SECTION WT
ROAD WHEELS & TIRES

CONTENTS

REGULAR GRADE

PRECAUTION

PRECAUTIONS

EXCEPT FOR MEXICO

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

INFOID:0000000011735681

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

WARNING:

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.**

EXCEPT FOR MEXICO : Precaution for Battery Service

INFOID:0000000011735682

Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

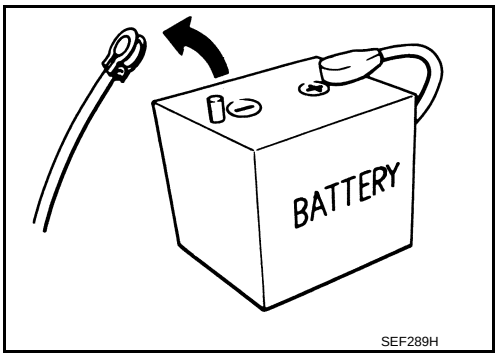
EXCEPT FOR MEXICO : Service Notice and Precautions for TPMS

INFOID:0000000011735683

- Low tire pressure warning lamp blinks for 1 minute, then turns ON when any malfunction occurs except low tire pressure. Erase the self-diagnosis memories for BCM, or register the ID to turn low tire pressure warning lamp OFF. For ID registration, refer to WT-22, "Description".
- ID registration is required when replacing wheels, replacing tire pressure sensor or BCM. Refer to WT-22, "Description".
- Replace grommet seal, valve core and valve cap of tire pressure sensor in TPMS when replacing each tire by reaching the wear limit. Refer to WT-51, "Exploded View".

EXCEPT FOR MEXICO : Precautions for Removing Battery Terminal

INFOID:0000000011735684



- When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.
  NOTE:
  ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption 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.

FOR MEXICO

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

INFOID:0000000011735685

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.**

FOR MEXICO : Precaution for Battery Service

INFOID:0000000011735686

Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

FOR MEXICO : Service Notice and Precautions for TPMS

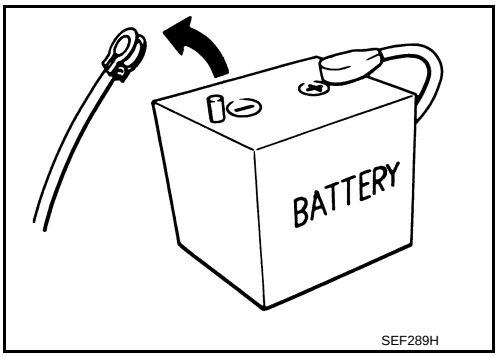
INFOID:0000000011735687

- Low tire pressure warning lamp blinks for 1 minute, then turns ON when any malfunction occurs except low tire pressure. Erase the self-diagnosis memories for BCM, or register the ID to turn low tire pressure warning lamp OFF. For ID registration, refer to WT-22, "Description".

- ID registration is required when replacing wheels, replacing tire pressure sensor or BCM. Refer to WT-22, "Description".
- Replace grommet seal, valve core and valve cap of tire pressure sensor in TPMS when replacing each tire by reaching the wear limit. Refer to WT-51, "Exploded View".

FOR MEXICO : Precautions for Removing Battery Terminal

INFOID:0000000011735688



- When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.
  NOTE:
  ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption 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.

PREPARATION

PREPARATION

Special Service Tool

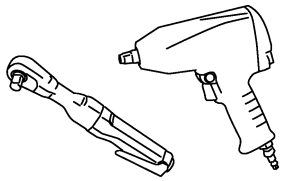
INFOID:0000000011735689

The actual shapes of TechMate tools may differ from those of special service tools illustrated here.

Tool number (TechMate No.) Tool name	Description
— (J-50190) Signal tech II  ALEIA0131ZZ	• Activate and display TPMS tire pressure sensor IDs • Display tire pressure reported by the TPMS tire pressure sensor • Read TPMS DTCs • Register TPMS tire pressure sensor IDs • Test remote keyless entry keyfob relative signal strength • Compatible with future sensors • Equipped with a display
KV48105501 (J-45295-A) Tire pressure sensor activation tool  ALEIA0183ZZ	• Activate TPMS tire pressure sensor IDs • Compatible with future sensors • Equipped with a display (KV48105501 only)

Commercial Service Tool

INFOID:0000000011735690

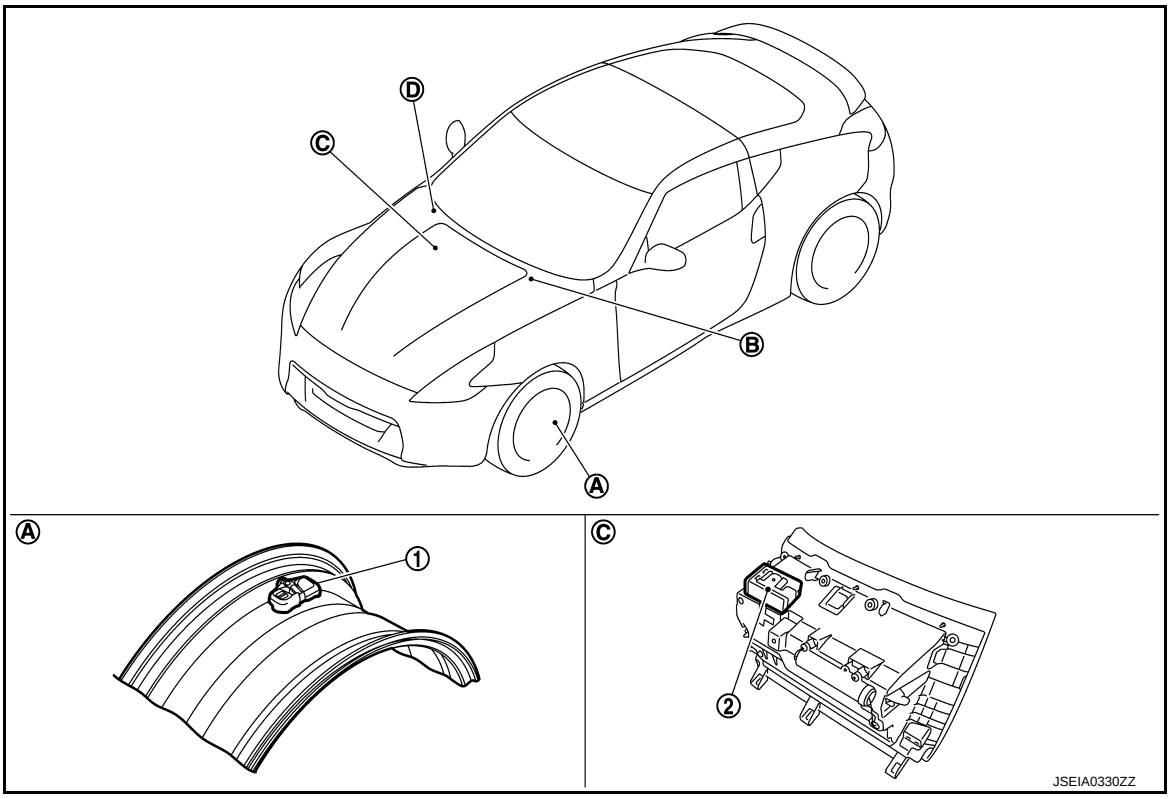
Tool name	Description
Power tool  PBIC0190E	Loosening wheel nuts

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000011735691



1. Tire pressure sensor
2. Tire pressure receiver
A. Wheel
B. Low tire pressure warning lamp (In the combination meter)
C. Glove box assembly
D. BCM Refer to BCS-10, "Component Parts Location"

Component Description

INFOID:0000000011735692

Component parts	Function
BCM (Body Control Module)	WT-7, "BCM".
Tire pressure sensor	WT-8, "Tire pressure sensor".
Tire pressure receiver	WT-8, "Tire pressure receiver".
Turn signal lamp	ID registration of each wheel has been completed, turn signal lamp flashes.
Combination meter	Transmits the vehicle speed signal via CAN communication to BCM.
	Receives the following signals via CAN communication to BCM. • Low tire pressure warning lamp signal • TPMS malfunction warning lamp signal

BCM

INFOID:0000000011735693

The BCM reads the tire pressure signal received by the tire pressure receiver, and controls the low tire pressure warning lamp and the buzzer operations. It also has a judgment function to detect a system malfunction.

Tire pressure sensor

INFOID:0000000011735694

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

Tire pressure receiver

INFOID:0000000011735695

The tire pressure receiver receives the tire pressure signal transmitted by the tire pressure sensor in each wheel.

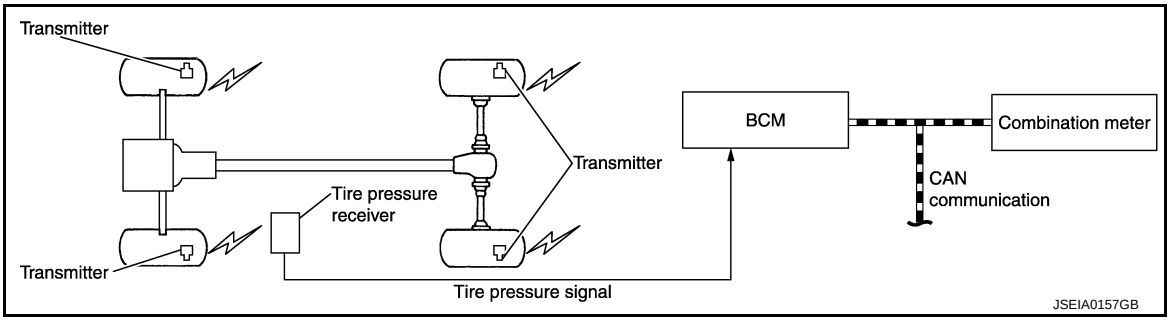
SYSTEM

System Description

INFOID:0000000011735696

During driving, the TPMS (Tire Pressure Monitoring System) receives the signal transmitted from tire pressure sensor installed in each wheel. The BCM (Body Control Module) of this system has pressure judgment and trouble diagnosis functions. When the tire pressure monitoring system detects low inflation pressure or another unusual symptom, the low tire pressure warning lamps in the combination meter comes on.

SYSTEM DIAGRAM



INPUT/OUTPUT SIGNAL

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

Component parts	Signal item
BCM	Transmits the following signals via CAN communication to combination meter. • Low tire pressure warning lamp signal • TPMS malfunction warning lamp signal
Combination meter	Transmits the vehicle speed signal via CAN communication to BCM.

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 1second, then turns off.
Low tire pressure	ON
Tire pressure sensor ID not registered in BCM	
Tire pressure monitoring system malfunction (Other diagnostic item)	Warning lamp blinks 1 min, then turns on.
Tire pressure sensor is in OFF state	Blink (Blinking pattern depends on the positions of non-operational tire pressure sensors.)

DIAGNOSIS SYSTEM (BCM)
COMMON ITEM
COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000011999699

APPLICATION ITEM
CONSULT performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
Work Support	Changes the setting for each system function.
Self Diagnostic Result	Displays the diagnosis results judged by BCM.
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM.
Data Monitor	The BCM input/output signals are displayed.
Active Test	The signals used to activate each device are forcibly supplied from BCM.
Ecu Identification	The BCM part number is displayed.
Configuration	• Read and save the vehicle specification. • Write the vehicle specification when replacing BCM.

SYSTEM APPLICATION
BCM can perform the following functions for each system.
NOTE:
It can perform the diagnosis modes except the following for all sub system selection items.

×: Applicable item

System	Sub system selection item	Diagnosis mode		
		Work Support	Data Monitor	Active Test
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER		×	×
Warning chime	BUZZER		×	×
Interior room lamp timer	INT LAMP	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER	×	×	×
—	AIR CONDITONER*			
• Intelligent Key system • Engine start system	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
Body control system	BCM	×		
NVIS - NATS	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door/Trunk lid open	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	TPMS (AIR PRESSURE MONITOR)	×	×	×

NOTE:

*: This item is displayed, but is not used.

FREEZE FRAME DATA (FFD)
The BCM records the following vehicle condition at the time a particular DTC is detected, and displays on CONSULT.

CONSULT screen item	Indication/Unit	Description	
Vehicle Speed	km/h	Vehicle speed of the moment a particular DTC is detected	
Odo/Trip Meter	km	Total mileage (Odometer value) of the moment a particular DTC is detected	
Vehicle Condition	SLEEP>LOCK	Power supply position status of the moment a particular DTC is detected	While turning BCM status from low power consumption mode to normal mode (Power supply position is “LOCK”*)
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode (Power supply position is “OFF”.)
	LOCK>ACC		While turning power supply position from “LOCK”* to “ACC”
	ACC>ON		While turning power supply position from “ACC” to “IGN”
	RUN>ACC		While turning power supply position from “RUN” to “ACC” (Except emergency stop operation)
	CRANK>RUN		While turning power supply position from “CRANKING” to “RUN” (From cranking up the engine to run it)
	RUN>URGENT		While turning power supply position from “RUN“ to “ACC” (Emergency stop operation)
	ACC>OFF		While turning power supply position from “ACC” to “OFF”
	OFF>LOCK		While turning power supply position from “OFF” to “LOCK”*
	OFF>ACC		While turning power supply position from “OFF” to “ACC”
	ON>CRANK		While turning power supply position from “IGN” to “CRANKING”
	OFF>SLEEP		While turning BCM status from normal mode (Power supply position is “OFF”.) to low power consumption mode
	LOCK>SLEEP		While turning BCM status from normal mode (Power supply position is “LOCK”*.) to low power consumption mode
	LOCK		Power supply position is “LOCK”*
	OFF		Power supply position is “OFF” (Ignition switch OFF)
	ACC		Power supply position is “ACC” (Ignition switch ACC)
	ON		Power supply position is “IGN” (Ignition switch ON with engine stopped)
	ENGINE RUN		Power supply position is “RUN” (Ignition switch ON with engine running)
	CRANKING		Power supply position is “CRANKING” (At engine cranking)
IGN Counter	0 - 39	The number of times that ignition switch is turned ON after DTC is detected • The number is 0 when a malfunction is detected now. • The number increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. • The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.	

NOTE:
*: Power supply position shifts to “LOCK” from “OFF”, when ignition switch is in the OFF position, selector lever is in the P position (A/T models), and any of the following conditions are met.
- Closing door
- Opening door
- Door is locked using door request switch
- Door is locked using Intelligent Key

The power supply position shifts to “ACC” when the push-button ignition switch (push switch) is pushed at “LOCK”.

AIR PRESSURE MONITOR

AIR PRESSURE MONITOR : CONSULT Function

INFOID:0000000011735698

FUNCTION

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

Diagnostic test mode	Function
Work support	In this mode, it is possible to make quick and accurate adjustments by following the instructions on the CONSULT display.
Self diagnostic result	Receives self-diagnosis results from the BCM, and indicates DTCs and the number of malfunctions.
Data monitor	Receives input/output signals from the BCM and indicates and stores them to facilitate locating the causes of malfunctions.
Active test	Transmits command to the BCM to change output signals and check operation of output system.

WORK SUPPORT MODE

Refer to WT-22, "Description".

SELF-DIAG RESULTS MODE

Refer to BCS-99, "DTC Index".

DATA MONITOR MODE

Screen of data monitor mode is displayed.

NOTE:

- When malfunction is detected, CONSULT perform REAL-TIME DIAGNOSIS.
  Also, any malfunction detected while in this mode will be displayed at real time.
- 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)	Remark
AIR PRESS FL (kPa), (kg/cm^2), (Psi)	Air pressure of tires
AIR PRESS FR (kPa), (kg/cm^2), (Psi)	
AIR PRESS RR (kPa), (kg/cm^2), (Psi)	
AIR PRESS RL (kPa), (kg/cm^2), (Psi)	
ID REGST FL1	ID is registered: Done ID is not registered: Yet
ID REGST FR1	
ID REGST RR1	
ID REGST RL1	
WARNING LAMP	Low tire pressure warning lamp ON: On Low tire pressure warning lamp OFF: Off
BUZZER	Combination meter buzzer ON: On Combination meter buzzer OFF: Off

NOTE:

Before performing the self-diagnosis, be sure to register the ID, or erase the actual malfunction location may be different from that displayed on CONSULT.

ACTIVE TEST MODE

NOTE:

Before performing the self-diagnosis, be sure to register the ID, or erase the actual malfunction may be different from that displayed on CONSULT.

TEST ITEM LIST

Test item	Content
WARNING LAMP	This test is able to check to check that the low tire pressure warning lamp turns on.
ID REGIST WARNING	This test is able to check to check that the buzzer sounds or the low tire pressure warning lamp turns on.
FLASHER	This test is able to check to check that each turn signal lamp turns on.
HORN	This test is able to check to check that the horn sounds.

ECU DIAGNOSIS INFORMATION

BCM

List of ECU Reference

INFOID:0000000011735699

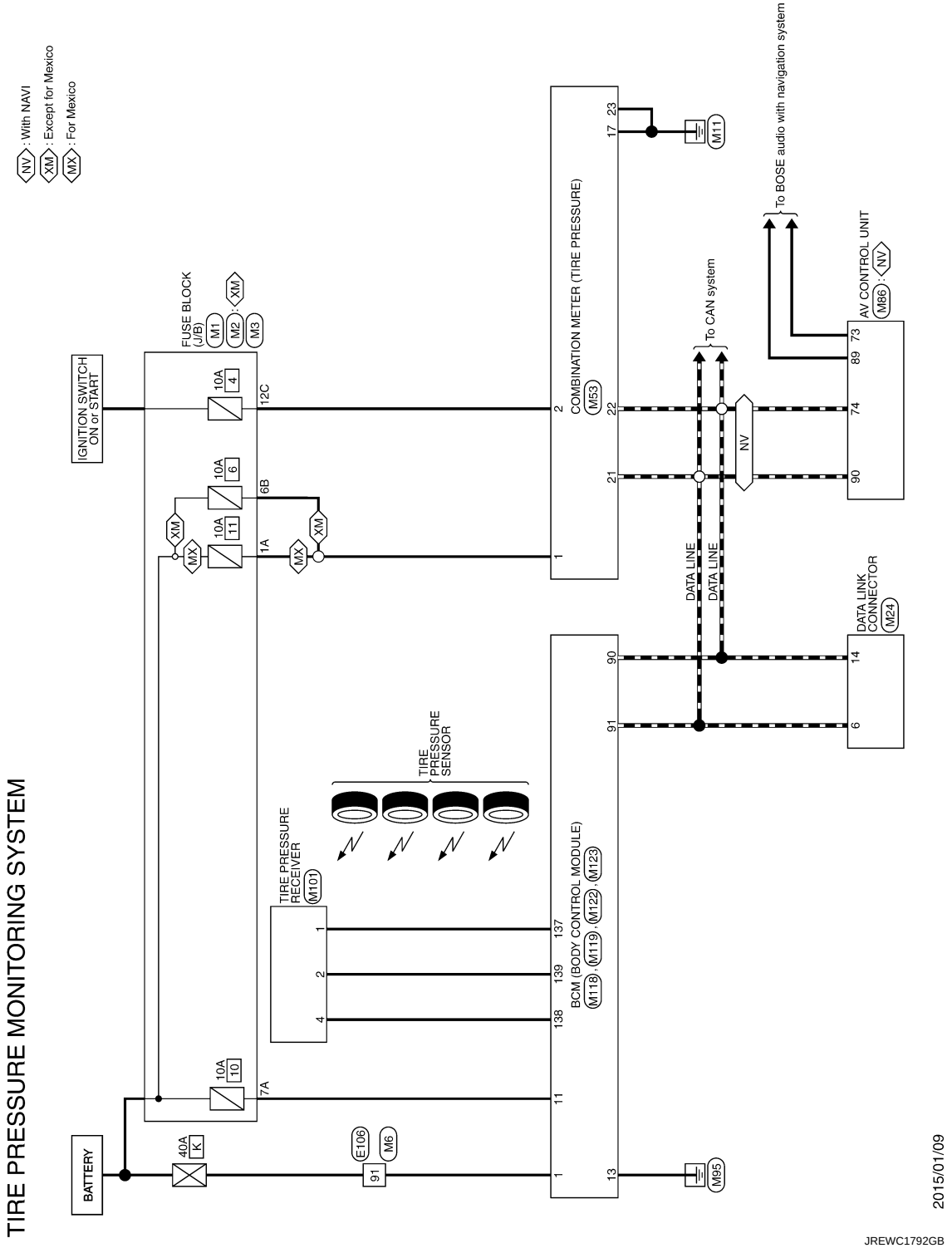
ECU	Reference
BCM	BCS-58, "Reference Value"
	BCS-97, "Fail-safe"
	BCS-98, "DTC Inspection Priority Chart"
	BCS-99, "DTC Index"

WIRING DIAGRAM

TIRE PRESSURE MONITORING SYSTEM

Wiring Diagram

INFOID:0000000011735700



TIRE PRESSURE MONITORING SYSTEM

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

Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
3	L	-
4	L	-
7	B	-
8	P	-
9	B	-
11	V	-
12	R	-
13	L	-
14	GR	-
15	P	-
16	W	-
17	SB	-
20	LG	-
21	BR	- [Coupe models]
21	G	- [Roadster models]
31	L	-
32	Y	-
36	V	-
37	Y	-
38	R	-
39	B	-
40	W	-
41	LG	-
42	SB	-
43	G	-
44	GR	- [Except for roadster models with M/T]
44	R	- [Roadster models with M/T]
45	BG	-
46	W	-
47	P	-
58	SHIELD	-
59	L	-
70	P	-
80	W	-

81	P	-
82	G	-
83	V	-
84	L	-
85	BG	-
86	LG	-
87	R	-
89	P	-
91	W	-
92	L	-
93	G	-
94	Y	-
96	Y	-
98	GR	-
99	LG	-
100	BG	-

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

Terminal No.	Color Of Wire	Signal Name [Specification]
1A	V	-
2A	G	-
3A	L	-
4A	P	-
5A	L	-
6A	Y	-
7A	BR	-
8A	L	-

Connector No.	M2
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS10FW-CS

Terminal No.	Color Of Wire	Signal Name [Specification]
3B	P	-
4B	G	-
5B	O	-
6B	Y	-
8B	R	-
9B	SB	-

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

Terminal No.	Color Of Wire	Signal Name [Specification]
10C	L	-
11C	LG	-
12C	O	-
6C	R	-
7C	B	-
9C	O	- [Roadster models]
9C	R	- [Coupe models]

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-1M4

Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
3	L	-
4	L	-
7	B	-
8	P	-
9	B	-
11	GR	-
12	R	-
13	L	-
14	G	-
15	P	-
16	W	-
17	BR	-
20	GR	-
21	R	-
31	BR	-
32	V	-
36	SB	-
37	Y	-
38	LG	-
39	SB	-
40	W	-
41	LG	-
42	R	-
43	G	-
44	G	- [With A/T]
44	R	- [With M/T]
45	O	-
46	G	-
47	BR	-
58	SHIELD	-
59	L	-
70	R	-
80	LG	-
81	GR	-

JREWC1793GB

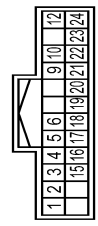
TIRE PRESSURE MONITORING SYSTEM

82	V	-
83	V	-
84	L	-
85	BR	-
86	Y	-
87	G	-
89	P	-
91	W	-
92	P	-
93	P	-
94	Y	-
96	P	-
98	O	-
99	W	-
100	R	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW

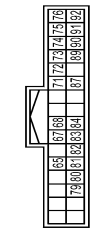
Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	- [Coupe models]
3	Y	- [Roadster models]
4	B	-
5	B	-
6	L	-
7	Y	-
8	G	-
11	LG	- [Roadster models]
11	Y	- [Coupe models]
14	P	-
16	Y	-

Connector No.	M53
Connector Name	COMBINATION METER
Connector Type	TH24FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	BATTERY POWER SUPPLY
2	O	IGNITION SIGNAL
3	L	VEHICLE SPEED SIGNAL (2-PULSE)
4	V	VEHICLE SPEED SIGNAL (8-PULSE) [For Mexico]
4	Y	VEHICLE SPEED SIGNAL (8-PULSE) [Except for Mexico]
5	B	ILLUMINATION CONTROL SIGNAL
6	R	ROOF STATUS SIGNAL
9	BR	COMMUNICATION SIGNAL (M/ETER->TRIPLE METER)
10	L	COMMUNICATION SIGNAL (TRIPLE METER->M/ETER)
12	G	S-MODE SWITCH SIGNAL
15	L	ACC POWER SUPPLY
16	R	AIR BAG SIGNAL
17	B	GROUND
18	V	AMBIENT SENSOR SIGNAL
19	G	A/C AUTO AMP. CONNECTION RECOGNITION SIGNAL
20	GR	AMBIENT SENSOR GROUND
21	L	CAN-H
22	P	CAN-L
23	B	GROUND
24	Y	FUEL LEVEL SENSOR GROUND

Connector No.	M86
Connector Name	AV CONTROL UNIT
Connector Type	TH32FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
65	O	PARKING BRAKE SIGNAL
67	L	COMPOSITE IMAGE GROUND
68	G	COMPOSITE IMAGE SIGNAL
71	SHIELD	SHIELD
72	R	MICROPHONE VCC
73	G	COMMUNICATION SIGNAL (CONT-DISP)
74	P	CAN-L
75	LG	AV COMMUNICATION SIGNAL (L)
76	LG	AV COMMUNICATION SIGNAL (L)
79	R	ILLUMINATION SIGNAL
80	G	IGNITION SIGNAL
81	O	REVERSE SIGNAL
82	Y	VEHICLE SPEED SIGNAL (8-PULSE)
83	B	SHIELD
84	Y	-
87	G	MICROPHONE SIGNAL
89	R	COMMUNICATION SIGNAL (DISP-CONT)
90	L	CAN-H
91	Y	AV COMMUNICATION SIGNAL (H)
92	Y	AV COMMUNICATION SIGNAL (H)

Connector No.	M101
Connector Name	TIRE PRESSURE RECEIVER
Connector Type	TK04FW

Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	GROUND
2	L	SIGNAL
4	V	BATTERY

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M03FB-LC

Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	BAT (F/L)
2	W	POWER WINDOW POWER SUPPLY (BAT)
3	Y	POWER WINDOW POWER SUPPLY (IGN)

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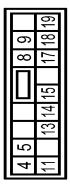
TIRE PRESSURE MONITORING SYSTEM

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FW-CS

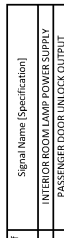
H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
4	R	INTERIOR ROOM LAMP POWER SUPPLY
5	G	PASSENGER DOOR UNLOCK OUTPUT
8	V	ALL DOOR, FUEL LID LOCK OUTPUT
9	G	DRIVER DOOR, FUEL LID UNLOCK OUTPUT
11	BR	BAT [FUSE]
13	B	GROUND
14	R	PUSH-BUTTON IGNITION SW ILL GND
15	Y	ACC IND
17	W	TURN SIGNAL RH [FRONT, SIDE]
18	O	TURN SIGNAL LH [FRONT, SIDE]
19	P	ROOM LAMP TIMER CONTROL

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH

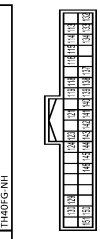
H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
72	L	ROOM ANT 2-
73	P	ROOM ANT 2+
74	SB	PASSENGER DOOR ANT-
75	BR	PASSENGER DOOR ANT+
76	V	DRIVER DOOR ANT-
77	LG	DRIVER DOOR ANT+
78	L	ROOM ANT 1-
79	R	ROOM ANT 1+
80	GR	NATS ANT AMP.
81	W	NATS ANT AMP.
82	R	IGN RELAY (F/B) CONT
83	GR	KYLS ENT RECEIVER (FRONT) COMM
87	BR	COMBI SW INPUT 5
88	V	COMBI SW INPUT 3
90	P	CAN-L
91	L	CAN-H
92	LG	KEY SLOT ILL
93	V	ON IND
95	O	ACC RELAY CONT
96	Y	A/T SHIFT SELECTOR POWER SUPPLY
99	R	SHIFT P/CLUTCH PEDAL POS SW
100	GR	PASSENGER DOOR REQUEST SW
101	Y	DRIVER DOOR REQUEST SW
102	O	BLOWER FAN MOTOR RELAY CONT
103	LG	KYLS ENT RECEIVER (FRONT) PWR SUPPLY
107	LG	COMBI SW INPUT 1
108	R	COMBI SW INPUT 4
109	Y	COMBI SW INPUT 2
110	P	HAZARD SW

Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH

H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
113	O	OPTICAL SENSOR
114	R	CLUTCH INTERLOCK SW
115	O	-
116	SB	STOP LAMP SW 1
118	P	STOP LAMP SW 2
119	SB	DR DOOR UNLOCK SENSOR
121	R	KEY SLOT SW
123	W	IGN F/B
124	LG	PASSENGER DOOR SW
129	O	TRUNK LID OPENER CANCEL SW
130	L	REAR DEFOGGER SW
132	V	P/W SW & SOFT TOP C/U COMM [Roadster models]
132	Y	POWER WINDOW SW COMM [Coupe models]
133	G	PUSH BUTTON IGNITION SW ILL POWER
134	GR	LOCK IND
137	P	RECEIVER &SENSOR GND
138	V	RECEIVER & SENSOR POWER SUPPLY
139	L	TIRE PRESS RECEIV COMM
140	G	P/N POSITION
141	Y	SECURITY INDICATOR
142	O	COMBI SW OUTPUT 5
143	P	COMBI SW OUTPUT 1
144	G	COMBI SW OUTPUT 2
145	L	COMBI SW OUTPUT 3
146	SB	COMBI SW OUTPUT 4
150	GR	DRIVER DOOR SW
151	G	REAR WINDOW DEFOGGER RELAY CONT

JREWC1795GB

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:0000000011735701

DETAILED FLOW

1.COLLECT THE INFORMATION FROM THE CUSTOMER

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

CAUTION:

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

>> GO TO 2.

2.BASIC INSPECTION

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Check the tire pressure for all wheels and adjust to the specified value. Refer to WT-54, "Tire Air Pressure".

Is the inspection result normal?

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

3.CHECK LOW TIRE PRESSURE WARNING LAMP

Check low tire pressure warning lamp display.

Does not low tire pressure warning lamp turn OFF?

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

4.CRUISE TEST

Start the engine and drive the vehicle.

>> GO TO 5.

5.PERFORM SELF-DIAGNOSIS

With CONSULT

Perform “SELF-DIAG RESULTS”.

Is any DTC detected?

YES >> Record or print DTC and freeze frame data (FFD). GO TO 7.
NO >> GO TO 6.

6.CHECK SYMPTOM

Perform trouble diagnosis for the applicable symptom. Refer to WT-39, "Symptom Table".

Is the cause of the malfunction detected?

YES >> GO TO 8.
NO >> GO TO 10.

7.CIRCUIT DIAGNOSIS

Inspect the malfunctioning system indicated by the DTC code that is detected during self-diagnosis. Refer to BCS-99, "DTC Index".

>> GO TO 8.

8.REPAIR WORK

Repair or replace the malfunctioning part.

>> GO TO 9.

9.PERFORM SELF-DIAGNOSIS

1. Select “SELF-DIAG RESULTS” in “AIR PRESSURE MONITOR” of “BCM”.
2. Touch “ERASE” on CONSULT screen to erase memory of the BCM.
3. Drive the vehicle.
4. Perform “SELF-DIAG RESULTS” in “AIR PRESSURE MONITOR” of “BCM”.

Is any DTC detected?

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

10.FINAL CHECK

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

Dose the tire pressure warning lamp turn OFF?

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

ADDITIONAL SERVICE WHEN REPLACING BCM

Description

INFOID:0000000011735702

When replacing BCM, tire pressure sensor ID registration is required. Refer to WT-20, "Work Procedure".

Work Procedure

INFOID:0000000011735703

1.PERFORM TIRE PRESSURE SENSOR ID REGISTRATION

Perform tire pressure sensor ID registration.

>> Refer to WT-22, "Description".

TIRE PRESSURE SENSOR WAKE UP OPERATION

Description

INFOID:0000000011735704

This procedure must be done after replacement of a tire pressure sensor, BCM, or rotation of wheels. Refer to WT-21, "Work Procedure".

Work Procedure

INFOID:0000000011735705

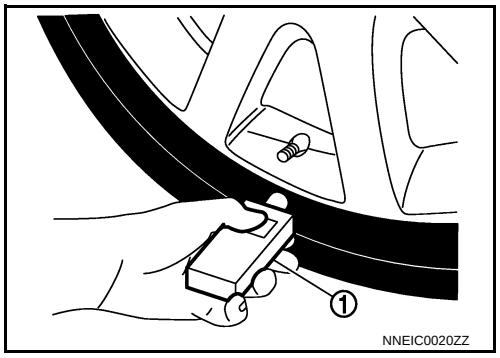
1. TIRE PRESSURE SENSOR WAKE-UP PROCEDURE

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
   NOTE:
   The position of an inactive tire pressure sensor can be identified by checking the blinking timing of the low tire pressure warning lamp.

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

JPEIC0089GB

2. Contact the tire pressure sensor activation tool (J-50190 or J-45295-A) (1) to the side of the tire at the location to the tire pressure sensor.
3. Press and hold the activation tool button while pushing the tool to the tire surface. (approximately for 5 seconds)
   CAUTION:
   Perform the wake-up procedure starting from the vehicle front left wheel, then repeat the procedure in the order of the front right wheel, rear right wheel, and rear left wheel.
4. Check that the turn signal lamps blink twice when the tire pressure sensor wake-up procedure for all wheels is completed.
5. Check that the low tire pressure warning lamp turns OFF, after the tire pressure sensor wake-up procedure is completed for all wheels and turns OFF.



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Is the tire pressure sensor wake-up procedure completed?

YES >> Perform the tire pressure sensor ID registration procedure. Refer to WT-22, "Description".
NO >> Perform trouble diagnosis for the tire pressure sensor. Refer to WT-26, "Diagnosis Procedure".

ID REGISTRATION PROCEDURE

Description

INFOID:0000000011735706

This procedure must be done after replacing or rotating wheels, replacing tire pressure sensor or BCM. Refer to WT-22, "Work Procedure".

Work Procedure

INFOID:0000000011735707

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.**

With CONSULT.

1. Display the “WORK SUPPORT” screen and select “ID REGIST”.

Is the tire pressure sensor activation tool (J-50190 or J-45295-A) used for the tire pressure sensor ID registration procedure?

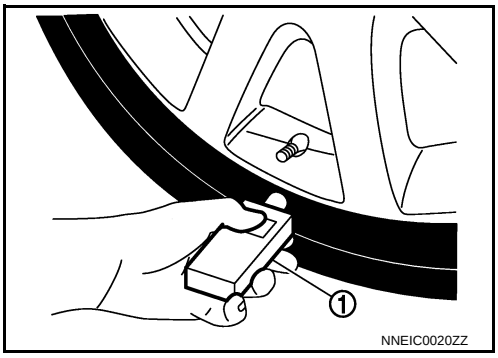
YES >> GO TO 2.
NO >> GO TO 3.

2. TIRE PRESSURE SENSOR ID REGISTRATION PROCEDURE (WITH TIRE PRESSURE SENSOR ACTIVATION TOOL)

1. Turn the ignition switch ON.
2. Select the start button on the “ID REGIST” screen.
3. Contact the tire pressure sensor activation tool (J-50190 or J-45295-A) (1) to the side of the tire at the location to the tire pressure sensor.
4. Press and hold the activation tool button while pushing the tool to the tire surface. (approximately for 5 seconds)

   CAUTION:

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



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

Sequence	ID registration position	Turn signal lamp	CONSULT
1	Front left wheel	2 blinks	“Red” ↓ “Green”
2	Front right wheel		
3	Rear right wheel		
4	Rear left wheel		

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

Is the check result normal?

YES >> ID registration END.
NO >> Refer to WT-44, "Diagnosis Procedure".

3. TIRE PRESSURE SENSOR ID REGISTRATION PROCEDURE (WITHOUT TIRE PRESSURE SENSOR ACTIVATION TOOL)

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

Tire position	Tire pressure kPa (kg/cm^2, psi)
Front LH	240 (2.4, 35)
Front RH	220 (2.2, 31)
Rear RH	200 (2.0, 29)
Rear LH	180 (1.8, 26)

2. Drive the vehicle at a speed at more than 40 km/h (25 MPH) for 3 minutes or more, then perform the tire pressure sensor ID registration procedure.
3. After ID registration for all wheels is completed, press “END” to end ID registration.

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

4. Adjust the tire pressures for all wheels to the specified value. Refer to WT-54, "Tire Air Pressure".

Is ID registrations for all wheels completed?

YES >> ID registration END.
NO >> Performs trouble-diagnosis of the Tire Pressure Monitoring System (TPMS). Refer to BCS-99, "DTC Index".

DTC/CIRCUIT DIAGNOSIS

C1704, C1705, C1706, C1707 LOW TIRE PRESSURE

Description

INFOID:0000000011735708

When the tire pressure monitoring system detects low inflation pressure, the low tire pressure warning lamps in the combination meter comes on.

DTC Logic

INFOID:0000000011735709

DTC DETECTION LOGIC

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

NOTE:

- 189.6 kPa (1.9 kg/cm^2, 27 psi): Standard air pressure is for 240 kPa (2.4 kg/cm^2,35 psi) vehicles.
- 205.1 kPa (2.1 kg/cm^2, 30 psi): Standard air pressure is for 260 kPa (2.6 kg/cm^2, 38 psi) vehicles.

DTC CONFIRMATION PROCEDURE

1.DTC REPRODUCTION PROCEDURE

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-54, "Tire Air Pressure".
3. Perform “SELF-DIAG RESULTS” in “AIR PRESSURE MONITOR” of “BCM”.

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

YES >> Perform trouble diagnosis. Refer to WT-24, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000011735710

1.CHECK TIRE PRESSURE

Check the internal pressure of all wheels. Refer to WT-54, "Tire Air Pressure".

Is the inspection result normal?

YES >> Replace the DTC-detected malfunctioning tire pressure sensor. Refer to WT-51, "Exploded View".
NO >> After adjusting the air pressure, GO TO 2.

2.CHECK TIRE PRESSURE SIGNAL

With CONSULT

1. Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes.
2. Perform “DATA MONITOR” in “AIR PRESSURE MONITOR” of “BCM”.
3. Select “BCM” in “DATA MONITOR”, and check that the tire pressures match the standard value.

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

CAUTION:
Stop the vehicle and within 5 minutes, use “DATA MONITOR” in “AIR PRESSURE MONITOR” of “BCM” to display the tire pressure for all wheels.

Is the inspection result normal?

YES >> Inspect or repair the tires or wheels and adjust the tire pressure to the specification.
NO >> GO TO 1.

Special Repair Requirement

INFOID:0000000011735711

1.CHECK TIRE PRESSURE

Check all tires for tire pressures. Refer to WT-54, "Tire Air Pressure".

Does all tire pressure data meet the specification?

YES >> GO TO 2.
NO >> Inspect or repair the tires or wheels and adjust the tire pressure to the specification.

2.PERFORM ID REGISTRATION

Perform ID registration. Refer to WT-22, "Description".

>> END

C1708, C1709, C1710, C1711 TIRE PRESSURE SENSOR

DTC Logic

INFOID:0000000011735712

DTC DETECTION LOGIC

DTC	Display item	Malfunction detected condition	Possible cause
C1708	[NO DATA] FL	Tire pressure data signal from the front left wheel tire pressure sensor cannot be detected.	• Harness or connector (Tire pressure receiver, BCM) • ID registration is not finished • Tire pressure sensor malfunction • BCM malfunction
C1709	[NO DATA] FR	Tire pressure data signal from the front right wheel tire pressure sensor cannot be detected.	
C1710	[NO DATA] RR	Tire pressure data signal from the rear right wheel tire pressure sensor cannot be detected.	
C1711	[NO DATA] RL	Tire pressure data signal from the rear left wheel tire pressure sensor cannot be detected.	

DTC CONFIRMATION PROCEDURE

1.DTC REPRODUCTION PROCEDURE

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

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

YES >> Perform trouble diagnosis. Refer to WT-26, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000011735713

1.CHECK TIRE PRESSURE SIGNAL

With CONSULT
1. Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes.
2. Perform “DATA MONITOR” in “AIR PRESSURE MONITOR” of “BCM”.
3. Select “BCM” in “DATA MONITOR”, and check that the tire pressures match the standard value.

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

CAUTION:
Stop the vehicle and within 5 minutes, use “DATA MONITOR” in “AIR PRESSURE MONITOR” of “BCM” to display the tire pressure for all wheels.

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

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

2.CHECK HARNESS BETWEEN BCM AND TIRE PRESSURE RECEIVER

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

BCM		Tire pressure receiver		Continuity
Connector	Terminal	Connector	Terminal	
M123	137	M101	1	Existed
	138		4	
	139		2	

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

BCM		—	Continuity
Connector	Terminal		
M123	137	Ground	Not existed
	138		
	139		

Is the inspection result normal?

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

3.CHECK TIRE PRESSURE RECEIVER POWER SUPPLY CIRCUIT

1. Connect the BCM harness connector.
2. Turn the ignition switch ON.

CAUTION:
Never start the engine.

3. Check the voltage between the BCM harness connector and ground.

BCM		—	Voltage (Approx.)
Connector	Terminal		
M123	138	Ground	5 V

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace damaged parts.

4.CHECK TIRE PRESSURE RECEIVER

Check tire pressure receiver. Refer to WT-35, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace tire pressure receiver. Refer to WT-53, "Removal and Installation".

5.CHECK ID REGISTRATION

Perform ID registration of all tire pressure sensors. Refer to WT-22, "Description".

Can ID registration of all tire pressure sensors be completed?

YES >> GO TO 6.
NO >> Replace tire pressure sensor. Refer to WT-51, "Exploded View".

6.CHECK TIRE PRESSURE MONITORING SYSTEM

With CONSULT
1. Drive at a speed of 40 km/h (25 MPH) or more for several minutes without stopping.
2. Perform “DATA MONITOR” in “AIR PRESSURE MONITOR” of “BCM”.
3. Select “BCM” in “DATA MONITOR”, and check that the tire pressures match the standard value.

Monitor item	Condition	Displayed value
AIR PRESS FL	Drive at a speed of 40 km/h (25 MPH) or more, for several minutes without stopping.	Internal pressure of tires
AIR PRESS FR		
AIR PRESS RR		
AIR PRESS RL		

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

Is the inspection result normal?

YES >> Replace the DTC detected malfunctioning tire pressure sensor. Refer to WT-51, "Exploded View".
NO >> Replace BCM. Refer to BCS-106, "Exploded View".

Special Repair Requirement

INFOID:0000000011735714

1.CHECK TIRE PRESSURE

Check all tires for tire pressures. Refer to WT-54, "Tire Air Pressure".

Does all tire pressure data meet the specification?

YES >> GO TO 2.
NO >> Inspect or repair the tires or wheels and adjust the tire pressure to the specification.

2.PERFORM ID REGISTRATION

Perform ID registration. Refer to WT-22, "Description".

>> END

C1716, C1717, C1718, C1719 TIRE PRESSURE SENSOR

DTC Logic

INFOID:0000000011735715

DTC DETECTION LOGIC

DTC	Display item	Malfunction detected condition	Possible case
C1716	[PRESSDATA ERR] FL	Malfunction in the tire pressure data from the front left wheel tire pressure sensor.	• ID registration is not finished • tire pressure sensor malfunction
C1717	[PRESSDATA ERR] FR	Malfunction in the tire pressure data from the front right wheel tire pressure sensor.	
C1718	[PRESSDATA ERR] RR	Malfunction in the tire pressure data from the rear right wheel tire pressure sensor.	
C1719	[PRESSDATA ERR] RL	Malfunction in the tire pressure data from the rear left wheel tire pressure sensor.	

DTC CONFIRMATION PROCEDURE

1.DTC REPRODUCTION PROCEDURE

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-54, "Tire Air Pressure".
3. Perform “SELF-DIAG RESULTS” in “AIR PRESSURE MONITOR” of “BCM”.

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

YES >> Perform trouble diagnosis. Refer to WT-29, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000011735716

1.CHECK TIRE PRESSURE

Check the internal pressure of all wheels. Refer to WT-54, "Tire Air Pressure".

Is the inspection result normal?

YES >> Replace the DTC-detected malfunctioning tire pressure sensor. Refer to WT-51, "Exploded View".
NO >> After adjusting the tire pressure, GO TO 2.

2.CHECK TIRE PRESSURE SIGNAL

With CONSULT

1. Check and adjust the tire pressure for all wheels. Refer to WT-54, "Tire Air Pressure".
2. Perform tire pressure sensor ID registration for all wheels. Refer to WT-22, "Description".
3. Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes.
4. Perform “DATA MONITOR” in “AIR PRESSURE MONITOR” of “BCM”.
5. Select “BCM” in “DATA MONITOR”, and check that the tire pressures match the standard value.
   CAUTION:
   Stop the vehicle and within 15 minutes, use CONSULT “DATA MONITOR” to display the tire pressure for all wheels.
6. Check that “DATA MONITOR” displays tire pressure of 438.60 kPa (4.47 kg/cm^2, 63.60 Psi).

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

YES >> Replace tire pressure sensor the tire pressure 438.60 kPa (4.386 bar, 4.47 kg/cm^2, 63.60 Psi) displayed. Refer to WT-51, "Exploded View".
NO >> GO TO 1.

Special Repair Requirement

INFOID:0000000011735717

1.CHECK TIRE PRESSURE

Check all tires for tire pressures. Refer to WT-54, "Tire Air Pressure".

Does all tire pressure data meet the specification?

YES >> GO TO 2.
NO >> Inspect or repair the tires or wheels and adjust the tire pressure to the specification.

2.PERFORM ID REGISTRATION

Perform ID registration. Refer to WT-22, "Description".

>> END

C1729 VEHICLE SPEED SIGNAL

Description

INFOID:0000000011735718

BCM detects no vehicle speed signal.

DTC Logic

INFOID:0000000011735719

DTC DETECTION LOGIC

DTC number	Trouble diagnosis name	DTC detecting condition	Possible case
C1729	VHCL SPEED SIG ERR	Vehicle speed signal not detected.	• CAN communication error • Combination meter malfunction

DTC CONFIRMATION PROCEDURE

1.DTC REPRODUCTION PROCEDURE

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

Is DTC “C1729” detected?

YES >> Perform trouble diagnosis. Refer to WT-31, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000011735720

1.PERFORM COMBINATION METER SELF-DIAGNOSIS

With CONSULT
Perform “SELF-DIAG RESULTS” of “METER/M&A”.

Is any DTC detected?

YES >> Check the DTC. Refer to BCS-99, "DTC Index".
NO >> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

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

Is DTC “C1729” detected?

YES >> Replace BCM. Refer to BCS-20, "COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)".
NO >> GO TO 3.

3.CHECK INFORMATION

With CONSULT
1. Perform “DATA MONITOR” in “AIR PRESSURE MONITOR” of “BCM”.
2. Select “BCM” in “DATA MONITOR”, and check the input/output values. Refer to BCS-58, "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-106, "Exploded View".

Special Repair Requirement

INFOID:0000000011735721

1.CHECK TIRE PRESSURE

Check all tires for tire pressures. Refer to WT-54, "Tire Air Pressure".

Does all tire pressure data meet the specification?

YES >> GO TO 2.

NO >> Inspect or repair the tires or wheels and adjust the tire pressure to the specification.

2. PERFORM ID REGISTRATION

Perform ID registration. Refer to WT-22, "Description".

>> END

C1734 BCM

DTC Logic

INFOID:0000000011735722

DTC DETECTION LOGIC

DTC	Display item	Malfunction detected condition	Possible case
C1734	CONTROL UNIT	Tire pressure monitoring system malfunction in BCM	BCM malfunction

DTC CONFIRMATION PROCEDURE

1.DTC REPRODUCTION PROCEDURE

With CONSULT
1. Drive at a speed of 40 km/h (25 MPH) or more for several minutes without stopping.
2. Perform “SELF-DIAG RESULTS” in “AIR PRESSURE MONITOR” of “BCM”.

CAUTION:
Perform within 15 minutes after stop the vehicle.

Is DTC “C1734” detected?

YES >> Perform trouble diagnosis. Refer to WT-33, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000011735723

1.CHECK BCM POWER SUPPLY

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

BCM		—	Voltage
Connector	Terminal		
M118	1	Ground	Battery voltage
M119	11		

Is the power supply normal?

YES >> GO TO 2.
NO >> Check the following. If any items are damaged, repair or replace damage parts.
- 40A fusible link [No. K located in the fuse block]. Refer to PG-99, "Fuse and Fusible Link Arrangement".
- 10A fuse [No. 10 located in the fuse block (J/B)]. Refer to PG-100, "Fuse, Connector and Terminal Arrangement".
- Harness for short or open between battery and BCM harness connector M118 terminal 1.
- Harness for short or open between battery and BCM harness connector M119 terminal 11.
- Check the Battery voltage.

2.CHECK BCM GROUND

Check the continuity between BCM harness connector and ground.

BCM		—	Continuity
Connector	Terminal		
M119	13	Ground	Existed

Is the inspection result normal?

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

3.CHECK HARNESS BETWEEN BCM AND TIRE PRESSURE RECEIVER

1. Disconnect tire pressure receiver harness connector.
2. Check the continuity between BCM harness connector and tire pressure receiver harness connector.

BCM		Tire pressure receiver		Continuity
Connector	Terminal	Connector	Terminal	
M123	137	M101	1	Existed
	138		4	
	139		2	

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

BCM		—	Continuity
Connector	Terminal		
M123	137	Ground	Not existed
	138		
	139		

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace damaged parts.

4.CHECK BCM

Check the BCM input/output signal. Refer to BCS-58, "Reference Value".

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 5.

5.CHECK BCM HARNESS CONNECTOR

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

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-106, "Exploded View".
NO >> Check for looseness or damage at the harness connector pins of the BCM. Repair or replace if necessary.

Special Repair Requirement

INFOID:0000000011735724

1.CHECK TIRE PRESSURE

Check all tires for tire pressures. Refer to WT-54, "Tire Air Pressure".

Does all tire pressure data meet the specification?

YES >> GO TO 2.
NO >> Inspect or repair the tires or wheels and adjust the tire pressure to the specification.

2.PERFORM ID REGISTRATION

Perform ID registration. Refer to WT-22, "Description".

>> END

TIRE PRESSURE RECEIVER

Component Function Check

INFOID:0000000011735725

1.TIRE PRESSURE MONITORING SYSTEM OPERATION

With CONSULT

1. Drive for 3 minutes at a speed of 40 km/h (25 MPH) or more, then drive normally for 10 minutes.
2. On “DATA MONITOR”, select “AIR PRESS FL”, “AIR PRESS FR”, “AIR PRESS RR” and “AIR PRESS RL”, and check that the tire pressures match the standard value.

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

CAUTION:

Stop the vehicle and within 5 minutes, use CONSULT “DATA MONITOR” to display the tire pressure for all wheels.

Is the inspection result normal?

YES >> INSPECTION END

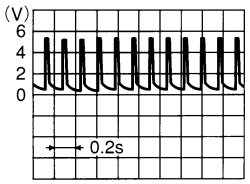
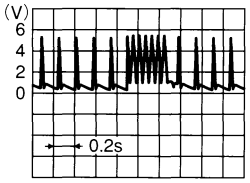
NO >> Perform trouble diagnosis. Refer to WT-35, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000011735726

1.CHECK TIRE PRESSURE RECEIVER SIGNAL

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Check tire pressure receiver connector and ground signal with oscilloscope.

Tire pressure receiver		—	Condition	Voltage (Approx.)
Connector	Terminal			
M101	2	Ground	Stand by state	 OCC3881D
			When receiving the signal from the tire pressure sensor	 OCC3880D

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 2.

2.CHECK TIRE PRESSURE RECEIVER INPUT VOLTAGE

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

Tire pressure receiver		—	Voltage (Approx.)
Connector	Terminal		
M101	4	Ground	5.0 V

Is the inspection result normal?

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

3. CHECK TIRE PRESSURE RECEIVER GROUND CIRCUIT

1. Disconnect BCM harness connector.
2. Check continuity between BCM harness connector and tire pressure receiver connector.

BCM		Tire pressure receiver		Continuity
Connector	Terminal	Connector	Terminal	
M123	137	M101	1	Existed

3. Check continuity between BCM harness connector and ground.

BCM		—	Continuity
Connector	Terminal		
M123	137	Ground	Not existed

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace damaged parts.

4. CHECK BCM CIRCUIT

Inspect the BCM circuit. Refer to BCS-53, "Diagnosis Procedure".

Is the BCM circuit normal?

YES >> Replace tire pressure receiver. Refer to WT-53, "Removal and Installation".
NO >> Replace BCM. Refer to BCS-106, "Exploded View".

LOW TIRE PRESSURE WARNING LAMP

Component Function Check

INFOID:0000000011735727

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-37, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000011735728

1.POWER SUPPLY AND GROUND CIRCUIT

Check power supply and ground circuit. Refer to WT-38, "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-DIAG RESULTS” in “AIR PRESSURE MONITOR” of “BCM”.

Is any DTC detected?

YES >> Check the DTC. Refer to BCS-99, "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. Perform “DATA MONITOR” in “AIR PRESSURE MONITOR” of “BCM”.
3. Select “BCM” in “DATA MONITOR”, and check that the low tire pressure warning lamp is turned OFF after illuminating for approximately 1 second, when the ignition switch is turned ON.

Is the inspection result normal?

YES >> Check the combination meter. Refer to MWI-45, "COMBINATION METER : Diagnosis Procedure".
NO >> Replace the BCM. Refer to BCS-106, "Exploded View".

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000011735729

1.POWER SUPPLY SYSTEM CHECK

1. Turn the ignition switch OFF.
2. Disconnect the BCM harness connector.
3. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
4. Check the voltage between the BCM harness connector and the ground.

BCM		—	Voltage
Connector	Terminal		
M118	1	Ground	Battery voltage
M119	11		

Is the inspection result normal?

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

2.GROUND SYSTEM INSPECTION

1. Turn the ignition switch OFF.
2. Check the continuity between the BCM harness connector and the ground.

BCM		—	Continuity
Connector	Terminal		
M119	13	Ground	Existed

Is the inspection result normal?

YES >> • Check the 10A fuse [No. 10 in fuse block (J/B)].
• Check the 40A fusible link [No. K in fuse block].
NO >> Repair or replace damaged parts.

SYMPTOM DIAGNOSIS

TPMS

Symptom Table

INFOID:0000000011735730

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 repeats blinking ON for 2 seconds and OFF for 0.2 seconds.	 Blinks: ON 2 sec > OFF 0.2 sec SEIA0593E	Wake-up operation for all tire pressure sensors at wheels is not completed.	Perform the wake-up operation for all tire pressure sensors at wheels. Refer to WT-21, "Description".
	The low tire pressure warning lamp blinks once.	 Blinks 1 time ON 0.3 sec > OFF 1.0 sec JPEIC0090GB	The front left tire pressure sensor is not activated.	Perform the wake-up operation for the tire pressure sensor at front left wheel. Refer to WT-21, "Description".
	The low tire pressure warning lamp repeats blinking twice.	 Blinks 2 times ON 0.3 sec > OFF 0.3 sec SEIA0595E	The front right tire pressure sensor is not activated.	Perform the wake-up operation for the tire pressure sensor at front right wheel. Refer to WT-21, "Description".
	The low tire pressure warning lamp repeats blinking for 3 times.	 Blinks 3 times ON 0.3 sec > OFF 0.3 sec SEIA0596E	The rear right tire pressure sensor is not activated.	Perform the wake-up operation for the tire pressure sensor at rear right wheel. Refer to WT-21, "Description".
	The low tire pressure warning lamp repeats blinking for 4 times.	 Blinks 4 times ON 0.3 sec > OFF 0.3 sec SEIA0597E	The rear left tire pressure sensor is not activated.	Perform the wake-up operation for the tire pressure sensor at rear left wheel. Refer to WT-21, "Description".

Diagnosis items	Symptom (Ignition switch ON)	Low tire pressure warning lamp	Cause	Action
Low tire pressure warning lamp	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-54, "Tire Air Pressure".
	The low tire pressure warning lamp repeats blinking at 0.5-second intervals for 1 minute, and then stays illuminated.	 Blinks 1 min ON 0.5 sec > OFF 0.5 sec and stays ON SEIA0788E	The combination meter fuse is open or removed (or pulled out).	Check and install the combination meter fuse. If necessary, replace the fuse.
			The BCM harness connector is removed.	Check the connection conditions of the BCM harness connector, and repair if necessary.
			Tire Pressure Monitoring System (TPMS) malfunction.	• Perform CONSULT self-diagnosis. Refer to BCS-20, "COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)". • If necessary, perform tire pressure sensor ID registration. Refer to WT-22, "Description".
Turn signal lamp	The turn signal lamps do not blink twice when the tire pressure sensor is activated. Or the buzzer does not sound.	—	1. The tire pressure sensor activation tool (J-50190 or J-45295-A) does not activate. 2. The ignition switch is OFF when the tire pressure sensor wake-up operation is performed. 3. The tire pressure sensor activation tool (J-50190 or J-45295-A) is not used in the correct position. 4. The tire pressure sensor is already waked up.	1. Replace the battery in the tire pressure sensor activation tool (J-50190 or J-45295-A). 2. Turn the ignition switch ON when performing the tire pressure sensor wake-up operation. 3. Operate the tire pressure sensor activation tool (J-50190 or J-45295-A) in the correct position when performing the wake-up operation. 4. No procedure.

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

LOW TIRE PRESSURE WARNING LAMP DOES NOT TURN ON

Description

INFOID:0000000011735731

DESCRIPTION

The low tire pressure warning lamp illuminates for approximately 1 second and then turns OFF when the ignition switch is turned ON. This is to check that no abnormal condition is present in the tire pressure monitoring system.
The lamp bulb may be burnt out or the tire pressure monitoring system may be malfunctioning if the low tire pressure warning lamp does not illuminate when the ignition switch is turned ON.

Diagnosis Procedure

INFOID:0000000011735732

1.CHECK LOW TIRE PRESSURE WARNING LAMP

Perform trouble diagnosis of the low tire pressure warning lamp. Refer to WT-37, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check pin terminal and connection of each connector for damage and loose connection.
NO >> Repair or replace damaged parts.

LOW TIRE PRESSURE WARNING LAMP DOES NOT TURN OFF

Description

INFOID:0000000011735733

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

Diagnosis Procedure

INFOID:0000000011735734

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-54, "Tire Air Pressure".

Is the inspection result normal?

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

2.CHECK LOW TIRE PRESSURE WARNING LAMP

Check low tire pressure warning lamp display.

Does not low tire pressure warning lamp turn OFF?

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

3.CHECK BCM

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

Is any DTC detected?

YES >> Check the DTC. Refer to BCS-99, "DTC Index".
NO >> GO TO 4.

4.CHECK BCM POWER SUPPLY AND GROUND

1. Turn the ignition switch OFF.
2. Disconnect the BCM harness connector.
3. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
4. Check the voltage between the BCM harness connector and the ground.

BCM		—	Voltage
Connector	Terminal		
M118	1	Ground	Battery voltage
M119	11		

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-106, "Exploded View".
NO >> Repair or replace damaged parts.

LOW TIRE PRESSURE WARNING LAMP BLINKS

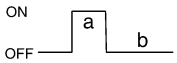
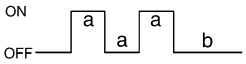
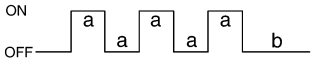
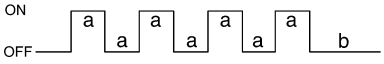
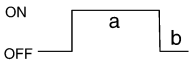
Description

INFOID:0000000011735735

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

NOTE:

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

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

JPEIC0089GB

Diagnosis Procedure

INFOID:0000000011735736

1. TIRE PRESSURE SENSOR WAKE-UP OPERATION

Perform the tire pressure sensor wake-up. Refer to WT-21, "Description".

Is the tire pressure sensor wake-up completed?

YES >> GO TO 2.

NO >> Perform trouble diagnosis for the tire pressure sensor. Refer to WT-26, "Diagnosis Procedure".

2. TIRE PRESSURE SENSOR ID REGISTRATION

Perform tire pressure sensor ID registration. Refer to WT-22, "Description".

Is tire pressure sensor ID registration completed?

YES >> INSPECTION END

NO >> Perform the self-diagnosis for “AIR PRESSURE MONITOR”. Refer to BCS-99, "DTC Index".

ID REGISTRATION CANNOT BE COMPLETED

Description

INFOID:0000000011735737

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:0000000011735738

1. TIRE PRESSURE SENSOR WAKE-UP

Perform the tire pressure sensor wake-up. Refer to WT-21, "Description".

Is the tire pressure sensor wake-up completed?

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

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-22, "Description".

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-51, "Removal and Installation".
All wheels do not react.>>Check the tire pressure receiver. Refer to WT-35, "Component Function Check".

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

NVH Troubleshooting Chart

INFOID:0000000011735739

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

Reference page			FSU-11, FSU-14	WT-49, "Inspection"	WT-46, "Adjustment"	WT-54, "Tire Air Pressure"	WT-46, "Adjustment"	—	—	WT-54, "Tire Air Pressure"	NVH in DLN section.	NVH in DLN section.	NVH in FAX and FSU sections.	NVH in RAX and RSU sections.	Refer to TIRES in this chart.	Refer to ROAD WHEEL in this chart.	NVH in RAX section.	NVH in BR section.	NVH in ST section.
Possible cause and SUSPECTED PARTS			Improper installation, looseness	Out-of-round	unbalance	Incorrect tire pressure	Uneven tire wear	Deformation or damage	Non-uniformity	Incorrect tire size	PROPELLER SHAFT	DIFFERENTIAL	FRONT AXLE AND FRONT SUSPENSION	REAR AXLE AND REAR SUSPENSION	TIRES	ROAD WHEELS	DRIVE SHAFT	BRAKE	STEERING
Symptom	TIRES	Noise	×	×	×	×	×	×	×		×	×	×	×		×	×	×	×
		Shake	×	×	×	×	×	×		×	×		×	×		×	×	×	×
		Vibration				×				×	×		×	×			×		×
		Shimmy	×	×	×	×	×	×	×	×			×	×		×		×	×
		Judder	×	×	×	×	×	×		×			×	×		×		×	×
		Poor quality ride or handling	×	×	×	×	×	×		×			×		×	×			
	ROAD WHEEL	Noise	×	×	×			×			×	×	×	×	×		×	×	×
		Shake	×	×	×			×			×		×	×	×		×	×	×
		Shimmy, Judder	×	×	×			×					×	×	×			×	×
		Poor quality ride or handling	×	×	×			×					×	×	×				

×: Applicable

PERIODIC MAINTENANCE

ROAD WHEEL

Adjustment

INFOID:0000000011735740

BALANCING WHEELS (BONDING WEIGHT TYPE)

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.**

Wheel Balance 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 road wheels.

1. Set road wheel on tire balance machine using the center hole as a guide. Start the tire balance machine.
2. When inner and outer unbalance values are shown on the tire balance machine indicator, multiply outer unbalance value by 5/3 to determine balance weight that should be used. Select the outer balance weight with a value closest to the calculated value above and install to the designated outer position of, or at the designated angle in relation to the road wheel.

   CAUTION:

   - **Do not install the inner balance weight before installing the outer balance weight.**
   - **Before installing the balance weight, be sure to clean the mating surface of the road wheel.**

a. Indicated unbalance value × 5/3 = balance weight to be installed

Calculation example:

23 g (0.81 oz) × 5/3 = 38.33 g (1.35 oz) ⇒ 37.5 g (1.32 oz) balance weight (closer to calculated balance weight value)

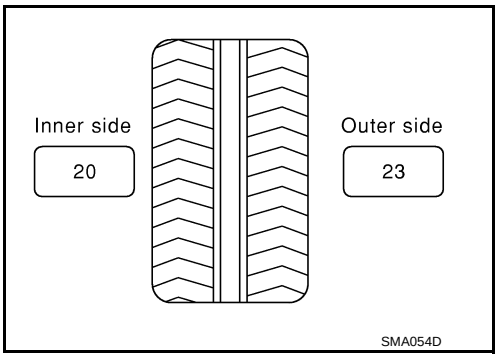
NOTE:

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

Example:

36.2 ⇒ 35 g (1.23 oz)

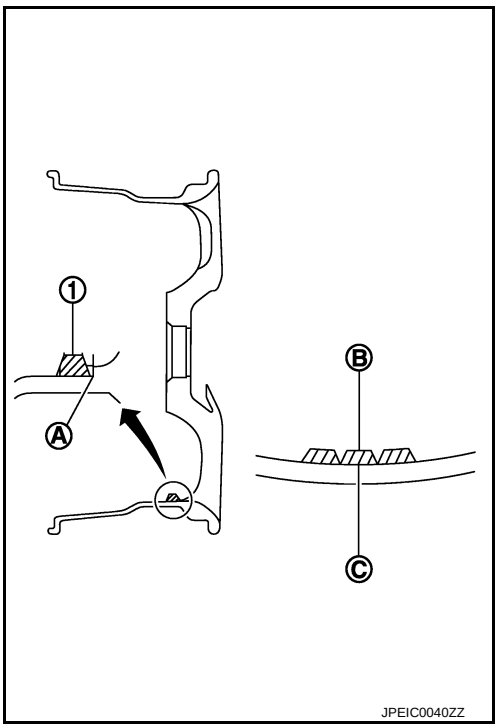
36.3 ⇒ 37.5 g (1.32 oz)



b. Installed balance weight in the position.

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

CAUTION:
- **Always use genuine NISSAN adhesion balance weights.**
- **Balance weights are non-reusable; always replace with new ones.**
- **Do not install three or more sheets of balance weight.**



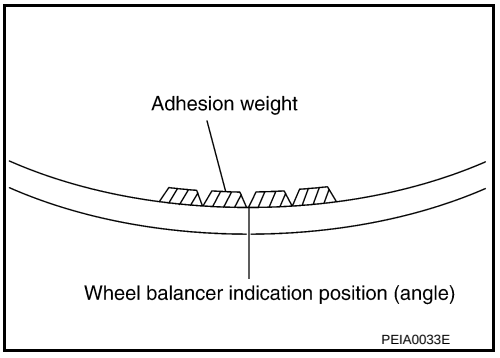
c. If calculated balance weight value exceeds 50 g (1.76 oz), install two balance weight sheets in line with each other as shown in the figure.

CAUTION:
Do not 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:
Do not install three or more balance weight.

5. Start the tire balance machine. Check that inner and outer residual unbalance values 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-54, "Road Wheel".

Static (At flange) : Refer to WT-54, "Road Wheel".

TIRE ROTATION

- Tire cannot be rotated in vehicle, as front tire are different size from rear tire and the direction of wheel rotation is fixed in each tire.

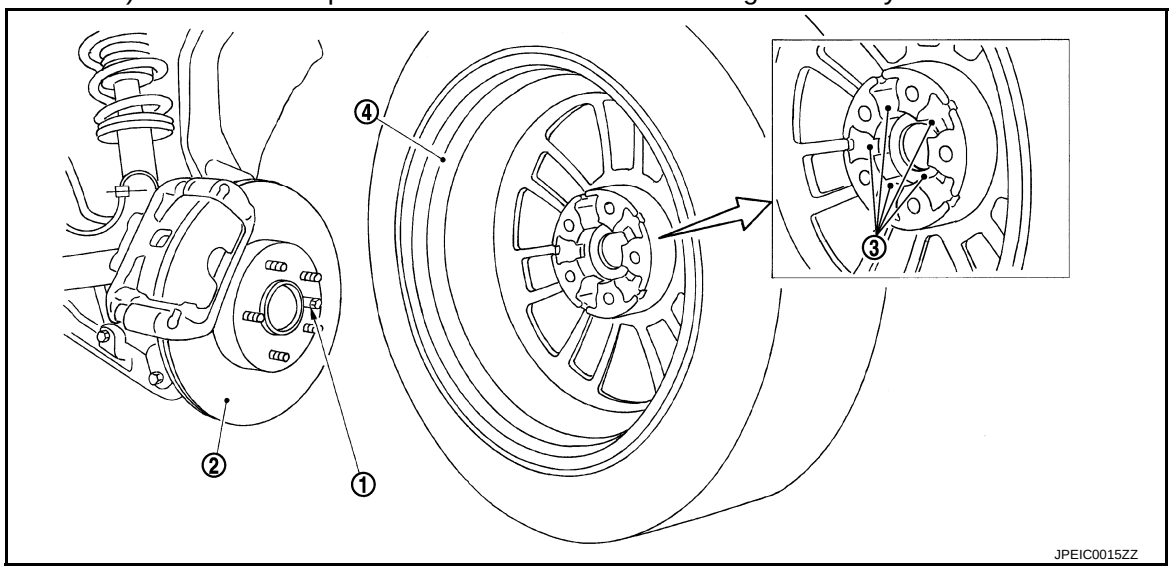
Wheel nuts tighting torque : Refer to WT-54, "Road Wheel".

CAUTION:
- **Never include the T-type spare tire when rotating the tires.**
- **Use NISSAN genuine wheel nuts for aluminum wheels.**

Safety Device Preventing from Being Incorrectly installed

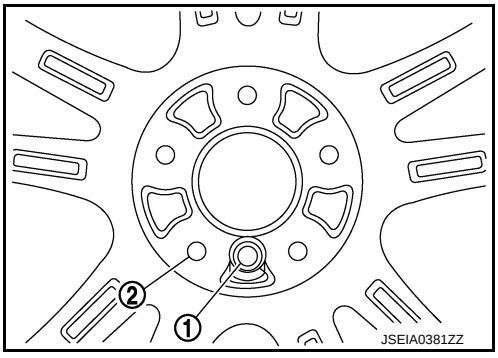
FRONT BRAKE DISC ROTOR AND FRONT WHEEL

- Front and rear wheel size for this model differs, therefore special pin (1) is adopted to the front brake disc rotor (2). And a hole (3) that matches to this pin is adopted to the front wheel (4) (the rear wheel does not have this wheel). This structure prevents the rear wheel from being mistakenly installed on the front.



T-TYPE SPARE TIRE WHEEL

- Regarding spare tire (for emergency) wheel, wrong assembly protection pin hole (1) has been set in addition to regular bolt holes (2) in order to enable installation to front wheel.

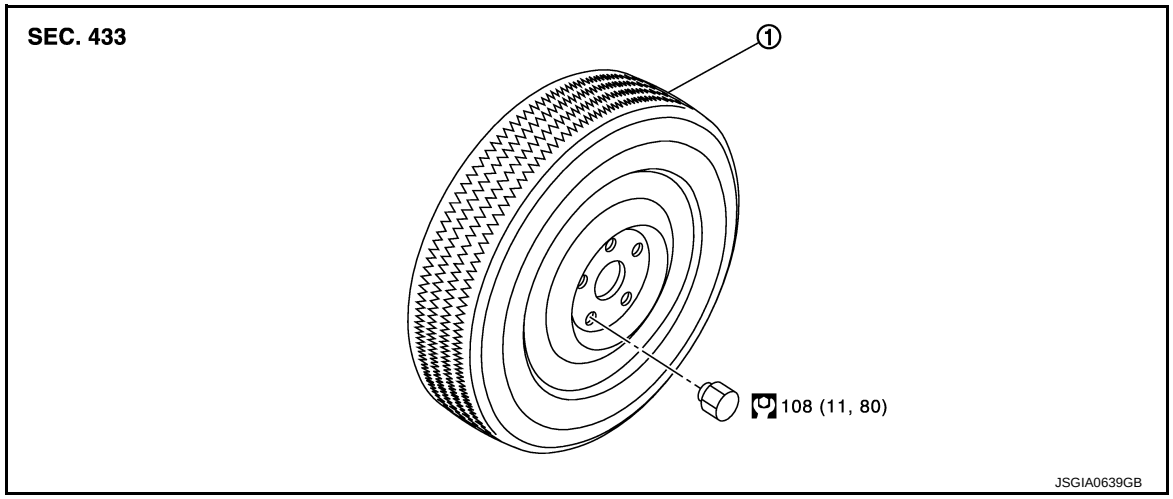


REMOVAL AND INSTALLATION

ROAD WHEEL TIRE ASSEMBLY

Exploded View

INFOID:0000000011735741



1. Tire assembly

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

Removal and Installation

INFOID:0000000011735742

REMOVAL

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

INSTALLATION

Install in the reverse order of removal.

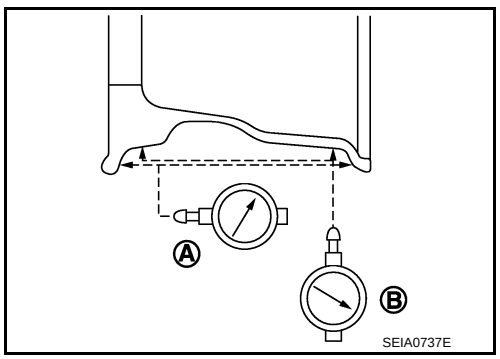
Inspection

INFOID:0000000011735743

ALUMINUM WHEEL

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

a. Remove tire from aluminum wheel and mount on a tire balance machine.
b. Set dial indicator as shown in the figure.
c. Check runout, If the axial runout (A) or radial runout (B) exceeds the limit, replace aluminum wheel.



Limit

Axial runout (A) : Refer to WT-54, "Road Wheel".

Radial runout (B) : Refer to WT-54, "Road Wheel".

STEEL WHEEL

1. Check tires for wear and improper inflation.

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

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

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

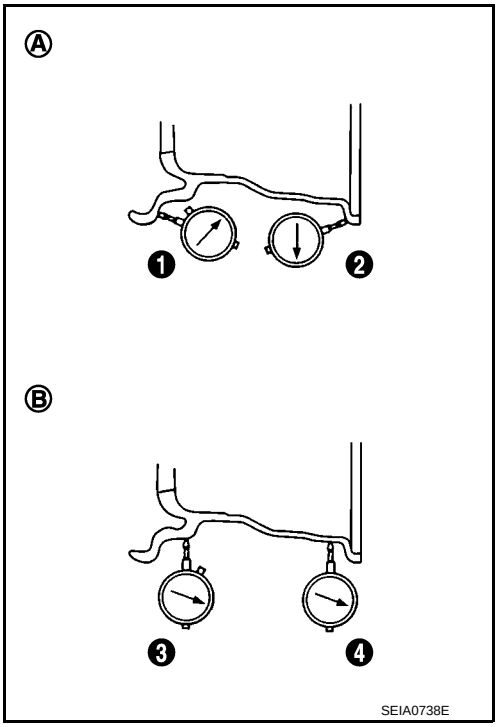
c. Set each dial indicator to “0”.

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

e. Calculate runout at each point as shown below.

Axial runout (A) : (❶+❷)/2

Radial runout (B) : (❸+❹)/2



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

CAUTION:

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

Limit

(A) : Refer to WT-54, "Road Wheel".

(B) : Refer to WT-54, "Road Wheel".

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

How to Handle Puncture Repair Agent (With Puncture Repair Kit)

INFOID:0000000011735744

CAUTION:

- **Never spill the sealant in the tire during repair.**
- **If the sealant spills, wipe it out with a waste cloth.**
- **Never reuse the repair kit hose used for a temporary repair of a flat tire because some of the puncture repair agent remains in the hose.**
- **After using a puncture repair agent, replace valve core with a new one.**
- **Complete tire blowout repair or tire replacement within two days from the tire removal work start to prevent the hardening of the repair agent which attached to tire pressure sensor**

1. Remove tires form the vehicle.
2. Remove tire from road wheel, using a tire changer.

   CAUTION:

   - **When deflating a tire, cover the valve with a waste cloth to prevent the sealant from splattering.**
   - **Never spill the sealant in the tire during repair.**
3. Dispose of sealant in the removed tire.

   CAUTION:

   - **Wipe out sealant spilled on the road wheel, tire, tire changer, and floor with a waste cloth.**
   - **Drained sealant or expired sealant returned by the customer must be disposed according to the law and local regulations.**
   - Fix a tire blowout, if repairable.

     NOTE:

     Sealant blocks holes caused by blowouts. These holes may not be found and repaired, depending on the level of blowout. Therefore, it is necessary to check tire air pressure frequently and replace tire with a new one, if the air pressure is decreasing.
   - Replace tire with a new one, if not repairable.

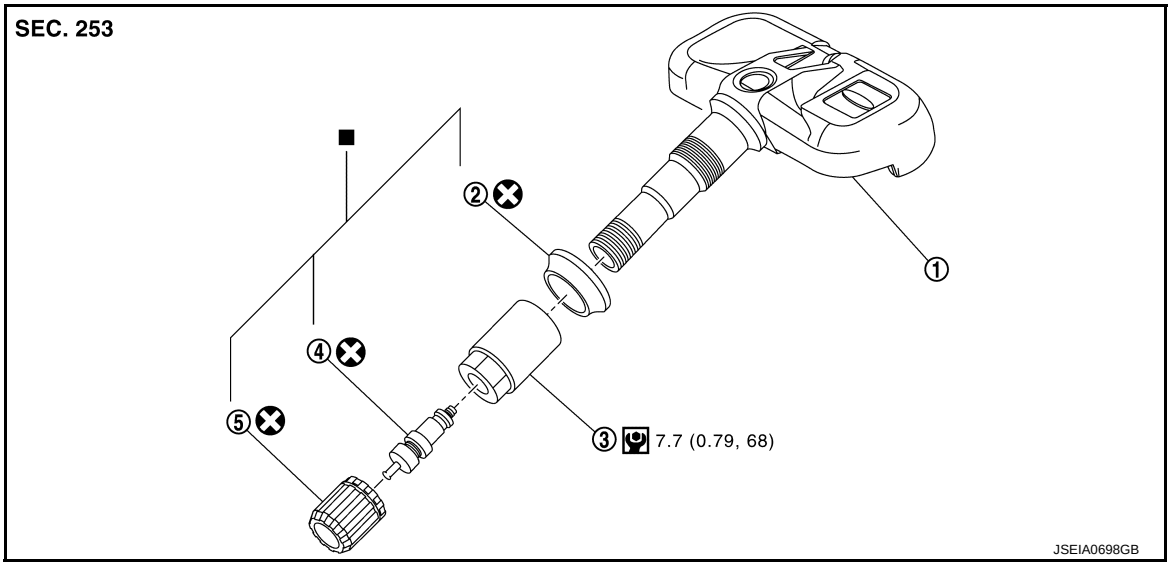
     CAUTION:

     Never dispose of tires with the sealant contained.

TIRE PRESSURE SENSOR

Exploded View

INFOID:0000000011735745



1. Tire pressure sensor
2. Grommet seal
3. Valve nut
4. Valve core
5. Valve cap

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

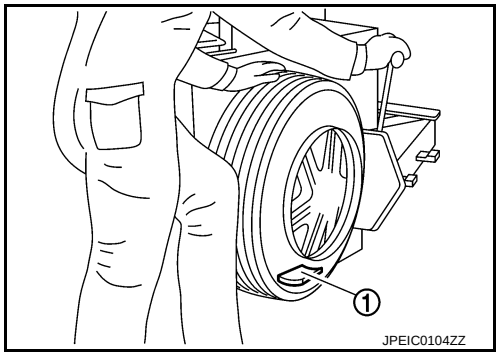
Refer to GI-4, "Components" for symbols not described above.

Removal and Installation

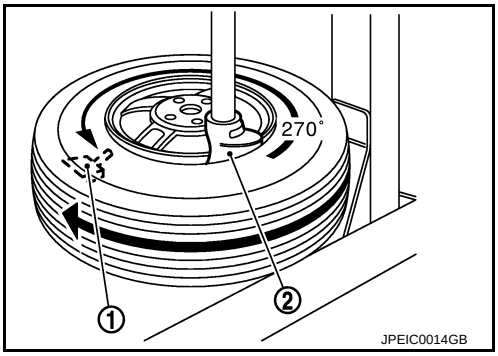
INFOID:0000000011735746

REMOVAL

1. Remove tire assembly. Refer to WT-49, "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.**
   - **Be sure not to 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.

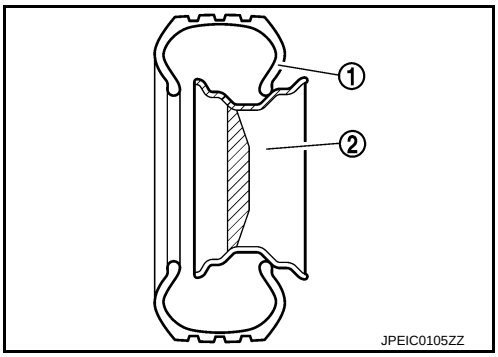


7. Turn tire so that valve hole is at bottom and bounce so that tire pressure sensor (1) is near valve hole. Carefully lift tire onto turntable and position valve hole (and tire pressure sensor) 270 degree from mounting/dismounting head (2).
CAUTION:
Be sure not to damage the road wheel and tire pressure sensor.
8. Remove tire pressure sensor from tire.
9. Remove the grommet seal.

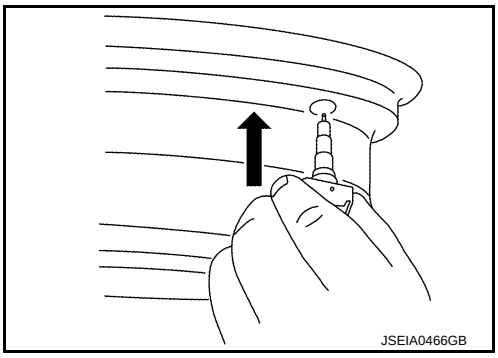


INSTALLATION

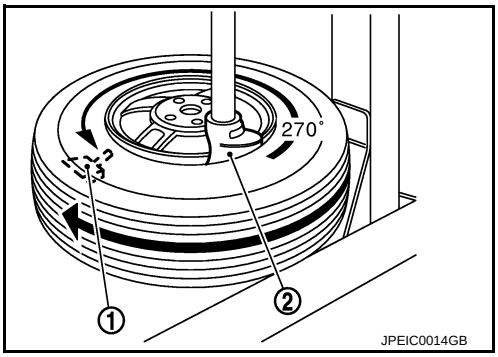
1. Apply bead cream or an equivalent to the tire beads.
2. Install the tire inside beads (1) onto the road wheel (2) in the position shown in the figure.
3. Install grommet seal to the tire pressure sensor.
CAUTION:
- **Never reuse grommet seal.**
- **Insert grommet seal all the way to the base.**



4. 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 valve hole. 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.**
- **Manually tighten valve nut all the way to the wheel. (Never use a power tool to avoid impact.)**



5. 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.
6. 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.
7. Check the tire pressure for all wheels and adjust to the specified value. Refer to WT-54, "Tire Air Pressure".
NOTE:
Before adding air, align the tire with the position of the matching mark applied at the time of removal.
8. Install tire to the vehicle. Refer to WT-49, "Removal and Installation".
9. Perform tire pressure sensor ID registration. Refer to WT-22, "Work Procedure".



TIRE PRESSURE RECEIVER

Removal and Installation

INFOID:0000000011735747

REMOVAL

1. Remove the glove box assembly. Refer to IP-13, "Exploded View".
2. Remove the instrument lower panel RH. Refer to IP-13, "Exploded View".
3. Disconnect tire pressure receiver harness connector.
4. Remove tire pressure receiver mounting screw.
5. Remove tire pressure receiver.

INSTALLATION

Install is the reverse order of removal.

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Road Wheel

INFOID:0000000011735748

CONVENTIONAL

Item		Limit
Radial 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)

EMERGENCY

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

Tire Air Pressure

INFOID:0000000011735749

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

Tire size	Air pressure			
	Front		Rear	
	Coupe	Roadster	Coupe	Roadster
225/50R18 95W	240 (2.4, 35)	260 (2.6, 38)	–	
245/45R18 96W	–		240 (2.4, 35)	260 (2.6, 38)
245/40R19 94W	220 (2.2, 32)		–	
275/35R19 96W	–		220 (2.2, 32)	
245/40R19 98Y	240 (2.4, 35)	–	–	
285/35R19 99Y	–		240 (2.4, 35)	–
T145/80D17 107M	420 (4.2, 60)			
T145/70R18 107M				

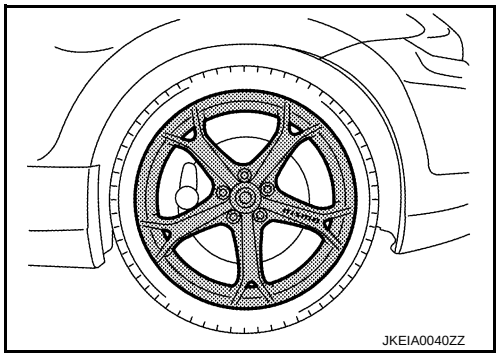
SPEC CHANGE INFORMATION

ROAD WHEEL TIRE ASSEMBLY

Road Wheel Tire Assembly

INFOID:0000000011735750

- Dedicated aluminum wheels adopted.



NISMO models	Item		Data
Aluminum road wheels	Size	Front	19 × 9.5J
		Rear	19 × 10.5J
	Offset	Front	+40 mm (+1.57 in)
		Rear	+23 mm (+0.91 in)
Tires	Tire size	Front	245/40ZR19 98Y
		Rear	285/35ZR19 99Y