SECTION WT
ROAD WHEELS & TIRES

CONTENTS

PRECAUTION

PRECAUTIONS

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

INFOID:0000000010715050

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

WARNING:

Always observe the following items for preventing accidental activation.

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

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

WARNING:

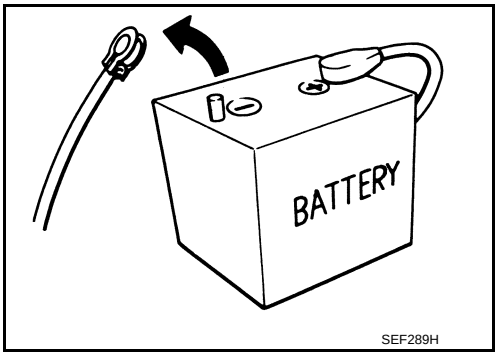
Always observe the following items for preventing accidental activation.

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

Precautions for Removing Battery Terminal

INFOID:0000000010766768

- With the adoption of Auto ACC function, ACC power is automatically supplied by operating the intelligent key or remote keyless entry or by opening/closing the driver side door. In addition, ACC power is supplied even after the ignition switch is turned to the OFF position, i.e. ACC power is supplied for a certain fixed time.
- When disconnecting the 12V battery terminal, turn off the ACC power before disconnecting the 12V battery terminal, observing “How to disconnect 12V battery terminal” described below.
  NOTE:
  Some ECUs operate for a certain fixed time even after ignition switch is turned OFF and ignition power supply is stopped. If the battery terminal is disconnected before ECU stops, accidental DTC detection or ECU data damage may occur.
- For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch.
  NOTE:
  If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.
- After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.
  NOTE:
  The removal of 12V battery may cause a DTC detection error.



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HOW TO DISCONNECT 12V BATTERY TERMINAL

Disconnect 12V battery terminal according to Instruction 1 or Instruction 2 described below.
For vehicles parked by ignition switch OFF, refer to Instruction 2.

INSTRUCTION 1

1. Open the hood.

2. Turn key switch to the OFF position with the driver side door opened.
3. Get out of the vehicle and close the driver side door.
4. Wait at least 3 minutes. For vehicle with the engine listed below, remove the battery terminal after a lapse of the specified time.

D4D engine	: 20 minutes
HRA2DDT	: 12 minutes
K9K engine	: 4 minutes
M9R engine	: 4 minutes
R9M engine	: 4 minutes
V9X engine	: 4 minutes

CAUTION:
While waiting, never operate the vehicle such as locking, opening, and closing doors. Violation of this caution results in the activation of ACC power supply according to the Auto ACC function.

5. Remove 12V battery terminal.
CAUTION:
After installing 12V battery, always check self-diagnosis results of all ECUs and erase DTC.

INSTRUCTION 2 (FOR VEHICLES PARKED BY IGNITION SWITCH OFF)

1. Unlock the door with intelligent key or remote keyless entry.
NOTE:
At this moment, ACC power is supplied.
2. Open the driver side door.
3. Open the hood.
4. Close the driver side door.
5. Wait at least 3 minutes.
CAUTION:
While waiting, never operate the vehicle such as locking, opening, and closing doors. Violation of this caution results in the activation of ACC power supply according to the Auto ACC function.
6. Remove 12V battery terminal.
CAUTION:
After installing 12V battery, always check self-diagnosis results of all ECUs and erase DTC.

Precaution Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:0000000010715052

CAUTION:
Comply with the following cautions to prevent any error and malfunction.
- **Before removing and installing any control units, first turn the ignition power source and accessory power source to the OFF, then disconnect both battery cables.**
- **After finishing work, confirm that all control unit connectors are connected properly, then re-connect both battery cables.**
- **Always use CONSULT to perform self-diagnosis as a part of each function inspection after finishing work. If a DTC is detected, perform trouble diagnosis according to self-diagnosis results.**

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

OPERATION PROCEDURE

1. Connect both battery cables.
NOTE:
Supply power using jumper cables if battery is discharged.
2. Open driver door.
3. Turn the ignition switch to the ON position.
(At this time, the steering lock will be released.)
4. Turn the ignition switch to OFF position with driver door open.
5. Wait for 3 minutes or longer with driver door open.

NOTE:
- Do not close driver door because the steering wheel locks when driver door is closed.
- The auto acc function is adapted to this vehicle. For this reason, even when the ignition switch is turned to OFF position, the accessory power source does not turned OFF and continues to be supplied for a certain amount of time.

6. Disconnect both battery cables. The steering lock will remain released with both battery cables disconnected and the steering wheel can be turned.
7. Perform the necessary repair operation.
8. When the repair work is completed, re-connect both battery cables. With the brake pedal released, turn the ignition switch from OFF position to ON position, then to LOCK position. (The steering wheel will lock when the ignition switch is turned to LOCK position.)
9. Perform self-diagnosis check of all control units using CONSULT.

Service Notice and Precautions for TPMS

INFOID:0000000010715053

- Low tire pressure warning lamp turns ON when tire pressure is less than warning tire pressure value. Adjust tire pressure for all wheels to the specified value. Refer to WT-66, "Tire Air Pressure". And then, perform TPMS reset operation. Refer to WT-14, "TPMS reset operation".
- Low tire pressure warning lamp blinks for 1 minute, then turns ON when occurring any malfunction or no sensor(s) 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-30, "Work Procedure".
- ID registration is required when replacing or rotating tires and/or wheels, replacing tire pressure sensor or BCM. Refer to WT-30, "Work Procedure".
- Be sure to replace seal, washer, valve core and valve cap of tire pressure sensor, when removing tire pressure sensor from wheel. Refer to WT-62, "Exploded View".
  Replacing seal and washer, valve core and valve cap of tire pressure sensor is recommended, when replacing each tire by reaching the wear limit. Refer to WT-62, "Exploded View".
- Never apply excessive force to an inflator not to damage valve stem and tire pressure sensor when adjusting tire pressure.
- Jack up the vehicle in order not to damage tire pressure sensor when extracting all the tire air on the vehicle (e.g. when filling up work of N_2 gas to tire). For supporting points for lifting and jacking point, refer to GI-31, "Garage Jack and Safety Stand and 2-Pole Lift".
- Because the tire pressure sensor conforms to Europe radio law, the following items must be observed.
- The sensor may be used only in Europe.
- It may not be used in any method other than the specified method.
- It must not be disassembled or modified.
- Never attach tire pressure sensor of other cars. Tire Pressure Monitoring System (TPMS) does not function if specified Genuine NISSAN tire pressure sensor is not attached.

Service Notice and Precautions for Road Wheel

INFOID:0000000010715054

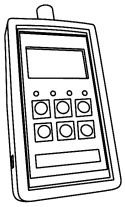
- Genuine NISSAN aluminum wheel is designed for each type of vehicle. Use it on the specified vehicle only.
- Use Genuine NISSAN parts for the road wheels, valve caps and wheel nuts.
- Always use them after adjusting the wheel balance. For the balance weights, use Genuine NISSAN aluminum wheel weights.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

INFOID:0000000010715055

Tool number Tool name	Description
KV48105501 (NI-4032) Tire pressure sensor activation tool  JSEIA0650ZZ	Tire pressure sensor wake-up procedure and ID registration

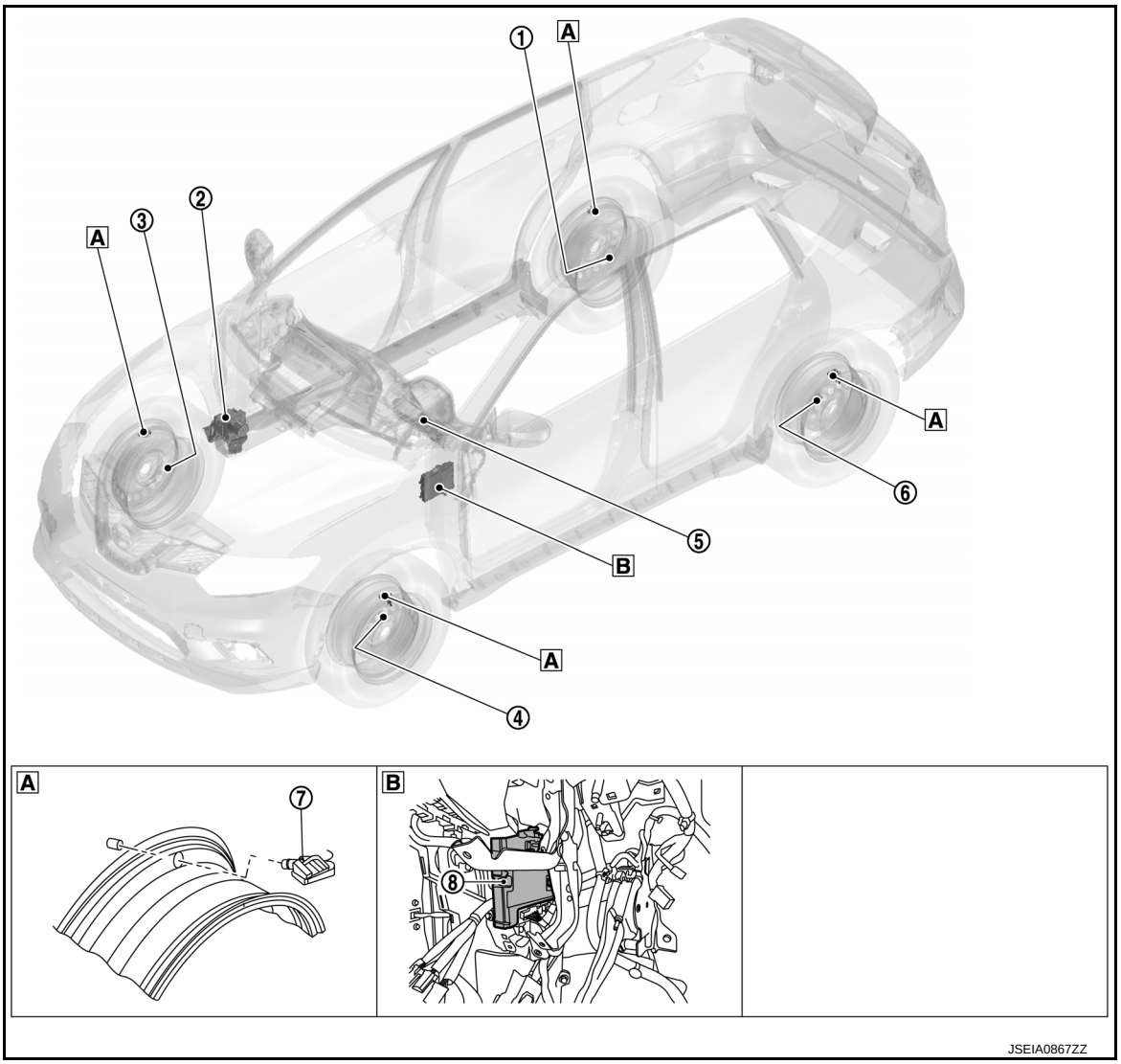
SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000010715056

LHD MODELS



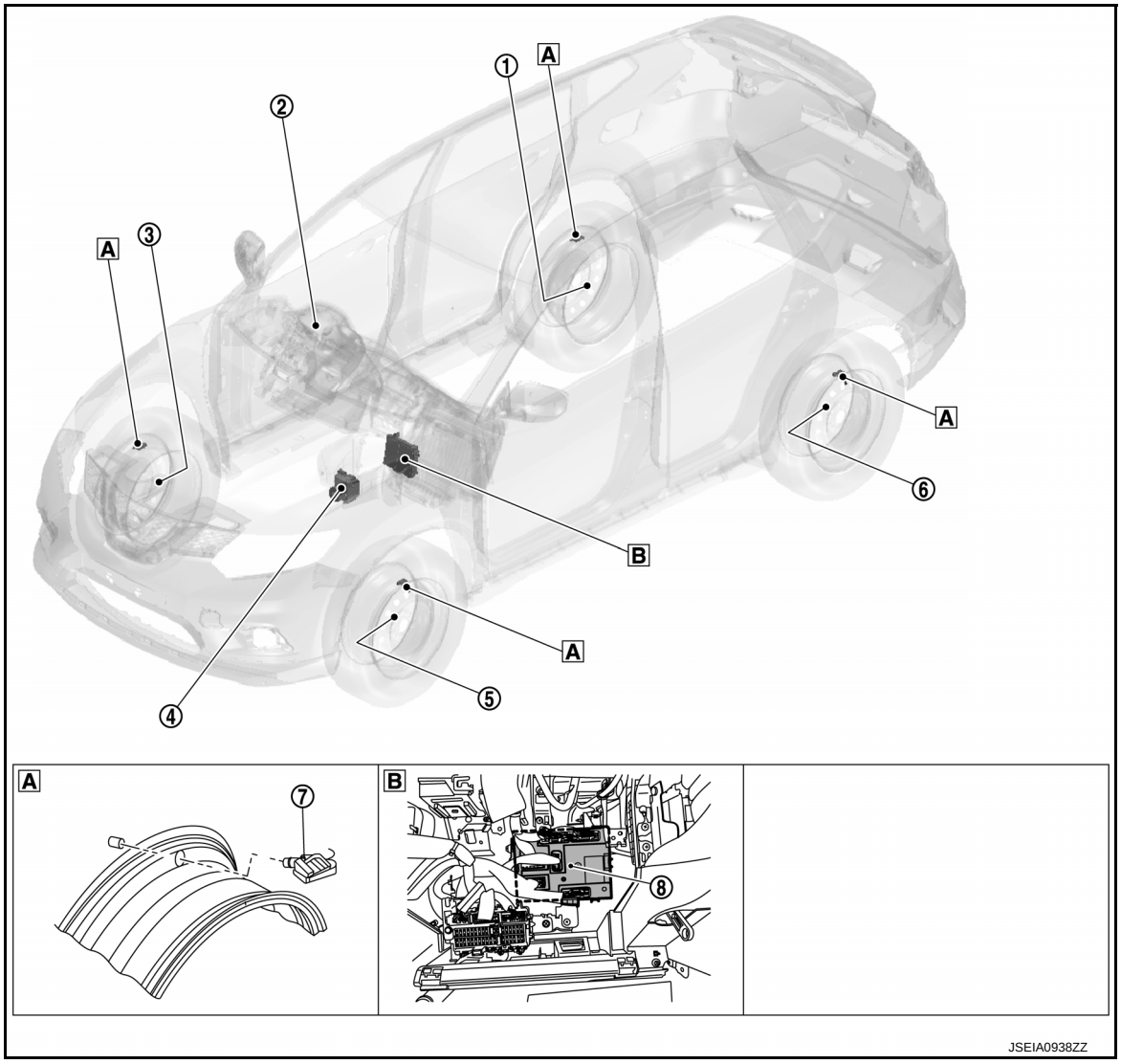
A Wheel assembly

B Behind instrument panel (LH)

No.	Component parts	Function
①	Rear wheel sensor (RH)	Location of wheel is specified due to the synchronism of wheel sensor position and tire pressure sensor position.
②	ABS actuator and electric unit (control unit)	Mainly transmits the following signals to BCM via CAN communication. • Vehicle speed signal (ABS)
③	Front wheel sensor (RH)	Location of wheel is specified due to the synchronism of wheel sensor position and tire pressure sensor position.
④	Front wheel sensor (LH)	

No.	Component parts	Function
⑤	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 Mainly transmits the following signals to BCM via CAN communication. • TPMS reset signal
⑥	Rear wheel sensor (LH)	Location of wheel is specified due to the synchronism of wheel sensor position and tire pressure sensor position.
⑦	Tire pressure sensor	WT-9, "Tire Pressure Sensor".
⑧	BCM	WT-9, "BCM".

RHD MODELS



A Wheel assembly

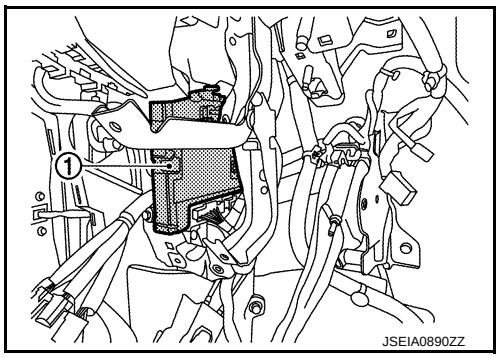
B Behind of grove box (LH)

No.	Component parts	Function
①	Rear wheel sensor (RH)	Location of wheel is specified due to the synchronism of wheel sensor position and tire pressure sensor position.
②	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 Mainly transmits the following signals to BCM via CAN communication. • TPMS reset signal
③	Front wheel sensor (RH)	Location of wheel is specified due to the synchronism of wheel sensor position and tire pressure sensor position.
④	ABS actuator and electric unit (control unit)	Mainly transmits the following signals to BCM via CAN communication. • Vehicle speed signal (ABS)
⑤	Front wheel sensor (LH)	Location of wheel is specified due to the synchronism of wheel sensor position and tire pressure sensor position.
⑥	Rear wheel sensor (LH)	Location of wheel is specified due to the synchronism of wheel sensor position and tire pressure sensor position.
⑦	Tire pressure sensor	WT-9, "Tire Pressure Sensor".
⑧	BCM	WT-9, "BCM".

BCM

INFOID:0000000010715057

- Tire pressure receiver is integrated in BCM ①.
- The tire pressure receiver receives the tire pressure and tire temperature signal transmitted by the tire pressure sensor in each wheel.
- The BCM reads the tire pressure and tire temperature 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.

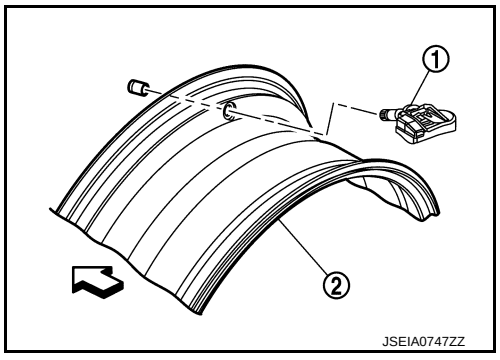


Tire Pressure Sensor

INFOID:0000000010715058

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

⇦ : Outside

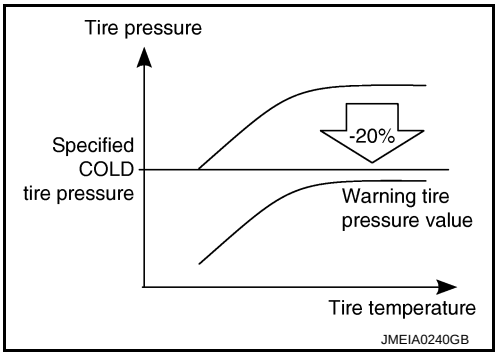


SYSTEM

System Description

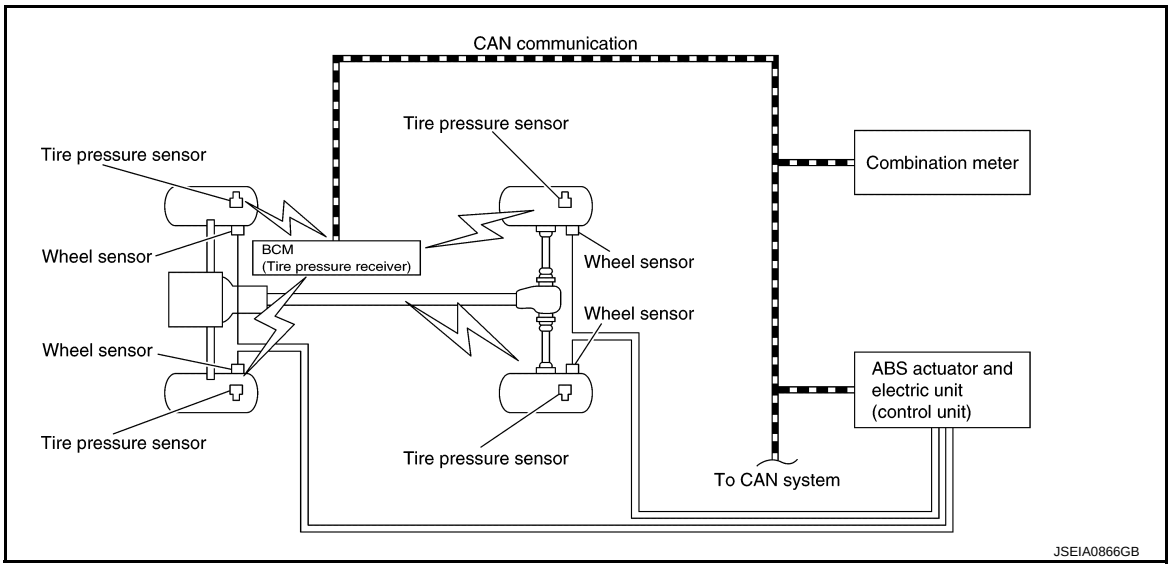
INFOID:0000000010715059

- 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 lamps 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. TPMS reset operation is required for recording basic temperature and tire pressure at the time of adjusting tire pressure.
- 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.

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 signals from combination meter via CAN communication. • TPMS reset signal Mainly receives the following signals 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 Mainly transmits the following signals to BCM via CAN communication. • TPMS reset signal
ABS actuator and electric unit (control unit)	Mainly transmits the following signals to BCM via CAN communication. • Vehicle speed signal (ABS)

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.

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 minute, then turns ON.
Tire pressure sensor ID not registered in BCM	
Tire pressure monitoring system malfunction (Other diagnostic item)	

TPMS RESET CONDITION

TPMS reset under the following conditions.
- Adjust tire pressure.
- Replace tire or road wheel.
- After performing tire rotation.

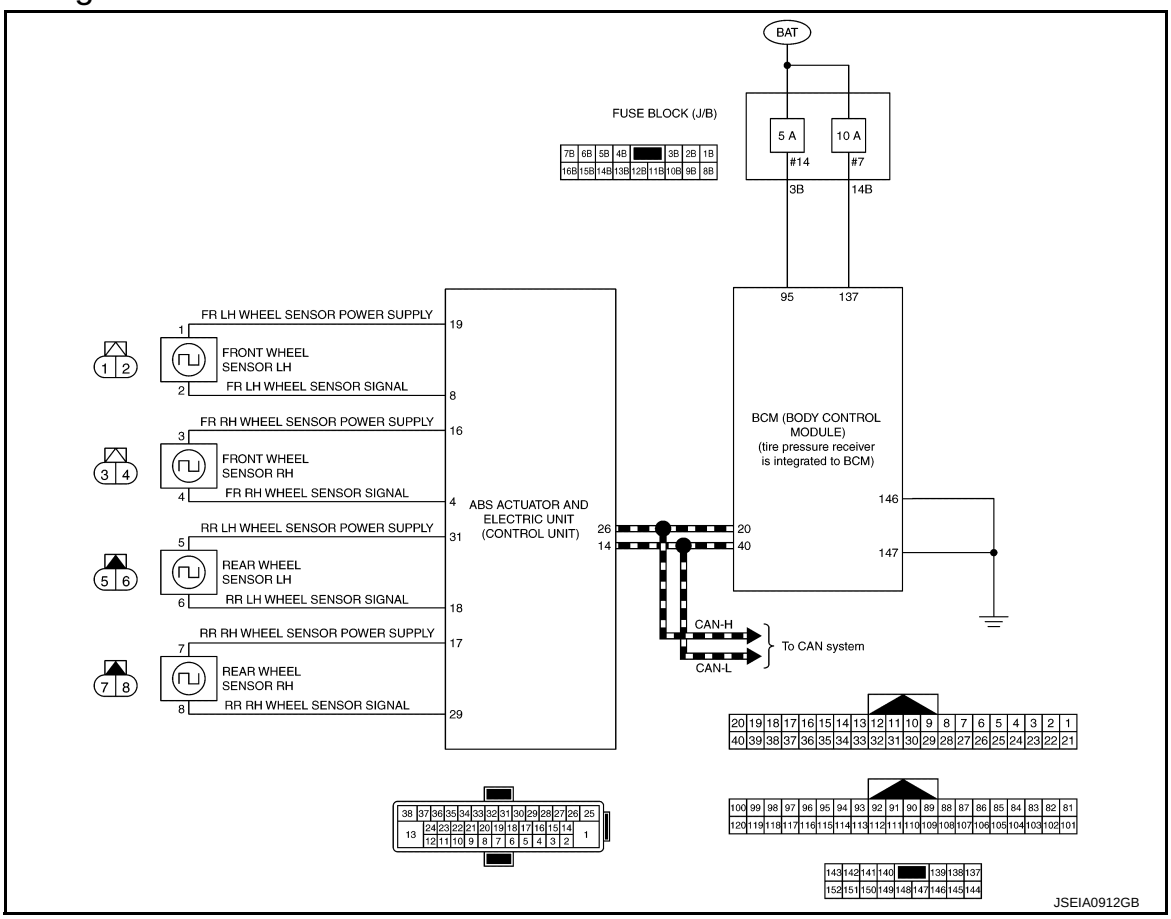
TPMS reset operation: Refer to WT-14, "TPMS reset operation".

HAZARD WARNING LAMP INDICATION CONDITION

The hazard warning lamp blinks under the following conditions.
- When ID registration is completed. Refer to WT-30, "Work Procedure".

Circuit Diagram

INFOID:0000000010715060



WARNING/INDICATOR/CHIME LIST

WARNING/INDICATOR/CHIME LIST : Warning Lamp/Indicator Lamp

INFOID:0000000010715061

Name	Design	Layout/Function
Low tire pressure warning lamp		For layout, refer to MWI-10, "METER SYSTEM : Design". For function, refer to MWI-45, "WARNING LAMPS/INDICATOR LAMPS : Low Tire Pressure Warning Lamp".

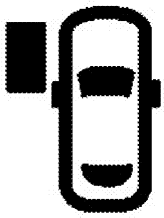
INFORMATION DISPLAY (COMBINATION METER)

INFORMATION DISPLAY (COMBINATION METER) : Low Tire Pressure Location Indicator

INFOID:0000000010715062

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 when following conditions;

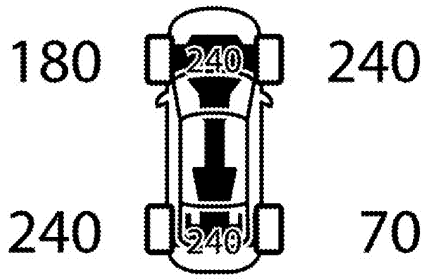
- Tire pressure is low.
- Tire goes flat.

Design	Massage
 JMEIA0247ZZ	Low tyre pressure
–	Tyre pressure system fault

INFORMATION DISPLAY (COMBINATION METER) : Tire Pressure Display

INFOID:0000000010715063

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.

OPERATION

TPMS reset operation

INFOID:0000000010715064

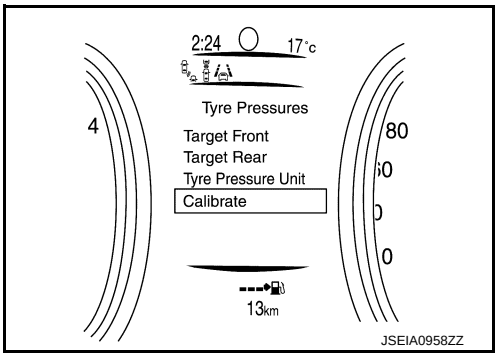
DESCRIPTION

TPMS reset operation can set the present tire air content as a TPMS reference value.
This procedure must be performed:

- After tire pressure adjustment
- After tire or road wheel replacement
- After performing tire rotation

TPMS RESET PROCEDURE

1. Adjust tire pressure for all wheels to the specified value. Refer to WT-66, "Tire Air Pressure".
2. Place Ignition in the ON position.
   CAUTION:
   Never start the engine.
3. Perform TPMS reset operation on the information display.
4. Drive the vehicle between 25 km/h (16 MPH) and 100 km/h (62 MPH) for 2 minutes or more.
   NOTE:
   The TPMS settings are updated to driving.
   CAUTION:
   TPMS detects low tire pressure after this calibration. Before calibration finish, low tire warning lamp does not turn ON. (This is not broken.)



DIAGNOSIS SYSTEM (TIRE PRESSURE MONITORING SYSTEM)

CONSULT Function

INFOID:0000000010715065

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
ECU identification	Parts number of BCM can be read.
Active Test	Send the drive signal from CONSULT to the actuator. The operation check can be performed.
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.
Re/programming, Configuration	• Read and save the vehicle specification (TYPE ID). • Write the vehicle specification (TYPE ID) when replacing BCM.

ACTIVE TEST

Test Item	Description
FLASHER	This test is able to check turn signal lamp operation [On/Off].
WARNING LAMP	This test is able to check tire pressure warning lamp operation [On/Off].
ID REGIST WARNING	This test is able to check ID regist warning chime 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-21, "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
SET AIR PRESSURE 2 FL	Tire pressure calculated by reference temperature front left tire
SET AIR PRESSURE 2 FR	Tire pressure calculated by reference temperature front right tire
SET AIR PRESSURE 2 RR	Tire pressure calculated by reference temperature rear right tire
SET AIR PRESSURE 2 RL	Tire pressure calculated by reference temperature rear left tire
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
SET TEMPERATURE	Set temperature
TIRE TEMPERATURE FL	Tire temperature front left
TIRE TEMPERATURE FR	Tire temperature front right

Item name	Display item
TIRE TEMPERATURE RR	Tire temperature rear right
TIRE TEMPERATURE RL	Tire temperature 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
VHCL SPEED SE (km/h)	Vehicle speed of the moment a particular DTC is detected
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.
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.
TIRE TEMPERATURE FL (°C)	Indicates tire temperature of front left tire.
TIRE TEMPERATURE FR (°C)	Indicates tire temperature of front right tire.
TIRE TEMPERATURE RR (°C)	Indicates tire temperature of rear right tire.
TIRE TEMPERATURE RL (°C)	Indicates tire temperature of rear left tire.
HAZARD (Off/On)	Indicates condition of hazard.
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.
SET AIR PRESSURE 1 FL (kPa, kgf/cm^2 or Psi)	Reference pressure front left tire.
SET AIR PRESSURE 1 FR (kPa, kgf/cm^2 or Psi)	Reference pressure front right tire.
SET AIR PRESSURE 1 RR (kPa, kgf/cm^2 or Psi)	Reference pressure rear right tire.
SET AIR PRESSURE 1 RL (kPa, kgf/cm^2 or Psi)	Reference pressure rear left tire.
SET AIR PRESSURE 2 FL (kPa, kgf/cm^2 or Psi)	Tire pressure calculated by reference temperature front left tire.
SET AIR PRESSURE 2 FR (kPa, kgf/cm^2 or Psi)	Tire pressure calculated by reference temperature front right tire.
SET AIR PRESSURE 2 RR (kPa, kgf/cm^2 or Psi)	Tire pressure calculated by reference temperature rear right tire.
SET AIR PRESSURE 2 RL (kPa, kgf/cm^2 or Psi)	Tire pressure calculated by reference temperature rear left tire.
SET TEMPERATURE (°C)	Reference temperature registered after resetting the TPMS.
TPMS SET SWITCH (Off/On)	Indicates condition of tire pressure monitor system reset switch.
HORN (Off/On)	Indicates condition of horn.
AUTO LOCATION STATUS RL (N-ID/NO CHG/IN PROG/T-OUT)	**NOTE:** This item is displayed, but cannot be monitored.
AUTO LOCATION STATUS FL (N-ID/NO CHG/IN PROG/T-OUT)	
AUTO LOCATION STATUS FR (N-ID/NO CHG/IN PROG/T-OUT)	
AUTO LOCATION STATUS RR (N-ID/NO CHG/IN PROG/T-OUT)	

Monitor Item (Unit)	Description
PARAMETER 1A1	**NOTE:** This item is displayed, but cannot be monitored.
PARAMETER 1A2	
PARAMETER 1A3	
PARAMETER 1A4	
PARAMETER 2A1	**NOTE:** This item is displayed, but cannot be monitored.
PARAMETER 2A2	
PARAMETER 2A3	
PARAMETER 2A4	
PARAMETER 3A1	**NOTE:** This item is displayed, but cannot be monitored.
PARAMETER 3A2	
PARAMETER 3A3	
PARAMETER 3A4	
PARAMETER 4A1	**NOTE:** This item is displayed, but cannot be monitored.
PARAMETER 4A2	
PARAMETER 4A3	
PARAMETER 4A4	
PARAMETER 1B1	**NOTE:** This item is displayed, but cannot be monitored.
PARAMETER 1B2	
PARAMETER 1B3	
PARAMETER 1B4	
PARAMETER 2B1	**NOTE:** This item is displayed, but cannot be monitored.
PARAMETER 2B2	
PARAMETER 2B3	
PARAMETER 2B4	
PARAMETER 3B1	**NOTE:** This item is displayed, but cannot be monitored.
PARAMETER 3B2	
PARAMETER 3B3	
PARAMETER 3B4	
PARAMETER 4B1	**NOTE:** This item is displayed, but cannot be monitored.
PARAMETER 4B2	
PARAMETER 4B3	
PARAMETER 4B4	

WORK SUPPORT

Support Item	Description
ID REGIST	Refer to WT-30, "Description".

ECU DIAGNOSIS INFORMATION

TIRE PRESSURE MONITORING SYSTEM

Reference Value

INFOID:0000000010715066

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
VHCL SPEED SE	Drive the vehicle.	Vehicle speed (km/h) or (MPH)
AIR PRESS FL AIR PRESS FR AIR PRESS RR AIR PRESS RL	• 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)
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
TIRE TEMPERATURE FL	Ignition switch ON	Indicates tire temperature of front left tire (°C)
TIRE TEMPERATURE FR	Ignition switch ON	Indicates tire temperature of front right tire (°C)
TIRE TEMPERATURE RR	Ignition switch ON	Indicates tire temperature of rear right tire (°C)
TIRE TEMPERATURE RL	Ignition switch ON	Indicates tire temperature of rear left tire (°C)
HAZARD	Ignition switch ON	Hazard lamp ON: On Hazard lamp OFF: Off
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)
SET AIR PRESSURE 1 FL	Ignition switch ON	Reference pressure front left tire (kPa), (kgf/cm^2) or (Psi)
SET AIR PRESSURE 1 FR	Ignition switch ON	Reference pressure front right tire (kPa), (kgf/cm^2) or (Psi)
SET AIR PRESSURE 1 RR	Ignition switch ON	Reference pressure rear right tire (kPa), (kgf/cm^2) or (Psi)
SET AIR PRESSURE 1 RL	Ignition switch ON	Reference pressure rear left tire (kPa), (kgf/cm^2) or (Psi)
SET AIR PRESSURE 2 FL	Ignition switch ON	Tire pressure calculated by reference temperature front left tire (kPa), (kgf/cm^2) or (Psi)
SET AIR PRESSURE 2 FR	Ignition switch ON	Tire pressure calculated by reference temperature front right tire (kPa), (kgf/cm^2) or (Psi)

Monitor item	Data monitor	
	Condition	Reference values for normal operation
SET AIR PRESSURE 2 RR	Ignition switch ON	Tire pressure calculated by reference temperature rear right tire (kPa), (kgf/cm^2) or (Psi)
SET AIR PRESSURE 2 RL	Ignition switch ON	Tire pressure calculated by reference temperature rear left tire (kPa), (kgf/cm^2) or (Psi)
SET TEMPERATURE	Ignition switch ON	Reference temperature registered after resetting the TPMS (°C)
TPMS SET SWITCH	Ignition switch ON	TPMS reset switch ON: On TPMS reset switch OFF: Off
HORN	Ignition switch ON	Horn ON: On Horn OFF: Off
AUTO LOCATION STATUS RL	**NOTE:** This item is displayed, but cannot be monitored.	
AUTO LOCATION STATUS FL	**NOTE:** This item is displayed, but cannot be monitored.	
AUTO LOCATION STATUS FR	**NOTE:** This item is displayed, but cannot be monitored.	
AUTO LOCATION STATUS RR	**NOTE:** This item is displayed, but cannot be monitored.	
PARAMETER 1A1	**NOTE:** This item is displayed, but cannot be monitored.	
PARAMETER 1A2		
PARAMETER 1A3		
PARAMETER 1A4		
PARAMETER 2A1	**NOTE:** This item is displayed, but cannot be monitored.	
PARAMETER 2A2		
PARAMETER 2A3		
PARAMETER 2A4		
PARAMETER 3A1	**NOTE:** This item is displayed, but cannot be monitored.	
PARAMETER 3A2		
PARAMETER 3A3		
PARAMETER 3A4		
PARAMETER 4A1	**NOTE:** This item is displayed, but cannot be monitored.	
PARAMETER 4A2		
PARAMETER 4A3		
PARAMETER 4A4		
PARAMETER 1B1	**NOTE:** This item is displayed, but cannot be monitored.	
PARAMETER 1B2		
PARAMETER 1B3		
PARAMETER 1B4		
PARAMETER 2B1	**NOTE:** This item is displayed, but cannot be monitored.	
PARAMETER 2B2		
PARAMETER 2B3		
PARAMETER 2B4		
PARAMETER 3B1	**NOTE:** This item is displayed, but cannot be monitored.	
PARAMETER 3B2		
PARAMETER 3B3		
PARAMETER 3B4		

Monitor item	Data monitor	
	Condition	Reference values for normal operation
PARAMETER 4B1	**NOTE:** This item is displayed, but cannot be monitored.	
PARAMETER 4B2		
PARAMETER 4B3		
PARAMETER 4B4		

TERMINAL LAYOUT

Refer to BCS-53, "Reference Value".

PHYSICAL VALUES

Refer to BCS-53, "Reference Value".

DTC Inspection Priority Chart

INFOID:0000000010715067

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	C1769-00 CONFIG SETTING
2	C1734-00 CONTROL UNIT
3	C1735-00 IGNITION SIGNAL
4	• U1000-01 CAN COMM CIRCUIT • U1010-49 CONTROL UNIT (CAN)
5	C1729-00 VHCL SPEED SIG ERR
6	• C1765-00 WHEEL TOP DATA FL • C1766-00 WHEEL TOP DATA FR • C1767-00 WHEEL TOP DATA RL • C1768-00 WHEEL TOP DATA RR
7	• C1716-00 [PRESSDATA ERR] FL • C1717-00 [PRESSDATA ERR] FR • C1718-00 [PRESSDATA ERR] RR • C1719-00 [PRESSDATA ERR] RL
8	• C1761-00 TEMPERATURE DATA FL • C1762-00 TEMPERATURE DATA FR • C1763-00 TEMPERATURE DATA RR • C1764-00 TEMPERATURE DATA RL
9	• C1708-00 [NO DATA] FL • C1709-00 [NO DATA] FR • C1710-00 [NO DATA] RR • C1711-00 [NO DATA] RL
10	• C1704-00 LOW PRESSURE FL • C1705-00 LOW PRESSURE FR • C1706-00 LOW PRESSURE RR • C1707-00 LOW PRESSURE RL
11	• C1770-00 G SENSOR FL • C1771-00 G SENSOR FR • C1772-00 G SENSOR RL • C1773-00 G SENSOR RR

DTC Index

INFOID:0000000010715068

DTC	Items (CONSULT screen terms)	Low tire pressure warning lamp	Reference
C1704-00	LOW PRESSURE FL	ON	WT-33, "DTC Description"
C1705-00	LOW PRESSURE FR		
C1706-00	LOW PRESSURE RR		
C1707-00	LOW PRESSURE RL		
C1708-00	[NO DATA] FL	The low tire pressure warning lamp repeats blinking at 0.5-second intervals for 1 minute, and then stays illuminated.	WT-35, "DTC Description"
C1709-00	[NO DATA] FR		
C1710-00	[NO DATA] RR		
C1711-00	[NO DATA] RL		
C1716-00	[PRESSDATA ERR] FL	The low tire pressure warning lamp repeats blinking at 0.5-second intervals for 1 minute, and then stays illuminated.	WT-37, "DTC Description"
C1717-00	[PRESSDATA ERR] FR		
C1718-00	[PRESSDATA ERR] RR		
C1719-00	[PRESSDATA ERR] RL		
C1729-00	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-38, "DTC Description"
C1734-00	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"
C1735-00	IGNITION SIGNAL	The low tire pressure warning lamp repeats blinking at 0.5-second intervals for 1 minute, and then stays illuminated.	WT-40, "DTC Description"
C1761-00	TEMPERATURE DATA FL	The low tire pressure warning lamp repeats blinking at 0.5-second intervals for 1 minute, and then stays illuminated.	WT-41, "DTC Description"
C1762-00	TEMPERATURE DATA FR		
C1763-00	TEMPERATURE DATA RR		
C1764-00	TEMPERATURE DATA RL		
C1765-00	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-42, "DTC Description"
C1766-00	WHEEL TOP DATA FR		
C1767-00	WHEEL TOP DATA RL		
C1768-00	WHEEL TOP DATA RR		
C1769-00	CONFIG SETTING	The low tire pressure warning lamp repeats blinking at 0.5-second intervals for 1 minute, and then stays illuminated.	WT-43, "DTC Description"
C1770-00	G SENSOR FL	OFF	WT-44, "DTC Description"
C1771-00	G SENSOR FR		
C1772-00	G SENSOR RL		
C1773-00	G SENSOR RR		

DTC	Items (CONSULT screen terms)	Low tire pressure warning lamp	Reference
U1000-01	CAN COMM CIRCUIT	The low tire pressure warning lamp repeats blinking at 0.5-second intervals for 1 minute, and then stays illuminated.	WT-45, "DTC Description"
U1010-49	CONTROL UNIT (CAN)	The low tire pressure warning lamp repeats blinking at 0.5-second intervals for 1 minute, and then stays illuminated.	WT-46, "DTC Description"

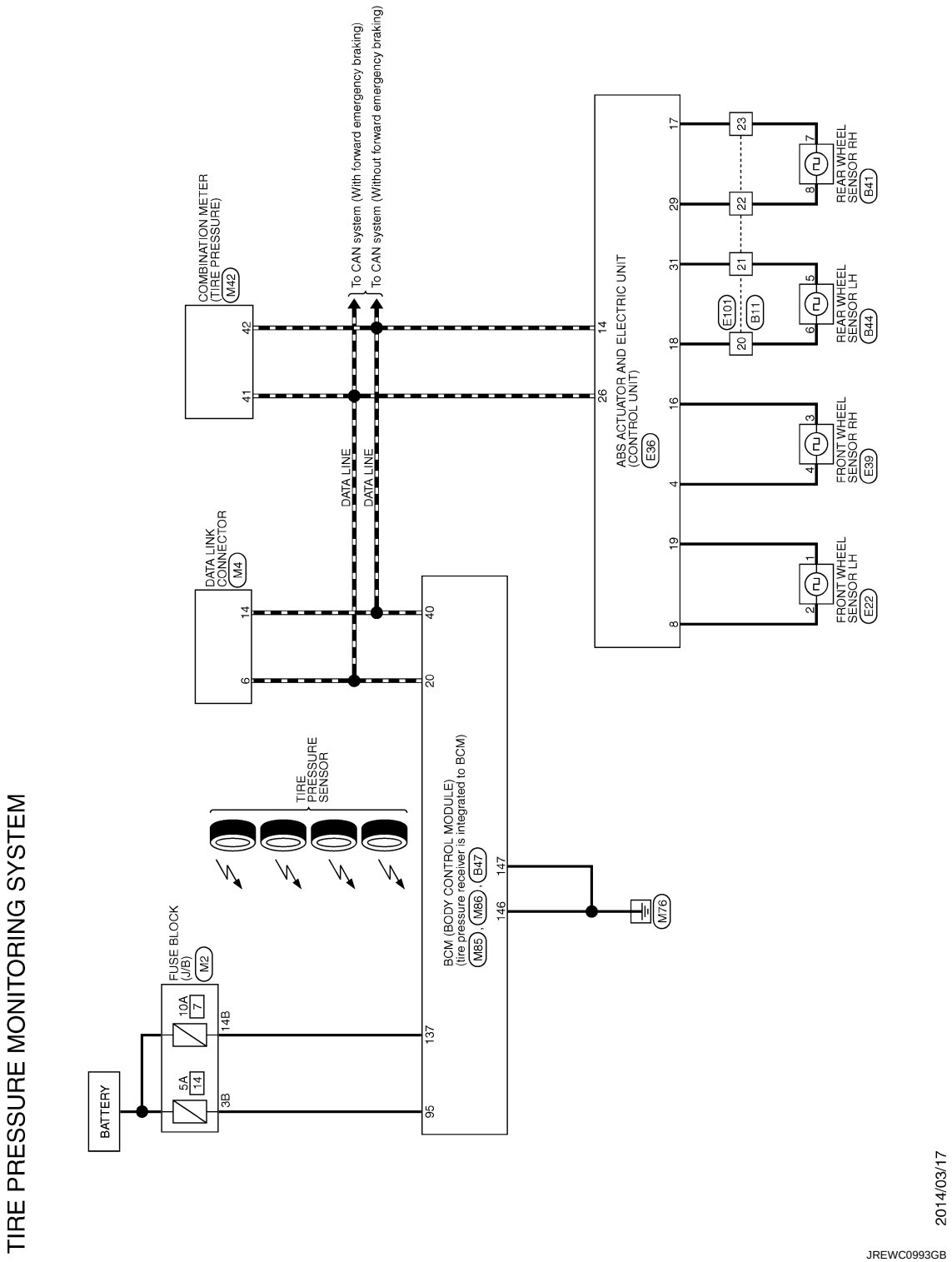
NOTE:
If some DTCs are displayed at the same time, refer to WT-20, "DTC Inspection Priority Chart".

WIRING DIAGRAM

TIRE PRESSURE MONITORING SYSTEM

Wiring Diagram

INFOID:0000000010715069



TIRE PRESSURE MONITORING SYSTEM

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MDGY-CS16-TM4

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	LA/BR	-
5	BG	-
11	BR	-
12	W	-
13	P	-
14	SB	-
15	V	-
16	P	-
17	P	-
18	G	-
19	P	-
20	R	-
21	BR	-
22	Y	-
23	BG	-
24	SB	-
25	G	-
26	B	-
27	P	-
28	R	-
29	LG	-
30	P	-
92	BR	-
93	GR	-
94	Y	-
95	LG	-
97	LG	-

Connector No.	B41
Connector Name	REAR WHEEL SENSOR RH
Connector Type	RH02FB

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
7	BG	-
8	Y	-

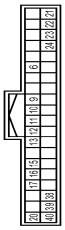
Connector No.	B44
Connector Name	REAR WHEEL SENSOR LH
Connector Type	RH02FB

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
5	BR	-
6	R	-

Connector No.	B47
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH

H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
6	R	BACK DOOR OPENER REQUEST SW
9	G	HANDS FREE SENSOR
10	W	REAR RH DOOR SW
11	LG	BACK DOOR SW
12	R	REAR LH DOOR SW
13	SB	PASSENGER DOOR SW
15	LA/G	REAR WIPER AUTO STOP
16	Y	BACK DOOR OPENER SW
17	SB	DRIVER DOOR SW
20	L	CAN-H
21	BR	BUMPER ANTENNA(-)
22	Y	REAR ANTENNA(-)
23	L	REAR ANTENNA(+)
24	G	BUMPER ANTENNA(+)
38	V	SIREN
39	LA/W	HIGH-MOUNTED STOP LAMP
40	P	CAN-L

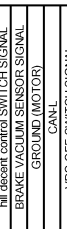
Connector No.	E22
Connector Name	FRONT WHEEL SENSOR LH
Connector Type	RH02MGY

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	P	-

Connector No.	E36
Connector Name	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)
Connector Type	BE234FB-BHY2-BJZ2-RH

H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	MOTOR POWER SUPPLY
4	SB	FR RH WHEEL SENSOR SIGNAL
5	V	BRAKE VACUUM SENSOR POWER SUPPLY
8	P	FR LH WHEEL SENSOR SIGNAL
9	Y	hill descent control SWITCH SIGNAL
12	LG	BRAKE VACUUM SENSOR SIGNAL
13	B	GROUND (MOTOR)
14	P	CAN-L
15	BR	VDC OFF SWITCH SIGNAL
16	R	FR RH WHEEL SENSOR POWER SUPPLY
17	Y	RR RH WHEEL SENSOR POWER SUPPLY
18	G	RR LH WHEEL SENSOR SIGNAL
19	W	FR LH WHEEL SENSOR POWER SUPPLY
24	SHIELD	BRAKE VACUUM SENSOR GROUND
25	BR	VALVE POWER SUPPLY
26	L	CAN-H
28	GR	IGNITION POWER SUPPLY
29	LG	RR RH WHEEL SENSOR SIGNAL
31	BR	RR LH WHEEL SENSOR POWER SUPPLY
38	B	GROUND (VALVE)

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TIRE PRESSURE MONITORING SYSTEM

Connector No.	E39
Connector Name	FRONT WHEEL SENSOR RH
Connector Type	RHW2MGY

Terminal No.	Color Of Wire	Signal Name [Specification]
3	R	-
4	SB	-

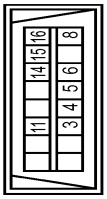
Connector No.	E101
Connector Name	WIRE TO WIRE
Connector Type	TH80FDGY-CS16-TM4

Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	W	-
5	G	-
11	BR	-
12	W	-
13	P	-
14	SB	-
15	V	-
16	P	-
17	P	-
18	G	-
19	P	-
20	G	-
21	BR	-
22	LG	-
23	Y	-
24	SB	-
25	G	-
26	B	-
27	P	-
28	R	-
29	LG	-
30	P	-
92	BR	-
93	GR	-
94	R	-
95	L	-
97	LG	-

Connector No.	M2
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FBR-CS

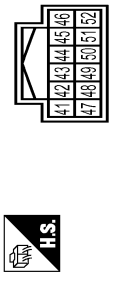
Terminal No.	Color Of Wire	Signal Name [Specification]
10B	GR	- [With MR20 engine or R9M engine]
10B	LA/GR	- [With QR25 Engine]
12B	BR	-
14B	W	-
15B	W	-
16B	GR	-
1B	G	-
2B	R	-
3B	V	-
6B	LA/L	-
7B	LA/V	-

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



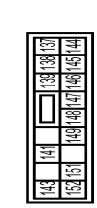
Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	-
4	B	-
5	B	-
6	L	-
8	Y	-
11	SB	-
14	P	-
15	BR	-
16	W	-

Connector No.	M42
Connector Name	COMBINATION METER
Connector Type	TH12FW-NH



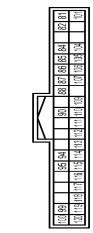
Terminal No.	Color Of Wire	Signal Name [Specification]
41	L	CAN-H
42	P	CAN-L
43	W	ILLUMINATION CONTROL SIGNAL
44	LA/B	FUEL LEVEL SENSOR GROUND
45	LA/G	BATTERY POWER SUPPLY
46	LA/BR	IGNITION SIGNAL [Without ISS]
46	V	IGNITION SIGNAL [With ISS]
47	SB	AV COMMUNICATION SIGNAL (H)
48	LG	AV COMMUNICATION SIGNAL (L)
49	Y	OIL LEVEL SENSOR SIGNAL
50	BG	OIL LEVEL SENSOR GROUND
51	LA/L	FUEL LEVEL SENSOR SIGNAL
52	B	GROUND

Connector No.	M85
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FBR-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
137	W	BAT POWER SUPPLY (FUSE)
138	SB	INT ROOM LAMP CONT
139	L	PASSENGER DOOR UNLOCK OUTPUT
141	V	FRONT DOOR LOCK OUTPUT
143	LA/V	POWER SUPPLY (FR DOOR LK ACT)
144	BG	POWER SUPPLY (TURN SIGNAL)
145	GR	POWER SUPPLY (STOP LAMP)
146	B	GROUND
147	B	GROUND
148	G	DRIVER DOOR UNLOCK OUTPUT
149	W	FRONT DOOR SUPERLOCK OUTPUT
151	R	POWER SUPPLY (REAR DOOR LK ACT)
152	LG	POWER SUPPLY (REAR WIPER)

Connector No.	M86
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
81	L	KEY SWITCH
82	LA/R	KEY SW (ST) [Without Intelligent Key]
82	W	PASS DOOR REQ SW [With Intelligent Key]

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TIRE PRESSURE MONITORING SYSTEM

84	BR	COMBI SW OUTPUT 2
85	SB	COMBI SW OUTPUT 1
86	P	COMBI SW OUTPUT 3
87	BG	COMBI SW OUTPUT 4
88	W	PUSH-BTN IGN SW ILL CONT
90	Y	S/L CONDITION
94	G	DETENTION SW
95	V	EXTENDED STORAGE FUSE SW
99	R	STOP/START OFF SW
100	V	DRIVER DOOR ANT +
101	Y	PUSH SW
104	R	DR DOOR UNLK SENS
105	Y	DR DOOR REQ SW
106	W	ACC OUTPUT
107	V	SENSOR CANCEL SW
109	P	NATS ANTENNA AMP.
110	BG	DIMMER SIGNAL
111	R	DOOR LK STAT IND OUTPUT
112	SB	STOP/START OFF SW INDICATOR
113	LG	NATS ANTENNA AMP.
114	Y	NATS ANTENNA AMP.
115	W	NATS ANTENNA AMP.
116	BG	ROOM ANT 1 -
117	GR	ROOM ANT 1 +
118	SB	PASSENGER DOOR ANT -
119	P	PASSENGER DOOR ANT +
120	BR	RRIVER DOOR ANT +

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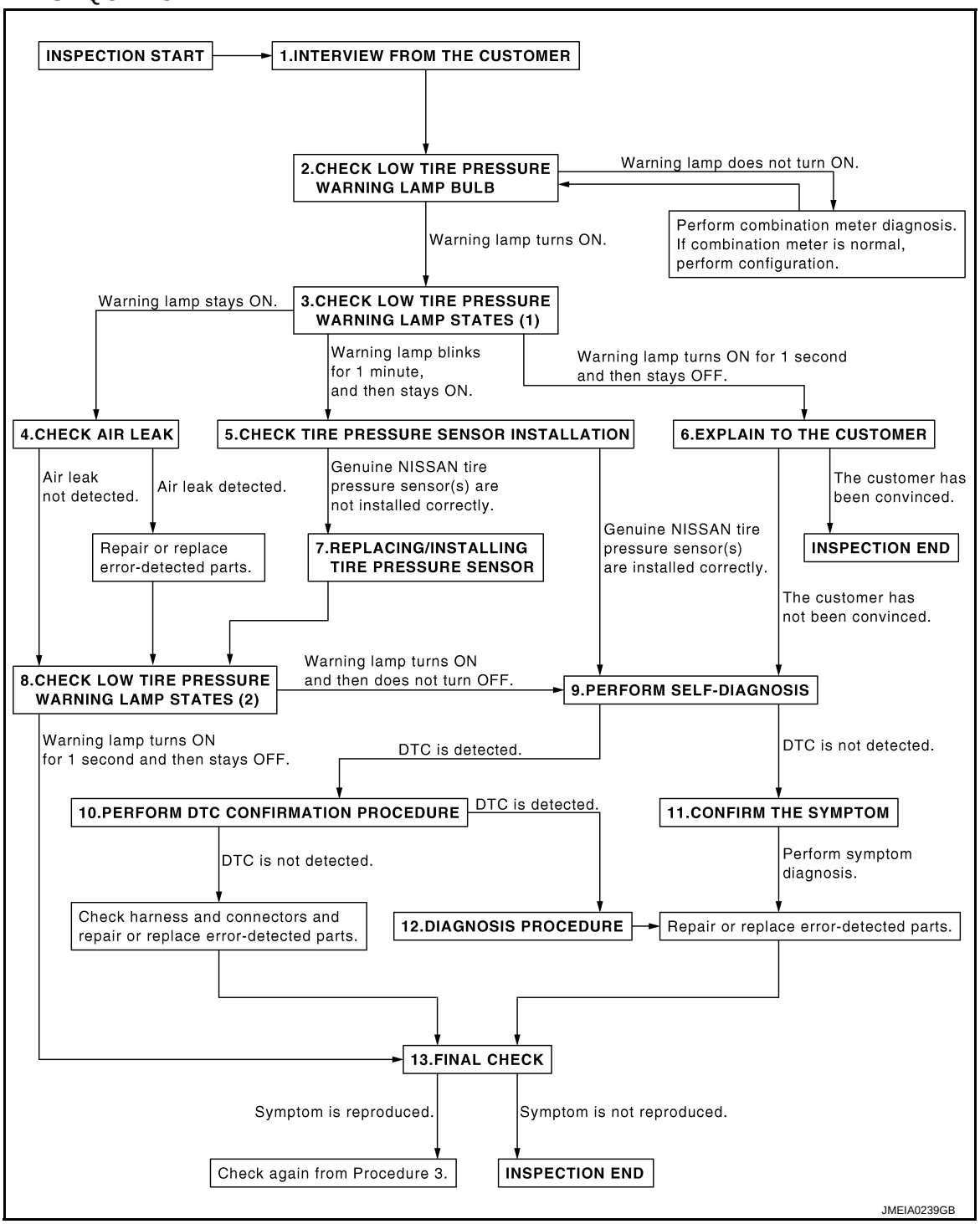
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:0000000010715070

OVERALL SEQUENCE



DETAILED FLOW

1.INTERVIEW FROM THE CUSTOMER

Clarify customer complaints before inspection. First of all, perform an interview utilizing and reproduce the symptom as well as fully understand it. Ask customer about his/her complaints carefully. Check symptoms by driving vehicle with customer, if necessary.

CAUTION:
Customers are not professional. Never guess easily like “maybe the customer means that...,” or “ maybe the customer mentions this symptom”.

>> GO TO 2.

2.CHECK LOW TIRE PRESSURE WARNING LAMP BULB

Check that low tire pressure warning lamp in combination meter turns ON when ignition switch is turned ON.

Does low tire pressure warning lamp turns ON?

YES >> GO TO 3.
NO >> Perform combination meter diagnosis. If combination meter is normal, perform configuration. Refer to WT-31, "Work Procedure". And check low tire pressure warning lamp again.

3.CHECK LOW TIRE PRESSURE WARNING LAMP STATES (1)

Check states of low tire pressure warning lamp in combination meter when ignition switch is turned ON.

How is states of low tire pressure warning lamp?

Stays ON>>GO TO 4.
Blinks for 1 minute and then stays ON>>GO TO 5.
Turns ON for 1 second and then stays OFF>>GO TO 6.

4.CHECK AIR LEAK

Adjust the tire pressure for all wheels specified to the value. Refer to WT-66, "Tire Air Pressure".
And then check air leak using soapsuds etc.

NOTE:
Check valve core and around valve stem too.

Is air leak detected?

YES >> Repair or replace error-detected parts. And then GO TO 8.
NO >> GO TO 8.

5.CHECK TIRE PRESSURE SENSOR INSTALLATION

Check visually that tire pressure sensors are installed to each wheels 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 are installed correctly?

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

6.EXPLAIN TO THE CUSTOMER

Explain the following possibilities to the customer.
- When illuminating low tire pressure warning lamp went out:
- Tire pressure was lower than the warning tire pressure value.
- When blinking low tire pressure warning lamp went out:
- Radio waves of tire pressure sensor broke off temporarily by interference of other radio waves (e.g. radio tower, battery charger of smart phone).
- Wheel(s) to which tire pressure sensor was not installed were attached.
- Tire pressure was higher than the reference value.

NOTE:
Low tire pressure warning lamp turned off since malfunction was solved in any case.

Has the customer been convinced?

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

7.REPLACING/INSTALLING TIRE PRESSURE SENSOR

1. Replace and/or Install tire pressure sensor(s). Refer to WT-62, "Removal and Installation".
2. Perform tire pressure sensor ID registration. Refer to WT-30, "Work Procedure".

Is tire pressure sensor ID registration completed?

YES >> GO TO 8.
NO >> Perform diagnosis procedure of “TIRE PRESSURE SENSOR ID REGISTRATION CANNOT BE COMPLETED”. Refer to WT-55, "Diagnosis Procedure". And then GO TO 8.

8. CHECK LOW TIRE PRESSURE WARNING LAMP STATES (2)

1. Adjust the tire pressure for all wheels specified to the value. Refer to WT-66, "Tire Air Pressure".
2. Perform TPMS reset operation. Refer to WT-14, "TPMS reset operation".
3. Check states of low tire pressure warning lamp in combination meter when ignition switch is turned ON.

Does low tire pressure warning lamp turn ON for 1 second and then turn OFF?

YES >> Explain to the customer that this is TPMS normal operation, and GO TO 13.
NO >> GO TO 9.

9. PERFORM SELF-DIAGNOSIS

With CONSULT
Perform self-diagnosis for “AIR PRESSURE MONITOR”.

Is DTC detected?

YES >> Record or print self-diagnosis results and freeze frame data (FFD). GO TO 10.
NO >> GO TO 11.

10. PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
Perform DTC CONFIRMATION PROCEDURE for the detected DTC, and then check that DTC is detected again.

Is DTC detected?

YES >> GO TO 12.
NO >> Check harness and connectors based on the information obtained by interview and repair or replace error-detected parts. Refer to GI-44, "Intermittent Incident". GO TO 13.

11. CONFIRM THE SYMPTOM

Perform symptom diagnosis. refer to WT-48, "Symptom Table".

>> Repair or replace error-detected parts. GO TO 13.

12. DIAGNOSIS PROCEDURE

Perform DTC Diagnosis Procedure.

>> Repair or replace error-detected parts. GO TO 13.

13. FINAL CHECK

Recheck the symptom and check that the symptom is not reproduced on the same conditions.

Is the symptom reproduced?

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

TIRE PRESSURE SENSOR ID REGISTRATION

Description

INFOID:0000000010715071

This procedure must be performed:
- After replacement of a tire pressure sensor or BCM.
- After replacement of tire or road wheel.

  NOTE:
  ID registration is unnecessary if there are no change in the positions of each wheels (tire pressure sensors) before wheel removal and after wheel installation.
- After performing tire rotation.

Work Procedure

INFOID:0000000010715072

1. TIRE PRESSURE SENSOR ID REGISTRATION 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.**

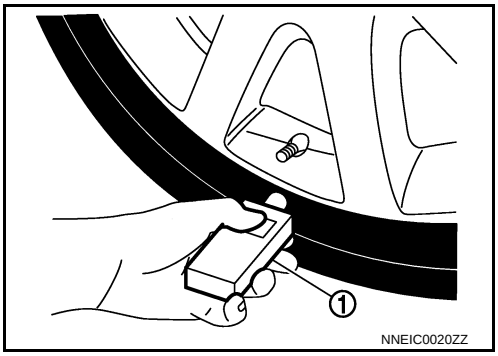
NOTE:
Refer to the manufacture operating instructions for how to use the tire pressure sensor activation tool [KV48105501 or NI-4032].

With CONSULT

1. Turn the ignition switch ON.
2. Display the “WORK SUPPORT” screen and select “ID REGIST”.
3. Select the start button on the “ID REGIST” screen.
4. Contact the tire pressure sensor activation tool [KV48105501 or NI-4032] ① to the side of the tire at the location to the tire pressure sensor.
5. Press the registration button and wait until the hazard warning lamp blinks twice.

   CAUTION:

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



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

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

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

Is the check result normal?

YES >> ID registration END.
NO >> Refer to WT-35, "Diagnosis Procedure".

CONFIGURATION (TIRE PRESSURE MONITORING SYSTEM)

Work Procedure

INFOID:0000000010715073

CAUTION:

- **Use “Manual Configuration” only when “TYPE ID” of BCM cannot be read.**
- **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-30, "Work Procedure".**
- **If an error occurs during configuration, start over from the beginning.**

1. CHECKING TYPE ID (1)

Use FAST (service parts catalogue) to search BCM of the parts number and find “Type ID”.

Is “Type ID” displayed?

YES >> Print out “Type ID” and GO TO 2.
NO >> “Configuration” is not required for BCM. Replace in the usual manner. Refer to BCS-121, "Removal and Installation".

2. CHECKING TYPE ID (2)

CONSULT Configuration

1. Select “AIR PRESSURE MONITOR”
2. Select “Before Replace ECU” of “Read/Write Configuration”.
3. Check that “Type ID” is displayed on the CONSULT screen.

Is “Type ID” displayed?

YES >> GO TO 3.
NO >> GO TO 7.

3. VERIFYING TYPE ID (1)

CONSULT Configuration

Compare a “Type ID” displayed on the CONSULT screen with the one searched by using FAST (service parts catalogue) to check that these “Type ID” agree with each other.

NOTE:

For the “Type ID” searched by using FAST (service parts catalog), use the last five digits of the “Type ID”.

>> GO TO 4.

4. SAVING TYPE ID

CONSULT Configuration

Save “Type ID” on CONSULT.

>> GO TO 5.

5. REPLACING BCM (1)

Replace BCM. Refer to BCS-121, "Removal and Installation".

>> GO TO 6.

6. WRITING (AUTOMATIC WRITING)

CONSULT Configuration

1. Select “After Replace ECU” of “Re/programming, Configuration” or that of “Read / Write Configuration”.
2. Select the “Type ID” agreeing with the one stored on CONSULT and the one searched by using FAST (service parts catalogue) to write the “Type ID” into the BCM.
   NOTE:
   For the “Type ID” searched by using FAST (service parts catalog), use the last five digits of the “Type ID”.

>> GO TO 9.

7. REPLACING BCM (2)

Replace BCM. Refer to BCS-121, "Removal and Installation".

>> GO TO 8.

8. WRITING (MANUAL WRITING)

CONSULT Configuration
1. Select “Manual Configuration”.
2. Select the “Type ID” searched by using FAST (service parts catalogue) to write the “Type ID” into the BCM.
   NOTE:
   For the “Type ID” searched by using FAST (service parts catalog), use the last five digits of the “Type ID”.

>> GO TO 9.

9. VERIFYING TYPE ID (2)

Compare “Type ID” written into the BCM with the one searched by using FAST (service parts catalogue) to check that these “Type ID” agree with each other.
NOTE:
For the “Type ID” searched by using FAST (service parts catalog), use the last five digits of the “Type ID”.

>> GO TO 10.

10. 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 11.
NO >> Perform the self-diagnosis of “AIR PRESSURE MONITOR”. Refer to WT-15, "CONSULT Function".

11. PERFORMING SUPPLEMENTARY WORK

1. Adjust the tire pressure to the specified value. Refer to WT-66, "Tire Air Pressure".
2. Perform tire pressure sensor ID registration. Refer to WT-30, "Work Procedure".
3. Perform the self-diagnosis of all systems.
4. Erase self-diagnosis results.
5. Perform TPMS reset operation. Refer to WT-14, "TPMS reset operation".

>> End of work.

DTC/CIRCUIT DIAGNOSIS

C1704-00, C1705-00, C1706-00, C1707-00 LOW TIRE PRESSURE

DTC Description

INFOID:0000000010715074

DTC DETECTION LOGIC

DTC No.	CONSULT screen item (Trouble diagnosis content)	DTC Detection Condition
C1704-00	LOW PRESSURE FL (Low tire pressure front left)	Front left tire pressure drops.
C1705-00	LOW PRESSURE FR (Low tire pressure front right)	Front right tire pressure drops.
C1706-00	LOW PRESSURE RR (Low tire pressure rear right)	Rear right tire pressure drops.
C1707-00	LOW PRESSURE RL (Low tire pressure rear left)	Rear left tire pressure drops.

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

- Low tire pressure (natural air leak)
- Air leak because of wheel change

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

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-66, "Tire Air Pressure".
3. Perform TPMS reset operation. Refer to WT-14, "TPMS reset operation".
4. Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes.
5. Perform self-diagnosis for “AIR PRESSURE MONITOR”.

Is DTC “C1704-00”, “C1705-00”, “C1706-00”, or “C1707-00” detected?

YES >> Proceed to WT-33, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-44, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000010715075

1.TIRE PRESSURE SENSOR ID REGISTRATION

Perform tire pressure sensor ID registration. Refer to WT-30, "Work Procedure".

Is tire pressure sensor ID registration completed?

YES >> GO TO 2.
NO >> Replace applicable tire pressure sensor. Refer to WT-62, "Removal and Installation".

2.CHECK TIRE PRESSURE

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Check the tire pressure of all wheels. Refer to WT-66, "Tire Air Pressure".
   CAUTION:

If the checked value is close to the standard, reduce the tire pressure, and then with the ignition switch ON, adjust the tire pressure again so that it is within the standard.

3. Perform TPMS reset operation. Refer to WT-14, "TPMS reset operation".
4. Drive for 2 minutes or more at a speed of between 25 km/h (16 MPH) and 100 km/h (62 MPH).
5. Recheck the tire pressure of all wheels. Refer to WT-66, "Tire Air Pressure".

Is the inspection result normal?

YES >> Perform “DTC CONFIRMATION PROCEDURE” (self-diagnosis) again. Refer to WT-33, "DTC Description".

NO >> GO TO 3

3.CHECK TIRE PRESSURE SIGNAL

With CONSULT

1. Adjust tire pressure for all wheels to the specified value. Refer toWT-66, "Tire Air Pressure".
2. Select “DATA MONITOR” in “AIR PRESSURE MONITOR”.
3. Check that the tire pressures match the standard value.

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

Is the inspection result normal?

YES >> Check air leak using soapsuds etc. and repair or replace error-detected parts. After erasing DTC record, INSPECTION END.

NO >> Repair or replace error-detected parts.

C1708-00, C1709-00, C1710-00, C1711-00 TIRE PRESSURE SENSOR

DTC Description

INFOID:0000000010715076

DTC DETECTION LOGIC

DTC No.	CONSULT screen item (Trouble diagnosis content)	DTC Detection Condition
C1708-00	[NO - DATA] - FL (No data front left)	Tire pressure data signal from the front left wheel tire pressure sensor cannot be detected.
C1709-00	[NO - DATA] - FR (No data front right)	Tire pressure data signal from the front right wheel tire pressure sensor cannot be detected.
C1710-00	[NO - DATA] - RR (No data rear right)	Tire pressure data signal from the rear right wheel tire pressure sensor cannot be detected.
C1711-00	[NO - DATA] - RL (No data rear left)	Tire pressure data signal from the rear left wheel tire pressure sensor cannot be detected.

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

- BCM harness or connector
- BCM
- Tire pressure sensor ID registration incomplete
- Tire pressure sensor is not attached.
- Tire pressure sensor
- Tire pressure sensor battery voltage
- Driving in area where radio wave cannot be transmitted/received.

DTC CONFIRMATION PROCEDURE

1.TIRE PRESSURE SENSOR ID REGISTRATION

Perform tire pressure sensor ID registration. Refer to WT-30, "Work Procedure".

Can the tire pressure sensor ID registration be completed?

YES >> GO TO 2.
NO >> Replace applicable tire pressure sensor. Refer to WT-62, "Removal and Installation".

2.PERFORM DTC CONFIRMATION

With CONSULT

1. Drive the vehicle at 40 km/h (25 MPH) or more.
   NOTE:
   Avoid driving in area where radio wave cannot be transmitted/received.
2. Stop the vehicle.
3. Perform self-diagnosis for “AIR PRESSURE MONITOR”.

Is DTC “C1708-00”, “C1709-00”, “C1710-00” or “C1711-00” detected?

YES >> Proceed to WT-35, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-44, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000010715077

1.CHECK TIRE PRESSURE SIGNAL

With CONSULT

1. Select “DATA MONITOR” in “AIR PRESSURE MONITOR”.
2. Check the values that are displayed for “AIR PRESS FL”, “AIR PRESS FR”, “AIR PRESS RR”, and “AIR PRESS RL”.
   NOTE:
   BCM holds last tire pressure values during 17 minutes after ignition switch turns OFF.

Are all tire pressures displayed 0 kPa (psi)?

YES >> GO TO 2.
NO >> Replace applicable tire pressure sensor. Refer to WT-62, "Removal and Installation".

2. TIRE PRESSURE SENSOR ID REGISTRATION

Perform tire pressure sensor ID registration. Refer to WT-30, "Work Procedure".

Can the tire pressure sensor ID registration be completed?

YES >> GO TO 3.
NO >> Replace applicable tire pressure sensor. Refer to WT-62, "Removal and Installation".

3. CHECK BCM POWER SUPPLY CIRCUIT

Check BCM power supply circuit. Refer to BCS-114, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace the BCM. Refer to BCS-121, "Removal and Installation".
NO >> Repair or replace harness or connectors.

C1716-00, C1717-00, C1718-00, C1719-00 TIRE PRESSURE SENSOR

DTC Description

INFOID:0000000010715078

DTC DETECTION LOGIC

DTC No.	CONSULT screen item (Trouble diagnosis content)	DTC Detection Condition
C1716-00	[PRESSDATA ERR] FL (Pressure data error front left)	Malfunction in the tire pressure data from the front left wheel tire pressure sensor.
C1717-00	[PRESSDATA ERR] FR (Pressure data error front right)	Malfunction in the tire pressure data from the front right wheel tire pressure sensor.
C1718-00	[PRESSDATA ERR] RR (Pressure data error rear right)	Malfunction in the tire pressure data from the rear right wheel tire pressure sensor.
C1719-00	[PRESSDATA ERR] RL (Pressure data error rear left)	Malfunction in the tire pressure data from the rear left wheel tire pressure sensor.

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
- BCM

DTC CONFIRMATION PROCEDURE

1.PERFORM SELF DIAGNOSTIC RESULT

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Check tire pressure for all wheels and adjust to the specified value. Refer to WT-66, "Tire Air Pressure".
3. Perform self-diagnosis for “AIR PRESSURE MONITOR”.

Is DTC “C1716-00”, “C1717-00”, “C1718-00”, or “C1719-00” detected?

YES >> Proceed to WT-37, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-44, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000010715079

1.TIRE PRESSURE SENSOR ID REGISTRATION

Perform tire pressure sensor ID registration. Refer to WT-30, "Work Procedure".

Can the tire pressure sensor ID registration be completed?

YES >> Perform “DTC CONFIRMATION PROCEDURE” (self-diagnosis) again. Refer to WT-37, "DTC Description".
NO >> Replace applicable tire pressure sensor. Refer to WT-62, "Removal and Installation".

C1729-00 VEHICLE SPEED SIGNAL

DTC Description

INFOID:0000000010715080

DTC DETECTION LOGIC

DTC No.	CONSULT screen item (Trouble diagnosis content)	DTC Detection Condition
C1729-00	VHCL SPEED SIG ERR (Vehicle speed signal error)	Vehicle speed signal not detected.

POSSIBLE CAUSES

- CAN communication
- BCM
- ABS actuator and electric unit (control unit) malfunction

DTC CONFIRMATION PROCEDURE

1.DTC CONFIRMATION PROCEDURE

With CONSULT

1. Drive the vehicle.
2. Stop the vehicle.
3. Perform self-diagnosis in “AIR PRESSURE MONITOR”.

Is DTC “C1729-00” detected?

YES >> Proceed to WT-38, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-44, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000010715081

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

With CONSULT

Perform self-diagnosis for “ABS”.

Is any DTCs detected?

YES >> Check the DTCs. Refer to BRC-84, "DTC Index".
NO >> GO TO 2.

2.CHECK BCM INPUT/OUTPUT SIGNAL

Check BCM input/output signal values. Refer to BCS-53, "Reference Value".

Is the inspection result normal?

YES >> Check pin terminal and connection of each harness connector for malfunctioning conditions.
NO >> Replace the BCM. Refer to BCS-121, "Removal and Installation".

C1734-00 CONTROL UNIT

DTC Description

INFOID:0000000010715082

DTC DETECTION LOGIC

DTC No.	CONSULT screen item (Trouble diagnosis content)	DTC Detection Condition
C1734-00	CONTROL UNIT (Control unit)	TPMS malfunction in BCM.

POSSIBLE CAUSE

BCM

DTC CONFIRMATION PROCEDURE

1.PERFORM SELF DIAGNOSTIC RESULT

With CONSULT

Perform self-diagnosis in “AIR PRESSURE MONITOR”.

Is DTC “C1734-00” detected?

YES >> Proceed to WT-39, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-44, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000010715083

1.CHECK BCM HARNESS CONNECTORS

Check BCM harness connectors for damage or loose connections.

Is the inspection result normal?

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

2.CHECK BCM POWER SUPPLY CIRCUIT

Check BCM power supply circuit. Refer to BCS-114, "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-53, "Reference Value".

Is the inspection result normal?

YES >> Check pin terminal and connection of each harness connector for malfunctioning conditions.
NO >> Replace BCM. Refer to BCS-121, "Removal and Installation".

C1735-00 IGNITION SIGNAL

DTC Description

INFOID:0000000010715084

DTC DETECTION LOGIC

DTC No.	CONSULT screen item (Trouble diagnosis content)	DTC Detection Condition
C1735-00	IGN CIRCUIT OPEN (Ignition circuit open)	BCM has detected a mismatch between IGN ON signals.

POSSIBLE CAUSE

BCM

DTC CONFIRMATION PROCEDURE

1.PERFORM SELF DIAGNOSTIC RESULT

With CONSULT

Perform self-diagnosis in “AIR PRESSURE MONITOR”.

Is DTC “C1735-00” detected?

YES >> Proceed to WT-40, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-44, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000010715085

1.PERFORM BCM SELF-DIAGNOSIS

Perform self-diagnosis for “BCM”.

Is any DTCs detection?

YES >> Check the DTCs. Refer to BCS-78, "DTC Index".
NO >> Replace BCM. Refer to BCS-121, "Removal and Installation".

C1761-00, C1762-00, C1763-00, C1764-00 TIRE PRESSURE SENSOR

DTC Description

INFOID:0000000010715086

DTC DETECTION LOGIC

DTC No.	CONSULT screen item (Trouble diagnosis content)	DTC Detection Condition
C1761-00	TEMPERATURE DATA FL (Temperature data front left)	Malfunction in the tire temperature data from the front left wheel tire pressure sensor.
C1762-00	TEMPERATURE DATA FR (Temperature data front right)	Malfunction in the tire temperature data from the front right wheel tire pressure sensor.
C1763-00	TEMPERATURE DATA RR (Temperature data rear right)	Malfunction in the tire temperature data from the rear right wheel tire pressure sensor.
C1764-00	TEMPERATURE DATA RL (Temperature data rear left)	Malfunction in the tire temperature data from the rear left wheel tire pressure sensor.

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
- BCM

DTC CONFIRMATION PROCEDURE

1.PERFORM SELF DIAGNOSTIC RESULT

With CONSULT
Perform self-diagnosis in “AIR PRESSURE MONITOR”.

Is DTC “C1761-00”, “C1762-00”, “C1763-00”, or “C1764-00” detected?

YES >> Proceed to WT-41, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-44, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000010715087

1.PERFORM BCM SELF-DIAGNOSIS

1. Replace tire pressure sensor. Refer to WT-62, "Removal and Installation".
2. Perform self-diagnosis for “BCM”.

Is DTC “C1761-00”, “C1762-00”, “C1763-00”, or “C1764-00” detected?

YES >> Replace BCM. Refer to BCS-121, "Removal and Installation".
NO >> INSPECTION END

C1765-00, C1766-00, C1767-00, C1768-00 WHEEL SENSOR

DTC Description

INFOID:0000000010715088

DTC DETECTION LOGIC

DTC No.	CONSULT screen item (Trouble diagnosis content)	DTC Detection Condition
C1765-00	WHEEL TOP DATA FL (Wheel top data front left)	Malfunction in the wheel top data from the front left wheel sensor.
C1766-00	WHEEL TOP DATA FR (Wheel top data front right)	Malfunction in the wheel top data from the front right wheel sensor.
C1767-00	WHEEL TOP DATA RL (Wheel top data rear left)	Malfunction in the wheel top data from the rear left wheel sensor.
C1768-00	WHEEL TOP DATA RR (Wheel top data rear right)	Malfunction in the wheel top data from the rear right wheel sensor.

POSSIBLE CAUSE

Wheel sensor

DTC CONFIRMATION PROCEDURE

1.PERFORM SELF DIAGNOSTIC RESULT

With CONSULT

Perform self-diagnosis in “AIR PRESSURE MONITOR”.

Is DTC “C1765-00”, “C1766-00”, “C1767-00”, or “C1768-00” detected?

YES >> Proceed to WT-42, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-44, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000010715089

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

Perform self-diagnosis for “ABS”.

Is any DTC detected?

YES >> Check the DTCs. Refer to BRC-84, "DTC Index".
NO >> Replace BCM. Refer to BCS-121, "Removal and Installation".

C1769-00 CONFIGURATION SETTING

DTC Description

INFOID:0000000010715090

DTC DETECTION LOGIC

DTC No.	CONSULT screen item (Trouble diagnosis content)	DTC Detection Condition
C1769-00	CONFIG SETTING (Configuration setting)	• Tire pressure monitoring system configuration do not be performed. • Receiver ID registration cannot be performed.

POSSIBLE CAUSE

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

DTC CONFIRMATION PROCEDURE

1.PERFORM SELF DIAGNOSTIC RESULT

With CONSULT

Perform self-diagnosis in “AIR PRESSURE MONITOR”.

Is DTC “C1769-00” detected?

YES >> Proceed to WT-43, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-44, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000010715091

1.TIRE PRESSURE MONITORING SYSTEM CONFIGURATION

Perform configuration.

>> Refer to WT-31, "Work Procedure", and GO TO 2.

2.TIRE PRESSURE SENSOR ID REGISTRATION

Perform tire pressure sensor ID registration. Refer to WT-30, "Work Procedure".

Does low tire pressure warning lamp turn OFF?

YES >> INSPECTION END
NO >> Replace BCM. Refer to BCS-121, "Removal and Installation".

C1770-00, C1771-00, C1772-00, C1773-00 G SENSOR

DTC Description

INFOID:0000000010715092

DTC DETECTION LOGIC

DTC No.	CONSULT screen item (Trouble diagnosis content)	DTC Detection Condition
C1770-00	G SENSOR FL (G sensor front left)	Malfunction in the G sensor data from front left wheel sensor.
C1771-00	G SENSOR FR (G sensor front right)	Malfunction in the G sensor data from front right wheel sensor.
C1772-00	G SENSOR RL (G sensor rear left)	Malfunction in the G sensor data from rear left wheel sensor.
C1773-00	G SENSOR RR (G sensor rear right)	Malfunction in the G sensor data from rear right wheel sensor.

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

Wheel sensor

DTC CONFIRMATION PROCEDURE

1.PERFORM SELF DIAGNOSTIC RESULT

With CONSULT
Perform self-diagnosis in “AIR PRESSURE MONITOR”.
Is DTC “C1770-00”, “C1771-00”, “C1772-00”, or “C1773-00” detected?

YES >> Proceed to WT-44, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-44, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000010715093

1.PERFORM BCM SELF-DIAGNOSIS

1. Replace wheel sensor. Refer to BRC-212, "FRONT WHEEL SENSOR : Removal and Installation" (front wheel sensor), BRC-214, "REAR WHEEL SENSOR : Removal and Installation" (rear wheel sensor).
2. Perform self-diagnosis for “BCM”.

Is DTC “C1770-00”, “C1771-00”, “C1772-00”, or “C1773-00” detected?

YES >> Replace the BCM. Refer to BCS-121, "Removal and Installation".
NO >> INSPECTION END

U1000-01 CAN COMM CIRCUIT

Description

INFOID:0000000010715094

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 Description

INFOID:0000000010715095

DTC DETECTION LOGIC

DTC No.	CONSULT screen item (Trouble diagnosis content)	DTC Detection Condition
U1000-01	CAN COMM CIRCUIT (CAN communication circuit)	BCM is not communicating CAN communication signal for 2 seconds or more.

POSSIBLE CAUSE

- CAN communication malfunction
- Malfunction of BCM

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

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

Is DTC “U1000-01” detected?

YES >> Proceed to WT-45, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-44, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000010715096

1.PERFORM SELF-DIAGNOSTIC RESULT

With CONSULT

1. Turn the ignition switch ON and hold it for 2 seconds or more.
2. Check the “Self-Diagnostic Result” of “AIR PRESSURE MONITOR”.

Is DTC “U1000-01” detected?

YES >> Refer to LAN-33, "CAN COMMUNICATION SYSTEM : CAN System Specification Chart".
NO >> INSPECTION END

U1010-49 CONTROL UNIT (CAN)

Description

INFOID:0000000010715097

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 Description

INFOID:0000000010715098

DTC DETECTION LOGIC

DTC	CONSULT screen item (Trouble diagnosis content)	DTC Detection Condition
U1010-49	CONTROL UNIT (CAN) [Control unit (CAN)]	Detecting error during the initial diagnosis of CAN controller of BCM.

POSSIBLE CAUSE

Malfunction of BCM

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

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

Is DTC “U1010-49” detected?

YES >> Proceed to WT-46, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-44, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000010715099

1.CHECK BCM

Check BCM harness connector for disconnection or deformation.

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-121, "Removal and Installation".
NO >> Repair or replace error-detected parts.

LOW TIRE PRESSURE WARNING LAMP

Component Function Check

INFOID:0000000010715100

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-47, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000010715101

1.POWER SUPPLY AND GROUND CIRCUIT

Check power supply and ground circuit. Refer to BCS-114, "Diagnosis Procedure".

Is the inspection result normal?

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

2.PERFORM SELF-DIAGNOSIS

With CONSULT

Perform self-diagnosis for “AIR PRESSURE MONITOR”.

Is any DTC detected?

YES >> Check the DTC. Refer to WT-21, "DTC Index".
NO >> GO TO 3.

3.CHECK LOW TIRE PRESSURE WARNING LAMP SIGNAL

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Select “ACTIVE TEST” 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 >> Perform combination meter diagnosis. Refer to MWI-118, "Work flow".
NO >> Replace the BCM. Refer to BCS-121, "Removal and Installation".

SYMPTOM DIAGNOSIS

TPMS

Symptom Table

INFOID:0000000010715102

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-66, "Tire Air Pressure".
			Tire pressure monitoring system configuration do not be performed.	Perform configuration. Refer to WT-31, "Work Procedure".
			Tire pressure sensor ID registration do not be performed.	Perform ID registration. Refer to WT-30, "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-30, "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-15, "CONSULT Function".
Hazard warning lamp	The hazard warning lamp does not blink twice when performing ID registration operation.	—	ID registration is not completed.	Perform “TIRE PRESSURE SENSOR ID REGISTRATION CANNOT BE COMPLETED” diagnosis procedure. Refer to WT-55, "Diagnosis Procedure".

LOW TIRE PRESSURE WARNING LAMP DOES NOT TURN ON

Description

INFOID:0000000010715103

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:0000000010715104

1. CHECK LOW TIRE PRESSURE WARNING LAMP SIGNAL

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Select “ACTIVE TEST” 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-44, "Intermittent Incident".
NO >> Replace the BCM. Refer to BCS-121, "Removal and Installation".

3. CHECK COMBINATION METER POWER SUPPLY CIRCUIT

Perform the trouble diagnosis for combination meter power supply circuit. Refer to MWI-129, "COMBINATION METER : Diagnosis Procedure".

Is the inspection result normal?

YES >> Perform combination diagnosis. Refer to MWI-118, "Work flow".
NO >> Repair or replace error-detected parts.

LOW TIRE PRESSURE WARNING LAMP DOES NOT TURN OFF

Description

INFOID:0000000010715105

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

Diagnosis Procedure

INFOID:0000000010715106

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-66, "Tire Air Pressure".
3. Perform TPMS reset operation. Refer to WT-14, "TPMS reset operation".
4. Recheck the tire pressure for all wheels. Refer to WT-66, "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

With CONSULT
Perform self-diagnosis for “AIR PRESSURE MONITOR”.

Is DTC detected?

YES >> Perform DTC diagnosis procedure. Refer to WT-21, "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-114, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-121, "Removal and Installation".
NO >> Repair or replace error-detected parts.

LOW TIRE PRESSURE WARNING LAMP BLINKS

Description

INFOID:0000000010715107

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:0000000010715108

1. CHECK TIRE PRESSURE SENSOR INSTALLATION

Check visually that tire pressure sensors are installed to each wheels 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 are installed correctly?

YES >> GO TO 2.

NO >> Replace and/or Install tire pressure sensor(s). Refer to WT-62, "Removal and Installation". GO TO 3.

2. PERFORM SELF-DIAGNOSIS

With CONSULT

Perform self-diagnosis for “AIR PRESSURE MONITOR”.

Is DTC detected?

YES >> Perform DTC diagnosis procedure. Refer to WT-21, "DTC Index".

NO >> GO TO 4.

3. TIRE PRESSURE SENSOR ID REGISTRATION

Perform tire pressure sensor ID registration. Refer to WT-30, "Work Procedure".

Is tire pressure sensor ID registration completed?

YES >> Adjust the tire pressure for all wheels specified to the value. Refer to WT-66, "Tire Air Pressure". And perform TPMS reset operation. Refer to WT-14, "TPMS reset operation". INSPECTION END

NO >> Perform diagnosis procedure of “TIRE PRESSURE SENSOR ID REGISTRATION CANNOT BE COMPLETED”. Refer to WT-55, "Diagnosis Procedure".

4. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Perform the trouble diagnosis for power supply and ground circuit. Refer to BCS-114, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-121, "Removal and Installation".

NO >> Repair or replace error-detected parts.

LOW TIRE PRESSURE LOCATION INDICATOR DOES NOT DISPLAY

Description

INFOID:0000000010715109

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

Diagnosis Procedure

INFOID:0000000010715110

1.CHECK COMBINATION METER

Check combination meter. Refer to MWI-118, "Work flow".

Is the inspection result normal?

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

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-44, "Intermittent Incident".
NO >> Replace the BCM. Refer to BCS-121, "Removal and Installation".

LOW TIRE PRESSURE LOCATION INDICATOR CONTINUES DISPLAYING

Description

INFOID:0000000010715111

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

Diagnosis Procedure

INFOID:0000000010715112

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-66, "Tire Air Pressure".
3. Perform TPMS reset operation. Refer to WT-14, "TPMS reset operation".

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 continues displaying?

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

3.PERFORM SELF-DIAGNOSIS

With CONSULT

Perform self-diagnosis for “AIR PRESSURE MONITOR”.

Is DTC detected?

YES >> Perform DTC diagnosis procedure. Refer to WT-21, "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-114, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-121, "Removal and Installation".
NO >> Repair or replace error-detected parts.

TIRE PRESSURE SENSOR ID REGISTRATION CANNOT BE COMPLETED

Description

INFOID:0000000010715113

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:0000000010715114

1.CHECK TIRE PRESSURE SENSOR INSTALLATION

Check visually that tire pressure sensors are installed to each wheels 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 are installed correctly?

YES >> GO TO 2.

NO >> Replace and/or Install tire pressure sensor(s). Refer to WT-62, "Removal and Installation". GO TO 3.

2.CHECK TIRE PRESSURE SENSOR ACTIVATION TOOL

Check tire pressure sensor activation tool.

Is the inspection result normal?

YES >> GO TO 3.

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

3.TIRE PRESSURE SENSOR ID REGISTRATION

Perform tire pressure sensor ID registration. Refer to WT-30, "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 4.

4.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 a 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-62, "Removal and Installation".

All wheels do not react.>>Replace the BCM. Refer to BCS-121, "Removal and Installation".

HAZARD WARNING LAMP REMAINS ON

Description

INFOID:0000000010715115

The hazard warning lamp remains on.

Diagnosis Procedure

INFOID:0000000010715116

1.CHECK HAZARD WARNING LAMP OPERATION

Check hazard warning lamp operation with hazard switch.

Is the operation normal?

YES >> Replace the BCM. Refer to BCS-121, "Removal and Installation".
NO >> Perform trouble diagnosis for the hazard warning lamp. Refer to EXL-174, "Diagnosis Procedure" (LED headlamp), EXL-358, "Diagnosis Procedure" (halogen headlamp).

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

NVH Troubleshooting Chart

INFOID:0000000010715117

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

Reference page			WT-61	WT-61	WT-58 (Aluminum wheel) WT-59 (Steel wheel)	WT-66	WT-58 (Aluminum wheel) WT-59 (Steel wheel)	—	—	WT-66	NVH in DLN section.	NVH in DLN section.	NVH in FAX and FSU sections.	NVH in RAX and RSU sections.	Refer to TIRE in this chart.	Refer to ROAD WHEEL in this chart.	NVH in FAX, RAX section.	NVH in BR section.	NVH in ST section.
Possible cause and SUSPECTED PARTS			Improper installation, looseness	Out-of-round	Unbalance	Incorrect tire pressure	Uneven tire wear	Deformation or damage	Non-uniformity	Incorrect tire size	PROPELLER SHAFT	DIFFERENTIAL	FRONT AXLE AND FRONT SUSPENSION	REAR AXLE AND REAR SUSPENSION	TIRE	ROAD WHEELS	DRIVE SHAFT	BRAKE	STEERING
Symptom	TIRE	Noise	×	×	×	×	×	×	×		×	×	×	×		×	×	×	×
		Shake	×	×	×	×	×	×		×	×		×	×		×	×	×	×
		Vibration				×				×	×		×	×			×		×
		Shimmy	×	×	×	×	×	×	×	×			×	×		×		×	×
		Judder	×	×	×	×	×	×		×			×	×		×		×	×
		Poor quality ride or handling	×	×	×	×	×	×		×			×		×	×			
	ROAD WHEEL	Noise	×	×	×			×			×	×	×	×	×		×	×	×
		Shake	×	×	×			×			×		×	×	×		×	×	×
		Shimmy, Judder	×	×	×			×					×	×	×			×	×
		Poor quality ride or handling	×	×	×			×					×	×	×				

×: Applicable

PERIODIC MAINTENANCE

ROAD WHEEL

Inspection

INFOID:0000000010715118

APPEARANCE

Road Wheel
- Check road wheel for deformation, cracks, corrosion and other damage.
- Check wheel nuts for looseness by using torque wrench.

Wheel nut tightening torque : Refer to WT-61, "Exploded View".

Tire
- Check entire circumference and both sides of each tire for deformation, cracks, scratch and other damage.
- Check tire tread for wear and foreign matter such as nails and small rock.
- Check that tire pressure is the specified value.

Tire pressure : Refer to WT-66, "Tire Air Pressure".

Wheel Balance Adjustment (Aluminum Wheel)

INFOID:0000000010715119

PREPARATION BEFORE ADJUSTMENT

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

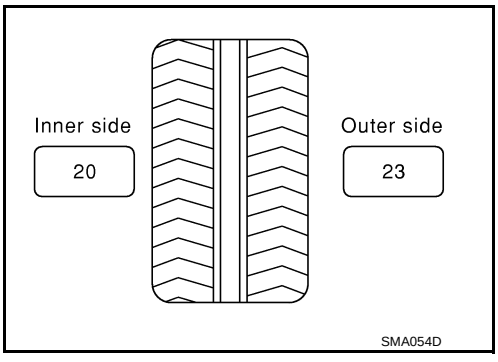
CAUTION:
- **Never scratch the road wheel during removal.**
- **After removing double-faced adhesive tape, wipe clean traces of releasing agent from the road wheel.**

ADJUSTMENT

- The details of the adjustment procedure are different for each model of wheel balancer. Therefore, refer to each instruction manual.
- If a tire balance machine has adhesion balance weight mode settings and drive-in weight mode setting, select and adjust a drive-in weight mode suitable for aluminum wheels.

1. Set road wheel on tire balance machine using the center hole as a guide. Start the tire balance machine.
2. When inner and outer unbalance values are shown on the tire balance machine indicator, multiply outer unbalance value by 5/3 to determine balance weight that should be used. Select the outer balance weight with a value closest to the calculated value above and install to the designated outer position of, or at the designated angle in relation to the road wheel.
   CAUTION:
   - **Never install the inner balance weight before installing the outer balance weight.**
   - **Before installing the balance weight, always to clean the mating surface of the road wheel.**

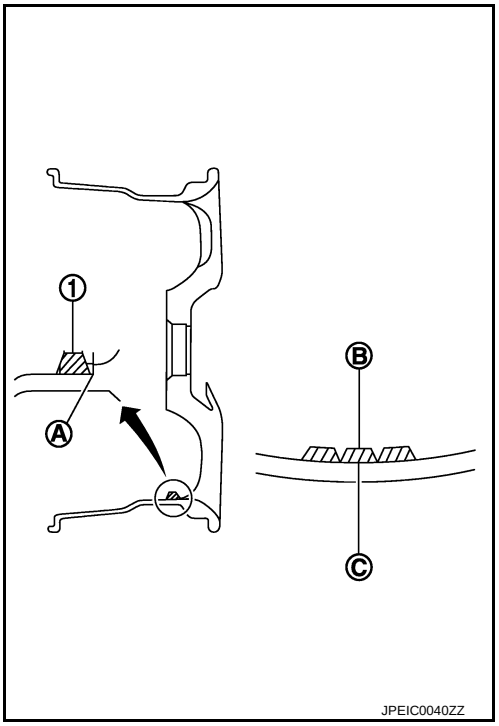
a. Indicated unbalance value × 5/3 = balance weight to be installed
   Calculation example:
   23 g (0.81 oz) × 5/3 = 38.33 g (1.35 oz) ⇒ 40 g (1.41 oz) balance weight (closer to calculated balance weight value)
   NOTE:
   Note that balance weight value must be closer to the calculated balance weight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



b. Installed balance weight in the position.

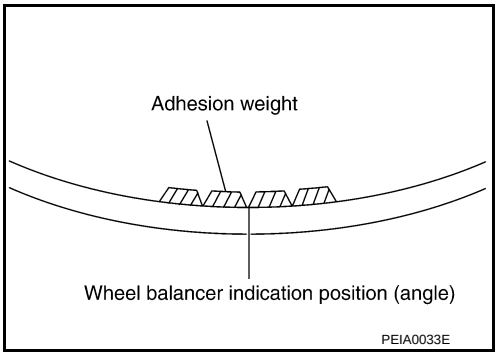
- When installing balance weight ① to road wheels, set it into the grooved area Ⓐ on the inner wall of the road wheel as shown in the figure so that the balance weight center Ⓑ is aligned with the tire balance machine indication position (angle) Ⓒ.

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



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

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



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

CAUTION:
Never install three or more balance weight.

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

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

Allowable unbalance value

Dynamic (At flange) : Refer to WT-66, "Road Wheel".

Static (At flange) : Refer to WT-66, "Road Wheel".

Wheel Balance Adjustment (Steel Wheel)

INFOID:0000000010715120

PREPARATION BEFORE ADJUSTMENT

Remove balance weight from the road wheel.

CAUTION:
Never scratch the road wheel during removal.

ADJUSTMENT

- The details of the adjustment procedure are different for each model of wheel balancer. Therefore, refer to each instruction manual.
- If a tire balance machine has adhesion balance weight mode settings and drive-in weight mode setting, select and adjust a drive-in weight mode suitable for steel wheels.

1. Set road wheel to wheel balancer, and then start wheel balancer.
2. Install balance weight to road wheel according to the unbalance and position (angle) displayed on wheel balancer.
   CAUTION:
   - **Always use genuine NISSAN balance weights.**
   - **Balance weights are non-reusable; always replace with new ones.**
   - **Always use a plastic hammer when attaching the weight.**
   - **Never install three or more balance weights on one side.**
3. Start the tire balance machine. Check that the inner and outer residual unbalance value is within the allowable unbalance value.
   CAUTION:
   If either residual unbalance value exceeds limit, repeat installation procedures.

Allowable unbalance value

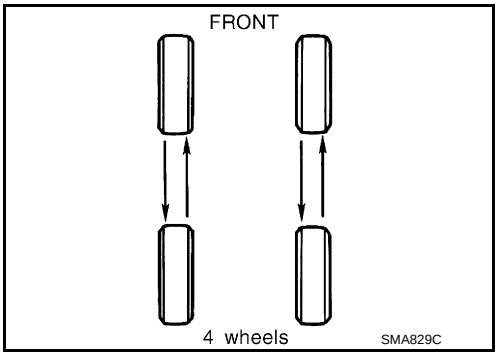
Dynamic (At flange) : Refer to WT-66, "Road Wheel".

Static (At flange) : Refer to WT-66, "Road Wheel".

Tire Rotation

INFOID:0000000010715121

- Follow the maintenance schedule for tire rotation service intervals. Refer to MA-6, "General Maintenance".
- When installing the wheel, tighten wheel nuts to the specified torque. Refer to WT-61, "Exploded View".
  CAUTION:
  - **Never include the T-type spare tire when rotating the tires.**
  - **When installing wheels, tighten them diagonally by dividing the work two to three times in order to prevent the wheels from developing any distortion.**
  - **Never tighten wheel nut at torque exceeding the criteria.**
  - **Use NISSAN genuine wheel nut.**
- After tire rotation, perform following:



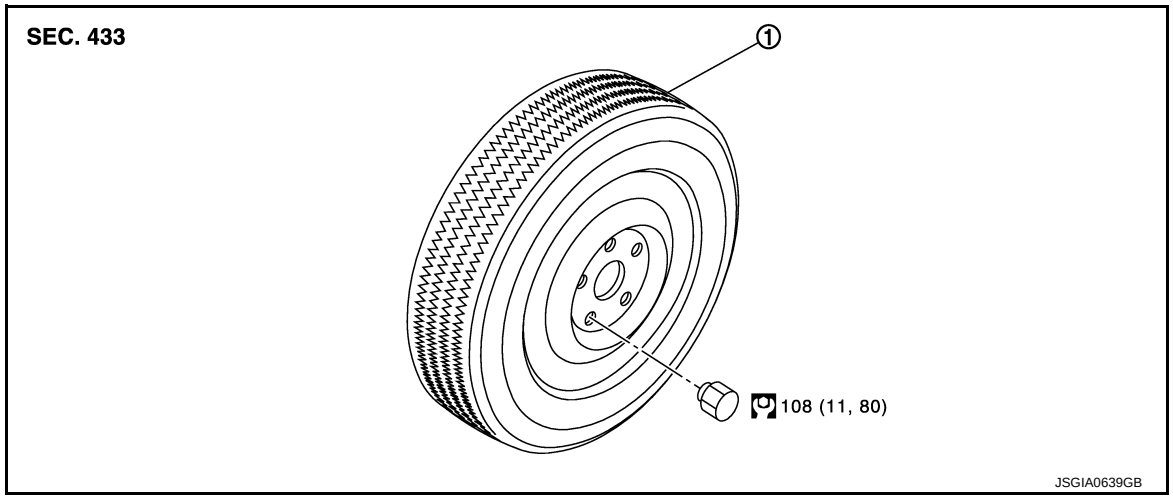
- Perform the ID registration. Refer to WT-30, "Work Procedure".
- Perform TPMS reset operation. Refer to WT-14, "TPMS reset operation".

REMOVAL AND INSTALLATION

ROAD WHEEL TIRE ASSEMBLY

Exploded View

INFOID:0000000010715122



① Tire assembly

: N·m (kg-m, ft-lb)

Removal and Installation

INFOID:0000000010715123

REMOVAL

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

INSTALLATION

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

- When replacing or rotating wheels, perform following;
- Perform the ID registration. Refer to WT-30, "Work Procedure".
- Perform TPMS reset operation. Refer to WT-14, "TPMS reset operation".

Inspection

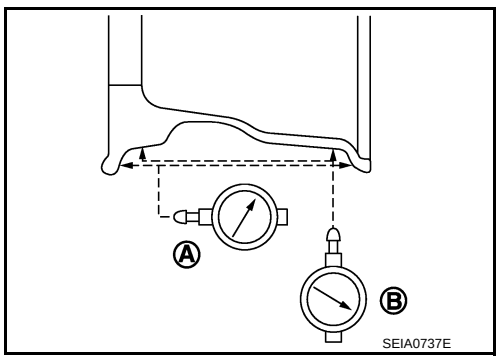
INFOID:0000000010715124

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

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

b. Set dial indicator as shown in the figure.

c. Check runout, if the axial runout Ⓐ or radial runout Ⓑ exceeds the limit, replace aluminum wheel.



Limit

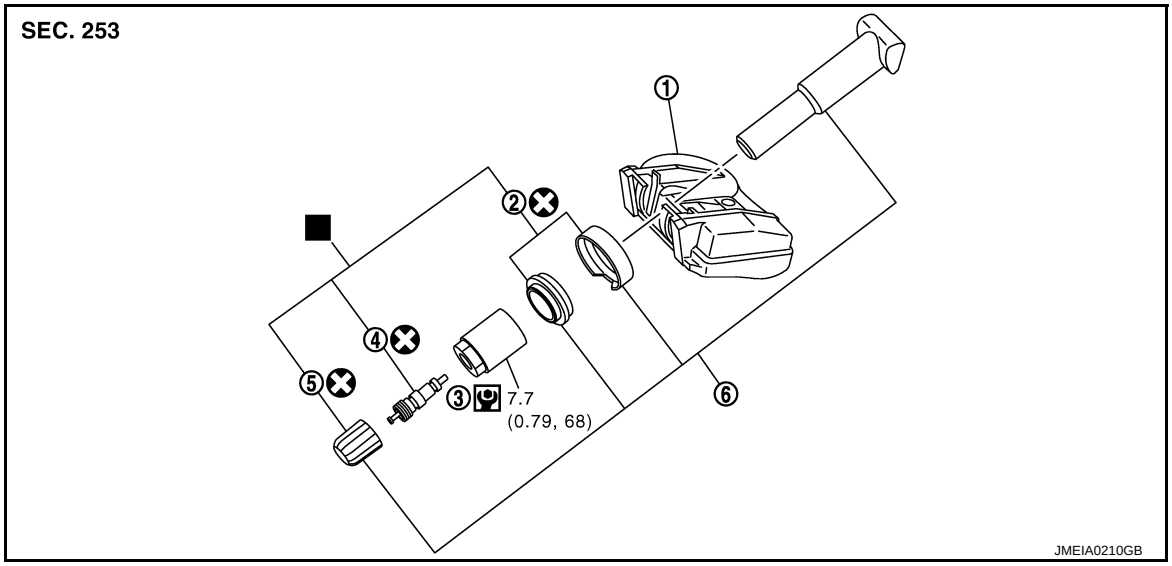
Axial runout Ⓐ : **Refer to WT-66, "Road Wheel".**

Radial runout Ⓑ : **Refer to WT-66, "Road Wheel".**

TIRE PRESSURE SENSOR

Exploded View

INFOID:0000000010715125



①	Tire pressure sensor	②	Washer/Seal	③	Valve nut
④	Valve core	⑤	Valve cap	⑥	Valve stem assembly

: N·m (kg-m, in-lb)

: Always replace after every disassembly.

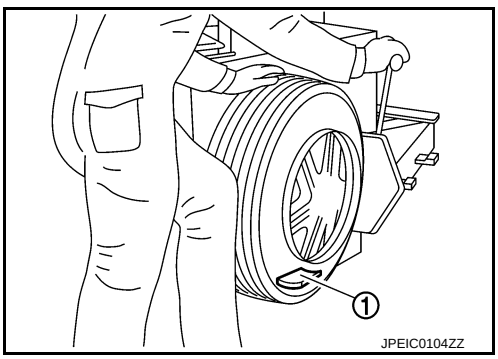
■: Parts that are replaced as a set when the tire is replaced.

Removal and Installation

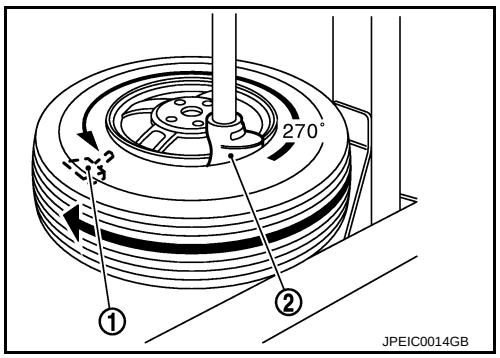
INFOID:0000000010715126

REMOVAL

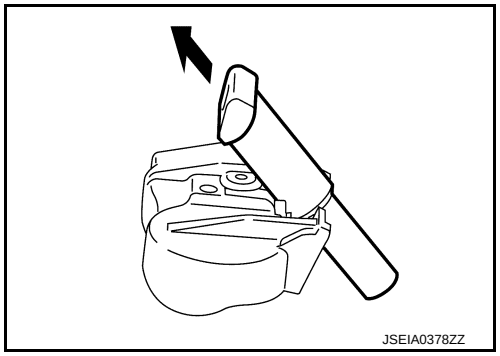
1. Remove tire assembly. Refer to WT-61, "Removal and Installation".
2. Remove valve cap, valve core and then deflate tire.
   NOTE:
   If the tire is reused, apply a matching mark to the position of the tire road wheel valve hole for the purpose of wheel balance adjustment after installation.
3. Remove valve nut retaining tire pressure sensor and allow tire pressure sensor to fall into tire.
4. Use the tire changer and disengage the tire beads.
   CAUTION:
   - **Verify that the tire pressure sensor ① is at the bottom of the tire while performing the above.**
   - **Never damage the road wheel or tire pressure sensor.**
5. Apply bead cream or an equivalent to the tire beads.
6. Set tire onto the tire changer turntable so that the tire pressure sensor inside the tire is located close to the road wheel valve hole.



7. Turn tire so that valve hole is at bottom and bounce so that tire pressure sensor ① is near valve hole. Carefully lift tire onto turntable and position valve hole (and tire pressure sensor) 270 degree from mounting/dismounting head ②.
   CAUTION:
   Never damage the road wheel and tire pressure sensor.
8. Remove tire pressure sensor from tire.
9. Remove the grommet seal.



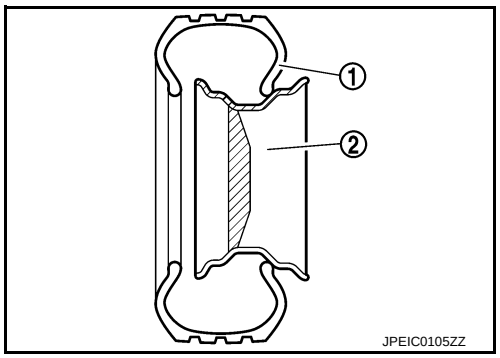
10. Remove valve stem in the direction (⬅).



INSTALLATION

CAUTION:
Replace valve stem assembly if the valve stem has deformations, cracks, damage or corrosion.

1. Apply bead cream or an equivalent to the tire beads.
2. Install the tire inside beads ① onto the road wheel ② in the position shown in the figure.
3. Install valve stem to tire pressure sensor.
4. Install grommet seal to the tire pressure sensor assembly.
   CAUTION:
   - **Never reuse grommet seal.**
   - **Insert grommet seal all the way to the base.**



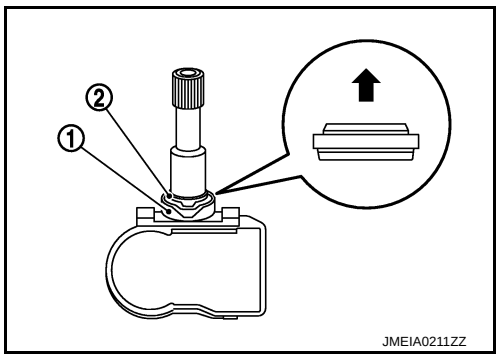
5. Follow the procedure below and install the tire pressure sensor to the road wheel.

a. When valve stem assembly is replaced.

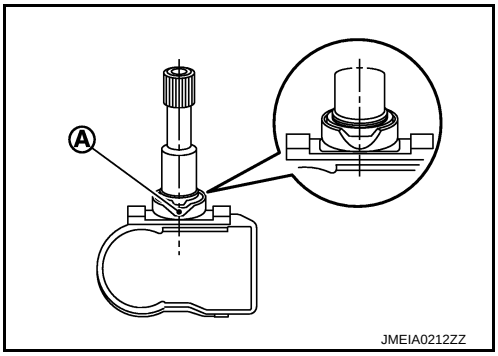
i. Set valve stem in the tire pressure sensor.

ii. Install the washer ① in the valve stem, and then install seal ② in the valve stem.
   CAUTION:
   - **Direction of the seal is checked.**

   ⇦ : Upper side



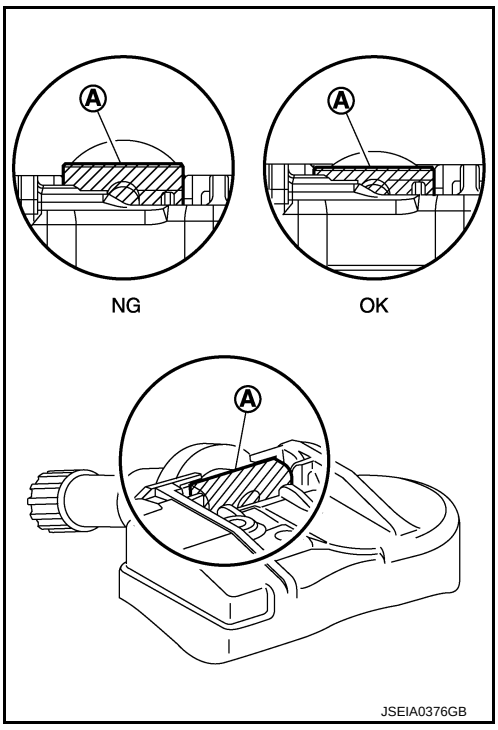
- **The cut part Ⓐ of washer becomes in the center of valve stem.**



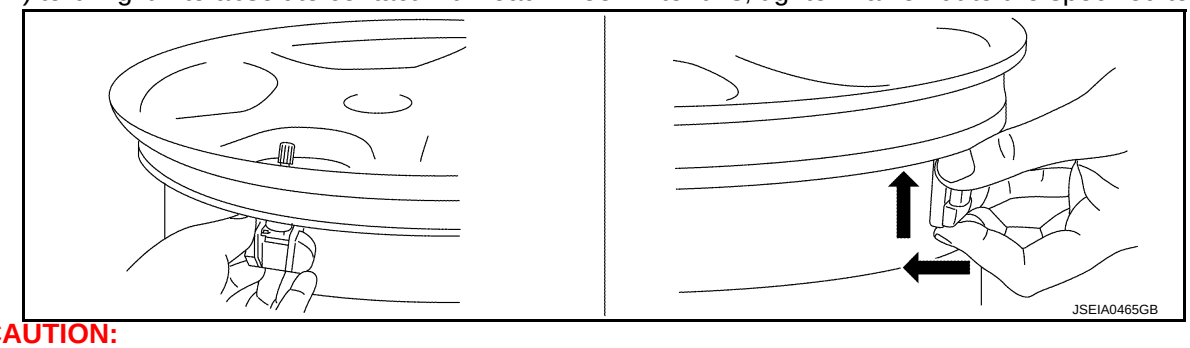
b. Check the condition of valve stem before installing tire pressure sensor to road wheel.

CAUTION:

The base of valve stem Ⓐ must be positioned in the groove of the metal plate as shown in the figure.



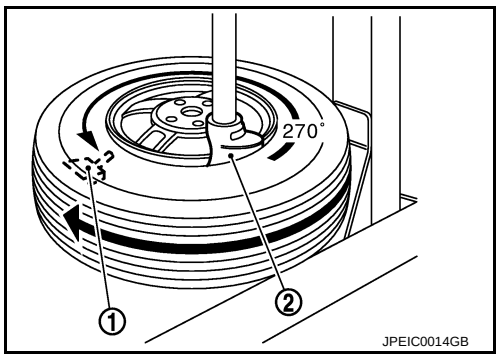
c. Hold tire pressure sensor as shown in the figure, and press the sensor in the direction shown by arrow (⬅) to bring it into absolute contact with road wheel. After this, tighten valve nut to the specified torque.



CAUTION:

- **Never reuse valve core and valve cap.**
- **Check that grommet seal is free of foreign matter.**
- **Check that grommet seal contacts horizontally with road wheel.**
- **Check again that the base of valve stem is positioned in the groove of the metal plate.**
- **Manually tighten valve nut all the way to the wheel. (Never use a power tool to avoid impact.)**

6. Set the tire onto the turntable so that the tire changer arm ② is at a position approximately 270° from the tire pressure sensor ①.
CAUTION:
Be sure that the arm does not contact the tire pressure sensor.



7. Install the tire outer side beads onto the road wheel.
CAUTION:
When installing, check that the tire does not turn together with the road wheel.
8. Check the tire pressure for all wheels and adjust to the specified value. Refer to WT-66, "Tire Air Pressure".
NOTE:
Before adding air, align the tire with the position of the matching mark applied at the time of removal.
9. Install tire to the vehicle. Refer to WT-61, "Removal and Installation".
10. Perform tire pressure sensor ID registration. Refer to WT-30, "Work Procedure".
11. Perform TPMS reset operation. Refer to WT-14, "TPMS reset operation".

Disposal

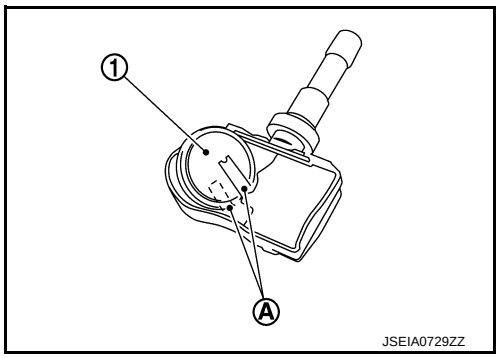
INFOID:0000000010715127

CAUTION:
- **When discarding tire pressure sensor, remove battery from tire pressure sensor.**
- **Dispose of battery to the law and local regulations.**

1. Remove battery from tire pressure sensor.
NOTE:
The battery is sealed by tire pressure sensor with urethane.

a. Remove urethane from tire pressure sensor.

b. Cut battery terminal Ⓐ, then remove battery ① from tire pressure sensor.



SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Road Wheel

INFOID:0000000010715128

ALUMINUM WHEEL

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

STEEL WHEEL (17×7J)

Item		Limit
Runout	Axial runout	Less than 0.8 mm (0.031 in)
	Radial runout	Less than 0.5 mm (0.020 in)
Allowable unbalance	Dynamic (At flange)	Less than 5 g (0.17 oz) (one side)
	Static (At flange)	Less than 10 g (0.35 oz)

STEEL WHEEL (17×4T)

Item		Limit
Runout	Axial runout (Average)	Less than 1.5 mm (0.059 in)
	Radial runout (Average)	Less than 1.5 mm (0.059 in)

Tire Air Pressure

INFOID:0000000010715129

Unit: kPa (bar, kgf/cm^2, psi)

Item	Standard	
	Front	Rear
225/65R17 102H	230 (2.3, 2.3, 33)	210 (2.1, 2.1, 30)
225/60R18 100H	230 (2.3, 2.3, 33)	210 (2.1, 2.1, 30)
225/55R19 99V	230 (2.3, 2.3, 33)	210 (2.1, 2.1, 30)
225/65R17 102H (Emergency)	300 (3.0, 3.0, 44)	300 (3.0, 3.0, 44)
T155/90D17 101M (Emergency)	420 (4.2, 4.2, 60)	420 (4.2, 4.2, 60)