

# WT

## SECTION

### ROAD WHEELS & TIRES

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D

WT

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# BASIC INSPECTION

## DIAGNOSIS AND REPAIR WORKFLOW

### Work Flow

INFOID:000000006203191

#### 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. BASIC INSPECTION

1. Turn the ignition switch ON.

**CAUTION:**

**Never start the engine.**

2. Check the tire pressure for all wheels and adjust to the specified value. Refer to [WT-53, "Tire"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Inspect or repair the tires or wheels.

### 3. CHECK LOW TIRE PRESSURE WARNING LAMP

Check low tire pressure warning lamp display.

Does not low tire pressure warning lamp turn OFF?

YES >> GO TO 4.

NO >> INSPECTION END

### 4. CRUISE TEST

Start the engine and drive the vehicle.

>> GO TO 5.

### 5. PERFORM SELF-DIAGNOSIS

 **With CONSULT-III**

Perform “SELF-DIAG RESULTS” in “AIR PRESSURE MONITOR” of “BCM”.

Is any DTC detected?

YES >> GO TO 7.

NO >> GO TO 6.

### 6. CHECK SYMPTOM

Perform trouble diagnosis for the applicable symptom. Refer to [WT-33, "Symptom Table"](#).

Is the cause of the malfunction detected?

YES >> GO TO 8.

NO >> GO TO 10.

### 7. CIRCUIT DIAGNOSIS

Inspect the malfunctioning system indicated by the DTC code that is detected during self-diagnosis. Refer to [BCS-62, "DTC Index"](#).

>> GO TO 8.

## DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[REGULAR GRADE]

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### 8. REPAIR WORK

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Repair or replace the malfunctioning part.

>> GO TO 9.

### 9. PERFORM SELF-DIAGNOSIS

---

1. Select "SELF-DIAG RESULTS" in "AIR PRESSURE MONITOR" of "BCM".
2. Touch "ERASE" on CONSULT-III screen to erase memory of the low tire pressure warning control unit.
3. Drive the vehicle.
4. Perform "SELF-DIAG RESULTS" in "AIR PRESSURE MONITOR" of "BCM".

Is any DTC detected?

- YES >> GO TO 7.  
NO >> GO TO 10.

### 10. FINAL CHECK

---

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

Dose the tire pressure warning lamp turn OFF?

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

INSPECTION AND ADJUSTMENT  
TRANSMITTER WAKE UP OPERATION

TRANSMITTER WAKE UP OPERATION : Description

INFOID:000000006203192

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

TRANSMITTER WAKE UP OPERATION : Special Repair Requirement

INFOID:000000006203193

1. TRANSMITTER WAKE-UP PROCEDURE

1. Turn the ignition switch ON.

**NOTE:**

The position of an inactive transmitter can be identified by checking the blinking timing of the low tire pressure warning lamp.

Low tire pressure warning lamp blinking timing		Activation tire position
ON OFF		a : 0.3 sec. b : 1.0 sec. Front LH
ON OFF		a : 0.3 sec. b : 1.0 sec. Front RH
ON OFF		a : 0.3 sec. b : 1.0 sec. Rear RH
ON OFF		a : 0.3 sec. b : 1.0 sec. Rear LH
ON OFF		a : 2 sec. b : 0.2 sec. All tires

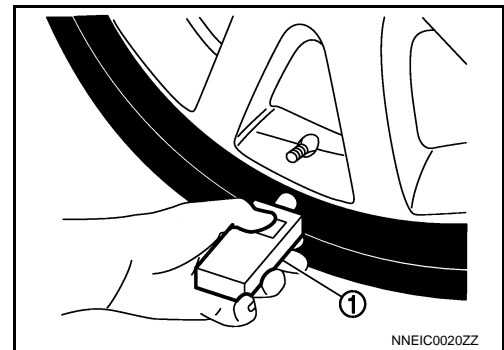
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2. Contact the transmitter activation tool (J-45295) (1) to the side of the tire at the location to the transmitter.
3. Press and hold the activation tool button while pushing the tool to the tire surface. (approximately for 5 seconds)

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



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Is the transmitter wake-up procedure completed?

YES >> Perform the transmitter ID registration procedure. Refer to [WT-5, "ID REGISTRATION PROCEDURE : Special Repair Requirement"](#).

NO >> Perform trouble diagnosis for the transmitter. Refer to [WT-15, "Diagnosis Procedure"](#).

ID REGISTRATION PROCEDURE

ID REGISTRATION PROCEDURE : Description

INFOID:000000006203194

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

ID REGISTRATION PROCEDURE : Special Repair Requirement

INFOID:000000006203195

1. TRANSMITTER ID REGISTRATION PROCEDURE

Ⓜ With CONSULT-III.

1. Display the "WORK SUPPORT" screen and select "ID REGIST".

# INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

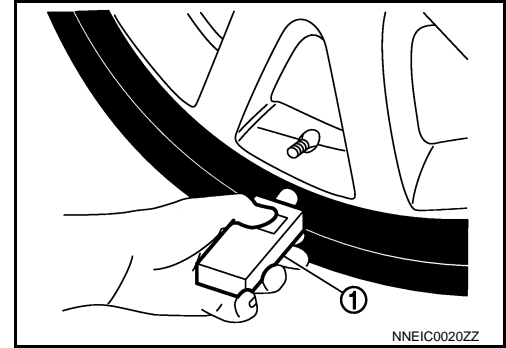
[REGULAR GRADE]

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 THE 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.

Se-quence	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 >> Perform "SELF-DIAG RESULTS" of "AIR PRESSURE MONITOR" in "BCM". Refer to [BCS-62, "DTC Index"](#).

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

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

Tire position	Tire pressure kPa (kg/cm <sup>2</sup> , 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-53, "Tire"](#).

Is ID registrations for all wheels completed?

# INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[REGULAR GRADE]

YES >> ID registration END.

NO >> Perform "SELF-DIAG RESULTS" of "AIR PRESSURE MONITOR" in "BCM". Refer to [BCS-62](#),  
"[DTC Index](#)".

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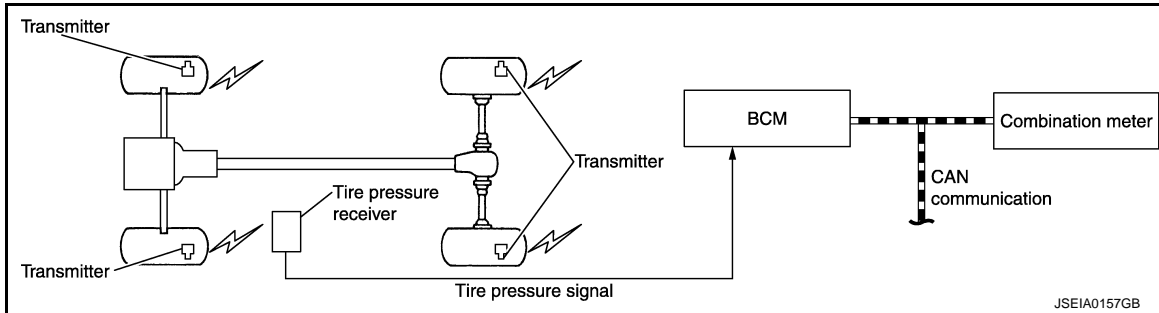
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# SYSTEM DESCRIPTION

## TPMS

### System Diagram

INFOID:000000006203196



### System Description

INFOID:000000006203197

#### DISCRIPTION

During driving, the TPMS (Tire Pressure Monitoring System) receives the signal transmitted from transmitter installed in each wheel, when the tire pressure becomes low. 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.

#### INPUT/OUTPUT SIGNAL

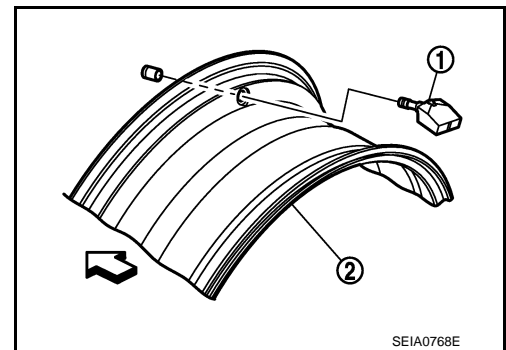
The signal transmission/reception between units via a communication line is mainly as listed in the following table.

Component parts	Signal item
BCM	Transmits the following signals via CAN communication to the combination meter. <ul style="list-style-type: none"> <li>• Low tire pressure warning lamp signal</li> <li>• TPMS display signal</li> </ul>

#### TRANSMITTER

A sensor-transmitter (1) integrated with a valve is installed on a wheel (2), and transmits a detected air pressure signal by radio wave.

⇐ : Outside



#### REMOTE KEYLESS ENTRY RECEIVER

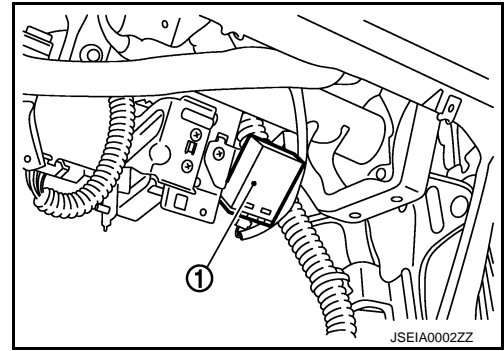


# TPMS

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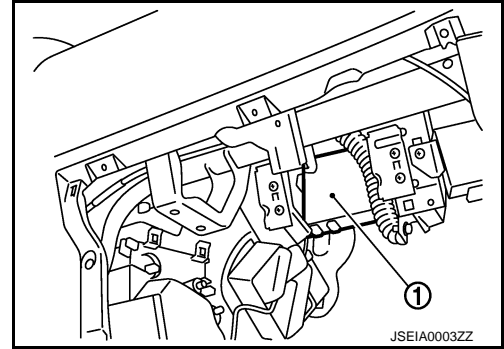
## < SYSTEM DESCRIPTION >

The remote keyless entry receiver (tire pressure receiver) (1) receives the air pressure signal transmitted by the transmitter in each wheel.



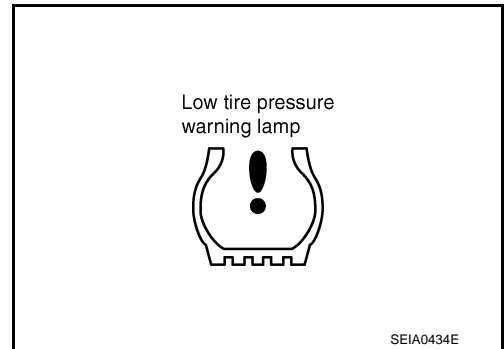
## BCM (BODY CONTROL MODULE)

The BCM (1) reads the air pressure signal received by the remote keyless entry receiver (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.



## LOW TIRE PRESSURE WARNING LAMP

The combination meter receives tire pressure status from the BCM using CAN communication. When BCM judges from a transmitter signal that tire pressure is insufficient, BCM transmits a signal to combination meter through CAN communication. combination meter turns on the low tire pressure warning lamp mounted on the combination meter.



### Low tire pressure warning lamp indication

Condition	Low tire pressure warning lamp
Less than * kPa (* kg/cm <sup>2</sup> , * psi) [NOTE]	ON
Low tire pressure warning system malfunction [Other diagnostic item]	Warning lamp blinks 1 min, then turns ON.

### NOTE:

- 182.7 kPa (1.9 kg/cm<sup>2</sup>, 26 psi): Standard air pressure is for 230 kPa (2.3 kg/cm<sup>2</sup>, 26 psi) vehicles.
- 205.1 kPa (2.1 kg/cm<sup>2</sup>, 30 psi): Standard air pressure is for 260 kPa (2.6 kg/cm<sup>2</sup>, 38 psi) vehicles.

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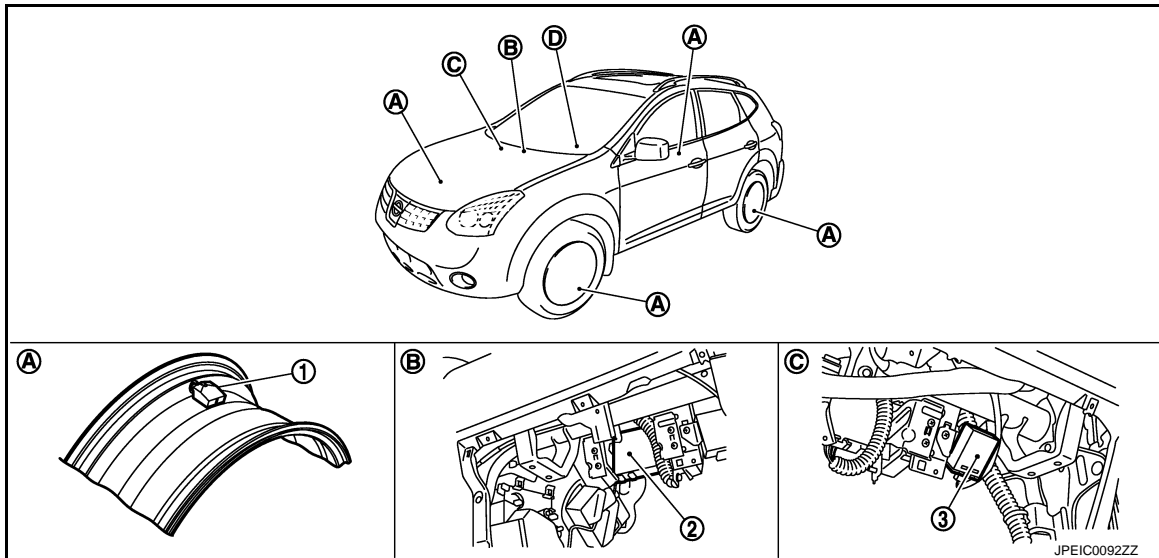
# TPMS

< SYSTEM DESCRIPTION >

[REGULAR GRADE]

## Component Parts Location

INFOID:000000006203198



- |  |                                    |   |
|--|------------------------------------|---|
| 1. Transmitter   | 2. BCM                             | 3. Remote keyless entry receiver (Tire pressure receiver) |
| A. Wheel   | B. Behind glove box cover assembly | C. Behind glove box cover assembly                        |
| D. Low tire pressure warning lamp (in combination meter) |                                    |   |

## Component Description

INFOID:000000006203199

Component parts	Function
BCM (Body Control Module)	<a href="#">BCS-7, "System Description"</a> .
Transmitter	<a href="#">WT-18, "Description"</a> .
Remote keyless entry receiver (Tire pressure receiver)	<a href="#">WT-24, "Description"</a> .
Turn signal lamp	ID registration of each wheel has been completed, turn signal lamp flashes.
Combination meter	Controls a low tire pressure warning lamp, turn signal lamp, and buzzer by signals from the BCM.
Low tire pressure warning lamp	<a href="#">WT-26, "Description"</a> l.

# DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[REGULAR GRADE]

## DIAGNOSIS SYSTEM (BCM)

### COMMON ITEM

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

INFOID:000000006449390

### APPLICATION ITEM

CONSULT-III can display each diagnostic item using the diagnostic test modes shown following.

Diagnosis mode	Function description
ECU Identification	BCM part number is displayed.
Self-Diagnostic Result	Displays the diagnosis results judged by BCM. Refer to <a href="#">BCS-62, "DTC Index"</a> .
Data Monitor	BCM input/output signals are displayed.
Active Test	The signals used to activate each device are forcibly supplied from BCM.
Work Support	Changes the setting for each system function.
Configuration	<ul style="list-style-type: none"> <li>• Read and save the vehicle specification.</li> <li>• Write the vehicle specification when replacing BCM.</li> </ul>
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from 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.

x: Applicable item

System	CONSULT-III sub system selection item	Diagnosis mode		
		Work Support	Data Monitor	Active Test
Door lock	DOOR LOCK	x	x	x
Rear window defogger	REAR DEFOGGER		x	x
Warning chime	BUZZER		x	x
Interior room lamp control	INT LAMP	x	x	x
Remote keyless entry system	MULTI REMOTE ENT	x	x	x
Exterior lamp	HEAD LAMP	x	x	x
Wiper and washer	WIPER	x	x	x
Turn signal and hazard warning lamps	FLASHER		x	x
Air conditioner	AIR CONDITONER		x	
Intelligent Key system	INTELLIGENT KEY		x	
Combination switch	COMB SW		x	
—	BCM	x		
Immobilizer	IMMU		x	x
Interior room lamp battery saver	BATTERY SAVER	x	x	x
Back door open	TRUNK		x	x
Vehicle security system	THEFT ALM	x	x	x
RAP system	RETAINED PWR	x	x	x
Signal buffer system	SIGNAL BUFFER		x	x
—	FUEL LID*			
TPMS	TPMS (AIR PRESSURE MONITOR)	x	x	x
Panic alarm system	PANIC ALARM			x

\*: This item is displayed, but is not function.

## AIR PRESSURE MONITOR

# DIAGNOSIS SYSTEM (BCM)

[REGULAR GRADE]

< SYSTEM DESCRIPTION >

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

INFOID:000000006203202

### WORK SUPPORT MODE

#### ID Read

The registered ID number is displayed.

#### ID Regist

Refer to [WT-5, "ID REGISTRATION PROCEDURE : Special Repair Requirement"](#).

### SELF-DIAG RESULTS MODE

#### Operation Procedure

Refer to [BCS-62, "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.

Display item list

Monitor	Condition	Specification
VEHICLE SPEED	Drive vehicle	Vehicle speed (km/h or MPH)
AIR PRESS FL AIR PRESS FR AIR PRESS RR AIR PRESS RL	<ul style="list-style-type: none"> <li>Drive vehicle for a few minutes.</li> <li>or</li> <li>Ignition switch ON and transmitter activation tool is transmitting activation signals.</li> </ul>	Tire pressure (kPa or Psi)
ID REGST FL ID REGST FR ID REGST RR ID REGST RL	Ignition switch ON	Registration ID: Done No registration: Yet
WARNING LAMP		Low tire pressure warning lamp ON: On Low tire pressure warning lamp OFF: Off
BUZZER		Buzzer in combination meter ON: On Buzzer in combination meter 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.
FLAT TIRE WARNING	This test is able to check to check that the buzzer sounds.
HORN	This test is able to check to check that the horn sounds.
FLASHER	This test is able to check to check that each turn signal lamp turns on.
RUNFLAT TIRE W/L	<b>NOTE:</b> This item is displayed, but cannot be use this item.

# C1704, C1705, C1706, C1707 LOW TIRE PRESSURE

< DTC/CIRCUIT DIAGNOSIS >

[REGULAR GRADE]

## DTC/CIRCUIT DIAGNOSIS

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

#### Description

INFOID:000000006203203

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:000000006203204

#### DTC DETECTION LOGIC

DTC	Display item	Malfunction detected condition	Possible cause
C1704	LOW PRESSURE FL	Front LH tire pressure drops to * kPa (* kg/cm <sup>2</sup> , * psi) or less. [NOTE]	Low tire pressure
C1705	LOW PRESSURE FR	Front RH tire pressure drops to * kPa (* kg/cm <sup>2</sup> , * psi) or less. [NOTE]	
C1706	LOW PRESSURE RR	Rear RH tire pressure drops to * kPa (* kg/cm <sup>2</sup> , * psi) or less. [NOTE]	
C1707	LOW PRESSURE RL	Rear LH tire pressure drops to * kPa (* kg/cm <sup>2</sup> , * psi) or less. [NOTE]	

#### NOTE:

- 182.7 kPa (1.9 kg/cm<sup>2</sup>, 26 psi): Standard air pressure is for 230 kPa (2.3 kg/cm<sup>2</sup>, 26 psi) vehicles.
- 205.1 kPa (2.1 kg/cm<sup>2</sup>, 30 psi): Standard air pressure is for 260 kPa (2.6 kg/cm<sup>2</sup>, 38 psi) vehicles.

#### DTC CONFIRMATION PROCEDURE

##### 1. DTC REPRODUCTION PROCEDURE

Ⓜ With CONSULT-III

1. Turn the ignition switch ON.

#### CAUTION:

**Never start the engine.**

2. Check the tire pressure for all wheels and adjust to the specified value. Refer to [WT-53, "Tire"](#).
3. Perform "SELF-DIAG RESULTS" in "AIR PRESSURE MONITOR" of "BCM".

Is DTC "C1704", "C1705", "C1706", "C1707" detected?

- YES >> Perform trouble diagnosis. Refer to [WT-13, "Diagnosis Procedure"](#).  
 NO >> INSPECTION END

#### Diagnosis Procedure

INFOID:000000006203205

##### 1. CHECK TIRE PRESSURE

Check the internal pressure of all wheels. Refer to [WT-53, "Tire"](#).

Is the inspection result normal?

- YES >> Replace the DTC-detected malfunctioning transmitter. Refer to [WT-50, "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. Perform "DATA MONITOR" in "AIR PRESSURE MONITOR" of "BCM".
3. Select "BCM" in "DATA MONITOR", 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		

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

< DTC/CIRCUIT DIAGNOSIS >

[REGULAR GRADE]

### **CAUTION:**

Stop the vehicle and within 5 minutes, use "DATA MONITOR" in "AIR PRESSURE MONITOR" of "BCM" 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:000000006203206

#### 1.CHECK TIRE PRESSURE

Check all tires for tire pressures. Refer to [WT-53, "Tire"](#).

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-5, "ID REGISTRATION PROCEDURE : Special Repair Requirement"](#).

>> END

# C1708, C1709, C1710, C1711 TRANSMITTER

< DTC/CIRCUIT DIAGNOSIS >

[REGULAR GRADE]

## C1708, C1709, C1710, C1711 TRANSMITTER

### DTC Logic

INFOID:000000006203207

### 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.	<ul style="list-style-type: none"> <li>• Harness or connector (Tire pressure receiver, BCM)</li> <li>• ID registration is not finished</li> <li>• Transmitter malfunction</li> <li>• BCM malfunction</li> </ul>
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 "SELF-DIAG RESULTS" in "AIR PRESSURE MONITOR" of "BCM".

Is DTC "C1708", "C1709", "C1710", "C1711" detected?

- YES >> Perform trouble diagnosis. Refer to [WT-15, "Diagnosis Procedure"](#).  
 NO >> INSPECTION END

### Diagnosis Procedure

INFOID:000000006203208

#### 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. Perform "DATA MONITOR" in "AIR PRESSURE MONITOR" of "BCM".
3. Select "BCM" in "DATA MONITOR", 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 "DATA MONITOR" in "AIR PRESSURE MONITOR" of "BCM" 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 REMOTE KEYLESS ENTRY RECEIVER (TIRE PRESSURE RECEIVER)

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

# C1708, C1709, C1710, C1711 TRANSMITTER

< DTC/CIRCUIT DIAGNOSIS >

[REGULAR GRADE]

BCM		Remote keyless entry receiver (Tire pressure receiver)		Continuity
Connector	Terminal	Connector	Terminal	
M65	18	M91	1	Existed
	19		4	
	20		2	

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

BCM		—	Continuity
Connector	Terminal		
M65	18	Ground	Not existed
	19		
	20		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace damaged parts.

### 3. CHECK REMOTE KEYLESS ENTRY RECEIVER (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		
M65	18	Ground	5 V

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace damaged parts.

### 4. CHECK REMOTE KEYLESS ENTRY RECEIVER (TIRE PRESSURE RECEIVER)

Check remote keyless entry receiver (tire pressure receiver). Refer to [WT-24, "Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace remote keyless entry receiver (tire pressure receiver). Refer to [WT-52, "Removal and Installation"](#).

### 5. CHECK ID REGISTRATION

Perform ID registration of all transmitters. Refer to [WT-5, "ID REGISTRATION PROCEDURE : Special Repair Requirement"](#).

Can ID registration of all transmitters be completed?

YES >> GO TO 6.

NO >> Replace transmitter. Refer to [WT-50, "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. Perform "DATA MONITOR" in "AIR PRESSURE MONITOR" of "BCM".

3. Select "BCM" in "DATA MONITOR", and check that the tire pressures match the standard value.



# C1708, C1709, C1710, C1711 TRANSMITTER

< DTC/CIRCUIT DIAGNOSIS >

[REGULAR GRADE]

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 "DATA MONITOR" in "AIR PRESSURE MONITOR" of "BCM" to read the tire pressure for all wheels.

Is the inspection result normal?

YES >> Replace the DTC-detected malfunctioning transmitter. Refer to [WT-50, "Exploded View"](#).

NO >> Replace BCM. Refer to [BCS-66, "Exploded View"](#).

## Special Repair Requirement

INFOID:000000006203209

WT

### 1. CHECK TIRE PRESSURE

Check all tires for tire pressures. Refer to [WT-53, "Tire"](#).

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-5, "ID REGISTRATION PROCEDURE : Special Repair Requirement"](#).

>> END

# C1716, C1717, C1718, C1719 TRANSMITTER

< DTC/CIRCUIT DIAGNOSIS >

[REGULAR GRADE]

## C1716, C1717, C1718, C1719 TRANSMITTER

### Description

INFOID:000000006203210

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

### DTC Logic

INFOID:000000006203211

### 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.	<ul style="list-style-type: none"><li>• ID registration is not finished</li><li>• Transmitter malfunction</li></ul>
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. Turn the ignition switch ON.

**CAUTION:**

**Never start the engine.**

2. Check the tire pressure for all wheels and adjust to the specified value. Refer to [WT-53, "Tire"](#).
3. Perform "SELF-DIAG RESULTS" in "AIR PRESSURE MONITOR" of "BCM".

Is DTC "C1716", "C1717", "C1718", "C1719" detected?

- YES >> Perform trouble diagnosis. Refer to [WT-18, "Diagnosis Procedure"](#).  
NO >> INSPECTION END

### Diagnosis Procedure

INFOID:000000006203212

#### 1. CHECK TIRE PRESSURE

Check the internal pressure of all wheels. Refer to [WT-53, "Tire"](#).

Is the inspection result normal?

- YES >> Replace the DTC-detected malfunctioning transmitter. Refer to [WT-50, "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-53, "Tire"](#).
2. Perform transmitter ID registration for all wheels. Refer to [WT-5, "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. Perform "DATA MONITOR" in "AIR PRESSURE MONITOR" of "BCM".
5. Select "BCM" in "DATA MONITOR", and check that the tire pressures match the standard value.

**CAUTION:**

**Stop the vehicle and within 15 minutes, use "DATA MONITOR" in "AIR PRESSURE MONITOR" of "BCM" to read the tire pressure for all wheels.**

6. Check that "DATA MONITOR" displays tire pressure of 438.60 kPa (4.47 kg/cm<sup>2</sup>, 63.60 Psi).

Is the inspection 438.60 kPa (4.47 kg/cm<sup>2</sup>, 63.60 Psi)?

- YES >> Replace transmitter the tire pressure 438.60 kPa (4.47 kg/cm<sup>2</sup>, 63.60 Psi) displayed. Refer to [WT-50, "Exploded View"](#).

# C1716, C1717, C1718, C1719 TRANSMITTER

< DTC/CIRCUIT DIAGNOSIS >

[REGULAR GRADE]

NO >> GO TO 1.

## Special Repair Requirement

INFOID:000000006203213

### 1.CHECK TIRE PRESSURE

Check all tires for tire pressures. Refer to [WT-53, "Tire"](#).

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-5, "ID REGISTRATION PROCEDURE : Special Repair Requirement"](#).

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# C1729 VEHICLE SPEED SIGNAL

[REGULAR GRADE]

< DTC/CIRCUIT DIAGNOSIS >

## C1729 VEHICLE SPEED SIGNAL

### Description

INFOID:000000006203214

BCM detects no vehicle speed signal.

### DTC Logic

INFOID:000000006203215

### DTC DETECTION LOGIC

DTC number	Trouble diagnosis name	DTC detecting condition	Possible case
C1729	VHCL SPEED SIG ERR	Vehicle speed signal not detected.	<ul style="list-style-type: none"><li>CAN communication error</li><li>Combination meter malfunction</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1. DTC REPRODUCTION PROCEDURE

Ⓜ With CONSULT-III

- Drive for several minutes at a speed of 40 km/h (25 MPH) or more, then stop the vehicle.
- Perform "SELF-DIAG RESULTS" in "AIR PRESSURE MONITOR" of "BCM".

Is DTC "C1729" detected?

- YES >> Perform trouble diagnosis. Refer to [WT-20, "Diagnosis Procedure"](#).  
NO >> INSPECTION END

### Diagnosis Procedure

INFOID:000000006203216

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

Ⓜ With CONSULT-III

Perform "SELF-DIAG RESULTS" of "METER/M&A".

Is any DTC detected?

- YES >> Check the DTC. Refer to [MWI-40, "DTC Index"](#).  
NO >> GO TO 2.

#### 2. PERFORM SELF-DIAGNOSIS

Ⓜ With CONSULT-III

Perform "SELF-DIAG RESULTS" in "AIR PRESSURE MONITOR" of "BCM".

Is DTC "C1729" detected?

- YES >> Replace BCM. Refer to [WT-11, "COMMON ITEM : CONSULT-III Function \(BCM - COMMON ITEM\)"](#).  
NO >> GO TO 3.

#### 3. CHECK INFORMATION

Ⓜ With CONSULT-III

- Perform "DATA MONITOR" in "AIR PRESSURE MONITOR" of "BCM".
- Select "BCM" in "DATA MONITOR", and check the input/output values. Refer to [BCS-42, "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-66, "Exploded View"](#).

### Special Repair Requirement

INFOID:000000006203217

#### 1. CHECK TIRE PRESSURE

Check all tires for tire pressures. Refer to [WT-53, "Tire"](#).

Does all tire pressure data meet the specification?

- YES >> GO TO 2.

# C1729 VEHICLE SPEED SIGNAL

< DTC/CIRCUIT DIAGNOSIS >

[REGULAR GRADE]

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-5, "ID REGISTRATION PROCEDURE : Special Repair Requirement"](#).

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# C1735 IGNITION SIGNAL

< DTC/CIRCUIT DIAGNOSIS >

[REGULAR GRADE]

## C1735 IGNITION SIGNAL

### Description

INFOID:000000006203218

The BCM monitors the IGN ON signal on the CAN line and compares it to its direct IGN ON signal. When these two signals do not match, the BCM sets C1735.

### DTC Logic

INFOID:000000006203219

### DTC DETECTION LOGIC

DTC	Display item	Malfunction detected condition	Possible case
C1735	IGNITION SIGNAL LINE - BCM/TPMS	BCM has detected a mismatch between IGN ON signals.	<ul style="list-style-type: none"><li>CAN communication error</li><li>BCM malfunction</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1.CHECK SELF-DIAGNOSTIC RESULTS

Perform "SELF-DIAG RESULTS" in "AIR PRESSURE MONITOR" of "BCM".

Is DTC "C1735" detected?

- YES >> Perform trouble diagnosis. Refer to [WT-22, "Diagnosis Procedure"](#).  
NO >> INSPECTION END

### Diagnosis Procedure

INFOID:000000006203220

#### 1.CHECK IGNITION SIGNAL

ⓂWith CONSULT-III

- Perform "DATA MONITOR" of "BCM".
- Select "BCM" in "DATA MONITOR", and check the "IGN SW CAN". Refer to [BCS-42, "Reference Value"](#).

Is the inspection result normal?

- YES >> GO TO 2.  
NO >> Perform CAN diagnosis. Refer to [LAN-25, "CAN System Specification Chart"](#).

#### 2.CHECK POWER SUPPLY CIRCUIT

Check BCM power supply circuit. Refer to [WT-28, "Diagnosis Procedure"](#).

Is the inspection result normal?

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

#### 3.CHECK SELF-DIAGNOSTIC RESULTS

ⓂWith CONSULT-III

- Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes.
- Perform "SELF-DIAG RESULTS" in "AIR PRESSURE MONITOR" of "BCM".

Is DTC "C1735" detected?

- YES >> Replace BCM. Refer to [BCS-66, "Exploded View"](#).  
NO >> INSPECTION END

### Special Repair Requirement

INFOID:000000006203221

#### 1.CHECK TIRE PRESSURE

Check all tires for tire pressures. Refer to [WT-53, "Tire"](#).

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-5, "ID REGISTRATION PROCEDURE : Special Repair Requirement"](#).

# C1735 IGNITION SIGNAL

< DTC/CIRCUIT DIAGNOSIS >

[REGULAR GRADE]

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# REMOTE KEYLESS ENTRY RECEIVER

< DTC/CIRCUIT DIAGNOSIS >

[REGULAR GRADE]

## REMOTE KEYLESS ENTRY RECEIVER

### Description

INFOID:000000006203222

The remote keyless entry receiver (tire pressure receiver) receives the air pressure signal transmitted by the transmitter in each wheel.

### Component Function Check

INFOID:000000006203223

#### 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. Perform "DATA MONITOR" in "AIR PRESSURE MONITOR" of "BCM".
3. Select "BCM" in "DATA MONITOR", 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 "DATA MONITOR" in "AIR PRESSURE MONITOR" of "BCM" to display the tire pressure for all wheels.

Is the inspection result normal?

YES >> INSPECTION END

NO >> Perform trouble diagnosis. Refer to [WT-24, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000006203224

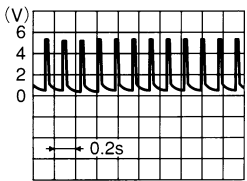
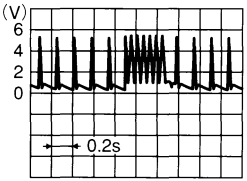
#### 1. CHECK REMOTE KEYLESS ENTRY RECEIVER (TIRE PRESSURE RECEIVER) SIGNAL

1. Turn the ignition switch ON.

#### CAUTION:

Never start the engine.

2. Check remote keyless entry receiver (tire pressure receiver) connector and ground signal with oscilloscope.

Remote keyless entry receiver (Tire pressure receiver)		—	Condition	Voltage (Approx.)
Connector	Terminal			
M91	2	Ground	Stand by state	 <p>OCC3881D</p>
			When receiving the signal from the transmitter	 <p>OCC3880D</p>

Is the inspection result normal?



# REMOTE KEYLESS ENTRY RECEIVER

< DTC/CIRCUIT DIAGNOSIS >

[REGULAR GRADE]

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

## 2. CHECK REMOTE KEYLESS ENTRY RECEIVER (TIRE PRESSURE RECEIVER) INPUT VOLTAGE

1. Disconnect remote keyless entry receiver (tire pressure receiver) connector.
2. Check voltage between remote keyless entry receiver (tire pressure receiver) connector and ground.

Remote keyless entry receiver (Tire pressure receiver)		—	Voltage (Approx.)
Connector	Terminal		
M91	4	Ground	5.0 V

Is the inspection result normal?

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

## 3. CHECK REMOTE KEYLESS ENTRY RECEIVER (TIRE PRESSURE RECEIVER) GROUND CIRCUIT

1. Disconnect BCM harness connector.
2. Check continuity between BCM harness connector and remote keyless entry receiver (tire pressure receiver) connector.

BCM		Remote keyless entry receiver (Tire pressure receiver)		Continuity
Connector	Terminal	Connector	Terminal	
M65	18	M91	1	Existed

3. Check continuity between BCM harness connector and ground.

BCM		—	Continuity
Connector	Terminal		
M65	18	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-28. "Diagnosis Procedure"](#).

Is the BCM circuit normal?

- YES >> Replace remote keyless entry receiver (tire pressure receiver). Refer to [WT-52. "Removal and Installation"](#).
- NO >> Replace BCM. Refer to [BCS-66. "Exploded View"](#).

# LOW TIRE PRESSURE WARNING LAMP

< DTC/CIRCUIT DIAGNOSIS >

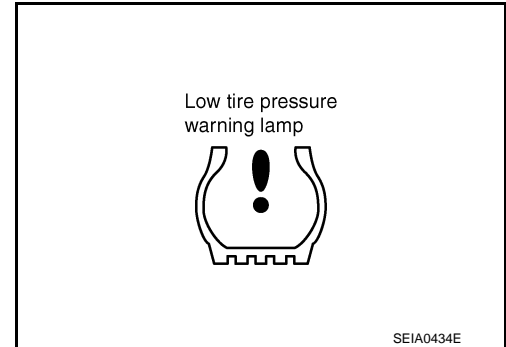
[REGULAR GRADE]

## LOW TIRE PRESSURE WARNING LAMP

### Description

INFOID:000000006203228

The combination meter receives tire pressure status from the BCM using CAN communication. When BCM judges from a transmitter signal that tire pressure is insufficient, BCM transmits a signal to combination meter through CAN communication. combination meter turns on the low tire pressure warning lamp mounted on the combination meter.



### Low tire pressure warning lamp indication

Condition	Low tire pressure warning lamp
Less than * kPa (* kg/cm <sup>2</sup> , * psi) [NOTE]	ON
Low tire pressure warning system malfunction [Other diagnostic item]	Warning lamp blinks 1 min, then turns ON.

### NOTE:

- 182.7 kPa (1.9 kg/cm<sup>2</sup>, 26 psi): Standard air pressure is for 230 kPa (2.3 kg/cm<sup>2</sup>, 26 psi) vehicles.
- 205.1 kPa (2.1 kg/cm<sup>2</sup>, 30 psi): Standard air pressure is for 260 kPa (2.6 kg/cm<sup>2</sup>, 38 psi) vehicles.

### Component Function Check

INFOID:000000006203229

#### 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-26, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000006203230

#### 1. POWER SUPPLY AND GROUND CIRCUIT

Check power supply and ground circuit. Refer to [WT-28, "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 "SELF-DIAG RESULTS" in "AIR PRESSURE MONITOR" of "BCM".

##### Is any DTC detected?

- YES >> Check the DTC. Refer to [BCS-62, "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. Perform "DATA MONITOR" in "AIR PRESSURE MONITOR" of "BCM".
3. Select "BCM" in "DATA MONITOR", and check that the low tire pressure warning lamp is turned OFF after illuminating for approximately 1 second, when the ignition switch is turned ON.

# LOW TIRE PRESSURE WARNING LAMP

< DTC/CIRCUIT DIAGNOSIS >

[REGULAR GRADE]

Is the inspection result normal?

YES >> Check the combination meter. Refer to [MWI-8, "METER SYSTEM : System Description"](#).

NO >> Replace the BCM. Refer to [BCS-66, "Exploded View"](#).

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# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[REGULAR GRADE]

## POWER SUPPLY AND GROUND CIRCUIT

### Diagnosis Procedure

INFOID:000000006203231

#### 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		
M67	57	Ground	Battery voltage
	70		

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		
M67	67	Ground	Existed

Is the inspection result normal?

- YES >> • Check the 10 A fuse [No. 10 in fuse block (J/B)].  
• Check the 50 A fusible link [No. J in fuse block].  
NO >> Repair or replace damaged parts.

# ECU DIAGNOSIS INFORMATION

## BCM

### List of ECU Reference

INFOID:000000006203234

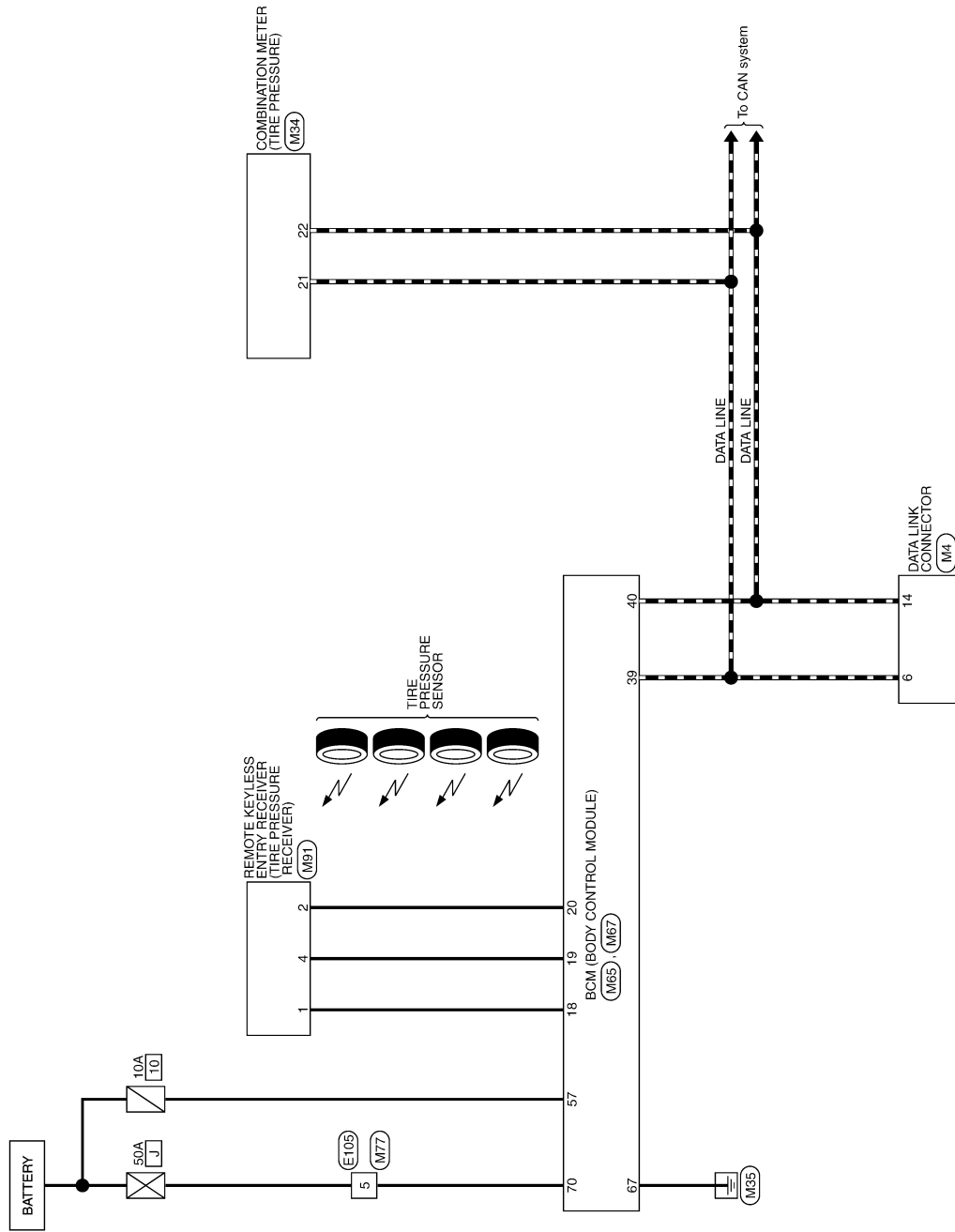
ECU	Reference
BCM	<a href="#">BCS-42, "Reference Value"</a>
	<a href="#">BCS-61, "Fail-safe"</a>
	<a href="#">BCS-62, "DTC Inspection Priority Chart"</a>
	<a href="#">BCS-62, "DTC Index"</a>

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Wiring Diagram - TIRE PRESSURE MONITORING SYSTEM -

INFOID:000000006203233

TIRE PRESSURE MONITORING SYSTEM

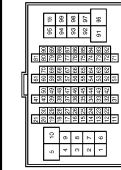


2010/06/18

JCEWM0236GB

TIRE PRESSURE MONITORING SYSTEM

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80PW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	
2	O	
3	LG	
4	V	
5	Y	
6	G	
7	R	
8	GR	
9	BR	
10	L	
11	GR	
12	P	
14	L	
15	V	
19	R	
20	P	
21	L	
22	L	
24	LG	
25	SB	
30	L	
31	BR	
42	Y	
43	SHIELD	
51	L	
52	W	
53	BR	
54	Y	
60	O	
61	BR	
62	R	
63	P	
69	G	
70	B	
71	O	
72	LG	
78	L	
78	V	

Terminal No.	Color of Wire	Signal Name [Specification]
80	Y	
81	W	
82	R	
83	L	
88	BR	
89	R	
90	GR	
91	R	
92	O	
93	BR	
94	W	
96	BR	
97	G	
99	SB	
100	L	

Connector No.	IM4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD10FW



Terminal No.	Color of Wire	Signal Name [Specification]
4	B	
5	B	
6	L	
7	O	
8	W	
14	P	
16	V	

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	TH40PW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	BATTERY POWER SUPPLY
2	O	IGNITION SIGNAL
3	O	GROUND
4	B	GROUND
5	BR	A/C AUTO AMP. CONNECTION RECOGNITION SIGNAL
7	GR	OVERDRIVE CONTROL SWITCH SIGNAL
9	L	PADDLE SHIFTER SHIFT UP SIGNAL
10	G	PADDLE SHIFTER SHIFT DOWN SIGNAL
13	Y	ILLUMINATION CONTROL SIGNAL
15	LG	AIR BAG SIGNAL
16	O	ENGINE COOLANT TEMPERATURE SIGNAL
19	SB	AMBIENT SENSOR SIGNAL
20	SB	AMBIENT SENSOR GROUND
21	L	CAN-H
22	P	CAN-L
24	B	FUEL LEVEL SENSOR SIGNAL GROUND
25	SB	ALTERNATOR SIGNAL
26	V	PARKING BRAKE SWITCH SIGNAL
27	BR	BRAKE FLUID LEVEL SWITCH SIGNAL
28	B	SECURITY SIGNAL
29	W	WASHER LEVEL SWITCH SIGNAL
30	Y	VEHICLE SPEED SIGNAL (2-PULSE)
31	L	VEHICLE SPEED SIGNAL (8-PULSE)
34	G	FUEL LEVEL SENSOR SIGNAL
35	O	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
36	G	SEAT BELT BUCKLE SWITCH SIGNAL (PASSENGER SIDE)
37	P	NON-MANUAL MODE SIGNAL
38	O	MANUAL MODE SHIFT DOWN SIGNAL
39	V	MANUAL MODE SHIFT UP SIGNAL
40	LG	MANUAL MODE SIGNAL

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40PW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	KEY RING OUTPUT
2	G	INPUT 5
3	Y	INPUT 4
4	W	INPUT 3

Terminal No.	Color of Wire	Signal Name [Specification]
5	R	INPUT 2
6	P	INPUT 1
7	L	KEY/CYC UNLOCK
8	R	KEY/CYC LOCK SW
9	R	BRAKE SW
10	SB	RR DEF SW
11	SB	ACC
12	P	DR SW AS
13	LG	DR SW RR
14	G	AUTO LIGHT SENS INPUT
17	W	SENS POWER SUPPLY
18	V	KEYLESS TUNER SENS GND
19	O	KEYLESS TUNER POWER
20	GR	KEYLESS TUNER SIGNAL
21	G	IMMOBILANT (CLOCK)
23	B	SECURITY IND OUT PUT
25	BR	IMMOBILANT (RX TX)
27	Y	AIRCON SW
28	LG	BLOWER FAN SW
29	W	BLAZARD SW
30	G	BACK DOOR OPEN SW
32	BR	OUTPUT 5
33	GR	OUTPUT 4
34	L	OUTPUT 3
35	B	OUTPUT 2
36	V	OUTPUT 1
37	LG	KEY SW
38	G	IGN
39	L	CAN-H
40	P	CAN-L

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TIRE PRESSURE MONITORING SYSTEM

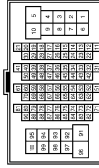
Connector No.	M87
Connector Name	BCM BODY CONTROL MODULE
Connector Type	FC03FB-FTAG-SA



56	57	58	59	60	61	62	63	64
65	66	67	68	69	70			

Terminal No.	Color of Wire	Signal Name [Specification]
56	Y	BATTERY SAVER OUTPUT
57	G	BAT FUSE
59	L	D/L UNLOCK DR
60	BR	FLASHER OUT PUT (LEFT)
61	GR	FLASHER OUT PUT (RIGHT)
63	R	ROOM LAMP OUTPUT
65	V	D/L LOCK ALL
66	G	D/L UNLOCK OTHER
67	B	GND
68	L	POWER WDWY OUTPUT (RAP)
69	P	POWER WDWY OUTPUT (BAT)
70	Y	BAT FL

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	
2	O	
3	LG	
4	Y	
5	Y	
6	G	
7	R	
8	GR	
9	BR	
10	L	

Connector No.	M91
Connector Name	REMOTE KEYLESS ENTRY RECEIVER
Connector Type	TKG4FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	O	GND
2	GR	SIGNAL
4	V	POWER

11	GR	
12	P	
14	SR	
15	V	
18	R	
19	P	
20	P	
21	O	
22	L	
24	BR	
25	W	
30	L	
31	W	
42	O	
43	SHIELD	
51	W	
52	SR	
53	L	
54	Y	
60	O	
61	BR	
62	G	
63	P	
69	W	
70	B	
71	P	
72	O	
78	SR	
79	V	
80	L	
81	W	
82	B	
83	LG	
88	BR	
89	G	
90	GR	
91	R	
92	L	
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94	W	
96	BR	
97	G	
99	SR	
100	Y	



# SYMPTOM DIAGNOSIS

TPMS

Symptom Table

INFOID:000000006203235

LOW TIRE PRESSURE WARNING LAMP SYMPTOM CHART

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O

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# TPMS

< SYMPTOM DIAGNOSIS >


[REGULAR GRADE]

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 <small>SEIA0592E</small>	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 <small>SEIA0593E</small>	Wake-up operation for all transmitters at wheels is not completed.	Perform the wake-up operation for all transmitters at wheels. Refer to <a href="#">WT-5, "TRANSMITTER WAKE UP OPERATION : Special Repair Requirement"</a> .
	The low tire pressure warning lamp blinks once.	 Blinks 1 time ON 0.3 sec > OFF 1.0 sec <small>JPEIC0090GB</small>	The front left transmitter is not activated.	Perform the wake-up operation for the transmitter at front left wheel. Refer to <a href="#">WT-5, "TRANSMITTER WAKE UP OPERATION : Special Repair Requirement"</a> .
	The low tire pressure warning lamp repeats blinking twice.	  Blinks 2 times ON 0.3 sec > OFF 0.3 sec <small>SEIA0595E</small>	The front right transmitter is not activated.	Perform the wake-up operation for the transmitter at front right wheel. Refer to <a href="#">WT-5, "TRANSMITTER WAKE UP OPERATION : Special Repair Requirement"</a> .
	The low tire pressure warning lamp repeats blinking for 3 times.	   Blinks 3 times ON 0.3 sec > OFF 0.3 sec <small>SEIA0596E</small>	The rear right transmitter is not activated.	Perform the wake-up operation for the transmitter at rear right wheel. Refer to <a href="#">WT-5, "TRANSMITTER WAKE UP OPERATION : Special Repair Requirement"</a> .
	The low tire pressure warning lamp repeats blinking for 4 times.	    Blinks 4 times ON 0.3 sec > OFF 0.3 sec <small>SEIA0597E</small>	The rear left transmitter is not activated.	Perform the wake-up operation for the transmitter at rear left wheel. Refer to <a href="#">WT-5, "TRANSMITTER WAKE UP OPERATION : Special Repair Requirement"</a> .
	The low tire pressure warning lamp turns ON and stays illuminated.	 Comes ON and stays ON <small>SEIA0598E</small>	Low tire pressure	Check the tire pressure for all wheels and adjust to the specified value. Refer to <a href="#">WT-53, "Tire"</a> .

# TPMS

## < SYMPTOM DIAGNOSIS >

**[REGULAR GRADE]**

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.	 <p style="text-align: center;">Blinks 1 min</p> <p style="text-align: center;">ON 0.5 sec &gt; OFF 0.5 sec and stays ON</p> <p style="text-align: center;"><small>SEIA0788E</small></p>	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 re-pair if necessary.
			Tire Pressure Monitoring System (TPMS) malfunction.	<ul style="list-style-type: none"> <li>Perform CONSULT-III self-diagnosis. Refer to <a href="#">WT-11, "COMMON ITEM : CONSULT-III Function (BCM - COMMON ITEM)"</a>.</li> <li>If necessary, perform transmitter ID registration. Refer to <a href="#">WT-5, "ID REGISTRATION PROCEDURE : Special Repair Requirement"</a>.</li> </ul>
Turn signal lamp	The turn signal lamps do not blink twice when the transmitter is activated. Or the buzzer does not sound.	—	<ol style="list-style-type: none"> <li>The transmitter activation tool (J-45295) does not activate.</li> <li>The ignition switch is OFF when the transmitter wake-up operation is performed.</li> <li>The transmitter activation tool (J-45295) is not used in the correct position.</li> <li>The transmitter is already waked up.</li> </ol>	<ol style="list-style-type: none"> <li>Replace the battery in the transmitter activation tool (J-45295).</li> <li>Turn the ignition switch ON when performing the transmitter wake-up operation.</li> <li>Operate the transmitter activation tool (J-45295) in the correct position when performing the wake-up operation.</li> <li>No procedure.</li> </ol>

**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.)

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# LOW TIRE PRESSURE WARNING LAMP DOES NOT TURN ON

< SYMPTOM DIAGNOSIS >

[REGULAR GRADE]

## LOW TIRE PRESSURE WARNING LAMP DOES NOT TURN ON

### Description

INFOID:000000006203236

#### 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:000000006203237

#### 1. CHECK SELF-DIAGNOSIS RESULTS

Ⓜ With CONSULT-III

Perform "SELF-DIAG RESULTS" in "AIR PRESSURE MONITOR" of "BCM".

Is "CAN COMM CIRCUIT" displayed in the self-diagnosis display items?

YES >> Perform trouble diagnosis for CAN communication system. Refer to [LAN-25, "CAN System Specification Chart"](#).

NO >> GO TO 2.

#### 2. CHECK COMBINATION METER

Check combination meter function. Refer to [MWI-27, "CONSULT-III Function"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace damaged parts.

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

1. Turn the ignition switch "OFF".
2. Disconnect BCM harness connectors.
3. Turn ignition switch "ON". (Never start engine.)

Does low tire pressure warning lamp turn on?

YES >> GO TO 4.

NO >> Check combination meter and repair or replace. Refer to [MWI-8, "METER SYSTEM : System Description"](#).

#### 4. CHECK SYMPTOM

Check again.

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 5.

#### 5. CHECK BCM

Check BCM input/output signal. Refer to [BCS-42, "Reference Value"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 6.

#### 6. CHECK BCM HARNESS CONNECTOR

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

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-66, "Exploded View"](#).

NO >> Repair or replace damaged parts.

# LOW TIRE PRESSURE WARNING LAMP STAYS ON

< SYMPTOM DIAGNOSIS >

[REGULAR GRADE]

## LOW TIRE PRESSURE WARNING LAMP STAYS ON

### Description

INFOID:000000006203238

### DESCRIPTION

The tire pressure monitoring system is checked and the warning lamp is illuminated for approximately 1 second when the ignition switch is turned ON. The low tire pressure warning lamp turns OFF after the system check finishes.

The system may be malfunctioning if the low tire pressure warning lamp does not turn off approximately 1 second after the ignition switch is turned ON.

### Diagnosis Procedure

INFOID:000000006203239

#### 1. CHECK TIRE PRESSURE

1. Turn the ignition switch ON.

**CAUTION:**

**Never start the engine.**

2. Check the tire pressure for all wheels and adjust to the specified value. Refer to [WT-53, "Tire"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Inspect or repair the tires or wheels.

#### 2. CHECK LOW TIRE PRESSURE WARNING LAMP

Check low tire pressure warning lamp display.

Does not low tire pressure warning lamp turn OFF?

YES >> GO TO 3.

NO >> INSPECTION END

#### 3. CHECK SYSTEM FOR BCM

Ⓜ With CONSULT-III

Perform "SELF-DIAG RESULTS" in "AIR PRESSURE MONITOR" of "BCM".

Is any DTC detected?

YES >> Perform trouble diagnosis. Refer to [BCS-62, "DTC Index"](#).

NO >> GO TO 4.

#### 4. CHECK ID REGISTRATION

Perform ID registration all transmitters. Refer to [WT-5, "ID REGISTRATION PROCEDURE : Special Repair Requirement"](#).

Does low tire pressure warning lamp turn OFF?

YES >> INSPECTION END

NO >> GO TO 5.

#### 5. CHECK POWER SUPPLY CIRCUIT

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

BCM		—	Voltage (Approx.)
Connector	Terminal		
M67	57	Ground	Battery voltage
	70		

Is the power supply normal?

YES >> GO TO 6.

NO >> Check the following. If any items are damaged, repair or replace damage parts.

- 50 A fusible link [No. J located in the fuse block]. Refer to [PG-100, "Fuse and Fusible Link Arrangement"](#).

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# LOW TIRE PRESSURE WARNING LAMP STAYS ON

< SYMPTOM DIAGNOSIS >

[REGULAR GRADE]

- 10 A fuse [No.10 located in the fuse block (J/B)]. Refer to [PG-99. "Fuse, Connector and Terminal Arrangement"](#).
- Harness for short or open between battery and BCM harness connector M67 terminal 57.
- Harness for short or open between battery and BCM harness connector M67 terminal 70.
- Check battery voltage.

## 6.CHECK GROUND CIRCUIT

1. Turn the ignition switch "OFF".
2. Disconnect BCM harness connector.
3. Check continuity between BCM harness connector M67 terminal 67 and ground.

BCM		—	Continuity
Connector	Terminal		
M67	67	Ground	Existed

Also check harness for short to power.

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair open circuit or short to power in harness or connectors.

## 7.CHECK SYMPTOM

Check again.

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 8.

## 8.CHECK BCM

Check BCM input/output signal. Refer to [BCS-42. "Reference Value"](#).

Is the inspection result normal?

YES >> GO TO 7.

NO >> GO TO 9.

## 9.CHECK BCM HARNESS CONNECTOR

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

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-66. "Exploded View"](#).

NO >> Repair or replace damaged parts.

# LOW TIRE PRESSURE WARNING LAMP BLINKS

< SYMPTOM DIAGNOSIS >

[REGULAR GRADE]

## LOW TIRE PRESSURE WARNING LAMP BLINKS

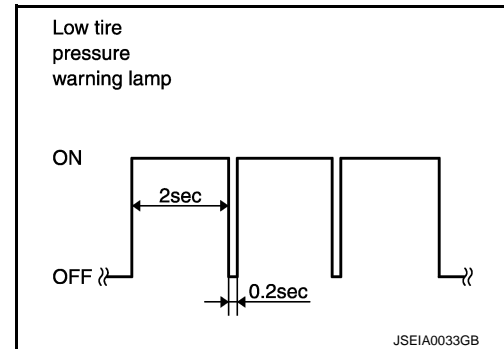
### Description

INFOID:000000006203240

The low tire pressure warning lamp blinks when the ignition switch is turned ON.

#### NOTE:

When the low tire pressure warning lamp blinks as shown in the figure after the ignition switch is turned ON, the transmitter is not waking up.



### Diagnosis Procedure

INFOID:000000006203241

#### 1. CHECK TRANSMITTER WAKE-UP OPERATION

Perform the transmitter wake-up. Refer to [WT-5, "TRANSMITTER WAKE UP OPERATION : Special Repair Requirement"](#).

Is the transmitter wake-up completed?

YES >> GO TO 2.

NO >> Perform trouble diagnosis for the transmitter. Refer to [WT-15, "Diagnosis Procedure"](#).

#### 2. CHECK TRANSMITTER ID REGISTRATION

Perform transmitter ID registration. Refer to [WT-5, "ID REGISTRATION PROCEDURE : Special Repair Requirement"](#).

Is transmitter ID registration completed?

YES >> INSPECTION END

NO >> Perform "SELF-DIAG RESULTS" "AIR PRESSURE MONITOR" "BCM". Refer to [BCS-62, "DTC Index"](#).

# ID REGISTRATION CANNOT BE COMPLETED

< SYMPTOM DIAGNOSIS >

[REGULAR GRADE]

## ID REGISTRATION CANNOT BE COMPLETED

### Description

INFOID:000000006203244

#### 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:000000006203245

#### 1. CHECK TRANSMITTER ID REGISTRATION

1. Perform transmitter ID registration for all wheels. Refer to [WT-5, "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. Perform "DATA MONITOR" in "AIR PRESSURE MONITOR" of "BCM".
4. Select "BCM" in "DATA MONITOR", 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 "DATA MONITOR" in "AIR PRESSURE MONITOR" of "BCM" 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-18, "Diagnosis Procedure"](#).
2. Perform transmitter ID registration for all wheels. Refer to [WT-5, "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-50, "Exploded View"](#).



# NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[REGULAR GRADE]

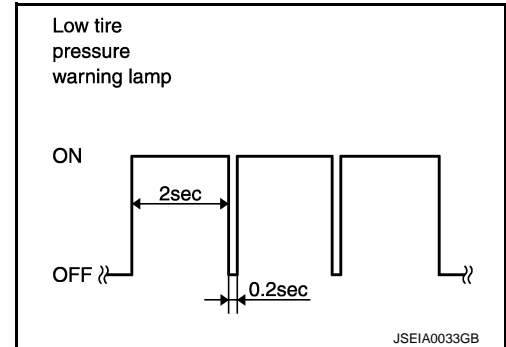
## NORMAL OPERATING CONDITION

### Description

INFOID:000000006203246

#### 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-5. "TRANSMITTER WAKE UP OPERATION : Special Repair Requirement"](#).



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# NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

< SYMPTOM DIAGNOSIS >

[REGULAR GRADE]

## NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

### NVH Troubleshooting Chart

INFOID:000000006203247

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

Symptom		Possible cause and SUSPECTED PARTS	Reference page																	
			FSU-9, FSU-7.	WT-46, "Inspection"	WT-47, "Adjustment"	WT-53, "Tire"	WT-47, "Adjustment"	—	—	WT-53, "Tire"	NVH in DLN section.	NVH in DLN section.	NVH in FAX and FSU sections.	NVH in RAX and RSU sections.	Refer to TIRE in this chart.	Refer to ROAD WHEEL in this chart.	NVH in FAX, RAX section.	NVH in BR section.	NVH in ST section.	
Symptom	TIRE	Noise	x	x	x	x	x	x	x		x	x	x	x		x	x	x	x	
		Shake	x	x	x	x	x	x		x	x		x	x		x	x	x	x	
		Vibration				x					x	x		x	x			x		x
		Shimmy	x	x	x	x	x	x	x		x			x	x		x		x	x
		Judder	x	x	x	x	x	x	x		x			x	x		x		x	x
		Poor quality ride or handling	x	x	x	x	x	x			x			x		x	x			
	ROAD WHEEL	Noise	x	x	x				x			x	x	x	x			x	x	x
		Shake	x	x	x				x			x		x	x	x			x	x
		Shimmy, Judder	x	x	x				x					x	x	x			x	x
		Poor quality ride or handling	x	x	x				x					x	x	x				

x: Applicable

PRECAUTION

PRECAUTIONS  
FOR USA AND CANADA

FOR USA AND CANADA : Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:000000006448869

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

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

**WARNING:**

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

FOR USA AND CANADA : Service Notice or Precautions

INFOID:000000006203249

- Low tire pressure warning lamp blinks 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-5. "ID REGISTRATION PROCEDURE : Special Repair Requirement"](#).
- ID registration is required when replacing or rotating wheels, replacing transmitter or BCM. Refer to
- Replace grommet seal, valve core and cap of transmitter in TPMS every tire replacement by reaching wear limit of tire. Refer to [WT-50. "Exploded View"](#).

FOR MEXICO

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

INFOID:000000006448871

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

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# PRECAUTIONS

< PRECAUTION >

[REGULAR GRADE]

- **Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.**

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

### **WARNING:**

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

## FOR MEXICO : Service Notice or Precautions

INFOID:000000006203251

- Low tire pressure warning lamp blinks 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-5, "ID REGISTRATION PROCEDURE : Special Repair Requirement"](#).
- ID registration is required when replacing or rotating wheels, replacing transmitter or BCM. Refer to
- Replace grommet seal, valve core and cap of transmitter in TPMS every tire replacement by reaching wear limit of tire. Refer to [WT-50, "Exploded View"](#).

# PREPARATION

< PREPARATION >

[REGULAR GRADE]

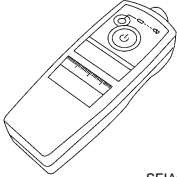
## PREPARATION

### PREPARATION

#### Special Service Tools

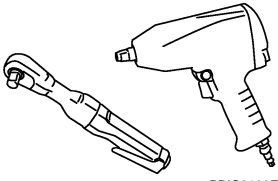
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The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name	Description
- (J-45295) Transmitter activation tool  SEIA0462E	ID registration

#### Commercial Service Tools

INFOID:000000006203253

Tool name	Description
Power tool  PBIC0190E	Loosening bolts and nuts

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# PERIODIC MAINTENANCE

## ROAD WHEEL

### Inspection

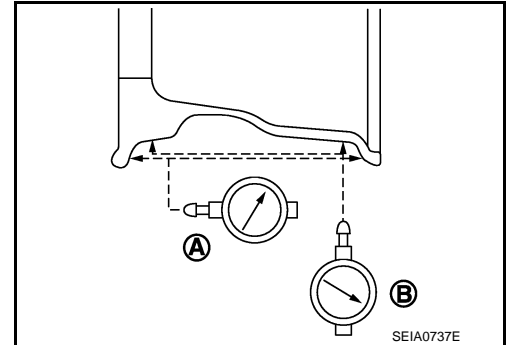
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#### ALUMINUM WHEEL

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 total runout value exceeds the limit, replace aluminum wheel.

**Lateral runout limit (A)** Refer to [WT-53, "Road Wheel"](#).

**Vertical runout limit (B)** Refer to [WT-53, "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):**  $(1+2)/2$

**Radial runout limit (B):**  $(3+4)/2$

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

**CAUTION:**

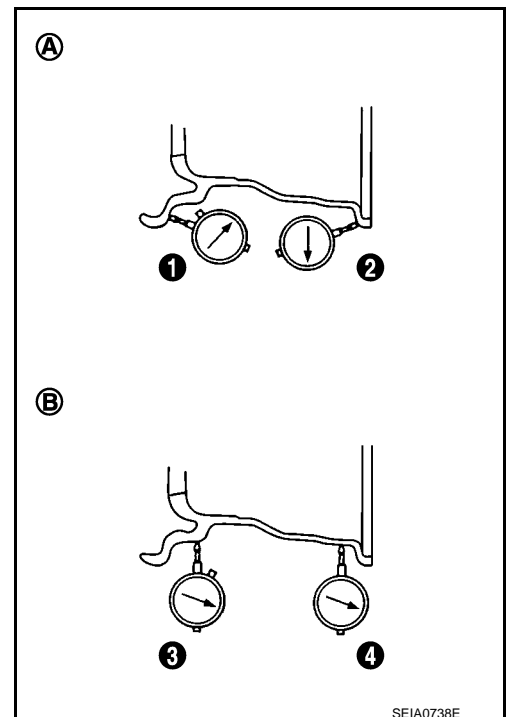
**In case a positive or negative value is not available, use the maximum value (negative or positive) for total runout.**

**Limit**

**A:** Refer to [WT-53, "Road Wheel"](#).

**B:** Refer to [WT-53, "Road Wheel"](#).

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

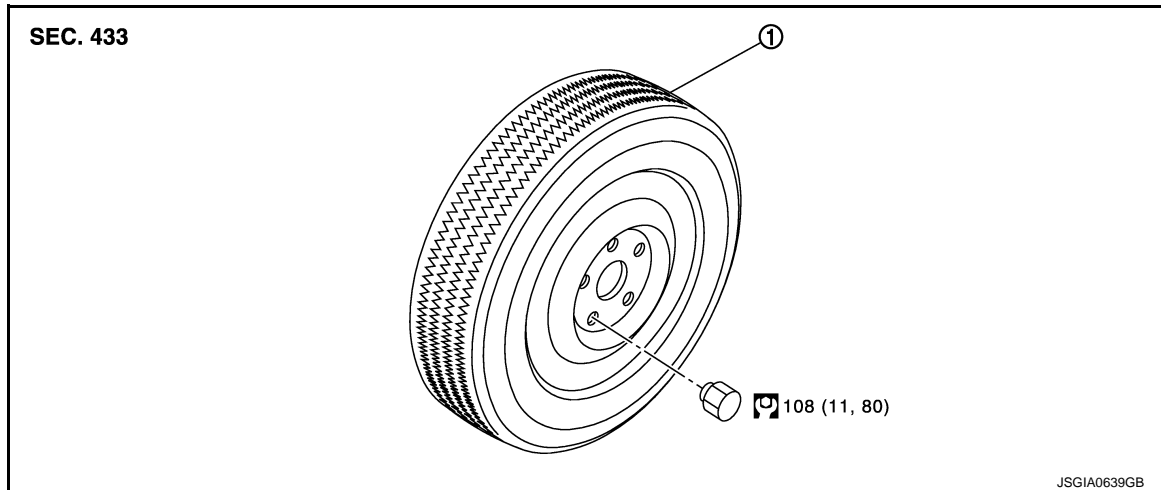


## REMOVAL AND INSTALLATION

## ROAD WHEEL TIRE ASSEMBLY

## Exploded View

INFOID:000000006203255



1. Tire assembly

Refer to [GI-4, "Components"](#) for symbols in the figure.

## Removal and Installation

INFOID:000000006203256

## REMOVAL

1. Remove wheel nuts.
2. Remove tire assembly.

## INSTALLATION

Note the following, install in the reverse order of removal.

- When replacing or rotating wheels, perform the ID registration. Refer to [WT-5, "ID REGISTRATION PROCEDURE : Special Repair Requirement"](#).

## Adjustment

INFOID:000000006203257

## BARANCING WHEELS (BONDING WEIGHT TYPE)

## Preparation Before Adjustment

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

**CAUTION:**

- **Be careful not 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 in 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.**

# ROAD WHEEL TIRE ASSEMBLY

## < REMOVAL AND INSTALLATION >

[REGULAR GRADE]

- a. Indicated unbalance value  $\times 5/3 =$  balance weight to be installed

**Calculation example:**

23 g (0.81 oz)  $\times 5/3 = 38.33$  g (1.35 oz)  $\Rightarrow$  40 g (1.41 oz) balance weight (closer to calculated balance weight value)

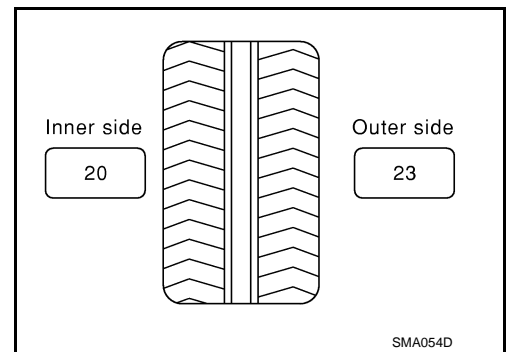
**NOTE:**

Note that balance weight value must be closer to the calculated balance weight value.

**Example:**

37.4  $\Rightarrow$  35 g (1.23 oz)

37.5  $\Rightarrow$  40 g (1.41 oz)

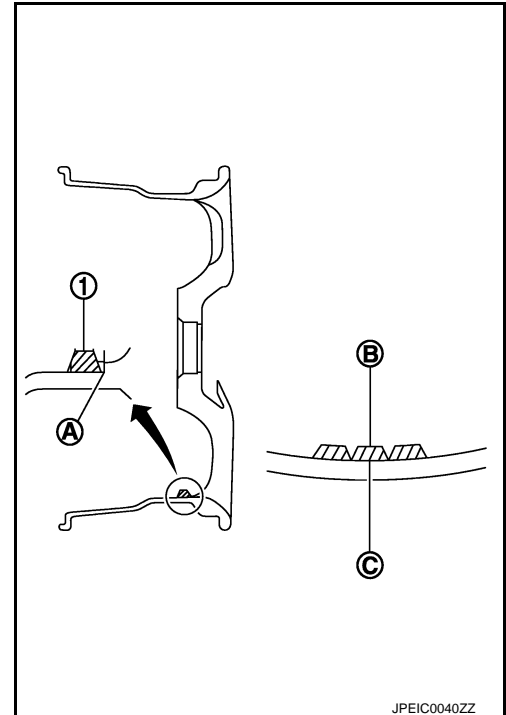


- b. Installed balance weight in the position.

- 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.



- 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 another.**

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

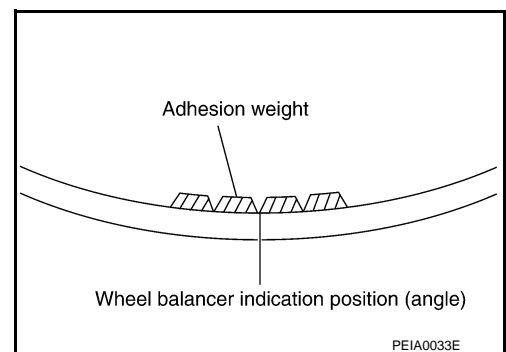
**CAUTION:**

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

5. Start the tire balance machine. Check that the inner and outer residual unbalance value is within the allowable unbalance value.

**CAUTION:**

**If either residual unbalance value exceeds limit, repeat installation procedures.**



**Maximum allowable unbalance**

**Dynamic (At flange) : Refer to [WT-53, "Road Wheel"](#).**

**Static (At flange) : Refer to [WT-53, "Road Wheel"](#).**

## TIRE ROTATION



# ROAD WHEEL TIRE ASSEMBLY

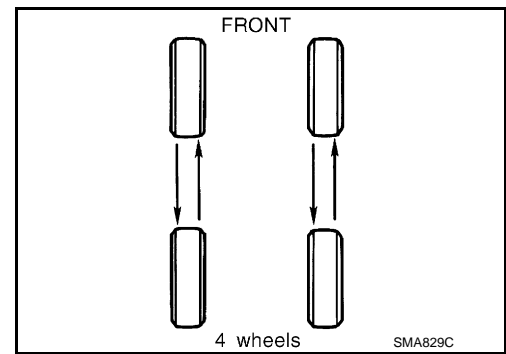
## < REMOVAL AND INSTALLATION >

[REGULAR GRADE]

- Follow the maintenance schedule for tire rotation service intervals. Refer to [MA-8, "FOR NORTH AMERICA : Schedule 1"](#).
- When installing the wheel, tighten wheel nuts to the specified torque.

**CAUTION:**

- Do not include the T-type spare tire when rotating the tires.
- When installing wheels, tighten them diagonally by dividing the work two to three times in order to prevent the wheels from developing any distortion.
- Be careful not to tighten wheel nut at torque exceeding the criteria for preventing strain of disc rotor.
- Use NISSAN genuine wheel nuts for aluminum wheels.



**Wheel nuts tightening torque** : Refer to [WT-53, "Road Wheel"](#).

- Perform the ID registration, after tire rotation. Refer to [WT-5, "ID REGISTRATION PROCEDURE : Special Repair Requirement"](#).

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# TRANSMITTER

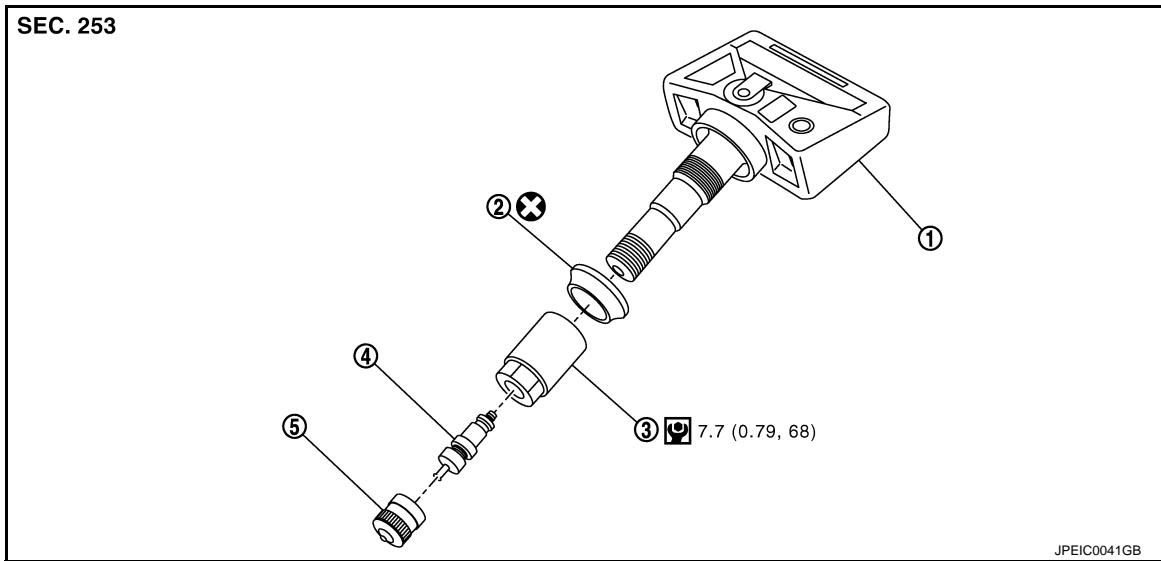
< REMOVAL AND INSTALLATION >

[REGULAR GRADE]

## TRANSMITTER

### Exploded View

INFOID:000000006203258



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

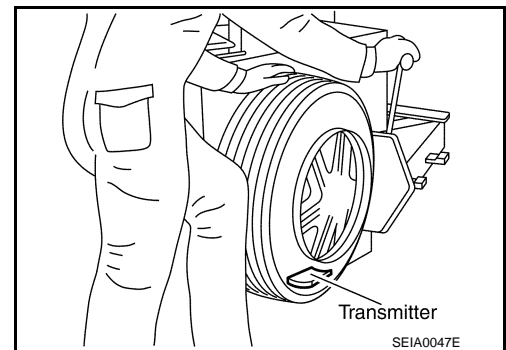
Refer to [GI-4, "Components"](#) for symbols in figure.

### Removal and Installation

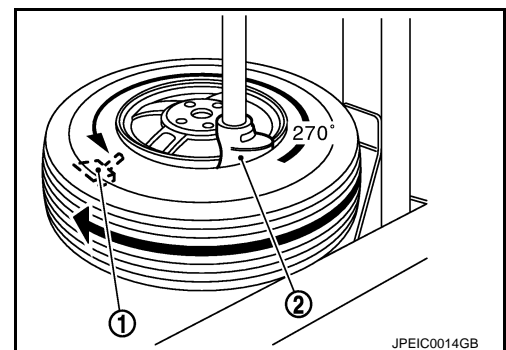
INFOID:000000006203259

#### 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.



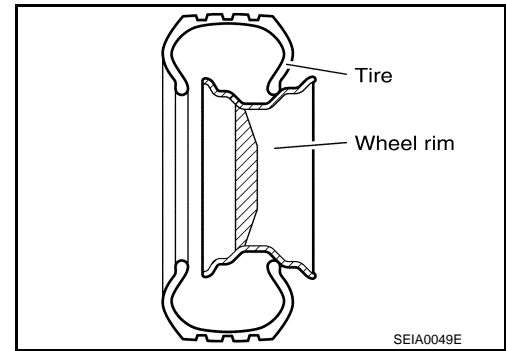
#### INSTALLATION

# TRANSMITTER

## < REMOVAL AND INSTALLATION >

[REGULAR GRADE]

1. Put first side of tire onto rim.



2. Mount transmitter on rim and tighten nut.

**CAUTION:**

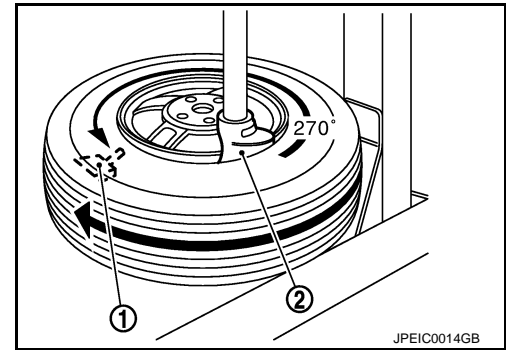
**Speed for tightening nut should be less than 10 rpm.**

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.
6. Perform the transmitter wake-up after replacing transmitter. Refer to [WT-5, "TRANSMITTER WAKE UP OPERATION : Special Repair Requirement"](#).



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# TIRE PRESSURE RECEIVER

< REMOVAL AND INSTALLATION >

[REGULAR GRADE]

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## TIRE PRESSURE RECEIVER

### Removal and Installation

INFOID:000000006203260

#### REMOVAL

1. Remove the instrument side finisher RH. Refer to [IP-13, "Exploded View"](#).
2. Remove the glove box cover assembly. Refer to [IP-13, "Exploded View"](#).
3. Disconnect tire pressure receiver harness connector.
4. Remove tire pressure receiver.

#### INSTALLATION

Install is the reverse order of removal.

# SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

[REGULAR GRADE]

## SERVICE DATA AND SPECIFICATIONS (SDS)

### SERVICE DATA AND SPECIFICATIONS (SDS)

#### Road Wheel

INFOID:0000000006203261

Kind of wheel		Aluminum	Steel
Maximum radial runout limit	Lateral deflection	Less than 0.3 mm (0.012 in)	Less than 0.8 mm (0.031)
	Vertical deflection	Less than 0.3 mm (0.012 in)	Less than 0.5 mm (0.020)
Maximum allowable unbalance limit	Dynamic (At flange)	Less than 5 g (0.17 oz) (one side)	
	Static (At flange)	Less than 10 g (0.35 oz)	

#### Tire

INFOID:0000000006203262

#### 2WD

Unit: kPa (kg/cm<sup>2</sup>, psi)

Tire size	Air pressure	
	Front	Rear
P215/70R16 99H	230 (2.3, 33)	230 (2.3, 33)
P225/60R17 98H	230 (2.3, 33)	230 (2.3, 33)
P225/55R18 97V	230 (2.3, 33)	230 (2.3, 33)
T155/90D16 110M	420 (4.2, 60)	420 (4.2, 60)

#### AWD

Unit: kPa (kg/cm<sup>2</sup>, psi)

Tire size	Air pressure	
	Front	Rear
P215/70R16 99H	230 (2.3, 33)	230 (2.3, 33)
P225/60R17 98H	230 (2.3, 33)	230 (2.3, 33)
P225/55R18 97V	260 (2.6, 38)	260 (2.6, 38)
T155/90D16 110M	420 (4.2, 60)	420 (4.2, 60)

# COMPONENT PARTS

< SYSTEM DESCRIPTION >

[Krom]

## SYSTEM DESCRIPTION

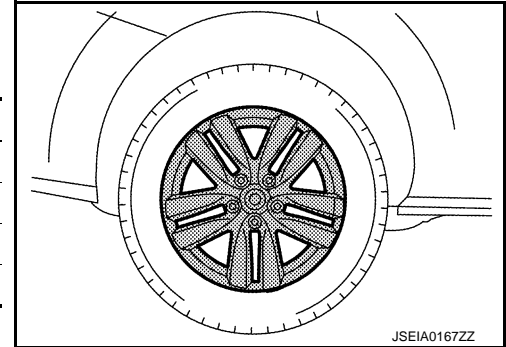
### COMPONENT PARTS

#### Road Wheel Tire Assembly

INFOID:000000006203263

The wheels are made of specifically-designed bright aluminum with their surface treated with sputtering coating.

Krom	Item	Data
Aluminum road wheels	Size	18 × 7JJ
	Offset	+40 mm (+1.57 in)
	P.C.D	114.3 mm (4.5 in)
Tires	Tire size	P225/55R18 97V



#### CAUTION:

- Wheels with sputtering coating are not plated wheels. Never use a cleaner for plating, abrasive cleanser, and brush. (Since sputtering is one of the methods of metallic coating, the surface treatment may be subject to damage, peel, or corrosion.)
- Wash regularly with a sponge dampened in a mild soap solution, especially during winter months in areas where road salt is used. Salt could discolor the wheels if not removed.