SECTION WT
ROAD WHEELS & TIRES

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PRECAUTION

PRECAUTIONS

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

INFOID:0000000014896498

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

WARNING:

- **To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, it is recommended that all maintenance and repair be performed by an authorized NISSAN/INFINITI dealer.**
- **Improper repair, 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 SR section.**
- **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 or batteries, and wait at least three minutes before performing any service.**

Service Notice and Precautions for TPMS

INFOID:0000000014628167

WARNING:

Radio waves could adversely affect electric medical equipment. Those who use a pacemaker should contact the electric medical equipment manufacturer for the possible influences before use.

- Low tire pressure warning lamp blinks for 1 minute, then turns ON when occurring any malfunction except low tire pressure. Erase the self-diagnosis memories for Tire Pressure Monitoring System (TPMS), or register the ID to turn low tire pressure warning lamp OFF. For ID registration, refer to WT-22, "Work Flow".
- ID registration is required when replacing or rotating wheels, replacing tire pressure sensor or low tire pressure warning control unit. Refer to WT-24, "Description".
- Replace grommet seal, valve core and valve cap of tire pressure sensor in TPMS, when replacing each tire by reaching the wear limit. Refer to WT-68, "Removal and Installation".
- Because the tire pressure sensor conforms to North America radio law, the following items must be observed.

- The sensor may be used only in North America.
- It may not be used in any method other than the specified method.
- It must not be disassembled or modified.

Service Notice and Precautions for Road Wheel

INFOID:0000000014628168

- Genuine NISSAN aluminum wheel is designed for each type of vehicle. Use it on the specified vehicle only.
- Use Genuine NISSAN parts for the wheels, valve caps and wheel nuts.
- Always balance the wheels prior to using them. 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 wheels onto the vehicle, always wipe off any dirt or foreign substances to prevent them from being trapped between the contact surfaces of wheel.

- Do not apply oil to nut and bolt threads.
- When tightening the valve cap there is a risk of damaging the valve cap if a tool is used. Tighten by hand.

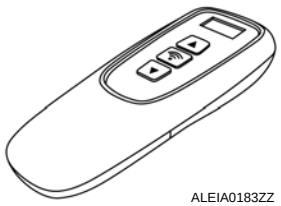
PREPARATION

PREPARATION

Special Service Tool

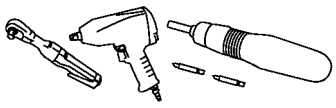
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The actual shape of the tools may differ from those illustrated here.

Tool number (TechMate No.) Tool name	Description
KV48105501 (J-45295-A) Transmitter activation tool  ALEIA0183ZZ	• Activate TPMS transmitter IDs • Compatible with future sensors • Equipped with a display (KV48105501 only)
— (J-50190) Signal Tech II  ALEIA0131ZZ	• Activate and display TPMS transmitter IDs • Display tire pressure reported by the TPMS transmitter • Read TPMS DTCs • Register TPMS transmitter IDs • Test remote keyless entry keyfob relative signal strength • Check Intelligent Key relative signal strength • Confirm vehicle Intelligent Key antenna signal strength • Compatible with future sensors • Equipped with a display
— (J-51980) TPMS Service Tool  ALEIA0324ZZ	Remove and install TPMS transmitter valve stem

Commercial Service Tool

INFOID:0000000014628170

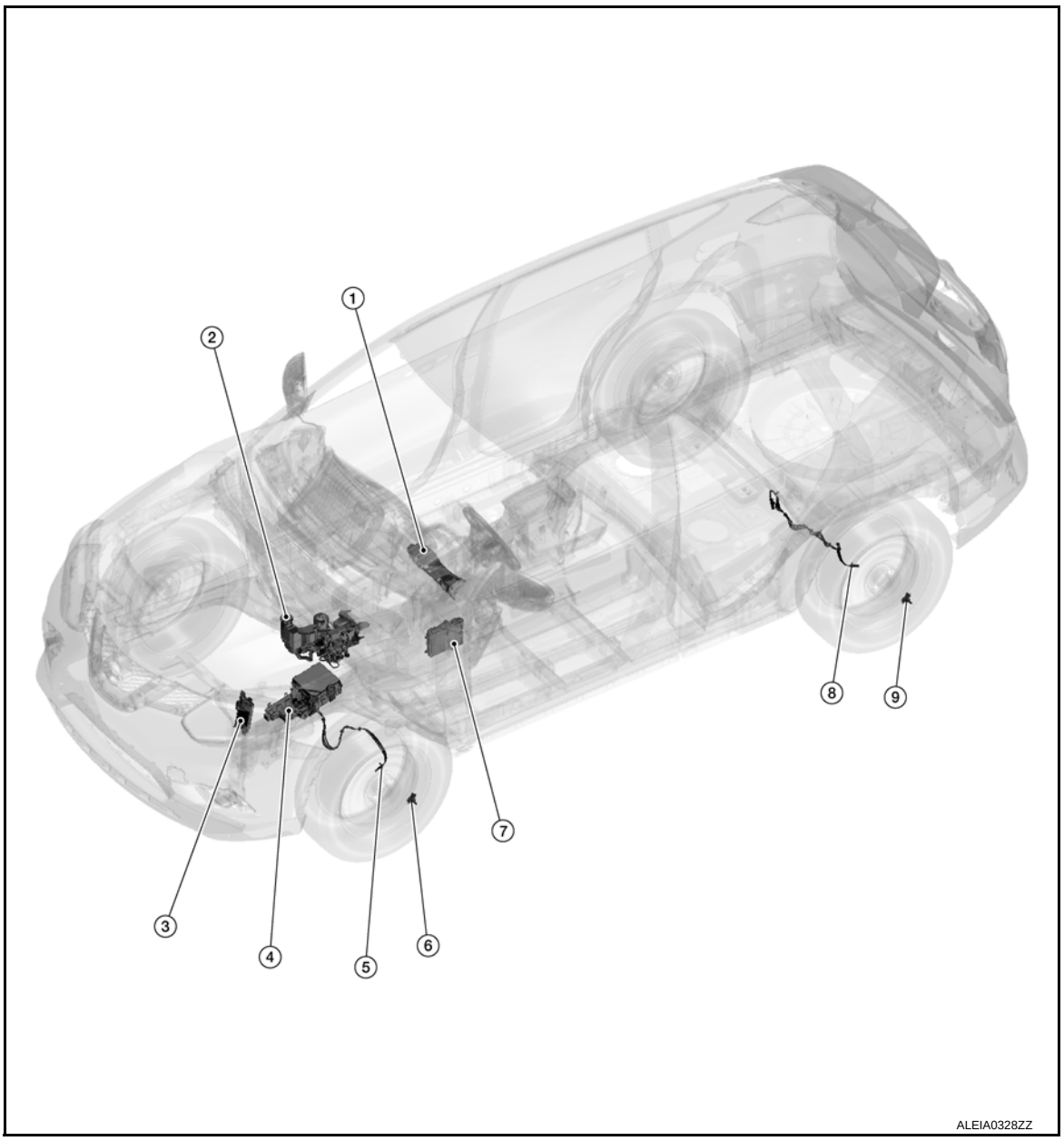
Tool name	Description
Power tool  PIIB1407E	Loosening nuts, screws and bolts

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000014628171



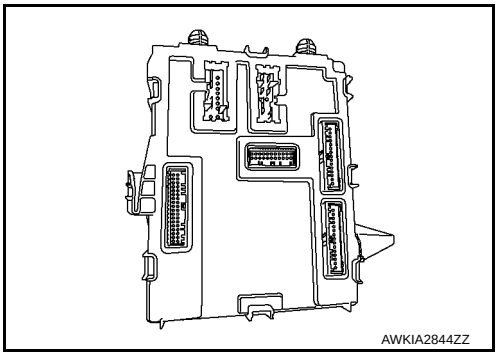
No.	Component parts	Function
1.	Combination meter	The combination meter receives tire pressure status from the BCM via CAN communication. The combination meter will display the low tire pressure warning lamp when a low tire pressure or system malfunction is detected by the BCM. Refer to MWI-81, "Removal and Installation" for detailed installation information.
2.	ABS actuator and electric unit (control unit)	Mainly transmits the following signals to BCM via CAN communication: • Wheel sensor signal (ABS) Refer to BRC-10, "Component Parts Location" for detailed installation location.
3.	TCM	Mainly transmits the P position signal to BCM via CAN communication. Refer to WT-9, "System Description".

No.	Component parts	Function
4.	IPDM E/R	Mainly receives the following signal from BCM via CAN communication: • Horn reminder signal Refer to PCS-6, "Component Parts Location" for detailed installation location.
5.	Front wheel sensor LH (RH similar)	Refer to BRC-13, "Wheel Sensor and Sensor Rotor".
6.	Front tire pressure sensor LH (RH similar)	Refer to BRC-13, "Wheel Sensor and Sensor Rotor".
7.	BCM	Refer to WT-7, "BCM".
8.	Rear wheel sensor LH (RH similar)	Refer to BRC-13, "Wheel Sensor and Sensor Rotor".
9.	Rear tire pressure sensor LH (RH similar	Refer to WT-8, "Tire Pressure Sensor".

BCM

INFOID:0000000014628172

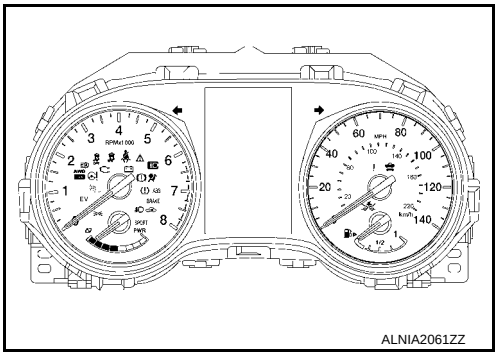
- Tire pressure receiver is integrated in BCM.
- The tire pressure receiver receives the tire pressure signal transmitted by the tire pressure sensor in each wheel.
- The BCM reads the tire pressure signal received by tire pressure receiver, and controls the low tire pressure warning lamp operations. It also has a judgment function to detect a system malfunction.


AWKIA2844ZZ

Information Display

INFOID:0000000014628173

A low tire pressure warning or flat tire warning is shown on the vehicle information display when they are transmitted from the BCM to combination meter via CAN communication.


ALNIA2061ZZ

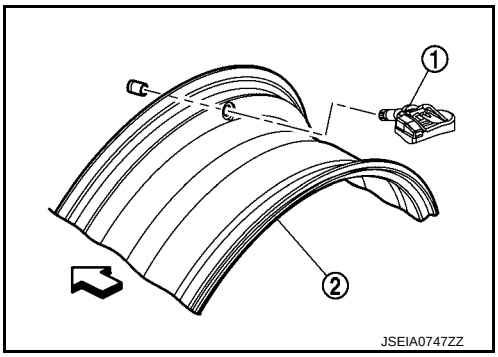
Condition		Vehicle information display
Ignition switch OFF		Not indicated
Ignition switch ON	Low tire pressure warning lamp remains ON after blinking for one minute. Tire Pressure Monitoring System (TPMS) malfunction.	Not indicated
Ignition switch ON	Low tire pressure warning lamp remains ON (low tire pressure).	Indicated
Ignition switch ON	Flat tire warning.	Indicated

Tire Pressure Sensor

INFOID:0000000014628174

The tire pressure sensor (1) integrated with the valve is installed in each wheel (2), and transmits the detected tire pressure and temperature signal in the form of the radio wave. The radio signal is received by the BCM (tire pressure receiver).

⇦ : Outside

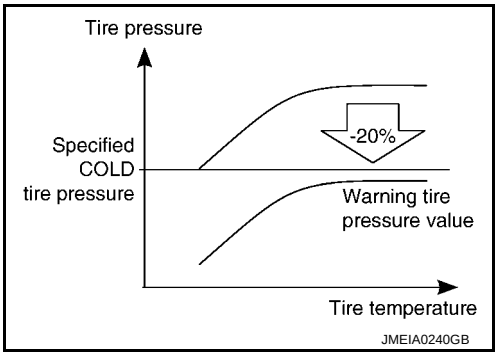


SYSTEM

System Description

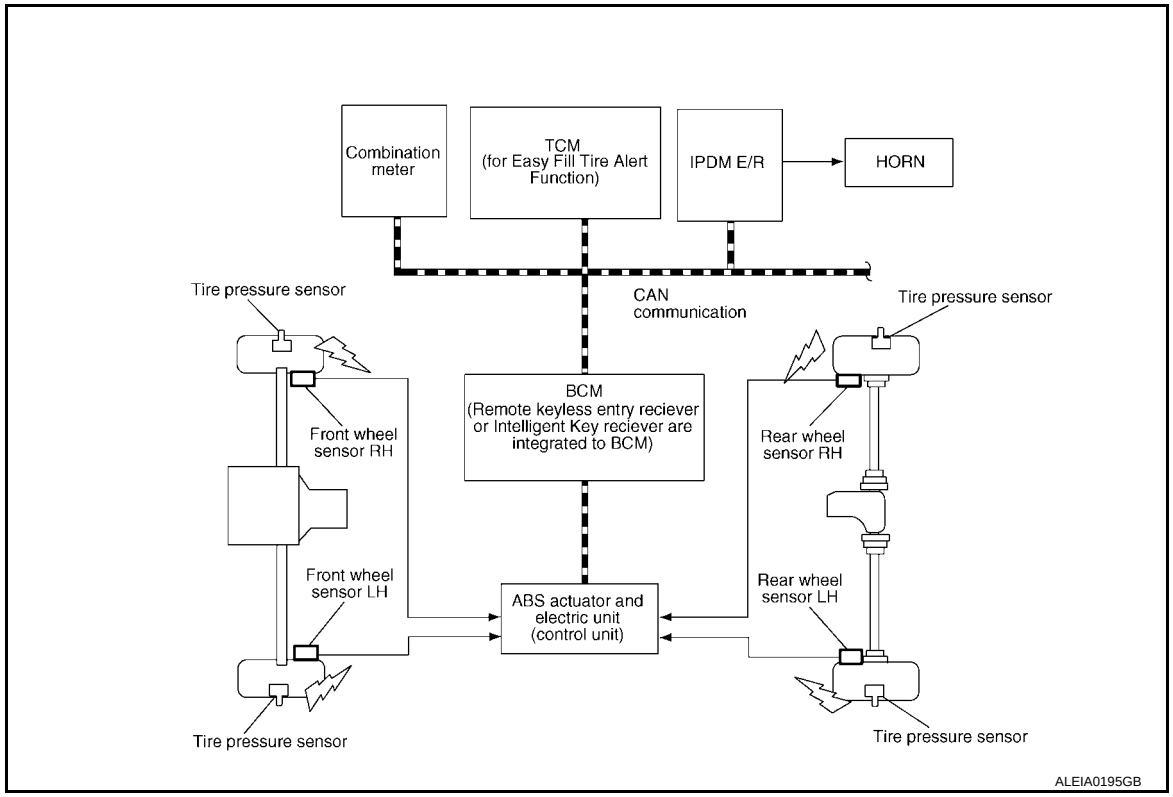
INFOID:0000000014628175

- During driving, the TPMS (Tire Pressure Monitoring System) receives the signal transmitted from tire pressure sensor installed in each wheel. The BCM of this system has pressure judgment and trouble diagnosis functions. When the TPMS (Tire Pressure Monitoring System) detects low inflation pressure or another unusual symptom, the low tire pressure warning lamp in the combination meter comes on.
- Tire pressure varies as per the change in tire temperature. Therefore, warning tire pressure value is varied as per the change in tire temperature.
- If the tire pressure is less than the warning tire pressure value, the low tire pressure warning lamp illuminates.



- Location of wheel is specified due to the synchronism of wheel sensor position and tire pressure sensor position.
- Activates the TPMS (Tire Pressure Monitoring System) when the vehicle speed is 40 km/h (25 MPH) or more.
- The tire pressure monitoring system (TPMS) has Easy Fill Tire alert function to aid in tire inflation. Refer to WT-11, "Easy Fill Tire Alert Function".

SYSTEM DIAGRAM



INPUT/OUTPUT SIGNAL

Major signal transmission between each unit via communication lines is shown in the following table.

Component parts	Signal item
BCM	Mainly transmits the following signals to combination meter via CAN communication. • Low tire pressure warning lamp signal • Low tire pressure wheel location signal • TPMS malfunction warning lamp signal Mainly receives the following signal from ABS actuator and electric unit (control unit) via CAN communication. • Vehicle speed signal (ABS)
Combination meter	Mainly receives the following signals from BCM via CAN communication. • Low tire pressure warning lamp signal • Low tire pressure wheel location signal • TPMS malfunction warning lamp signal
ABS actuator and electric unit (control unit)	Mainly transmits the following signal to BCM via CAN communication: • Vehicle speed signal (ABS)
TCM	Mainly transmits the following signal to BCM via CAN communication: • Shift position signal (P range signal)
IPDM E/R	Mainly receives the following signal from BCM via CAN communication: • Horn reminder signal

LOW TIRE PRESSURE WARNING LAMP INDICATION CONDITION

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

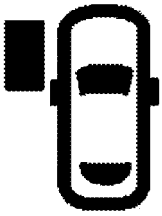
Name	Design	Layout
Low tire pressure warning lamp		Refer to MWI-6, "METER SYSTEM : Design".

Condition	Low tire pressure warning lamp
Ignition switch OFF	OFF
Ignition switch ON (System normal)	Warning lamp turns on for 1 second, then turns off.
Low tire pressure	ON
Configuration not performed in tire pressure monitoring system	Warning lamp blinks 1 min., then turns on.
Tire pressure sensor ID not registered in BCM	
Tire pressure monitoring system malfunction (Other diagnostic item)	

LOW TIRE PRESSURE LOCATION INDICATOR

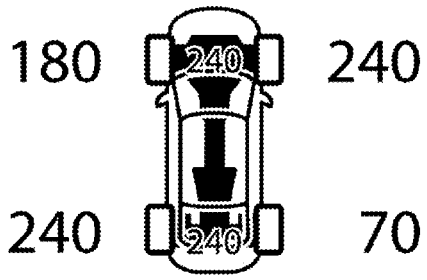
The low tire pressure location indicator is displayed in the information display of combination meter with the low tire pressure warning lamp and warning message under the following conditions:

- Tire pressure is low.
- Tire goes flat.

Design	Message
 JMEIA0247ZZ	Tire Pressure Low Add Air

TIRE PRESSURE DISPLAY

The adoption of this function allows tire pressure indication on the information display installed to the combination meter.

Design	Description
 JMEIA0248ZZ	• Tire pressure of each tire is displayed at side of each tire. • Setting tire pressure of front and rear tires are displayed between front/rear tires.

HAZARD WARNING LAMP INDICATION CONDITION

The hazard warning lamp blinks under the following conditions:

- When ID registration is completed. Refer to WT-24, "Work Procedure".
- During the use of the Easy Fill Tire Alert function.

HORN CONTROL CONDITION

During the use of Easy Fill Tire Alert function.

Easy Fill Tire Alert Function

INFOID:0000000014628176

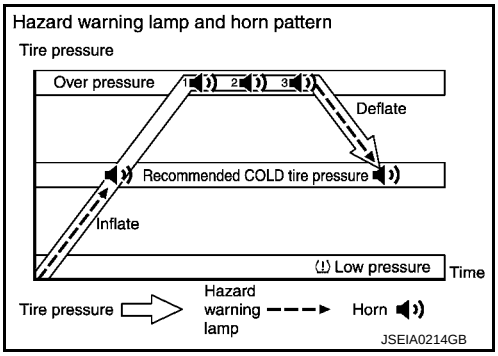
- This function operates only when the select lever position is in P-range with the ignition switch ON.

NOTE:
The Easy Fill tire alert function is recommended to use with the ignition switch ON.

NOTE:
When beginning tire inflation, it takes a few seconds for the Easy fill tire alert to function. If there is no response for approximately 15 seconds or more, cancel the Easy fill tire alert function and move the vehicle approximately 1 m (3.2 ft) backward or forward to try again.

- The Easy fill tire alert function operates only when the select lever position is in P-range with the ignition switch ON.
- This function informs the driver with a visual and audible indication that the recommended COLD tire pressure has been reached.

- The hazard warning lamps blink when the recommended COLD tire pressure has been reached. After the recommended COLD tire pressure has been reached, the horn sounds once and the hazard warning lamps stop blinking.
- If the tire pressure value is equal to or greater than 30 kPa (0.31 kg/cm^2, 4 psi) more than the recommended COLD tire pressure, the hazard warning lamps flash and horn sounds three times.
- To return the tire to the recommended COLD tire pressure, deflate the tire until the horn sounds once and the hazard warning lamps stop blinking.



DIAGNOSIS SYSTEM (TIRE PRESSURE MONITORING SYSTEM)

CONSULT Function

INFOID:0000000014628177

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
Self Diagnostic Result	• Retrieve DTC from BCM and display diagnostic items. • Self-diagnostic results and freeze frame data can be read and erased quickly.
Data Monitor	Monitor the input/output signal of the BCM in real time.
Work support	This mode enables a technician to adjust some devices faster and more accurately.
Active Test	Send the drive signal from CONSULT to the actuator. The operation check can be performed.
ECU Identification	Parts number of BCM can be read.
Configuration	• Read and save the vehicle specification (TYPE ID). • Write the vehicle specification (TYPE ID) when replacing BCM.

ACTIVE TEST

Test Item	Description
ID REGIST WARNING	This test is able to check ID regist warning chime operation [On/Off].
WARNING LAMP	This test is able to check tire pressure warning lamp operation [On/Off].
FLASHER	This test is able to check turn signal lamp operation [On/Off].
HORN	This test is able to check horn operation [On/Off].

ECU IDENTIFICATION

BCM part number can be read.

SELF DIAGNOSTIC RESULT

NOTE:

Before performing Self Diagnostic Result, be sure to register the tire pressure sensor ID or the actual malfunction may be different from that displayed on CONSULT.

Refer to following: WT-16, "DTC Index".

FREEZE FRAME DATA (FFD)

The following vehicle status is recorded when DTC is detected and is displayed on CONSULT.

Item name	Display item
WARNING AIR PRESSURE FL	Warning air pressure front left
WARNING AIR PRESSURE FR	Warning air pressure front right
WARNING AIR PRESSURE RR	Warning air pressure rear right
WARNING AIR PRESSURE RL	Warning air pressure rear left
AIR PRESS FL	Air pressure front left
AIR PRESS FR	Air pressure front right
AIR PRESS RR	Air pressure rear right
AIR PRESS RL	Air pressure rear left

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor Item (Unit)	Description
AIR PRESS FL (kPa, kgf/cm^2 or Psi)	Indicates air pressure of front left tire.
AIR PRESS FR (kPa, kgf/cm^2 or Psi)	Indicates air pressure of front right tire.
AIR PRESS RR (kPa, kgf/cm^2 or Psi)	Indicates air pressure of rear right tire.
AIR PRESS RL (kPa, kgf/cm^2 or Psi)	Indicates air pressure of rear left tire.
WARNING AIR PRESSURE FL (kPa, kgf/cm^2 or Psi)	Indicates warning air pressure front left tire.
WARNING AIR PRESSURE FR (kPa, kgf/cm^2 or Psi)	Indicates warning air pressure front right tire.
WARNING AIR PRESSURE RR (kPa, kgf/cm^2 or Psi)	Indicates warning air pressure rear right tire.
WARNING AIR PRESSURE RL (kPa, kgf/cm^2 or Psi)	Indicates warning air pressure rear left tire.
VHCL SPEED SE (km/h)	Vehicle speed from the ABS actuator and electric unit (control unit) is displayed.
LOW TIRE PRESSURE W/L (Off/On)	Indicates condition of low tire pressure warning lamp in combination meter.
BUZZER 2 (Off/On)	Indicates condition of buzzer in combination meter.
HORN (Off/On)	Indicates condition of horn.
HAZARD (Off/On)	Indicates condition of hazard.

WORK SUPPORT

Support Item	Description
ID REGIST	Refer to WT-24, "Description".

ECU DIAGNOSIS INFORMATION

TIRE PRESSURE MONITORING SYSTEM

Reference Value

INFOID:0000000014628178

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.

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item	Data monitor	
	Condition	Reference values for normal operation
AIR PRESS FL	• Drive at a speed of 40 km/h (25 MPH) or more then drive normally for 10 minutes. • Turn the ignition switch ON and use the activation tool to transmit the registration signal.	Tire pressure (kPa), (kgf/cm^2) or (Psi)
AIR PRESS FR		
AIR PRESS RR		
AIR PRESS RL		
WARNING AIR PRESSURE FL	Ignition switch ON	Indicates warning air pressure front left tire (kPa), (kgf/cm^2) or (Psi)
WARNING AIR PRESSURE FR	Ignition switch ON	Indicates warning air pressure front right tire (kPa), (kgf/cm^2) or (Psi)
WARNING AIR PRESSURE RR	Ignition switch ON	Indicates warning air pressure rear right tire (kPa), (kgf/cm^2) or (Psi)
WARNING AIR PRESSURE RL	Ignition switch ON	Indicates warning air pressure rear left tire (kPa), (kgf/cm^2) or (Psi)
VHCL SPEED SE	Drive the vehicle.	Vehicle speed (km/h) or (MPH)
LOW TIRE PRESSURE W/L	Ignition switch ON	Low tire pressure warning lamp ON: On Low tire pressure warning lamp OFF: Off
BUZZER 2	Ignition switch ON	Combination meter buzzer ON: On Combination meter buzzer OFF: Off
HORN	Ignition switch ON	Horn ON: On Horn OFF: Off
HAZARD	Ignition switch ON	Hazard lamp ON: On Hazard lamp OFF: Off

TERMINAL LAYOUT

Refer to BCS-28, "Reference Value".

PHYSICAL VALUES

Refer to BCS-28, "Reference Value".

DTC Inspection Priority Chart

INFOID:0000000014628179

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	C1769 CONFIG SETTING
2	C1734 CONTROL UNIT
3	C1735 IGNITION SIGNAL

Priority	Detected items (DTC)
4	• U1000 CAN COMM CIRCUIT • U1010 CONTROL UNIT (CAN)
5	C1729 VHCL SPEED SIG ERR
6	• C1765 WHEEL TOP DATA FL • C1766 WHEEL TOP DATA FR • C1767 WHEEL TOP DATA RL • C1768 WHEEL TOP DATA RR
7	• C1716 [PRESSDATA ERR] FL • C1717 [PRESSDATA ERR] FR • C1718 [PRESSDATA ERR] RR • C1719 [PRESSDATA ERR] RL
8	• C1708 [NO DATA] FL • C1709 [NO DATA] FR • C1710 [NO DATA] RR • C1711 [NO DATA] RL
9	• C1704 LOW PRESSURE FL • C1705 LOW PRESSURE FR • C1706 LOW PRESSURE RR • C1707 LOW PRESSURE RL
10	• C1730 FLAT TIRE FL • C1731 FLAT TIRE FR • C1732 FLAT TIRE RR • C1733 FLAT TIRE RL
11	• C1770 G SENSOR FL • C1771 G SENSOR FR • C1772 G SENSOR RL • C1773 G SENSOR RR

DTC Index

INFOID:0000000014628180

DTC	Items (CONSULT screen terms)	Low tire pressure warning lamp	Reference
C1704	LOW PRESSURE FL	ON	WT-29, "DTC Description"
C1705	LOW PRESSURE FR		
C1706	LOW PRESSURE RR		
C1707	LOW PRESSURE RL		
C1708	[NO DATA] FL	The low tire pressure warning lamp repeats blinking at 0.5-second intervals for 1 minute, and then stays illuminated.	WT-31, "DTC Description"
C1709	[NO DATA] FR		
C1710	[NO DATA] RR		
C1711	[NO DATA] RL		
C1716	[PRESSDATA ERR] FL	The low tire pressure warning lamp repeats blinking at 0.5-second intervals for 1 minute, and then stays illuminated.	WT-34, "DTC Description"
C1717	[PRESSDATA ERR] FR		
C1718	[PRESSDATA ERR] RR		
C1719	[PRESSDATA ERR] RL		
C1729	VHCL SPEED SIG ERR	The low tire pressure warning lamp repeats blinking at 0.5-second intervals for 1 minute, and then stays illuminated.	WT-36, "DTC Description"
C1730	FLAT TIRE FL	ON	WT-37, "DTC Description"
C1731	FLAT TIRE FR		
C1732	FLAT TIRE RR		
C1733	FLAT TIRE RL		

DTC	Items (CONSULT screen terms)	Low tire pressure warning lamp	Reference
C1734	CONTROL UNIT	The low tire pressure warning lamp repeats blinking at 0.5-second intervals for 1 minute, and then stays illuminated.	WT-39, "DTC Description"
C1735	IGNITION SIGNAL	The low tire pressure warning lamp repeats blinking at 0.5-second intervals for 1 minute, and then stays illuminated.	WT-41, "DTC Logic"
C1765	WHEEL TOP DATA FL	The low tire pressure warning lamp repeats blinking at 0.5-second intervals for 1 minute, and then stays illuminated.	WT-43, "DTC Description"
C1766	WHEEL TOP DATA FR		
C1767	WHEEL TOP DATA RL		
C1768	WHEEL TOP DATA RR		
C1769	CONFIG SETTING	The low tire pressure warning lamp repeats blinking at 0.5-second intervals for 1 minute, and then stays illuminated.	WT-45, "DTC Description"
C1770	G SENSOR FL	OFF	WT-47, "DTC Description"
C1771	G SENSOR FR		
C1772	G SENSOR RL		
C1773	G SENSOR RR		
U1000	CAN COMM CIRCUIT	The low tire pressure warning lamp repeats blinking at 0.5-second intervals for 1 minute, and then stays illuminated.	WT-49, "DTC Description"
U1010	CONTROL UNIT (CAN)	The low tire pressure warning lamp repeats blinking at 0.5-second intervals for 1 minute, and then stays illuminated.	WT-50, "DTC Description"

NOTE:
If some DTCs are displayed at the same time, refer to WT-15, "DTC Inspection Priority Chart".

BCM

List of ECU Reference

INFOID:0000000014628181

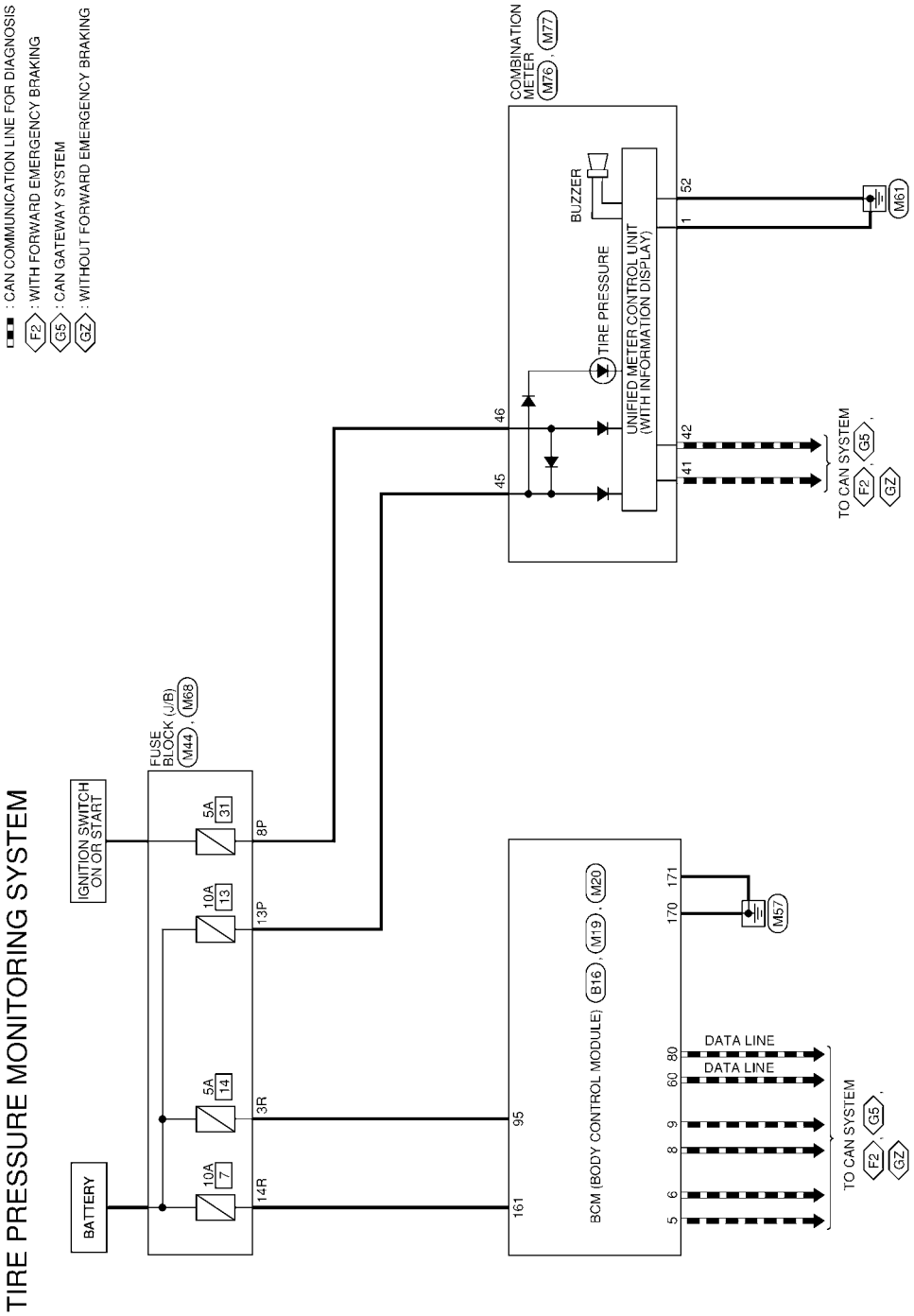
ECU	Reference
BCM	BCS-28, "Reference Value"
	BCS-46, "Fail-safe"
	BCS-47, "DTC Inspection Priority Chart"
	BCS-48, "DTC Index"

WIRING DIAGRAM

TIRE PRESSURE MONITORING SYSTEM

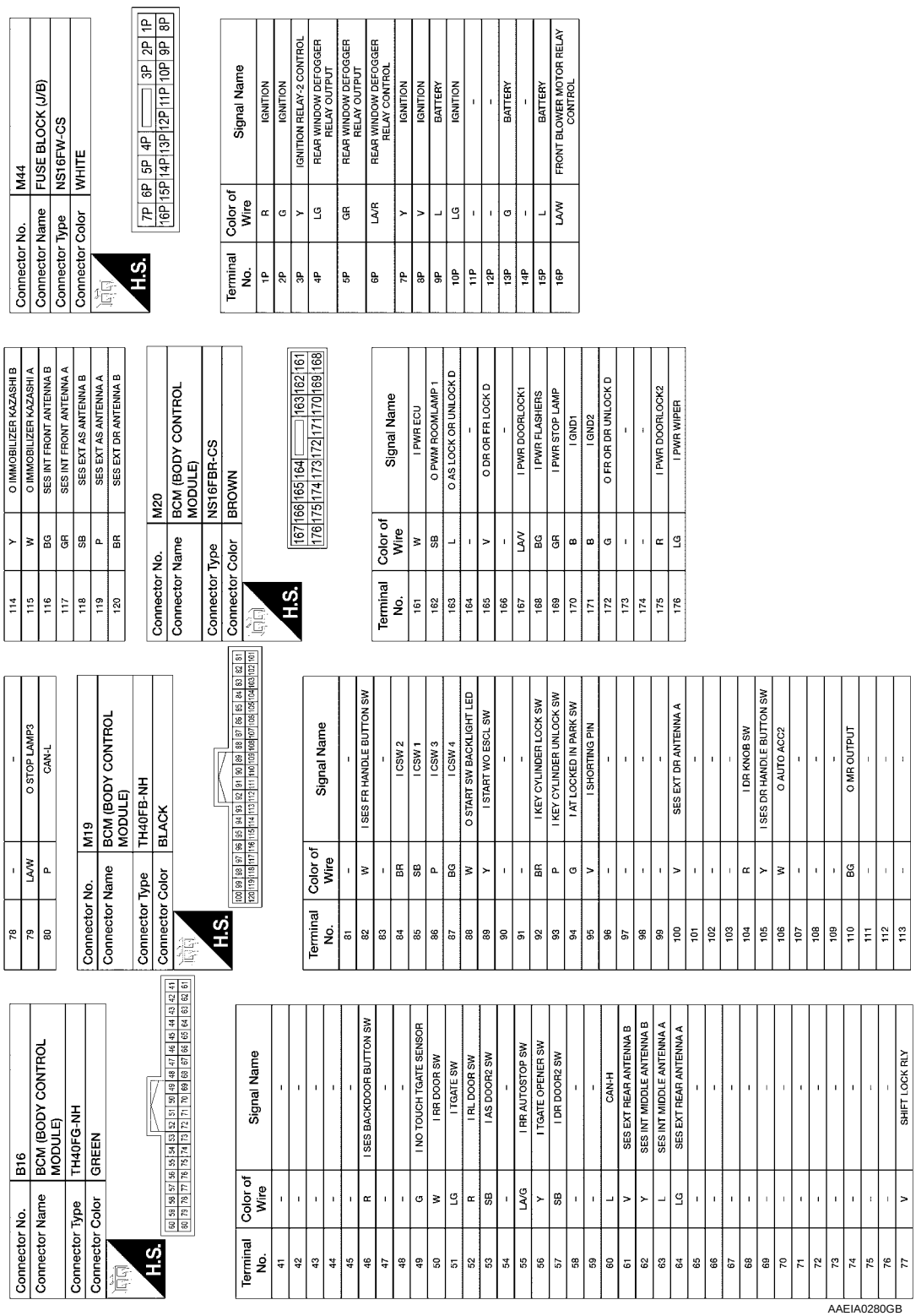
Wiring Diagram

INFOID:0000000014628182



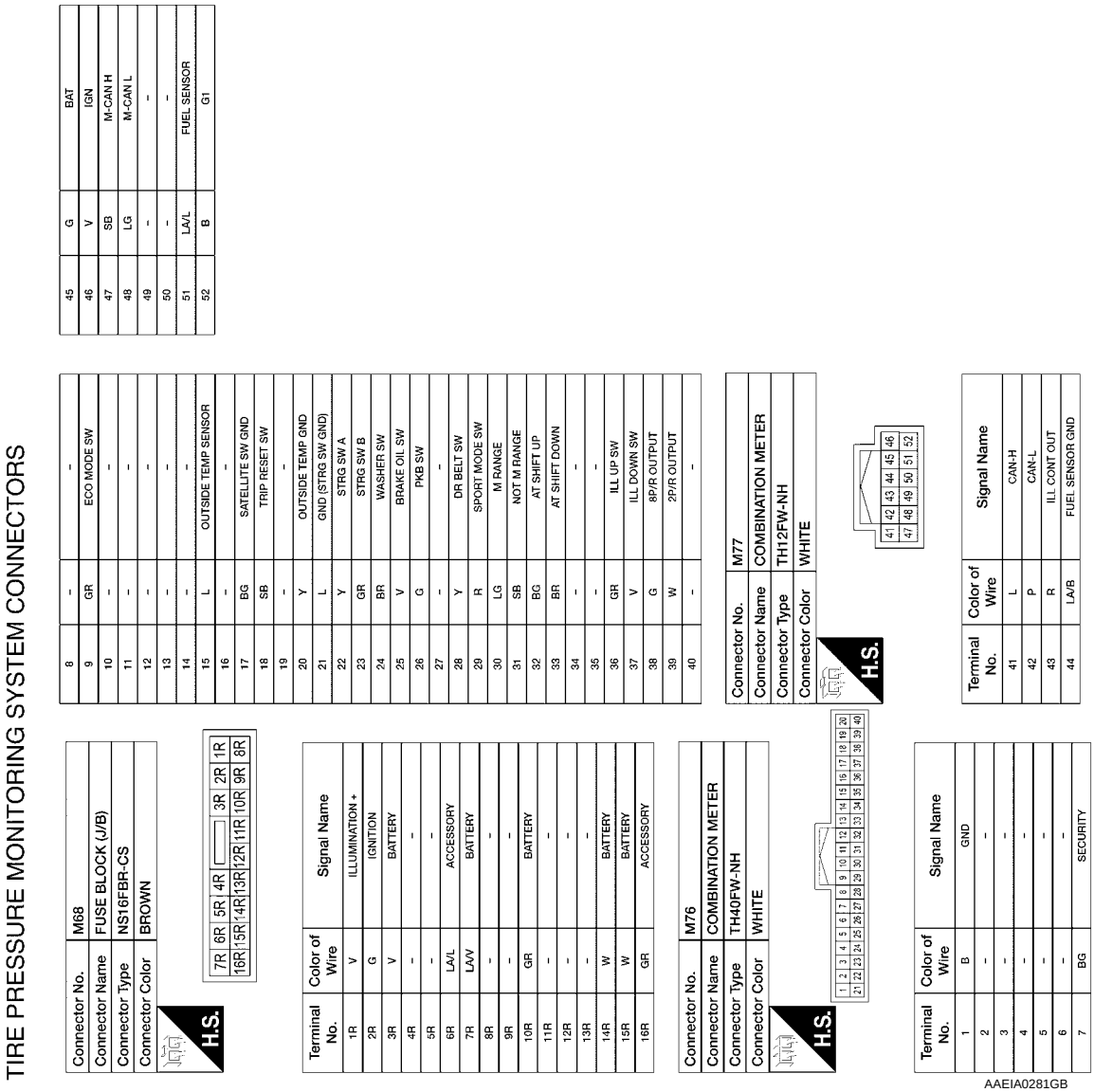
AAEWA0102GB

TIRE PRESSURE MONITORING SYSTEM CONNECTORS



AAEIA0280GB

TIRE PRESSURE MONITORING SYSTEM CONNECTORS



AAEIA0281GB

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:0000000015244265

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Activate and display TPMS sensor IDs
- Display tire pressure reported by the TPMS sensor
- Read TPMS DTCs
- Register TPMS sensor IDs

1.COLLECT INFORMATION FROM CUSTOMER

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

>> GO TO 2.

2.TIRE AND WHEEL INSPECTION

Check all tires and wheels for physical damage. Refer to WT-63, "Inspection".

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace as necessary.

3.TIRE PRESSURE INSPECTION

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

Is the inspection result normal?

YES >> GO TO 4.
NO >> Check tire(s), wheel(s) and valve stem(s) for air leaks. Repair or replace as necessary.

4.CHECK LOW TIRE PRESSURE WARNING LAMP

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

Does the low tire pressure warning lamp turn OFF?

YES >> Inspection End.
NO >> GO TO 5.

5.PERFORM SELF DIAGNOSTIC RESULT

Perform self diagnostic result. Refer to WT-13, "CONSULT Function".

Are any DTCs displayed?

YES >> Refer to WT-16, "DTC Index". If two or more DTCs are displayed, refer to WT-15, "DTC Inspection Priority Chart".
NO >> GO TO 6.

6.PERFORM DIAGNOSIS APPLICABLE TO THE SYMPTOM

Perform diagnosis applicable to the symptom. Refer to WT-53, "Symptom Table".

>> GO TO 7.

7.FINAL CHECK

Perform self diagnostic result again, and check that the malfunction is repaired. After checking, erase the self diagnosis memory. Refer to WT-13, "CONSULT Function".

>> Inspection End.

ADDITIONAL SERVICE WHEN REPLACING BCM

Description

INFOID:0000000014628184

When replacing BCM, configuration (BCM and TPMS) and then tire pressure sensor ID registration is required.

Work Procedure

INFOID:0000000014628185

1.PERFORM CONFIGURATION (BCM)

Perform configuration BCM. Refer to BCS-59, "CONFIGURATION (BCM) : Work Procedure".

>> GO TO 2.

2.PERFORM CONFIGURATION (TIRE PRESSURE MONITORING SYSTEM)

Perform configuration tire pressure monitoring system. Refer to WT-27, "Work Procedure".

>> GO TO 3.

3.PERFORM TIRE PRESSURE SENSOR ID REGISTRATION

Perform tire pressure sensor ID registration. Refer to WT-24, "Work Procedure".

>> Work End.

ID REGISTRATION PROCEDURE

Description

INFOID:0000000014628186

This procedure must be performed after replacement of a tire pressure sensor or BCM.

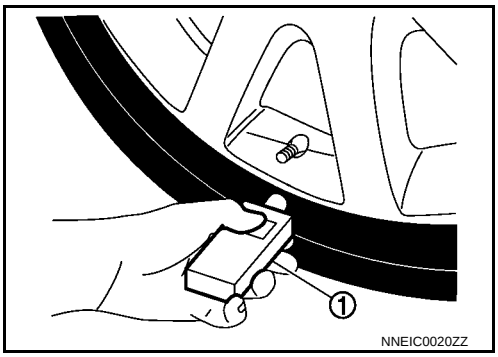
Work Procedure

INFOID:0000000014628187

TPMS ID registration can be performed using one of the following procedures:
- Transmitter Activation tool [KV48105501 (J-45295-A)] using CONSULT (preferred method)
- Signal Tech II tool [– (J-50190)] using CONSULT (preferred method)
- Signal Tech II tool [– (J-50190)] without CONSULT
- CONSULT only

TPMS REGISTRATION WITH TRANSMITTER ACTIVATION TOOL [KV48105501 (J-45295-A)]

With CONSULT
1. Turn the ignition switch ON.
2. Using CONSULT, select “Work support” in “AIR PRESSURE MONITOR”. Then, select “ID REGIST.”
3. Select “Start” on “ID REGIST” screen.
4. Hold the transmitter activation tool [KV48105501 (J-45295-A)] (1) against the side of the left front tire, near the valve stem.
5. With the tool held at a 0 to 15 degree angle to the tire, press and hold the transmitter activation tool button until the indicator lamp turns OFF (approximately 5 seconds).
6. Repeat steps 4 and 5 for the remaining tires in this order: right front, right rear and left rear.



7. When ID registration is complete, check the following pattern at each wheel.

Sequence	ID registration position	Turn signal lamp	CONSULT
1	Front LH	2 blinks	“Yet (red)” ↓ “Done (green)”
2	Front RH		
3	Rear RH		
4	Rear LH		

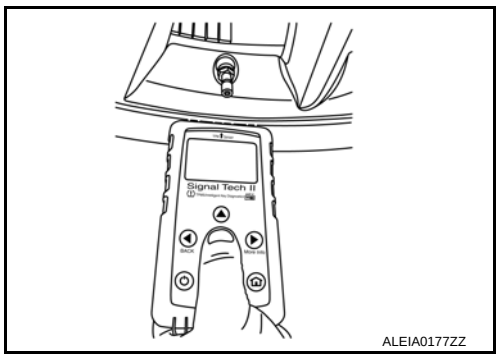
8. After the ID registration procedure for all wheels is complete, press “End” on the CONSULT to finish ID registration.
9. Test drive the vehicle to ensure that the TPMS lamp is OFF and no warning messages are present.

TPMS REGISTRATION WITH SIGNAL TECH II TOOL [– (J-50190)]

NOTE:
The Signal Tech II must be updated with the newest software version in order to perform the below procedures. The Signal Tech II software updates can only be downloaded from a CONSULT unit with ASIST. Other versions of ASIST will not show the updates.

With CONSULT
1. Adjust the tire pressure for all tires to the recommended value. Refer to WT-74, "Tire Air Pressure".
2. Turn the ignition switch ON.
3. Using CONSULT, select “Work support” in “AIR PRESSURE MONITOR”. Then, select “ID REGIST.”
4. Select “Start” on “ID REGIST” screen.
5. Turn on the Signal Tech II tool [– (J-50190)].

6. Hold the Signal Tech II against the side of the left front tire, near the valve stem.
7. With the tool held at a 0 to 15 degree angle to the tire, select “Activate Sensor” from the main menu, then press and release the “OK” button to activate the sensor. Once the sensor is activated, the vehicle parking lamps will flash and the sensor ID will appear on the CONSULT screen.
8. Repeat steps 6 and 7 for the remaining tires in this order: right front, right rear and left rear.
9. When ID registration is complete, check the following pattern at each wheel.

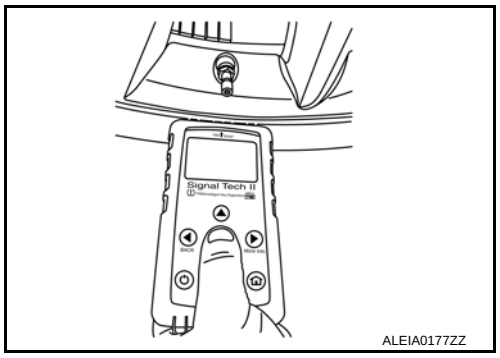


Sequence	ID registration position	Turn signal lamp	CONSULT
1	Front LH	2 blinks	“Yet (red)” ↓ “Done (green)”
2	Front RH		
3	Rear RH		
4	Rear LH		

10. Once all sensors have been activated, select “End” on the CONSULT to finish ID registration.
11. Test drive the vehicle to ensure that the TPMS lamp is OFF and no warning messages are present.

Without CONSULT

1. Adjust the tire pressure for all tires to the recommended value. Refer to WT-74, "Tire Air Pressure".
2. Turn on the Signal Tech II tool [– (J-50190)] and select “TPMS Check” from the main menu.
3. Select vehicle model and year.
4. When prompted, hold the Signal Tech II against the side of the left front tire, near the valve stem.
5. With the tool held at a 0 to 15 degree angle to the tire, press and release the “OK” button to activate the sensor. Once the sensor is activated, the tool will sound a tone and the tire pressure will be displayed.
6. Repeat steps 4 and 5 for the remaining tires in this order: right front, right rear and left rear.
7. When prompted, connect the tool to the data link connector. The tool will connect to the BCM, read the VIN, read sensor IDs and check for TPMS DTCs. Along with DTCs detected, one of the following will be displayed next to each wheel:



- N/A - Not applicable because no ID found by the tool
- OK - Wheel and sensor are in original position
- NEW - New ID found compared to BCM
- RT - Wheel has been rotated
- Low Press - Low tire pressure

8. If no DTC is present or the repair has been completed, press the “OK” button to register the IDs and clear DTCs.
9. Test drive the vehicle to ensure that the TPMS lamp is OFF and no warning messages are present.
10. Print a Signal Tech II Audit Report for your records. Refer to the Signal Tech II User Guide for instructions.

TPMS REGISTRATION WITH CONSULT ONLY

With CONSULT

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

Tire position	Tire pressure kPa (kg/cm^2, psi)
Front LH	240 (2.4, 35)
Front RH	220 (2.2, 32)
Rear RH	200 (2.0, 29)
Rear LH	180 (1.8, 26)

2. Turn the ignition switch ON.
3. Using CONSULT, select “Work support” in “AIR PRESSURE MONITOR”. Then, select “ID REGIST.”
4. Select “Start” on “ID REGIST” screen.
5. Drive the vehicle at a speed greater than 40 km/h (25 MPH) for 3 minutes or more.
6. After ID registration for all wheels is complete, press “End” on the CONSULT to finish ID registration.

ID registration position	CONSULT
Front LH	“Yet (red)” ↓ “Done (green)”
Front RH	
Rear RH	
Rear LH	

7. Adjust the tire pressures for all tires to the recommended value. Refer to WT-74, "Tire Air Pressure".
8. Test drive the vehicle to ensure that the TPMS lamp is OFF and no warning messages are present.

CONFIGURATION (TIRE PRESSURE MONITORING SYSTEM)

Work Procedure

INFOID:0000000014628188

CAUTION:

- **After configuration, perform the following:**
- **Turn the ignition switch from OFF to ON and check that the low tire pressure warning lamp turns OFF after staying illuminated for approximately two seconds.**
- **Perform tire pressure sensor ID registration. Refer to WT-24, "Work Procedure".**
- **If TPMS configuration is not completed, TPMS transmitter ID registration will not complete.**

1. CHECKING ECU IDENTIFICATION NUMBER

CONSULT

1. Select “ECU Identification” of “BCM”.
2. Write down ECU part number.

>> GO TO 2.

2. RE/PROGRAMMING, CONFIGURATION

CONSULT

1. Select “Re/programming, Configuration” from home screen.
2. Check box confirming the precautions have been read.
3. Select “Next”.

Is “Manual Selection (Vehicle Name)” displayed?

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

3. VEHICLE SELECTION

CONSULT

1. Select Vehicle Make, Vehicle Name, and correct model year.
2. Press “Select”.

>> GO TO 4.

4. VEHICLE CONFIRMATION

CONSULT

1. Verify VIN or Chassis Number matches the vehicles VIN.
2. Select “Confirm”.

>> GO TO 5.

5. INPUT VIN

1. Verify VIN number in dialog box matches vehicles VIN.
2. Select “Confirm”.

>> GO TO 6.

6. SYSTEM SELECTION

CONSULT

Select “AIR PRESSURE MONITOR”.

>> GO TO 7.

7. OPERATION SELECTION

1. Select “Manual Configuration”
2. Select the DATA PART NO. that matches the BCM part number written down in step 1.
3. Select “Next”.

>> GO TO 8.

8. WRITE CONFIGURATION

CONSULT
1. Confirm that the correct DATA PART NO. is listed.
2. Select “OK”.

>> GO TO 9.

9. CHECKING LOW TIRE PRESSURE WARNING LAMP

1. Turn the ignition switch OFF.
2. Turn the ignition switch ON and check that the low tire pressure warning lamp turns OFF after staying illuminated for approximately two seconds.
   CAUTION:
   Never start the engine.

Is the inspection result normal?

YES >> GO TO 10.
NO >> Perform the “Self Diagnostic Result” mode in “AIR PRESSURE MONITOR”. Refer to WT-13, "CONSULT Function".

10. PERFORMING SUPPLEMENTARY WORK

1. Perform tire pressure sensor ID registration. Refer to WT-24, "Work Procedure".
2. Perform the self-diagnosis of all systems.
3. Erase self-diagnosis results.

>> End of work.

DTC/CIRCUIT DIAGNOSIS

C1704, C1705, C1706, C1707 LOW TIRE PRESSURE

DTC Description

INFOID:0000000014928841

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Activate and display TPMS sensor IDs
- Display tire pressure reported by the TPMS sensor
- Read TPMS DTCs
- Register TPMS sensor IDs

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
C1704	LOW PRESSURE FL (Low tire pressure front left)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	Tire pressure sensor signal (–).
		Threshold	Tire pressure drops to 193.1 kPa (1.9 kg/cm^2, 28 psi) or less
		Diagnosis delay time	–
C1705	LOW PRESSURE FR (Low tire pressure front right)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	Tire pressure sensor signal (–).
		Threshold	Tire pressure drops to 193.1 kPa (1.9 kg/cm^2, 28 psi) or less
		Diagnosis delay time	–
C1706	LOW PRESSURE RR (Low tire pressure rear right)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	Tire pressure sensor signal (–).
		Threshold	Tire pressure drops to 193.1 kPa (1.9 kg/cm^2, 28 psi) or less
		Diagnosis delay time	–
C1707	LOW PRESSURE RL (Low tire pressure rear left)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	Tire pressure sensor signal (–).
		Threshold	Tire pressure drops to 193.1 kPa (1.9 kg/cm^2, 28 psi) or less
		Diagnosis delay time	–

POSSIBLE CAUSE
- Low tire pressure
- Tire pressure sensor

DTC CONFIRMATION PROCEDURE

1.PERFORM SELF DIAGNOSTIC RESULT

CONSULT
1. Check tire pressure for all wheels and adjust to the specified value. Refer to WT-74, "Tire Air Pressure".
2. Drive at a speed of 40 km/h (25 MPH) or more for 3 minutes, and then drive the vehicle at any speed for 10 minutes.
3. Select “Self Diagnostic Result” mode of “AIR PRESSURE MONITOR”.
4. Check DTC.

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

YES >> Proceed to WT-30, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000014928842

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Activate and display TPMS sensor IDs
- Display tire pressure reported by the TPMS sensor
- Read TPMS DTCs
- Register TPMS sensor IDs

1. TIRE PRESSURE SENSOR ID REGISTRATION

Perform tire pressure sensor ID registration. Refer to WT-24, "Work Procedure".

Can the tire pressure sensor ID registration be completed?

YES >> GO TO 2.
NO >> Replace applicable tire pressure sensor. Refer to WT-68, "Removal and Installation".

2. CHECK TIRE PRESSURE

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

Is the inspection result normal?

YES >> Perform DTC CONFIRMATION PROCEDURE again. Refer to WT-29, "DTC Description".
NO >> GO TO 3.

3. CHECK TIRE PRESSURE SIGNAL

CONSULT
1. Adjust tire pressure for all wheels to the specified value. Refer to WT-74, "Tire Air Pressure".
2. Select “Data Monitor” mode of “AIR PRESSURE MONITOR”.
3. Check that the air pressures match the specified value.

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

Is the inspection result normal?

YES >> Inspection End.
NO >> Repair or replace malfunctioning components.

C1708, C1709, C1710, C1711 TIRE PRESSURE SENSOR

DTC Description

INFOID:0000000014928843

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.

- Activate and display TPMS sensor IDs
- Display tire pressure reported by the TPMS sensor
- Read TPMS DTCs
- Register TPMS sensor IDs

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
C1708	[NO – DATA] – FL (No data front left)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	–
		Threshold	Tire pressure data signal from the front LH wheel tire pressure sensor cannot be detected for more than 10 minutes of driving above 40 km/h (25 MPH).
		Diagnosis delay time	–
C1709	[NO – DATA] – FR (No data front right)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	–
		Threshold	Tire pressure data signal from the front RH wheel tire pressure sensor cannot be detected for more than 10 minutes of driving above 40 km/h (25 MPH).
		Diagnosis delay time	–
C1710	[NO – DATA] – RR (No data rear right left)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	–
		Threshold	Tire pressure data signal from the rear RH wheel tire pressure sensor cannot be detected for more than 10 minutes of driving above 40 km/h (25 MPH).
		Diagnosis delay time	–
C1711	[NO – DATA] – RL (No data rear left)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	–
		Threshold	Tire pressure data signal from the rear LH wheel tire pressure sensor cannot be detected for more than 10 minutes of driving above 40 km/h (25 MPH).
		Diagnosis delay time	–

POSSIBLE CAUSE

- Driving in area with radio interference.
- ID registration incomplete
- Tire pressure sensor
- Harness or connectors
- BCM

DTC CONFIRMATION PROCEDURE

1.PERFORM SELF DIAGNOSTIC RESULT

CONSULT

1. Perform tire pressure sensor ID registration. Refer to WT-24, "Work Procedure".

2. Drive at a speed of 40 km/h (25 MPH) or more for 3 minutes, and then drive the vehicle at any speed for 10 minutes.
   NOTE:
   Avoid driving in areas with radio interference.
3. Select “Self Diagnostic Result” mode of “AIR PRESSURE MONITOR”.
4. Check DTC.

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

YES >> Proceed to WT-32, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000015259199

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Activate and display TPMS sensor IDs
- Display tire pressure reported by the TPMS sensor
- Read TPMS DTCs
- Register TPMS sensor IDs

1. CHECK TIRE PRESSURE SIGNAL

CONSULT
1. Select “Data Monitor” mode in “AIR PRESSURE MONITOR”.
2. Check that the air pressures match the specified value.

Monitor item	Displayed value
AIR PRESS FL	Approximately equal to specified value. Refer to WT-74, "Tire Air Pressure".
AIR PRESS FR	
AIR PRESS RR	
AIR PRESS RL	

Are all tire pressures displayed 0 kPa (psi)?

YES >> GO TO 2.
NO >> Replace applicable tire pressure sensor. Refer to WT-68, "Removal and Installation".

2. CHECK BCM POWER SUPPLY AND GROUND

Check BCM power supply and ground. Refer to BCS-66, "Diagnosis Procedure".

Is the inspection result normal?

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

3. TIRE PRESSURE SENSOR ID REGISTRATION

Perform tire pressure sensor ID registration. Refer to WT-24, "Work Procedure".

Can the tire pressure sensor ID registration be completed?

YES >> GO TO 4.
NO >> Replace applicable tire pressure sensor. Refer to WT-68, "Removal and Installation".

4. RECHECK TIRE PRESSURE SIGNAL

CONSULT
1. Drive at a speed of 40 km/h (25 MPH) or more for 3 minutes, and then drive the vehicle at any speed for 10 minutes.
2. Select “Data Monitor” mode in “AIR PRESSURE MONITOR”.
3. Check that the air pressures match the specified value.

Monitor item	Displayed value
AIR PRESS FL	Approximately equal to specified value. Refer to WT-74, "Tire Air Pressure".
AIR PRESS FR	
AIR PRESS RR	
AIR PRESS RL	

Does Data Monitor display specified value without turning tire pressure warning lamp ON?

YES >> Inspection End.
NO >> Replace BCM. Refer to BCS-73, "Removal and Installation".

C1716, C1717, C1718, C1719 TIRE PRESSURE SENSOR

DTC Description

INFOID:0000000014928845

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Activate and display TPMS sensor IDs
- Display tire pressure reported by the TPMS sensor
- Read TPMS DTCs
- Register TPMS sensor IDs

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
C1716	[PRESS DATA ERR] FL (Pressure data error front left)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	Tire pressure sensor signal (–).
		Threshold	Malfunction in the tire pressure data from the front LH wheel tire pressure sensor.
		Diagnosis delay time	–
C1717	[PRESS DATA ERR] FR (Pressure data error front right)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	Tire pressure sensor signal (–).
		Threshold	Malfunction in the tire pressure data from the front RH wheel tire pressure sensor.
		Diagnosis delay time	–
C1718	[PRESS DATA ERR] RR (Pressure data error rear right)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	Tire pressure sensor signal (–).
		Threshold	Malfunction in the tire pressure data from the rear RH wheel tire pressure sensor.
		Diagnosis delay time	–
C1719	[PRESS DATA ERR] RL (Pressure data error rear left)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	Tire pressure sensor signal (–).
		Threshold	Malfunction in the tire pressure data from the rear LH wheel tire pressure sensor.
		Diagnosis delay time	–

POSSIBLE CAUSE
- Excessive tire pressure
- ID registration incomplete
- Tire pressure sensor
- BCM

DTC CONFIRMATION PROCEDURE

1.PERFORM SELF DIAGNOSTIC RESULT

CONSULT
1. Check tire pressure for all wheels and adjust to the specified value. Refer to WT-74, "Tire Air Pressure".
2. Drive at a speed of 40 km/h (25 MPH) or more for 3 minutes, and then drive the vehicle at any speed for 10 minutes.
3. Select “Self Diagnostic Result” mode of “AIR PRESSURE MONITOR”.
4. Check DTC.

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

YES >> Proceed to WT-35, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000014928846

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Activate and display TPMS sensor IDs
- Display tire pressure reported by the TPMS sensor
- Read TPMS DTCs
- Register TPMS sensor IDs

1. TIRE PRESSURE SENSOR ID REGISTRATION

Perform tire pressure sensor ID registration. Refer to WT-24, "Work Procedure".

Can the tire pressure sensor ID registration be completed?

YES >> GO TO 2.
NO >> Replace applicable tire pressure sensor. Refer to WT-68, "Removal and Installation".

2. CHECK TIRE PRESSURE SIGNAL

CONSULT
1. Adjust tire pressure for all wheels to the specified value. Refer to WT-74, "Tire Air Pressure".
2. Select “Data Monitor” mode of “AIR PRESSURE MONITOR”.
3. Check that the air pressures match the specified value.

Monitor item	Displayed value
AIR PRESS FL	Approximately equal to specified value. Refer to WT-74, "Tire Air Pressure".
AIR PRESS FR	
AIR PRESS RR	
AIR PRESS RL	

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace BCM. Refer to BCS-73, "Removal and Installation".

C1729 VEHICLE SPEED SIGNAL

DTC Description

INFOID:0000000014928847

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Activate and display TPMS sensor IDs
- Display tire pressure reported by the TPMS sensor
- Read TPMS DTCs
- Register TPMS sensor IDs

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
C1729	VHCL SPEED SIG ERR (Vehicle speed sensor error)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	Vehicle speed signal (–).
		Threshold	Vehicle speed signal is not detected.
		Diagnosis delay time	–

POSSIBLE CAUSE
- CAN communication
- ABS actuator and electric control unit
- BCM

DTC CONFIRMATION PROCEDURE

1.PERFORM SELF DIAGNOSTIC RESULT

CONSULT
1. Drive at a speed of 40 km/h (25 MPH) or more for 3 minutes, and then drive the vehicle at any speed for 10 minutes.
2. Perform “Self Diagnostic Result” mode of “AIR PRESSURE MONITOR”.
3. Check DTC.

Is DTC C1729 detected?

YES >> Proceed to WT-36, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000014928848

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Activate and display TPMS sensor IDs
- Display tire pressure reported by the TPMS sensor
- Read TPMS DTCs
- Register TPMS sensor IDs

1.PERFORM SELF DIAGNOSTIC RESULT FOR ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)

CONSULT
Perform “Self Diagnostic Result” mode of “ABS”. Refer to BRC-49, "CONSULT Function".

Are any DTCs detected?

YES >> Refer to BRC-61, "DTC Index".
NO >> Replace BCM. Refer to BCS-73, "Removal and Installation".

C1730, C1731, C1732, C1733 FLAT TIRE

DTC Description

INFOID:0000000014928849

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Activate and display TPMS sensor IDs
- Display tire pressure reported by the TPMS sensor
- Read TPMS DTCs
- Register TPMS sensor IDs

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
C1730	FLAT TIRE FL (–)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	Tire pressure sensor signal (–).
		Threshold	Front left wheel pressure is 70 kPa (0.7 kg/cm^2, 10 psi) or less.
		Diagnosis delay time	–
C1731	FLAT TIRE FR (–)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	Tire pressure sensor signal (–).
		Threshold	Front right wheel pressure is 70 kPa (0.7 kg/cm^2, 10 psi) or less.
		Diagnosis delay time	–
C1732	FLAT TIRE RR (–)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	Tire pressure sensor signal (–).
		Threshold	Rear right wheel pressure is 70 kPa (0.7 kg/cm^2, 10 psi) or less.
		Diagnosis delay time	–
C1733	FLAT TIRE RL (–)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	Tire pressure sensor signal (–).
		Threshold	Rear left wheel pressure is 70 kPa (0.7 kg/cm^2, 10 psi) or less.
		Diagnosis delay time	–

POSSIBLE CAUSE
- Low tire pressure
- Tire pressure sensor

DTC CONFIRMATION PROCEDURE

1.PERFORM SELF DIAGNOSTIC RESULT

CONSULT
1. Check tire pressure for all wheels and adjust to the specified value. Refer to WT-74, "Tire Air Pressure".
2. Drive at a speed of 40 km/h (25 MPH) or more for 3 minutes, and then drive the vehicle at any speed for 10 minutes.
3. Select “Self Diagnostic Result” mode of “AIR PRESSURE MONITOR”.
4. Check DTC.

Is DTC C1730, C1731, C1732, or C1733 detected?

YES >> Proceed to WT-38, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000014928850

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Activate and display TPMS sensor IDs
- Display tire pressure reported by the TPMS sensor
- Read TPMS DTCs
- Register TPMS sensor IDs

1. TIRE PRESSURE SENSOR ID REGISTRATION

Perform tire pressure sensor ID registration. Refer to WT-24, "Work Procedure".

Can the tire pressure sensor ID registration be completed?

YES >> GO TO 2.
NO >> Replace applicable tire pressure sensor. Refer to WT-68, "Removal and Installation".

2. CHECK TIRE PRESSURE

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

Is the inspection result normal?

YES >> Perform DTC CONFIRMATION PROCEDURE again. Refer to WT-37, "DTC Description".
NO >> GO TO 3.

3. CHECK TIRE PRESSURE SIGNAL

CONSULT
1. Adjust tire pressure for all wheels to the specified value. Refer to WT-74, "Tire Air Pressure".
2. Select “Data Monitor” mode of “AIR PRESSURE MONITOR”.
3. Check that the air pressures match the specified value.

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

Is the inspection result normal?

YES >> Inspection End.
NO >> Repair or replace malfunctioning components.

C1734 CONTROL UNIT

DTC Description

INFOID:0000000014928851

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Activate and display TPMS sensor IDs
- Display tire pressure reported by the TPMS sensor
- Read TPMS DTCs
- Register TPMS sensor IDs

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
C1734	CONTROL UNIT (Control unit)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	–
		Threshold	TPMS malfunction in BCM.
		Diagnosis delay time	–

POSSIBLE CAUSE

BCM

DTC CONFIRMATION PROCEDURE

1.PERFORM SELF DIAGNOSTIC RESULT

CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “AIR PRESSURE MONITOR”.
3. Check DTC.

Is DTC C1734 detected?

YES >> Proceed to WT-39, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000015253477

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Activate and display TPMS sensor IDs
- Display tire pressure reported by the TPMS sensor
- Read TPMS DTCs
- Register TPMS sensor IDs

Regarding Wiring Diagram information, refer to WT-19, "Wiring Diagram".

1.CHECK BCM HARNESS CONNECTORS

Check BCM harness connectors for damage or loose connections.

Is the inspection result normal?

YES >> Repair or replace connectors.
NO >> GO TO 2.

2.CHECK BCM POWER SUPPLY AND GROUND

Check BCM power supply and ground. Refer to BCS-66, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3. CHECK BCM INPUT/OUTPUT SIGNALS

Check BCM input/output signals. Refer to BCS-28, "Reference Value".

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace BCM. Refer to BCS-73, "Removal and Installation".

C1735 IGNITION SIGNAL

DTC Logic

INFOID:0000000015244248

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Activate and display TPMS sensor IDs
- Display tire pressure reported by the TPMS sensor
- Read TPMS DTCs
- Register TPMS sensor IDs

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
C1735	IGNITION SIGNAL LINE - BCM/ TPMS (—)	Diagnosis condition	When Ignition switch is ON.
		Signal (terminal)	–
		Threshold	BCM has detected a mismatch between IGN ON signals.
		Diagnosis delay time	–

POSSIBLE CAUSE

BCM

DTC CONFIRMATION PROCEDURE

1.PERFORM SELF DIAGNOSTIC RESULT

CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode in “AIR PRESSURE MONITOR” of “BCM”.
3. Check DTC.

Is DTC C1735 detected?

YES >> Proceed to WT-41, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000015244249

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Activate and display TPMS sensor IDs
- Display tire pressure reported by the TPMS sensor
- Read TPMS DTCs
- Register TPMS sensor IDs

1.CHECK CAN IGNITION SIGNAL

CONSULT
1. Select “INTELLIGENT KEY” mode of “BCM”.
2. Select “IGN RLY1-F/B” in “Data Monitor” mode.
3. Check that the function operates normally according to the following conditions:

Monitor item	Displayed value
IGN RLY1 F/B	On with ignition in ON position

Is the inspection result normal?

YES >> GO TO 2.
NO >> Check CAN system. Refer to LAN-26, "Trouble Diagnosis Flow Chart".

2.CHECK BCM POWER SUPPLY AND GROUND

Check BCM power supply and ground. Refer to BCS-66, "Diagnosis Procedure".

Is the inspection result normal?

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

3.DRIVE VEHICLE

Clear DTC and test drive vehicle to check for low tire pressure warning lamp.

Does the vehicle operate without any low tire pressure warning lamp?

YES >> Inspection End.
NO >> Replace BCM. Refer to BCS-73, "Removal and Installation".

C1765, C1766, C1767, C1768 TIRE PRESSURE SENSOR

DTC Description

INFOID:0000000014928855

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Activate and display TPMS sensor IDs
- Display tire pressure reported by the TPMS sensor
- Read TPMS DTCs
- Register TPMS sensor IDs

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
C1765	WHEEL TOP DATA FAIL FL (Wheel top data front left)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	Wheel top data signal (–).
		Threshold	Malfunction in the wheel top data from the front LH wheel speed sensor.
		Diagnosis delay time	–
C1766	WHEEL TOP DATA FAIL FR (Wheel top data front right)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	Wheel top data signal (–).
		Threshold	Malfunction in the wheel top data from the front RH wheel speed sensor.
		Diagnosis delay time	–
C1767	WHEEL TOP DATA FAIL RR (Wheel top data rear right)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	Wheel top data signal (–).
		Threshold	Malfunction in the wheel top data from the rear RH wheel speed sensor.
		Diagnosis delay time	–
C1768	WHEEL TOP DATA FAIL RL (Wheel top data rear left)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	Wheel top data signal (–).
		Threshold	Malfunction in the wheel top data from the rear LH wheel speed sensor.
		Diagnosis delay time	–

POSSIBLE CAUSE

Wheel speed sensor

DTC CONFIRMATION PROCEDURE

1.PERFORM SELF DIAGNOSTIC RESULT

CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “AIR PRESSURE MONITOR”.
3. Check DTC.

Is DTC “C1765”, “C1766”, “C1767”, or “C1768” detected?

YES >> Proceed to WT-43, "Diagnosis Procedure".
NO-1 >> Prior to repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014928856

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

When DTC “C1765, C1766, C1767, C1768” is detected, perform ABS system diagnosis.

>> Perform ABS system diagnosis. Refer to BRC-61, "DTC Index".

C1769 CONFIGURATION SETTING

DTC Description

INFOID:0000000014928857

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Activate and display TPMS sensor IDs
- Display tire pressure reported by the TPMS sensor
- Read TPMS DTCs
- Register TPMS sensor IDs

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
C1769	CONFIG SETTING (Configuration setting)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	–
		Threshold	• Tire Pressure Monitoring System (TPMS) configuration has not been performed. • Receiver ID registration cannot be performed.
		Diagnosis delay time	–

POSSIBLE CAUSE

- Configuration is not completed.
- The ID registration is not completed.

DTC CONFIRMATION PROCEDURE

1.PERFORM SELF DIAGNOSTIC RESULT

CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “AIR PRESSURE MONITOR”.
3. Check DTC.

Is DTC “C1769” detected?

YES >> Proceed to WT-45, "Diagnosis Procedure".
NO-1 >> Prior to repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014928858

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Activate and display TPMS sensor IDs
- Display tire pressure reported by the TPMS sensor
- Read TPMS DTCs
- Register TPMS sensor IDs

1.TIRE PRESSURE MONITORING SYSTEM CONFIGURATION

Perform configuration. Refer to WT-27, "Work Procedure".

>> GO TO 2.

2.TIRE PRESSURE SENSOR ID REGISTRATION

Perform tire pressure sensor ID registration. Refer to WT-24, "Work Procedure".

Does low tire pressure warning lamp turn OFF?

YES >> Inspection End.
NO >> Perform configuration of TPMS again. Refer to WT-27, "Work Procedure".

C1770, C1771, C1772, C1773 G SENSOR

DTC Description

INFOID:0000000014928859

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Activate and display TPMS sensor IDs
- Display tire pressure reported by the TPMS sensor
- Read TPMS DTCs
- Register TPMS sensor IDs

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
C1770	G SENSOR FAIL FL (G sensor front left)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	–
		Threshold	Malfunction in the G sensor data from front LH wheel sensor.
		Diagnosis delay time	–
C1771	G SENSOR FAIL FR (G sensor front right)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	–
		Threshold	Malfunction in the G sensor data from front RH wheel sensor.
		Diagnosis delay time	–
C1772	G SENSOR FAIL RL (G sensor rear right)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	–
		Threshold	Malfunction in the G sensor data from rear RH wheel sensor.
		Diagnosis delay time	–
C1773	G SENSOR FAIL RR (G sensor rear left)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	–
		Threshold	Malfunction in the G sensor data from rear LH wheel sensor.
		Diagnosis delay time	–

NOTE:
The actual malfunction part may differ from the malfunction part which DTC shows if ID registration is not performed after performing tire rotation or tire/road wheel replacement.

POSSIBLE CAUSE

Tire pressure sensor

DTC CONFIRMATION PROCEDURE

1. PERFORM SELF DIAGNOSTIC RESULT

CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “AIR PRESSURE MONITOR”.
3. Check DTC.

Is DTC “C1770”, “C1771”, “C1772”, or “C1773” detected?

YES >> Proceed to WT-48, "Diagnosis Procedure".
NO-1 >> Prior to repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014928860

1. REPLACE WHEEL TIRE PRESSURE SENSOR

When DTC “C1770, C1771, C1772, C1773” is detected, replace wheel tire pressure sensor.

>> Replace applicable wheel tire pressure sensor. Refer to WT-68, "Removal and Installation".

U1000 CAN COMM CIRCUIT

DTC Description

INFOID:0000000014928861

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 DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1000	CAN COMM CIRCUIT (CAN communication circuit)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	CAN communication signal (terminal 59 and 60)
		Threshold	BCM is not communicating CAN communication signal for 2 seconds or more.
		Diagnosis delay time	2 seconds or more

POSSIBLE CAUSE

- CAN communication malfunction
- BCM

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

CONSULT

1. Drive for several minutes at a speed of 40 km/h (25 MPH) or more.
2. Stop the vehicle.
3. Select “Self Diagnostic Result” mode of “AIR PRESSURE MONITOR”.
4. Check DTC.

Is DTC “U1000” detected?

YES >> Proceed to WT-49, "Diagnosis Procedure".
NO-1 >> Prior to repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014928862

1.PERFORM SELF DIAGNOSTIC RESULT

CONSULT

1. Turn the ignition switch ON and wait for 2 seconds or more.
2. Select “Self Diagnostic Result” mode of “AIR PRESSURE MONITOR”.
3. Check DTC.

Is DTC “U1000” detected?

YES >> Refer to WT-49, "Diagnosis Procedure".
NO >> Inspection End.

U1010 CONTROL UNIT (CAN)

DTC Description

INFOID:0000000014928863

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 DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1010	CONTROL UNIT (CAN) [Control unit (CAN)]	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	CAN communication signal (terminal 59 and 60)
		Threshold	BCM detected internal CAN communication circuit malfunction.
		Diagnosis delay time	–

POSSIBLE CAUSE

BCM

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

CONSULT

1. Drive for several minutes at a speed of 40 km/h (25 MPH) or more.
2. Stop the vehicle.
3. Perform “Self Diagnostic Result” mode of “AIR PRESSURE MONITOR”.
4. Check DTC.

Is DTC “U1010” detected?

YES >> Proceed to WT-50, "Diagnosis Procedure".
NO-1 >> Prior to repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014928864

1.REPLACE BCM

When DTC “U1010” is detected, replace BCM.

>> Replace BCM. Refer to BCS-73, "Removal and Installation".

LOW TIRE PRESSURE WARNING LAMP

Component Function Check

INFOID:0000000014928865

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

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

Is the inspection result normal?

YES >> Inspection End.
NO >> Perform trouble diagnosis. Refer to WT-51, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000014928866

1.PERFORM SELF-DIAGNOSIS

CONSULT
Perform “Self Diagnostic Result” of “AIR PRESSURE MONITOR”.

Is any DTC detected?

YES >> Check the DTC. Refer to WT-16, "DTC Index".
NO >> GO TO 2.

2.BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit. Refer to BCS-66, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace malfunctioning components.

3.CHECK LOW TIRE PRESSURE WARNING LAMP SIGNAL

CONSULT
1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Select “Active Test” mode of “AIR PRESSURE MONITOR”.
3. Select “WARNING LAMP” in “Active Test” mode.
4. Touch “On” and “Off” and verify proper operation of low tire pressure warning lamp.

Is the inspection result normal?

YES >> Check the combination meter. Refer to MWI-21, "CONSULT Function (METER/M&A)".
NO >> Replace the BCM. Refer to BCS-73, "Removal and Installation".

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000014928867

Regarding Wiring Diagram information, refer to BCS-51, "Wiring Diagram".

1. CHECK FUSES

Check if any of the following fuses are blown:

Component	Capacity	Fuse No.
Fuse block (J/B)	10A	7

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace the blown fuse after repairing the affected circuit.

2. CHECK POWER SUPPLY CIRCUIT

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

BCM		Ground	Voltage (Approx.)
Connector	Terminal		
M20	161	—	Battery voltage

Is the inspection result normal?

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

3. CHECK GROUND CIRCUIT

Check continuity between BCM connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M20	170	—	Yes
	171		

Is the inspection result normal?

YES >> Inspection End.
NO >> Repair or replace harness or connectors.

SYMPTOM DIAGNOSIS

TPMS

Symptom Table

INFOID:0000000014628218

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 tire pressure sensors at wheels is completed.	No system malfunctions
	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".
			Tire pressure monitoring system configuration not performed.	Perform configuration. Refer to WT-27, "Work Procedure".
			Tire pressure sensor ID registration not performed.	Perform ID registration. Refer to WT-24, "Work Procedure".

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 BCM cannot detect tire pressure data signal.	• Check visually that the tire pressure sensors are installed. If necessary, replace/install the tire pressure sensor(s) and perform tire pressure sensor ID registration. Refer to WT-24, "Work Procedure". • Remove the interference radio wave (e.g. battery charger of smart phone).
			The combination meter fuse is open or removed (or pulled out).	Check and install the combination meter fuse. If necessary, replace the fuse.
			The BCM harness connector is removed.	Check the connection conditions of the BCM harness connector, and repair if necessary.
			Tire Pressure Monitoring System (TPMS) malfunction. (except tire pressure monitoring system configuration and/or tire pressure sensor ID registration non-performed)	Perform CONSULT self-diagnosis. Refer to WT-13, "CONSULT Function".
Hazard warning lamp	The hazard warning lamp does not blink twice when performing ID registration operation.	—	ID registration is not completed.	Perform “ID REGISTRATION CANNOT BE COMPLETED” diagnosis procedure. Refer to WT-60, "Diagnosis Procedure".

LOW TIRE PRESSURE WARNING LAMP DOES NOT TURN ON

Description

INFOID:0000000014628219

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

NOTE:

The low tire pressure warning lamp turn ON 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 combination meter may be malfunctioning or the tire pressure monitoring system may be malfunctioning if the low tire pressure warning lamp does not turn ON when the ignition switch is turned ON.

Diagnosis Procedure

INFOID:0000000014628220

NOTE:

The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.

- Activate and display TPMS sensor IDs
- Display tire pressure reported by the TPMS sensor
- Read TPMS DTCs
- Register TPMS sensor IDs

1. CHECK LOW TIRE PRESSURE WARNING LAMP SIGNAL

CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Select “Active Test” mode in “AIR PRESSURE MONITOR”.
3. Touch “WARNING LAMP” to turn ON the low tire pressure warning lamp.

When “Active Test” is performed, does the low tire pressure warning lamp in the combination meter turn ON?

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

2. 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 >> Check intermittent incident. Refer to GI-54, "Intermittent Incident".
NO >> Replace the BCM. Refer to BCS-73, "Removal and Installation".

3. CHECK COMBINATION METER POWER SUPPLY CIRCUIT

Perform the trouble diagnosis for combination meter power supply circuit. Refer to MWI-62, "COMBINATION METER : Diagnosis Procedure".

Is the inspection result normal?

YES >> Perform combination meter diagnosis. Refer to MWI-53, "Work flow".
NO >> Repair or replace malfunctioning components.

LOW TIRE PRESSURE WARNING LAMP STAYS ON

Description

INFOID:0000000014628221

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

Diagnosis Procedure

INFOID:0000000014628222

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 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 >> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

CONSULT
Perform “Self Diagnostic Result” mode for “AIR PRESSURE MONITOR”.

Is DTC detected?

YES >> Perform DTC diagnosis procedure. Refer to WT-16, "DTC Index".
NO >> GO TO 4.

4.CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Perform the trouble diagnosis for power supply and ground circuit. Refer to BCS-66, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-73, "Removal and Installation".
NO >> Repair or replace malfunctioning components.

LOW TIRE PRESSURE WARNING LAMP BLINKS

Description

INFOID:0000000014628223

When the ignition switch is turned ON, the low tire pressure warning lamp blinks. And then 1 minute later, low tire pressure warning lamp turns ON.

Diagnosis Procedure

INFOID:0000000014628224

1.CHECK TIRE PRESSURE SENSOR INSTALLATION

Check visually that tire pressure sensors are installed to each wheel correctly.

NOTE:

In the following case, tire pressure monitoring system (TPMS) does not function.

- Tire pressure sensor(s) are not installed.
- Tire pressure sensor(s) of other cars are installed.

Are the genuine NISSAN tire pressure sensors installed correctly?

YES >> GO TO 2.

NO >> Replace and/or Install tire pressure sensor(s). Refer to WT-68, "Removal and Installation". GO TO 3.

2.PERFORM SELF-DIAGNOSIS

CONSULT

Perform “Self Diagnostic Result” mode for “AIR PRESSURE MONITOR”.

Is DTC detected?

YES >> Perform DTC diagnosis procedure. Refer to WT-16, "DTC Index".

NO >> GO TO 4.

3.TIRE PRESSURE SENSOR ID REGISTRATION

Perform tire pressure sensor ID registration. Refer to WT-24, "Work Procedure".

Is tire pressure sensor ID registration completed?

YES >> Adjust the tire pressure for all wheels specified to the value. Refer to WT-74, "Tire Air Pressure".

NO >> Perform diagnosis procedure of “ID REGISTRATION CANNOT BE COMPLETED”. Refer to WT-60, "Diagnosis Procedure".

4.CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Perform the diagnosis for BCM power supply and ground circuit. Refer to BCS-66, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-73, "Removal and Installation".

NO >> Repair or replace malfunctioning components.

LOW TIRE PRESSURE LOCATION INDICATOR DOES NOT DISPLAY

Description

INFOID:0000000014628225

When low tire pressure, low tire location indicator does not display though low tire pressure warning lamp turns ON.

Diagnosis Procedure

INFOID:0000000014628226

1.CHECK COMBINATION METER

Check combination meter. Refer to MWI-53, "Work flow".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace malfunctioning components.

2.CHECK LOW TIRE PRESSURE WHEEL LOCATION INDICATOR OPERATION

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

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-54, "Intermittent Incident".
NO >> Replace the BCM. Refer to BCS-73, "Removal and Installation".

LOW TIRE PRESSURE LOCATION INDICATOR CONTINUES DISPLAYING

Description

INFOID:0000000014628227

The low tire pressure location indicator continues displaying though low tire pressure warning lamp turns/stays OFF.

Diagnosis Procedure

INFOID:0000000014628228

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 LOCATION INDICATOR

Check low tire pressure location indicator.

Does low tire pressure location indicator continue displaying?

YES >> GO TO 3.
NO >> Inspection End.

3.PERFORM SELF-DIAGNOSIS

CONSULT

Perform “Self Diagnostic Result” mode for “Air Pressure Monitor”.

Is DTC detected?

YES >> Perform DTC diagnosis procedure. Refer to WT-16, "DTC Index".
NO >> GO TO 4.

4.CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Perform the trouble diagnosis for power supply and ground circuit. Refer to BCS-66, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-73, "Removal and Installation".
NO >> Repair or replace malfunctioning components.

ID REGISTRATION CANNOT BE COMPLETED

Description

INFOID:0000000014628229

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

Diagnosis Procedure

INFOID:0000000014628230

1.CHECK TIRE PRESSURE SENSOR ACTIVATION TOOL

Check tire pressure sensor activation tool.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace the battery of tire pressure sensor activation tool or repair/replace the tire pressure sensor activation tool.

2.TIRE PRESSURE SENSOR ID REGISTRATION

Perform tire pressure sensor ID registration. Refer to WT-24, "Work Procedure".

CAUTION:

To perform ID registration, observe the following points:

- **Never register ID in a place where radio waves are interfered (e.g. radio tower).**
- **Never register ID in a place close to vehicles including TPMS.**

Is tire pressure sensor ID registration completed?

YES >> Inspection End.
NO >> GO TO 3.

3.CHECK TIRE PRESSURE SIGNAL

Change the work location and perform ID registration again.

NOTE:

Depending on the tire pressure sensor position*, a blind spot exists, and the tire pressure receiver gets poor reception. If an ID registration is performed under this condition, the registration may not be completed. In such case, follow the instructions below to improve the radio wave receiving environment.

- Rotate tire by 90°, 180°, or 270°. (This Step is to change tire pressure sensor position.)
- Open the door close to the tire of which ID registration is ongoing.

*: Radio wave reception condition depends on vehicle architecture (e.g. body harness layout, tire wheel design) or environment.

When ID registration is performed, which wheels do not react?

All wheels react and ID registration is possible.>>Inspection End.
Only certain wheel(s) do not react.>>Replace applicable tire pressure sensor. Refer to WT-68, "Removal and Installation".
All wheels do not react.>>Replace BCM. Refer to BCS-73, "Removal and Installation".

EASY FILL TIRE ALERT DOES NOT ACTIVATE

Description

INFOID:0000000014628231

The Easy Fill tire alert does not function while inflating a tire when the select lever position is in P-range with the ignition switch ON.

NOTE:

- After starting to inflate the tire, it takes a few seconds for the easy fill tire alert to function.
- If there is no response for approximately 15 seconds or more after inflating the tires, cancel the use of the Easy Fill tire alert function or move the vehicle approximately 1 m (3.2 ft.) backward or forward to try again. The air filler pressure may be weak or out of service area.
- For Easy Fill tire alert, Refer to WT-11, "Easy Fill Tire Alert Function".

Diagnosis Procedure

INFOID:0000000014628232

1. LOCATION CHANGE

Move the vehicle to other area and repeat the procedure of the Easy Fill tire alert function. Refer to WT-11, "Easy Fill Tire Alert Function".

Is the function normal?

YES >> Inspection End.
NO >> GO TO 2.

2. PERFORM BCM SELF-DIAGNOSIS

CONSULT

Perform “Self Diagnostic Result” mode for “AIR PRESSURE MONITOR”.

Is any DTC detected?

YES >> Perform diagnosis for detected DTC. Refer to BCS-48, "DTC Index".
NO >> GO TO 3.

3. CHECK HAZARD WARNING LAMP OPERATION

Check hazard warning lamp operation with hazard switch.

Does the hazard warning lamps operate?

YES >> GO TO 4.
NO >> Refer to EXL-87, "Diagnosis Procedure".

4. PERFORM SELF DIAGNOSTIC RESULT FOR TCM

CONSULT

Perform “Self Diagnostic Result” mode for “TRANSMISSION”.

Is any DTC detected?

YES >> Perform diagnosis for detected DTC. Refer to TM-70, "DTC Index".
NO >> GO TO 5.

5. CHECK HORN OPERATION

Check horn operation.

Is the inspection result normal?

YES >> GO TO 6.
NO >> Repair or replace malfunctioning components.

6. PERFORM SELF DIAGNOSTIC RESULT

CONSULT

1. Drive at a speed of 40 km/h (25 MPH) or more for 3 minutes, and then drive the vehicle at any speed for 10 minutes.
2. Stop the vehicle.
3. Perform “Self Diagnostic Result” mode for “AIR PRESSURE MONITOR”.

Is any DTC detected?

YES >> Perform diagnosis for detected DTC. Refer to WT-16, "DTC Index".
NO >> Replace BCM. Refer to BCS-73, "Removal and Installation".

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

NVH Troubleshooting Chart

INFOID:0000000014628233

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

			Improper installation, looseness	Out-of-round	Imbalance	Incorrect tire pressure	Uneven tire wear	Deformation or damage	Non-uniformity	Incorrect tire size	PROPELLER SHAFT (if equipped)	DIFFERENTIAL (if equipped)	FRONT AXLE AND FRONT SUSPENSION	REAR AXLE AND REAR SUSPENSION	TIRE	WHEEL	DRIVE SHAFT	BRAKE	STEERING
Reference page			WT-67	WT-63	WT-64	WT-74	FSU-8	—	—	WT-74	DLN-104	DLN-120	FAX-6, or FSU-5	RAX-5 or RAX-13	—	—	FAX-6 or FAX-43,	BR-48, "NVH Troubleshooting Chart"	ST-26
Symptom	TIRE	Noise	×	×	×	×	×	×	×		×	×	×	×		×	×	×	×
		Shake	×	×	×	×	×	×		×	×		×	×		×	×	×	×
		Vibration				×				×	×		×	×			×		×
		Shimmy	×	×	×	×	×	×	×	×			×	×		×		×	×
		Shudder	×	×	×	×	×	×		×			×	×		×		×	×
		Poor quality ride or handling	×	×	×	×	×	×		×			×		×	×			
	WHEEL	Noise	×	×	×			×			×	×	×	×	×		×	×	×
		Shake	×	×	×			×			×		×	×	×		×	×	×
		Shimmy, Shudder	×	×	×			×					×	×	×			×	×
		Poor quality ride or handling	×	×	×			×					×	×	×				

×: Applicable

PERIODIC MAINTENANCE

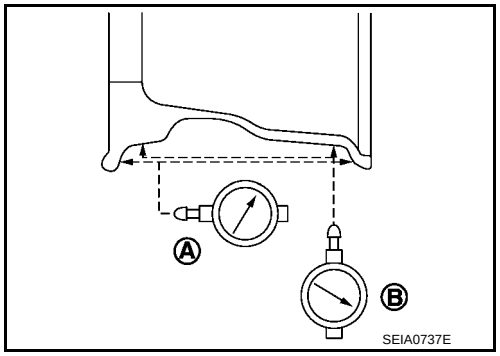
WHEEL

Inspection

INFOID:0000000014628234

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.
3. Remove tire from wheel and mount wheel on a balancer machine.
   CAUTION:
   DO NOT use center hole cone-type clamping machines to hold the wheel during tire removal/installation or balancing or damage to the wheel paint, cladding or chrome may result. Use only rim-type or universal lug-type clamping machines to hold the wheel during servicing.



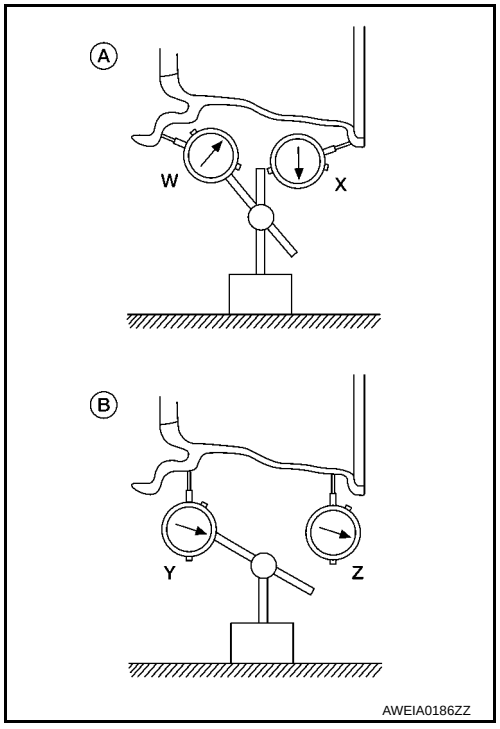
a. Set dial indicator as shown.
b. Check runout, if runout value exceeds the limit, replace wheel.

Limit	
Axial Runout (A)	Refer to WT-74, "Wheel".
Radial Runout (B)	Refer to WT-74, "Wheel".

STEEL 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 steel wheel and mount wheel on a balancer machine.
b. Set two dial indicators as shown.
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 (A) = (W+X)/2
Radial deflection (B) = (Y+Z)/2

f. Select maximum positive runout value and the maximum negative value.
   Add the two values to determine total runout.
   In case a positive or negative value is not available, use the maximum value (negative or positive) for total runout.
   If the total runout value exceeds the limit, replace steel wheel.

Limit	
Lateral Deflection (A)	Refer to WT-63, "Inspection".
Radial Deflection (B)	Refer to WT-63, "Inspection".

WHEEL AND TIRE

Adjustment

INFOID:0000000014628235

BALANCING WHEELS (ADHESIVE WEIGHT TYPE)

Preparation Before Adjustment

Remove inner and outer balance weights from the wheel. Using releasing agent, remove double-faced adhesive tape from the wheel and tire.

CAUTION:

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

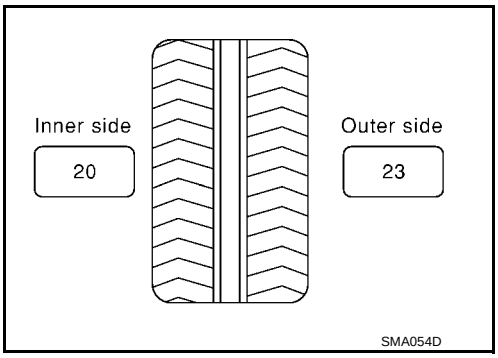
Wheel Balance Adjustment

CAUTION:

- **DO NOT use center hole cone-type clamping machines to hold the wheel during tire removal/installation or balancing or damage to the wheel paint, cladding or chrome may result. Use only rim-type or universal lug-type clamping machines to hold the wheel during servicing.**
- If a balancer machine has an adhesive weight mode setting, select the adhesive weight mode setting and skip Step 2 below. If a balancer machine only has the clip-on (rim flange) weight mode setting, follow Step 2 to calculate the correct size adhesive weight.

1. Set wheel and tire on balancer machine using the center hole as a guide. Start the balancer machine.
2. For balancer machines that only have a clip-on (rim flange) weight mode setting, follow this step to calculate the correct size adhesive weight to use. When inner and outer imbalance values are shown on the balancer machine indicator, multiply outer imbalance value by 5/3 (1.67) to determine balance weight that should be used. Select the outer balance weight with a value closest to the calculated value above and install in to the designated outer position of or at the designated angle in relation to the wheel and tire.

a. Indicated imbalance value × 5/3 (1.67) = balance weight to be installed
Calculation example:
23 g (0.81 oz) × 5/3 (1.67) = 38.33 g (1.35 oz) ⇒ 40 g (1.41 oz) balance weight (closer to calculated balance weight value)
NOTE:
Note that balance weight value must be closer to the calculated balance weight value.
Example:
37.4 ⇒ 35 g (1.23 oz)
37.5 ⇒ 40 g (1.41 oz)



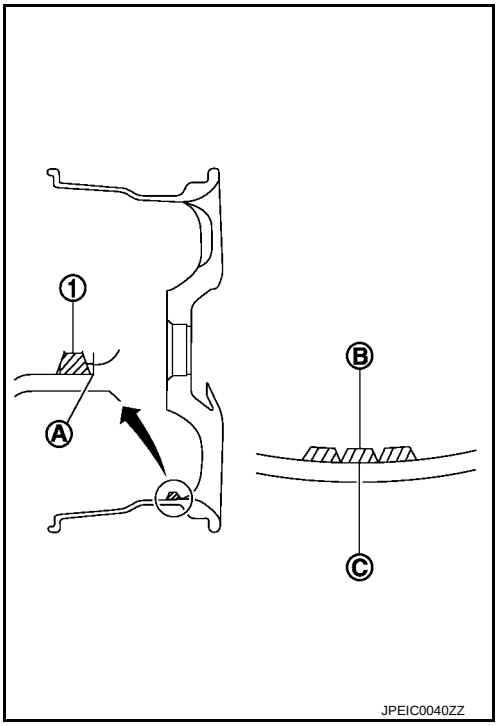
3. Install balance weight in the position shown.

CAUTION:

- **Do not install the inner balance weight before installing the outer balance weight.**
- **Before installing the balance weight, be sure to clean the mating surface of the wheel and tire.**
- When installing balance weight (1) to wheel and tire, set it into the grooved area (A) on the inner wall of the wheel and tire as shown so that the balance weight center (B) is aligned with the balancer machine indication position (angle) (C).

CAUTION:

- **Always use Genuine NISSAN adhesive balance weights.**
- **Balance weights are non-reusable; always replace with new ones.**
- **Do not install more than three sheets of balance weights.**



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

CAUTION:

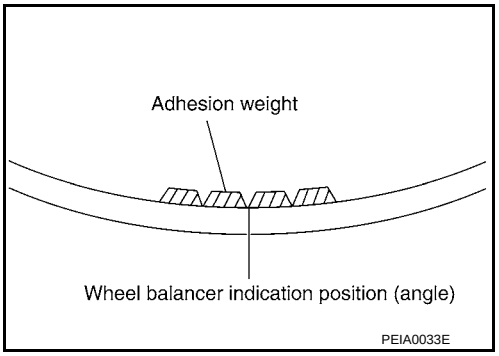
Do not install one balance weight sheet on top of another.

5. Start balancer machine again.
6. Install balance weight on inner side of wheel and tire in the balancer machine indication position (angle).

CAUTION:

Do not install more than two balance weights.

7. Start balancer machine. Make sure that inner and outer residual imbalance values are 5 g (0.17 oz) each or below.
8. If either residual imbalance value exceeds 5 g (0.17 oz), repeat installation procedures.



Wheel balance	Dynamic (At flange)	Static (At flange)
Maximum allowable imbalance	Refer to WT-74, "Wheel".	

TIRE ROTATION

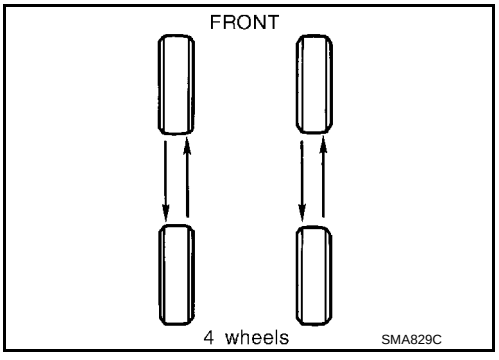
- Follow the maintenance schedule for tire rotation service intervals. Refer to MA-7, "Introduction of Periodic Maintenance".
- Rotate the wheels and tires front to back in the pattern as shown.
- When installing the wheel, tighten wheel nuts to the specified torque.

WARNING:

- **Do not include the spare tire (if equipped) when rotating tires.**
- **After rotating tires, check and adjust the tire pressure.**

CAUTION:

- **When installing wheel nuts, 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 the wheel nuts to a torque exceeding specification to prevent strain on the disc brake rotor.**
- **Use Genuine NISSAN wheel nuts.**



Wheel nut tightening torque	**: Refer to WT-67, "Exploded View".**

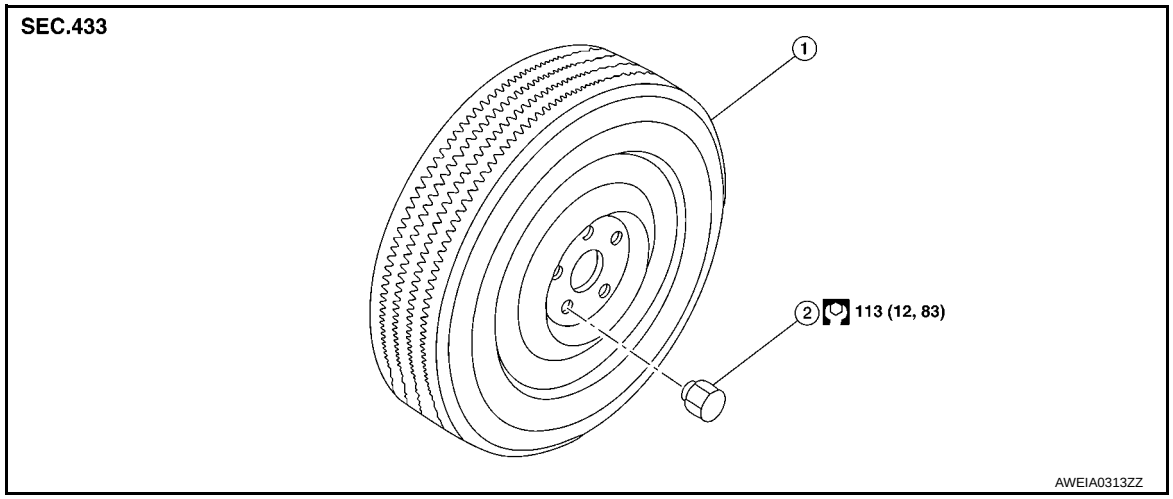
- Perform the ID registration after tire rotation. Refer to WT-24, "Description".

REMOVAL AND INSTALLATION

WHEEL AND TIRE

Exploded View

INFOID:0000000014628236



1. Wheel and tire
2. Wheel nut

Removal and Installation

INFOID:0000000014628237

REMOVAL

1. Remove wheel nuts using power tool.
2. Remove wheel and tire.

INSTALLATION

Installation is in the reverse order of removal.

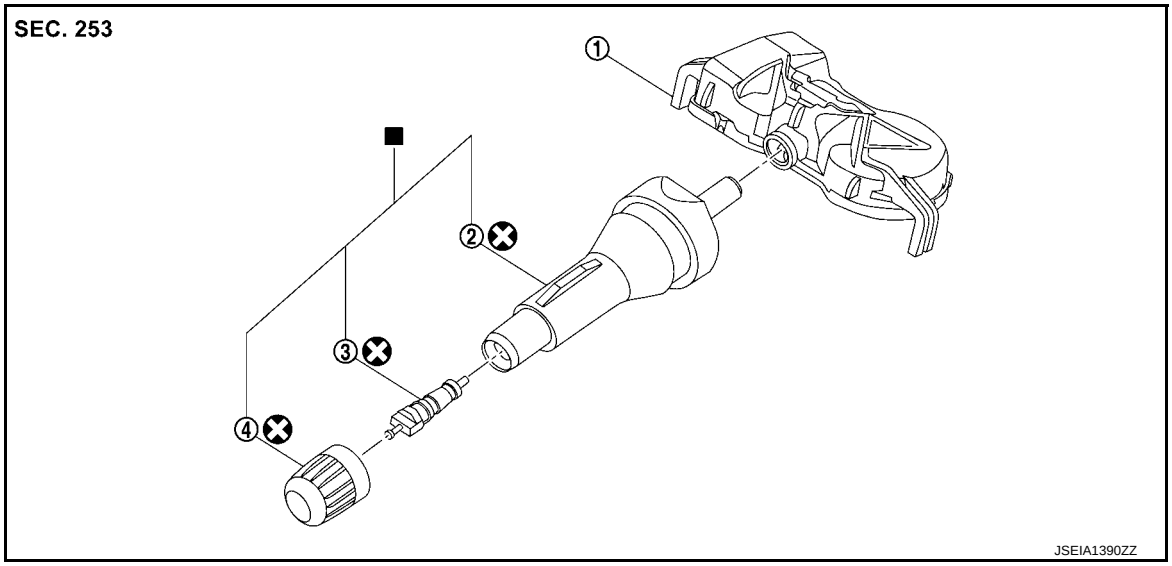
CAUTION:

- **When installing wheel nuts, tighten them diagonally by dividing the work two or three times in order to prevent the wheels from developing any distortion.**
- **Be careful not to tighten the wheel nuts to a torque exceeding specification to prevent strain on the disc brake rotor.**
- **Use Genuine NISSAN wheel nuts.**

TIRE PRESSURE SENSOR

Exploded View

INFOID:0000000014903505



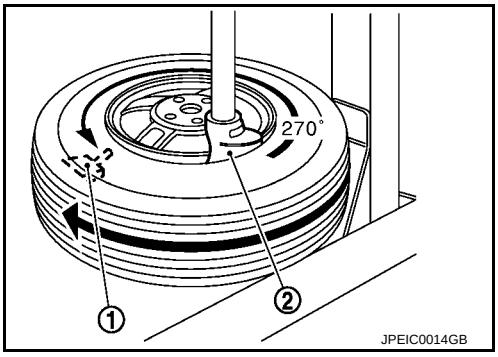
1. Tire pressure sensor
2. Valve
3. Valve core
4. Valve cap
■ : Parts that are replaced as a set when the tire is replaced.

Removal and Installation

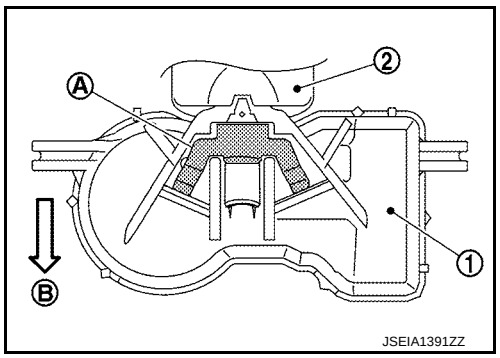
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REMOVAL

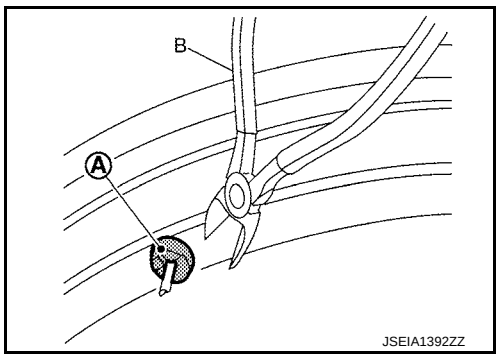
1. Remove wheel and tire using power tool. Refer to WT-67, "Removal and Installation".
2. Remove valve cap and valve core to deflate the tire.
   NOTE:
   If the tire is to be reused, apply a matching mark on the tire in line with the position of the valve stem for the purpose of wheel and tire balance adjustment after installation.
3. Lubricate the tire outside bead well with a suitable non-silicone lubricant and separate the tire outside bead from the wheel.
   CAUTION:
   - **Do not use silicone lubricant. Use of silicone lubricant will deteriorate the tire and wheel.**
   - **Be sure not to damage the wheel or the transmitter.**
4. Lubricate the tire inside bead well with a suitable non-silicone lubricant and separate the tire inside bead from the wheel.
   CAUTION:
   - **Do not use silicone lubricant. Use of silicone lubricant will deteriorate the tire and wheel.**
   - **Be sure not to damage the wheel or the transmitter.**
5. Carefully lift and set the wheel and tire onto the tire changer turntable so that the transmitter (1) is at the bottom. Position the wheel and tire so that the transmitter is 270 degrees from the mounting/dismounting head (2).
   CAUTION:
   Do not damage the wheel or the transmitter.
6. Remove the tire from the wheel.



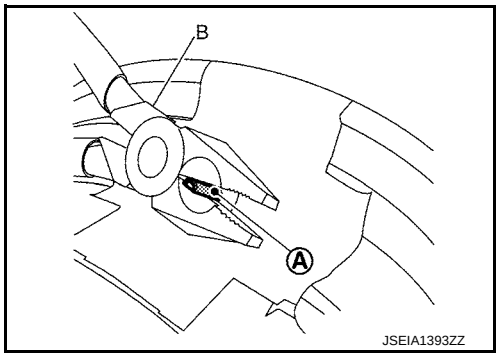
7. Press the spring (A) in order to unlock the clip from the valve stem (2).
8. Pull in direction (B) and remove the transmitter (1) from the valve stem.



9. Cut the inner end (A) of the valve stem using suitable tool (B).
CAUTION:
Do not damage the wheel.



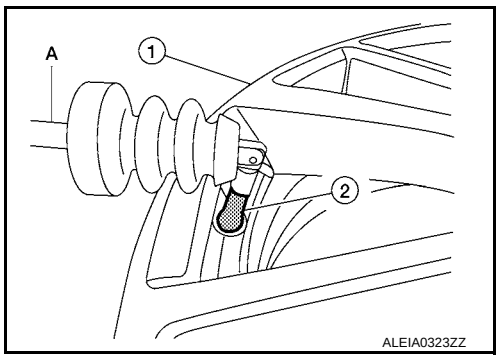
10. Cut the roll pin (A) of the valve stem using suitable tool (B).
CAUTION:
Do not damage the wheel.



11. Remove the valve stem (2) from the wheel (1) using Tool (A).

Tool (A) number : J-51980

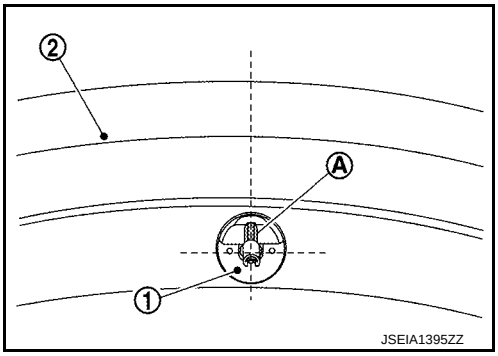
CAUTION:
Do not damage the wheel.



INSTALLATION

1. Clean the valve stem hole in the wheel.
CAUTION:
Make sure there are no burrs, foreign substances, or indications of damage to the wheel.
2. Apply a suitable non-silicone lubricant to the surface of the valve stem that touches the wheel and to the valve stem hole in the wheel.
CAUTION:
- **Do not reuse the valve stem.**
- **Do not use silicone lubricant. Use of silicone lubricant will deteriorate the tire and wheel.**

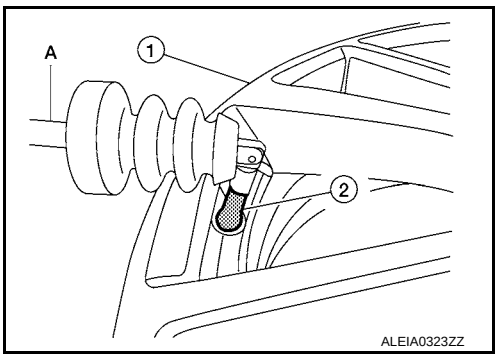
3. Position the valve stem (1) in the valve stem hole in the wheel.
CAUTION:
Position part (A) of the valve stem in the 12 o'clock position relative to the rim of the wheel (2).



4. Install the valve stem (2) to the wheel (1) using Tool (A).

Tool (A) number : J-51980

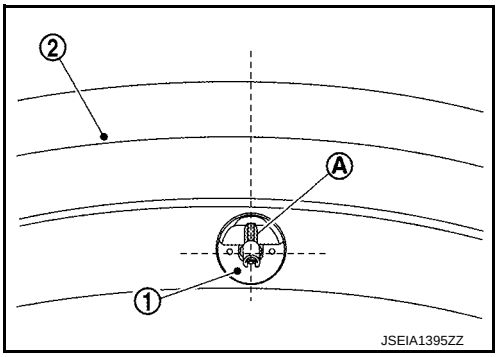
CAUTION:
- **Do not damage the wheel.**
- **Install the valve stem all the way to the wheel.**
- **Make sure the valve stem seats properly in the valve stem hole in the wheel.**



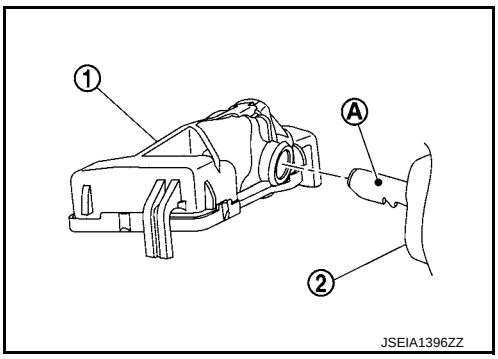
5. Inspect the position of the valve stem (1) relative to the wheel (2).

Tool number : J-51980

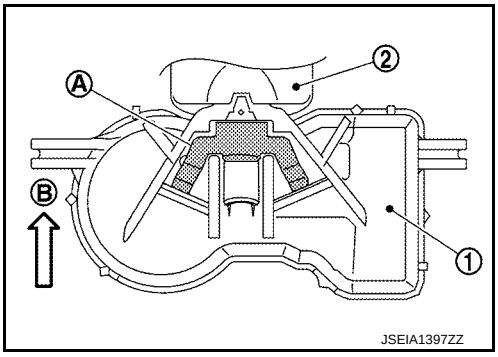
CAUTION:
- **Do not damage the wheel.**
- **Make sure the position of part (A) of the valve stem is in the 12 o'clock position relative to the rim of the wheel.**
- **If the position is not correct, rotate the valve stem to the correct position using Tool.**



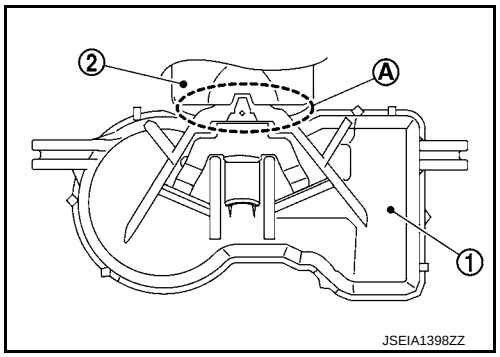
6. Position the transmitter (1) on the roll pin (A) of the valve stem (2).
CAUTION:
- **Do not drop or strike the transmitter. Replace the transmitter if it has been dropped from higher than one meter.**
- **Replace the transmitter if the transmitter has deformations, cracks, or damage.**



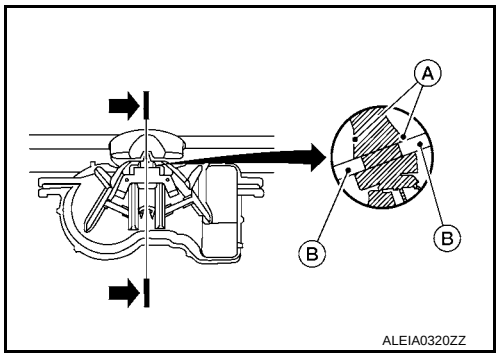
7. Press and hold the spring (A) in order to unlock the clip inside the transmitter (1).
8. Push in direction (B) and install the transmitter to the valve stem (2).
CAUTION:
Install transmitter all the way to the valve stem.
9. Release the spring in order to lock the clip onto the valve stem.
CAUTION:
Gently pull on the transmitter and make sure that the tire pressure sensor is correctly locked on the valve stem.



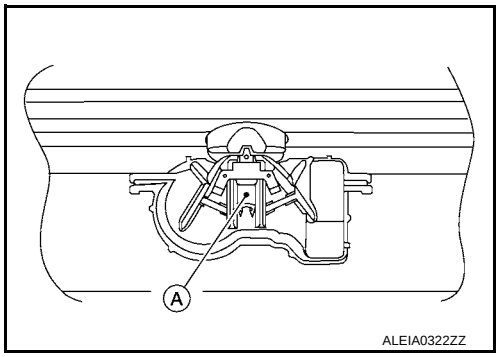
10. Inspect the position of the transmitter (1) relative to the valve stem (2).
CAUTION:
Make sure the transmitter fully contacts the valve stem (A).



11. Inspect the position of the transmitter relative to the wheel (B).
CAUTION:
- **Make sure the surface of the valve stem (A) seats properly in the valve stem hole in the wheel.**
- **Make sure the surface of the valve stem has a convex shape on the outboard side of the wheel.**

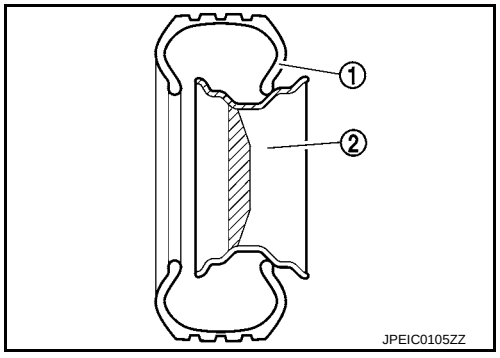


12. Inspect the position of the roll pin (A) relative to the transmitter.
CAUTION:
Make sure roll pin is in the correct position as shown.

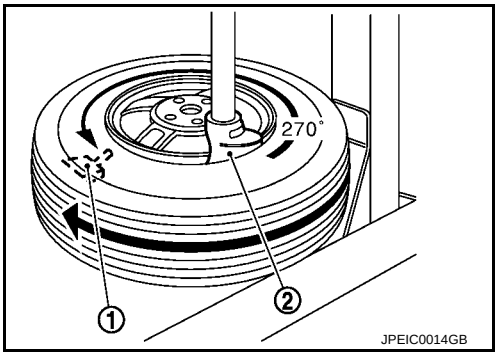


13. Apply a suitable non-silicone lubricant to the tire inside bead.
CAUTION:
- **Do not use silicone lubricant. Use of silicone lubricant will deteriorate the tire and wheel.**
- **Do not allow lubricant to make contact with the transmitter.**

14. Install the tire inside bead (1) onto the wheel (2) in the position shown.
CAUTION:
Do not damage the wheel or the transmitter.



15. Place the wheel on the turntable of the tire machine. Make sure that the transmitter (1) is 270 degrees from the mounting/dismounting head (2).
    CAUTION:
    Do not touch the transmitter with the mounting head.



16. Apply a suitable non-silicone lubricant to the tire outside bead.
    CAUTION:
    - **Do not use silicone lubricant. Use of silicone lubricant will deteriorate the tire and wheel.**
    - **Do not allow lubricant to make contact with the transmitter.**
17. Install the tire outside bead onto the wheel as normal.
    CAUTION:
    When installing, make sure that the tire does not rotate relative to the wheel.
    NOTE:
    If the tire is being reused, align the matching mark applied on the tire with the position of the valve stem for the purpose of wheel and tire balance adjustment after installation.
18. Install the valve core and inflate tire. Refer to WT-74, "Tire Air Pressure".
    CAUTION:
    Do not reuse valve core.
19. Install the valve cap.
    CAUTION:
    Do not reuse valve cap.
20. Balance the wheel and tire. Refer to WT-64, "Adjustment".
21. Install the wheel and tire in the appropriate position on the vehicle. Refer to WT-67, "Removal and Installation".
22. Perform the ID registration procedure. Refer to WT-24, "Description".
    CAUTION:
    If replacing the transmitter, then the ID registration procedure must be performed.

Disposal

INFOID:0000000014628240

CAUTION:
Dispose of the transmitter and the battery according to the law and local regulations.

1. Dispose of the transmitter and the battery as an assembly.
   NOTE:
   The battery is lithium ion.

REMOTE KEYLESS ENTRY RECEIVER

Removal and Installation

INFOID:0000000014628241

The Remote Keyless Entry Receiver is an integral part of the BCM (BODY CONTROL MODULE). Refer to BCS-73, "Removal and Installation".

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Wheel

INFOID:0000000014628242

ALUMINUM WHEEL

Runout	Axial runout	Less than 0.3 mm (0.012 in)
	Radial runout	
Allowable imbalance	Dynamic (At flange)	Less than 5 g (0.17 oz) (one side)
	Static (At flange)	Less than 10 g (0.35 oz)

STEEL WHEEL

		Inside	Outside
Runout	Axial runout	1.0 mm (0.039 in) or less	0.9 mm (0.035 in) or less
	Radial runout	0.8 mm (0.031 in) or less	0.4 mm (0.016 in) or less
Allowable imbalance	Dynamic (At flange)	Less than 5 g (0.17 oz) (one side)	
	Static (At flange)	Less than 10 g (0.35 oz)	

Tire Air Pressure

INFOID:0000000014628243

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

Tire position	Size	Cold tire pressure
Front	P225/65R17 102H	280 (2.86, 41)
	P225/60R18 100H	
Rear	P225/65R17 102H	
	P225/60R18 100H	
Spare	T155/90D17 101M	420 (4.28, 60)