |
| | | | | | OFF (Not pressed) |  JPMIA0016GB 1.0 V |
| 102 (O) | Ground | Blower fan motor relay control | Output | Ignition switch | OFF or ACC | 0 V |
| | | | | | ON | 12 V |
| 103 (LG) | Ground | Remote keyless entry receiver power supply | Output | Ignition switch OFF | | 12 V |
| 106 (W) | Ground | Steering lock unit power supply | Output | Ignition switch | OFF or ACC | 12 V |
| | | | | | ON | 0 V |

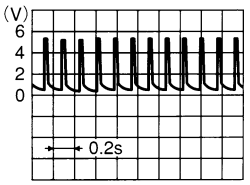
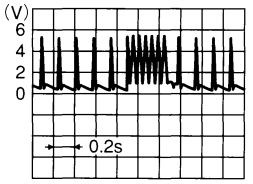
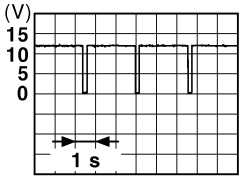
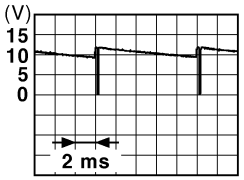
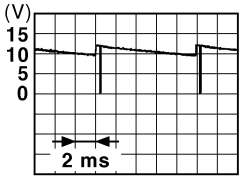
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 107 (LG) | Ground | Combination switch INPUT 1 | Input | Combination switch (Wiper intermittent dial 4) | All switches OFF |  JPMIA0041GB<br>1.4 V |
| | | | | | Turn signal switch LH |  JPMIA0037GB<br>1.3 V |
| | | | | | Turn signal switch RH |  JPMIA0036GB<br>1.3 V |
| | | | | | Front wiper switch LO |  JPMIA0038GB<br>1.3 V |
| | | | | | Front washer switch ON |  JPMIA0039GB<br>1.3 V |

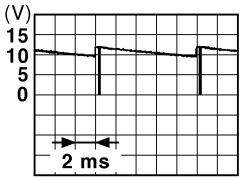
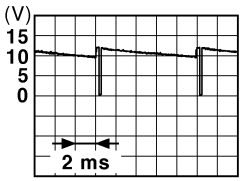
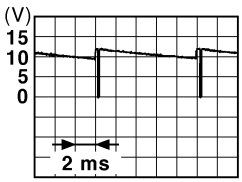
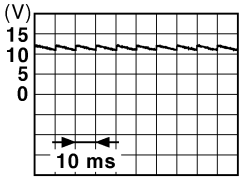
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 108 (R) | Ground | Combination switch INPUT 4 | Input | Combination switch | All switches OFF (Wiper intermittent dial 4) |  JPMIA0041GB 1.4 V |
| | | | | | Lighting switch AUTO (Wiper intermittent dial 4) |  JPMIA0038GB 1.3 V |
| | | | | | Lighting switch 1ST (Wiper intermittent dial 4) |  JPMIA0036GB 1.3 V |
| | | | | | Any of the conditions below with all switches OFF<br>• Wiper intermittent dial 1<br>• Wiper intermittent dial 5<br>• Wiper intermittent dial 6 |  JPMIA0039GB 1.3 V |

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 109 (Y) | Ground | Combination switch INPUT 2 | Input | Combination switch (Wiper intermittent dial 4) | All switches OFF |  JPMIA0041GB<br>1.4 V |
| | | | | | Lighting switch PASS |  JPMIA0037GB<br>1.3 V |
| | | | | | Lighting switch 2ND |  JPMIA0036GB<br>1.3 V |
| | | | | | Front wiper switch INT |  JPMIA0038GB<br>1.3 V |
| | | | | | Front wiper switch HI |  JPMIA0040GB<br>1.3 V |
| 110 (P) | Ground | Hazard switch | Input | Hazard switch | ON | 0 V |
| | | | | | OFF |  JPMIA0012GB<br>1.1 V |

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 111 (Y) | 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 |
| 113 (O) | 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 |
| 114*5 (R) | Ground | Clutch interlock switch | Input | Clutch interlock switch | OFF (Clutch pedal is not depressed) | 0 V |
| | | | | | ON (Clutch pedal is depressed) | Battery voltage |
| 116 (SB) | Ground | Stop lamp switch 1 | Input | — | | Battery voltage |
| 118 (P) | Ground | Stop lamp switch 2 | Input | Stop lamp switch | OFF (Brake pedal is not depressed) | 0 V |
| | | | | | ON (Brake pedal is depressed) | Battery voltage |
| 119 (SB) | Ground | Driver side door lock assembly (Unlock sensor) | Input | Driver door | LOCK status (Unlock sensor switch OFF) |  JPMIA0012GB<br>1.1 V |
| | | | | | UNLOCK status (Unlock switch sensor ON) | 0 V |
| 121 (R) | Ground | Key slot switch | Input | When the Intelligent Key is inserted into key slot | | 12 V |
| | | | | When the Intelligent Key is not inserted into key slot | | 0 V |
| 123 (W) | Ground | IGN feedback | Input | Ignition switch | OFF or ACC | 0 V |
| | | | | | ON | Battery voltage |

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 124 (LG) | Ground | Passenger door switch | Input | Passenger door switch | OFF (Door close) |  JPMIA0011GB<br>11.8 V |
| | | | | | ON (Door open) | 0 V |
| 130*6 (L) | Ground | Rear window defogger switch | Input | Ignition switch ON | Rear window defogger switch OFF |  JPMIA0012GB<br>1.1 V |
| | | | | | Rear window defogger switch ON | 0 V |
| 132 (Y) | Ground | Power window switch communication | Input/ Output | Ignition switch ON | |  JPMIA0013GB<br>10.2 V |
| | | | | Ignition switch OFF or ACC | | 12 V |
| 133 (G) | Ground | Push-button ignition switch illumination | Output | Push-button ignition switch illumination | ON (Tail lamps OFF) | 9.5 V |
| | | | | | ON (Tail lamps ON) | **NOTE:**<br>The pulse width of this wave is varied by the illumination brightening/dimming level.<br>  JPMIA0159GB |
| | | | | | OFF | 0 V |
| 134 (GR) | Ground | LOCK indicator lamp | Output | LOCK indicator lamp | OFF | Battery voltage |
| | | | | | ON | 0 V |
| 137 (P) | Ground | Receiver and sensor ground | Input | Ignition switch ON | | 0 V |
| 138 (V) | Ground | Receiver and sensor power supply | Output | Ignition switch | OFF | 0 V |
| | | | | | ACC or ON | 5.0 V |

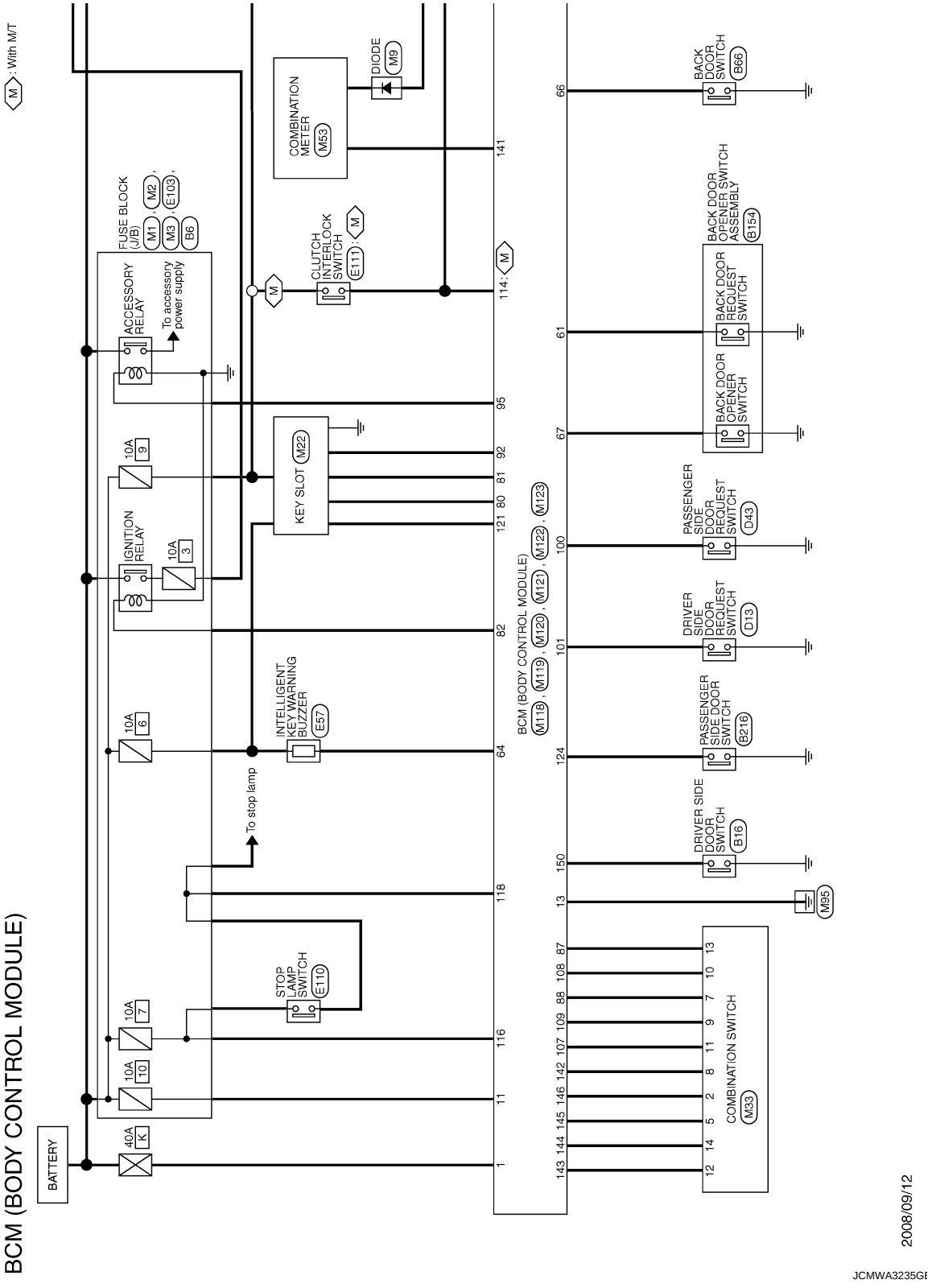
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 139 (L) | Ground | Tire pressure receiver communication | Input/ Output | Ignition switch ON | Standby state |  OCC3881D |
| | | | | | When receiving the signal from the transmitter |  OCC3880D |
| 140*7 (G) | Ground | Selector lever P/N position (A/T models) | Input | Selector lever | P or N position | 12 V |
| | | | | | Except P and N positions | 0 V |
| | | Transmission range switch (M/T models with SynchroRev Match mode) | | Ignition switch ON | Control lever in neutral position | Battery voltage |
| | | | | | Control lever in any position other than neutral | 0 V |
| 141 (Y) | Ground | Security indicator | Output | Security indicator | ON | 0 V |
| | | | | | Blinking |  JPMIA0014GB 11.3 V |
| | | | | | OFF | 12 V |
| 142 (O) | Ground | Combination switch OUTPUT 5 | Output | Combination switch (Wiper intermittent dial 4) | All switches OFF | 0 V |
| | | | | | Lighting switch 1ST |  JPMIA0031GB 10.7 V |
| | | | | | Lighting switch HI | |
| | | | | | Lighting switch 2ND | |
| | | | | | Turn signal switch RH | |
| 143 (P) | Ground | Combination switch OUTPUT 1 | Output | Combination switch | All switches OFF (Wiper intermittent dial 4) | 0 V |
| | | | | | Front wiper switch HI (Wiper intermittent dial 4) |  JPMIA0032GB 10.7 V |
| | | | | | Any of the conditions below with all switches OFF<br>• Wiper intermittent dial 1<br>• Wiper intermittent dial 2<br>• Wiper intermittent dial 3<br>• Wiper intermittent dial 6<br>• Wiper intermittent dial 7 | |

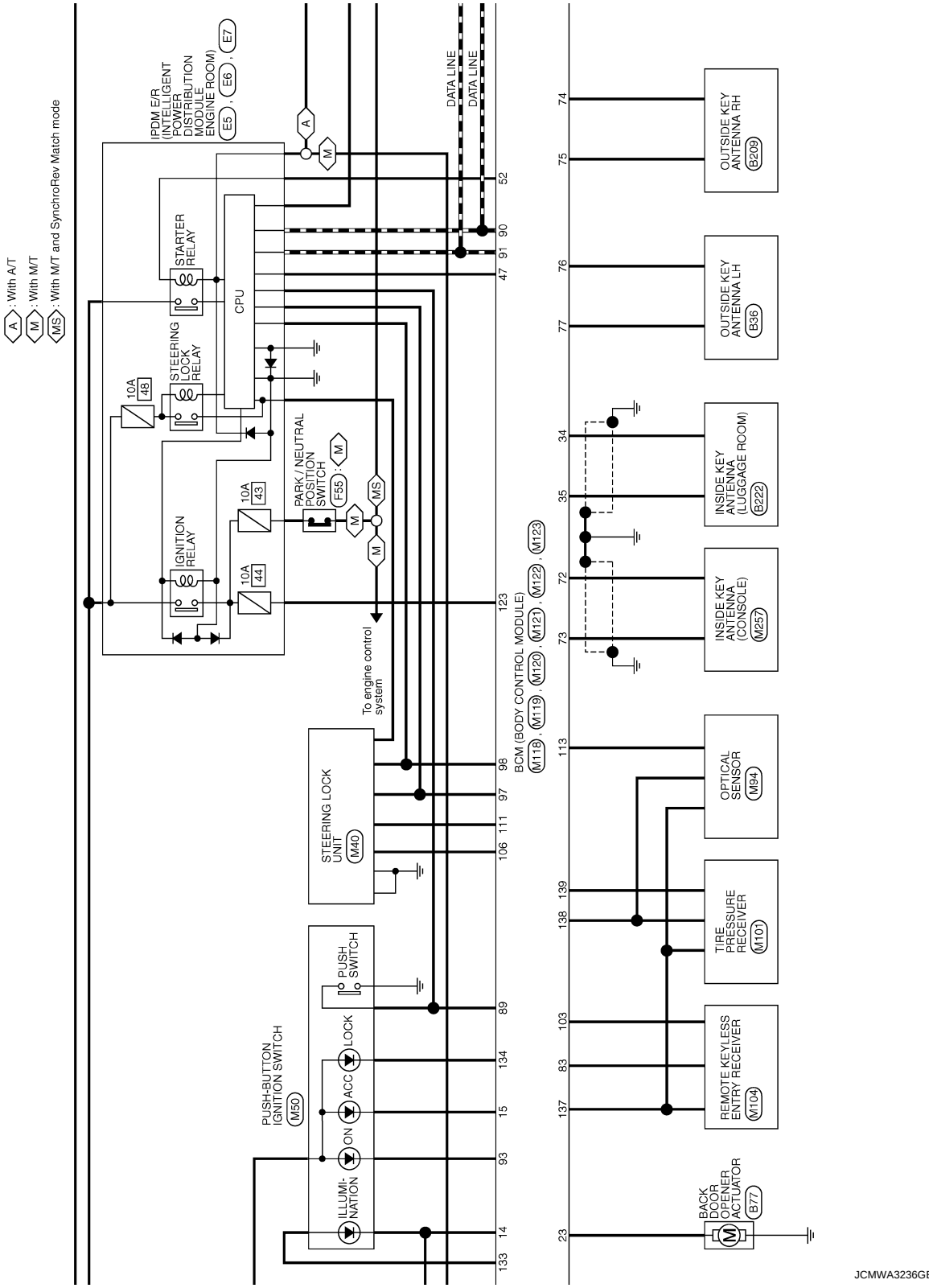
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 144 (G) | Ground | Combination switch OUTPUT 2 | Output | Combination switch | All switches OFF (Wiper intermittent dial 4) | 0 V |
| | | | | | Front washer switch ON (Wiper intermittent dial 4) |  JPMIA0033GB 10.7 V |
| | | | | | Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6 | |
| 145 (L) | Ground | Combination switch OUTPUT 3 | Output | Combination switch (Wiper intermittent dial 4) | All switches OFF | 0 V |
| | | | | | Front wiper switch INT |  JPMIA0034GB 10.7 V |
| | | | | | Front wiper switch LO | |
| | | | | | Lighting switch AUTO | |
| | | | | | Rear fog lamp switch ON | |
| 146 (SB) | Ground | Combination switch OUTPUT 4 | Output | Combination switch (Wiper intermittent dial 4) | All switches OFF | 0 V |
| | | | | | Lighting switch 2ND |  JPMIA0035GB 10.7 V |
| | | | | | Lighting switch PASS | |
| | | | | | Turn signal switch LH | |
| 149 (W) | Ground | Tire pressure warning check switch | Input | — | | 12 V |
| 150 (GR) | Ground | Driver door switch | Input | Driver door switch | OFF (Door close) |  JPMIA0011GB 11.8 V |
| | | | | | ON (Door open) | 0 V |
| 151 (G) | Ground | Rear window defogger relay control | Output | Rear window defogger | Active | 0 V |
| | | | | | Not activated | Battery voltage |

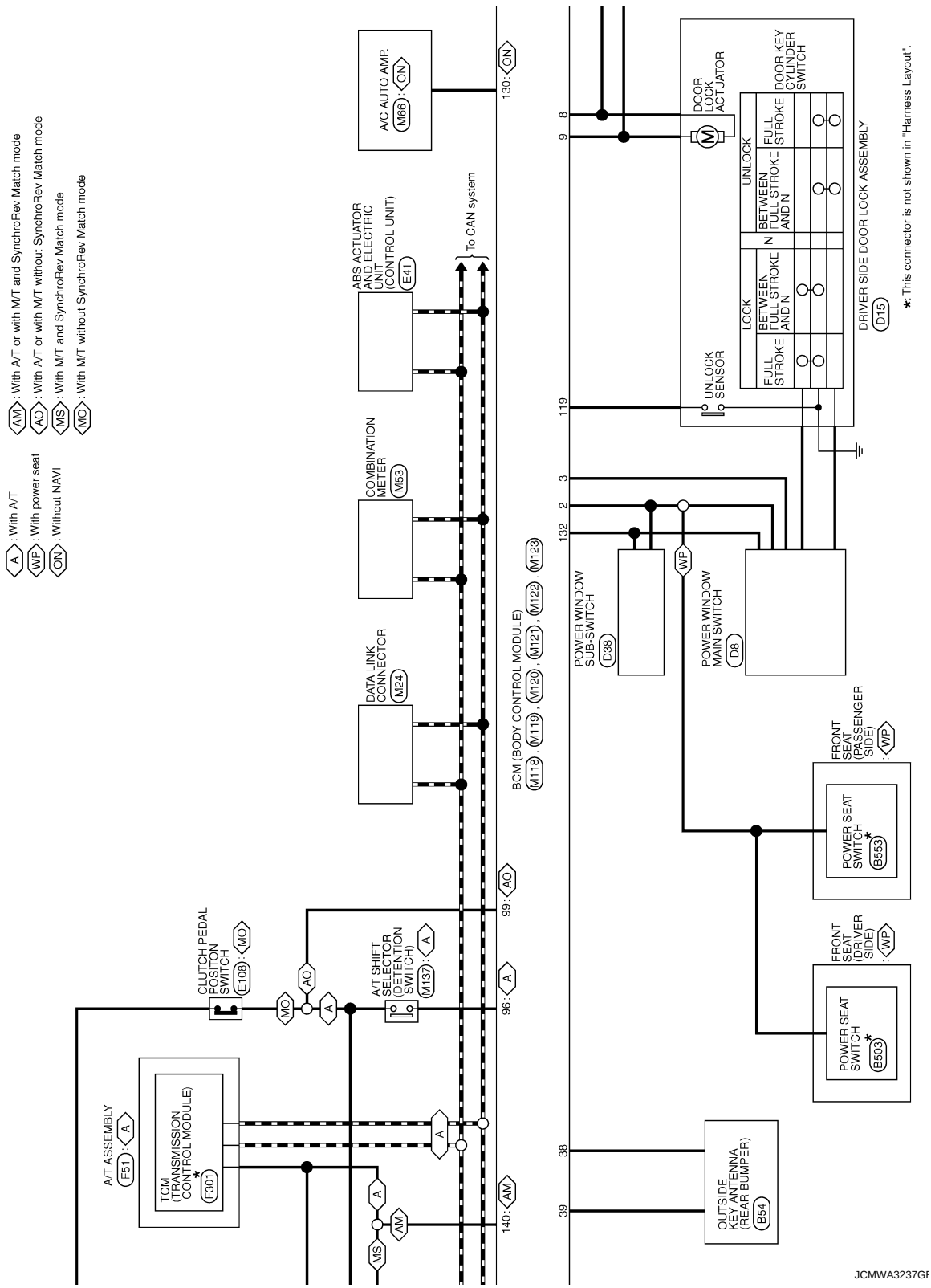
- *1: For Canada
- *2: A/T models
- *3: Except M/T models with SynchroRev Match mode
- *4: M/T models without SynchroRev Match mode
- *5: M/T models
- *6: Without NAVI
- *7: Except M/T models without SynchroRev Match mode

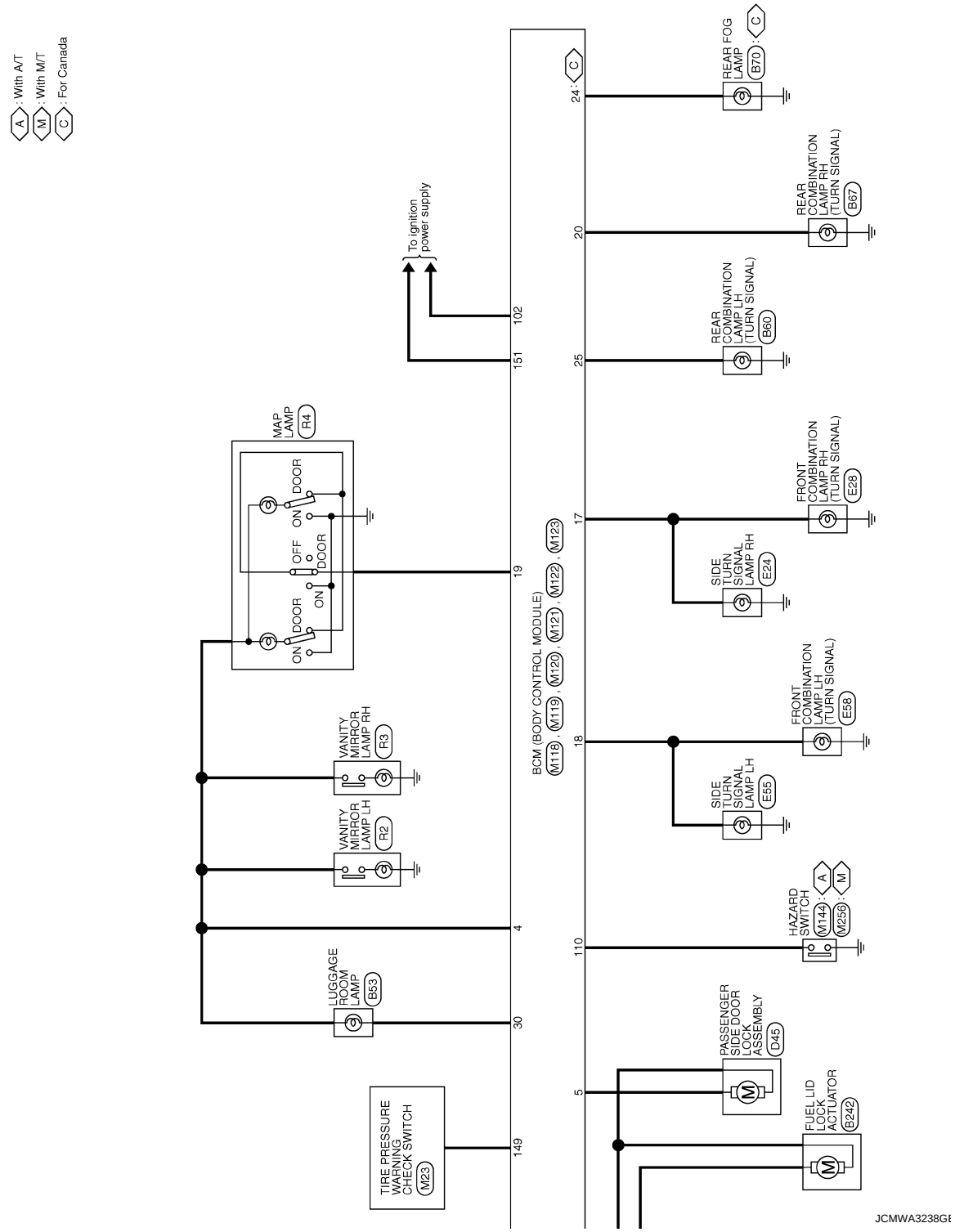
## Wiring Diagram - BCM -

INFOID:0000000004692750




A : With A/T
M : With M/T
MS : With M/T and SynchroRev Match mode
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) E5, E6, E7
STARTER RELAY
CPU
STEERING LOCK RELAY
IGNITION RELAY
10A 48
10A 43
10A 44
PARK / NEUTRAL POSITION SWITCH F55
To engine control system
DATA LINE
DATA LINE
STEERING LOCK UNIT M40
PUSH-BUTTON IGNITION SWITCH M50
PUSH SWITCH
LOCK
ACC
ON
ILLUMI-NATION
BCM (BODY CONTROL MODULE) M118, M119, M120, M121, M122, M123
OUTSIDE KEY ANTENNA RH B209
OUTSIDE KEY ANTENNA LH B36
INSIDE KEY ANTENNA (LUGGAGE ROOM) B222
INSIDE KEY ANTENNA (CONSOLE) M257
OPTICAL SENSOR M94
TIRE PRESSURE RECEIVER M101
REMOTE KEYLESS ENTRY RECEIVER M104
BACK DOOR OPENER ACTUATOR B77
JCMWA3236GB


A : With A/T
WP : With power seat
ON : Without NAVI
AM : With A/T or with M/T and SynchroRev Match mode
AO : With A/T or with M/T without SynchroRev Match mode
MS : With M/T and SynchroRev Match mode
MO : With M/T without SynchroRev Match mode
A/C AUTO AMP. M66 ON
130 : ON
To CAN system
ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) E41
COMBINATION METER M53
DATA LINK CONNECTOR M24
BCM (BODY CONTROL MODULE) M118, M119, M120, M121, M122, M123
99 : AO
96 : A
140 : AM
CLUTCH PEDAL POSITON SWITCH E108 : MO
A/T SHIFT SELECTOR (DETENTION SWITCH) M137 : A
A/T ASSEMBLY F51 : A
TCM (TRANSMISSION CONTROL MODULE) F301
DOOR LOCK ACTUATOR
UNLOCK SENSOR
DOOR KEY CYLINDER SWITCH
LOCK
UNLOCK
FULL STROKE
BETWEEN FULL STROKE AND N
N
DRIVER SIDE DOOR LOCK ASSEMBLY D15
*: This connector is not shown in "Harness Layout".
POWER WINDOW SUB-SWITCH D38
POWER WINDOW MAIN SWITCH D8
FRONT SEAT (PASSENGER SIDE) : WP
POWER SEAT SWITCH B553
FRONT SEAT (DRIVER SIDE) : WP
POWER SEAT SWITCH B503
OUTSIDE KEY ANTENNA (REAR BUMPER) B54
JCMWA3237GB


A : With A/T
M : With M/T
C : For Canada
To ignition power supply
102
151
MAP LAMP R4
DOOR ON
OFF
DOOR ON
DOOR ON
ON
VANITY MIRROR LAMP RH R3
VANITY MIRROR LAMP LH R2
LUGGAGE ROOM LAMP B53
TIRE PRESSURE WARNING CHECK SWITCH M23
149
30
4
19
BCM (BODY CONTROL MODULE)
M118, M119, M120, M121, M122, M123
24 : C
20
25
17
18
110
5
REAR FOG LAMP B70 : C
REAR COMBINATION LAMP RH (TURN SIGNAL) B67
REAR COMBINATION LAMP LH (TURN SIGNAL) B60
FRONT COMBINATION LAMP RH (TURN SIGNAL) E28
SIDE TURN SIGNAL LAMP RH E24
FRONT COMBINATION LAMP LH (TURN SIGNAL) E58
SIDE TURN SIGNAL LAMP LH E55
HAZARD SWITCH A M M144 : M256
PASSENGER SIDE DOOR LOCK ASSEMBLY D45
FUEL LID LOCK ACTUATOR E242
JCMWA3238GB

BCM (BODY CONTROL MODULE)

| Connector No. | M33 |
|---|---|
| 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] |
|---|---|---|
| 2 | SB | OUTPUT 4 |
| 5 | L | OUTPUT 3 |
| 7 | V | INPUT 3 |
| 8 | O | OUTPUT 5 |
| 9 | Y | INPUT 2 |
| 10 | R | INPUT 4 |
| 11 | LG | INPUT 1 |
| 12 | P | OUTPUT 1 |
| 13 | BR | INPUT 5 |
| 14 | G | OUTPUT 2 |

| Connector No. | M118 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | M03FB-LC |

H.S.

1 3
2

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | W | BAT (F/L) |
| 2 | W | POWER WINDOW POWER SUPPLY(BAT) |
| 3 | Y | POWER WINDOW POWER SUPPLY(RAP) |

| Connector No. | M119 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | NS16FW-CS |

H.S.

4 5 6 7 8 9 10
11 12 13 14 15 16 17 18 19

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 4 | R | INTERIOR ROOM LAMP POWER SUPPLY |
| 5 | G | PASSENGER DOOR UNLOCK OUTPUT |
| 8 | V | ALL DOOR, FUEL LID LOCK OUTPUT |
| 9 | G | DRIVER DOOR, FUEL LID UNLOCK OUTPUT |
| 11 | BR | BAT (FUSE) |
| 13 | B | GND |
| 14 | R | PUSH-BUTTON IGNITION SW ILL GND |
| 15 | Y | ACC IND |
| 17 | W | TURN SIGNAL RH (FRONT, SIDE) |
| 18 | O | TURN SIGNAL LH (FRONT, SIDE) |
| 19 | V | ROOM LAMP TIMER CONT |

| Connector No. | M120 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | NS12FW-CS |

H.S.

20 21 22 23 24
25 26 27 28 29 30 31

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 20 | V | TURN SIGNAL RH (REAR) |
| 23 | L | BACK DOOR OPEN OUTPUT |
| 24 | O | REAR FOG OUTPUT |
| 25 | LG | TURN SIGNAL LH (REAR) |
| 30 | R | LUGGAGE ROOM LAMP OUTPUT |

| Connector No. | M121 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FGY-NH |

H.S.

57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72
73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 34 | G | LUGGAGE ROOM ANT- |
| 35 | R | LUGGAGE ROOM ANT+ |
| 38 | B | BACK DOOR ANT- |
| 39 | W | BACK DOOR ANT+ |
| 47 | V | IGN RELAY (IPDM E/R) CONT |
| 52 | SB | STARTER RELAY CONT |
| 61 | W | BACK DOOR OPENER REQUEST SW |
| 64 | G | I-KEY WARN BUZZER (ENG ROOM) |
| 66 | R | BACK DOOR SW |
| 67 | GR | BACK DOOR OPENER SW |

| Connector No. | M122 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FB-NH |

H.S.

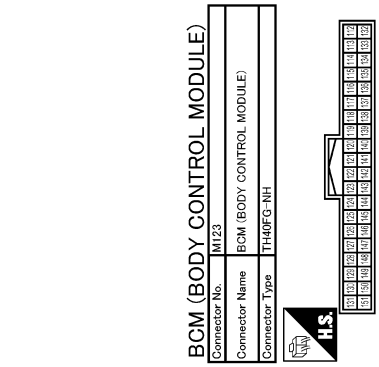
91 90 89 88 87 86 85 84 83 82 81 80 79 78 77 76 75 74 73 72
111 110 109 108 107 106 105 104 103 102 101 100 99 98 97 96 95 94 93 92

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 72 | L | ROOM ANT- |
| 73 | P | ROOM ANT+ |
| 74 | SB | PASSENGER DOOR ANT- |
| 75 | BR | PASSENGER DOOR ANT+ |
| 76 | V | DRIVER DOOR ANT- |
| 77 | LG | DRIVER DOOR ANT+ |
| 80 | GR | IMMOBI ANTENNA CONTROL |
| 81 | W | IMMOBI ANTENNA SIGNAL |
| 82 | R | IGN RELAY (F/B) CONT |
| 83 | GR | KEYLESS ENTRY RECEIVER COMM |
| 87 | BR | COMBI SW INPUT 5 |
| 88 | V | COMBI SW INPUT 3 |
| 89 | BR | PUSH SW |
| 90 | P | CAN-L |
| 91 | L | CAN-H |
| 92 | LG | KEY SLOT ILL |
| 93 | V | ON IND |
| 95 | O | ACC RELAY CONT |
| 96 | Y | A/T SHIFT SELECTOR POWER SUPPLY |
| 97 | L | S/L CONDITION 1 |
| 98 | P | S/L CONDITION 2 |
| 99 | BR | ASCD CLUTCH SW (With M/T without Synchro Rev Match mode) |
| 99 | R | SHIFT P (With A/T) |
| 100 | GR | PASSENGER DOOR REQUEST SW |
| 101 | Y | DRIVER DOOR REQUEST SW |
| 102 | O | BLOWER FAN MOTOR RELAY CONT |
| 103 | LG | KEYLESS ENTRY RECEIVER POWER SUPPLY |
| 106 | W | S/L UNIT POWER SUPPLY |
| 107 | LG | COMBI SW INPUT 1 |
| 108 | R | COMBI SW INPUT 4 |
| 109 | Y | COMBI SW INPUT 2 |
| 110 | P | HAZARD SW |
| 111 | Y | S/L UNIT COMM |

JCMWA3239GB

BCM (BODY CONTROL MODULE)

| Connector No. | M123 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FG-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 113 | O | OPTICAL SENSOR |
| 114 | R | CLUTCH INTERLOCK SW |
| 116 | SB | STOP LAMP SW 1 |
| 118 | P | STOP LAMP SW 2 |
| 119 | SB | DR DOOR UNLOCK SENSOR |
| 121 | R | KEY SLOT SW |
| 123 | W | IGN F/B |
| 124 | LG | PASSENGER DOOR SW |
| 130 | L | REAR DEFOGGER SW |
| 132 | Y | POWER WINDOW SW COMM |
| 133 | G | PUSH BUTTON IGNITION SW ILL POWER |
| 134 | GR | LOCK IND |
| 137 | P | RECEIVER/SENSOR GND |
| 138 | V | RECEIVER/SENSOR POWER SUPPLY |
| 139 | L | TIRE PRESSURE RECEIVER COMM |
| 140 | G | PARK/NEUTRAL POSITION SW [With M/T and Synchro-Shift, Manual mode] |
| 140 | G | SHIFT N/P [With A/T] |
| 141 | Y | SECURITY INDICATOR |
| 142 | O | COMBI SW OUTPUT 5 |
| 143 | P | COMBI SW OUTPUT 1 |
| 144 | G | COMBI SW OUTPUT 2 |
| 145 | L | COMBI SW OUTPUT 3 |
| 146 | SB | COMBI SW OUTPUT 4 |
| 149 | W | TIRE PRESSURE WARN CHECK SW |
| 150 | GR | DRIVER DOOR SW |
| 151 | G | REAR WINDOW DEFOGGER RELAY CONT |

JCMWA3240GB

## Fail-safe

*INFOID:0000000004692751*

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 | Erase DTC |
| B2014: CHAIN OF S/L-BCM | Inhibit engine cranking | Erase DTC |
| 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 |
| B2557: VEHICLE SPEED | Inhibit steering lock | When normal vehicle speed signals are received from ABS actuator and electric unit (control unit) for 500 ms |
| B2560: STARTER CONT RELAY | Inhibit engine cranking | 500 ms after the following CAN signal communication status becomes consistent<br>• Starter control relay signal<br>• Starter relay status signal |
| 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 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>• Selector lever P/N position signal: Except P and N positions (0 V) |
| B2604: PNP 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 and N position (battery voltage)<br>- P range signal or N range signal (CAN): ON<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>- P range signal and N range signal (CAN): OFF |
| B2605: PNP 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: 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 (battery voltage)<br>- PNP switch signal (CAN): ON |
| B2606: S/L RELAY | Inhibit engine cranking | 500 ms after the following CAN signal communication status becomes consistent<br>• Steering lock relay signal (Request signal)<br>• Steering lock relay signal (Condition signal) |

| Display contents of CONSULT | Fail-safe | Cancellation |
|---|---|---|
| B2607: S/L RELAY | Inhibit engine cranking | 500 ms after the following CAN signal communication status has becomes consistent<br>• Steering lock relay signal (Request signal)<br>• Steering lock relay signal (Condition signal) |
| 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 |
| B260A: IGNITION RELAY | Inhibit engine cranking | 500 ms after the following conditions are fulfilled<br>• IGN relay (IPDM E/R) control signal: OFF (Battery voltage)<br>• Ignition ON signal (CAN to IPDM E/R): OFF (Request signal)<br>• Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal) |
| B260F: ENG STATE SIG LOST | Maintains the power supply position attained at the time of DTC detection | 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) |
| B2617: STARTER RELAY CIRC | Inhibit engine cranking | 1 second after the starter motor relay control inside BCM becomes normal |
| B2618: BCM | Inhibit engine cranking | 1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal |
| B2619: BCM | Inhibit engine cranking | 1 second after the steering lock unit power supply output control inside BCM becomes normal |
| B261E: VEHICLE TYPE | Inhibit engine cranking | BCM initialization |
| B26E8: CLUTCH SW | Inhibit engine cranking | When any of the following BCM recognition conditions are fulfilled<br>• Status 1<br>- Clutch switch signal (CAN from ECM): ON<br>- Clutch interlock switch signal: OFF (0 V)<br>• Status 2<br>- Clutch switch signal (CAN from ECM): OFF<br>- Clutch interlock switch signal: ON (Battery voltage) |
| B26E9: S/L STATUS | • Inhibit engine cranking<br>• Inhibit steering lock | When BCM transmits the LOCK request signal to steering lock unit, and receives LOCK response signal from steering lock unit, the following conditions are fulfilled<br>• Steering condition No. 1 signal: LOCK (0 V)<br>• Steering condition No. 2 signal: LOCK (Battery voltage) |

## HIGH FLASHER OPERATION

BCM detects the turn signal lamp circuit status by the current value.
BCM increases the turn signal lamp blinking speed if the bulb or harness open is detected with the turn signal lamp operating.

**NOTE:**
The blinking speed is normal while activating the hazard warning lamp.

## FAIL-SAFE CONTROL BY RAIN SENSOR MALFUNCTION

- BCM judges the rain sensor serial link error by the rain sensor serial link condition and detects the rain sensor malfunction by rain sensor malfunction signal.
- When BCM detects the rain sensor serial link error or the rain sensor malfunction while front wiper AUTO operation, BCM operates a fail-safe control.

**NOTE:**
If rain sensor malfunction is detected when ignition switch is turned OFF ⇒ ON and front wiper switch is INT position, BCM operates a fail-safe control.

## DTC Inspection Priority Chart

INFOID:0000000004692752

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 | • 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 |
| 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>• B2560: STARTER CONT RELAY<br>• B2601: SHIFT POSITION<br>• B2602: SHIFT POSITION<br>• B2603: SHIFT POSI STATUS<br>• B2604: PNP SW<br>• B2605: PNP SW<br>• B2606: S/L RELAY<br>• B2607: S/L RELAY<br>• B2608: STARTER RELAY<br>• B2609: S/L STATUS<br>• B260A: IGNITION RELAY<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: ACC RELAY CIRC<br>• B2615: BLOWER RELAY CIRC<br>• B2616: IGN RELAY CIRC<br>• B2617: STARTER RELAY CIRC<br>• B2618: BCM<br>• B2619: BCM<br>• B261A: PUSH-BTN IGN SW<br>• B261E: VEHICLE TYPE<br>• B26E8: CLUTCH SW<br>• B26E9: S/L STATUS<br>• B26EA: KEY REGISTRATION<br>• C1729: VHCL SPEED SIG ERR<br>• U0415: VEHICLE SPEED SIG |

| Priority | DTC |
|---|---|
| 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>• C1712: [CHECKSUM ERR] FL<br>• C1713: [CHECKSUM ERR] FR<br>• C1714: [CHECKSUM ERR] RR<br>• C1715: [CHECKSUM ERR] RL<br>• C1716: [PRESSDATA ERR] FL<br>• C1717: [PRESSDATA ERR] FR<br>• C1718: [PRESSDATA ERR] RR<br>• C1719: [PRESSDATA ERR] RL<br>• C1720: [CODE ERR] FL<br>• C1721: [CODE ERR] FR<br>• C1722: [CODE ERR] RR<br>• C1723: [CODE ERR] RL<br>• C1724: [BATT VOLT LOW] FL<br>• C1725: [BATT VOLT LOW] FR<br>• C1726: [BATT VOLT LOW] RR<br>• C1727: [BATT VOLT LOW] RL<br>• C1734: CONTROL UNIT |
| 6 | • B2621: INSIDE ANTENNA<br>• B2622: INSIDE ANTENNA<br>• B2623: INSIDE ANTENNA |

## DTC Index

INFOID:0000000004692753

**NOTE:**
The details of time display are as follows.
- CRNT: A malfunction is detected now.
- PAST: A malfunction was detected in the past.

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to BCS-17, "COMMON ITEM : CONSULT-III Function (BCM - COMMON ITEM)".

| CONSULT display | Fail-safe | Freeze Frame Data<br>•Vehicle Speed<br>•Odo/Trip Meter<br>•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 CIRCUIT | — | — | — | — | BCS-38 |
| U1010: CONTROL UNIT (CAN) | — | — | — | — | BCS-39 |
| U0415: VEHICLE SPEED SIG | — | — | — | — | BCS-40 |
| B2013: ID DISCORD BCM-S/L | × | × | — | — | SEC-50 |
| B2014: CHAIN OF S/L-BCM | × | × | — | — | SEC-51 |
| B2190: NATS ANTENNA AMP | × | — | — | — | SEC-42 |
| B2191: DIFFERENCE OF KEY | × | — | — | — | SEC-45 |
| B2192: ID DISCORD BCM-ECM | × | — | — | — | SEC-46 |
| B2193: CHAIN OF BCM-ECM | × | — | — | — | SEC-48 |
| B2195: ANTI SCANNING | × | — | — | — | SEC-49 |
| B2553: IGNITION RELAY | — | × | — | — | PCS-48 |
| B2555: STOP LAMP | — | × | — | — | SEC-54 |

| 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 | Refer-ence page |
|---|---|---|---|---|---|
| B2556: PUSH-BTN IGN SW | — | × | × | — | SEC-56 |
| B2557: VEHICLE SPEED | × | × | × | — | SEC-58 |
| B2560: STARTER CONT RELAY | × | × | × | — | SEC-59 |
| B2562: LOW VOLTAGE | — | × | — | — | BCS-41 |
| B2601: SHIFT POSITION | × | × | × | — | SEC-60 |
| B2602: SHIFT POSITION | × | × | × | — | SEC-63 |
| B2603: SHIFT POSI STATUS | × | × | × | — | SEC-66 |
| B2604: PNP SW | × | × | × | — | SEC-69 |
| B2605: PNP SW | × | × | × | — | SEC-71 |
| B2606: S/L RELAY | × | × | × | — | SEC-73 |
| B2607: S/L RELAY | × | × | × | — | SEC-74 |
| B2608: STARTER RELAY | × | × | × | — | SEC-76 |
| B2609: S/L STATUS | × | × | × | — | SEC-78 |
| B260A: IGNITION RELAY | × | × | × | — | PCS-50 |
| B260B: STEERING LOCK UNIT | — | × | × | — | SEC-82 |
| B260C: STEERING LOCK UNIT | — | × | × | — | SEC-83 |
| B260D: STEERING LOCK UNIT | — | × | × | — | SEC-84 |
| B260F: ENG STATE SIG LOST | × | × | × | — | SEC-85 |
| B2612: S/L STATUS | × | × | × | — | SEC-90 |
| B2614: ACC RELAY CIRC | — | × | × | — | PCS-52 |
| B2615: BLOWER RELAY CIRC | — | × | × | — | PCS-55 |
| B2616: IGN RELAY CIRC | — | × | × | — | PCS-58 |
| B2617: STARTER RELAY CIRC | × | × | × | — | SEC-94 |
| B2618: BCM | × | × | × | — | PCS-61 |
| B2619: BCM | × | × | × | — | SEC-96 |
| B261A: PUSH-BTN IGN SW | — | × | × | — | PCS-62 |
| B261E: VEHICLE TYPE | × | × | × (Turn ON for 15 seconds) | — | SEC-97 |
| B2622: INSIDE ANTENNA | — | × | — | — | DLK-55 |
| B2623: INSIDE ANTENNA | — | × | — | — | DLK-57 |
| B26E8: CLUTCH SW | × | × | × | — | SEC-86 |
| B26E9: S/L STATUS | × | × | × (Turn ON for 15 seconds) | — | SEC-88 |
| B26EA: KEY REGISTRATION | — | × | × (Turn ON for 15 seconds) | — | SEC-89 |
| C1704: LOW PRESSURE FL | — | — | — | × | WT-16 |
| C1705: LOW PRESSURE FR | — | — | — | × | |
| C1706: LOW PRESSURE RR | — | — | — | × | |
| C1707: LOW PRESSURE RL | — | — | — | × | |
| C1708: [NO DATA] FL | — | — | — | × | WT-18 |
| C1709: [NO DATA] FR | — | — | — | × | |
| C1710: [NO DATA] RR | — | — | — | × | |
| C1711: [NO DATA] RL | — | — | — | × | |

| 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 | Refer-ence page |
|---|---|---|---|---|---|
| C1712: [CHECKSUM ERR] FL | — | — | — | × | WT-21 |
| C1713: [CHECKSUM ERR] FR | — | — | — | × | |
| C1714: [CHECKSUM ERR] RR | — | — | — | × | |
| C1715: [CHECKSUM ERR] RL | — | — | — | × | |
| C1716: [PRESSDATA ERR] FL | — | — | — | × | WT-24 |
| C1717: [PRESSDATA ERR] FR | — | — | — | × | |
| C1718: [PRESSDATA ERR] RR | — | — | — | × | |
| C1719: [PRESSDATA ERR] RL | — | — | — | × | |
| C1720: [CODE ERR] FL | — | — | — | × | WT-26 |
| C1721: [CODE ERR] FR | — | — | — | × | |
| C1722: [CODE ERR] RR | — | — | — | × | |
| C1723: [CODE ERR] RL | — | — | — | × | |
| C1724: [BATT VOLT LOW] FL | — | — | — | × | WT-29 |
| C1725: [BATT VOLT LOW] FR | — | — | — | × | |
| C1726: [BATT VOLT LOW] RR | — | — | — | × | |
| C1727: [BATT VOLT LOW] RL | — | — | — | × | |
| C1729: VHCL SPEED SIG ERR | — | — | — | × | WT-32 |
| C1734: CONTROL UNIT | — | — | — | × | WT-34 |

# SYMPTOM DIAGNOSIS

## TPMS

### Symptom Table

INFOID:0000000004476226

LOW TIRE PRESSURE WARNING LAMP SYMPTOM CHART

| Diagnosis items | Symptom (Ignition switch ON) | Low tire pressure warning lamp | Cause | Action |
|---|---|---|---|---|
| Low tire pressure warning lamp | The low tire pressure warning lamp illuminates for 1 second, then turns OFF. |  ON 1 sec > stays OFF SEIA0592E | Wake-up operation for all transmitters at wheels is completed. | No system malfunctions |
| | The low tire pressure warning lamp repeats blinking ON for 2 seconds and OFF for 0.2 seconds. |  Blinks: ON 2 sec > OFF 0.2 sec SEIA0593E | Wake-up operation for all transmitters at wheels is not completed. | Perform the wake-up operation for all transmitters at wheels. Refer to WT-6, "TRANSMITTER WAKE UP OPERATION : Special Repair Requirement". |
| | The low tire pressure warning lamp blinks once. |  Blinks 1 time ON 0.3 sec > OFF 1.3 sec SEIA0594E | The front left transmitter is not activated. | Perform the wake-up operation for the transmitter at front left wheel. Refer to WT-6, "TRANSMITTER WAKE UP OPERATION : Special Repair Requirement". |
| | The low tire pressure warning lamp repeats blinking twice. |  Blinks 2 times ON 0.3 sec > OFF 0.3 sec SEIA0595E | The front right transmitter is not activated. | Perform the wake-up operation for the transmitter at front right wheel. Refer to WT-6, "TRANSMITTER WAKE UP OPERATION : Special Repair Requirement". |
| | The low tire pressure warning lamp repeats blinking for 3 times. |  Blinks 3 times ON 0.3 sec > OFF 0.3 sec SEIA0596E | The rear right transmitter is not activated. | Perform the wake-up operation for the transmitter at rear right wheel. Refer to WT-6, "TRANSMITTER WAKE UP OPERATION : Special Repair Requirement". |
| | The low tire pressure warning lamp repeats blinking for 4 times. |  Blinks 4 times ON 0.3 sec > OFF 0.3 sec SEIA0597E | The rear left transmitter is not activated. | Perform the wake-up operation for the transmitter at rear left wheel. Refer to WT-6, "TRANSMITTER WAKE UP OPERATION : Special Repair Requirement". |
| | The low tire pressure warning lamp turns ON and stays illuminated. |  Comes ON and stays ON SEIA0598E | Low tire pressure | Check with CONSULT-III the tire pressure values. Refer to WT-11, "COMMON ITEM : CONSULT-III Function (BCM - COMMON ITEM)". |

| Diagnosis items | Symptom (Ignition switch ON) | Low tire pressure warning lamp | Cause | Action |
|---|---|---|---|---|
| Low tire pressure warning lamp | The low tire pressure warning lamp repeats blinking at 0.5-second intervals for 1 minute, and then stays illuminated. |  Blinks 1 min ON 0.5 sec > OFF 0.5 sec and stays ON SEIA0788E | The combination meter fuse is open or removed (or pulled out). | Check and install the combination meter fuse. If necessary, replace the fuse. |
| | | | The low tire pressure warning control unit harness connector is removed. | Check the connection conditions of the low tire pressure warning control unit harness connector, and repair if necessary. |
| | | | Tire Pressure Monitoring System (TPMS) malfunction. | • Perform CONSULT-III self-diagnosis. Refer to WT-11, "COMMON ITEM : CONSULT-III Function (BCM - COMMON ITEM)".<br>• If necessary, perform transmitter ID registration. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement". |
| Turn signal lamp | The turn signal lamps do not blink twice when the transmitter is activated. Or the buzzer does not sound. | — | 1. The transmitter activation tool (J-45295) does not activate.<br>2. The ignition switch is OFF when the transmitter wake-up operation is performed.<br>3. The transmitter activation tool (J-45295) is not used in the correct position.<br>4. The transmitter is already waked up. | 1. Replace the battery in the transmitter activation tool (J-45295).<br>2. Turn the ignition switch ON when performing the transmitter wake-up operation.<br>3. Operate the transmitter activation tool (J-45295) in the correct position when performing the wake-up operation.<br>4. No procedure. |

**NOTE:**
If transmitter wake-up operation is not completed for two or more transmitters, the applicable low tire pressure warning lamp blinking patterns are displayed continuously.
(Example: Blinks once/OFF/blinks 3 times = Wake-up operation is not completed at the front left wheel and rear right wheel transmitters.)

# LOW TIRE PRESSURE WARNING LAMP DOES NOT BLINKS

## Description

INFOID:0000000004555545

### DESCRIPTION

The low tire pressure warning lamp illuminates for approximately 1 second and then turns OFF when the ignition switch is turned ON. This is to check that no abnormal condition is present in the tire pressure monitoring system.
The lamp bulb may be burnt out or the tire pressure monitoring system may be malfunctioning if the low tire pressure warning lamp does not illuminate when the ignition switch is turned ON.

## Diagnosis Procedure

INFOID:0000000004470721

### 1.CHECK LOW TIRE PRESSURE WARNING LAMP

Perform trouble diagnosis of the low tire pressure warning lamp. Refer to WT-40, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check pin terminal and connection of each connector for damage and loose connection.
NO >> Repair or replace damaged parts.

# LOW TIRE PRESSURE WARNING LAMP DOES NOT TURN OFF

## Description

INFOID:0000000004470722

The low tire pressure warning lamp does not turn OFF after several seconds is passed after engine starts.

## Diagnosis Procedure

INFOID:0000000004470723

### 1.CHECK BCM

With CONSULT-III
Perform BCM (AIR PRESSURE MONITOR) self-diagnosis.

Is any DTC detected?

YES >> Check the DTC. Refer to WT-77, "DTC Index".
NO >> GO TO 2.

### 2.CHECK BCM POWER SUPPLY AND GROUND

1. Turn the ignition switch OFF.
2. Disconnect the BCM harness connector.
3. Turn the ignition switch ON.
   **CAUTION:**
   **Never start the engine.**
4. Check the voltage between the BCM harness connector and the ground.

| BCM | | — | Voltage |
|---|---|---|---|
| Connector | Terminal | | |
| M118 | 1 | Ground | Battery voltage |
| M119 | 11 | | |

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-84, "Exploded View".
NO >> Repair or replace damaged parts.

# LOW TIRE PRESSURE WARNING LAMP BLINKS

## Description

INFOID:0000000004470724

### DESCRIPTION

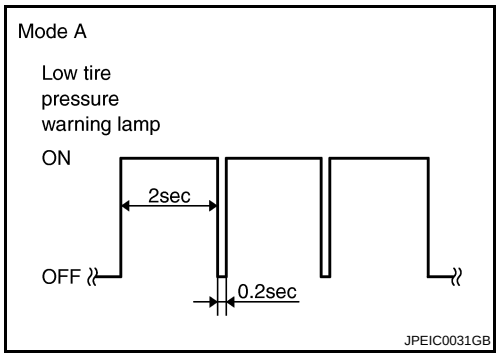
The low tire pressure warning lamp illuminates or blinks.
However, a check is necessary because the symptom may not be caused by a system malfunction. For example, the transmitter may not be initialized.

**NOTE:**

If low tire pressure warning lamp blinks as shown in the figure, the system is normal.

Blink Mode A

- This mode shows transmitter status is in OFF- mode.
  Perform transmitter wake up operation. Refer to WT-6, "TRANSMITTER WAKE UP OPERATION : Special Repair Requirement".




## Diagnosis Procedure

INFOID:0000000004470725

### 1. CHECK TIRE PRESSURE WARNING CHECK SWITCH POWER SUPPLY

1. Turn the ignition switch ON.
   **CAUTION:**
   **Never start the engine.**
2. Check voltage between tire pressure warning check switch connector and ground.

| Tire pressure warning check switch | | — | Voltage (Approx.) |
|---|---|---|---|
| Connector | Terminal | | |
| M23 | 1 | Ground | 12 V |

Is the inspection result normal?

YES >> GO TO 2.
NO >> Riper or replace error-detected damaged parts.

### 2. CHECK TIRE PRESSURE WARNING CHECK SWITCH CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect BCM harness connector.
3. Check the continuity between BCM harness connector and tire pressure warning check switch connector.

| BCM | | Tire pressure warning check switch | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M123 | 149 | M23 | 1 | Existed |

4. Check the continuity between BCM harness connector and ground.

| BCM | | — | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M123 | 149 | Ground | Not existed |

Is the inspection result normal?

YES >> GO TO 3.
NO >> Riper or replace error-detected damaged parts.

## 3.CHECK BCM

Check the BCM input/output signal. Refer to WT-45, "Reference Value".

Is the inspection result normal?

YES >> Check the tire pressure warning check switch. Refer to WT-38, "Diagnosis Procedure".
NO >> Repair or replace the BCM.

# TURN SIGNAL LAMP BLINKS

## Description

INFOID:0000000004470726

### DESCRIPTION

The turn signal lamp blinks when the ignition switch is turned ON.
The BCM connector or circuit may have a malfunction.

## Diagnosis Procedure

INFOID:0000000004470727

### 1. CHECK TIRE PRESSURE WARNING CHECK SWITCH POWER SUPPLY CIRCUIT

1. Turn the ignition switch ON.
   **CAUTION:**
   **Never start the engine.**
2. Check voltage between tire pressure warning check switch connector and ground.

| Tire pressure warning check switch | | — | Voltage (Approx.) |
|---|---|---|---|
| Connector | Terminal | | |
| M23 | 1 | Ground | 12 V |

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace damaged parts.

### 2. CHECK TIRE PRESSURE WARNING CHECK SWITCH CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect BCM harness connector.
3. Check the continuity between BCM harness connector and tire pressure warning check switch connector.

| BCM | | Tire pressure warning check switch | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | Existed |
| M123 | 149 | M23 | 1 | |

4. Check the continuity between BCM harness connector and ground.

| BCM | | — | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M123 | 149 | Ground | Not existed |

Is the inspection result normal?

YES >> Check the turn signal lamp operation. Refer to BCS-34, "SIGNAL BUFFER : CONSULT-III Function (BCM - SIGNAL BUFFER)".
NO >> Repair or replace damaged parts.

# ID REGISTRATION CANNOT BE COMPLETED

## Description

INFOID:0000000004470728

### DESCRIPTION

The ID of the transmitter installed in each wheel cannot be registered in the tire pressure monitoring system. Inspect the transmitter or the tire pressure monitoring system circuit.

## Diagnosis Procedure

INFOID:0000000004470729

### 1.CHECK TRANSMITTER ID REGISTRATION

1. Perform transmitter ID registration for all wheels. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".
2. Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes.
3. On “DATA MONITOR”, select “AIR PRESS FL”, “AIR PRESS FR”, “AIR PRESS RR” and “AIR PRESS RL”, and check that the tire pressures match the standard value.

| Monitor item | Measuring condition | Displayed value |
|---|---|---|
| AIR PRESS FL | Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes. | Internal pressure of tires |
| AIR PRESS FR | | |
| AIR PRESS RR | | |
| AIR PRESS RL | | |

**CAUTION:**

**Stop the vehicle and within 5 minutes, use CONSULT-III “DATA MONITOR” to display the tire pressure for all wheels.**

Is the inspection result normal?

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

### 2.CHECK TRANSMITTERS

1. Perform trouble diagnosis for the transmitter. Refer to WT-26, "Diagnosis Procedure".
2. Perform transmitter ID registration for all wheels. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".
3. Check that transmitter ID registration is completed for all wheels.

Is transmitter ID registration for all wheels been completed?

YES >> INSPECTION END
NO >> Replace the transmitter. Refer to WT-97, "Exploded View".

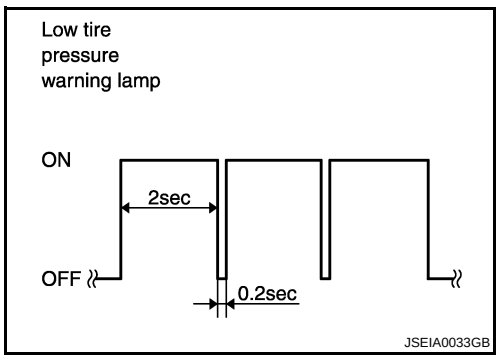
# NORMAL OPERATING CONDITION

## Description

INFOID:0000000004470730

### LOW TIRE PRESSURE WARNING LAMP BLINKS

If the low tire pressure warning lamp blinks as shown in the figure after the ignition switch is turned ON, the transmitter is not waked up. Perform the transmitter wake-up operation. Refer to WT-6, "TRANSMITTER WAKE UP OPERATION : Special Repair Requirement".



# NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

## NVH Troubleshooting Chart

INFOID:0000000004470731

Use chart below to find the cause of the symptom. If necessary, repair or replace these parts.

| Reference page | | | FSU-9, FSU-12 | WT-93, "Inspection" | WT-94, "Adjustment" | WT-100, "Tire Air Pressure" | WT-94, "Adjustment" | — | — | WT-100, "Tire Air Pressure" | NVH in DLN section. | NVH in DLN section. | NVH in FAX and FSU sections. | NVH in RAX and RSU sections. | Refer to TIRES in this chart. | Refer to ROAD WHEEL in this chart. | NVH in RAX section. | NVH in BR section. | NVH in ST section. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Possible cause and SUSPECTED PARTS | | | Improper installation, looseness | Out-of-round | unbalance | Incorrect tire pressure | Uneven tire wear | Deformation or damage | Non-uniformity | Incorrect tire size | PROPELLER SHAFT | DIFFERENTIAL | FRONT AXLE AND FRONT SUSPENSION | REAR AXLE AND REAR SUSPENSION | TIRES | ROAD WHEELS | DRIVE SHAFT | BRAKE | STEERING |
| Symptom | TIRES | Noise | × | × | × | × | × | × | × | | × | × | × | × | | × | × | × | × |
| | | Shake | × | × | × | × | × | × | | × | × | | × | × | | × | × | × | × |
| | | Vibration | | | | × | | | | × | × | | × | × | | | × | | × |
| | | Shimmy | × | × | × | × | × | × | × | × | | | × | × | | × | | × | × |
| | | Judder | × | × | × | × | × | × | | × | | | × | × | | × | | × | × |
| | | Poor quality ride or handling | × | × | × | × | × | × | | × | | | × | | × | × | | | |
| | ROAD WHEEL | Noise | × | × | × | | | × | | | × | × | × | × | × | | × | × | × |
| | | Shake | × | × | × | | | × | | | × | | × | × | × | | × | × | × |
| | | Shimmy, Judder | × | × | × | | | × | | | | | × | × | × | | | × | × |
| | | Poor quality ride or handling | × | × | × | | | × | | | | | × | × | × | | | | |

×: Applicable

# PRECAUTION

## PRECAUTIONS

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

INFOID:0000000004692755

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.**

### Service Notice or Precautions

INFOID:0000000004470732

- Low tire pressure warning lamp blinks for 1min, then turns ON when occurring any malfunction except low tire pressure. Delete the memory with CONSULT-III, or register the ID to turn low tire pressure warning lamp OFF. Refer to WT-12, "AIR PRESSURE MONITOR : Diagnosis Description", WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".
- ID registration is required when replacing or rotating wheels, replacing transmitter or BCM. Refer to BCS-84, "Exploded View".
- Replace grommet seal, valve core and cap of transmitter in TPMS every tire replacement by reaching wear limit of tire. Refer to WT-97, "Exploded View".

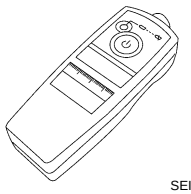
# PREPARATION

## PREPARATION

### Special Service Tool

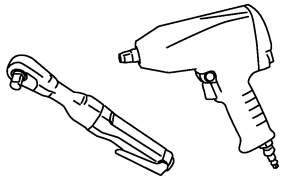
INFOID:0000000004476230

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

| Tool number<br>(Kent-Moore No.)<br>Tool name | Description |
|---|---|
| –<br>(J-45295)<br>Transmitter activation tool  SEIA0462E | ID registration |

### Commercial Service Tool

INFOID:0000000004476231

| Tool name | Description |
|---|---|
| Power tool  PBIC0190E | Loosening wheel nuts |

# PERIODIC MAINTENANCE

## ROAD WHEEL

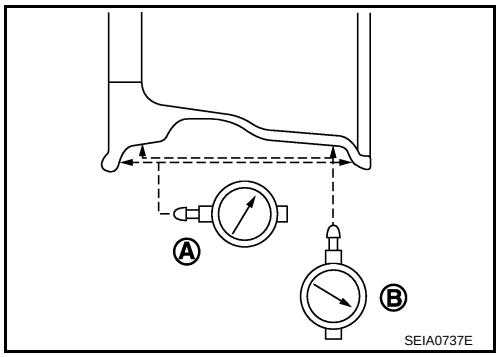
### Inspection

INFOID:0000000004470734

#### ALUMINUM WHEEL

1. Check tires for wear and improper inflation.
2. Check wheels for deformation, cracks and other damage. If deformed, remove wheel and check wheel runout.

a. Remove tire from aluminum wheel and mount on a tire balance machine.
b. Set dial indicator as shown in the figure.
c. If the lateral deflection (A) or vertical deflection (B) for radial runout value exceeds the limit, replace aluminum wheel.




**Limit**

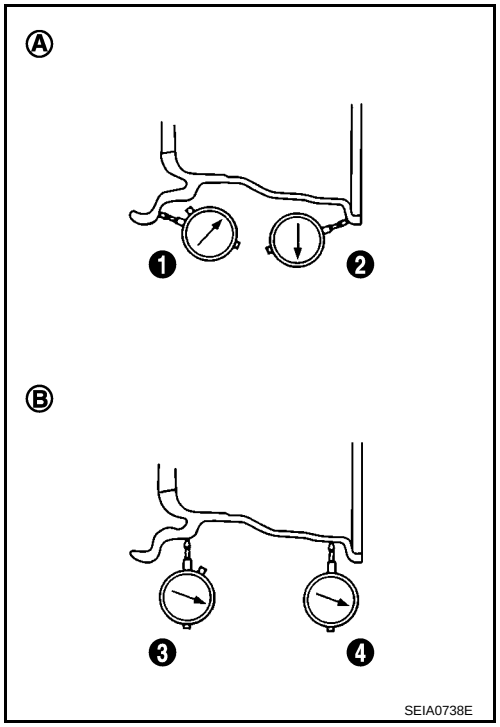
**A: Refer to WT-100, "Road Wheel".**

**B: Refer to WT-100, "Road Wheel".**

#### STEEL WHEEL

1. Check tires for were and improper inflation.
2. Check wheels for deformation, clacks and other damage. If deformed, remove wheel and check wheel runout.

a. Remove tire from steel wheel and mount wheel on a tire balance machine.
b. Set two dial indicators as shown in the illustration.
c. Set each dial indicator to “0”.
d. Rotate wheel and check dial indicators at several points around the circumference of the wheel.
e. Calculate runout at each point as shown below.




**Lateral runout limit (A): (❶+❷)/2**

**Radial runout limit (B): (❸+❹)/2**

f. Select maximum positive runout value and the maximum negative value. Add the two values to determine total runout.

**CAUTION:**

**In case a positive or negative value is not available, use the maximum value (negative or positive) for total runout.**

**Limit**

**A: Refer to WT-100, "Road Wheel".**

**B: Refer to WT-100, "Road Wheel".**

g. If the total runout value exceeds limit, replace steel wheel.

# REMOVAL AND INSTALLATION

## ROAD WHEEL TIRE ASSEMBLY

### Adjustment

INFOID:0000000004470737

#### BALANCING WHEELS (BONDING WEIGHT TYPE)

Preparation Before Adjustment

Using releasing agent, remove double-faced adhesive tape from the road wheel.

**CAUTION:**

- **Be careful not to scratch the road wheel during removal.**
- **After removing double-faced adhesive tape, wipe clean traces of releasing agent from the road wheel.**

Wheel Balance Adjustment

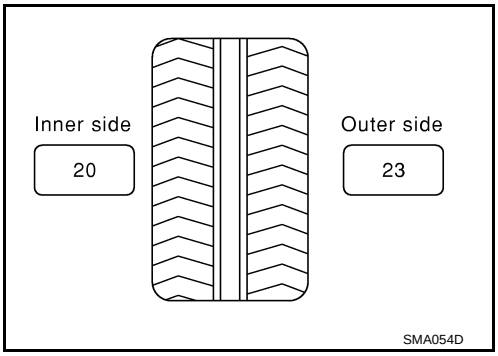
If a tire balance machine has adhesion balance weight mode settings and drive-in weight mode setting, select and adjust a drive-in weight mode suitable for road wheels.

1. Set road wheel on tire balance machine using the center hole as a guide. Start the tire balance machine.
2. When inner and outer unbalance values are shown on the tire balance machine indicator, multiply outer unbalance value by 5/3 to determine balance weight that should be used. Select the outer balance weight with a value closest to the calculated value above and install to the designated outer position of, or at the designated angle in relation to the road wheel.

   **CAUTION:**

   - **Do not install the inner balance weight before installing the outer balance weight.**
   - **Before installing the balance weight, be sure to clean the mating surface of the road wheel.**

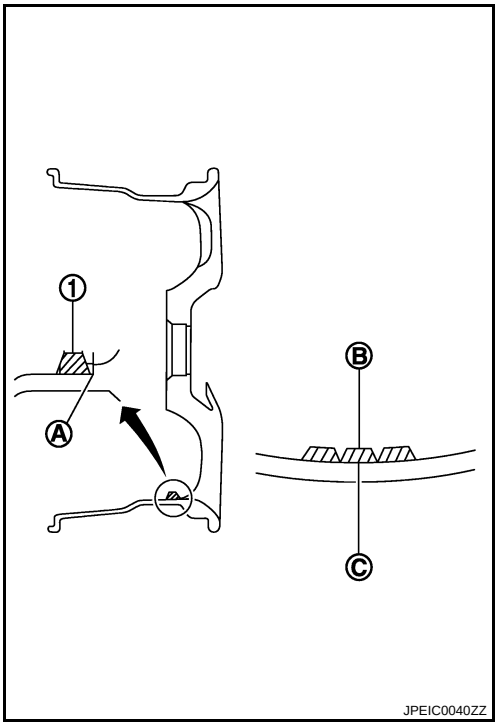
a. Indicated unbalance value × 5/3 = balance weight to be installed
**Calculation example:**
23 g (0.81 oz) × 5/3 = 38.33 g (1.35 oz) ⇒ 37.5 g (1.32 oz) balance weight (closer to calculated balance weight value)
**NOTE:**
Note that balance weight value must be closer to the calculated balance weight value.
**Example:**
36.2 ⇒ 35 g (1.23 oz)
36.3 ⇒ 37.5 g (1.32 oz)




b. Installed balance weight in the position.

- When installing balance weight (1) to road wheels, set it into the grooved area (A) on the inner wall of the road wheel as shown in the figure so that the balance weight center (B) is aligned with the tire balance machine indication position (angle) (C).

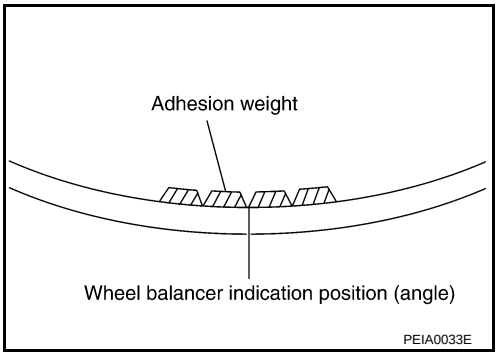
**CAUTION:**
- **Always use genuine NISSAN adhesion balance weights.**
- **Balance weights are non-reusable; always replace with new ones.**
- **Do not install more than three sheets of balance weight.**



JPEIC0040ZZ

c. If calculated balance weight value exceeds 50 g (1.76 oz), install two balance weight sheets in line with each other as shown in the figure.

**CAUTION:**
**Do not install one balance weight sheet on top of another.**



PEIA0033E

3. Start the tire balance machine again.
4. Install drive-in balance weight on inner side of road wheel in the tire balance machine indication position (angle).

**CAUTION:**
**Do not install more than two balance weight.**

5. Start the tire balance machine. Make sure that inner and outer residual unbalance values are 5 g (0.17 oz) each or below.
6. If either residual unbalance value exceeds 5 g (0.17 oz), repeat installation procedures.

**Limit**

**Dynamic (At flange) : Refer to WT-100, "Road Wheel".**

**Static (At flange) : Refer to WT-100, "Road Wheel".**

## TIRE ROTATION

- Tire cannot be rotated in vehicle, as front tire are different size from rear tire and the direction of wheel rotation is fixed in each tire.

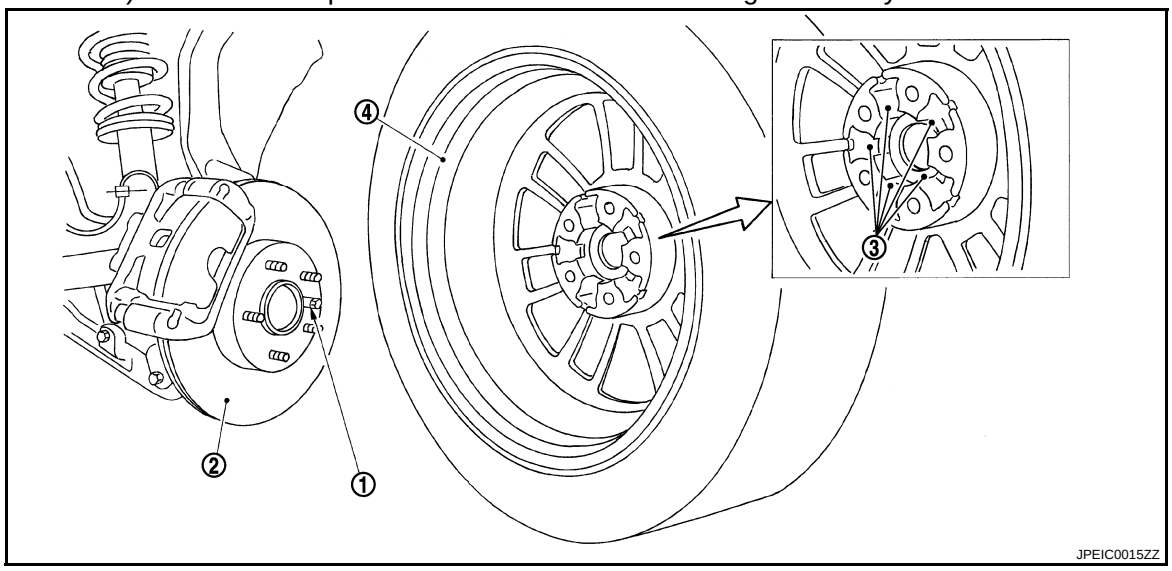
**Wheel nuts tighting torque : Refer to WT-100, "Road Wheel".**

**CAUTION:**
- **Never include the T-type spare tire when rotating the tires.**
- **Use NISSAN genuine wheel nuts for aluminum wheels.**

Safety Device Preventing from Being Incorrectly installed

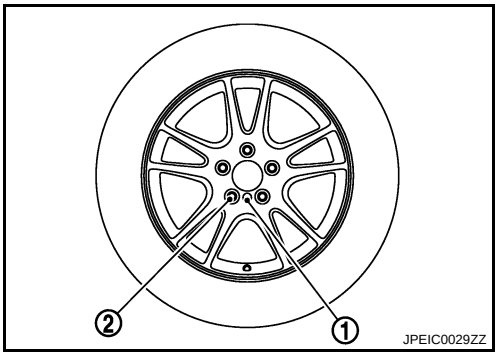
FRONT BRAKE DISC ROTOR AND FRONT WHEEL

- Front and rear wheel size for this model differs, therefore special pin (1) is adopted to the front brake disc rotor (2). And a hole (3) that matches to this pin is adopted to the front wheel (4) (the rear wheel does not have this wheel). This structure prevents the rear wheel from being mistakenly installed on the front.




T-TYPE SPARE TIRE WHEEL

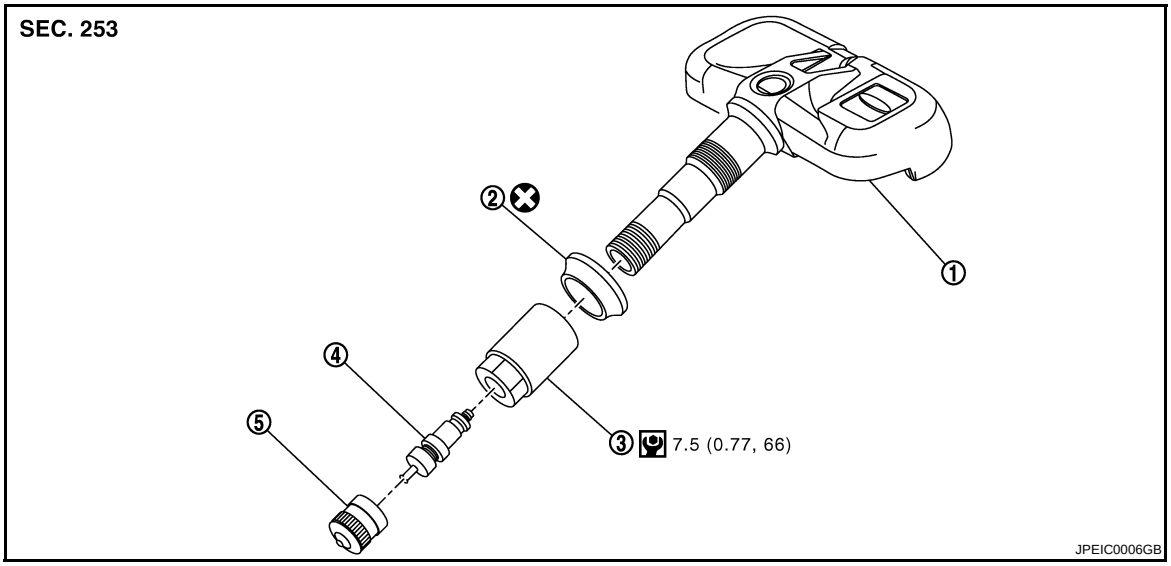
- Regarding spare tire (for emergency) wheel, wrong assembly protection pin through hole (1) has been set in addition to regular bolt holes (2) in order to enable installation to front wheel.
  **NOTE:**
  Protection pin through hole of 18 inch spare wheel is non-through type.



# TRANSMITTER

## Exploded View

INFOID:0000000004470738




1. Transmitter
2. Grommet seal
3. Valve nut
4. Valve core
5. Cap

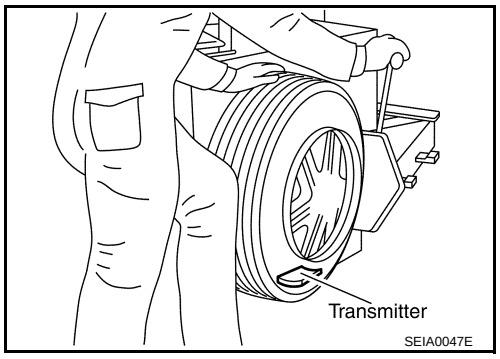
Refer to GI-4, "Components" for symbols in figure.

## Removal and Installation

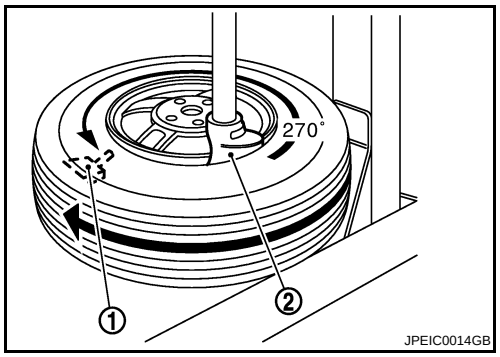
INFOID:0000000004470739

### REMOVAL

1. Deflate tire. Unscrew transmitter retaining nut and allow transmitter to fall into tire.
2. Gently bounce tire so that transmitter falls to bottom of tire. Place on tire changing machine and break both tire beads ensuring that the transmitter remains at the bottom of the tire.

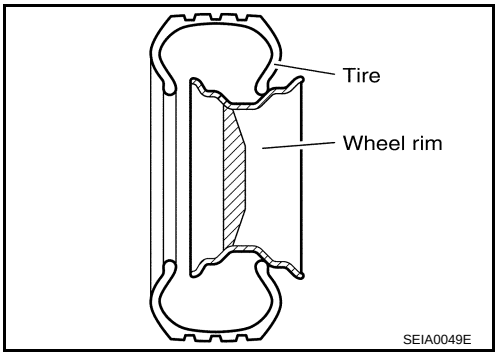



3. Turn tire so that valve hole is at bottom and bounce so that transmitter (1) is near valve hole. Carefully lift tire onto turntable and position valve hole (and transmitter) 270 degree from mounting/dismounting head (2).
4. Lubricate tire well and remove first side of the tire. Reach inside the tire and remove the transmitter.



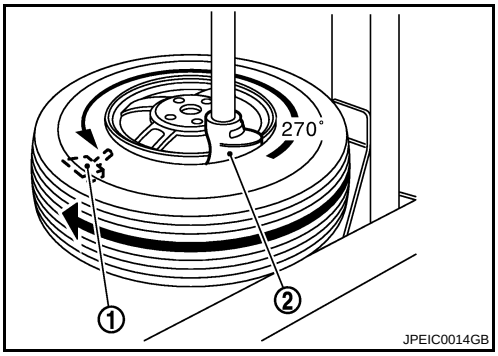

### INSTALLATION

1. Put first side of tire onto rim.




2. Mount transmitter on rim and tighten nut.
   **CAUTION:**
   **Speed for tightening nut should be less than 10 rpm.**

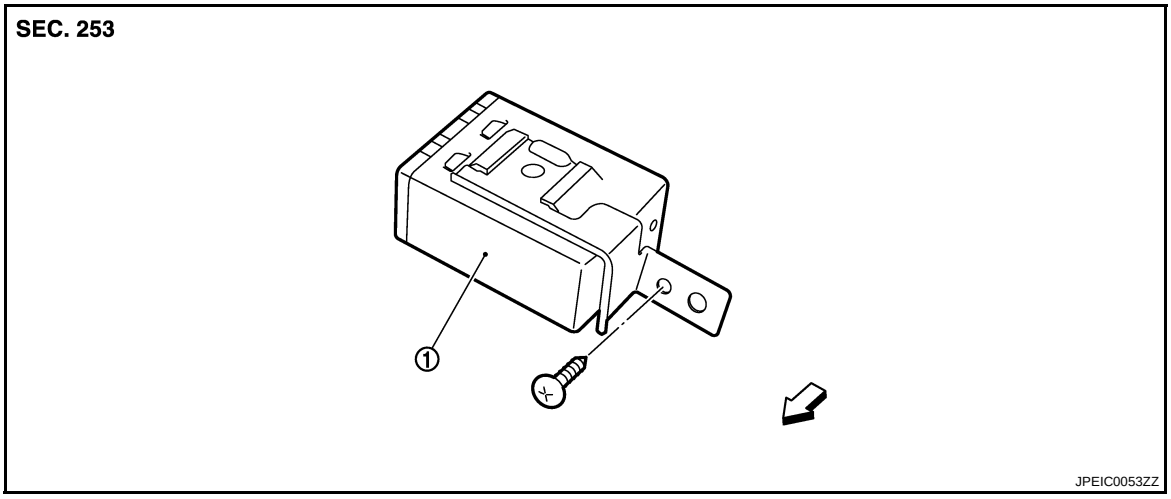
3. Place wheel on turntable of tire machine. Ensure that transmitter (1) is 270 degree from mounting head (2) when second side of tire is fitted.
   **NOTE:**
   Do not touch transmitter at mounting head.
4. Lubricate tire well and fit second side of tire as normal. Ensure that tire does not rotate relative to rim.
5. Inflate tire and fit to appropriate wheel position.



# TIRE PRESSURE RECEIVER

## Exploded View

INFOID:0000000004470740




1. Tire pressure receiver

⇦: Vehicle front

## Removal and Installation

INFOID:0000000004470741

### REMOVAL

1. Remove the glove box assembly. Refer to IP-12, "Exploded View".
2. Remove the instrument lower panel RH. Refer to IP-12, "Exploded View".
3. Disconnect tire pressure receiver harness connector.
4. Remove tire pressure receiver mounting screw.
5. Remove tire pressure receiver.

### INSTALLATION

Install is the reverse order of removal.

# SERVICE DATA AND SPECIFICATIONS (SDS)

## SERVICE DATA AND SPECIFICATIONS (SDS)

### Road Wheel

INFOID:0000000004470742

#### CONVENTIONAL

| Item | | Limit |
|---|---|---|
| Radial runout | Lateral deflection | Less than 0.3 mm (0.012 in) |
| | Vertical deflection | |
| Allowable unbalance | Dynamic (At flange) | Less than 5 g (0.17 oz) (one side) |
| | Static (At flange) | Less than 10 g (0.35 oz) |

#### EMERGENCY

| Item | | Limit |
|---|---|---|
| Radial runout | Lateral deflection | Less than 1.5 mm (0.059 in) |
| | Vertical deflection | |
| Allowable unbalance | Dynamic (At flange) | Less than 5 g (0.17 oz) (one side) |
| | Static (At flange) | Less than 10 g (0.35 oz) |

### Wheel Nut

INFOID:0000000004470743

| Item | Standard |
|---|---|
| Wheel nut tighting torque | 108 N·m (11 kg-m, 80 ft-lb) |

### Tire Air Pressure

INFOID:0000000004470744

Unit: kPa (kg/cm$^2$, psi)

| Tire size | Air pressure | |
|---|---|---|
| | Front | Rear |
| 225/50R18 95W | 240 (2.4, 35) | – |
| 245/45R18 96W | – | 240 (2.4, 35) |
| 245/40R19 94W | 240 (2.4, 35) | – |
| 275/35R19 96W | – | 240 (2.4, 35) |
| T145/80D17 | 420 (4.2, 60) | 420 (4.2, 60) |
| T145/70R18 | 420 (4.2, 60) | 420 (4.2, 60) |

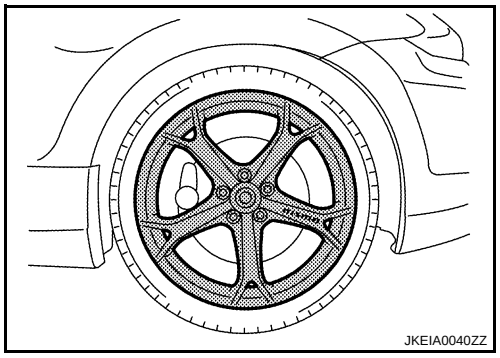
# SPEC CHANGE INFORMATION

## ROAD WHEEL TIRE ASSEMBLY

### Road Wheel Tire Assembly

INFOID:0000000005389947

- Dedicated aluminum wheels adopted.




| NISMO models | Item | | Data |
|---|---|---|---|
| Aluminum road wheels | Size | Front | 19 × 9.5J |
| | | Rear | 19 × 10.5J |
| | Offset | Front | +40 mm (+1.57 in) |
| | | Rear | +23 mm (+0.91 in) |
| Tires | Tire size | Front | 245/40ZR19 98Y |
| | | Rear | 285/35ZR19 99Y |