

WT

D

CONTENTS

WT-1

SERVICE INFORMATION2
PRECAUTIONS2 Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TEN- SIONER"2 Precaution for Battery Service2 Service Notice or Precaution2
PREPARATION 3 Special Service Tool 3 Commercial Service Tool 3
NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING
ROAD WHEEL5 Inspection5
ROAD WHEEL TIRE ASSEMBLY
TIRE PRESSURE MONITORING SYSTEM 9 System Component
TROUBLE DIAGNOSIS

Control Unit Input/Output Signal Standard for	F
BCM	G
TROUBLE DIAGNOSIS FOR SELF-DIAGNOSTIC ITEMS	
NOSTIC ITEMS26 Transmitter or Control Unit (BCM)26	I
Transmitter - 1	J
TROUBLE DIAGNOSIS FOR SYMPTOMS28 Warning Lamp Does Not Come On When Ignition Switch Is Turned On	K
Warning Lamp Blinks When Ignition Switch Is	
Turned On	M
REMOVAL AND INSTALLATION32 Transmitter32	Ν
SERVICE DATA AND SPECIFICATIONS (SDS)	0
Tire34	
Tightening Torque34	Р

SERVICE INFORMATION

PRECAUTIONS

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

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 "SUPPLEMENTAL RESTRAINT SYSTEM" and "SEAT BELTS" of this Service Manual.

WARNING:

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

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

WARNING:

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

INFOID:0000000004657803

INFOID:0000000004657804

Precaution for Battery Service

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.

Service Notice or Precaution

- Low tire pressure warning lamp flashes 1min., then turns ON when occurring any malfunction except low tire pressure.
- Delete the memory with CONSULT-III, or register the ID to turn low tire pressure warning lamp OFF. Refer to WT-18, "ID Registration Procedure".
- ID registration is required when replacing or rotating wheels. replacing transmitter or BCM. Refer to <u>WT-18</u>. "ID Registration Procedure".
- Replace grommet seal, valve core and cap of the transmitter in TPMS every tire replacement by reaching wear limit of tire.

PREPARATION

< SERVICE INFORMATION > **PREPARATION** Α **Special Service Tool** INFOID:0000000004657805 The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here. В Tool number (Kent-Moore No.) Description Tool name (J-45295) ID registration Transmitter activation tool D WT SEIA0462E **Commercial Service Tool** INFOID:0000000004657806 F Tool name Description Power tool Removing wheel nuts G Н PBIC0190E

Revision: 2009 October WT-3 2008 & 2009 350Z

Ν

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

< SERVICE INFORMATION >

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

NVH Troubleshooting Chart

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

INFOID:0000000004657807

Reference p	page		FAX-4,FSU-5	<u>WT-5</u>	I	I	I	I	I	I	NVH in PR section.	NVH in RFD 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 PS section.
Possible ca	use and SUSPECT	ED PARTS	Improper installation, looseness	Out-of-round	Imbalance	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 WHEEL	DRIVE SHAFT	ВКАКЕ	STEERING
		Noise	×	×	×	×	×	×	×		×	×	×	×		×	×	×	×
		Shake	×	×	×	×	×	×		×	×		×	×		×	×	×	×
		Vibration				×				×	×		×	×			×		×
	TIRES	Shimmy	×	×	×	×	×	×	×	×			×	×		×		×	×
		Judder	×	×	×	×	×	×		×			×	×		×		×	×
Symptom		Poor quality ride or handling	×	×	×	×	×	×		×			×	×		×			
		Noise	×	×	×			×			×	×	×	×	×		×	×	×
		Shake	×	×	×			×			×		×	×	×		×	×	×
	ROAD WHEEL	Shimmy, judder	×	×	×			×					×	×	×			×	×
		Poor quality ride or handling	×	×	×			×					×	×	×				

^{×:} Applicable

ROAD WHEEL

Inspection INFOID:0000000004657808

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.
- Remove tire from aluminum wheel and mount on a tire balance machine.
- Set dial indicator as shown in the figure.

Wheel runout (Dial indicator value): Refer to WT-34.

STEEL WHEEL

- 1. Check tires for wear and improper inflation.
- 2. Check wheels for deformation, cracks and other damage. If deformed, remove wheel and check wheel runout.
- Remove tire from steel wheel and mount wheel on a tire balance machine.
- b. Set two dial indicators as shown in the figure.
- c. Set each dial indicator to 0.
- d. Rotate wheel and check dial indicators at several points around the circumference of the wheel.
- e. Calculate runout at each point as shown below.

Radial runout = (A+B)/2Lateral runout = (C+D)/2

Select maximum positive runout value and the maximum negative value.

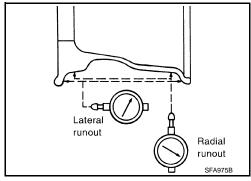
Add the two values to determine total runout.

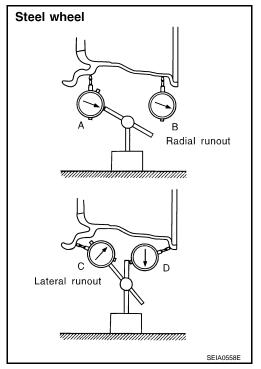
In case a positive or negative value is not available, use the maximum value (negative or positive) for total runout.

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

Wheel runout:

Refer to WT-34.





Α

В

D

WT

F

Н

Ν

Р

WT-5 Revision: 2009 October 2008 & 2009 350Z

ROAD WHEEL TIRE ASSEMBLY

< SERVICE INFORMATION >

ROAD WHEEL TIRE ASSEMBLY

Balancing Wheels (Bonding Weight Type)

INFOID:0000000004657809

REMOVAL

1. Remove inner and outer balance weights from the road wheel.

CAUTION:

Be careful not to scratch the road wheel during removal.

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

CAUTION:

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

WHEEL BALANCE ADJUSTMENT

- If a tire balance machine has adhesion balance weight mode settings and drive-in weight mode setting, select and adjust a drive-in weight mode suitable for road wheels.
- 1. Set road wheel on wheel balancer using the center hole as a guide. Start the tire balance machine.
- 2. When inner and outer unbalance values are shown on the wheel balancer 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 it 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.

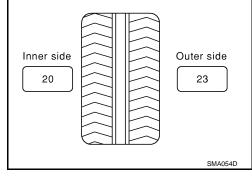
Indicated unbalance value \times 5/3 = balance weight to be installed Calculation example:

23 g $(0.81 \text{ oz}) \times 5/3 = 38.33 \text{ g} (1.35 \text{ oz}) = 40 \text{ g} (1.41 \text{ oz})$ balance weight (closer to calculated balance weight value)

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)



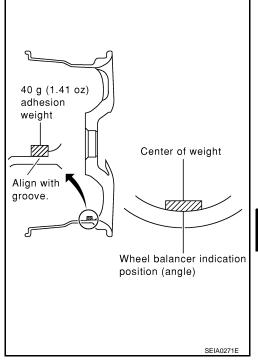
ROAD WHEEL TIRE ASSEMBLY

< SERVICE INFORMATION >

- a. Install balance weight in the position shown in the figure.
- b. When installing balance weight 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 adhesion balance weights.
- Balance weights are unreusable; always replace with new ones.
- Do not install more than three sheets of balance weight.



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

CAUTION:

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

- 3. Start 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 more than two balance weights.

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

Wheel balance (Maximum allowable unbalance):

Maximum allowable un-	Dynamic (At rim flange)	5 g (0.17 oz) (one side)
balance	Static (At rim flange)	10 g (0.35 oz)

Tire Rotation

CAUTION:

DESCRIPTION

- Do not include the T-type spare tire when rotating the tires.
- Use NISSAN genuine wheel nuts for aluminum wheels.

NOTE:

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.

Safety Device Preventing from Being Incorrectly Installed

Front brake disc rotor and front wheel

Wheel balancer indication position (angle)

K

Н

Α

D

WT

L

M

IVI

Ν

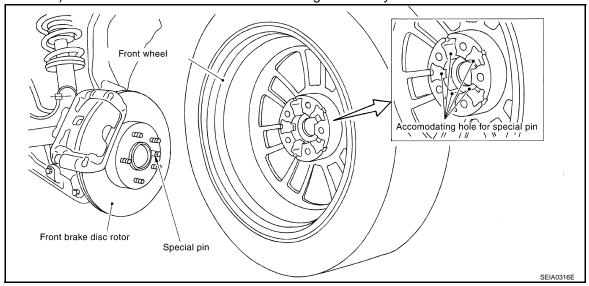
O

Р

ROAD WHEEL TIRE ASSEMBLY

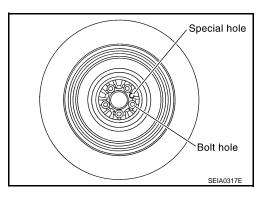
< SERVICE INFORMATION >

• Front and rear wheel size for this model differs, therefore a special pin has been installed on the front brake disc rotor. To accommodate this pin a hole has been provided on the front wheel (the rear wheel does not have this hole.) and in some case the rear wheel is being mistakenly installed on the front.



T-type spare tire wheel

T-type spare tire wheel for this model has a special hole designed to avoid the pin on front disc rotor.

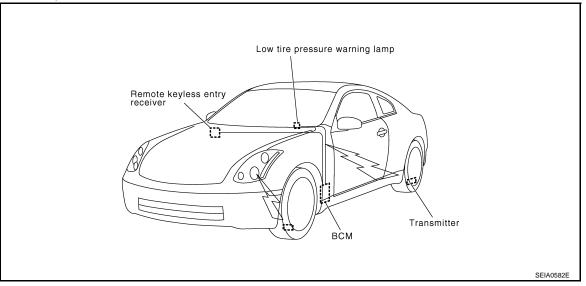


TIRE PRESSURE MONITORING SYSTEM

< SERVICE INFORMATION >

TIRE PRESSURE MONITORING SYSTEM

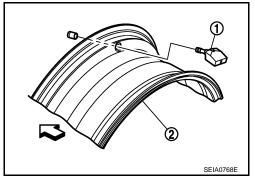
System Component



System Description

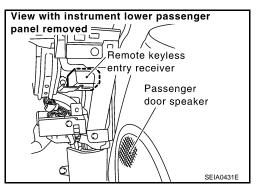
TRANSMITTER

A sensor-transmitter (1) integrated with a valve is installed on a wheel (2), and transmits a detected air pressure signal by radio wave.



REMOTE KEYLESS ENTRY RECEIVER

The remote keyless entry receiver receives the air pressure signal transmitted by the transmitter in each wheel.



BCM (BODY CONTROL MODULE)

Revision: 2009 October WT-9 2008 & 2009 350Z

Α

В

INFOID:0000000004657811

.

D

Н

INFOID:0000000004657812

J

K

M

Ν

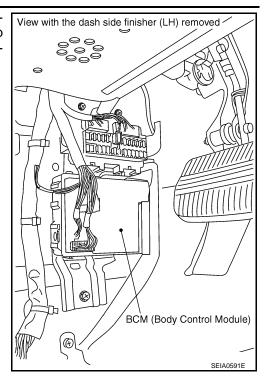
0

Ρ

TIRE PRESSURE MONITORING SYSTEM

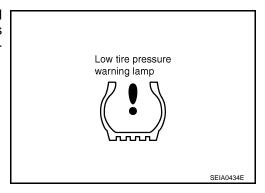
< SERVICE INFORMATION >

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



LOW TIRE PRESSURE WARNING LAMP

The combination meter receives tire pressure status from the BCM using CAN communication. When a low tire pressure condition is sensed by the BCM, the combination meter low tire pressure warning lamp are activated.



Low tire pressure warning lamp indication

Condition	Low tire pressure warning lamp
Less than 190 kPa (1.90 kg/cm ² , 28 psi) [Note]	ON
Low tire pressure warning system malfunction [Other diagnostic item]	Warning lamp flashes 1 min, then turns ON.

NOTE:

Standard air pressure is for 240 kpa (2.4 kg/cm², 35 psi) vehicles.

Can Communication

INFOID:0000000004657813

SYSTEM DESCRIPTION

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 transmits/receives data but selectively reads required data only. Refer to LAN-42, "CAN Communication Signal Chart".

How to Perform Trouble Diagnosis

INFOID:0000000004657814

Α

В

D

WT

Н

BASIC CONCEPT

- To perform trouble diagnosis, it is the most important to have understanding about vehicle systems (control and mechanism) thoroughly.
- It is also important to clarify customer complaints before inspection.

First of all, reproduce symptoms, and understand them fully. Ask customer about his/her complaints carefully. In some cases, it will be necessary to check symptoms by driving vehicle with customer.



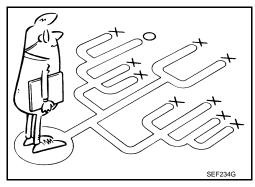
Customers are not professional. It is dangerous to make an easy guess like "maybe the customer means that...," or "maybe the customer mentions this symptom".



 It is essential to check symptoms right from the beginning in order to repair malfunctions completely.

For intermittent malfunctions, reproduce symptoms based on interview with customer and past examples. Do not perform inspection on ad hoc basis. Most intermittent malfunctions are caused by poor contacts. In this case, it will be effective to shake suspected harness or connector by hand. When repairing without any symptom diagnosis, you cannot judge if malfunctions have actually been eliminated.

- After completing diagnosis, always erase diagnostic memory.
- For intermittent malfunctions, move harness or harness connector by hand. Then check for poor contact or reproduced open circuit.



INTRODUCTION

- Before troubleshooting, verify customer complaints.
- If a vehicle malfunction is difficult to reproduce, harnesses, harness connectors or terminals may be malfunctioning. Hold and shake these parts to make sure they are securely connected.
- When using a circuit tester to measure voltage or resistance of each circuit, be careful not to damage or deform connector terminals.

WORK FLOW

1./

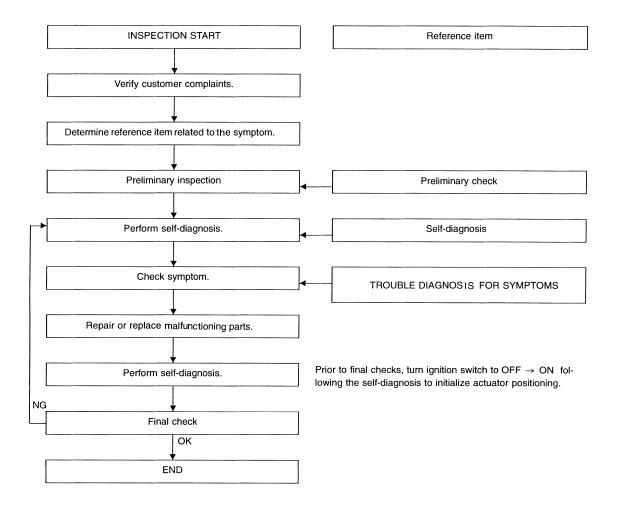
L

Ν

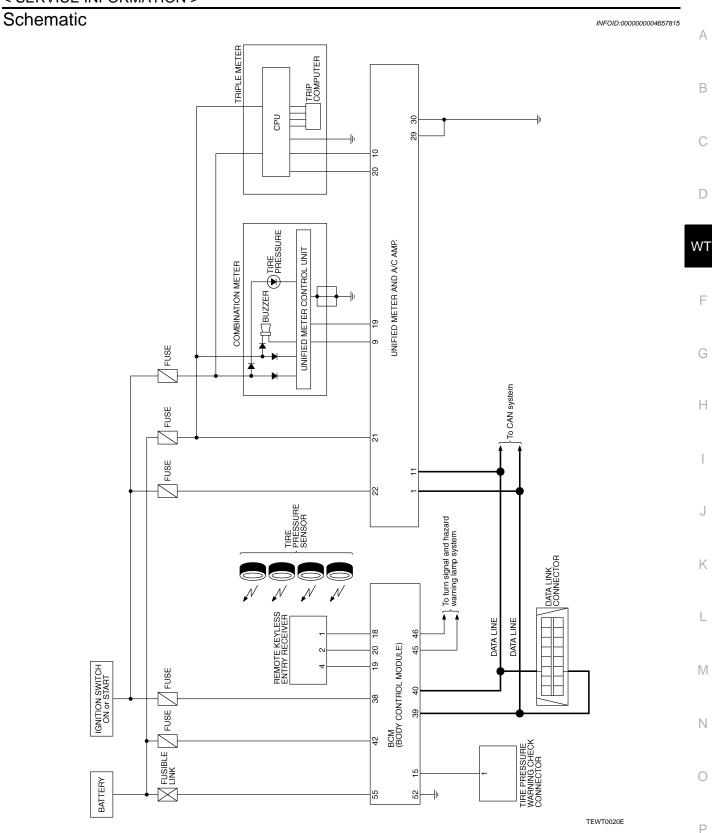
0

Р

Revision: 2009 October WT-11 2008 & 2009 350Z



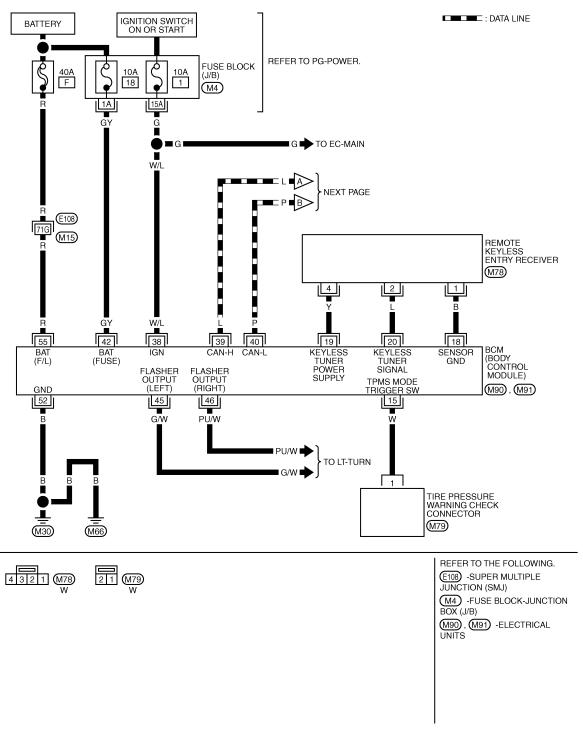
SEIA0100E



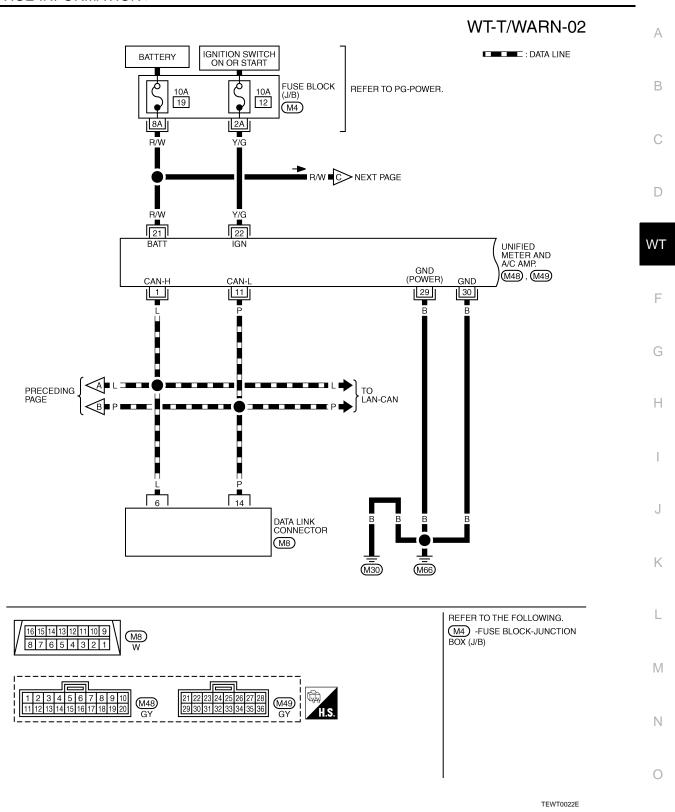
Wiring Diagram - T/WARN -

INFOID:0000000004657816

WT-T/WARN-01

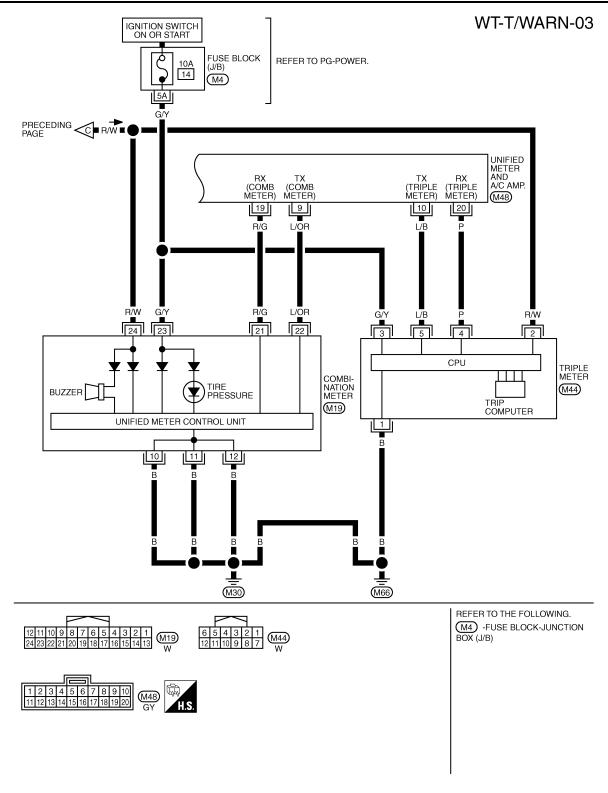


TEWT0056E



Revision: 2009 October WT-15 2008 & 2009 350Z

Р



TEWT0023E

Trouble Diagnosis Chart by Symptom

INFOID:0000000004657817

If low tire pressure warning lamp turns ON, perform self-diagnosis. Refer to WT-20, "CONSULT-III Function (BCM)".

Symptom	Check item	Reference page
Warning lamp does not come on when ignition switch is turned on.	CAN communication line	
	Combination meter	<u>WT-28</u>
	BCM	

< SERVICE INFORMATION >

Symptom	Check item	Reference page		
	ID registration			
Warning lamp stays on when ignition switch is turned on.	BCM connector or circuit	<u>WT-28</u>		
on.	BCM			
Warning lamp blinks when ignition switch is turned on.	BCM connector or circuit			
	BCM	<u>WT-29</u>		
Turn signal lamp blinks when ignition switch is turned	ignal lamp blinks when ignition switch is turned BCM connector or circuit			
on.	BCM	<u>WT-30</u>		
	Transmitter			
	Remote keyless entry receiver connector or circuit			
ID registration can not be operated.	Remote keyless entry receiver	<u>WT-30</u>		
	BCM connector or circuit			
	BCM			

Control Unit Input/Output Signal Standard for BCM

INFOID:0000000004657818

Α

В

D

Standards using a circuit tester and oscilloscope

Terminal (Wire color)	Item	Condition	Voltage (V) Approx. value	•
15 (W)	Tire pressure warning check connector	Always	5V	•
18 (B)	Remote keyless entry receiver (Ground)	_	0V	-
10 (V)	Remote keyless entry receiver	Stand-by	(V) 6 4 2 0 ••• 0.2s	
(Power supply)	Press any of the keyfob switches	(V) 6 4 2 0 ** 0.2s	=	

Ν

0

Ρ

< SERVICE INFORMATION >

Terminal (Wire color)	Item	Condition	Voltage (V) Approx. value
20 (L) Remote keyless entry receiver		Stand-by	(V) 6 4 2 0 •• 0.2s OCC3881D
20 (2)	(Signal)	Press any of the keyfob switches	(V) 6 4 2 0 0 OCC3880D
38 (W/L)	Ignition switch	Ignition switch ON or START	Battery voltage (12V)
39 (L)	Data line (CAN H)	_	_
40 (P)	Data line (CAN L)	_	_
42 (GY)	Battery power supply (Fuse)	Always	Battery voltage (12V)
45 (G/W)	Turn signal (left)	Ignition switch ON Combination switch is turn left ON	(V) 15 10 5 0 500 ms
46 (PU/W)	Turn signal (right)	Ignition switch ON Combination switch is turn right ON	(V) 15 10 5 0 500 ms
52 (B)	GND	_	oV
55 (R)	Battery power supply (F/L)	Always	Battery voltage (12V)

ID Registration Procedure

INFOID:0000000004657819

ID REGISTRATION WITH ACTIVATION TOOL

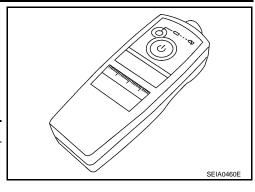
This procedure must be done after replacing or rotating wheels, replacing transmitter or BCM.

- 1. Select "AIR PRESSURE MONITOR" on "SELECT WORK ITEM".
- 2. Touch "WORK SUPPORT" on "SELECT DIAG MODE" screen, and select "ID REGIST".

< SERVICE INFORMATION >

- 3. With the activation tool (J-45295) pushed against the front-left transmitter position of the tire air valve, press the button then keep 5 seconds.
- 4. Register the IDs in order from FR LH, FR RH, RR RH to RR LH. When ID registration of each wheel has been completed, a buzzer sounds and turn signal lamp (LH/ RH) blinks.

Activation tire position		Buzzer	Turn signal lamp	CONSULT-III	
1	Front LH	Once			
2	Front RH	2 times	2 times flashing	"Red"	
3	Rear RH	3 times	2 times hashing	"Green"	
4	Rear LH	4 times			



5. After completing all ID registrations, press "END" to complete the procedure.

NOTE:

Be sure to register the IDs in order from FR LH, FR RH, RR RH, to RR LH, or the self-diagnostic results display will not function properly.

ID REGISTRATION WITHOUT ACTIVATION TOOL

This procedure must be done after replacing or rotating wheels, replacing transmitter or BCM.

- 1. Select "AIR PRESSURE MONITOR" on "SELECT WORK ITEM".
- Touch "WORK SUPPORT" on "SELECT DIAG MODE" screen, and select "ID REGIST".
- Adjust the tire pressure to the values shown in the table below for ID registration, and drive the vehicle at 40 km/h (25 MPH) or more for a few minutes.

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

4. After completing all ID registrations, press "END" to complete the procedure.

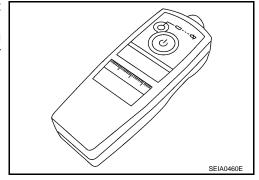
Activation tire position	CONSULT-III
Front LH	
Front RH	"Red"
Rear RH	"Green"
Rear LH	

Inflate all tires to proper pressure. Refer to <u>WT-34</u>.

Transmitter Wake Up Operation

WITH ACTIVATION TOOL

- 1. With the activation tool (J-45295) pushed against the front-left transmitter, press the button for 5 seconds.
 - When ignition switch ON, as the low tire pressure warning lamp blinks per the follow diagram, the respective transmitter then must be woken up.



WT

D

Α

G

F

Н

1

<

M

Ν

INFOID:0000000004657820

C

Р

Warning lamp blinking timing		Need to activation tire position	
ON a b	a : 0.3sec b : 1.3sec	Front LH	
ON a a b	a : 0.3sec b : 1.3sec	Front RH	
ON a a a a b	a : 0.3sec b : 1.3sec	Rear RH	
OFF a a a a a b	a : 0.3sec b : 1.3sec	Rear LH	
ON a b	a : 2sec b : 0.2sec	All tire	

SEIA0378E

- 2. Register the ID of wheel that warning lamp flashes. When wake up of registered wheel has been completed, turn signal lamp flashes two times.
- 3. After completing wake up of all transmitters, make sure low tire pressure warning lamp goes out.

CONSULT-III Function (BCM)

INFOID:0000000004657821

CONSULT-III MAIN FUNCTION

CONSULT-III can display each diagnostic item using the diagnostic test modes shown following.

BCM diagnosis part	Mode	Function	
Work support		This mode enables a technician to adjust some devices faster and more accurately by following the indications on CONSULT-III.	
Air pressure monitor	Self-diagnostic results	Self-diagnostic results can be read and erased quickly.	
	Data monitor	Input/Output data in the control unit can be read.	
	Active test	Diagnostic Test Mode in with CONSULT-III drives some actuators apart from the control unit (BCM) and also shifts some parameters in a specified range.	

WORK SUPPORT MODE

ID Read

The registered ID number is displayed.

ID Regist

Refer to WT-18, "ID Registration Procedure".

SELF-DIAG RESULTS MODE

Display Item List

DTC	Diagnostic item	Diagnostic item is detected when ···	Check items
C1704	FLAT_TIRE_FL	Front-left tire pressure drops to 190 kPa (1.90 kg/cm², 28 psi) or less.	
C1705	FLAT_TIRE_FR	Front-right tire pressure drops to 190 kPa (1.90 kg/cm², 28 psi) or less.	
C1706	FLAT_TIRE_RR	Rear-right tire pressure drops to 190 kPa (1.90 kg/cm ² , 28 psi) or less.	_
C1707	FLAT_TIRE_RL	Rear-left tire pressure drops to 190 kPa (1.90 kg/cm ² , 28 psi) or less.	
C1708	[NO_DATA]_FL	Data from front-left transmitter cannot be received.	
C1709	[NO_DATA]_FR	Data from front-right transmitter cannot be received.	WT oc
C1710	[NO_DATA]_RR	Data from rear-right transmitter cannot be received.	<u>WT-26</u>
C1711	[NO_DATA]_RL	Data from rear-left transmitter cannot be received.	

Α

В

D

Ν

Р

< SERVICE INFORMATION >

			01 11
DTC	Diagnostic item	Diagnostic item is detected when ···	Check items
C1712	[CHECKSUM_ERR]_FL	Checksum data from front-left transmitter is malfunctioning.	
C1713	[CHECKSUM_ERR]_FR	Checksum data from front-right transmitter is malfunctioning.	WT-26
C1714	[CHECKSUM_ERR]_RR	Checksum data from rear-right transmitter is malfunctioning.	<u>W1-20</u>
C1715	[CHECKSUM_ERR]_RL	Checksum data from rear-left transmitter is malfunctioning.	
C1716	[PRESSDATA_ERR]_FL	Air pressure data from front-left transmitter is malfunctioning.	
C1717	[PRESSDATA_ERR]_FR	Air pressure data from front-right transmitter is malfunctioning.	WT-27
C1718	[PRESSDATA_ERR]_RR	Air pressure data from rear-right transmitter is malfunctioning.	<u> </u>
C1719	[PRESSDATA_ERR]_RL	Air pressure data from rear-left transmitter is malfunctioning.	
C1720	[CODE_ERROR]_FL	Function code data from front-left transmitter is malfunctioning.	
C1721	[CODE_ERROR]_FR	Function code data from front-right transmitter is malfunctioning.	WT-26
C1722	[CODE_ERROR]_RR	Function code data from rear-right transmitter is malfunctioning.	<u> </u>
C1723	[CODE_ERROR]_RL	Function code data from rear-left transmitter is malfunctioning.	
C1724	[BATT_VOLT_LOW]_FL	Battery voltage of front-left transmitter drops.	
C1725	[BATT_VOLT_LOW]_FR	Battery voltage of front-right transmitter drops.	WT 2C
C1726	[BATT_VOLT_LOW]_RR	Battery voltage of rear-right transmitter drops.	<u>WT-26</u>
C1727	[BATT_VOLT_LOW]_RL	Battery voltage of rear-left transmitter drops.	
C1729	VHCL_SPEED_SIG_ERR	Vehicle speed signal is error.	<u>WT-27</u>

NOTE:

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

DATA MONITOR MODE

Display Item List

Monitor item (Unit)	Remarks
VEHICLE SPEED [km/h] or [mph]	Vehicle speed is displayed.
AIR PRESS FL [kpa] or [psi]	Tire pressure is displayed.
AIR PRESS FR [kPa] or [psi]	Tire pressure is displayed.
AIR PRESS RR [kpa] or [psi]	Tire pressure is displayed.
AIR PRESS RL [kpa] or [psi]	Tire pressure is displayed.
ID REGST FL 1 [DONE/YET]	Registration ID is displayed.
ID REGST FR 1 [DONE/YET]	Registration ID is displayed.
ID REGST RR 1 [DONE/YET]	Registration ID is displayed.
ID REGST RL 1 [DONE/YET]	Registration ID is displayed.
WARNING LAMP [ON/OFF]	Control status of low tire pressure warning lamp is displayed.
BUZZER [ON/OFF]	Buzzer in combination meter is displayed.

ACTIVE TEST MODE

NOTE:

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

TEST ITEM LIST

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

< SERVICE INFORMATION >

Diagnosis Procedure with Warning Lamp Function (Without CONSULT-III) INFOID-00000004657822

DESCRIPTION

During driving, the low tire pressure warning system receives the signal transmitted from the transmitter installed in each wheel. The control unit (BCM) of this system has pressure judgment and trouble diagnosis functions.

FUNCTION

When the low tire pressure warning system detects low inflation pressure or another unusual symptom, the warning lamps in the combination meter comes on. To start the self-diagnostic results mode, ground terminal of the tire pressure warning check connector. The malfunction location is indicated by the warning lamp flashing. Refer to <u>PG-39</u>.

Malfunction Code Chart

Code (warning lamp blinks)	Diagnosis item	Reference	
15	Front-left tire pressure drops to 190 kPa (1.90 kg/cm ² , 28 psi) or less.		
16	16 Front-right tire pressure drops to 190 kPa (1.90 kg/cm², 28 psi) or less.		
17	Rear-right tire pressure drops to 190 kPa (1.90 kg/cm², 28 psi) or less.	_	
18	Rear-left tire pressure drops to 190 kPa (1.90 kg/cm², 28 psi) or less.		
21	21 Transmitter no data (front - left)		
22 Transmitter no data (front - right)		WT OC	
23	Transmitter no data (rear - right)	<u>WT-26</u>	
24	Transmitter no data (rear - left)		
31	Transmitter checksum error (front - left)		
32	Transmitter checksum error (front - right)	<u>WT-26</u>	
33	Transmitter checksum error (rear - right)		
34	Transmitter checksum error (rear - left)		
35	36 Transmitter pressure data error (front - right)		
36			
37	Transmitter pressure data error (rear - right)	<u>WT-27</u>	
38 Transmitter pressure data error (rear - left)			
41	Transmitter function code error (front - left)		
42	Transmitter function code error (front - right)	MT oo	
43	Transmitter function code error (rear - right)	<u>WT-26</u>	
44	Transmitter function code error (rear - left)		
45	` '		
46			
47	Transmitter battery voltage low (rear - right)		
48 Transmitter battery voltage low (rear - left)			
52	Vehicle speed signal	WT-27	

LOW TIRE PRESSURE WARNING LAMP SYMPTOM CHART

< SERVICE INFORMATION >

Diagnosis Item	Symptom (Ignition switch ON)	Low tire pressure warning lamp	Cause	Action
	Warning light comes on immediately and turns off after 1 second.	ON 1 sec > stays OFF SEIA0592E	All wheel transmitters are "activated" (working).	None (system OK)
	Warning light blinks on for 2 seconds, then turns off for 0.2 seconds-repeats.	ON 2 sec > OFF 0.2 sec	All wheel transmitters are not activated.	Activate all wheel transmitters. Refer to WT-19, "Transmitter Wake Up Operation".
Low tire pres- sure warning lamp	Warning light blinks 1 time.	Blinks 1 time ON 0.3 sec > OFF 1.0 sec	Front LH wheel transmitter is not activated.	Activate front LH wheel transmitter. Refer to WT-19. "Transmitter Wake Up Operation".
	Warning light blinks 2 times.	Blinks 2 times ON 0.3 sec > OFF 0.3 sec SEIA0595E	Front RH wheel transmitter is not activated.	Activate front RH wheel transmitter. Refer to WT-19, "Transmitter Wake Up Operation".
	Warning light blinks 3 times.	Blinks 3 times ON 0.3 sec > OFF 0.3 sec SEIA0596E	Rear RH wheel transmitter is not activated.	Activate rear RH wheel transmitter. Refer to WT-19. "Transmitter Wake Up Operation".

Ν

0

P

< SERVICE INFORMATION >

Diagnosis Item	Symptom (Ignition switch ON)	Low tire pressure warning lamp	Cause	Action
	Warning light blinks 4 times.	Blinks 4 times ON 0.3 sec > OFF 0.3 sec SEIA0597E	Rear LH wheel transmitter is not activated.	Activate rear LH wheel transmitter. Refer to <u>WT-19</u> , <u>"Transmitter Wake Up Operation"</u> .
Low tire pressure warning			Tire pressure is low.	Check tire pressure with CONSULT-III. Refer to WT-20, "CONSULT-III Function (BCM)".
lamp		Comes ON and stays ON	The fuse for combination meter from battery is pulled out.	Check the fuse for combination meter from battery. Install or replace (if needed).
	Warning light comes on and does not turn		BCM connector pulled out.	Check BCM connector. Reconnect if needed.
	off.		Low tire pressure or tire pressure monitor- ing system malfunc- tion.	Perform CONSULT-III Self- Diagnosis. Refer to WT-20, "CONSULT-III Function (BCM)". Perform ID Registration if needed. Refer to WT-18, "ID Registration Procedure".
Turn signal lamp	Turn signal lamp does not flash 2 times or horn does not sound after transmit- ter activation.		Tool J-45295 (special service tool) battery low. Ignition OFF during activation. Tool J-45295 (special service tool) not positioned correctly. Transmitters already activated.	 Install new battery. Make sure ignition is ON during activation. Position tool correctly during activation. None

NOTE:

If more than one wheel transmitter is NOT activated, the warning light blinking patterns for those wheels will combine. (Example: one blink/OFF/three blinks = Rear LH and Rear RH transmitters are not activated.)

Preliminary Check

INFOID:0000000004657823

BASIC INSPECTION

1. CHECK ALL TIRE PRESSURES

• Check all tire pressures. Refer to WT-34.

OK or NG

OK >> GO TO 2.

NG >> Adjust tire pressure to specified value.

2. CHECK LOW TIRE PRESSURE WARNING LAMP ACTIVATION

• Check low tire pressure warning lamp activation.

Dose low tire pressure warning lamp activate for 1 second when ignition switch is turned "ON"?

YES >> GO TO 3.

NO >> Check fuse and combination meter.

Revision: 2009 October WT-24 2008 & 2009 350Z

< SERVICE INFORMATION > 3.CHECK CONNECTOR Disconnect BCM harness connectors M90 and M91. 2. Check terminals for damage or loose connection. OK or NG В OK >> GO TO 4. >> Repair or replace damaged parts. NG 4. CHECK ACTIVATION TOOL C · Check activation tool battery. OK or NG D OK >> Perform self-diagnosis. NG >> Replace activation tool battery. Н

K

Ν

Р

WT-25 Revision: 2009 October 2008 & 2009 350Z

TROUBLE DIAGNOSIS FOR SELF-DIAGNOSTIC ITEMS

< SERVICE INFORMATION >

TROUBLE DIAGNOSIS FOR SELF-DIAGNOSTIC ITEMS

Transmitter or Control Unit (BCM)

INFOID:0000000004657824

MALFUNCTION CODE NO. 21, 22, 23 or 24

1. CHECK CONTROL UNIT

• Drive for several minutes. Check all tire pressures with CONSULT-III "DATA MONITOR".

Are all tire pressures displayed 0 kPa?

YES >> GO TO 2.

NO >> GO TO 3.

2.CHECK REMOTE KEYLESS ENTRY RECEIVER CONNECTOR

- 1. Disconnect remote keyless entry receiver harness connector M78.
- Check terminals for damage or loose connection.
- 3. Reconnect harness connector.

OK or NG

OK >> Replace BCM refer to BCS-15, "Removal and Installation of BCM", then GO TO 3.

NG >> Repair or replace remote keyless entry receiver harness connector.

3.ID REGISTRATION

· Perform ID registration of all transmitters.

Is there any tire that ID cannot be registered to?

YES >> Replace transmitter of the tire, then GO TO 5.

NO >> GO TO 4.

4. VEHICLE DRIVING

• Drive at a speed of 40 km/h (25 MPH) or more for several minutes without stopping.

Check all tire pressures with CONSULT-III "DATA MONITOR" within 15 minutes after vehicle speed becomes 17 km/h (11 MPH).

Does "DATA MONITOR" display tire pressure as normal without any warning lamp?

YES >> INSPECTION END

NO >> GO TO 5.

5.ID REGISTRATION AND VEHICLE DRIVING

- 1. Perform ID registration of all transmitters.
- Drive at a speed of 40 km/h (25 MPH) or more for 3 minutes, and then drive the vehicle at any speed for 10 minutes. Then check all tire pressures with CONSULT-III "DATA MONITOR" within 5 minutes.

Does "DATA MONITOR" display tire pressure as normal without any warning lamp?

YES >> INSPECTION END

NO >> Go to the inspection applicable to DTC.

Transmitter - 1

INFOID:0000000004657825

MALFUNCTION CODE NO. 31, 32, 33, 34, 41, 42, 43, 44, 45, 46, 47 or 48

1. ID REGISTRATION (CORRECTION OF TRANSMITTER LOCATION)

- 1. Perform ID registration of all transmitters.
- Drive at a speed of 40 km/h (25 MPH) or more for 3 minutes, and then drive the vehicle at any speed for 10 minutes.

>> GO TO 2.

2. REPLACE TRANSMITTER

- 1. Check low tire pressure warning condition again, and replace malfunctioning transmitter.
- Perform ID registration of all transmitters.

Can ID registration of all transmitters be completed?

TROUBLE DIAGNOSIS FOR SELF-DIAGNOSTIC ITEMS

< SERVICE INFORMATION > YES >> GO TO 3. NO >> Go to the inspection 1. Refer to WT-26, "Transmitter or Control Unit (BCM)". Α 3.VEHICLE DRIVING Drive at a speed of 40 km/h (25 MPH) or more for 3 minutes, and then drive the vehicle at any speed for 10 В minutes. Then check all tire pressures with CONSULT-III "DATA MONITOR" within 5 minutes. Does "DATA MONITOR" display tire pressure as normal without any warning lamp? YES >> INSPECTION END NO >> Replace malfunctioning transmitter, and perform "Step 3" again. Transmitter - 2 INFOID:0000000004657826 D MALFUNCTION CODE NO. 35, 36, 37 or 38 1. CHECK ALL TIRE PRESSURE WT Check all tire pressures. Refer to WT-34. Are there any tires whose pressure is "64 psi" or more? >> Adjust tire pressure to specified value. NO >> GO TO 2. 2.VEHICLE DRIVING Perform ID registration of all transmitters. 2. Drive at a speed of 40 km/h (25 MPH) or more for several minutes without stopping. Check all tire pressures with CONSULT-III "DATA MONITOR" within 15 minutes after vehicle speed becomes 17 km/h (11 MPH). Н >> Replace transmitter with new one if "DATA MONITOR" displays 64 psi or more. Then GO TO 3. 3.ID REGISTRATION AND VEHICLE DRIVING 1. Perform ID registration of all transmitters. 2. Drive at a speed of 40 km/h (25 MPH) or more for 3 minutes, and then drive the vehicle at any speed for 10 minutes. Then check all tire pressures with CONSULT-III "DATA MONITOR" within 5 minutes. Does "DATA MONITOR" display tire pressure as normal without any warning lamp? YES >> INSPECTION END K NO >> Go to the inspection applicable to DTC. Vehicle Speed Signal INFOID:0000000004657827 MALFUNCTION CODE NO. 52 1. CHECK SELF-DIAGNOSTIC RESULTS Perform "CONSULT-III Start procedure". Touch "BCM" on "SELECT SYSTEM" screen. Touch "SELF-DIAG RESULTS" on "SELECT DIAG MODE" screen. N Check display contents in self-diagnostic results. Is the "CAN COMM CIRCUIT" displayed in the self-diagnosis display? YES >> Perform trouble diagnosis for CAN communication system. >> Check combination meter. Refer to DI-44, "CONSULT-III Function (METER/M&A)". NO Р

Revision: 2009 October WT-27 2008 & 2009 350Z

< SERVICE INFORMATION >

TROUBLE DIAGNOSIS FOR SYMPTOMS

Warning Lamp Does Not Come On When Ignition Switch Is Turned On

INFOID:0000000004657828

DIAGNOSTIC PROCEDURE

1. CHECK SELF-DIAGNOSTIC RESULTS

- 1. Perform "CONSULT-III Start Procedure".
- 2. Touch "BCM" on "SELECT SYSTEM" screen.
- 3. Touch "SELF-DIAG RESULTS" on "SELECT DIAG MODE" screen.
- Check display contents in self-diagnostic results.

Is the "CAN COMM CIRCUIT" displayed in the self-diagnosis display items?

YES >> Perform trouble diagnosis for CAN communication system.

NO >> GO TO 2.

2.CHECK COMBINATION METER

Check combination meter function.

OK or NG

OK >> GO TO 3.

NG >> Check combination meter. Refer to DI-44, "CONSULT-III Function (METER/M&A)".

3.CHECK LOW TIRE PRESSURE WARNING LAMP

- Turn ignition switch OFF.
- Disconnect BCM harness connectors M90 and M91.

Does the warning lamp activate?

YES >> Replace BCM. Refer to BCS-15, "Removal and Installation of BCM".

NO >> Check combination meter and repair or replace.

Warning Lamp Stays On When Ignition Switch Is Turned On

INFOID:0000000004657829

DIAGNOSTIC PROCEDURE

1.PERFORM SELF-DIAGNOSIS

- 1. Turn ignition switch ON. (Do not start engine.)
- 2. Select "SELF-DIAG RESULTS" mode for "AIR PRESSURE MONITOR" with CONSULT-III.
- Touch "ERASE".
- 4. Turn ignition switch OFF.
- 5. Start engine.

Does low tire pressure warning lamp turn OFF?

YES >> INSPECTION END

NO >> GO TO 2.

2. PERFORM ID REGISTRATION

Perform ID registration all transmitters. Refer to WT-18, "ID Registration Procedure".

Does low tire pressure warning lamp turn OFF?

YES >> INSPECTION END

NO >> GO TO 3.

3. CHECK CONNECTOR

- Turn ignition switch OFF.
- Disconnect BCM harness connectors M90 and M91.
- 3. Check terminals for damage or loose connections.

OK or NG

OK >> GO TO 4.

NG >> Repair or replace damaged parts.

4. CHECK POWER SUPPLY CIRCUIT (BATTERY)

< SERVICE INFORMATION >

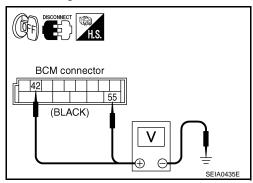
- 1. Turn ignition switch OFF.
- 2. Disconnect BCM harness connector.
- Check voltage between BCM harness connector M91 terminals 42, 55 and ground.

Connector	Terminal	Voltage (Approx.)
M91	42 - Ground	Battery voltage
	55 - Ground	Dattery voltage

OK or NG

OK >> GO TO 5.

NG >> Check BCM power supply circuit for open or short.



5. CHECK POWER SUPPLY CIRCUIT (IGN)

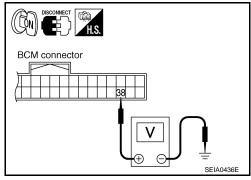
- 1. Turn ignition switch OFF.
- 2. Disconnect BCM harness connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between BCM harness connector M90 terminal 38 and ground.

Connector	Terminal	Voltage (Approx.)
M90	38 - Ground	Battery voltage

OK or NG

OK >> GO TO 6.

NG >> Check BCM power supply circuit for open or short.



6. CHECK GROUND CIRCUIT

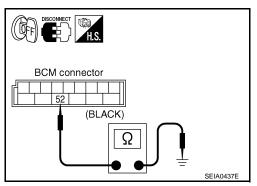
- 1. Turn ignition switch OFF.
- Disconnect BCM harness connector.
- 3. Check continuity between BCM harness connector M91 terminal 52 and ground.

Continuity should exist.

OK or NG

OK >> Replace BCM. Refer to <u>BCS-15</u>, "Removal and Installation of BCM".

NG >> Repair or replace BCM ground circuit.



Warning Lamp Blinks When Ignition Switch Is Turned On

NOTE:

If warning lamp blinks below, the system is normal. Blink Mode A

F

WT

D

Α

В

G

Н

Κ

L

M

N

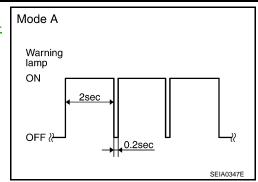
0

INFOID:0000000004657830

Р

< SERVICE INFORMATION >

This mode shows transmitter status is OFF-mode.
 Perform transmitter wake up operation. Refer to <u>WT-19</u>, "<u>Transmitter Wake Up Operation</u>".



DIAGNOSTIC PROCEDURE

1. CHECK CONNECTOR

- Turn ignition switch OFF.
- 2. Disconnect BCM harness connector M90.
- 3. Check terminals for damage or loose connections.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace damaged parts.

2.CHECK TIRE PRESSURE WARNING CHECK SWITCH CIRCUIT

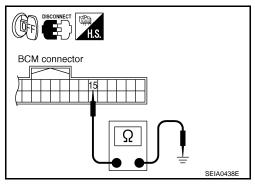
- Turn ignition switch OFF.
- 2. Disconnect BCM harness connector.
- 3. Check continuity between BCM harness connector M90 terminal 15 and ground.

Continuity should exist.

OK or NG

OK >> Replace BCM. Refer to <u>BCS-15</u>, "Removal and Installation of <u>BCM"</u>.

NG >> Repair or replace harness connector.



Turn Signal Lamp Blinks When Ignition Switch Is Turned On

INFOID:0000000004657831

DIAGNOSTIC PROCEDURE

1. CHECK TIRE PRESSURE WARNING CHECK SWITCH CIRCUIT

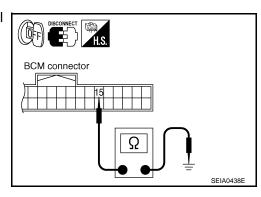
- 1. Turn ignition switch OFF.
- Disconnect BCM harness connector.
- 3. Check continuity between BCM harness connector M90 terminal 15 and ground.

Continuity should exist.

OK or NG

OK >> Check turn signal lamp operation. Refer to <u>LT-61</u>.

NG >> Repair or replace harness connector.



ID Registration Cannot Be Completed

INFOID:0000000004657832

DIAGNOSTIC PROCEDURE

< SERVICE INFORMATION >

1.ID REGISTRATION (ALL)

• Perform ID registration of all transmitters.

Can ID registration of all transmitters be completed?

YES >> INSPECTION END

NO >> Go to trouble diagnosis procedure. Refer to WT-26.

Α

В

С

D

WT

F

G

Н

J

K

L

M

Ν

0

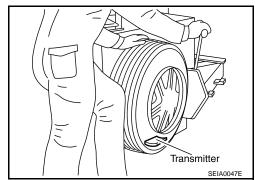
Р

REMOVAL AND INSTALLATION

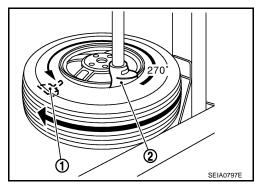
Transmitter INFOID:000000004657833

REMOVAL

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

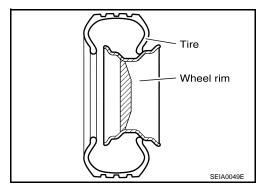


- 3. Turn tire so that valve hole is at bottom and bounce so that transmitter (1) is near valve hole. Carefully lift tire onto turntable and position valve hole (and transmitter) 270 degree from mounting/dismounting head (2).
- 4. Lubricate tire well and remove first side of the tire. Reach inside the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



INSTALLATION

1. Put first side of tire onto rim.

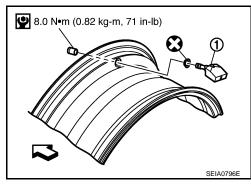


2. Mount transmitter (1) on rim and tighten nut.

CAUTION:

Speed for tightening nut should be less than 10 rpm.





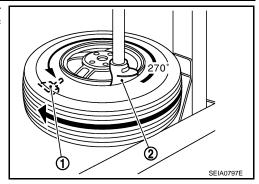
REMOVAL AND INSTALLATION

< SERVICE INFORMATION >

 Place wheel on turntable of tire machine. Ensure that transmitter (1) is 270 degree from mounting head (2) when second side of tire is fitted.

NOTE:

Do not touch transmitter at mounting head.



- 4. Lubricate tire well and fit second side of tire as normal. Ensure that tire does not rotate relative to rim.
- 5. Inflate tire and fit to appropriate wheel position.

REMOTE KEYLESS ENTRY RECEIVER

Removal

- 1. Remove the front kicking plate LH. Refer to El-30.
- 2. Remove the dash side finisher LH. Refer to El-30.
- 3. Remove the instrument lower cover. Refer to IP-12.
- 4. Remove the glove box assembly. Refer to <u>IP-12</u>.
- 5. Disconnect keyless entry receiver connector.

Installation

Install in the reverse order of removal.

BCM (BODY CONTROL MODULE)

Removal

Remove the BCM. Refer to BCS-15, "Removal and Installation of BCM".

Installation

Install in the reverse order of removal.

WT

D

Α

В

Н

K

L

M

Ν

0

Р

SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE INFORMATION >

SERVICE DATA AND SPECIFICATIONS (SDS)

Road Wheel

Kind of wheel		Aluminum	Steel (for temporary tire)	
Maximum radial run aut limit	Lateral deflection	Loca than 0.2 mm/0.042 in)	Less than 1.5 mm (0.059 in)	
Maximum radial runout limit	Vertical deflection	Less than 0.3 mm(0.012 in)		
Maximum Allawahla unhalanaa	Dynamic (At rim flange)	Less than 5g (0.	14 oz) (one side)	
Maximum Allowable unbalance	Static (At rim flange)	Less than 10g (0.35 oz)		
			Unit: mm (in)	
Wheel size		Offset		
18 × 8JJ		30 (1.18)		
18 × 8 1/2JJ		33 (1.30)		
18 × 9JJ		30 (1.18)		
19 × 10JJ		30 (1.18)		
17 × 4T		30 (1.18)		

Tire (NFOID:0000000004657835

Unit: kPa (kg/cm², psi)

	Air pressure				
Tire size	Front		Rear		
	Coupe	Roadster	Coupe	Roadster	
225/45R18 91W	240 (2.4, 35)		_		
245/40R18 93W	_		240 (2.4, 35)		
245/45R18 96W	240 (2.4, 35)	_	_	_	
265/35R19 94W	_	_		_	
T145/80 D17	420 (4.2, 60)				

Tightening Torque

INFOID:0000000004657836

Wheel nut	108 N·m (11 kg-m, 80 ft-lb)