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# WT

## SECTION

### ROAD WHEELS & TIRES

WT

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# DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

## BASIC INSPECTION

### DIAGNOSIS AND REPAIR WORK FLOW

#### Repair Work Flow

INFOID:000000003826777

#### DETAILED FLOW

#### 1. VERIFY CUSTOMER COMPLAINTS

Interview the customer to obtain detailed information about the symptom.

>> GO TO 2.

#### 2. DETERMINE REFERENCE ITEM RELATED TO SYMPTOM

Check the symptom on the vehicle from the information obtained. (cruise test, warning lamp illumination or blinking, etc.)

Is the symptom confirmed?

YES >> GO TO 3.

NO >> GO TO 4.

#### 3. PRELIMINARY INSPECTION

1. Check all tire pressures. Refer to [WT-76, "Tire Air Pressure"](#).

2. Check the low tire pressure warning lamp for illumination or blinking. Refer to [WT-55, "Symptom Table"](#).

Is the malfunction finished?

YES >> INSPECTION END

NO >> GO TO 4.

#### 4. PERFORM SELF-DIAGNOSIS

Perform self-diagnosis. Record any DTCs and data displayed on CONSULT-III.

Is there any DTC displayed?

YES >> GO TO 6.

NO >> GO TO 5.

#### 5. CHECK SYMPTOM

Perform troubleshooting by symptom. Refer to [WT-55, "Symptom Table"](#).

Is the causal factor identified?

YES >> GO TO 7.

NO >> GO TO 9.

#### 6. PERFORM THE SYSTEM DIAGNOSIS

Perform the diagnosis applicable to the displayed DTC. Refer to [WT-53, "DTC Index"](#).

>> GO TO 7.

#### 7. REPAIR OR REPLACE MALFUNCTIONING PARTS

Repair or replace the applicable part.

>> GO TO 8.

#### 8. CHECK SELF-DIAGNOSIS RESULT

1. Erase DTCs. Refer to [WT-11, "Diagnosis Description"](#).

2. Perform self-diagnosis again.

Is any DTC displayed?

YES >> GO TO 6.

NO >> GO TO 9.

# DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

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## 9. FINAL CHECK

---

1. Perform a cruise test.
2. Check the warning lamp for illumination or blinking.

Is the malfunction corrected?

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

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# INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

## INSPECTION AND ADJUSTMENT TRANSMITTER WAKE UP OPERATION

### TRANSMITTER WAKE UP OPERATION : Description

INFOID:000000004052209

If the transmitter or low tire pressure warning control unit is replaced, always perform the transmitter wake-up procedure.

### TRANSMITTER WAKE UP OPERATION : Transmitter Wake-up Procedure

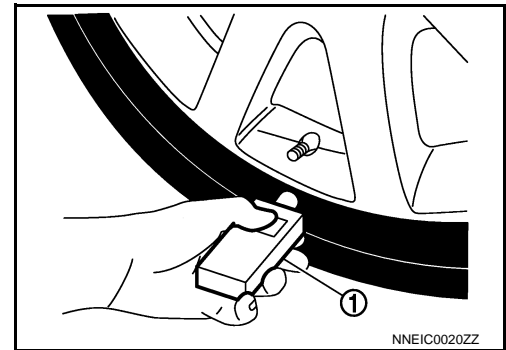
INFOID:000000004052210

#### 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 : 0.3 sec. b : 1.3 sec. Front LH
ON OFF		a : 0.3 sec. b : 1.3 sec. Front RH
ON OFF		a : 0.3 sec. b : 1.3 sec. Rear RH
ON OFF		a : 0.3 sec. b : 1.3 sec. Rear LH
ON OFF		a : 2 sec. b : 0.2 sec. All tires

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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-7, "ID REGISTRATION PROCEDURE : Transmitter ID Registration Procedure"](#).
- NO >> Perform trouble diagnosis for the transmitter. Refer to [WT-16, "Diagnosis Procedure"](#).

## ID REGISTRATION PROCEDURE

### ID REGISTRATION PROCEDURE : Description

INFOID:000000004052211

If the transmitter or low tire pressure warning control unit is replaced, always perform the transmitter ID registration.

# INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

## ID REGISTRATION PROCEDURE : Transmitter ID Registration Procedure INFOID:00000000405212

### 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.

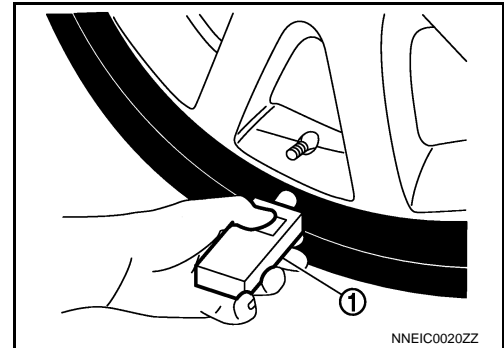
NO >> GO TO 3.

### 2. TRANSMITTER ID REGISTRATION PROCEDURE (WITH 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 >> Performs trouble diagnosis of the Tire Pressure Monitoring System (TPMS). Refer to [WT-63, "Diagnosis Procedure"](#).

### 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, 34)
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.

# INSPECTION AND ADJUSTMENT

## < BASIC INSPECTION >

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-76, "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-63, "Diagnosis Procedure"](#).



# TPMS

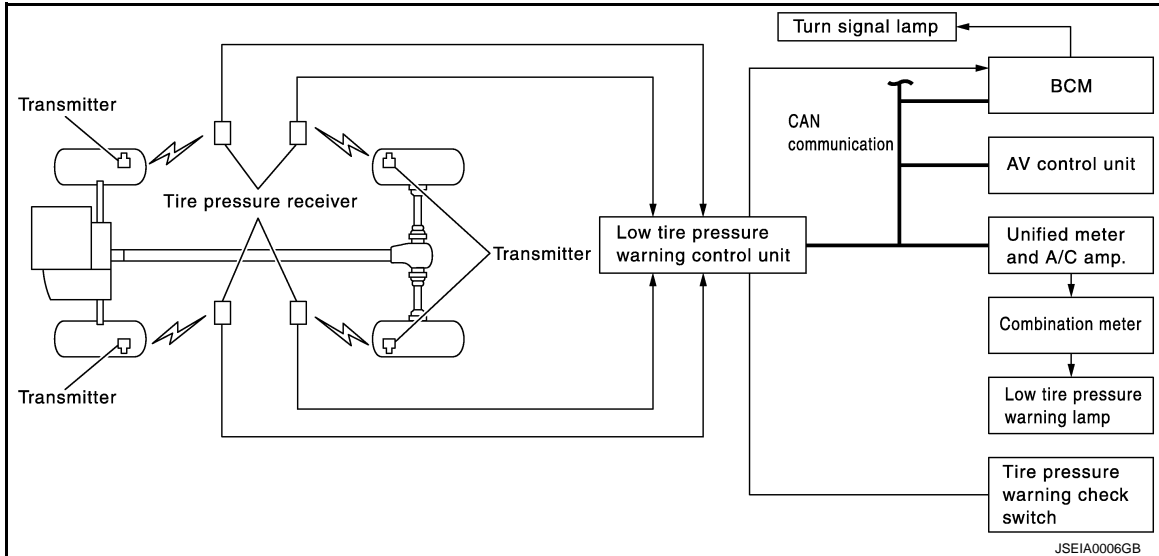
< SYSTEM DESCRIPTION >

## SYSTEM DESCRIPTION

### TPMS

#### System Diagram

INFOID:0000000003826782



#### System Description

INFOID:0000000003913425

- If the tire pressure is less than the specified value, the low tire pressure warning lamp illuminates that the tire pressure is less than the specified value.
- The signal from each control unit is communicated via CAN communication.

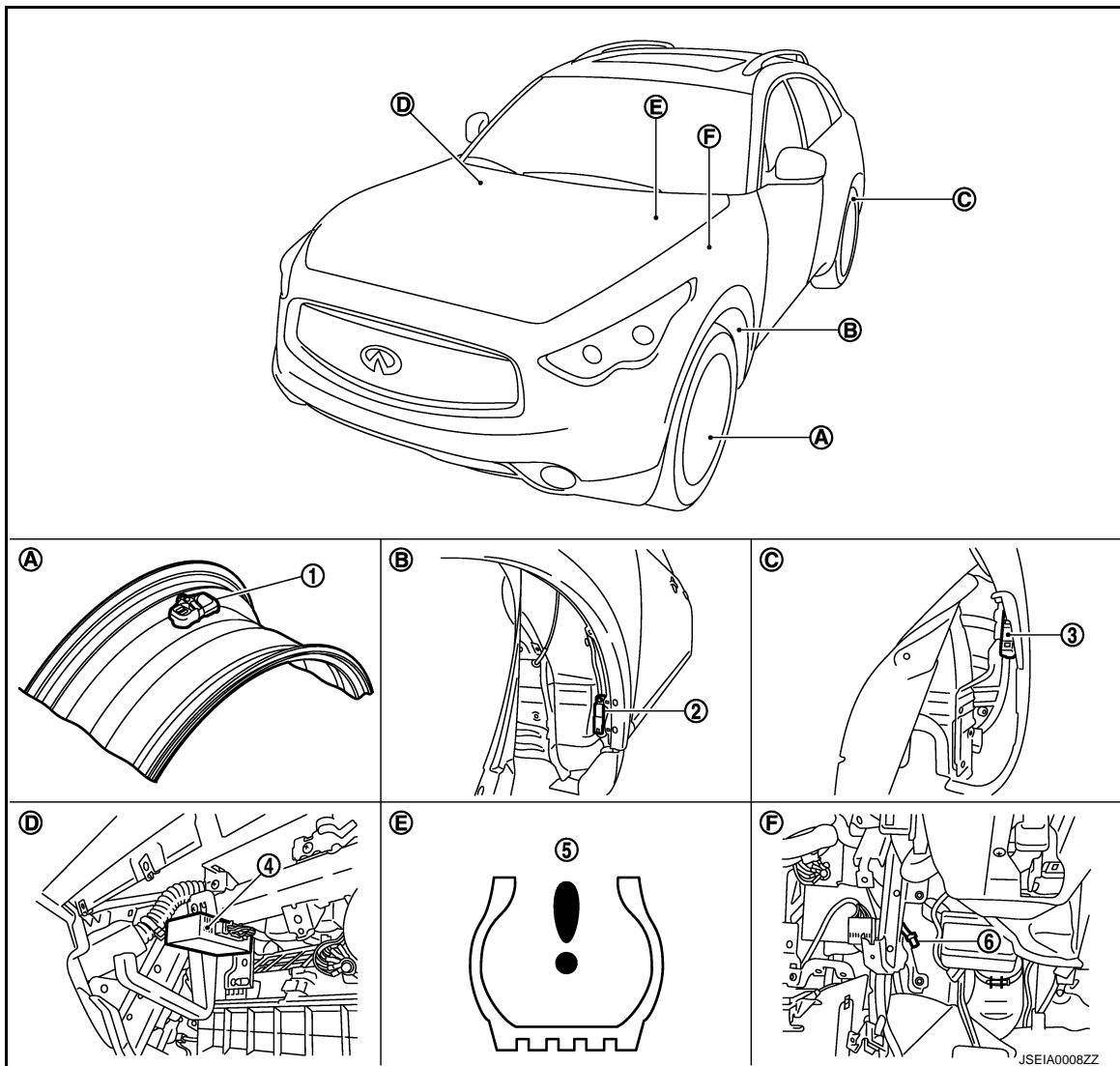
Control unit	Signal status
Low tire pressure warning control unit	The low tire pressure warning lamp signal is transmitted to the BCM via CAN communication.
BCM	The low tire pressure warning lamp signal is transmitted to the unified meter and A/C amp. via CAN communication.
AV control unit	The tire pressure signal is received from the low tire pressure warning control unit via CAN communication.
ABS actuator and electric unit (control unit)	The vehicle speed signal (ABS) is received from the low tire pressure warning control unit via CAN communication.

# TPMS

< SYSTEM DESCRIPTION >

## Component Parts Location

INFOID:000000003826784



- |   |                                   |                                       |
|---|-----------------------------------|---------------------------------------|
| 1. Transmitter                            | 2. Front tire pressure receiver   | 3. Rear tire pressure receiver        |
| 4. Low tire pressure warning control unit | 5. Low tire pressure warning lamp | 6. Tire pressure warning check switch |
| A. Wheel                                  | B. Fender protector (rear side)   | C. Inside rear wheel house protector  |
| D. Glove box assembly removed             | E. Inside combination meter       | F. Behind instrument lower panel LH   |

## Component Description

INFOID:000000003826785

Component parts	Function
Transmitter	<a href="#">WT-16, "Description"</a> .
Tire pressure receiver	<a href="#">WT-30, "Description"</a> .
Low tire pressure warning control unit	<a href="#">WT-32, "Description"</a> .
Tire pressure warning check switch	<a href="#">WT-41, "Description"</a> .
Unified meter and A/C amp.	Receives the tire pressure information via CAN communication, and operates the low tire pressure warning lamp.
Low tire pressure warning lamp	<ul style="list-style-type: none"> <li>• When a tire pressure is low, the warning lamp illuminates.</li> <li>• When a flat tire occurs, the warning lamp illuminates.</li> <li>• When an electrical malfunction in the Tire Pressure Monitoring System (TPMS) is detected, the lamp first flashes, and then remains illuminated.</li> </ul>

# DIAGNOSIS SYSTEM (LOW TIRE PRESSURE WARNING CONTROL UNIT)

< SYSTEM DESCRIPTION >

## DIAGNOSIS SYSTEM (LOW TIRE PRESSURE WARNING CONTROL UNIT)

### Diagnosis Description

INFOID:000000003846571

#### Description

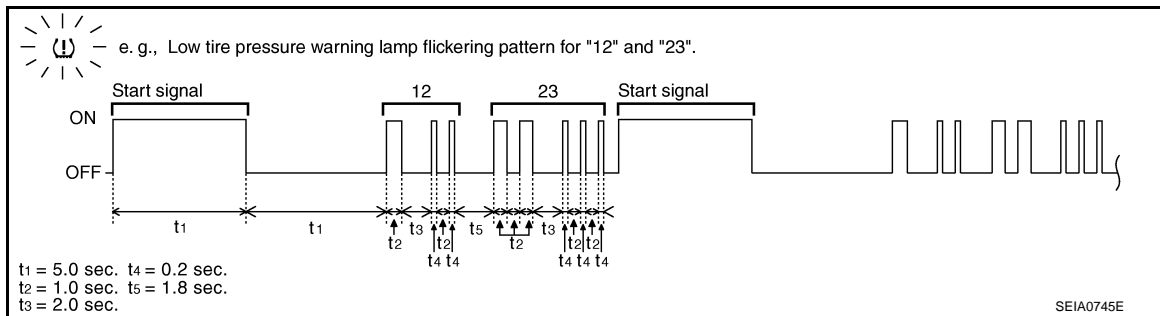
During driving, the transmitter installed at each road wheel transmits the tire pressure information signal to the receiver. The receiver receives the tire pressure signal and transmits it to the low tire pressure warning control unit. The low tire pressure warning control unit judges whether or not 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 BCM.

After receiving the tire pressure malfunction information via CAN communication, the BCM transmits the tire pressure malfunction 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 in order to warn the driver.

#### Self-diagnosis 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.

Flickering pattern	Items	Diagnostic item is detected when...	Check item
15	Tire pressure value (Front LH)	Front LH tire pressure drops to 182 kPa (1.82 kg/cm <sup>2</sup> , 26.5 psi) or less	WT-14
16	Tire pressure value (Front RH)	Front RH tire pressure drops to 182 kPa (1.82 kg/cm <sup>2</sup> , 26.5 psi) or less	
17	Tire pressure value (Rear RH)	Rear RH tire pressure drops to 182 kPa (1.82 kg/cm <sup>2</sup> , 26.5 psi) or less	
18	Tire pressure value (Rear LH)	Rear LH tire pressure drops to 182 kPa (1.82 kg/cm <sup>2</sup> , 26.5 psi) or less	
21	Transmitter no data (Front LH)	Data from front LH transmitter cannot be received.	WT-16
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.	

# DIAGNOSIS SYSTEM (LOW TIRE PRESSURE WARNING CONTROL UNIT)

## < SYSTEM DESCRIPTION >

Flickering pattern	Items	Diagnostic item is detected when...	Check item
31	Transmitter checksum error (Front LH)	Checksum data from front LH transmitter is malfunctioning.	<a href="#">WT-22</a>
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.	<a href="#">WT-20</a>
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 malfunctioning.	<a href="#">WT-22</a>
42	Transmitter function code error (Front RH)	Function code data from front RH transmitter is malfunctioning.	
43	Transmitter function code error (Rear RH)	Function code data from rear RH transmitter is malfunctioning.	
44	Transmitter function code error (Rear LH)	Function code data from rear LH transmitter is malfunctioning.	
51	Receiver ID registration not completed.	Receiver ID registration cannot be performed.	<a href="#">WT-26</a>
52	Vehicle speed signal error	Speed signal is not detected.	<a href="#">WT-29</a>
54	EEPROM read error	Tire Pressure Monitoring System (TPMS) malfunction in the low tire pressure warning control unit	<a href="#">WT-32</a>
55	Low communication performance (Front LH)	The data signal from the front LH wheel transmitter cannot be detected due to external electromagnetic interference. (DTC C1708 is displayed at the same time.)	<a href="#">WT-35</a>
56	Low communication performance (Front RH)	The data signal from the front RH wheel transmitter cannot be detected due to external electromagnetic interference. (DTC C1709 is displayed at the same time.)	
57	Low communication performance (Rear RH)	The data signal from the rear RH wheel transmitter cannot be detected due to external electromagnetic interference. (DTC C1710 is displayed at the same time.)	
58	Low communication performance (Rear LH)	The data signal from the rear LH wheel transmitter cannot be detected due to external electromagnetic interference. (DTC C1711 is displayed at the same time.)	
No flickering	Tire pressure warning check switch	Tire pressure warning check switch circuit is open.	—

Erase the diagnosis history.

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

## CONSULT-III Function

INFOID:000000003941443

### FUNCTION

# DIAGNOSIS SYSTEM (LOW TIRE PRESSURE WARNING CONTROL UNIT)

## < SYSTEM DESCRIPTION >

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

Mode	FUNCTION DESCRIPTION
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	Sends command to the low tire pressure warning control unit to change output signals and check operation of output system.
ECU identification	Displays the part number of the low tire pressure warning control unit.

### WORK SUPPORT

Refer to [WT-7. "ID REGISTRATION PROCEDURE : Transmitter ID Registration Procedure"](#).

### SELF-DIAGNOSTIC RESULT

Operation procedure

Before starting self-diagnosis, start the engine and drive the vehicle at faster than 40 km/h (25 MPH) for longer than 3 minutes.

Display Item List

Refer to [WT-53. "DTC Index"](#).

### DATA MONITOR

Display Item List

Monitor item (Unit)	Remarks
VHCL SPEED SE (km/h) or (MPH)	Vehicle speed
AIR PRESS FL (kPa), (kg/cm <sup>2</sup> ) or (Psi)	Air pressure of tires
AIR PRESS FR (kPa), (kg/cm <sup>2</sup> ) or (Psi)	
AIR PRESS RR (kPa), (kg/cm <sup>2</sup> ) or (Psi)	
AIR PRESS RL (kPa), (kg/cm <sup>2</sup> ) or (Psi)	
ID REGST FL1	ID is registered: Done ID is not registered: Yet
ID REGST FR1	
ID REGST RR1	
ID REGST RL1	
WARNING LAMP	Low tire pressure warning lamp ON: On Low tire pressure warning lamp OFF: Off
BUZZER	Combination meter buzzer ON: On Combination meter buzzer OFF: Off

### ACTIVE TEST

After completing the work below, perform an active test.

- Before performing self-diagnosis, register the transmitter IDs.
- Erase the self-diagnosis result history.

Test item list

Test item	Condition	Details
BUZZER	Vehicle stopped	Check that the buzzer operates correctly.
WARN LAMP	The system is normal	Perform a test to check that the low tire pressure warning lamp illuminates correctly.

### ECU IDENTIFICATION

Low tire pressure warning control unit part number can be read.

# C1704, C1705, C1706, C1707 LOW TIRE PRESSURE

< DTC/CIRCUIT DIAGNOSIS >

## DTC/CIRCUIT DIAGNOSIS

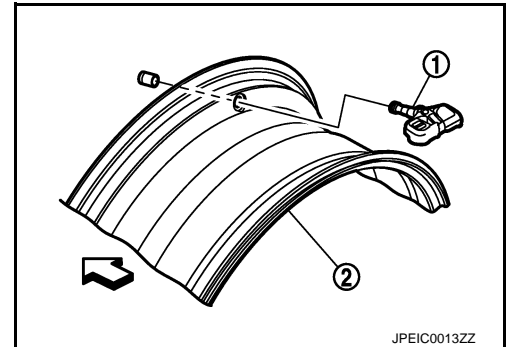
### C1704, C1705, C1706, C1707 LOW TIRE PRESSURE

#### Description

INFOID:000000003941459

The transmitter (1) is installed at the position of the air valve on the road wheel (2). It measures the tire pressure and transmits the tire pressure information by radio waves.

⇐ :Outside



#### DTC Logic

INFOID:000000003941460

#### DTC DETECTION LOGIC

DTC	Display Item	Malfunction detected condition	Possible causes
C1704	LOW PRESSURE FL	Front LH wheel pressure is or Less 182 kPa (1.82 kg/cm <sup>2</sup> , 26.5 psi) or less	Low tire pressure
C1705	LOW PRESSURE FR	Front RH wheel pressure is or less 182 kPa (1.82 kg/cm <sup>2</sup> , 26.5 psi) or less	
C1706	LOW PRESSURE RR	Rear RH wheel pressure is or less 182 kPa (1.82 kg/cm <sup>2</sup> , 26.5 psi) or less	
C1707	LOW PRESSURE RL	Rear LH wheel pressure is or less 182 kPa (1.82 kg/cm <sup>2</sup> , 26.5 psi) or less	

#### DTC REPRODUCTION 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-diagnosis of the low tire pressure warning control unit.

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

- YES >> Perform trouble diagnosis. Refer to [WT-14, "Diagnosis Procedure"](#).  
 NO >> INSPECTION END

#### Diagnosis Procedure

INFOID:000000003941461

##### 1. CHECK TIRE PRESSURE

Check the air pressure of all wheels. Refer to [WT-76, "Tire Air Pressure"](#).

Is the inspection result normal?

- YES >> Replace any malfunctioning transmitters.  
 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. Within 5 minutes, use CONSULT-III "DATA MONITOR" to display the tire pressure for all wheels.
3. Check that the tire pressures match the standard value.

# C1704, C1705, C1706, C1707 LOW TIRE PRESSURE

## < DTC/CIRCUIT DIAGNOSIS >

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.	Air pressure of tires
AIR PRESS FR		
AIR PRESS RR		
AIR PRESS RL		

Is the inspection result normal?

- YES >> INSPECTION END
- NO >> Repair or replace error-detected parts.

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WT

# C1708, C1709, C1710, C1711 TRANSMITTER (NO DATA)

< DTC/CIRCUIT DIAGNOSIS >

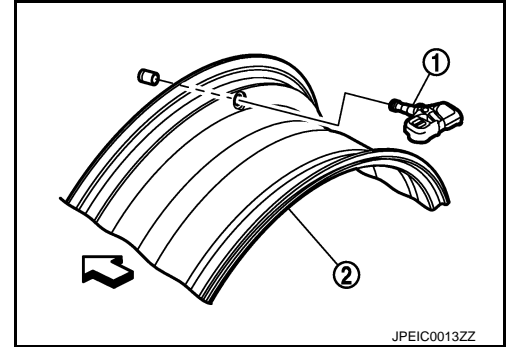
## C1708, C1709, C1710, C1711 TRANSMITTER (NO DATA)

### Description

INFOID:000000003941689

The transmitter (1) is installed at the position of the air valve on the road wheel (2). It measures the tire pressure and transmits the tire pressure information by radio waves.

⇐ :Outside



### DTC Logic

INFOID:000000003941464

#### DTC logic

DTC	Display Item	Malfunction detected condition	Possible causes
C1708	[NO DATA] FL	Tire pressure data signal from the front LH wheel transmitter cannot be detected.	<ul style="list-style-type: none"> <li>• Harness or connector connection malfunction (Tire pressure receiver, low tire pressure warning control unit)</li> <li>• Transmitter ID registration incomplete</li> <li>• Transmitter error</li> <li>• Low transmitter battery voltage</li> </ul>
C1709	[NO DATA] FR	Tire pressure data signal from the front RH wheel transmitter cannot be detected.	
C1710	[NO DATA] RR	Tire pressure data signal from the rear RH wheel transmitter cannot be detected.	
C1711	[NO DATA] RL	Tire pressure data signal from the rear LH wheel transmitter cannot be detected.	

### DTC REPRODUCTION 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-diagnosis of the low tire pressure warning control unit.

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

- YES >> Perform trouble diagnosis. Refer to [WT-16, "Diagnosis Procedure"](#).  
 NO >> INSPECTION END

### Diagnosis Procedure

INFOID:000000003941465

#### 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. Within 5 minutes, select "DATA MONITOR" for the CONSULT-III "AIR PRESSURE MONITOR".
3. Read the values that are displayed for "AIR PRESS FL", "AIR PRESS FR", "AIR PRESS RR", and "AIR PRESS RL".

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.	Air pressure of tires
AIR PRESS FR		
AIR PRESS RR		
AIR PRESS RL		



# C1708, C1709, C1710, C1711 TRANSMITTER (NO DATA)

## < DTC/CIRCUIT DIAGNOSIS >

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

YES >> GO TO 2.

NO >> GO TO 4.

### 2. CHECK RECEIVER CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect the low tire pressure warning control unit harness connector and tire pressure receiver harness connector.
3. Check the continuity between the harness connector terminals of the low tire pressure warning control unit and tire pressure receiver.

#### CHECK RECEIVER POWER CIRCUIT

Low tire pressure warning control unit		Tire pressure receiver		Continuity
Connector	Terminal	Connector	Terminal	
M96	10	E53 (Front LH)	1	Existed
	9	E19 (Front RH)		
	8	B43 (Rear LH)		
	7	B251 (Rear RH)		

#### CHECK RECEIVER SIGNAL CIRCUIT

Low tire pressure warning control unit		Tire pressure receiver		Continuity
Connector	Terminal	Connector	Terminal	
M96	6	E53 (Front LH)	3	Existed
	5	E19 (Front RH)		
	4	B43 (Rear LH)		
	3	B251 (Rear RH)		

#### CHECK RECEIVER SIGNAL (SENSITIVITY) CIRCUIT

Low tire pressure warning control unit		Tire pressure receiver		Continuity
Connector	Terminal	Connector	Terminal	
M96	22	E53 (Front LH)	2	Existed
	21	E19 (Front RH)		
	20	B43 (Rear LH)		
	19	B251 (Rear RH)		

#### CHECK RECEIVER GROUND CIRCUIT

Low tire pressure warning control unit		Tire pressure receiver		Continuity
Connector	Terminal	Connector	Terminal	
M96	26	E53 (Front LH)	4	Existed
	25	E19 (Front RH)		
	24	B43 (Rear LH)		
	23	B251 (Rear RH)		

4. Check the continuity between the low tire pressure warning control unit harness connector and the ground.

#### CHECK RECEIVER POWER CIRCUIT

Low tire pressure warning control unit		—	Continuity
Connector	Terminal		
M96	10	Ground	Not existed
	9		
	8		
	7		

## C1708, C1709, C1710, C1711 TRANSMITTER (NO DATA)

### < DTC/CIRCUIT DIAGNOSIS >

#### CHECK RECEIVER SIGNAL CIRCUIT

Low tire pressure warning control unit		—	Continuity
Connector	Terminal		
M96	6	Ground	Not existed
	5		
	4		
	3		

#### CHECK RECEIVER SIGNAL (SENSITIVITY) CIRCUIT

Low tire pressure warning control unit		—	Continuity
Connector	Terminal		
M96	22	Ground	Not existed
	21		
	20		
	19		

#### CHECK RECEIVER GROUND CIRCUIT

Low tire pressure warning control unit		—	Continuity
Connector	Terminal		
M96	26	Ground	Not existed
	25		
	24		
	23		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace error-detected parts.

### 3. CHECK TIRE PRESSURE RECEIVER POWER SUPPLY CIRCUIT

1. Connect the low tire pressure warning control unit harness connector.
2. Turn the ignition switch ON.

**CAUTION:**

**Never start the engine.**

3. Check the voltage between the tire pressure receiver harness connector and ground.

Tire pressure receiver		—	Voltage
Connector	Terminal		
E53 (Front LH)	1	Ground	9 - 16 V
E19 (Front RH)			
B43 (Rear LH)			
B251 (Rear RH)			

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace the tire pressure receiver.

### 4. REGISTER THE TRANSMITTER ID

Perform transmitter ID registration. Refer to [WT-7. "ID REGISTRATION PROCEDURE : Transmitter ID Registration Procedure"](#).

Is transmitter ID registration completed?

YES >> GO TO 5.

NO >> Replace the transmitter.

### 5. CHECK LOW TIRE PRESSURE WARNING CONTROL UNIT

Ⓟ With CONSULT-III

# C1708, C1709, C1710, C1711 TRANSMITTER (NO DATA)

## < DTC/CIRCUIT DIAGNOSIS >

1. Drive for several minutes at a speed of 40 km/h (25 MPH) or more, then stop the vehicle.
2. Within 15 minutes, use CONSULT-III "DATA MONITOR" to display the tire pressure for all wheels.
3. Check that the tire pressure is the specified value.

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INFOID:000000003941466

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Monitor item	Condition	Displayed value
AIR PRESS FL	Drive for several minutes at a speed of 40 km/h (25 MPH) or more, then stop the vehicle.	Air pressure of tire pressure
AIR PRESS FR		
AIR PRESS RR		
AIR PRESS RL		

### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace the low tire pressure warning control unit.

## Special Repair Requirement

### 1. CHECK TIRE PRESSURE

Check the tire pressure of all wheels. Refer to [WT-76, "Tire Air Pressure"](#).

#### Does the tire pressure match the specified value?

YES >> GO TO 2.

NO >> Check the road wheels and tires. Adjust the tire pressures to the specified values.

### 2. REGISTER TRANSMITTER ID

Perform transmitter ID registration. Refer to [WT-7, "ID REGISTRATION PROCEDURE : Transmitter ID Registration Procedure"](#).

>> END

# C1716, C1717, C1718, C1719 TRANSMITTER (PRESSDATA)

< DTC/CIRCUIT DIAGNOSIS >

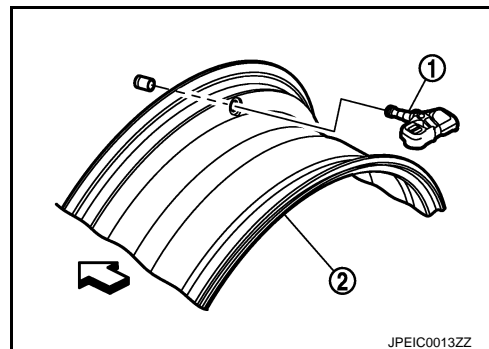
## C1716, C1717, C1718, C1719 TRANSMITTER (PRESSDATA)

### Description

INFOID:000000003941692

The transmitter (1) is installed at the position of the air valve on the road wheel (2). It measures the tire pressure and transmits the tire pressure information by radio waves.

↔ :Outside



### DTC Logic

INFOID:000000003941468

#### DTC logic

DTC	Display Item	Malfunction detected condition	Possible causes
C1716	[PRESSDATA ERR] FL	The tire pressure data from the front LH wheel is malfunction.	<ul style="list-style-type: none"> <li>• Transmitter ID registration incomplete</li> <li>• Transmitter malfunction</li> </ul>
C1717	[PRESSDATA ERR] FR	The tire pressure data from the front RH wheel is malfunction.	
C1718	[PRESSDATA ERR] RR	The tire pressure data from the rear RH wheel is malfunction.	
C1719	[PRESSDATA ERR] RL	The tire pressure data from the rear LH wheel is malfunction.	

### DTC REPRODUCTION 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-diagnosis of the low tire pressure warning control unit.

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

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

### Diagnosis Procedure

INFOID:000000003941469

#### 1. CHECK TIRE PRESSURE SIGNAL

Ⓜ With CONSULT-III

1. Check and adjust the tire pressure for all wheels. Refer to [WT-76, "Tire Air Pressure"](#).
2. Perform transmitter ID registration for all wheels. Refer to [WT-7, "ID REGISTRATION PROCEDURE : Transmitter ID Registration Procedure"](#).
3. Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes.
4. Stop the vehicle and within 15 minutes use the CONSULT-III "DATA MONITOR" to read the tire pressure for all wheels.
5. Check that "DATA MONITOR" displays a tire pressure of 438.60 kPa (4.47 kg/cm<sup>2</sup>, 63.60 psi).

Is the inspection result normal?

- YES >> Replace the malfunctioning transmitter.  
 NO >> GO TO 2.

#### 2. CHECK TPMS

# C1716, C1717, C1718, C1719 TRANSMITTER (PRESSDATA)

## < DTC/CIRCUIT DIAGNOSIS >

Check the transmitters. Refer to [WT-21, "Component Inspection"](#).

Is the inspection result normal?

YES >> INSPECTION END

NO >> Perform trouble diagnosis of the low tire pressure warning control unit. Refer to [WT-32, "Diagnosis Procedure"](#).

## Component Inspection

INFOID:000000003941470

### 1.CHECK TRANSMITTERS

 With CONSULT-III

1. Adjust the tire pressures to the specified value for all wheels. Refer to [WT-76, "Tire Air Pressure"](#).
2. Perform transmitter ID registration for all wheels. Refer to [WT-7, "ID REGISTRATION PROCEDURE : Transmitter ID Registration Procedure"](#).
3. Drive for several minutes at a speed of 40 km/h (25 MPH) or more, then stop the vehicle.
4. Within 15 minutes, use CONSULT-III "DATA MONITOR" to display the tire pressure for all wheels.
5. Check that "DATA MONITOR" displays a tire pressure of 438.60 kPa (4.47 kg/cm<sup>2</sup>, 63.60 psi).

Monitor item	condition	Displayed value
AIR PRESS FL	Drive for several minutes at a speed of 40 km/h (25 MPH) or more, then stop the vehicle.	Air pressure of tire pressure
AIR PRESS FR		
AIR PRESS RR		
AIR PRESS RL		

Is the inspection result normal?

YES >> Replace the malfunctioning transmitter.

NO >> INSPECTION END

## Special Repair Requirement

INFOID:000000003941693

### 1.CHECK TIRE PRESSURE

Check the tire pressure of all wheels. Refer to [WT-76, "Tire Air Pressure"](#).

Does the tire pressure match the specified value?

YES >> GO TO 2.

NO >> Check the road wheels and tires. Adjust the tire pressures to the specified values.

### 2.REGISTER TRANSMITTER ID

Perform transmitter ID registration. Refer to [WT-7, "ID REGISTRATION PROCEDURE : Transmitter ID Registration Procedure"](#).

>> END

# C1720, C1721, C1722, C1723 TRANSMITTER

< DTC/CIRCUIT DIAGNOSIS >

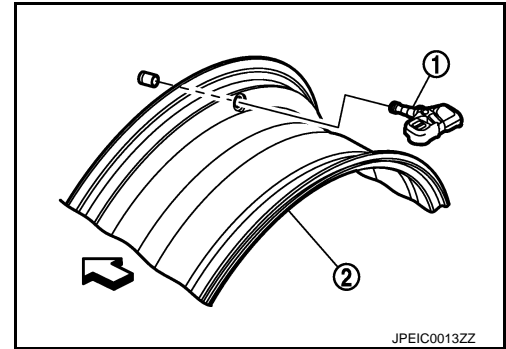
## C1720, C1721, C1722, C1723 TRANSMITTER

### Description

INFOID:000000003941704

The transmitter (1) is installed at the position of the air valve on the road wheel (2). It measures the tire pressure and transmits the tire pressure information by radio waves.

↔ :Outside



### DTC Logic

INFOID:000000003941473

#### DTC logic

DTC	Display Item	Malfunction detected condition	Possible causes
C1720	[CODE ERR] FL	Checksum data from front LH transmitter is malfunctioning.	<ul style="list-style-type: none"> <li>• Tire pressure receiver malfunction</li> <li>• Transmitter error</li> <li>• Low tire pressure warning control unit malfunction</li> </ul>
C1721	[CODE ERR] FR	Checksum data from front RH transmitter is malfunctioning.	
C1722	[CODE ERR] RR	Checksum data from rear RH transmitter is malfunctioning.	
C1723	[CODE ERR] RL	Checksum data from rear LH transmitter is malfunctioning.	

### DTC REPRODUCTION 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-diagnosis of the low tire pressure warning control unit.

Is DTC "C1720", "C1721", "C1722" or "C1723" detected?

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

### Diagnosis Procedure

INFOID:000000003941474

#### 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. Within 5 minutes, select "DATA MONITOR" for the CONSULT-III "AIR PRESSURE MONITOR".
3. Read the values that are displayed for "AIR PRESS FL", "AIR PRESS FR", "AIR PRESS RR", and "AIR PRESS RL".

Display Item	Condition	Displayed value
AIR PRESS FL	Drive for 3 minutes at a speed of 40 km/h (25MPH) or more, then drive normally for 10 minutes.	Air pressure of tire pressure
AIR PRESS FR		
AIR PRESS RR		
AIR PRESS RL		

Is the tire pressure of 0 kPa displayed for all wheels?

- YES >> GO TO 2.

# C1720, C1721, C1722, C1723 TRANSMITTER

## < DTC/CIRCUIT DIAGNOSIS >

NO >> GO TO 4.

### 2. CHECK HARNESS BETWEEN LOW TIRE PRESSURE WARNING CONTROL UNIT AND TIRE PRESSURE RECEIVER

1. Turn the ignition switch OFF.
2. Disconnect low tire pressure warning control unit harness connector and tire pressure receiver harness connector.
3. Check the continuity between low tire pressure warning control unit harness connector and tire pressure receiver harness connector.

#### CHECK RECEIVER POWER CIRCUIT

Low tire pressure warning control unit		Tire pressure receiver		Continuity
Connector	Terminal	Connector	Terminal	
M96	10	E53 (Front LH)	1	Existed
	9	E19 (Front RH)		
	8	B43 (Rear LH)		
	7	B251 (Rear RH)		

#### CHECK RECEIVER SIGNAL CIRCUIT

Low tire pressure warning control unit		Tire pressure receiver		Continuity
Connector	Terminal	Connector	Terminal	
M96	6	E53 (Front LH)	3	Existed
	5	E19 (Front RH)		
	4	B43 (Rear LH)		
	3	B251 (Rear RH)		

#### CHECK RECEIVER SIGNAL (SENSITIVITY) CIRCUIT

Low tire pressure warning control unit		Tire pressure receiver		Continuity
Connector	Terminal	Connector	Terminal	
M96	22	E53 (Front LH)	2	Existed
	21	E19 (Front RH)		
	20	B43 (Rear LH)		
	19	B251 (Rear RH)		

#### CHECK RECEIVER GROUND CIRCUIT

Low tire pressure warning control unit		Tire pressure receiver		Continuity
Connector	Terminal	Connector	Terminal	
M96	26	E53 (Front LH)	4	Existed
	25	E19 (Front RH)		
	24	B43 (Rear LH)		
	23	B251 (Rear RH)		

4. Check the continuity between low tire pressure warning control unit harness connector and ground.

#### CHECK RECEIVER POWER CIRCUIT

Low tire pressure warning control unit		—	Continuity
Connector	Terminal		
M96	10	Ground	Not existed
	9		
	8		
	7		

# C1720, C1721, C1722, C1723 TRANSMITTER

## < DTC/CIRCUIT DIAGNOSIS >

### CHECK RECEIVER SIGNAL CIRCUIT

Low tire pressure warning control unit		—	Continuity
Connector	Terminal		
M96	6	Ground	Not existed
	5		
	4		
	3		

### CHECK RECEIVER SIGNAL (SENSITIVITY) CIRCUIT

Low tire pressure warning control unit		—	Continuity
Connector	Terminal		
M96	22	Ground	Not existed
	21		
	20		
	19		

### CHECK RECEIVER GROUND CIRCUIT

Low tire pressure warning control unit		—	Continuity
Connector	Terminal		
M96	26	Ground	Not existed
	25		
	24		
	23		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace error-detected parts.

### 3. CHECK TIRE PRESSURE RECEIVER

Check the tire pressure receivers. Refer to [WT-26, "Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace the tire pressure receiver.

### 4. CHECK TIRE PRESSURE MONITORING CONTROL SYSTEM

Check the Tire Pressure Monitoring System (TPMS). Refer to [WT-32, "Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace the low tire pressure warning control unit.

### 5. CHECK TRANSMITTERS

1. Drive for several minutes at a speed of 40 km/h (25 MPH) or more, then stop the vehicle.
2. Within 15 minutes, use "DATA MONITOR" to display the tire pressure for all wheels.
3. Check that the tire pressures is the specified value.

Display Item	Condition	Displayed value
AIR PRESS FL	Drive for several minutes at a speed of 40 km/h (25 MPH) or more, then stop the vehicle.	Air pressure of tire pressure
AIR PRESS FR		
AIR PRESS RR		
AIR PRESS RL		

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace the transmitter.



# C1720, C1721, C1722, C1723 TRANSMITTER

< DTC/CIRCUIT DIAGNOSIS >

## Special Repair Requirement

INFOID:000000003941705

### 1.CHECK TIRE PRESSURE

Check the tire pressure of all wheels. Refer to [WT-76, "Tire Air Pressure"](#).

Does the tire pressure match the specified value?

YES >> GO TO 2.

NO >> Check the road wheels and tires. Adjust the tire pressures to the specified values.

### 2.REGISTER TRANSMITTER ID

Perform transmitter ID registration. Refer to [WT-7, "ID REGISTRATION PROCEDURE : Transmitter ID Registration Procedure"](#).

>> END

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WT

# C1728 RECEIVER ID

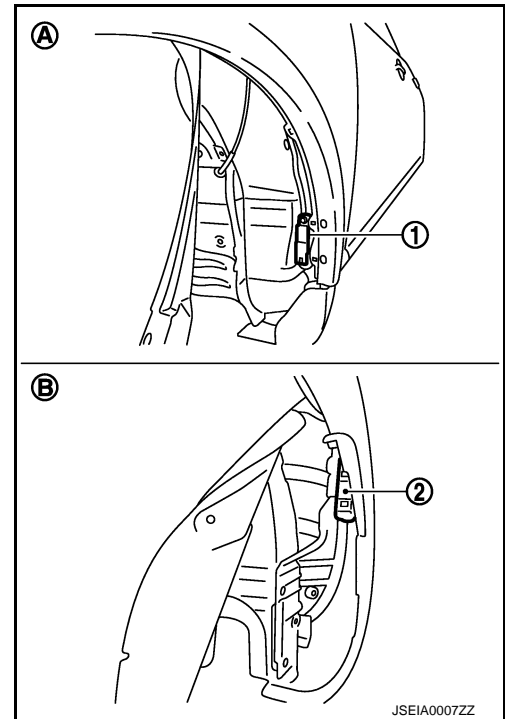
< DTC/CIRCUIT DIAGNOSIS >

## C1728 RECEIVER ID

### Description

INFOID:000000003941476

The front (A) tire pressure receiver (1) and rear (B) tire pressure receiver (2) receive the tire pressure signal by radio waves from the transmitter at each wheel, and transmit the tire pressure signal to the low tire pressure warning control unit.



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### DTC Logic

INFOID:000000003941477

### DTC DETECTION LOGIC

DTC	Display Item	Malfunction detected condition	Possible causes
C1728	RECEIVER ID NO REG	Receiver ID registration cannot be performed.	<ul style="list-style-type: none"> <li>Tire pressure receiver malfunction</li> <li>Low tire pressure warning control unit malfunction</li> </ul>

### DTC REPRODUCTION PROCEDURE

#### 1. DTC REPRODUCTION PROCEDURE

Ⓜ 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-diagnosis of the low tire pressure warning control unit.

Is DTC "C1728" detected?

- YES >> Perform trouble diagnosis. Refer to [WT-26, "Diagnosis Procedure"](#).  
 NO >> INSPECTION END

### Diagnosis Procedure

INFOID:000000003941478

#### 1. CHECK RECEIVER INPUT SIGNAL

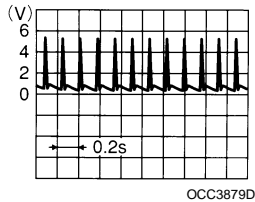
- Turn the ignition switch ON.

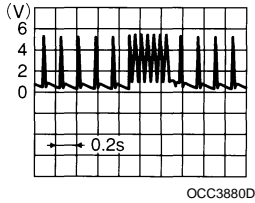
**CAUTION:**  
**Never start engine.**

- Use an oscilloscope and check the input signal waveform between the low tire pressure warning control unit harness connector terminals and the ground. Refer to [WT-45, "Reference Value"](#).

# C1728 RECEIVER ID

## < DTC/CIRCUIT DIAGNOSIS >

Connector	Terminal	—	Condition	Standard
M96	3	Ground	Standby stats	
	4			
	6			
	5			

Connector	Terminal	—	Condition	Standard
M96	3	Ground	When transmitter signal is received	
	4			
	6			
	5			

Is the inspection result normal?

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

### 2. CHECK TIRE PRESSURE RECEIVER POWER SUPPLY CIRCUIT

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

Tire pressure receiver		—	Voltage
Connector	Terminal	Ground	7 - 16 V
E53 (Front LH)	1		
E19 (Front RH)			
B43 (Rear LH)			
B251 (Rear RH)			

Is the inspection result normal?

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

### 3. CHECK TIRE PRESSURE RECEIVER GROUND CIRCUIT

1. Disconnect the low tire pressure warning control unit harness connector.
2. Check the continuity between the low tire pressure warning control unit harness connector and tire pressure receiver harness connector.

Low tire pressure warning control unit		Tire pressure receiver		Continuity
Connector	Terminal	Connector	Terminal	
M96	26	E53 (Front LH)	4	Existed
	25	E19 (Front RH)		
	24	B43 (Rear LH)		
	23	B251 (Rear RH)		

Is the inspection result normal?

- YES >> GO TO 4.
- NO >> Repair or replace the malfunctioning harness or connector.

### 4. CHECK LOW TIRE PRESSURE WARNING CONTROL UNIT CIRCUIT

Check the low tire pressure warning control unit circuit. Refer to [WT-32, "Diagnosis Procedure"](#).

## C1728 RECEIVER ID

< DTC/CIRCUIT DIAGNOSIS >

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Is the low tire pressure warning control unit circuit normal?

- YES >> Replace the tire pressure receiver.
- NO >> Repair or replace error-detected parts.

# C1729 VEHICLE SPEED SIG ERR

< DTC/CIRCUIT DIAGNOSIS >

## C1729 VEHICLE SPEED SIG ERR

### Description

INFOID:000000003941479

Uses CAN communications from the ABS actuator and electric unit (control unit) to receive the vehicle speed signal, and activates the Tire Pressure Monitoring System (TPMS) when the vehicle speed is 40 km/h (25MPH) or more.

### DTC Logic

INFOID:000000003941480

### DTC logic

DTC	Display Item	Malfunction detected condition	Possible causes
C1729	VHCL SPEED SIG ERR	Speed signal is not detected.	<ul style="list-style-type: none"><li>CAN communication malfunction</li><li>Low tire pressure warning control unit malfunction</li><li>ABS actuator and electric unit (control unit) malfunction</li></ul>

### DTC REPRODUCTION PROCEDURE

#### 1. DTC REPRODUCTION PROCEDURE

④ With CONSULT-III

- Drive for several minutes at a speed of 40 km/h (25MPH) or more, then stop the vehicle.
- Perform self-diagnosis of the low tire pressure warning control unit.

Is DTC "C1729" detected?

- YES >> Perform trouble diagnosis. Refer to [WT-29. "Diagnosis Procedure"](#).  
NO >> INSPECTION END

### Diagnosis Procedure

INFOID:000000003941481

#### 1. PERFORM ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) SELF-DIAGNOSIS

④ With CONSULT-III

Perform self-diagnosis of the ABS actuator and electric unit (control unit).

Is DTC detected?

- YES >> Check malfunctioning circuit.  
NO >> GO TO 2.

#### 2. PERFORM THE SELF-DIAGNOSIS

④ With CONSULT-III

Perform self-diagnosis of the low tire pressure warning control unit.

Is DTC "C1729" detected?

- YES >> Replace the low tire pressure warning control unit.  
NO >> GO TO 3.

#### 3. CHECK INFORMATION

④ 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 the low tire pressure warning control unit.

# C1750, C1751, C1752, C1753 RECEIVER

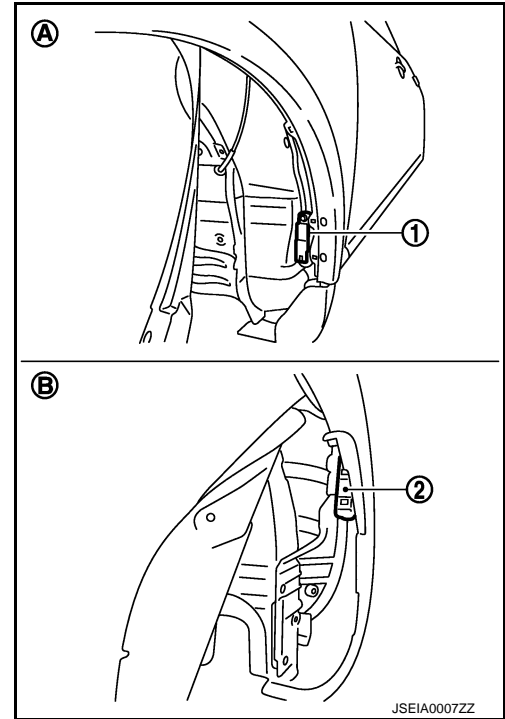
< DTC/CIRCUIT DIAGNOSIS >

## C1750, C1751, C1752, C1753 RECEIVER

### Description

INFOID:000000003941529

The front (A) tire pressure receiver (1) and rear (B) tire pressure receiver (2) receive the tire pressure signal by radio waves from the transmitter at each wheel, and transmit the tire pressure signal to the low tire pressure warning control unit.



### DTC Logic

INFOID:000000003941530

### DTC DETECTION LOGIC

DTC	Display Item	Malfunction detected condition	Possible causes
C1750	[RECEIVER ERR] FL	The front LH tire pressure receiver dose not receive a signal.	Tire pressure receiver malfunction
C1751	[RECEIVER ERR] FR	The front RH tire pressure receiver dose not receive a signal.	
C1752	[RECEIVER ERR] RR	The rear RH tire pressure receiver dose not receive a signal.	
C1753	[RECEIVER ERR] RL	The rear LH tire pressure receiver dose not receive a signal.	

### DTC REPRODUCTION 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-diagnosis of the low tire pressure warning control unit.

Is DTC "C1750", "C1751", "C1752", or "C1753" detected?

- YES >> Perform trouble diagnosis. Refer to [WT-30, "Diagnosis Procedure"](#).  
 NO >> INSPECTION END

### Diagnosis Procedure

INFOID:000000003941531

#### 1. CHECK TIRE PRESSURE RECEIVER INPUT SIGNAL


1. Turn the ignition switch ON.

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

# C1750, C1751, C1752, C1753 RECEIVER

## < DTC/CIRCUIT DIAGNOSIS >

- Use an oscilloscope and check the input signal waveform between the low tire pressure warning control unit harness connector terminals and ground. Refer to [WT-45, "Reference Value"](#).

Connector	Terminal	—	Condition	Standard
M96	3	Ground	Standby status	 OCC3879D
	4			
	5			
	6			

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 2.

## 2.CHECK TIRE PRESSURE RECEIVER POWER SUPPLY CIRCUIT

- Disconnect the tire pressure receiver harness connector.
- Check the voltage between the tire pressure receiver harness connector and ground.

Connector	Terminal	—	Voltage
E53 (Front LH)	1	Ground	7 - 16 V
E19 (Front RH)			
B43 (Rear LH)			
B251 (Rear RH)			

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace error-detected part.

## 3.CHECK TIRE PRESSURE RECEIVER GROUND CIRCUIT

- Disconnect the low tire pressure warning control unit harness connector and tire pressure receiver harness connector.
- Check the continuity between the low tire pressure warning control unit harness connector and tire pressure receiver harness connector.

Low tire pressure warning control unit		Tire pressure receiver		Continuity
M96	26	E53 (Front LH)	4	Existed
	25	E19 (Front RH)		
	24	B43 (Rear LH)		
	23	B251 (Rear RH)		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace error-detected part.

## 4.CHECK FOR CHANGE TO THE TIRE PRESSURE RECEIVER INSTALLATION POSITION. (EXAMPLE: FRONT LH RECEIVER OK/NG JUDGMENT)

☞ With CONSULT-III

- Exchange the front LH tire pressure receiver with the front RH tire pressure receivers.
- Perform low tire pressure warning control unit self-diagnosis.

Is DTC "C1751" detected?

YES >> Replace the front RH tire pressure receiver.

NO >> Perform trouble diagnosis of the low tire pressure warning control unit. Refer to [WT-32, "Diagnosis Procedure"](#).

# C1754 LOW TIRE PRESSURE WARNING CONTROL UNIT

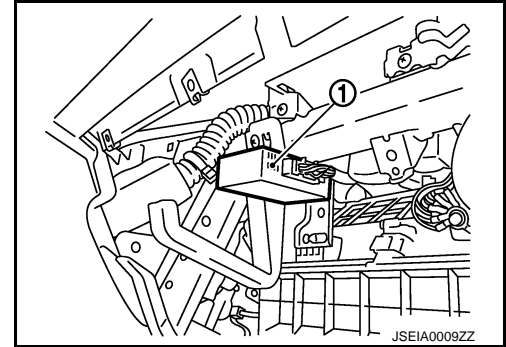
< DTC/CIRCUIT DIAGNOSIS >

## C1754 LOW TIRE PRESSURE WARNING CONTROL UNIT

### Description

INFOID:000000003941532

- After the low tire pressure warning control unit (1) receives the tire pressure signal from the tire pressure receiver, it controls the operation of the low tire pressure warning lamp and buzzer.
- Performs self-diagnosis of the Tire Pressure Monitoring System (TPMS).



### DTC Logic

INFOID:000000003941533

#### DTC logic

DTC	Display Item	Malfunction detected condition	Possible causes
C1754	CONT UNIT (EEPROM)	Tire Pressure Monitoring System (TPMS) malfunction in the low tire pressure warning control unit	Low tire pressure warning control unit malfunction

### DTC REPRODUCTION 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. Stop the vehicle and perform self-diagnosis of the low tire pressure warning control unit.

Is DTC "C1754" detected?

- YES >> Perform trouble diagnosis. Refer to [WT-32, "Diagnosis Procedure"](#).  
 NO >> INSPECTION END

### Diagnosis Procedure

INFOID:000000003941534

#### 1. CHECK POWER VOLTAGE

1. Turn the ignition switch OFF.
2. Disconnect the low tire pressure warning control unit harness connector.
3. Check the voltage between the harness connectors of the low tire pressure warning control unit and the ground.

Low tire pressure warning control unit		—	Voltage
Connector	Terminal		
M96	15	Ground	Battery voltage

Is the inspection result normal?

- YES >> GO TO 2.  
 NO >> If the results of any of the following check items are not normal, repair or replace the malfunctioning part.
- 10 A fuse [No. 3 in fuse block (J/B)]
  - Harness open circuit or short circuit between the ignition switch and harness connector terminal 15 of the low tire pressure warning control unit.
  - Check battery voltage.

#### 2. CHECK GROUND CIRCUIT

Check the continuity between the low tire pressure warning control unit harness connector and ground.



# C1754 LOW TIRE PRESSURE WARNING CONTROL UNIT

## < DTC/CIRCUIT DIAGNOSIS >

Low tire pressure warning control unit		—	Continuity
Connector	Terminal		
M96	32	Ground	Existed

Are the check results normal?

YES >> GO TO 3.

NO >> If an open circuit or other damage is detected, malfunctioning part.

### 3. CHECK LOW TIRE PRESSURE WARNING CONTROL UNIT AND TIRE PRESSURE RECEIVER CIRCUIT

1. Check the continuity between the low tire pressure warning control unit harness connector and tire pressure receiver harness connector.

Low tire pressure warning control unit		Tire pressure receiver		Continuity
Connector	Terminal	Connector	Terminal	
M96	6	E53 (Front LH)	3	Existed
	22		2	
	10		1	
	26		4	
	5	E19 (Front RH)	3	
	21		2	
	9		1	
	25		4	
	4	B43 (Rear LH)	3	
	20		2	
	8		1	
	24		4	
	3	B251 (Rear RH)	3	
	19		2	
	7		1	
	23		4	

2. Check the continuity between the low tire pressure warning control unit harness connector and ground.

# C1754 LOW TIRE PRESSURE WARNING CONTROL UNIT

## < DTC/CIRCUIT DIAGNOSIS >

Low tire pressure warning control unit		—	Continuity
Connector	Terminal		
M96	6	Ground	Not existed
	22		
	10		
	26		
	5		
	21		
	9		
	25		
	4		
	20		
	8		
	24		
	3		
	19		
	7		
23			

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace error-detected parts.

### 4.PERFORM THE SELF-DIAGNOSIS

④ With CONSULT-III

1. Perform transmitter ID registration for all wheels. Refer to [WT-7, "ID REGISTRATION PROCEDURE : Transmitter ID Registration Procedure"](#).
2. Perform self-diagnosis of the low tire pressure warning control unit.

Is DTC "C1754" detected?

YES >> Replace the low tire pressure warning control unit.

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:000000003941731

### 1.CHECK TIRE PRESSURE

Check the tire pressure of all wheels. Refer to [WT-76, "Tire Air Pressure"](#).

Does the tire pressure match the specified value?

YES >> GO TO 2.

NO >> Check the road wheels and tires. Adjust the tire pressures to the specified values.

### 2.REGISTER TRANSMITTER ID

Perform transmitter ID registration. Refer to [WT-7, "ID REGISTRATION PROCEDURE : Transmitter ID Registration Procedure"](#).

>> END

# C1755, C1756, C1757, C1758 POOR RECEIVING CONDITIONS

< DTC/CIRCUIT DIAGNOSIS >

## C1755, C1756, C1757, C1758 POOR RECEIVING CONDITIONS

### Description

INFOID:000000003941536

A DTC is detected if the radio signal output from the transmitter is interrupted by external electromagnetic interference for 10 minutes or more.

### DTC Logic

INFOID:000000003941537

### DTC logic

DTC	Display Item	Malfunction detected condition	Possible causes
C1755	PR RECEIV COND FL	The data signal from the front LH wheel transmitter cannot be detected due to external electromagnetic interference. (DTC C1708 is displayed at the same time.)	External electromagnetic interference
C1756	PR RECEIV COND FR	The data signal from the front RH wheel transmitter cannot be detected due to external electromagnetic interference. (DTC C1709 is displayed at the same time.)	
C1757	PR RECEIV COND RR	The data signal from the rear RH wheel transmitter cannot be detected due to external electromagnetic interference. (DTC C1710 is displayed at the same time.)	
C1758	PR RECEIV COND RL	The data signal from the rear LH wheel transmitter cannot be detected due to external electromagnetic interference. (DTC C1711 is displayed at the same time.)	

### CAUTION:

If DTC C1755, C1756, C1757, or C1758 (low communication performance) is detected along with, C1708, C1709, C1710, or C1711 (no transmitter data) first diagnose C1755, C1756, C1757, or C1758 (low communications performance).

### DTC REPRODUCTION 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-diagnosis of the low tire pressure warning control unit.

Is DTC "C1755", "C1756", "C1757", or "C1758" detected?

- YES >> Perform trouble diagnosis. Refer to [WT-35, "Diagnosis Procedure"](#).  
NO >> INSPECTION END

### Diagnosis Procedure

INFOID:000000003941538

#### 1. REGISTER THE TRANSMITTER ID

Perform transmitter ID registration for all wheels. Refer to [WT-7, "ID REGISTRATION PROCEDURE : Transmitter ID Registration Procedure"](#).

Is ID registration for all wheels completed?

- YES >> GO TO 2.  
NO >> Change the work location and perform ID registration again, then perform trouble diagnosis. Refer to [WT-63, "Diagnosis Procedure"](#).

#### 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. Within 5 minutes, select "DATA MONITOR" for the CONSULT-III "AIR PRESSURE MONITOR".
3. Display the following: "AIR PRESS FL", "AIR PRESS FR", "AIR PRESS RR", and "AIR PRESS RL".
4. Check that the displayed tire pressures is the specified value.

# C1755, C1756, C1757, C1758 POOR RECEIVING CONDITIONS

## < DTC/CIRCUIT DIAGNOSIS >

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Change the work location, then GO TO 1.

### 3.CHECK THE DIAGNOSIS RESULTS

Ⓜ With CONSULT-III

1. Erase the self-diagnosis memory of the low tire pressure warning control unit.
2. Turn ignition switch OFF, and wait for 10 seconds or more.
3. Perform self-diagnosis of the low tire pressure warning control unit.

Are DTC "C1755", "C1756", "C1757", or "C1758" and "C1708", "C1709", "C1710", or "C1711" detected?

YES >> Change the work location, then GO TO 1.

NO >> GO TO 4.

### 4.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. Within 5 minutes, select "DATA MONITOR" for the CONSULT-III "AIR PRESSURE MONITOR".
3. Display the following: "AIR PRESS FL", "AIR PRESS FR", "AIR PRESS RR", and "AIR PRESS RL".
4. Check that the tire pressures is the specified value.

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

Is the inspection result normal?

YES >> INSPECTION END

NO >> Change the work location, then GO TO 1.

# U1000 CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## U1000 CAN COMM CIRCUIT

### Description

INFOID:000000003932081

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN-H line, CAN-L line) allowing a high rate of information transmission with less wiring. Each control unit communicates data but selectively reads required data only.

### DTC Logic

INFOID:000000003932082

### DTC DETECTION LOGIC

DTC	Display item	Malfunction detected condition	Possible cause
U1000	CAN COMM CIRCUIT	Low tire pressure warning control unit is not communicating CAN communication signal for 2 seconds or more.	<ul style="list-style-type: none"><li>• CAN communication malfunction</li><li>• Malfunction of low tire pressure warning control unit</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1. DTC REPRODUCTION PROCEDURE

Ⓜ With CONSULT-III

1. Turn the ignition switch OFF to ON.
2. Perform low tire pressure warning control unit self-diagnosis.

Is DTC "U1000" detected?

- YES >> Proceed to trouble diagnosis procedure. Refer to [WT-37, "Diagnosis Procedure"](#).  
NO >> INSPECTION END

### Diagnosis Procedure

INFOID:000000003932083

#### 1. PERFORM SELF-DIAGNOSIS

Ⓜ With CONSULT-III

Perform low tire pressure warning control unit self-diagnosis.

Is DTC "U1000" detected?

- YES >> CAN specification chart. Refer to [LAN-31, "CAN System Specification Chart"](#).  
NO >> INSPECTION END

# U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

## U1010 CONTROL UNIT (CAN)

### Description

INFOID:000000003932086

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN-H line, CAN-L line) allowing a high rate of information transmission with less wiring. Each control unit communicates data but selectively reads required data only.

### DTC Logic

INFOID:000000003932087

### DTC DETECTION LOGIC

DTC	Display item	Malfunction detected condition	Possible cause
U1010	CONTROL UNIT (CAN)	Detecting error during the initial diagnosis of CAN controller of low tire pressure warning control unit.	Malfunction of low tire pressure warning control unit

### DTC CONFIRMATION PROCEDURE

#### 1. DTC REPRODUCTION PROCEDURE

Ⓔ With CONSULT-III

1. Turn the ignition switch OFF to ON.
2. Perform low tire warning control unit self-diagnosis.

Is DTC "U1010" detected?

- YES >> Proceed to trouble diagnosis procedure. Refer to [WT-38. "Diagnosis Procedure"](#).  
NO >> INSPECTION END

### Diagnosis Procedure

INFOID:000000003932088

#### 1. CHECK LOW TIRE PRESSURE WARNING CONTROL UNIT

Check low tire pressure warning control unit harness connector for disconnection or deformation.

Is the inspection result normal?

- YES >> Replace low tire pressure warning control unit. Refer to [WT-72. "Exploded View"](#).  
NO >> Repair or replace error-detected parts.

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## POWER SUPPLY AND GROUND CIRCUIT

### Description

INFOID:000000003941734

Supply power to the low tire pressure warning control unit.

### Component Function Check

INFOID:000000003941735

#### 1.CHECK THE ILLUMINATION OF THE 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-39. "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000003941736

#### 1.POWER SUPPLY SYSTEM CHECK

1. Turn the ignition switch OFF.
2. Disconnect the low tire pressure warning control unit harness connector.
3. Turn the ignition switch ON.

**CAUTION:**

**Never start engine.**

4. Check the continuity between the low tire pressure warning control unit harness connector and the ground.

Low tire pressure warning control unit		—	Voltage
Connector	Terminal		
M96	15	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace error-detected parts.

#### 2.GROUND SYSTEM INSPECTION

1. Turn the ignition switch OFF.
2. Check the continuity between the low tire pressure warning control unit harness connector and the ground.

Low tire pressure warning control unit		—	Continuity
Connector	Terminal		
M96	32	Ground	Existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace error-detected parts.

#### 3.CHECK FUSE/FUSIBLE LINK

Check for fusing of the fuse and fusible link at the low tire pressure warning control unit.

- Check the 10 A fuse [No. 3 inside the fuse block (J/B)]

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 low tire pressure warning control unit harness connector.
2. Disconnect the tire pressure receiver harness connector.
3. Check the voltage between the tire pressure receiver harness connector and ground.

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P

WT

# POWER SUPPLY AND GROUND CIRCUIT

## < DTC/CIRCUIT DIAGNOSIS >

Tire pressure receiver		—	Voltage
Connector	Terminal		
E53 (Front LH)	1	Ground	7 - 16 V
E19 (Front RH)			
B43 (Rear LH)			
B251 (Rear RH)			

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace error-detected parts.

### 5. CHECK RECEIVER GROUND CIRCUIT

1. Disconnect the low tire pressure warning control unit harness connector.
2. Check the continuity between the harness connector terminals of the receiver and the low tire pressure warning control unit.

Tire pressure receiver		Low tire pressure warning control unit		Continuity
Connector	Terminal	Connector	Terminal	
E53 (Front LH)	4	M96	26	Existed
E19 (Front RH)			25	
B43 (Rear LH)			24	
B251 (Rear RH)			23	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace error-detected parts.



# TIRE PRESSURE WARNING CHECK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

## TIRE PRESSURE WARNING CHECK SWITCH

### Description

INFOID:000000003914341

The following item can be checked by grounding the tire pressure warning check switch harness connector terminal.

### Component Function Check

INFOID:000000003914342

#### 1. CHECK LOW TIRE PRESSURE WARNING LAMP OPERATION

Check if low tire pressure warning lamp blinks 1 second and then goes off after turning ignition switch ON.

Is inspection result normal?

YES >> GO TO 2.

NO >> Check low tire pressure warning lamp. Refer to [WT-43. "Diagnosis Procedure"](#).

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

1. Ground the tire pressure warning check switch harness connector terminal.
2. Check the low tire pressure warning lamp blinks.

Is the inspection result normal?

YES >> INSPECTION END

NO >> Proceed to trouble diagnosis procedure. Refer to [WT-41. "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000003914343

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

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
Connector	Terminal		
M23	1	Ground	7.6 - 14.6 V

Is the inspection result normal?

YES >> Repair or replace low tire pressure warning control unit. Replace low tire pressure warning control unit. Refer to [WT-72. "Exploded View"](#).

NO >> GO TO 2.

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

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

Low tire pressure warning control unit		Tire pressure warning check switch		Continuity
Connector	Terminal	Connector	Terminal	
M96	12	M23	1	Existed

4. Check the continuity between low tire pressure warning control unit harness connector and ground.

Low tire pressure warning control unit		—	Continuity
Connector	Terminal		
M96	12	Ground	Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace error-detected parts.

## TIRE PRESSURE WARNING CHECK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

---

### 3. CHECK LOW TIRE PRESSURE WARNING CONTROL UNIT

---

Check the low tire pressure warning control unit input/output signal. Refer to [WT-45, "Reference Value"](#).

Is the inspection result normal?

YES >> INSPECTION END

NO >> Check low tire pressure warning control unit pin terminals for damage or loose connection with harness connector. If any items are damaged, repair or replace damaged parts. Replace low tire pressure warning control unit. Refer to [WT-72, "Exploded View"](#).

# LOW TIRE PRESSURE WARNING LAMP

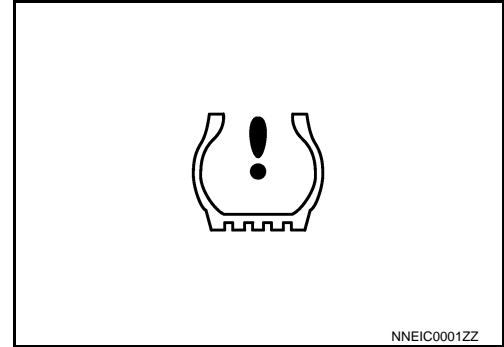
< DTC/CIRCUIT DIAGNOSIS >

## LOW TIRE PRESSURE WARNING LAMP

### Description

INFOID:000000003910680

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



A  
B  
C  
D  
WT

Condition	Low tire pressure warning lamp
Ignition switch OFF.	OFF
Ignition switch ON.	Illuminates for 1 second, then turns OFF.
When tire pressure is low [Tire pressure is 182 kPa (1.82 kg/cm <sup>2</sup> , 26.5 psi)* or less]	ON
Tire Pressure Monitoring System (TPMS) error	Flashes for 1 minute, then stays illuminated.

\*: Tire pressure at each condition differs.

### Component Function Check

INFOID:000000003910681

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

Check that the low 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-43, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000003910682

#### 1. POWER SUPPLY AND GROUND CIRCUIT

Check power supply and ground circuit. Refer to [WT-39, "Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace error-detected parts.

#### 2. PERFORM THE SELF-DIAGNOSIS

 With CONSULT-III

Perform low tire pressure warning control unit self-diagnosis.

Is DTC "U1000" detected?

YES >> Perform trouble diagnosis for CAN communication system. Refer to [WT-37, "Diagnosis Procedure"](#).

NO >> GO TO 3.

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

 With CONSULT-III

1. Turn the ignition switch ON.

**CAUTION:**

**Never start engine.**

2. Select "DATA MONITOR" mode for "AIR PRESSURE MONITOR" with CONSULT-III.

F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P

## LOW TIRE PRESSURE WARNING LAMP

### < DTC/CIRCUIT DIAGNOSIS >

---

3. Read out the value of "WARNING LAMP".

Does the data monitor display change from ON to OFF?

YES >> GO TO 4.

NO >> Replace the low tire pressure warning control unit. Refer to [WT-72. "Exploded View"](#).

### **4.**CHECK COMBINATION METER POWER SUPPLY CIRCUIT

---

Perform trouble diagnosis of the combination meter power supply circuit.

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace error-detected parts.

# TPMS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

## ECU DIAGNOSIS INFORMATION

### TPMS CONTROL UNIT

Reference Value

INFOID:000000003932149

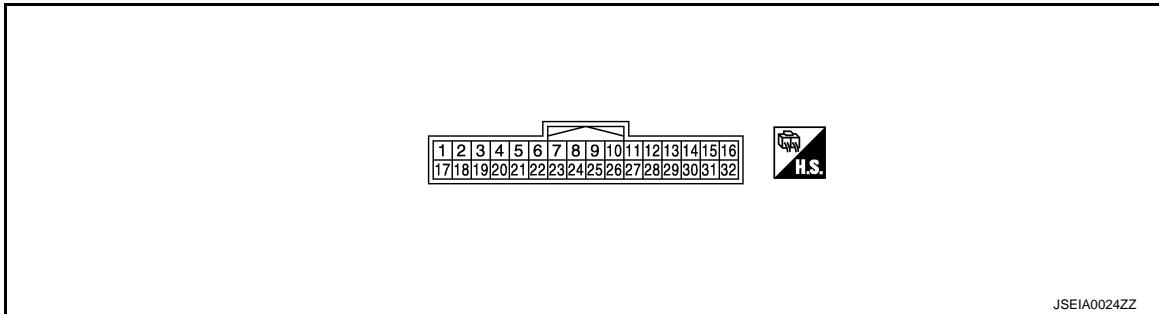
VALUES ON THE DIAGNOSIS TOOL

**CAUTION:**

The reference values in the table below come from the control unit calculation data. The normal values may in some cases be displayed even though the power circuit (harness) is open or shorted.

Monitor item	Data monitor	
	Condition	Reference values for normal operation
VHCL SPEED SE	Drive the vehicle.	Vehicle speed (km/h) or (MPH)
AIR PRESS FL	Start the engine and drive at a speed of 40 km/h (25 MPH) or more for 10 minutes.	Tire pressure (kg/cm <sup>2</sup> ), (kPa) or (Psi)
AIR PRESS FR		
AIR PRESS RR		
AIR PRESS RL		
ID REGST FL1	Ignition switch ON	ID registered: Done ID not registered: Yet
ID REGST FR1		
ID REGST RR1		
ID REGST RL1		
WARNING LAMP		Low tire pressure warning lamp ON: On Low tire pressure warning lamp OFF: Off
BUZZER	Combination meter buzzer ON: On Combination meter buzzer OFF: Off	

### TERMINAL LAYOUT

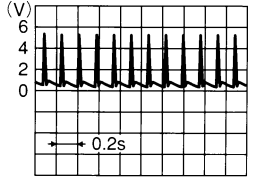


### PHYSICAL VALUES

Terminal No. (Wire color)	Description		Condition	Value (Approx.)
	Signal name	Input/ Output		
1 (P)	CAN-L	—	—	—
2 (L)		CAN-H	—	—

# TPMS CONTROL UNIT

## < ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)	Description		Condition	Value (Approx.)		
	Signal name	Input/ Output				
3 (O)	Ground	Tire pressure receiver signal	Input	Ignition switch ON	Stand by status (Approx. 4.5 V)	 <p style="text-align: right; font-size: small;">OCC3879D</p>
4 (L)						
5 (R)					6 (P)	
7 (SB)						Ground
8 (R)						
9 (GR)						
10 (G)						
12 (SB)	Ground	Tire pressure warning check switch	Output	Always	Approx. 7.6 - 14.6 V	
15 (Y)	Ground	Ignition switch	Input	Ignition switch ON	Battery voltage	
19 (W)	Ground	Tire pressure receiver signal (sensitivity)	Input	Ignition switch ON	Approx. 0.7 V	
20 (BR)						
21 (LG)						
22 (V)						
23 (B)	Ground	Tire pressure receiver ground	—	—	0 V	
24 (Y)						
25 (W)						
26 (P)						
30 (LG)	Ground	Hazard lamp	Output	Hazard lamp switch ON	0 V	
				Hazard lamp switch OFF	Battery voltage	
32 (B)	Ground	Ground	—	—	0 V	

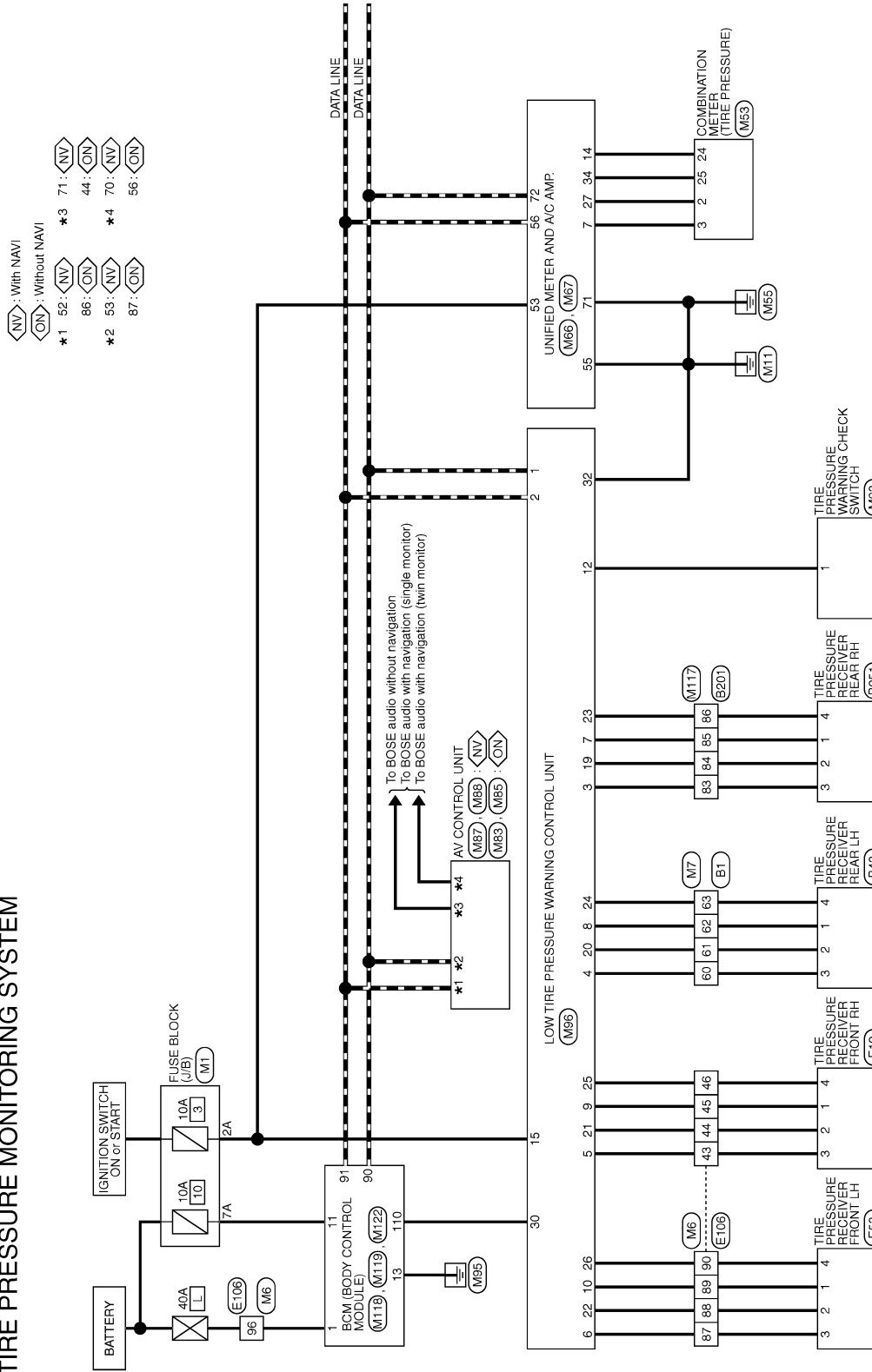
# TPMS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

## Wiring Diagram - TIRE PRESSURE MONITORING SYSTEM -

INFOID:000000003932150

### TIRE PRESSURE MONITORING SYSTEM



2008/03/04

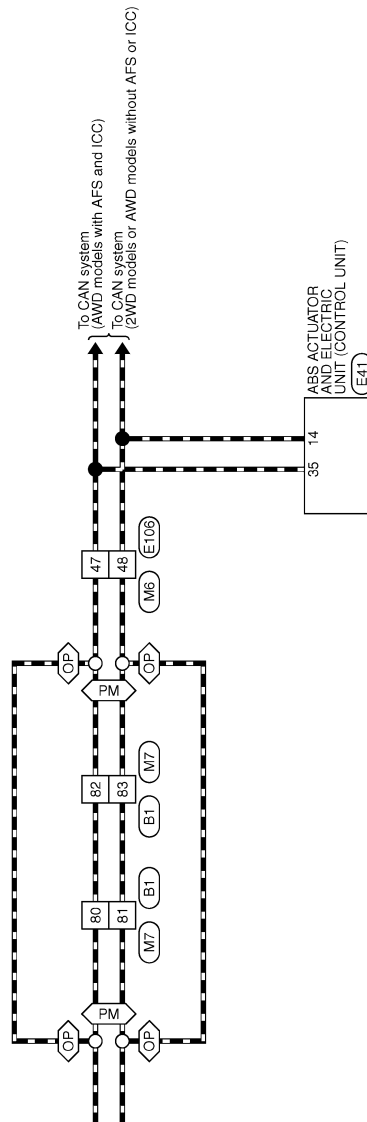
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# TPMS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

PM : With automatic drive positioner  
OP : Without automatic drive positioner



JCEWM0032GB

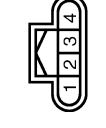
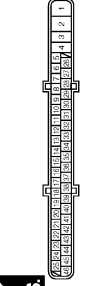
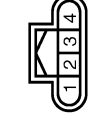
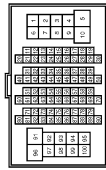
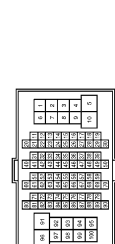
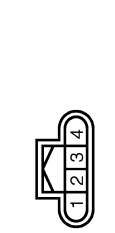
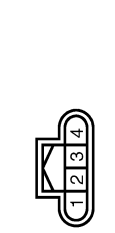


# TPMS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

## TIRE PRESSURE MONITORING SYSTEM

Connector No.	Color of Wire	Signal Name [Specification]	Terminal No.	Color of Wire	Signal Name [Specification]
B1	GR	WIRE TO WIRE	80	L	-
B201	Y	WIRE TO WIRE	83	Y	-
B3	GR	TIRE PRESSURE RECEIVER REAR LH	1	GR	VCC
B201	Y	WIRE TO WIRE	84	R	RSSI
B43	P	TIRE PRESSURE RECEIVER REAR LH	2	P	RSSI
B201	SB	WIRE TO WIRE	85	SB	SIG
B201	GR	WIRE TO WIRE	88	GR	GND
B251	SB	TIRE PRESSURE RECEIVER REAR RH	1	SB	VCC
B251	R	TIRE PRESSURE RECEIVER REAR RH	2	R	RSSI
B251	Y	TIRE PRESSURE RECEIVER REAR RH	3	Y	SIG
B251	GR	TIRE PRESSURE RECEIVER REAR RH	4	GR	GND
E19	GR	TIRE PRESSURE RECEIVER FRONT RH	1	GR	VCC
E19	G	TIRE PRESSURE RECEIVER FRONT RH	2	G	RSSI
E19	R	TIRE PRESSURE RECEIVER FRONT RH	3	R	SIG
E19	W	TIRE PRESSURE RECEIVER FRONT RH	4	W	GND
E33	LG	TIRE PRESSURE RECEIVER FRONT LH	1	LG	VCC
E33	O	TIRE PRESSURE RECEIVER FRONT LH	2	O	RSSI
E33	W	TIRE PRESSURE RECEIVER FRONT LH	3	W	SIG
E33	BR	TIRE PRESSURE RECEIVER FRONT LH	4	BR	GND
E41	P	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)	14	P	CAN-L
E41	L	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)	35	L	CAN-H
E108	W	WIRE TO WIRE	43	R	-
E108	GR	WIRE TO WIRE	44	G	-
E108	GR	WIRE TO WIRE	45	GR	-
E108	W	WIRE TO WIRE	46	W	-
E108	L	WIRE TO WIRE	47	L	-
E108	P	WIRE TO WIRE	48	P	-
E108	W	WIRE TO WIRE	87	W	-
E108	O	WIRE TO WIRE	88	O	-
E108	LG	WIRE TO WIRE	89	LG	-
E108	BR	WIRE TO WIRE	90	BR	-
E108	W	WIRE TO WIRE	86	W	-

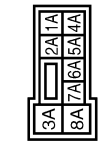

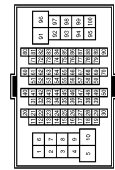
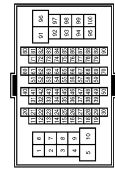
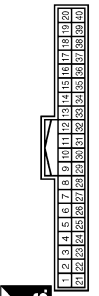
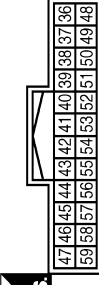
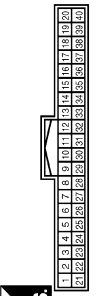
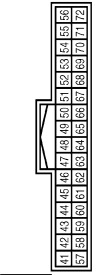


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# TPMS CONTROL UNIT

## < ECU DIAGNOSIS INFORMATION >

### TIRE PRESSURE MONITORING SYSTEM

<table border="1"> <tr><td>Connector No.</td><td>M1</td></tr> <tr><td>Connector Name</td><td>FUSE BLOCK (J/B)</td></tr> <tr><td>Connector Type</td><td>HS06FV-M2</td></tr> </table>  <table border="1"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>2A</td><td>G</td><td>-</td></tr> <tr><td>7A</td><td>R</td><td>-</td></tr> </table>	Connector No.	M1	Connector Name	FUSE BLOCK (J/B)	Connector Type	HS06FV-M2	Terminal No.	Color of Wire	Signal Name [Specification]	2A	G	-	7A	R	-	<table border="1"> <tr><td>Connector No.</td><td>M23</td></tr> <tr><td>Connector Name</td><td>TIRE PRESSURE WARNING CHECK SWITCH</td></tr> <tr><td>Connector Type</td><td>TH02FW</td></tr> </table>  <table border="1"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>1</td><td>SB</td><td>-</td></tr> </table>	Connector No.	M23	Connector Name	TIRE PRESSURE WARNING CHECK SWITCH	Connector Type	TH02FW	Terminal No.	Color of Wire	Signal Name [Specification]	1	SB	-																																																
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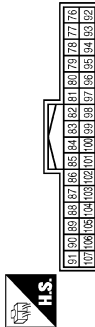
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# TPMS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

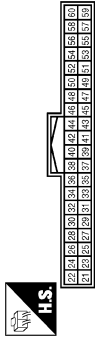
## TIRE PRESSURE MONITORING SYSTEM

Connector No.	M85
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH2FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
86	L	CAN-H
87	P	CAN-L

Connector No.	M87
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH4GFW-NH



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

Connector No.	M88
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH1ZFW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
70	BR	COMM (CONT->DISP)
71	Y	COMM (DISP->CONT)

Connector No.	M86
Connector Name	LOW TIRE PRESSURE WARNING CONTROL UNIT
Connector Type	TH2FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	P	CAN-L
2	L	CAN-H
3	O	RR TUNER(SIG)
4	L	RL TUNER(SIG)
5	R	FR TUNER(SIG)
6	P	FL TUNER(SIG)
7	SB	RR TUNER (VCC)
8	R	RL TUNER (VCC)
9	GR	FR TUNER (VCC)
10	G	FL TUNER (VCC)
12	SB	SW

15	Y	IGN
19	W	RR TUNER(RSSI)
20	BR	RL TUNER(RSSI)
21	LG	FR TUNER(RSSI)
22	V	FL TUNER(RSSI)
23	B	RR TUNER (GND)
24	Y	RL TUNER (GND)
25	W	FR TUNER (GND)
26	P	FL TUNER (GND)
30	LG	BGM FLASHER GND
32	B	GND

Connector No.	MT17
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
83	O	-
84	W	-
85	SB	-
86	B	-

Connector No.	MT18
Connector Name	ECM (BODY CONTROL MODULE)
Connector Type	MD3FB-1C



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	BAT (F/L)

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# TPMS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

## TIRE PRESSURE MONITORING SYSTEM

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	HS16FW-CS



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

Terminal No.	Color of Wire	Signal Name [Specification]
11	R	BAT (FUSE)
13	B	GND

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH4GF-B-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H
110	G	HAZARD SW

JCEWM0036GB

INFOID:000000003932151

## DTC Inspection Priority Chart

When multiple DTCs are detected simultaneously, check one by one as per on the following priority list.

# TPMS CONTROL UNIT

## < ECU DIAGNOSIS INFORMATION >

Priority	Detection items
1	<ul style="list-style-type: none"> <li>• U1000 CAN COMM CIRCUIT</li> <li>• U1010 CONTROL UNIT (CAN)</li> </ul>
2	<ul style="list-style-type: none"> <li>• C1704 LOW PRESSURE FL</li> <li>• C1705 LOW PRESSURE FR</li> <li>• C1706 LOW PRESSURE RR</li> <li>• C1707 LOW PRESSURE RL</li> </ul>
3	<ul style="list-style-type: none"> <li>• C1755 PR RECEIV COND FL</li> <li>• C1756 PR RECEIV COND FR</li> <li>• C1757 PR RECEIV COND RR</li> <li>• C1758 PR RECEIV COND RL</li> </ul>
4	<ul style="list-style-type: none"> <li>• C1708 [NO DATA] FL</li> <li>• C1709 [NO DATA] FR</li> <li>• C1710 [NO DATA] RR</li> <li>• C1711 [NO DATA] RL</li> </ul>
5	<ul style="list-style-type: none"> <li>• C1716 [PRESSDATA ERR] FL</li> <li>• C1717 [PRESSDATA ERR] FR</li> <li>• C1718 [PRESSDATA ERR] RR</li> <li>• C1719 [PRESSDATA ERR] RL</li> </ul>
6	<ul style="list-style-type: none"> <li>• C1720 [CODE ERR] FL</li> <li>• C1721 [CODE ERR] FR</li> <li>• C1722 [CODE ERR] RR</li> <li>• C1723 [CODE ERR] RL</li> </ul>
7	C1728 RECEIVER ID NO REG
8	C1729 VHCL SPEED SIG ERR
9	<ul style="list-style-type: none"> <li>• C1750 [RECEIVER ERR] FL</li> <li>• C1751 [RECEIVER ERR] FR</li> <li>• C1752 [RECEIVER ERR] RR</li> <li>• C1753 [RECEIVER ERR] RL</li> </ul>
10	C1754 CONT UNIT (EEPROM)

A  
B  
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WT  
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## DTC Index

INFOID:000000003932152

DTC	Display Item	Reference
C1704	LOW PRESSURE FL	<a href="#">WT-14</a>
C1705	LOW PRESSURE FR	
C1706	LOW PRESSURE RR	
C1707	LOW PRESSURE RL	
C1708	[NO DATA] FL	<a href="#">WT-16</a>
C1709	[NO DATA] FR	
C1710	[NO DATA] RR	
C1711	[NO DATA] RL	<a href="#">WT-20</a>
C1716	[PRESSDATA ERR] FL	
C1717	[PRESSDATA ERR] FR	
C1718	[PRESSDATA ERR] RR	
C1719	[PRESSDATA ERR] RL	<a href="#">WT-22</a>
C1720	[CODE ERR] FL	
C1721	[CODE ERR] FR	
C1722	[CODE ERR] RR	
C1723	[CODE ERR] RL	<a href="#">WT-26</a>
C1728	RECEIVER ID NO REG	

K  
L  
M  
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## TPMS CONTROL UNIT

### < ECU DIAGNOSIS INFORMATION >

DTC	Display Item	Reference
C1729	VHCL SPEED SIG ERR	<a href="#">WT-29</a>
C1750	[RECEIVER ERR] FL	<a href="#">WT-30</a>
C1751	[RECEIVER ERR] FR	
C1752	[RECEIVER ERR] RR	
C1753	[RECEIVER ERR] RL	
C1754	CONT UNIT (EEPROM)	<a href="#">WT-32</a>
C1755	PR RECEIV COND FL	<a href="#">WT-35</a>
C1756	PR RECEIV COND FR	
C1757	PR RECEIV COND RR	
C1758	PR RECEIV COND RL	
U1000	CAN COMM CIRCUIT	<a href="#">WT-37</a>
U1010	CONTROL UNIT (CAN)	<a href="#">WT-38</a>

# TPMS

< SYMPTOM DIAGNOSIS >

## SYMPTOM DIAGNOSIS

TPMS

Symptom Table

INFOID:000000004052730

LOW TIRE PRESSURE WARNING LAMP SYMPTOM CHART

A

B

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**WT**

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P

# TPMS


## < SYMPTOM DIAGNOSIS >

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-6. "TRANSMITTER WAKE UP OPERATION : Transmitter Wake-up Procedure"</a> .
	The low tire pressure warning lamp blinks once.	 Blinks 1 time ON 0.3 sec > OFF 1.3 sec <small>SEIA0594E</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-6. "TRANSMITTER WAKE UP OPERATION : Transmitter Wake-up Procedure"</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-6. "TRANSMITTER WAKE UP OPERATION : Transmitter Wake-up Procedure"</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-6. "TRANSMITTER WAKE UP OPERATION : Transmitter Wake-up Procedure"</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-6. "TRANSMITTER WAKE UP OPERATION : Transmitter Wake-up Procedure"</a> .
	The low tire pressure warning lamp turns ON and stays illuminated.	 Comes ON and stays ON <small>SEIA0598E</small>	Low tire pressure	Check with CONSULT-III the tire pressure values. Refer to <a href="#">WT-6. "TRANSMITTER WAKE UP OPERATION : Transmitter Wake-up Procedure"</a> .



# TPMS

## < SYMPTOM DIAGNOSIS >

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 repair 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-12, "CONSULT-III Function"</a>.</li> <li>If necessary, perform transmitter ID registration. Refer to <a href="#">WT-7, "ID REGISTRATION PROCEDURE : Transmitter ID Registration Procedure"</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 >

---

## LOW TIRE PRESSURE WARNING LAMP DOES NOT TURN ON

### Description

INFOID:000000003939807

The low tire pressure warning lamp does not illuminate when the ignition switch is turned ON.

### Diagnosis Procedure

INFOID:000000003939808

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

---

Perform trouble diagnosis of the low tire pressure warning lamp. Refer to [WT-43, "Diagnosis Procedure"](#).

Is the inspection result normal?

- YES >> Check pin terminals for damage or loose connection with harness connector. If any items are damaged, repair or replace error-detected parts.
- NO >> Repair or replace error-detected parts.

# LOW TIRE PRESSURE WARNING LAMP DOES NOT TURN OFF

< SYMPTOM DIAGNOSIS >

## LOW TIRE PRESSURE WARNING LAMP DOES NOT TURN OFF

### Description

INFOID:000000003939899

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

### Diagnosis Procedure

INFOID:000000003939900

#### 1.CHECK TPMS

Check the low tire pressure warning lamp for illumination.

Is the low tire pressure warning lamp illuminated?

- YES >> Check the power supply and ground circuit. Refer to [WT-39. "Diagnosis Procedure"](#).
- NO >> GO TO 2.

#### 2.CHECK ID REGISTRATION

 With CONSULT-III

Perform low tire pressure warning control unit self-diagnosis.

Is malfunction detected?

- YES >> Check malfunctioning circuit.
- NO >> GO TO 3.

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

Perform trouble diagnosis of the low tire pressure warning lamp. Refer to [WT-43. "Diagnosis Procedure"](#).

Is the inspection result normal?

- YES >> Check pin terminals for damage or loose connection with harness connector.
- NO >> Repair or replace error-detected parts.

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WT

# LOW TIRE PRESSURE WARNING LAMP BLINKS

< SYMPTOM DIAGNOSIS >

## LOW TIRE PRESSURE WARNING LAMP BLINKS

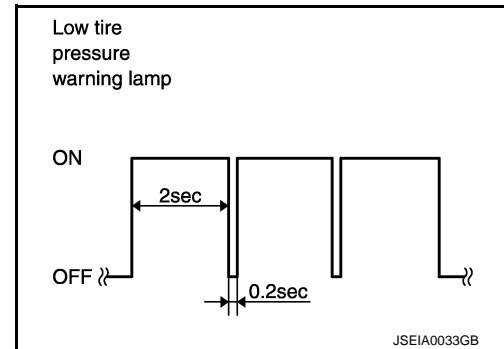
### Description

INFOID:000000004052731

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

#### Blinking mode

When the low tire pressure warning lamp blinks as shown in the figure, the transmitter is not waked up. Perform the transmitter wake-up operation. Refer to [WT-6. "TRANSMITTER WAKE UP OPERATION : Transmitter Wake-up Procedure"](#).



### Diagnosis Procedure

INFOID:000000003941769

#### 1. CHECK POWER OF TIRE PRESSURE WARNING CHECK SWITCH CONNECTOR

1. Turn the ignition switch ON.
2. Check the voltage between the tire pressure warning check switch and the ground.

Tire pressure warning check switch		—	Voltage
Connector	Terminal		
M23	1	Ground	7.6 - 14.6 V

Is the output voltage normal?

YES >> Repair or replace the low tire pressure warning control unit. Or, replace the low tire pressure warning control unit.

NO >> GO TO 2.

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

1. Turn the ignition switch OFF.
2. Disconnect the low tire pressure warning control unit harness connector.
3. Check the continuity between the terminals of the low tire pressure warning control unit harness connector and the tire pressure warning check switch the connector.

Low tire pressure warning control unit		Tire pressure warning check switch		Continuity
Connector	Terminal	Connector	Terminal	
M96	12	M23	1	Existed

4. Check the continuity between the low tire pressure warning control unit harness connector and the ground.

Low tire pressure warning control unit		—	Continuity
Connector	Terminal		
M96	12	Ground	Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace error-detected parts.

#### 3. CHECK LOW TIRE PRESSURE WARNING CONTROL UNIT

Check the input/output signals of the low tire pressure warning control unit. Refer to [WT-45. "Reference Value"](#).

Is the inspection result normal?

# LOW TIRE PRESSURE WARNING LAMP BLINKS

## < SYMPTOM DIAGNOSIS >

---

YES >> Replace the low tire pressure warning control unit.

NO >> GO TO 4.

A

## 4.CHECK LOW TIRE PRESSURE WARNING CONTROL UNIT HARNESS CONNECTOR

---

Check for looseness or damage at the harness connector pins of the low tire pressure warning control unit.

B

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace error-detected parts.

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# TURN SIGNAL LAMP BLINKS

< SYMPTOM DIAGNOSIS >

## TURN SIGNAL LAMP BLINKS

### Description

INFOID:000000003826846

#### DESCRIPTION

The turn signal lamp blinks when the ignition switch is turned ON.

### Diagnosis Procedure

INFOID:000000003939911

#### 1. CHECK LOW TIRE PRESSURE WARNING CONTROL UNIT

1. Check low tire pressure warning control unit input/output signal. Refer to [WT-45, "Reference Value"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

#### 2. CHECK LOW TIRE PRESSURE WARNING CONTROL UNIT CIRCUIT

Perform self-diagnosis of the low tire pressure warning control unit. Refer to [WT-32, "Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace error-detected parts.

#### 3. CHECK TIRE PRESSURE WARNING CONTROL UNIT AND BCM CIRCUIT

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

Low tire pressure warning control unit		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M96	30	M122	110	Existed

Is the inspection result normal?

YES >> Check the BCM. Refer to [BCS-4, "CONFIGURATION \(BCM\) : Special Repair Requirement"](#).

NO >> Repair or replace error-detected parts.

# ID REGISTRATION CANNOT BE COMPLETED

< SYMPTOM DIAGNOSIS >

## ID REGISTRATION CANNOT BE COMPLETED

### Description

INFOID:000000003826848

### 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:000000003826849

#### 1. CHECK ID REGISTRATION

1. Perform ID registration of all transmitters. Refer to [WT-7, "ID REGISTRATION PROCEDURE : Transmitter ID Registration Procedure"](#).
2. Drive at a speed of 40 km/h (25 MPH) or more for 3 minutes, and then drive the vehicle at any speed for 10 minutes.
3. Check all tire pressures with CONSULT-III "DATA MONITOR" within 5 minutes.

Monitored item	Condition	Display value
AIR PRESS FL	Start the engine and drive at a speed of 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		

Is the inspection result normal?

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

#### 2. CHECK TRANSMITTER

1. Perform trouble diagnosis for transmitters. Refer to [WT-16, "Diagnosis Procedure"](#).
2. Perform ID registration of all transmitters. Refer to [WT-7, "ID REGISTRATION PROCEDURE : Transmitter ID Registration Procedure"](#).

Can ID registration of all transmitters be completed?

- YES >> INSPECTION END  
NO >> Replace the transmitter. Refer to [WT-73, "Exploded View"](#).

# NORMAL OPERATING CONDITION

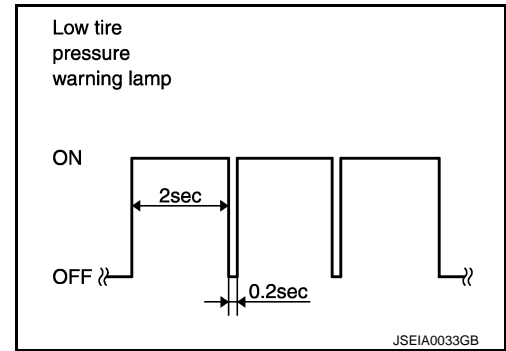
< SYMPTOM DIAGNOSIS >

## NORMAL OPERATING CONDITION

### Description

INFOID:000000004052740

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 : Transmitter Wake-up Procedure"](#).





# NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

< SYMPTOM DIAGNOSIS >

## NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

### NVH Troubleshooting Chart

INFOID:000000003826851

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

Symptom		Reference page		Possible cause and SUSPECTED PARTS																
		2WD models: <a href="#">FSU-9</a> , <a href="#">FSU-7</a>	AWD models: <a href="#">FSU-27</a> , <a href="#">FSU-25</a>	<a href="#">WT-68, "Inspection"</a>	<a href="#">WT-69, "Adjustment"</a>	<a href="#">WT-76, "Tire Air Pressure"</a>	<a href="#">WT-69, "Adjustment"</a>	—	—	<a href="#">WT-76, "Tire Air Pressure"</a>	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 FAX, RAX section.	NVH in BR section.	NVH in ST section.	
Symptom	TIRES	Noise	x	x	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	x	x	x	
		Vibration				x				x	x		x	x						x
		Shimmy	x	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	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	x
		Shimmy, Judder	x	x	x				x				x	x	x			x	x	x
		Poor quality ride or handling	x	x	x				x				x	x	x					

x: Applicable

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WT

# PRECAUTIONS

< PRECAUTION >

## PRECAUTION

### PRECAUTIONS

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

INFOID:000000004068292

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:000000003826852

- Low tire pressure warning lamp blinks for 1min, then turns ON when occurring any malfunction except low tire pressure. Erase the memory with CONSULT-III, or register the ID to turn low tire pressure warning lamp OFF. Refer to [WT-11. "Diagnosis Description"](#), [WT-7. "ID REGISTRATION PROCEDURE : Transmitter ID Registration Procedure"](#).
- ID registration is required when replacing or rotating wheels, replacing transmitter or low tire pressure warning control unit. Refer to [WT-72. "Exploded View"](#).
- Replace grommet seal, valve core and cap of transmitter in TPMS, when replacing each tire by reaching the wear limit. Refer to [WT-73. "Exploded View"](#).

# PREPARATION

< PREPARATION >

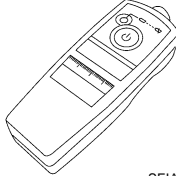
## PREPARATION

### PREPARATION

#### Special Service Tool

INFOID:000000003826853

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

A

B

C

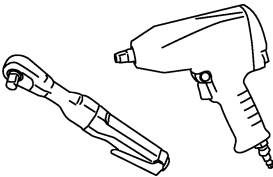
D

WT

F

#### Commercial Service Tool

INFOID:000000003826854

Tool name	Description
Power tool  PBIC0190E	Loosening wheel nuts

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# ROAD WHEEL

< PERIODIC MAINTENANCE >

## PERIODIC MAINTENANCE

### ROAD WHEEL

#### Inspection

INFOID:000000003826855

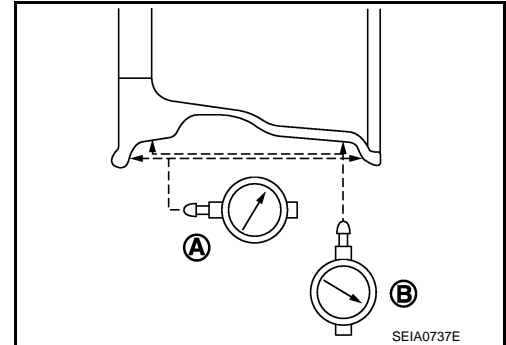
#### ALUMINUM WHEEL

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-76, "Road Wheel"](#).

B: Refer to [WT-76, "Road Wheel"](#).



# ROAD WHEEL TIRE ASSEMBLY

< REMOVAL AND INSTALLATION >

## REMOVAL AND INSTALLATION

### ROAD WHEEL TIRE ASSEMBLY

#### Adjustment

INFOID:000000003826856

#### 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:

- **Never install the inner balance weight before installing the outer balance weight.**
- **Before installing the balance weight, always to clean the mating surface of the road wheel.**

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

##### Calculation example:

$23 \text{ g (0.81 oz)} \times 5/3 = 38.33 \text{ g (1.35 oz)} \Rightarrow 37.5 \text{ g (1.32 oz)}$  balance weight (closer to calculated balance weight value)

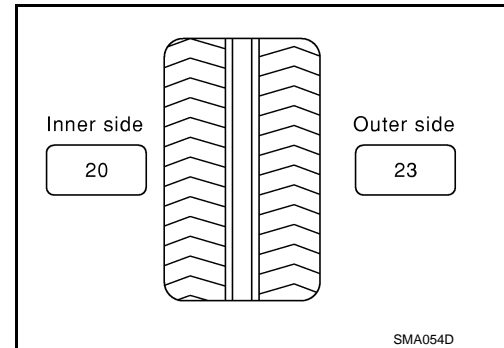
##### NOTE:

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

##### Example:

$36.2 \Rightarrow 35 \text{ g (1.23 oz)}$

$36.3 \Rightarrow 37.5 \text{ g (1.32 oz)}$



- b. Installed balance weight in the position.

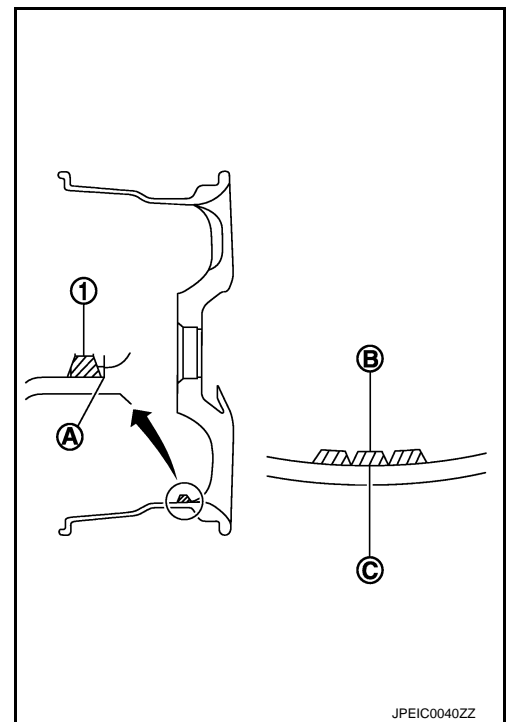
# ROAD WHEEL TIRE ASSEMBLY

## < REMOVAL AND INSTALLATION >

- 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.
- Never install more than three sheets of balance weight.



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- 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:**

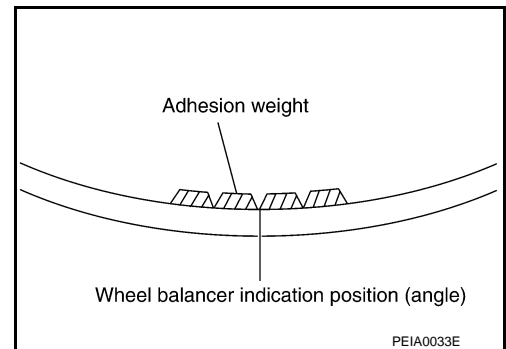
**Never install one balance weight sheet on top of another.**

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

**CAUTION:**

**Never install more than two balance weight.**

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



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**Limit**

**Dynamic (At flange):** Refer to [WT-76, "Road Wheel"](#).

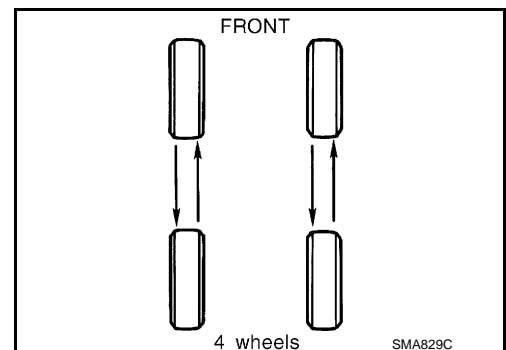
**Static (At flange):** Refer to [WT-76, "Road Wheel"](#).

## TIRE ROTATION

- Follow the maintenance schedule for tire rotation service intervals. Refer to [MA-5, "Explanation of General Maintenance"](#).
- When installing the wheel, tighten wheel nuts to the specified torque.

**CAUTION:**

- Never 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.



4 wheels

SMA829C

**Wheel nuts tightening torque :** Refer to [WT-76, "Road Wheel"](#).

# ROAD WHEEL TIRE ASSEMBLY

## < REMOVAL AND INSTALLATION >

- Perform the ID registration, after tire rotation. Refer to [WT-7, "ID REGISTRATION PROCEDURE : Transmitter ID Registration Procedure"](#).

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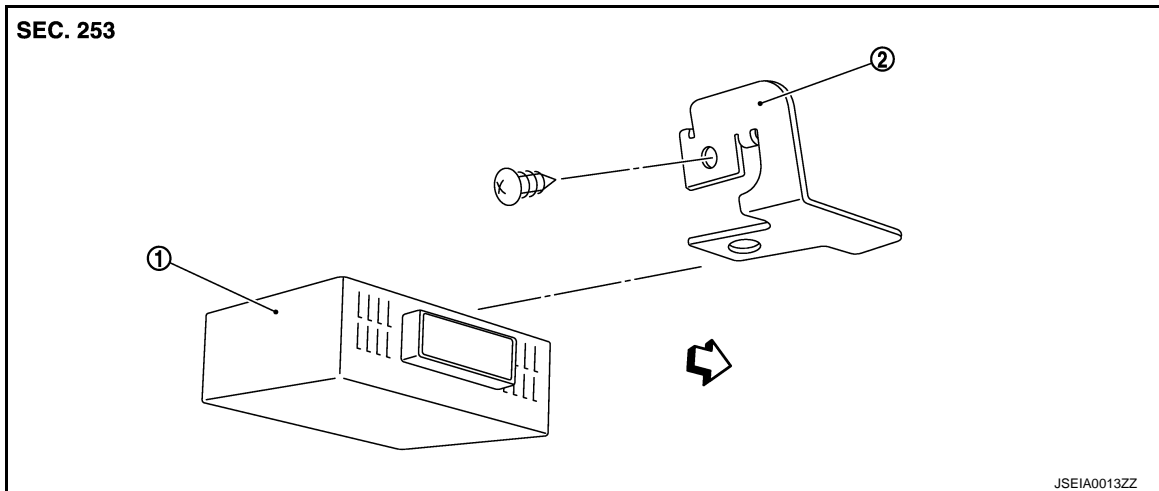
# TPMS CONTROL UNIT

< REMOVAL AND INSTALLATION >

## TPMS CONTROL UNIT

### Exploded View

INFOID:000000003852625



1. Low tire pressure warning control unit 2. Bracket

↶: Vehicle front

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

## Removal and Installation

INFOID:000000003940068

### REMOVAL

1. Remove the glove box assembly. Refer to [IP-11, "Exploded View"](#).
2. Remove the instrument lower panel RH. Refer to [IP-11, "Exploded View"](#).
3. Disconnect low tire pressure warning control unit connector.
4. Remove the low tire pressure warning control unit control unit.

### INSTALLATION

Install in the reverse order of removal.

- Perform ID registration after replacing low tire pressure warning control unit. Refer to [WT-7, "ID REGISTRATION PROCEDURE : Transmitter ID Registration Procedure"](#).



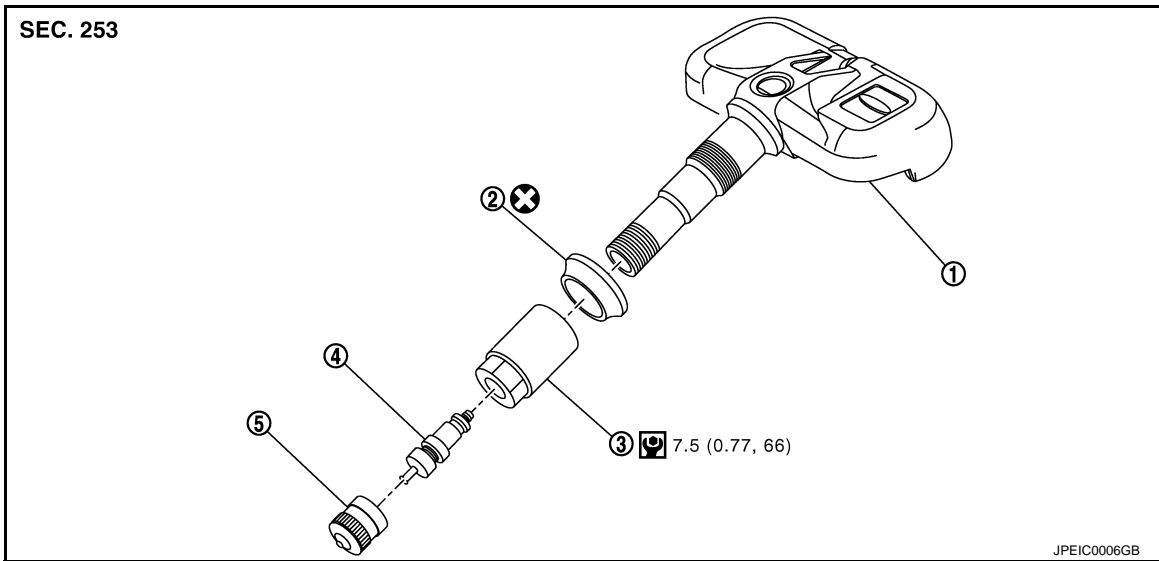
# TRANSMITTER

< REMOVAL AND INSTALLATION >

## TRANSMITTER

### Exploded View

INFOID:000000003826857



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

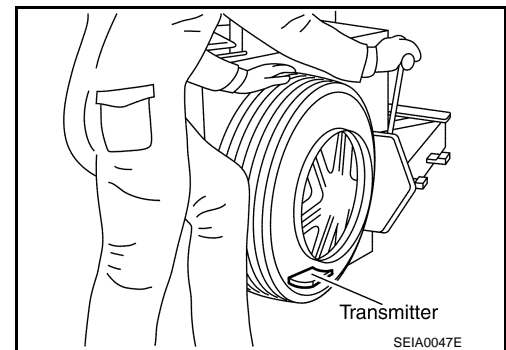
Refer to [GI-4, "Components"](#) for symbols in figure.

### Removal and Installation

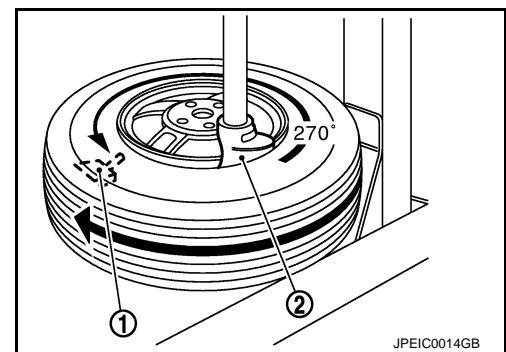
INFOID:000000003826858

#### 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.



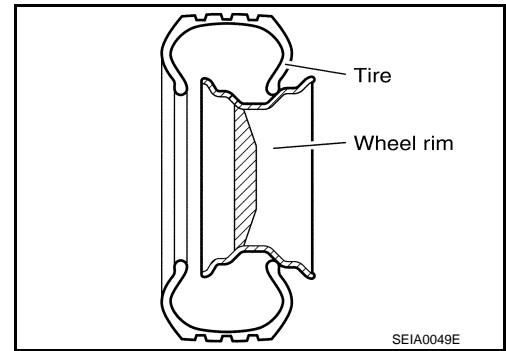
#### INSTALLATION

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# TRANSMITTER

## < REMOVAL AND INSTALLATION >

1. Put first side of tire onto rim.



2. Mount transmitter on rim and tighten nut.

**CAUTION:**

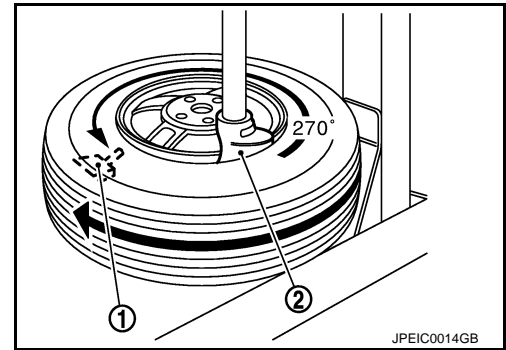
**Speed for tightening nut should be less than 10 rpm.**

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.
6. Perform the transmitter wake-up after replacing transmitter. Refer to [WT-6. "TRANSMITTER WAKE UP OPERATION : Transmitter Wake-up Procedure"](#).

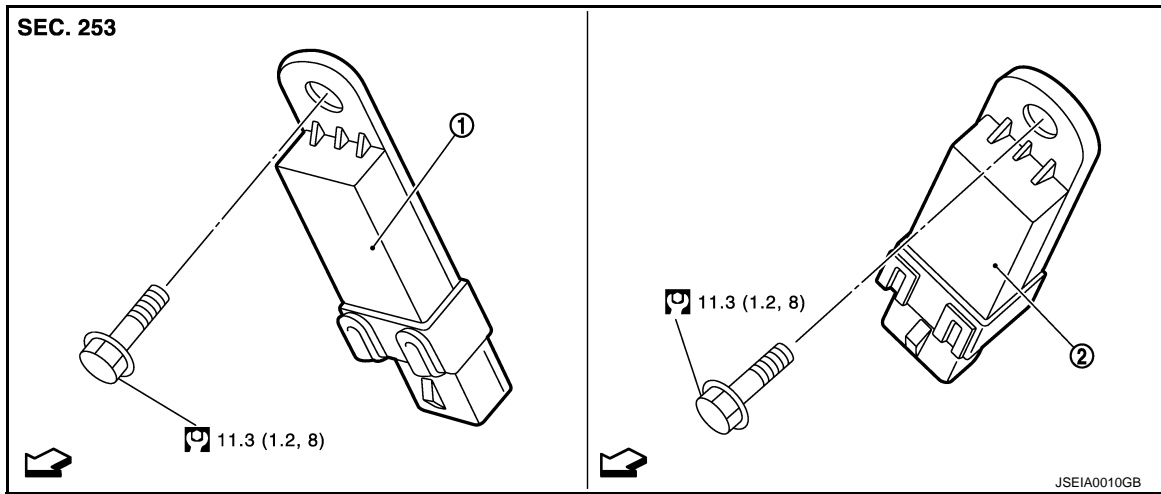


# TIRE PRESSURE RECEIVER

< REMOVAL AND INSTALLATION >

## TIRE PRESSURE RECEIVER

### Exploded View



1. Front tire pressure receiver
2. Rear tire pressure receiver

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

← Vehicle front

## FRONT TIRE PRESSURE RECEIVER

### FRONT TIRE PRESSURE RECEIVER : Removal and Installation

INFOID:000000003940098

#### REMOVAL

1. Remove fender protector (rear). Refer to [EXT-25, "FENDER PROTECTOR : Exploded View"](#).
2. Remove mounting bolt for the front tire pressure receiver.
3. Disconnect front tire pressure receiver harness connector.
4. Remove front tire pressure receiver.

#### INSTALLATION

Installation is the reverse order of removal.

## REAR TIRE PRESSURE RECEIVER

### REAR TIRE PRESSURE RECEIVER : Removal and Installation

INFOID:000000003940110

#### REMOVAL

1. Remove rear wheel house protector. Refer to [EXT-27, "REAR WHEEL HOUSE PROTECTOR : Exploded View"](#).
2. Remove mounting bolt for the rear tire pressure receiver.
3. Disconnect rear tire pressure receiver harness connector.
4. Remove rear tire pressure receiver.

#### INSTALLATION

Installation is the reverse order of removal.

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## SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

## SERVICE DATA AND SPECIFICATIONS (SDS)

### SERVICE DATA AND SPECIFICATIONS (SDS)

#### Road Wheel

INFOID:000000003826861

#### ALUMINUM WHEEL

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)

#### Wheel Nut

INFOID:000000003826862

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

#### Tire Air Pressure

INFOID:000000003826863

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

Item	Standard	
	Front	Rear
P265/60R18 109V	230 (2.3, 33)	
P265/50R20 106V	230 (2.3, 33)	
P265/45R21 104V	230 (2.3, 33)	
265/45R21 104W	230 (2.3, 33)	
T175/90R18	420 (4.2, 60)	