SECTION WT
ROAD WHEELS & TIRES

CONTENTS

PRECAUTION

PRECAUTIONS

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

INFOID:0000000006059489

The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER”, used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted.
Information necessary to service the system safely is included in the “SRS AIR BAG” and “SEAT BELT” of this Service Manual.

WARNING:

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

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

WARNING:

- **When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.**
- **When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.**

Precaution Necessary for Steering Wheel Rotation after Battery Disconnect

INFOID:0000000006059490

NOTE:

- Before removing and installing any control units, first turn the push-button ignition switch to the LOCK position, then disconnect both battery cables.
- After finishing work, confirm that all control unit connectors are connected properly, then re-connect both battery cables.
- Always use CONSULT-III to perform self-diagnosis as a part of each function inspection after finishing work. If a DTC is detected, perform trouble diagnosis according to self-diagnosis results.

For vehicle with steering lock unit, if the battery is disconnected or discharged, the steering wheel will lock and cannot be turned.
If turning the steering wheel is required with the battery disconnected or discharged, follow the operation procedure below before starting the repair operation.

OPERATION PROCEDURE

1. Connect both battery cables.
   NOTE:
   Supply power using jumper cables if battery is discharged.
2. Turn the push-button ignition switch to ACC position.
   (At this time, the steering lock will be released.)
3. Disconnect both battery cables. The steering lock will remain released with both battery cables disconnected and the steering wheel can be turned.
4. Perform the necessary repair operation.

5. When the repair work is completed, re-connect both battery cables. With the brake pedal released, turn the push-button ignition switch from ACC position to ON position, then to LOCK position. (The steering wheel will lock when the push-button ignition switch is turned to LOCK position.)
6. Perform self-diagnosis check of all control units using CONSULT-III.

Service Notice or Precautions for TPMS

INFOID:0000000006059436

- Low tire pressure warning lamp blinks for 1min, then turns ON when occurring any malfunction except low tire pressure. Erase the self-diagnosis memories for low tire pressure warning control unit, or register the ID to turn low tire pressure warning lamp OFF. For ID registration, refer to WT-31, "Work Procedure".
- ID registration is required when replacing or rotating wheels, replacing transmitter or low tire pressure warning control unit. Refer to WT-31, "Work Procedure".
- Replace grommet seal, valve core and cap of transmitter in TPMS, when replacing each tire by reaching the wear limit. Refer to WT-71, "Exploded View".

Service Notice or Precautions for Road Wheel

INFOID:0000000006059437

- Genuine NISSAN aluminum wheel is designed for each type of vehicle. Use it on the specified vehicle only.
- Use Genuine NISSAN parts for the wheel nuts.
- Always use them after adjusting the wheel balance. For the balance weights, use Genuine NISSAN aluminum wheel weights.
- Use caution when handling the aluminum wheels, because they can be easily scratched. When removing dirt, do not use any abrasives, a wire brush, or other items that may scratch the coating. Use a neutral detergent if a detergent is needed.
- After driving on roads scattered with anti-icing salts, wash off the wheels completely.
- When installing road wheels onto the vehicle, always wipe off any dirt or foreign substances to prevent them from being trapped between the contact surfaces of wheel.
- Never apply oil to nut and bolt threads.

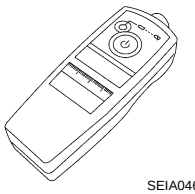
PREPARATION

PREPARATION

Special Service Tools

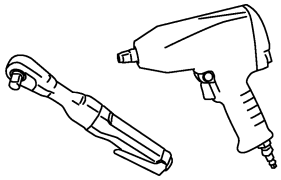
INFOID:0000000006067215

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

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

Commercial Service Tools

INFOID:0000000006067216

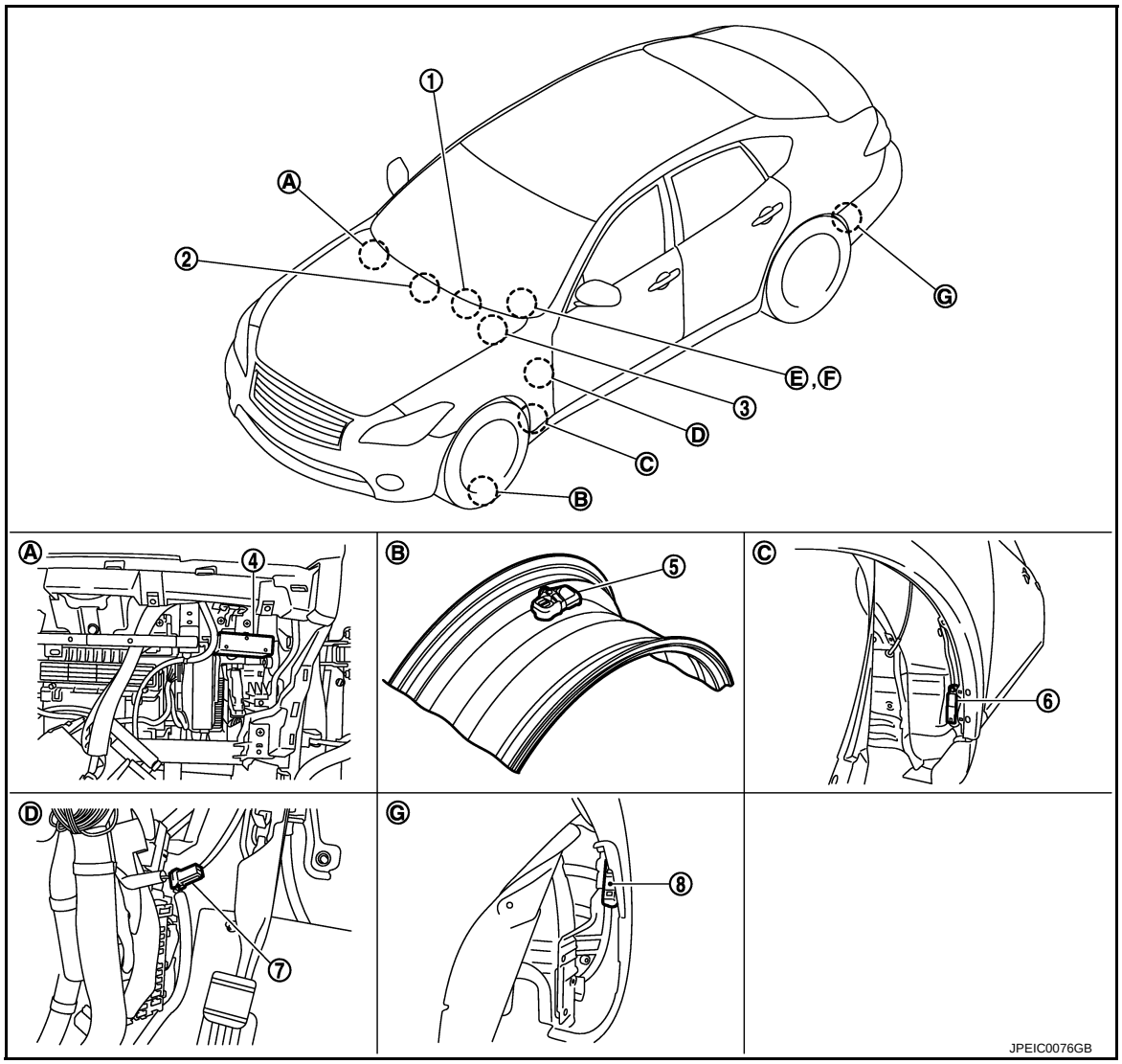
Tool name	Description
Power tool  PBIC0190E	Loosening wheel nuts

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000006067118



1. BCM
   Refer to BCS-4, "BODY CONTROL SYSTEM : Component Parts Location".
2. AV control unit
   Refer to AV-10, "Component Parts Location" (without navigation) or AV-144, "Component Parts Location" (with navigation).
3. ABS actuator and electric unit (control unit)
   Refer to BRC-10, "Component Parts Location".
4. Low tire pressure warning control unit
5. Transmitter
6. Front tire pressure receiver
7. Tire pressure warning check switch
8. Rear tire pressure receiver

A. Glove box assembly removed
B. Wheel
C. Fender protector (rear side)
D. Instrument lower panel LH removed
E. Low tire pressure warning lamp (in combination meter)
F. Buzzer (in combination meter)
G Inside rear wheel house protector

Component Description

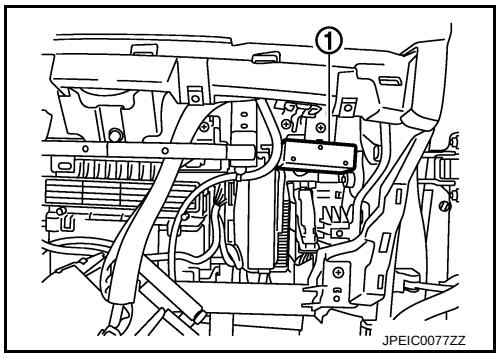
INFOID:0000000006067119

Component parts	Reference/Function
Transmitter	WT-7, "Transmitter"
Tire pressure receiver	WT-8, "Tire Pressure Receiver"
Low tire pressure warning control unit	WT-7, "Low Tire Pressure Warning Control Unit"
Low tire pressure warning lamp	WT-8, "Low Tire Pressure Warning Lamp"
Tire pressure warning check switch	WT-8, "Tire Pressure Warning Check Switch"
Combination meter (buzzer)	WCS-6, "WARNING CHIME SYSTEM : System Description"
AV control unit	AV-147, "Component Description"
BCM	BCS-5, "BODY CONTROL SYSTEM : System Description"
ABS actuator and electric unit (control unit)	BRC-11, "Component Description"

Low Tire Pressure Warning Control Unit

INFOID:0000000006067120

- 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).

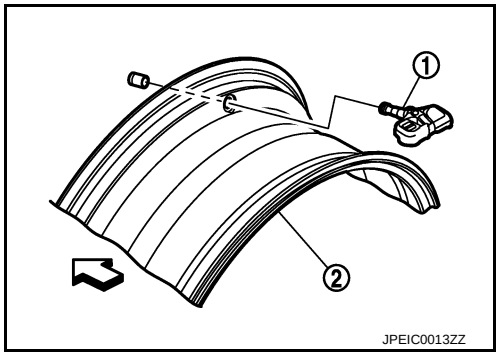


Transmitter

INFOID:0000000006067121

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

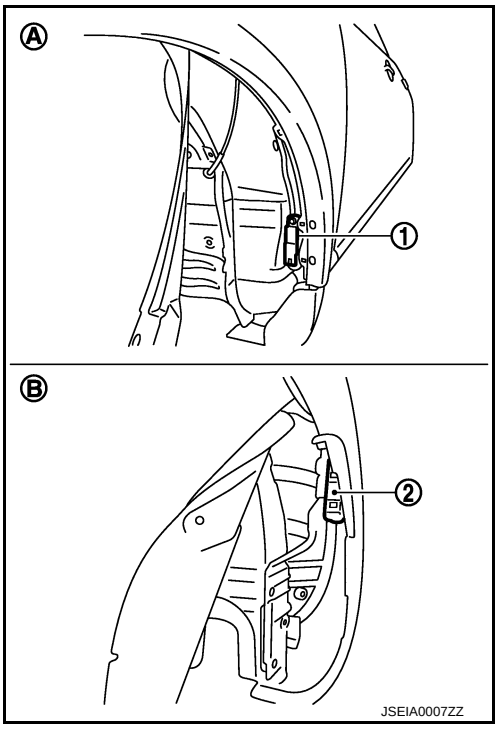


Tire Pressure Receiver

INFOID:0000000006067122

The front tire pressure receiver (1) and rear 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.

A : Front side
B : Rear side



Tire Pressure Warning Check Switch

INFOID:0000000006136415

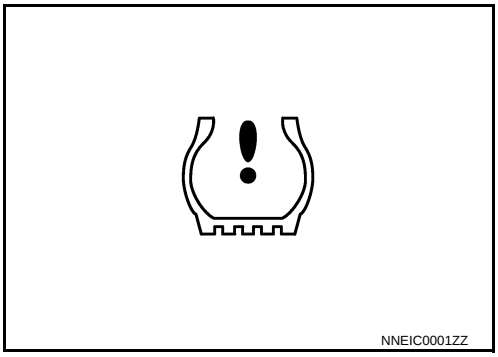
The following item can be checked by grounding the tire pressure warning check switch harness connector terminal.

- The low tire pressure warning lamp in the combination meter will flicker according to the self-diagnostic results.

Low Tire Pressure Warning Lamp

INFOID:0000000006067123

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



Condition	Low tire pressure warning lamp
Ignition switch: OFF	OFF
Ignition switch: ON	Warning lamp turns on for 1second, then turns OFF.
When tire pressure is low*. [Less than 182 kPa (1.86 kg/cm^2, 26.4 psi)]	ON
Tire pressure monitoring system malfunction	Warning lamp blinks 1 minute, then turns ON.

*: Tire pressure at each condition differs.

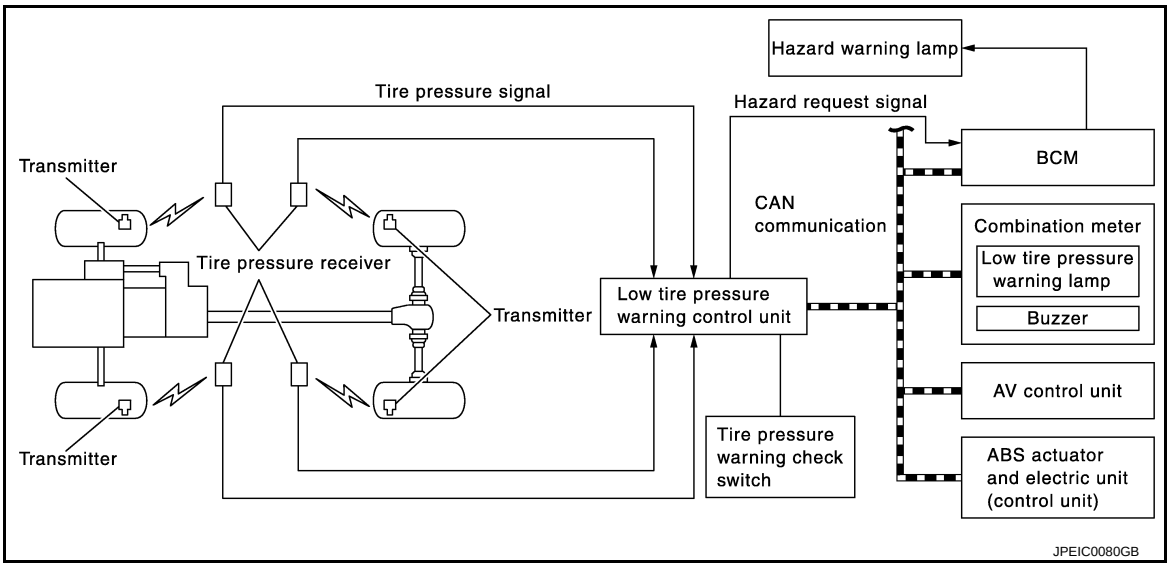
SYSTEM

System Description

INFOID:0000000006067124

- During driving, the TPMS (Tire Pressure Monitoring System) receives the signal transmitted from transmitter installed in each wheel. The low tire pressure warning control unit has pressure judgment and trouble diagnosis functions. When the low tire pressure warning control unit detects low inflation pressure or another unusual symptom, the low tire pressure warning lamps in the combination meter comes on.
- 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.
- Activates the TPMS (Tire Pressure Monitoring System) when the vehicle speed is 40 km/h (25MPH) or more.
- The tire pressure information for each wheel is displayed on the vehicle information display.

SYSTEM DIAGRAM



INPUT/OUTPUT SIGNAL

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

Component parts	Signal item
Low tire pressure warning control unit	Transmits the following signals via CAN communication to BCM. • Low tire pressure warning lamp signal • Buzzer request signal Transmits the following signals via CAN communication to the AV control unit. • Low tire pressure warning lamp signal • Tire pressure data signal
BCM	Transmits the following signals via CAN communication to the combination meter, based on signals from low tire pressure warning control unit. • Low tire pressure warning lamp signal • Buzzer request signal
AV control unit	Receives the following signals via CAN communication from low tire pressure warning control unit. • Low tire pressure warning lamp signal • Tire pressure data signal
ABS actuator and electric unit (control unit)	Transmits the vehicle speed signal (ABS) via CAN communication for low tire pressure warning control unit.

LOW TIRE PRESSURE WARNING LAMP CONTROL CONDITION

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

Condition	Low tire pressure warning lamp
Ignition switch: OFF	OFF
Ignition switch: ON (System normal)	Warning lamp turns on for 1second, then turns OFF.
When tire pressure is low*. [Less than 182 kPa (1.86 kg/cm^2, 26.4 psi)]	ON
Tire pressure monitoring system malfunction	Warning lamp blinks 1 minute, then turns ON.
When performing transmitter wake-up operation	Refer to WT-30, "Work Procedure".

*: Tire pressure at each condition differs.

HAZARD WARNING LAMP CONTROL CONDITION

The low tire pressure warning control unit transmits a hazard request signal to BCM. BCM blinks the hazard warning lamp, according to the signal.
The hazard warning lamp blinks under the following conditions.

Condition of Blinking The Hazard Warning Lamp
- When wake-up of registered wheel has been completed. Refer to WT-30, "Work Procedure".
- When ID registration is completed. Refer to WT-31, "Work Procedure".

BUZZER CONTROL CONDITION

The low tire pressure warning control unit transmits a buzzer request signal to BCM. Based on the signal, BCM sends a command to the combination meter to sound the buzzer.
The buzzer sounds under the following conditions.

Condition of Sounding Buzzer
- When wake-up of registered wheel has been completed. Refer to WT-30, "Work Procedure".

DIAGNOSIS SYSTEM (LOW TIRE PRESSURE WARNING CONTROL UNIT)

On Board Diagnosis Function

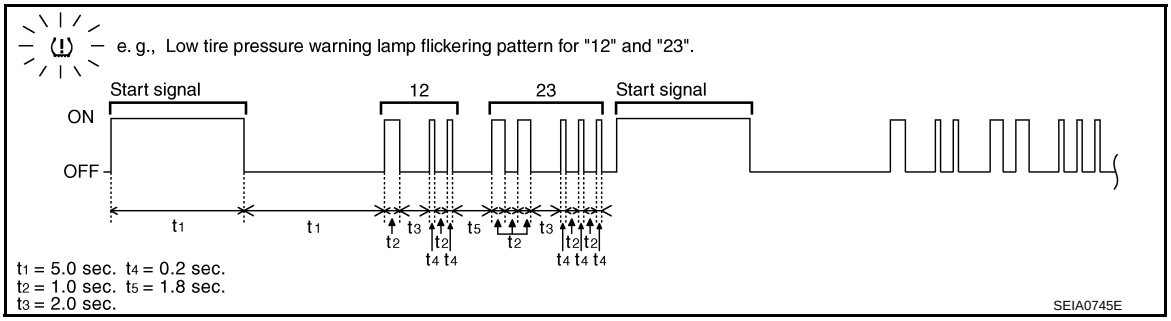
INFOID:0000000006067188

Description

Tire pressure warning check switch is short to body ground, and self-diagnosis can be performed based on blinking pattern of low tire pressure warning lamp.

METHOD OF STARTING

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.

SELF DIAGNOSIS MODE

blinking pattern	Items	Malfunction detected condition	Reference
15	Low tire pressure value (Front LH)	Front LH wheel pressure drops to 182 kPa (1.86 kg/cm^2, 26.4 psi)) or less	WT-33
16	Low tire pressure value (Front RH)	Front RH wheel pressure drops to 182 kPa (1.86 kg/cm^2, 26.4 psi)) or less	
17	Low tire pressure value (Rear RH)	Rear RH wheel pressure drops to 182 kPa (1.86 kg/cm^2, 26.4 psi)) or less	
18	Low tire pressure value (Rear LH)	Rear LH wheel pressure drops to 182 kPa (1.86 kg/cm^2, 26.4 psi)) or less	
21	Transmitter no data (Front LH)	Tire pressure data signal from the front LH wheel transmitter cannot be detected.	WT-35
22	Transmitter no data (Front RH)	Tire pressure data signal from the front RH wheel transmitter cannot be detected.	
23	Transmitter no data (Rear RH)	Tire pressure data signal from the rear RH wheel transmitter cannot be detected.	
24	Transmitter no data (Rear LH)	Tire pressure data signal from the rear LH wheel transmitter cannot be detected.	

blinking pattern	Items	Malfunction detected condition	Reference
35	Transmitter pressure data error (Front LH)	Malfunction in the tire pressure data from the front LH wheel transmitter. **NOTE:** In this case the low tire pressure warning control unit judges that the tire pressure is 438.60 kPa (4.47 kg/cm^2, 63.60 psi).	WT-39
36	Transmitter pressure data error (Front RH)	Malfunction in the tire pressure data from the front RH wheel transmitter. **NOTE:** In this case the low tire pressure warning control unit judges that the tire pressure is 438.60 kPa (4.47 kg/cm^2, 63.60 psi).	
37	Transmitter pressure data error (Rear RH)	Malfunction in the tire pressure data from the rear RH wheel transmitter. **NOTE:** In this case the low tire pressure warning control unit judges that the tire pressure is 438.60 kPa (4.47 kg/cm^2, 63.60 psi).	
38	Transmitter pressure data error (Rear LH)	Malfunction in the tire pressure data from the rear LH wheel transmitter. **NOTE:** In this case the low tire pressure warning control unit judges that the tire pressure is 438.60 kPa (4.47 kg/cm^2, 63.60 psi).	
51	Receiver ID registration not completed	Receiver ID registration cannot be performed.	WT-41
52	Vehicle speed signal error	Vehicle speed signal not detected.	WT-43
54	EEPROM read error	Memory (EEPROM) system malfunction is detected in the low tire pressure warning control unit	WT-47
55	Poor receiving condition (Front LH)	The data signal from the front LH wheel transmitter cannot be detected due to external electromagnetic interference for 10 minutes or more. (DTC C1708 is displayed at the same time.)	WT-49
56	Poor receiving condition (Front RH)	The data signal from the front RH wheel transmitter cannot be detected due to external electromagnetic interference for 10 minutes or more. (DTC C1709 is displayed at the same time.)	
57	Poor receiving condition (Rear RH)	The data signal from the rear RH wheel transmitter cannot be detected due to external electromagnetic interference for 10 minutes or more. (DTC C1710 is displayed at the same time.)	
58	Poor receiving condition (Rear LH)	The data signal from the rear LH wheel transmitter cannot be detected due to external electromagnetic interference for 10 minutes or more. (DTC C1711 is displayed at the same time.)	
No blinking	Tire pressure warning check switch	Tire pressure warning check switch circuit is open.	WT-54

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:0000000006067126

APPLICATION ITEMS

CONSULT-III performs the following functions in combination of data reception, instruction, and transmission via communication lines from low tire pressure warning control unit.

Mode	FUNCTION DESCRIPTION
ECU identification information	Displays the part number of low tire pressure warning control unit.
SELF-DIAGNOSIS RESULTS	Self-diagnosis result can be quickly read.*
DATA MONITOR	Input and output data of low tire pressure warning control unit can be read.
ACTIVE TEST	Sends command to the low tire pressure warning control unit to change output signals and check operation of output system.
WORK SUPPORT	Components can be quickly and accurately adjusted.

*: The following diagnosis information is erased by erasing.

- DTC

ECU IDENTIFICATION

Part number of low tire pressure warning control unit is displayed.

SELF DIAGNOSIS RESULTS

Refer to WT-18, "DTC Index".

DATA MONITOR

Monitor item (Unit)	Remarks
VHCL SPEED SE [(km/h) or (MPH)]	Vehicle speed is displayed.
AIR PRESS FL [(kPa), (kg/cm^2) or (Psi)]	Air pressure of front LH tires is displayed.
AIR PRESS FR [(kPa), (kg/cm^2) or (Psi)]	Air pressure of front RH tires is displayed.
AIR PRESS RR [(kPa), (kg/cm^2) or (Psi)]	Air pressure of rear RH tires is displayed.
AIR PRESS RL [(kPa), (kg/cm^2) or (Psi)]	Air pressure of rear LH tires is displayed.
ID REGST FL1	ID registration status of front LH transmitter is displayed.
ID REGST FR1	ID registration status of front RH transmitter is displayed.
ID REGST RR1	ID registration status of rear RH transmitter is displayed.
ID REGST RL1	ID registration status of rear LH transmitter is displayed.
WARNING LAMP	Control status of low tire pressure warning lamp is displayed.
BUZZER	Control status of combination meter buzzer by low tire pressure warning control unit is displayed.

ACTIVE TEST

NOTE:

After completing the work below, perform an active test.

1. Check ID registration state and perform self-diagnosis.
2. Erase the self-diagnosis result history.

Test item	Condition	Description
BUZZER	• Vehicle stopped • The system is normal	This test is able to check to check that the buzzer operates.
WARN LAMP		This test is able to check to check that the low tire pressure warning lamp turns on.

WORK SUPPORT

Item	Usage
ID REGIST	Use to ID registration. Refer to WT-31, "Work Procedure".

ECU DIAGNOSIS INFORMATION

LOW TIRE PRESSURE WARNING CONTROL UNIT

Reference Value

INFOID:0000000006067127

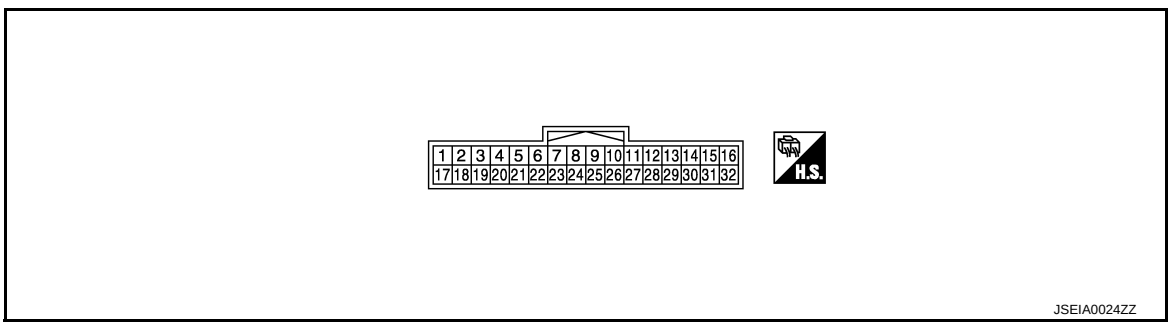
VALUES ON THE DIAGNOSIS TOOL

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	Condition	Value/Status
VHCL SPEED SE	Vehicle stopped	0.00 km/h (0.00 mph)
	Vehicle running **CAUTION:** **Check air pressure of tire under standard condition.**	Approx. equal to the indicationon speedometer (Inside of ±10%)
AIR PRESS FL	Start engine and drive at 40 km/h (25 MPH) or more for 10 minutes.	Approximately equal to the indication on tire gauge value for front LH tire
AIR PRESS FR	Start engine and drive at 40 km/h (25 MPH) or more for 10 minutes.	Approximately equal to the indication on tire gauge value for front RH tire
AIR PRESS RR	Start engine and drive at 40 km/h (25 MPH) or more for 10 minutes.	Approximately equal to the indication on tire gauge value for rear RH tire
AIR PRESS RL	Start engine and drive at 40 km/h (25 MPH) or more for 10 minutes.	Approximately equal to the indication on tire gauge value for rear LH tire
ID REGST FL1	Front LH transmitter ID registered	Done
	Front LH transmitter ID unregistered	Yet
ID REGST FR1	Front RH transmitter ID registered	Done
	Front RH transmitter ID unregistered	Yet
ID REGST RR1	Rear RH transmitter ID registered	Done
	Rear RH transmitter ID unregistered	Yet
ID REGST RL1	Rear LH transmitter ID registered	Done
	Rear LH transmitter ID unregistered	Yet
WARNING LAMP	Low tire pressure warning lamp: ON	On
	Low tire pressure warning lamp: OFF	Off
BUZZER	When buzzer sound heard from combination meter by low tire pressure warning control unit control	On
	When buzzer sound not heard from combination meter by low tire pressure warning control unit control	Off

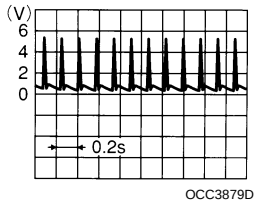
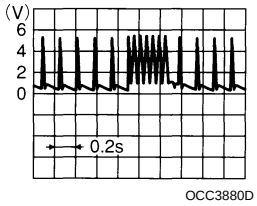
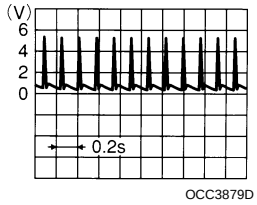
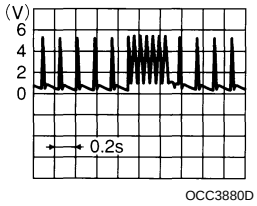
TERMINAL LAYOUT

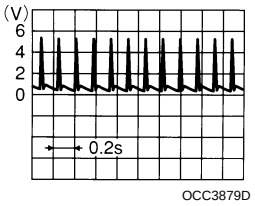
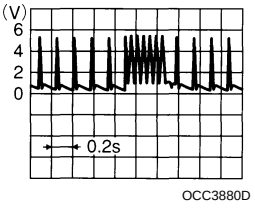
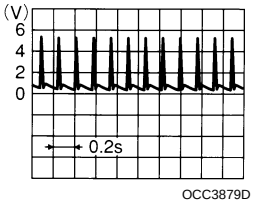
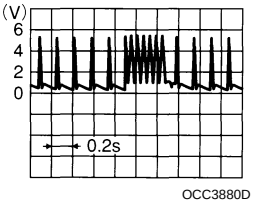


PHYSICAL VALUES

CAUTION:

When using circuit tester to measure voltage for inspection, be sure not to extend forcibly any connector terminals.

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
1 (P)	—	CAN-L	Input/ Output	—		—
2 (L)	—	CAN-H	Input/ Output	—		—
3 (B)	Ground	Tire pressure receiver rear RH signal	Input	Ignition switch ON	Standby status	 OCC3879D Approx. 4.5 V
					When signal is received	 OCC3880D Approx. 4.5 V
4 (B)	Ground	Tire pressure receiver rear LH signal	Input	Ignition switch ON	Standby status	 OCC3879D Approx. 4.5 V
					When signal is received	 OCC3880D Approx. 4.5 V

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
5 (B)	Ground	Tire pressure receiver front RH signal	Input	Ignition switch ON	Standby status	 OCC3879D Approx. 4.5 V
					When signal is received	 OCC3880D Approx. 4.5 V
6 (G)	Ground	Tire pressure receiver front LH signal	Input	Ignition switch ON	Standby status	 OCC3879D Approx. 4.5 V
					When signal is received	 OCC3880D Approx. 4.5 V
7 (R)	Ground	Tire pressure receiver rear RH power supply*	Output	Ignition switch ON		Approx. 7 - 16 V
				Ignition switch OFF		0 V
8 (W)	Ground	Tire pressure receiver rear LH power supply*	Output	Ignition switch ON		Approx. 7 - 16 V
				Ignition switch OFF		0 V
9 (W)	Ground	Tire pressure receiver front RH power supply*	Output	Ignition switch ON		Approx. 7 - 16 V
				Ignition switch OFF		0 V
10 (W)	Ground	Tire pressure receiver front LH power supply*	Output	Ignition switch ON		Approx. 7 - 16 V
				Ignition switch OFF		0 V
12 (W)	Ground	Tire pressure warning check switch	Output	Ignition switch ON		Approx. 7.6 - 14.6 V
				Ignition switch OFF		0 V
15 (Y)	Ground	Power supply	Input	Ignition switch ON		Battery voltage
				Ignition switch OFF		0 V
19 (G)	Ground	Tire pressure receiver rear RH signal (sensitivity)	Input	Ignition switch ON		Approx. 0.7 V
				Ignition switch OFF		0 V

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
		Signal name	Input/ Output		
20 (G)	Ground	Tire pressure receiver rear LH signal (sensitivity)	Input	Ignition switch ON	Approx. 0.7 V
				Ignition switch OFF	0 V
21 (G)	Ground	Tire pressure receiver front RH signal (sensitivity)	Input	Ignition switch ON	Approx. 0.7 V
				Ignition switch OFF	0 V
22 (R)	Ground	Tire pressure receiver front LH signal (sensitivity)	Input	Ignition switch ON	Approx. 0.7 V
				Ignition switch OFF	0 V
23 (W)	Ground	Tire pressure receiver rear RH ground	Input	Always	0 V
24 (R)	Ground	Tire pressure receiver rear LH ground	Input	Always	0 V
25 (R)	Ground	Tire pressure receiver front RH ground	Input	Always	0 V
26 (B)	Ground	Tire pressure receiver front LH ground	Input	Always	0 V
30 (G)	Ground	Hazard warning lamp	Output	Hazard warning lamp switch ON	0 V
				Hazard warning lamp switch OFF	Battery voltage
32 (B)	Ground	Ground	—	Always	0 V

*: Power is supplied to the tire pressure receiver from the low tire pressure warning control unit.

DTC Inspection Priority Chart

INFOID:0000000006067128

If some DTCs are displayed at the same time, perform inspections one by one based on the following priority chart.

Priority	Detected items (DTC)
1	• U1000 CAN COMM CIRCUIT • U1010 CONTROL UNIT (CAN)
2	• C1704 LOW PRESSURE FL • C1705 LOW PRESSURE FR • C1706 LOW PRESSURE RR • C1707 LOW PRESSURE RL
3	• C1755 PR RECEIV COND FL • C1756 PR RECEIV COND FR • C1757 PR RECEIV COND RR • C1758 PR RECEIV COND RL
4	• C1708 [NO DATA] FL • C1709 [NO DATA] FR • C1710 [NO DATA] RR • C1711 [NO DATA] RL
5	• C1716 [PRESSDATA ERR] FL • C1717 [PRESSDATA ERR] FR • C1718 [PRESSDATA ERR] RR • C1719 [PRESSDATA ERR] RL
7	• C1728 RECEIVER ID NO REG
8	• C1729 VHCL SPEED SIG ERR
9	• C1750 [RECEIVER ERR] FL • C1751 [RECEIVER ERR] FR • C1752 [RECEIVER ERR] RR • C1753 [RECEIVER ERR] RL
10	• C1754 CONT UNIT (EEPROM)

DTC Index

INFOID:0000000006067129

DTC	Items (CONSULT-III screen terms)	Reference
C1704	LOW PRESSURE FL	WT-33, "DTC Logic"
C1705	LOW PRESSURE FR	
C1706	LOW PRESSURE RR	
C1707	LOW PRESSURE RL	
C1708	[NO DATA] FL	WT-35, "DTC Logic"
C1709	[NO DATA] FR	
C1710	[NO DATA] RR	
C1711	[NO DATA] RL	
C1716	[PRESSDATA ERR] FL	WT-39, "DTC Logic"
C1717	[PRESSDATA ERR] FR	
C1718	[PRESSDATA ERR] RR	
C1719	[PRESSDATA ERR] RL	
C1728	RECEIVER ID NO REG	WT-41, "DTC Logic"
C1729	VHCL SPEED SIG ERR	WT-43, "DTC Logic"
C1750	[RECEIVER ERR] FL	WT-44, "DTC Logic"
C1751	[RECEIVER ERR] FR	
C1752	[RECEIVER ERR] RR	
C1753	[RECEIVER ERR] RL	
C1754	CONT UNIT (EEPROM)	WT-47, "DTC Logic"
C1755	PR RECEIV COND FL	WT-49, "DTC Logic"
C1756	PR RECEIV COND FR	
C1757	PR RECEIV COND RR	
C1758	PR RECEIV COND RL	
U1000	CAN COMM CIRCUIT	WT-51, "DTC Logic"
U1010	CONTROL UNIT (CAN)	WT-52, "DTC Logic"

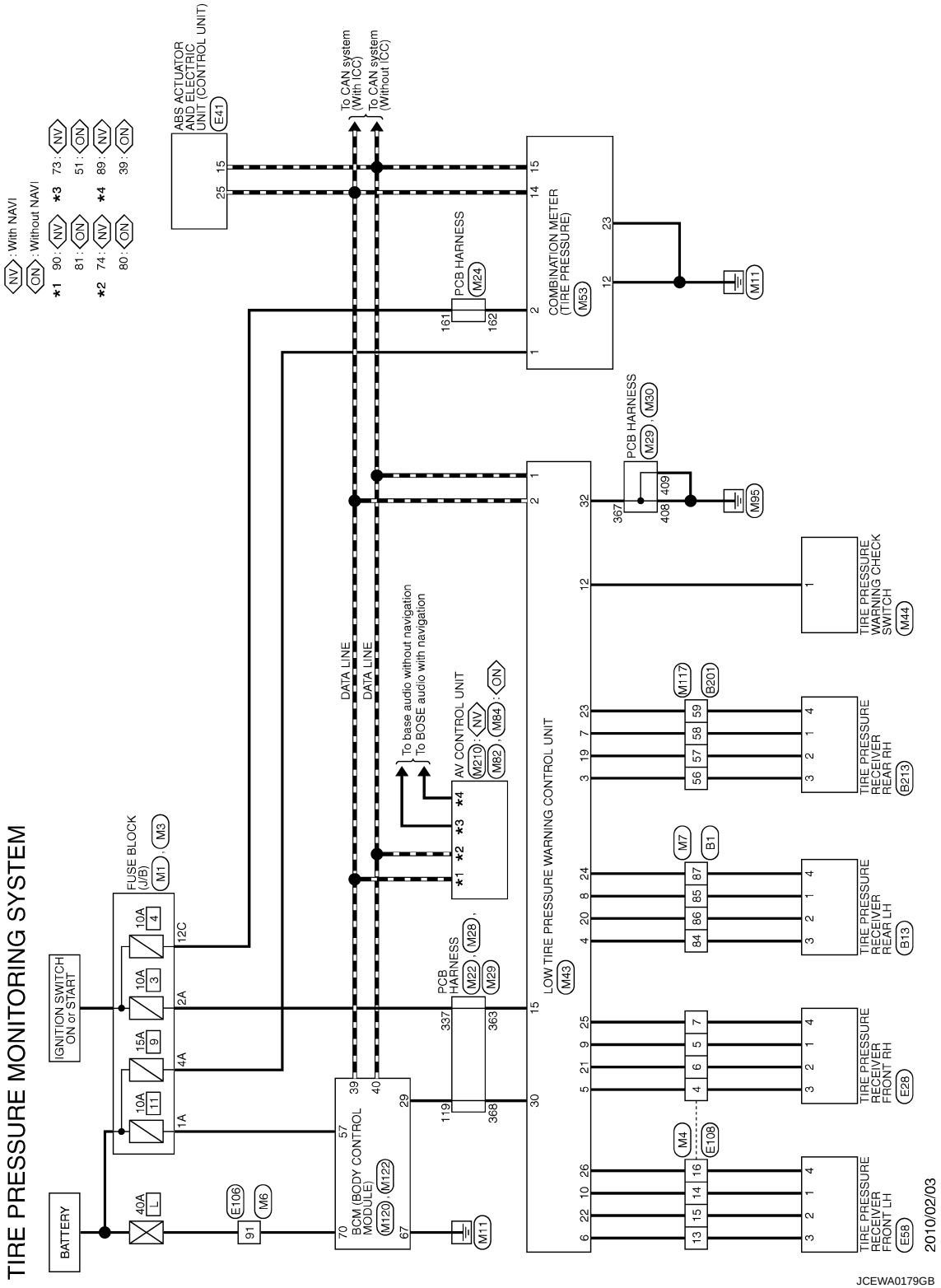
NOTE:
If some DTCs are displayed at the same time, refer to WT-17, "DTC Inspection Priority Chart".

WIRING DIAGRAM

TIRE PRESSURE MONITORING SYSTEM

Wiring Diagram

INFOID:0000000006067130



TIRE PRESSURE MONITORING SYSTEM

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	–
2	W	–
4	LG	–
5	P	–
6	V	–
7	GR	–
8	Y	–
9	LG	–
10	V	–
11	GR	– [With Climate controlled seat]
11	L	– [With heated seat]
12	P	– [With Climate controlled seat]
12	GR	– [With heated seat]
13	BR	–
14	R	–
15	O	–
16	V	–
17	B	–
18	R	–
19	W	–
20	R	–
21	B	–
22	LG	–
23	V	–
24	Y	–
25	G	–
26	GR	–
27	SB	–
28	P	– [With Pre-crash seat belt system]
28	L/O	– [Without Pre-crash seat belt system]
29	L	– [With Pre-crash seat belt system]
29	W/L	– [Without Pre-crash seat belt system]
30	SHIELD	–
32	L	–
33	R	–
34	L	–
35	R	–
36	G	–
37	SB	–
40	SHIELD	–
41	GR/V	–
42	W/L	–
45	W	–
47	O	–
48	Y	–
49	BR	–
50	SB	–
51	V	–
52	LG	–
53	G	–
56	P	–
57	BR	–
58	LG	–
59	Y	–
60	W	–
61	B	–
62	LG	–
63	BR	– [With ICC and 4WAS system]
63	V	– [Without ICC and 4WAS system]
65	O	–
66	BR	–
67	V	–
68	LG	–
69	GR	–
70	R	–
72	L	–
73	P	–
74	L	–
75	P	–
76	Y	–
77	R	–
78	W	–
79	G	–
81	LG	–
82	BR	–
83	SB	–
84	Y	–
85	W	–
86	R	–
87	G	–
88	GR	–
91	SB	–
92	G	–
96	Y	–
97	O	–
98	SB	–
99	LG	–

Connector No.	B13
Connector Name	TIRE PRESSURE RECEIVER REAR LH
Connector Type	RH04FB

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	VCC
2	R	RSSI
3	Y	SIG
4	G	GND

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
3	R	–
17	GR	–
18	P	–
19	BR	–
20	GR	–
21	Y	–
22	GR	–
23	R	–
24	V	–
25	B	–
26	W	–
27	O	–
28	V	–
29	P	–
30	O	–
31	B/R	–
32	Y	–
40	SHIELD	–
41	W/R	–
42	V	–
44	P	–
45	SB	–
46	R	– [With Climate controlled seat]
46	Y	– [With heated seat]
47	G	– [With Climate controlled seat]
47	GR	– [With heated seat]
48	V	–
49	O	–
50	R	–
51	GR	–
52	LG	–
53	P	–
56	P	–
57	W	–
58	O	–
59	Y	–
61	SB	–
62	L	–
63	W	–
66	L	–
67	Y	–
68	SB	–
69	B	–
70	R	–
76	SHIELD	–
77	G	–
78	R	–
79	P	–
80	G	–
81	P	–
82	BR	–
83	GR	–
84	V	–
85	LG	–
86	W	–
87	O	–
88	Y	–
89	BR	–
90	L	–
91	BR	–
93	Y	– [With Climate controlled seat]
93	O	– [With heated seat]
94	GR	–
96	W	–
97	P	–
98	LG	–
99	LG	–
100	Y	–

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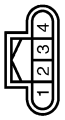
TIRE PRESSURE MONITORING SYSTEM

Connector No.	B213
Connector Name	TIRE PRESSURE RECEIVER REAR RH
Connector Type	RH04FB

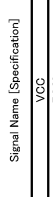


Terminal No.	Color of Wire	Signal Name [Specification]
1	O	VCC
2	W	RSSI
3	P	SIG
4	Y	GND

Connector No.	E28
Connector Name	TIRE PRESSURE RECEIVER FRONT RH
Connector Type	RH04FB

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	VCC
2	G	RSSI
3	GR	SIG
4	R	GND

Connector No.	E41
Connector Name	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)
Connector Type	SAZ30FB-SJZ4-U

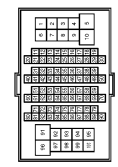


Terminal No.	Color of Wire	Signal Name [Specification]
1	B/W	ECU(GND)
2	B	MOTOR(GND)
3	Y	SOLENOID(POWER)
4	G	MOTOR(POWER)
5	SB	STOP LAMP SW
6	Y	CANM2(–)
7	W	Rr–LH SEN(SIGNAL)
8	G	Rr–LH SEN(POWER)
9	BR	Fr–RH SEN(SIGNAL)
10	B	Fr–RH SEN(POWER)
13	LG	VAC SEN(SIGNAL)
15	P	CAN–L
16	B	CANM2(+)
17	Y	Rr–RH SEN(SIGNAL)
18	BR	Rr–RH SEN(POWER)
19	SB	Fr–LH SEN(SIGNAL)
20	O	Fr–LH SEN(POWER)
25	L	CAN–H
28	V	VAC SEN(POWER)
30	R	VDC OFF SW
32	SHIELD	VAC SEN(GND)
34	G	IGN(POWER)

Connector No.	E58
Connector Name	TIRE PRESSURE RECEIVER FRONT LH
Connector Type	RH04FB

Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	VCC
2	O	RSSI
3	V	SIG
4	B	GND

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



Terminal No.	Color of Wire	Signal Name [Specification]
1	P	–
2	W	–
3	SB	–
4	LG	–
5	O	–
7	GR	–
8	G	–
9	Y	–
10	BR	–
11	SB	–
12	V	–
13	GR	–
14	GR	–
15	V	–
16	Y	–
17	GR	–
18	V	–
20	BR	–
21	P	–
22	L	–
23	P	–
27	SHIELD	–
28	L/O	–
29	W/L	–
31	BR	–
32	G	–
33	O	–
34	Y	–
40	BR	–
41	BR	–
42	L	–
43	P	–
44	W	–
45	L	–
46	GR	–
47	V	–
48	G	–
49	O	–
50	LG	–
60	W	–
61	G	–
62	Y	–
63	BR	–
64	B	–
65	Y	–
66	R	–
67	SB	–
77	O	–
78	SB	–
80	G	–
81	R	–
82	SB	–
83	GR	–
84	Y	–
85	Y	–
86	L	–
87	V	–
88	BR	–
89	LG	–
90	W	–
91	W	–
92	P	–
93	LG	–
94	BR	–
95	W	–
96	R	–
97	R	–
98	Y	–
99	V	–
100	V	–

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TIRE PRESSURE MONITORING SYSTEM

Connector No.	E108
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
4	GR	–
5	W	–
6	G	–
7	R	–
13	V	–
14	SB	–
15	O	–
16	B	–

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

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
6C	R	–
7C	B	–
9C	L	–
10C	LG	–
11C	LG	–
12C	BG	–

Connector No.	M4
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
4	B	–
5	W	–
6	G	–
7	R	–
13	G	–
14	W	–
15	R	–
16	B	–

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

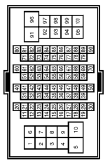
H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
1A	R	–
2A	W	–
3A	Y	–
4A	W	–
5A	V	–
6A	Y	–
8A	Y	–

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

H.S.



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	W	–
3	SB	–
4	LG	–
5	W	–
7	BG	–
8	G	–
9	Y	–
10	W	–
11	R	–
12	V	–
13	LG	–
14	L	–
15	V	–
16	B	–
17	GR	–
18	V	–
20	SB	–
21	BR	–
22	L	–
23	P	–
27	SHIELD	–
28	V	–
29	SB	–
31	BG	–
32	P	–
33	R	–
34	BG	–
40	BR	–
41	BR	–
42	L	–
43	P	–
44	BR	–
45	Y	–
46	BG	–
47	V	–
48	G	–
49	BG	–
50	W	–
60	GR	–
61	B	–
62	LG	–
63	BR	–
64	L	–
65	R	–
66	P	–
67	L	–
77	B	–
78	V	–
80	G	–
81	L	–
82	B	–
83	BG	–
84	SB	–
85	Y	–
86	L	–
87	V	–
88	V	–
89	LG	–
90	BG	–
91	W	–
92	BG	–
93	G	–
94	Y	–
95	W	–
96	R	–
97	SB	–
98	R	–
99	W	–
100	L	–

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TIRE PRESSURE MONITORING SYSTEM

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–
2	Y	–
4	BR	–
5	P	–
6	W	–
7	G	–
8	Y	–
9	G	–
10	V	–
11	V	– [With Climate controlled seat]
11	L	– [With heated seat]
12	P	– [With Climate controlled seat]
12	GR	– [With heated seat]
13	BR	–
14	GR	–
15	BG	–
16	V	–
17	BG	– [With ICC]
17	B	– [Without ICC]
18	L	–
19	W	–
20	R	–
21	B	–
22	LG	–
23	W	–
24	V	–
25	G	–
26	BR	–
27	SB	–
28	P	–
29	L	–
30	SHIELD	–
32	L	–
33	P	–
34	L	–
35	P	–
36	BG	–
37	SB	–
40	SHIELD	–
41	SB	–
42	V	–
45	W	–
47	L	–
48	LG	–
49	BR	–
50	V	–
51	V	–
52	P	–
53	BG	–
56	SB	–
57	P	–
58	LG	–
59	Y	–
60	GR	–
61	B	–
62	LG	–
63	BR	–
65	W	–
66	R	–
67	V	–
68	LG	–
69	SB	–
70	V	–
72	L	–
73	P	–
74	L	–
75	P	–
76	G	–
77	Y	–
78	SB	–
79	W	–
81	LG	–
82	BR	–
83	BG	–
84	B	–
85	W	–
86	G	–
87	R	–
88	G	–
91	W	–
92	G	–
96	W	–
97	BG	–
98	Y	–
99	LG	–

Connector No.	M22
Connector Name	PCB HARNESS
Connector Type	TH40FB-NH

Terminal No.	Color of Wire	Signal Name [Specification]
81	L	–
82	P	–
83	B	–
84	B	–
85	B	–
86	B	–
87	B	–
88	B	–
89	Y	–
91	V	–
92	V	–
93	B	–
94	B	–
95	LG	–
96	BR	–
97	G	–
98	G	–
99	G	–
100	G	–
101	L	–
102	P	–
103	B	–
104	BR	–
105	R	–
107	Y	–
108	Y	–
109	BR	–
110	Y	–
112	B	–
113	P	–
114	L	–
116	B	–
117	B	– [With VK engine]
117	BG	– [With VQ engine]
118	B	–
119	G	–
120	V	–

Connector No.	M24
Connector Name	PCB HARNESS
Connector Type	TH40FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
161	BG	–
162	BG	–
163	G	–
164	V	–
165	V	–
166	R	–
167	LG	–
168	R	–
169	R	–
170	B	–
172	B	–
174	W	–
175	B	–
176	L	–
177	P	–
178	Y	–
179	L	–
180	LG	–
182	BR	–
183	G	–
184	V	–
185	P	– [With BOSE system]
185	V	– [Without BOSE system]
186	R	–
187	L	–
188	Y	–
189	B	–
190	V	–
191	G	–
192	B	–
193	SB	–
194	BR	–
198	R	–
199	B	–
200	SB	–

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TIRE PRESSURE MONITORING SYSTEM

Connector No.	M28
Connector Name	PCB HARNESS
Connector Type	TH40FW-NH

H.S.

56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55

Terminal No.	Color of Wire	Signal Name [Specification]
321	V	–
322	V	–
324	B	–
325	L	–
326	L	–
327	P	–
328	P	–
330	B	–
331	V	–
332	V	–
335	B	–
337	W	–
338	W	–
343	L	–
344	B	–
345	Y	–
346	L	–
347	P	–
348	GR	–
349	V	–
350	LG	–
351	P	–
352	R	–
353	P	–
358	W	–
359	W	–
360	G	–

Connector No.	M29
Connector Name	PCB HARNESS
Connector Type	TH40FB-NH

H.S.

56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55

Terminal No.	Color of Wire	Signal Name [Specification]
361	W	–
362	W	–
363	Y	–
366	B	–
367	B	–
368	G	–
373	BR	–
374	BG	–
375	BG	–
376	V	–
377	V	–
378	B	–
379	R	–
380	R	–
381	G	–
382	V	–
383	GR	–
384	GR	–
395	P	–
396	L	–
397	R	–
398	L	–
400	V	–

Connector No.	M30
Connector Name	PCB HARNESS
Connector Type	TH40FW-NH

H.S.

60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79
40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59

Terminal No.	Color of Wire	Signal Name [Specification]
402	R	–
403	R	–
407	V	–
408	B	–
409	B	–
410	B	–
411	B	–
413	Y	–
414	BR	–
416	LG	–
417	B	–
419	SB	–
420	SHIELD	–
422	V	–
427	P	–
428	V	–
429	P	–
430	LG	–
431	B	–
432	Y	–
435	V	–
436	BG	–
437	B	–
438	P	–
439	L	–

Connector No.	M43
Connector Name	LOW TIRE PRESSURE WARNING CONTROL UNIT
Connector Type	TH32FW-NH

H.S.

1	2	3	4	5	6	7	8	9	10	12	15
19	20	21	22	23	24	25	26			30	32

Terminal No.	Color of Wire	Signal Name [Specification]
1	P	CAN– (L)
2	L	CAN+ (H)
3	B	RR TUNER (SIG)
4	B	RL TUNER (SIG)
5	B	FR TUNER (SIG)
6	G	FL TUNER (SIG)
7	R	RR TUNER (VCC)
8	W	RL TUNER (VCC)
9	W	FR TUNER (VCC)
10	W	FL TUNER (VCC)
12	W	SW
15	Y	IGN
19	G	RR TUNER (RSSI)
20	G	RL TUNER (RSSI)
21	G	FR TUNER (RSSI)
22	R	FL TUNER (RSSI)
23	W	RR TUNER (GND)
24	R	RL TUNER (GND)
25	R	FR TUNER (GND)
26	B	FL TUNER (GND)
30	G	BCM FLASHER
32	B	GND

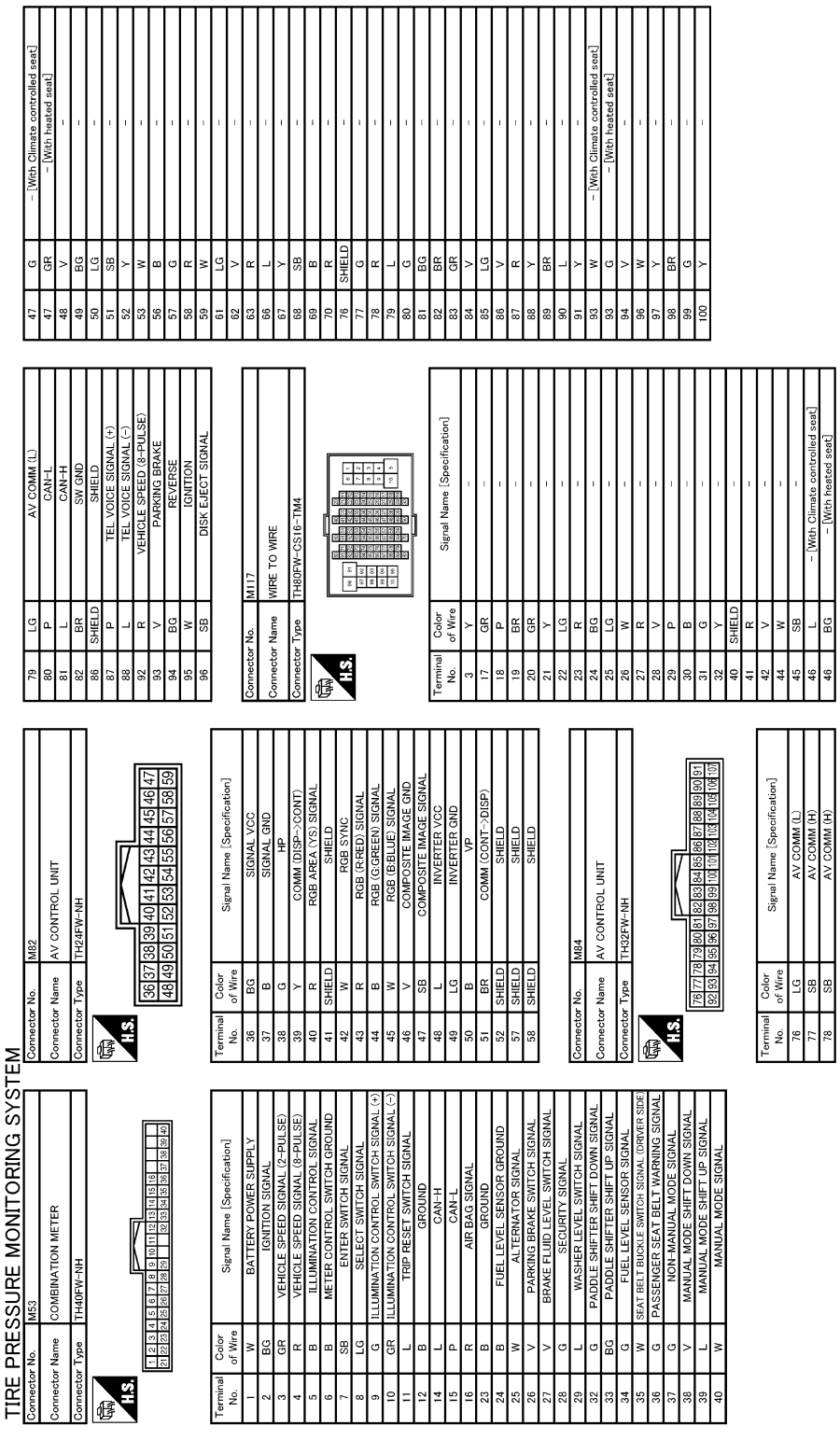
Connector No.	M44
Connector Name	TIRE PRESSURE WARNING CHECK SWITCH
Connector Type	TK02FW

H.S.

1

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

JCEWA0184GB



JCEWA0185GB

TIRE PRESSURE MONITORING SYSTEM

Connector No.	M120
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	RR WINDOW DEFG RLY CONT
2	BG	COMBI SW INPUT 5
3	SB	COMBI SW INPUT 4
4	L	COMBI SW INPUT 3
5	G	COMBI SW INPUT 2
6	P	COMBI SW INPUT 1
8	V	POWER WINDOW SW COMM
9	P	STOP LAMP SW 1
11	R	RAIN SENSOR SERIAL LINK
14	W	OPTICAL SENSOR
16	SB	DIMMER SIGNAL
17	Y	SENSOR PWR SPLY
18	B	RECEIVER / SENSOR GND
19	R	RECEIVER PWR SPLY
20	BR	KYLS ENT RECEIVER COMM
21	P	NATS ANT AMP.
22	GR	KYLS ENT RECEIVER RSSI
23	G	SECURITY IND CONT
24	L	DONGLE LINK
25	G	NATS ANT AMP.
26	GR	I-KEY IDENTIFICATION
29	G	HAZARD SW
30	BG	TR LID OPNR SW
31	W	DR DOOR UNLOCK SENSOR
32	BR	COMBI SW OUTPUT 5
33	R	COMBI SW OUTPUT 4
34	V	COMBI SW OUTPUT 3
35	Y	COMBI SW OUTPUT 2
36	LG	COMBI SW OUTPUT 1
37	R	P POSITION
39	L	CAN-H
40	P	CAN-L

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA09FW-FHA6-SA

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
56	R	INT ROOM LAMP PWR SPLY
57	R	BAT (FUSE)
58	L	AIR BAG
59	G	PASS DOOR UNLK OUTPUT
60	G	TURN SIG LH OUTPUT
61	V	TURN SIG RH OUTPUT
62	V	STEP LAMP CONT
63	L	ROOM LAMP TIMER CONT
65	V	ALL DOOR, FL LID LOCK OUTPUT
66	LG	DR DOOR, FL LID UNLK OUTPUT
67	B	GND
68	BG	PW PWR SPLY (IGN)
69	Y	PW PWR SPLY (BAT)
70	W	BAT (F/L)

Connector No.	M210
Connector Name	AV CONTROL UNIT
Connector Type	TH32FW-NH

H.S.

61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76
77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92

Terminal No.	Color of Wire	Signal Name [Specification]
65	V	PARKING BRAKE SIGNAL
67	R	COMPOSITE IMAGE SIGNAL GND
68	W	COMPOSITE IMAGE SIGNAL
69	G	I-KEY LINK OUTPUT
71	SHIELD	MICROPHONE SHIELD
72	G	MICROPHONE VCC
73	BR	COMM (CONT->DISP)
74	P	CAN-L
75	LG	AV COMM (L)
76	LG	AV COMM (L)
79	SB	DIMMER SIGNAL
80	W	IGNITION SIGNAL
81	BG	REVERSE SIGNAL
82	R	VEHICLE SPEED SIGNAL (8-PULSE)
83	SHIELD	SHIELD
84	B	COMPOSITE IMAGE SYNC SIGNAL
87	R	MICROPHONE SIGNAL
88	SHIELD	SHIELD
89	Y	COMM (DISP->CONT)
90	L	CAN-H
91	SB	AV COMM (H)
92	SB	AV COMM (H)

JCEWA0186GB

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:0000000006067131

DETAILED FLOW

1.COLLECT THE INFORMATION FROM THE CUSTOMER

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

CAUTION:

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

>> GO TO 2.

2.BASIC INSPECTION

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Check the tire pressure for all wheels and adjust to the specified value. Refer to WT-74, "Tire Air Pressure".

Is the inspection result normal?

YES >> GO TO 3.
NO >> Inspect or repair the tires or wheels.

3.CHECK LOW TIRE PRESSURE WARNING LAMP STATUS

Check low tire pressure warning lamp display.

Does not low tire pressure warning lamp turn OFF?

YES >> GO TO 4.
NO >> GO TO 8.

4.CHECK DTC WITH LOW TIRE PRESSURE WARNING CONTROL UNIT

With CONSULT-III

Perform the self-diagnosis for “AIR PRESSURE MONITOR”.

Is any DTC detected?

YES >> GO TO 5.
NO >> GO TO 8.

5.ERASE DTC MEMORY

With CONSULT-III

1. Record DTC.
2. Erase DTC once.

NOTE:

After erasing DTC record, currently occurred DTC can be detected by reading out DTC again.

>> GO TO 6.

6.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT-III

Perform “DTC CONFIRMATION PROCEDURE” (self-diagnosis) with recorded DTC.
If two or more DTCs are detected, refer to WT-17, "DTC Inspection Priority Chart" and determine trouble diagnosis order.

Is any malfunction detected by self-diagnosis?

YES >> GO TO 7.

NO >> GO TO 8.

7. DETECT MALFUNCTIONING PART BY DIAGNOSIS PROCEDURE

Perform the diagnosis applicable to the displayed DTC. Refer to WT-18, "DTC Index".

>> GO TO 10.

8. CRUISE FOR SYMPTOM CHECK

1. Start the engine.
2. Drive for several minutes at a speed of 40 km/h (25 MPH) or more, then stop the vehicle.

>> GO TO 9.

9. PERFORM DIAGNOSIS BY SYMPTOM

Perform trouble diagnosis or repair applicable to the symptom. Refer to WT-57, "Symptom Table".

>> GO TO 11.

10. FINAL CHECK (WHEN DTC WAS DETECTED)

With CONSULT-III

Perform “DTC CONFIRMATION PROCEDURE” (self-diagnosis) with applicable DTC.

Is any malfunction detected by self-diagnosis?

YES >> GO TO 7.
NO >> INSPECTION END

11. FINAL CHECK (WHEN SYMPTOM OCCURRED)

Make sure that the symptom is not detected.

Does symptom remain?

YES >> GO TO 9.
NO >> INSPECTION END

ADDITIONAL SERVICE WHEN REPLACING LOW TIRE PRESSURE WARNING CONTROL UNIT

Description

INFOID:0000000006067132

When replacing low tire pressure warning control unit, transmitter ID registration is required.

Work Procedure

INFOID:0000000006067133

ADJUST THE NEUTRAL POSITION OF STEERING ANGLE SENSOR

1.PERFORM TRANSMITTER ID REGISTRATION

Perform transmitter ID registration.

>> Refer to WT-31, "Work Procedure".

TRANSMITTER WAKE UP OPERATION

Description

INFOID:0000000006067134

When replacing transmitter, always transmitter wake-up is required.

Work Procedure

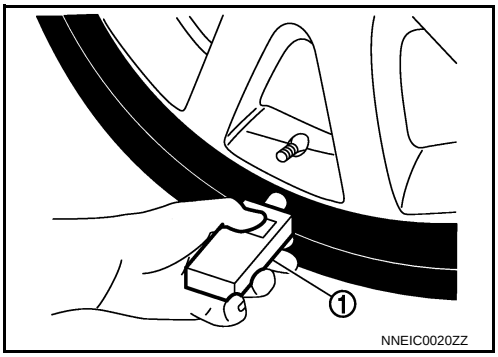
INFOID:0000000006067135

1. TRANSMITTER WAKE-UP PROCEDURE

1. Turn the ignition switch ON.
2. Press the activation tool (J-45295) (1) against the side of the tire at the location closest to the transmitter.
3. Wait until the indicator lamp turns OFF (approximately 5 seconds).

CAUTION:

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



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

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

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5. Check that the hazard warning lamp 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 completed?

YES >> Perform the transmitter ID registration procedure. Refer to WT-31, "Work Procedure".
NO >> Perform trouble diagnosis for the transmitter. Refer to WT-35, "Diagnosis Procedure".

ID REGISTRATION

Description

INFOID:0000000006067136

When replacing or rotating wheels, replacing transmitter or low tire pressure warning control unit, always transmitter ID registration is required.

Work Procedure

INFOID:0000000006067137

1.CONFIRMATION OF ACTIVATION TOOL USE

Check method of ID registration procedure.

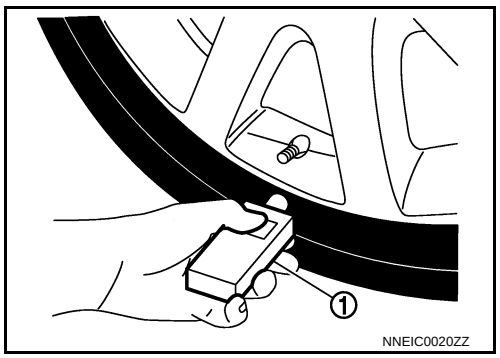
Is the activation tool (J-45295) used for the transmitter ID registration procedure?

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

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

With CONSULT-III

1. Turn the ignition switch ON.
2. Display the “WORK SUPPORT” screen for “AIR PRESSURE MONITOR” and select “ID REGIST”.
3. Press the activation tool (J-45295) (1) against the side of the tire at the location closest to the transmitter.
4. Wait until the indicator lamp turns OFF (approximately 5 seconds).
   CAUTION:
   Perform the ID registration procedure starting from the vehicle front left wheel, then repeat the procedure in the order of the front right wheel, rear right wheel, and rear left wheel.
5. When ID registration is completed, check the following pattern at each wheel.



Sequence	ID registration position	Hazard warning lamp	CONSULT-III
1	Front LH	2 blinks	“Red” ↓ “Green”
2	Front RH		
3	Rear RH		
4	Rear LH		

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

Is the check result normal?

YES >> ID registration END.
NO >> Perform the self-diagnosis for “AIR PRESSURE MONITOR”. Refer to WT-18, "DTC Index".

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

With CONSULT-III

1. Display the “WORK SUPPORT” screen for “AIR PRESSURE MONITOR” and select “ID REGIST”.
2. Adjust the tire pressure for all wheels to match the list below.

Tire position	Tire pressure kPa (kg/cm^2, psi)
Front LH	240 (2.4, 34)
Front RH	220 (2.2, 31)
Rear RH	200 (2.0, 29)
Rear LH	180 (1.8, 26)

3. 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.
4. After ID registration for all wheels is completed, press “End” to end ID registration.

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

5. Adjust the tire pressures for all wheels to the specified value. Refer to WT-74, "Tire Air Pressure".

Is ID registrations for all wheels completed?

YES >> ID registration END.
NO >> Perform the self-diagnosis for “AIR PRESSURE MONITOR”. Refer to WT-18, "DTC Index".

DTC/CIRCUIT DIAGNOSIS

C1704, C1705, C1706, C1707 LOW TIRE PRESSURE

DTC Logic

INFOID:0000000006067138

DTC DETECTION LOGIC

DTC	Display Item	Malfunction detected condition	Possible causes
C1704	LOW PRESSURE FL	Front LH wheel pressure drops to 182 kPa (1.86 kg/cm^2, 26.4 psi)) or less	Low tire pressure
C1705	LOW PRESSURE FR	Front RH wheel pressure drops to 182 kPa (1.86 kg/cm^2, 26.4 psi)) or less	
C1706	LOW PRESSURE RR	Rear RH wheel pressure drops to 182 kPa (1.86 kg/cm^2, 26.4 psi)) or less	
C1707	LOW PRESSURE RL	Rear LH wheel pressure drops to 182 kPa (1.86 kg/cm^2, 26.4 psi)) or less	

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION

With CONSULT-III

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Check the tire pressure for all wheels and adjust to the specified value. Refer to WT-74, "Tire Air Pressure".
3. Perform self-diagnosis for “AIR PRESSURE MONITOR”.

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

YES >> Proceed to WT-33, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000006067139

1. CHECK TIRE PRESSURE

Check the air pressure of all wheels. Refer to WT-74, "Tire Air Pressure".

Is the inspection result normal?

YES >> Replace the DTC-detected malfunctioning transmitter. Refer to WT-71, "Removal and Installation".
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. Stop the vehicle.
3. Select “DATA MONITOR” for “AIR PRESSURE MONITOR” with CONSULT-III.
4. Within 5 minutes after vehicle stopped, check that the tire pressures match the standard value.

Monitor item	Displayed value
AIR PRESS FL	Approximately equal to the indication on tire gauge value for front LH tire
AIR PRESS FR	Approximately equal to the indication on tire gauge value for front RH tire
AIR PRESS RR	Approximately equal to the indication on tire gauge value for rear RH tire
AIR PRESS RL	Approximately equal to the indication on tire gauge value for rear LH tire

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace error-detected parts.

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

DTC Logic

INFOID:0000000006067140

DTC DETECTION 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.	• Harness or connector connection malfunction (Tire pressure receiver, low tire pressure warning control unit) • Transmitter ID registration incomplete • Transmitter malfunction • Transmitter battery voltage
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 CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

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. Stop the vehicle.
3. Perform self-diagnosis for “AIR PRESSURE MONITOR”.

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

YES >> Proceed to WT-35, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000006067141

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. Stop the vehicle.
3. Select “DATA MONITOR” for “AIR PRESSURE MONITOR” with CONSULT-III.
4. Within 5 minutes after vehicle stopped, read the values that are displayed for “AIR PRESS FL”, “AIR PRESS FR”, “AIR PRESS RR”, and “AIR PRESS RL”.

Are all tire pressures displayed 0 kPa (psi)?

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

2.CHECK RECEIVER CIRCUIT

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	
M43	10	E58 (Front LH)	1	Existed
	9	E28 (Front RH)		
	8	B13 (Rear LH)		
	7	B213 (Rear RH)		

CHECK RECEIVER SIGNAL CIRCUIT

Low tire pressure warning control unit		Tire pressure receiver		Continuity
Connector	Terminal	Connector	Terminal	
M43	6	E58 (Front LH)	3	Existed
	5	E28 (Front RH)		
	4	B13 (Rear LH)		
	3	B213 (Rear RH)		

CHECK RECEIVER SIGNAL (SENSITIVITY) CIRCUIT

Low tire pressure warning control unit		Tire pressure receiver		Continuity
Connector	Terminal	Connector	Terminal	
M43	22	E58 (Front LH)	2	Existed
	21	E28 (Front RH)		
	20	B13 (Rear LH)		
	19	B213 (Rear RH)		

CHECK RECEIVER GROUND CIRCUIT

Low tire pressure warning control unit		Tire pressure receiver		Continuity
Connector	Terminal	Connector	Terminal	
M43	26	E58 (Front LH)	4	Existed
	25	E28 (Front RH)		
	24	B13 (Rear LH)		
	23	B213 (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		
M43	10	Ground	Not existed
	9		
	8		
	7		

CHECK RECEIVER SIGNAL CIRCUIT

Low tire pressure warning control unit		—	Continuity
Connector	Terminal		
M43	6	Ground	Not existed
	5		
	4		
	3		

CHECK RECEIVER SIGNAL (SENSITIVITY) CIRCUIT

Low tire pressure warning control unit		—	Continuity
Connector	Terminal		
M43	22	Ground	Not existed
	21		
	20		
	19		

CHECK RECEIVER GROUND CIRCUIT

Low tire pressure warning control unit		—	Continuity
Connector	Terminal		
M43	26	Ground	Not existed
	25		
	24		
	23		

Is the inspection result normal?

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

3. CHECK TIRE PRESSURE RECEIVER POWER SUPPLY CIRCUIT

1. Connect low tire pressure warning control unit harness connector.
2. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
3. Check the voltage between tire pressure receiver harness connector and ground.

Tire pressure receiver		—	Voltage
Connector	Terminal		
E58 (Front LH)	1	Ground	Approx. 7 - 16 V
E28 (Front RH)			
B13 (Rear LH)			
B213 (Rear RH)			

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace the low tire pressure warning control unit. Refer to WT-70, "Removal and Installation".

4. TIRE PRESSURE RECEIVER SIGNAL

Check tire pressure receiver signal. Refer to WT-44, "Diagnosis Procedure".

Is the inspection result normal?

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

5. TRANSMITTER ID REGISTRATION

Perform transmitter ID registration. Refer to WT-31, "Work Procedure".

Is transmitter ID registration completed?

YES >> GO TO 6.
NO >> Replace applicable transmitter. Refer to WT-71, "Removal and Installation".

6. 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. Stop the vehicle.
3. Select “DATA MONITOR” for “AIR PRESSURE MONITOR” with CONSULT-III.
4. Within 15 minutes after vehicle stopped, check that the tire pressures match the standard value.

Monitor item	Displayed value
AIR PRESS FL	Approximately equal to the indication on tire gauge value for front LH tire
AIR PRESS FR	Approximately equal to the indication on tire gauge value for front RH tire
AIR PRESS RR	Approximately equal to the indication on tire gauge value for rear RH tire
AIR PRESS RL	Approximately equal to the indication on tire gauge value for rear LH tire

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace the low tire pressure warning control unit. Refer to WT-70, "Removal and Installation".

C1716, C1717, C1718, C1719 TRANSMITTER (PRESSDATA)

DTC Logic

INFOID:0000000006067142

DTC DETECTION LOGIC

DTC	Display Item	Malfunction detected condition	Possible causes
C1716	[PRESSDATA ERR] FL	Malfunction in the tire pressure data from the front LH wheel transmitter. **NOTE:** In this case the low tire pressure warning control unit judges that the tire pressure is 438.60 kPa (4.47 kg/cm^2, 63.60 psi).	• Transmitter ID registration incomplete • Transmitter malfunction
C1717	[PRESSDATA ERR] FR	Malfunction in the tire pressure data from the front RH wheel transmitter. **NOTE:** In this case the low tire pressure warning control unit judges that the tire pressure is 438.60 kPa (4.47 kg/cm^2, 63.60 psi).	
C1718	[PRESSDATA ERR] RR	Malfunction in the tire pressure data from the rear RH wheel transmitter. **NOTE:** In this case the low tire pressure warning control unit judges that the tire pressure is 438.60 kPa (4.47 kg/cm^2, 63.60 psi).	
C1719	[PRESSDATA ERR] RL	Malfunction in the tire pressure data from the rear LH wheel transmitter. **NOTE:** In this case the low tire pressure warning control unit judges that the tire pressure is 438.60 kPa (4.47 kg/cm^2, 63.60 psi).	

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT-III

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Check the tire pressure for all wheels and adjust to the specified value. Refer to WT-74, "Tire Air Pressure".
3. Perform self-diagnosis for “AIR PRESSURE MONITOR”.

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

YES >> Proceed to WT-39, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000006067143

1.CHECK TIRE PRESSURE

Check the air pressure of all wheels. Refer to WT-74, "Tire Air Pressure".

Is the inspection result normal?

YES >> Replace the DTC-detected malfunctioning transmitter. Refer to WT-71, "Removal and Installation".
NO >> After adjusting the air pressure, GO TO 2.

2.CHECK TIRE PRESSURE SIGNAL

With CONSULT-III

1. Check the tire pressure for all wheels and adjust to the specified value. Refer to WT-74, "Tire Air Pressure".
2. Perform transmitter ID registration for all wheels. Refer to WT-31, "Work 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.
5. Select “DATA MONITOR” for “AIR PRESSURE MONITOR” with CONSULT-III.
6. Within 15 minutes after vehicle stopped, read the values that are displayed for “AIR PRESS FL”, “AIR PRESS FR”, “AIR PRESS RR”, and “AIR PRESS RL”.

Which tire pressures is displayed as 438.60 kPa (4.47 kg/cm^2, 63.60 psi)?

YES >> Replace transmitter the tire pressure as 438.60 kPa (4.47 kg/cm^2, 63.60 psi) displayed. Refer to WT-71, "Removal and Installation".

NO >> Perform “DTC CONFIRMATION PROCEDURE” (self-diagnosis) again. Refer to WT-39, "DTC Logic".

C1728 RECEIVER ID

DTC Logic

INFOID:0000000006067144

DTC DETECTION LOGIC

DTC	Display Item	Malfunction detected condition	Possible causes
C1728	RECEIVER ID NO REG	Receiver ID registration cannot be performed.	• Tire pressure receiver malfunction • Low tire pressure warning control unit malfunction

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

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. Stop the vehicle.
3. Perform self-diagnosis for “AIR PRESSURE MONITOR”.

Is DTC “C1728” detected?

YES >> Proceed to WT-41, "Diagnosis Procedure".
NO >> INSPECTION END

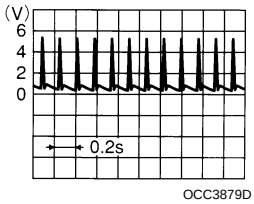
Diagnosis Procedure

INFOID:0000000006067145

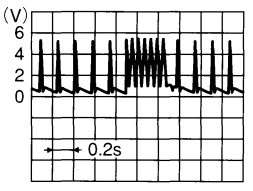
1.CHECK TIRE PRESSURE RECEIVER INPUT SIGNAL

1. Turn the ignition switch ON.
   CAUTION:
   Never start engine.
2. Use an oscilloscope and check the input signal waveform between the low tire pressure warning control unit harness connector and ground.

STANDBY STATUS

Low tire pressure warning control unit		—	Value (Approx.)
Connector	Terminal		
M43	3	Ground	 OCC3879D Approx. 4.5 V
	4		
	5		
	6		

WHEN SIGNAL IS RECEIVED

Low tire pressure warning control unit		—	Value (Approx.)
Connector	Terminal		
M43	3	Ground	 OCC3880D Approx. 4.5 V
	4		
	5		
	6		

Is the inspection result normal?

YES >> Check connector for loose connection and then perform “DTC CONFIRMATION PROCEDURE” (self-diagnosis) again. Refer to WT-41, "DTC Logic".
NO >> GO TO 2.

2.CHECK TIRE PRESSURE RECEIVER POWER SUPPLY CIRCUIT

1. Disconnect the tire pressure receiver harness connector.
2. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
3. Check the voltage between tire pressure receiver harness connector and ground.

Tire pressure receiver		—	Voltage
Connector	Terminal		
E58 (Front LH)	1	Ground	Approx. 7 - 16 V
E28 (Front RH)			
B13 (Rear LH)			
B213 (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. 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.

Low tire pressure warning control unit		Tire pressure receiver		Continuity
Connector	Terminal	Connector	Terminal	
M43	26	E58 (Front LH)	4	Existed
	25	E28 (Front RH)		
	24	B13 (Rear LH)		
	23	B213 (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-47, "Diagnosis Procedure".

Is the low tire pressure warning control unit circuit normal?

YES >> Replace the tire pressure receiver. Refer to WT-73, "FRONT TIRE PRESSURE RECEIVER : Removal and Installation" (Front), WT-73, "REAR TIRE PRESSURE RECEIVER : Removal and Installation" (Rear).
NO >> Repair or replace error-detected parts.

C1729 VEHICLE SPEED SIGNAL

DTC Logic

INFOID:0000000006067146

DTC DETECTION LOGIC

DTC	Display Item	Malfunction detected condition	Possible causes
C1729	VHCL SPEED SIG ERR	Vehicle speed signal not detected.	• CAN communication malfunction • Low tire pressure warning control unit malfunction • ABS actuator and electric unit (control unit) malfunction

DTC CONFIRMATION PROCEDURE

1.DTC CONFIRMATION PROCEDURE

With CONSULT-III

1. Drive for 3 minutes at a speed of 40 km/h (25MPH) or more without stopping.
2. Stop the vehicle.
3. Perform self-diagnosis for “AIR PRESSURE MONITOR”.

Is DTC “C1729” detected?

YES >> Proceed to WT-43, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000006067147

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

With CONSULT-III

Perform self-diagnosis for “ABS”.

Is any DTC detected?

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

2.PERFORM SELF-DIAGNOSIS AGAIN

With CONSULT-III

Perform “DTC CONFIRMATION PROCEDURE” (self-diagnosis) again. Refer to WT-43, "DTC Logic".

Is DTC “C1729” detected?

YES >> Replace the low tire pressure warning control unit. Refer to WT-70, "Removal and Installation".
NO >> GO TO 3.

3.CHECK LOW TIRE PRESSURE WARNING CONTROL UNIT INPUT/OUTPUT SIGNAL

Check the low tire pressure warning control unit input/output signal values. Refer to WT-14, "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. Refer to WT-70, "Removal and Installation".

C1750, C1751, C1752, C1753 RECEIVER

DTC Logic

INFOID:0000000006067148

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 CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

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. Stop the vehicle.
3. Perform self-diagnosis for “AIR PRESSURE MONITOR”.

Is DTC “C1750”, “C1751”, “C1752”, or “C1753” detected?

YES >> Proceed to WT-44, "Diagnosis Procedure".
NO >> INSPECTION END

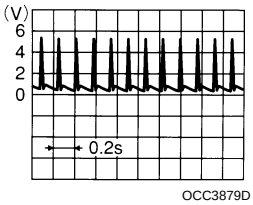
Diagnosis Procedure

INFOID:0000000006067149

1.CHECK TIRE PRESSURE RECEIVER INPUT SIGNAL

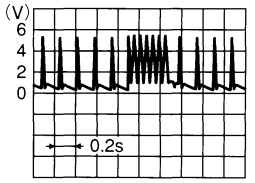
1. Turn the ignition switch ON.
   CAUTION:
   Never start engine.
2. Use an oscilloscope and check the input signal waveform between the low tire pressure warning control unit harness connector and ground.

STANDBY STATUS

Low tire pressure warning control unit		—	Value (Approx.)
Connector	Terminal		
M43	3	Ground	
	4		
	5		
	6		

Approx. 4.5 V

WHEN SIGNAL IS RECEIVED

Low tire pressure warning control unit		—	Value (Approx.)
Connector	Terminal		
M43	3	Ground	
	4		
	5		
	6		

OCC3880D

Approx. 4.5 V

Is the inspection result normal?

YES >> Check connector for loose connection and then perform “DTC CONFIRMATION PROCEDURE” (self-diagnosis) again. Refer to WT-44, "DTC Logic".

NO >> GO TO 2.

2. CHECK TIRE PRESSURE RECEIVER POWER SUPPLY CIRCUIT

1. Disconnect the tire pressure receiver harness connector.
2. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
3. Check the voltage between tire pressure receiver harness connector and ground.

Tire pressure receiver		—	Voltage
Connector	Terminal		
E58 (Front LH)	1	Ground	Approx. 7 - 16 V
E28 (Front RH)			
B13 (Rear LH)			
B213 (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. 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.

Low tire pressure warning control unit		Tire pressure receiver		Continuity
Connector	Terminal	Connector	Terminal	
M43	26	E58 (Front LH)	4	Existed
	25	E28 (Front RH)		
	24	B13 (Rear LH)		
	23	B213 (Rear RH)		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning harness or connector.

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

NOTE:
Example: Front LH tire pressure receiver OK/NG judgment when DTC “C1750” is detected.

With CONSULT-III

1. Exchange the positions of the front LH tire pressure receiver and the front RH tire pressure receiver.
2. Perform “DTC CONFIRMATION PROCEDURE” (self-diagnosis) again. Refer to WT-44, "DTC Logic".

Is DTC “C1751” detected?

YES >> Replace the exchanged front RH tire pressure receiver.
NO >> Check the low tire pressure warning control unit circuit. Refer to WT-47, "Diagnosis Procedure".

C1754 LOW TIRE PRESSURE WARNING CONTROL UNIT

DTC Logic

INFOID:0000000006067150

DTC DETECTION LOGIC

DTC	Display Item	Malfunction detected condition	Possible causes
C1754	CONT UNIT (EEPROM)	Memory (EEPROM) system malfunction is detected in the low tire pressure warning control unit	Low tire pressure warning control unit malfunction

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT-III

1. Drive for 3 minutes at a speed of 40 km/h (25MPH) or more without stopping.
2. Stop the vehicle.
3. Perform self-diagnosis for “AIR PRESSURE MONITOR”.

Is DTC “C1754” detected?

YES >> Proceed to WT-47, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000006067151

1.CHECK LOW TIRE PRESSURE WARNING CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

Perform the trouble diagnosis for power supply and ground circuit. Refer to WT-53, "Diagnosis Procedure".

Is the inspection result normal?

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

2.CHECK TIRE PRESSURE RECEIVER CIRCUIT

1. Disconnect the tire pressure receiver 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	
M43	6	E58 (Front LH)	3	Existed
	22		2	
	10		1	
	26		4	
	5	E28 (Front RH)	3	
	21		2	
	9		1	
	25		4	
	4	B13 (Rear LH)	3	
	20		2	
	8		1	
	24		4	
	3	B213 (Rear RH)	3	
	19		2	
	7		1	
	23		4	

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

Low tire pressure warning control unit		—	Continuity
Connector	Terminal		
M43	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 3.
NO >> Repair or replace the malfunctioning harness or connector.

3. PERFORM SELF-DIAGNOSIS AGAIN

With CONSULT-III

1. Check the tire pressure for all wheels and adjust to the specified value. Refer to WT-74, "Tire Air Pressure".
2. Perform transmitter ID registration for all wheels. Refer to WT-31, "Work Procedure".
3. Perform “DTC CONFIRMATION PROCEDURE” (self-diagnosis) again. Refer to WT-47, "DTC Logic".

Is DTC “C1754” detected?

YES >> Replace the low tire pressure warning control unit. Refer to WT-70, "Removal and Installation".
NO >> Check for looseness or damage at the harness connector pins of the low tire pressure warning control unit. Repair or replace if necessary.

C1755, C1756, C1757, C1758 POOR RECEIVING CONDITIONS

DTC Logic

INFOID:0000000006067152

DTC DETECTION 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 for 10 minutes or more. (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 for 10 minutes or more. (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 for 10 minutes or more. (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 for 10 minutes or more. (DTC C1711 is displayed at the same time.)	

CAUTION:
If DTC C1755, C1756, C1757, or C1758 is detected along with, C1708, C1709, C1710, or C1711 first diagnose C1755, C1756, C1757, or C1758.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

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. Stop the vehicle.
3. Perform self-diagnosis for “AIR PRESSURE MONITOR”.

Is DTC “C1755”, “C1756”, “C1757”, or “C1758 ” detected?

YES >> Proceed to WT-49, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000006067153

1.TRANSMITTER ID REGISTRATION

Perform transmitter ID registration. Refer to WT-31, "Work Procedure".

Is transmitter ID registration completed?

YES >> GO TO 2.
NO >> Change the work location and perform ID registration again, then proceed 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. Stop the vehicle.
3. Select “DATA MONITOR” for “AIR PRESSURE MONITOR” with CONSULT-III.
4. Within 5 minutes after vehicle stopped, check that the tire pressures match the standard value.

Monitor item	Displayed value
AIR PRESS FL	Approximately equal to the indication on tire gauge value for front LH tire
AIR PRESS FR	Approximately equal to the indication on tire gauge value for front RH tire

Monitor item	Displayed value
AIR PRESS RR	Approximately equal to the indication on tire gauge value for rear RH tire
AIR PRESS RL	Approximately equal to the indication on tire gauge value for rear LH tire

Is the inspection result normal?

YES >> GO TO 3.
NO >> Change the work location, then GO TO 1.

3. CHECK SELF-DIAGNOSIS RESULTS

With CONSULT-III

1. Erase the self-diagnosis memory for the low tire pressure warning control unit.
2. Turn ignition switch OFF, and wait for 10 seconds or more.
3. Perform “DTC CONFIRMATION PROCEDURE” (self-diagnosis) again. Refer to WT-49, "DTC Logic".

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

YES >> Change the work location, then GO TO 1.
NO >> Check the input/output signal values. Refer to WT-14, "Reference Value".

U1000 CAN COMM CIRCUIT

Description

INFOID:0000000006067154

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:0000000006067155

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.	• CAN communication malfunction • Malfunction of low tire pressure warning control unit

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT-III

1. Drive for several minutes at a speed of 40 km/h (25MPH) or more.
2. Stop the vehicle.
3. Perform self-diagnosis for “AIR PRESSURE MONITOR”.

Is DTC “U1000” detected?

YES >> Proceed to WT-51, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000006067156

Proceed to LAN-34, "CAN COMMUNICATION SYSTEM : CAN System Specification Chart".

U1010 CONTROL UNIT (CAN)

Description

INFOID:0000000006067157

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:0000000006067158

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.PERFORM DTC CONFIRMATION

With CONSULT-III

1. Drive for several minutes at a speed of 40 km/h (25MPH) or more.
2. Stop the vehicle.
3. Perform self-diagnosis for “AIR PRESSURE MONITOR”.

Is DTC “U1010” detected?

YES >> Proceed to WT-52, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000006067159

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-70, "Removal and Installation".
NO >> Repair or replace error-detected parts.

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000006067160

1.CHECK FUSE/FUSIBLE LINK

1. Turn the ignition switch OFF.
2. Check for fusing of the fuse and fusible link at the low tire pressure warning control unit.

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

Is the inspection result normal?

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

2.CHECK LOW TIRE PRESSURE WARNING CONTROL UNIT POWER SUPPLY CIRCUIT

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

CAUTION:
Never start engine.

3. Check the voltage between the low tire pressure warning control unit and ground.

Low tire pressure warning control unit		—	Voltage
Connector	Terminal		
M43	15	Ground	Battery voltage

4. Turn the ignition switch OFF.
5. Check the voltage between the low tire pressure warning control unit and ground.

Low tire pressure warning control unit		—	Voltage
Connector	Terminal		
M43	15	Ground	0 V

Is the inspection result normal?

YES >> GO TO 3.
NO >> Check the following. If any items are damaged, repair or replace damaged parts.
- Harness for short or open between ignition switch and low tire pressure warning control unit harness connector
- Battery voltage.

3.CHECK LOW TIRE PRESSURE WARNING CONTROL UNIT GROUND CIRCUIT

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

Low tire pressure warning control unit		—	Continuity
Connector	Terminal		
M43	32	Ground	Existed

- Also check harness for short to ground and short to power.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair open circuit or short to ground or short to power in harness or connectors.

TIRE PRESSURE WARNING CHECK SWITCH

Component Function Check

INFOID:0000000006067767

1.CHECK LOW TIRE PRESSURE WARNING LAMP OPERATION

Check low tire pressure warning lamp operation. Refer to WT-56, "Component Function Check".

Is inspection result normal?

YES >> GO TO 2.
NO >> Check low tire pressure warning lamp. Refer to WT-56, "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 self-diagnosis active?

YES >> INSPECTION END
NO >> Proceed to trouble diagnosis procedure. Refer to WT-54, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000006067768

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		
M44	1	Ground	7.6 - 14.6 V

Is the inspection result normal?

YES >> Replace the low tire pressure warning control unit. Refer to WT-70, "Removal and Installation".
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	Existed
M43	12	M44	1	

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

Low tire pressure warning control unit		—	Continuity
Connector	Terminal		
M43	12	Ground	Not existed

Is the inspection result normal?

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

3.CHECK LOW TIRE PRESSURE WARNING CONTROL UNIT

Check the low tire pressure warning control unit input/output signal. Refer to WT-14, "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.

LOW TIRE PRESSURE WARNING LAMP

Component Function Check

INFOID:0000000006067161

1.CHECK LOW TIRE PRESSURE WARNING LAMP OPERATION

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

Is the inspection result normal?

YES >> INSPECTION END
NO >> Proceed to WT-56, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000006067162

1.CHECK LOW TIRE PRESSURE WARNING CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

Perform the trouble diagnosis for power supply and ground circuit. Refer to WT-53, "Diagnosis Procedure".

Is the inspection result normal?

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

2.PERFORM LOW TIRE PRESSURE WARNING CONTROL UNIT SELF-DIAGNOSIS

With CONSULT-III

1. Drive for several minutes at a speed of 40 km/h (25MPH) or more.
2. Stop the vehicle.
3. Perform self-diagnosis for “AIR PRESSURE MONITOR”.

Is any DTC detected?

YES >> Perform trouble diagnosis for detected DTC. Refer to WT-18, "DTC Index".
NO >> GO TO 3.

3.CHECK LOW TIRE PRESSURE WARNING LAMP SIGNAL

With CONSULT-III

1. Turn the ignition switch ON.
   CAUTION:
   Never start engine.
2. Select “DATA MONITOR” for “AIR PRESSURE MONITOR” with CONSULT-III.
3. Read out the value of “WARNING LAMP”. For low tire pressure warning lamp condition, refer to “LOW TIRE PRESSURE WARNING LAMP CONTROL CONDITION” in WT-9, "System Description".

Does the data monitor display change normal?

YES >> GO TO 4.
NO >> Replace the low tire pressure warning control unit. Refer to WT-70, "Removal and Installation".

4.CHECK COMBINATION METER POWER SUPPLY CIRCUIT

Perform the trouble diagnosis for combination meter power supply circuit. Refer to BCS-73, "Diagnosis Procedure".

Is the inspection result normal?

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

SYMPTOM DIAGNOSIS

TPMS SYMPTOMS

Symptom Table

INFOID:0000000006067764

LOW TIRE PRESSURE WARNING LAMP SYMPTOM CHART

Diagnosis items	Symptom (Ignition switch ON)	Low tire pressure warning lamp	Cause	Action
Low tire pressure warning lamp	The low tire pressure warning lamp illuminates for 1 second, then turns OFF.	 ON 1 sec > stays OFF SEIA0592E	Wake-up operation for all transmitters at wheels is completed.	No procedure. (No system malfunctions)
	The low tire pressure warning lamp repeats blinking ON for 2 seconds and OFF for 0.2 seconds.	 Blinks: ON 2 sec > OFF 0.2 sec SEIA0593E	Wake-up operation for all transmitters at wheels is not completed.	Perform the wake-up operation for all transmitters at wheels. Refer to WT-30, "Work Procedure".
	The low tire pressure warning lamp blinks once.	 Blinks 1 time ON 0.3 sec > OFF 1.3 sec SEIA0594E	The front LH wheel transmitter is not activated.	Perform the wake-up operation for the transmitter at front LH wheel. Refer to WT-30, "Work Procedure".
	The low tire pressure warning lamp repeats blinking twice.	 Blinks 2 times ON 0.3 sec > OFF 0.3 sec SEIA0595E	The front right wheel transmitter is not activated.	Perform the wake-up operation for the transmitter at front right wheel. Refer to WT-30, "Work Procedure".
	The low tire pressure warning lamp repeats blinking for 3 times.	 Blinks 3 times ON 0.3 sec > OFF 0.3 sec SEIA0596E	The rear right wheel transmitter is not activated.	Perform the wake-up operation for the transmitter at rear right wheel. Refer to WT-30, "Work Procedure".
	The low tire pressure warning lamp repeats blinking for 4 times.	 Blinks 4 times ON 0.3 sec > OFF 0.3 sec SEIA0597E	The rear LH wheel transmitter is not activated.	Perform the wake-up operation for the transmitter at rear LH wheel. Refer to WT-30, "Work Procedure".
	The low tire pressure warning lamp turns ON and stays illuminated.	 Comes ON and stays ON SEIA0598E	Low tire pressure	Check the tire pressure for all wheels and adjust to the specified value. Refer to WT-74, "Tire Air Pressure".

Diagnosis items	Symptom (Ignition switch ON)	Low tire pressure warning lamp	Cause	Action
Low tire pressure warning lamp	The low tire pressure warning lamp repeats blinking at 0.5-second intervals for 1 minute, and then stays illuminated.	 Blinks 1 min ON 0.5 sec > OFF 0.5 sec and stays ON SEIA0788E	The combination meter fuse is open or removed (or pulled out).	Check and install the combination meter fuse. If necessary, replace the fuse.
			The low tire pressure warning control unit harness connector is removed.	Check the connection conditions of the low tire pressure warning control unit harness connector, and repair if necessary.
			Tire Pressure Monitoring System (TPMS) malfunction.	• Perform self-diagnosis. - If necessary, perform transmitter ID registration. Refer to WT-31, "Work Procedure".
Hazard warning lamp	The hazard warning lamp does not blink twice when the transmitter is activated. Or the buzzer does not sound.	—	• The transmitter activation tool does not activate.	• Replace the battery in the transmitter activation tool.
			• The ignition switch is OFF when the transmitter wake-up operation is performed.	• Turn the ignition switch ON when performing the transmitter wake-up operation.
			• The transmitter activation tool is not used in the correct position.	• Operate the transmitter activation tool in the correct position when performing the wake-up operation.
			• The transmitter is already waked up.	• No procedure.

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

LOW TIRE PRESSURE WARNING LAMP DOES NOT TURN ON

Description

INFOID:0000000006067164

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

NOTE:

The low tire pressure warning lamp illuminates for approximately 1 second and then turns OFF when the ignition switch is turned ON. This is to check that no abnormal condition is present in the tire pressure monitoring system.

The lamp bulb may be burnt out or the tire pressure monitoring system may be malfunctioning if the low tire pressure warning lamp does not illuminate when the ignition switch is turned ON.

Diagnosis Procedure

INFOID:0000000006067165

1.CHECK LOW TIRE PRESSURE WARNING LAMP

Perform trouble diagnosis for the low tire pressure warning lamp. Refer to WT-56, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check each harness connector pin terminal for malfunction or disconnection.
NO >> Repair or replace error-detected parts.

LOW TIRE PRESSURE WARNING LAMP DOES NOT TURN OFF

Description

INFOID:0000000006067166

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

Diagnosis Procedure

INFOID:0000000006067167

1.CHECK TIRE PRESSURE

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Check the tire pressure for all wheels and adjust to the specified value. Refer to WT-74, "Tire Air Pressure".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Inspect or repair the tires or wheels.

2.CHECK LOW TIRE PRESSURE WARNING LAMP

Check low tire pressure warning lamp display.

Does not low tire pressure warning lamp turn OFF?

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

3.CHECK DTC WITH LOW TIRE PRESSURE WARNING CONTROL UNIT

With CONSULT-III

Perform self-diagnosis for “AIR PRESSURE MONITOR”.

Is any DTC detected?

YES >> Perform the diagnosis applicable to the displayed DTC. Refer to WT-18, "DTC Index".
NO >> GO TO 4.

4.CHECK LOW TIRE PRESSURE WARNING CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

Perform the trouble diagnosis for power supply and ground circuit. Refer to WT-53, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace low tire pressure warning control unit. Refer to WT-70, "Removal and Installation".
NO >> Repair or replace error-detected parts.

LOW TIRE PRESSURE WARNING LAMP BLINKS

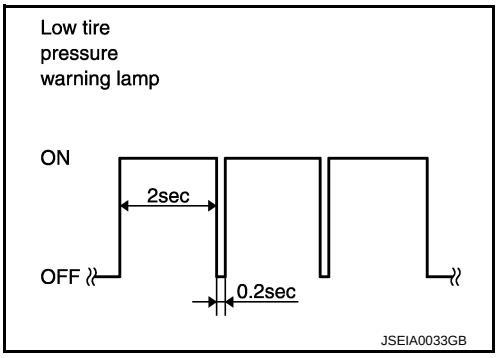
Description

INFOID:0000000006067168

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

NOTE:

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



Diagnosis Procedure

INFOID:0000000006067169

1. TRANSMITTER WAKE-UP OPERATION

Perform the transmitter wake-up. Refer to WT-30, "Work Procedure".

Is the transmitter wake-up completed?

YES >> GO TO 2.
NO >> Perform trouble diagnosis for the transmitter. Refer to WT-35, "Diagnosis Procedure".

2. TRANSMITTER ID REGISTRATION

Perform transmitter ID registration. Refer to WT-31, "Work Procedure".

Is transmitter ID registration completed?

YES >> INSPECTION END
NO >> Perform the self-diagnosis for “AIR PRESSURE MONITOR”. Refer to WT-18, "DTC Index".

ID REGISTRATION CANNOT BE COMPLETED

Description

INFOID:0000000006067172

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:0000000006067173

1. TRANSMITTER WAKE-UP

Perform the transmitter wake-up. Refer to WT-30, "Work Procedure".

Is the transmitter wake-up completed?

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

2. CHECK ACTIVATION TOOL

Check activation tool.

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace battery for activation tool, or repair or replace activation tool.

3. TRANSMITTER ID REGISTRATION

Perform transmitter ID registration. Refer to WT-31, "Work Procedure".

Is transmitter ID registration completed?

YES >> GO TO 4.
NO >> Change the work location and perform ID registration again.

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. Stop the vehicle.
3. Select “DATA MONITOR” for “AIR PRESSURE MONITOR” with CONSULT-III.
4. Within 5 minutes after vehicle stopped, check that the tire pressures match the standard value.

Monitor item	Displayed value
AIR PRESS FL	Approximately equal to the indication on tire gauge value for front LH tire
AIR PRESS FR	Approximately equal to the indication on tire gauge value for front RH tire
AIR PRESS RR	Approximately equal to the indication on tire gauge value for rear RH tire
AIR PRESS RL	Approximately equal to the indication on tire gauge value for rear LH tire

Is the inspection result normal?

YES >> INSPECTION END
NO >> Change the work location, then GO TO 3.

HAZARD WARNING LAMP REMAINS ON

Description

INFOID:0000000006136335

The hazard warning lamp remains on.

Diagnosis Procedure

INFOID:0000000006136336

1.CHECK HAZARD WARNING LAMP OPERATION

Check hazard warning lamp operation with hazard switch.

Is the operation normal?

YES >> GO TO 2.
NO >> Perform trouble diagnosis for the hazard warning lamp. Refer to EXL-104, "Diagnosis Procedure".

2.CHECK HAZARD REQUEST SIGNAL CIRCUIT

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

Low tire pressure warning control unit		—	Continuity
Connector	Terminal		
M43	30	Ground	Not existed

Is the inspection result normal?

YES >> Repair or replace the malfunctioning harness or connector.
NO >> Replace the low tire pressure warning control unit. Refer to WT-70, "Removal and Installation".

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

NVH Troubleshooting Chart

INFOID:0000000006067174

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

Reference page			WT-68, "Exploded View"	WT-68, "Inspection"	WT-66, "Adjustment"	WT-74, "Tire Air Pressure"	WT-68, "Inspection"	—	—	WT-74, "Tire Air Pressure"	NVH in DLN section.	NVH in DLN section.	NVH in FAX and FSU sections.	NVH in RAX and RSU sections.	Refer to TIRES in this chart.	Refer to ROAD WHEEL in this chart.	NVH in FAX, RAX section.	NVH in BR section.	NVH in ST section.
Possible cause and SUSPECTED PARTS			Improper installation, looseness	Out-of-round	Unbalance	Incorrect tire pressure	Uneven tire wear	Deformation or damage	Non-uniformity	Incorrect tire size	PROPELLER SHAFT	DIFFERENTIAL	FRONT AXLE AND FRONT SUSPENSION	REAR AXLE AND REAR SUSPENSION	TIRES	ROAD WHEELS	DRIVE SHAFT	BRAKE	STEERING
Symp-tom	TIRES	Noise	×	×	×	×	×	×	×		×	×	×	×		×	×	×	×
		Shake	×	×	×	×	×	×		×	×		×	×		×	×	×	×
		Vibration				×				×	×		×	×			×		×
		Shimmy	×	×	×	×	×	×	×	×			×	×		×		×	×
		Judder	×	×	×	×	×	×		×			×	×		×		×	×
		Poor quality ride or handling	×	×	×	×	×	×		×			×		×	×			
	ROAD WHEEL	Noise	×	×	×			×			×	×	×	×	×		×	×	×
		Shake	×	×	×			×			×		×	×	×		×	×	×
		Shimmy, Judder	×	×	×			×					×	×	×			×	×
		Poor quality ride or handling	×	×	×			×					×	×	×				

×: Applicable

PERIODIC MAINTENANCE

ROAD WHEEL

Adjustment

INFOID:0000000006059472

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

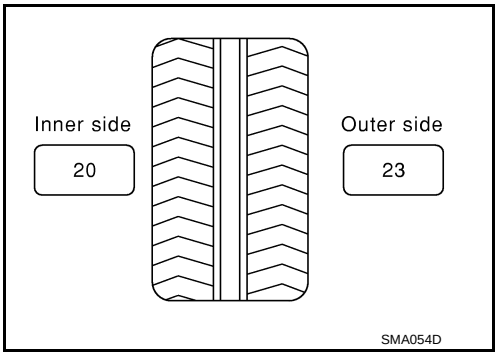
If a tire balance machine has adhesion balance weight mode settings and drive-in weight mode setting, select and adjust a drive-in weight mode suitable for road wheels.

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.**

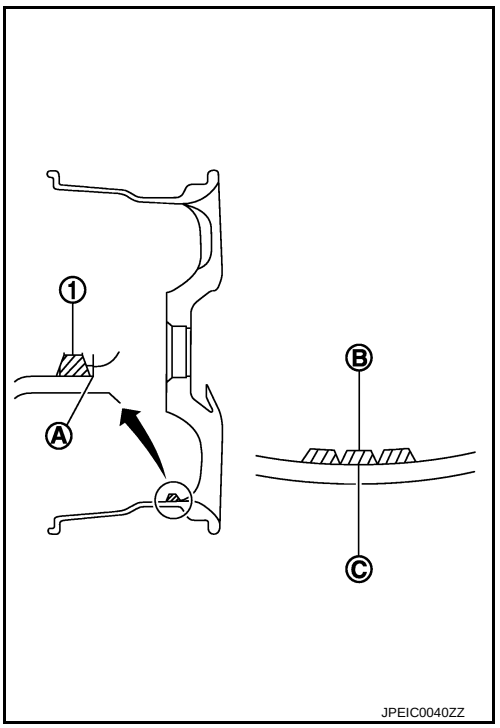
a. Indicated unbalance value × 5/3 = balance weight to be installed
Calculation example:
23 g (0.81 oz) × 5/3 = 38.33 g (1.35 oz) ⇒ 37.5 g (1.32 oz) balance weight (closer to calculated balance weight value)
NOTE:
Note that balance weight value must be closer to the calculated balance weight value.
Example: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



b. Installed balance weight in the position.

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

CAUTION:
- **Always use genuine NISSAN adhesion balance weights.**
- **Balance weights are non-reusable; always replace with new ones.**
- **Never install more than three sheets of balance weight.**

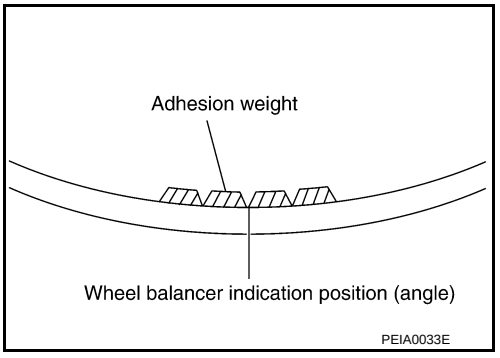


c. If calculated balance weight value exceeds 50 g (1.76 oz), install two balance weight sheets in line with each other as shown in the figure.

CAUTION:
Never install one balance weight sheet on top of another.

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

CAUTION:
Never install more than two balance weight.



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

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

Allowable unbalance value

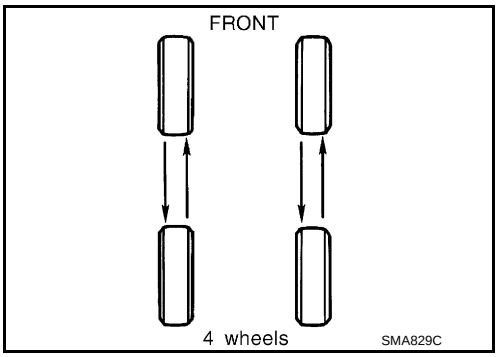
Dynamic (At flange) : Refer to WT-74, "Road Wheel".

Static (At flange) : Refer to WT-74, "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. Refer to WT-68, "Exploded View".

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



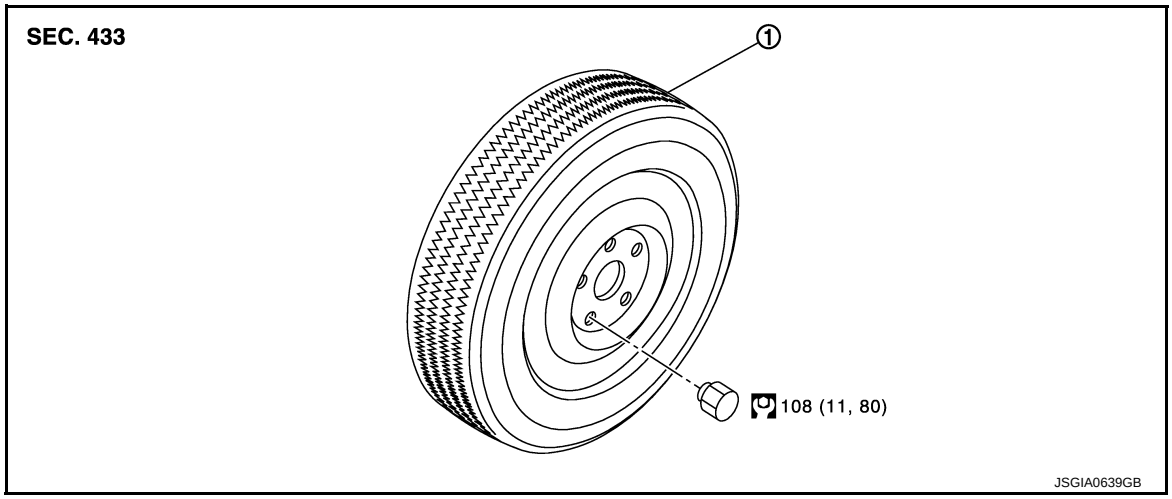
- Perform the ID registration, after tire rotation. Refer to WT-31, "Work Procedure".

REMOVAL AND INSTALLATION

ROAD WHEEL TIRE ASSEMBLY

Exploded View

INFOID:0000000006059473



1. Tire assembly

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

Removal and Installation

INFOID:0000000006059474

REMOVAL

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

INSTALLATION

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

- When replacing or rotating wheels, perform the ID registration. Refer to WT-31, "Work Procedure".

Inspection

INFOID:0000000006059475

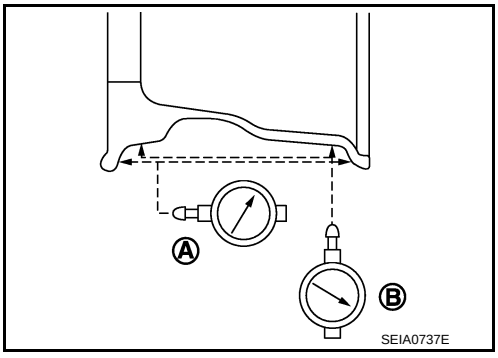
ALUMINUM WHEEL

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. Check radial runout, if the lateral deflection (A) or vertical deflection (B) for radial runout value exceeds the limit, replace aluminum wheel.



Limit

Lateral deflection (A) : Refer to WT-74, "Road Wheel".

Vertical deflection (B) : Refer to WT-74, "Road Wheel".

STEEL WHEEL

1. Check tires for were and improper inflation.

2. Check wheels for deformation, clacks and other damage. If deformed, remove wheel and check wheel runout.

a. Remove tire from steel wheel and mount wheel on a tire balance machine.

b. Set two dial indicators as shown in the figure.

c. Set each dial indicator to “0”.

d. Rotate wheel and check dial indicators at several points around the circumference of the wheel.

e. Calculate runout at each point as shown below.

Lateral deflection limit (A) **: (❶+❷)/2**

Radial deflection limit (B) **: (❸+❹)/2**

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

CAUTION:

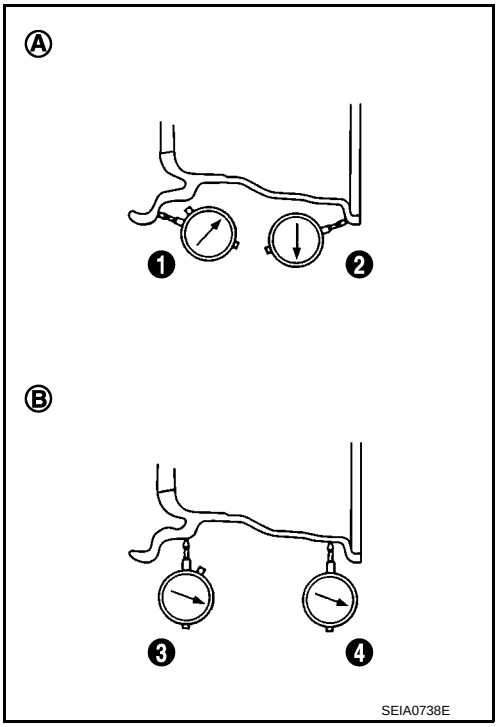
In case a positive or negative value is not available, use the maximum value (negative or positive) for total runout.

Limit

Lateral deflection (A) **: Refer to WT-74, "Road Wheel".**

Vertical deflection (B) **: Refer to WT-74, "Road Wheel".**

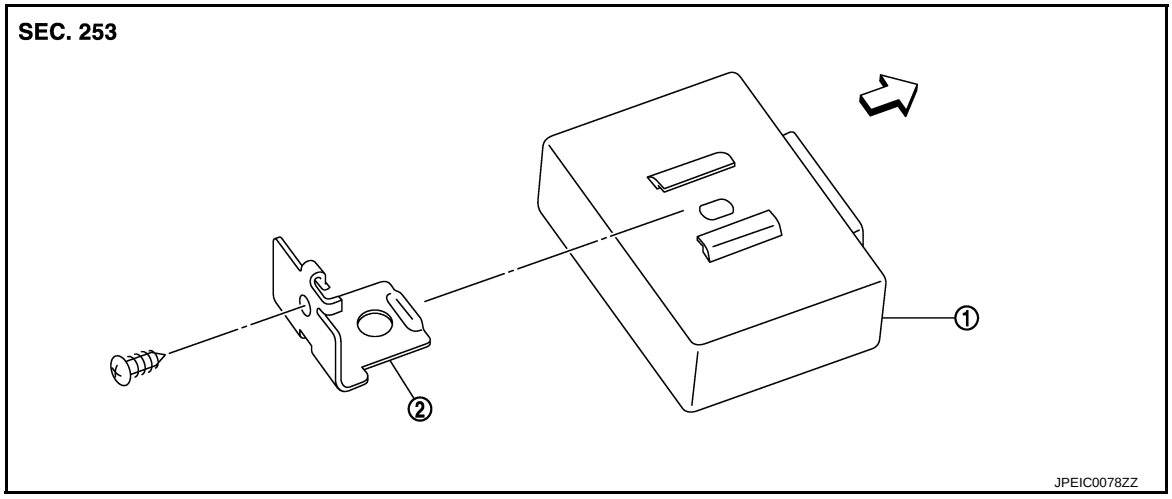
g. If the total runout value exceeds limit, replace steel wheel.



LOW TIRE PRESSURE WARNING CONTROL UNIT

Exploded View

INFOID:0000000006059476



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:0000000006059477

REMOVAL

1. Remove the glove box assembly. Refer to IP-13, "Removal and Installation".
2. Remove the instrument lower panel RH. Refer to IP-13, "Removal and Installation".
3. Disconnect low tire pressure warning control unit connector.
4. Remove the low tire pressure warning control unit control unit.

INSTALLATION

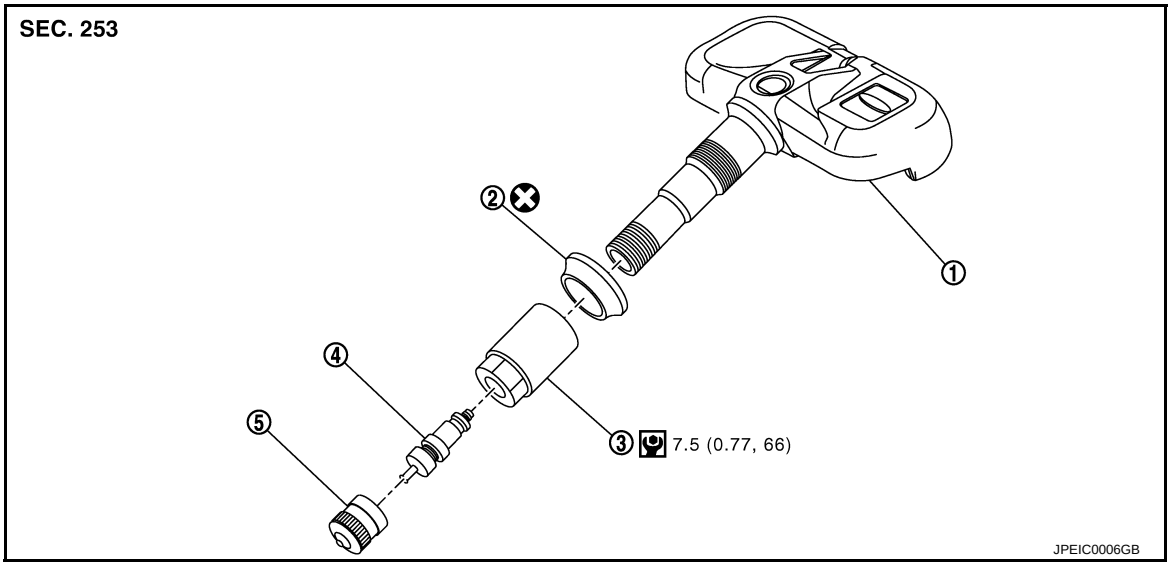
Note the following, and install in the reverse order of removal.

- Perform ID registration after replacing low tire pressure warning control unit. Refer to WT-31, "Work Procedure".

TRANSMITTER

Exploded View

INFOID:0000000006059478



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

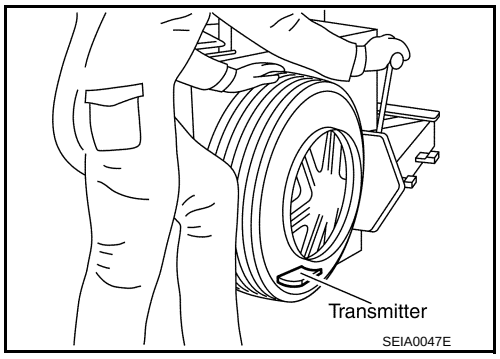
Refer to GI-4, "Components" for symbols in figure.

Removal and Installation

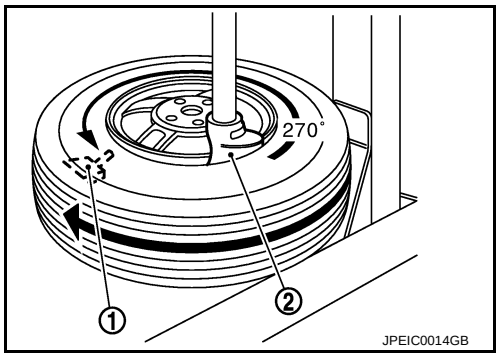
INFOID:0000000006059479

REMOVAL

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

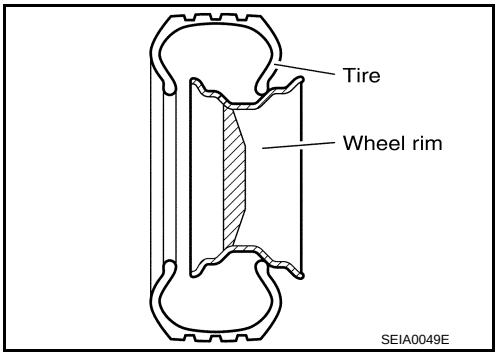


3. Turn tire so that valve hole is at bottom and bounce so that transmitter (1) is near valve hole. Carefully lift tire onto turntable and position valve hole (and transmitter) 270 degree from mounting/dismounting head (2).
4. Lubricate tire well and remove first side of the tire. Reach inside the tire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



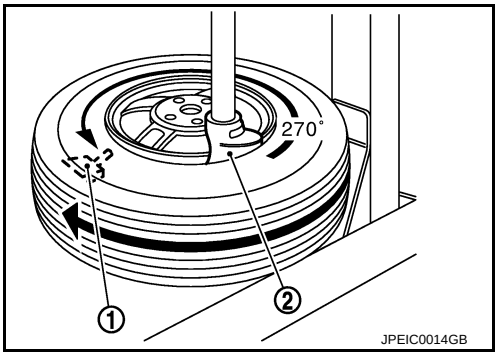
INSTALLATION

1. Put first side of tire onto rim.



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

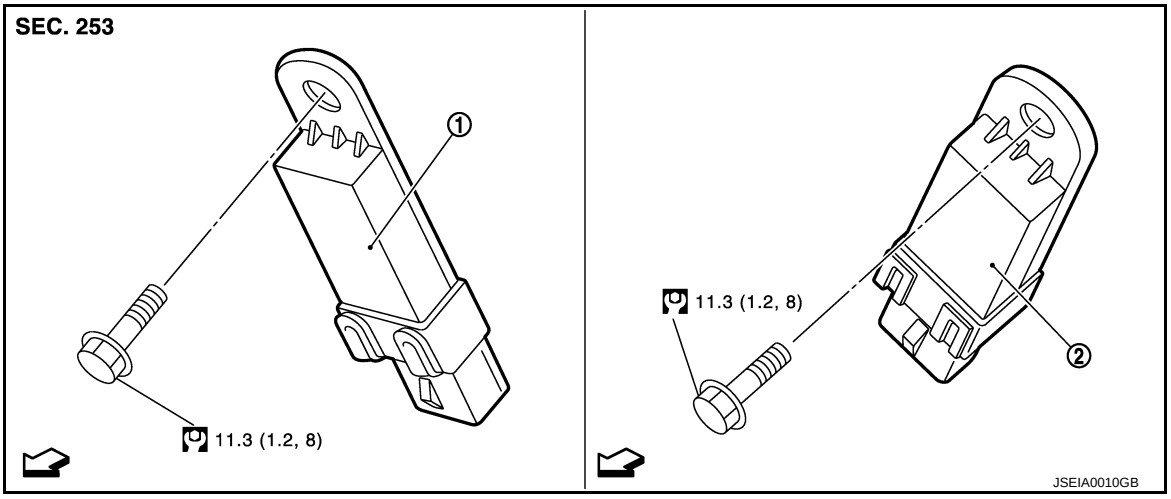
3. Place wheel on turntable of tire machine. Ensure that transmitter (1) is 270 degree from mounting head (2) when second side of tire is fitted.
   NOTE:
   Do not touch transmitter at mounting head.
4. Lubricate tire well and fit second side of tire as normal. Ensure that tire does not rotate relative to rim.
5. Inflate tire and fit to appropriate wheel position.
6. Perform the transmitter wake-up after replacing transmitter. Refer to WT-30, "Work Procedure".



TIRE PRESSURE RECEIVER

Exploded View

INFOID:0000000006059480



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

⇦: Vehicle front

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

FRONT TIRE PRESSURE RECEIVER

FRONT TIRE PRESSURE RECEIVER : Removal and Installation

INFOID:0000000006059481

REMOVAL

1. Remove fender protector (rear). Refer to EXT-24, "FENDER PROTECTOR : Removal and Installation".
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:0000000006059482

REMOVAL

1. Remove rear wheel house protector. Refer to EXT-25, "REAR WHEEL HOUSE PROTECTOR : Removal and Installation".
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.

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Road Wheel

INFOID:0000000006059483

CONVENTIONAL

Item		Limit
Radial runout	Lateral deflection	Less than 0.3 mm (0.012 in)
	Vertical deflection	
Allowable unbalance	Dynamic (At flange)	Less than 7 g (0.25 oz) (one side)
	Static (At flange)	Less than 14 g (0.49 oz)

EMERGENCY

Item		Limit
Radial runout	Lateral deflection	Less than 1.5 mm (0.059 in)
	Vertical deflection	

Tire Air Pressure

INFOID:0000000006059484

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

Tire size	Air pressure	
	Front	Rear
P245/50R18 99V	230 (2.3, 33)	
245/40R20 95W	230 (2.3, 33)	
T165/80R17 104M	420 (4.2, 60)	
T165/80D17 104M	420 (4.2, 60)	
T155/80R18 102M	420 (4.2, 60)	