

A  
B  
C

# WT

## SECTION

### ROAD WHEELS & TIRES

## CONTENTS

WT

<p><b>INDEX FOR DTC</b> ..... 3</p> <p style="padding-left: 20px;">DTC No. Index ..... 3</p> <p><b>PRECAUTIONS</b> ..... 4</p> <p style="padding-left: 20px;">Precautions for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER" ..... 4</p> <p style="padding-left: 20px;">Precautions ..... 4</p> <p style="padding-left: 20px;">Service Notice or Precautions ..... 5</p> <p><b>PREPARATION</b> ..... 6</p> <p style="padding-left: 20px;">Special Service Tools ..... 6</p> <p style="padding-left: 20px;">Commercial Service Tools ..... 6</p> <p><b>NOISE, VIBRATION AND HARSHNESS (NVH)</b></p> <p><b>TROUBLESHOOTING</b> ..... 7</p> <p style="padding-left: 20px;">NVH Troubleshooting Chart ..... 7</p> <p><b>ROAD WHEEL</b> ..... 8</p> <p style="padding-left: 20px;">Inspection ..... 8</p> <p style="padding-left: 40px;">ALUMINUM WHEEL ..... 8</p> <p style="padding-left: 40px;">STEEL WHEEL (FOR EMERGENCY USE) ..... 8</p> <p><b>ROAD WHEEL TIRE ASSEMBLY</b> ..... 9</p> <p style="padding-left: 20px;">Balancing Wheels (Bonding Weight Type) ..... 9</p> <p style="padding-left: 40px;">REMOVAL ..... 9</p> <p style="padding-left: 40px;">WHEEL BALANCE ADJUSTMENT ..... 9</p> <p style="padding-left: 20px;">Tire Rotation ..... 10</p> <p><b>TIRE PRESSURE MONITORING SYSTEM</b> ..... 11</p> <p style="padding-left: 20px;">System Components ..... 11</p> <p style="padding-left: 20px;">System Description ..... 11</p> <p style="padding-left: 40px;">TRANSMITTER ..... 11</p> <p style="padding-left: 40px;">REMOTE KEYLESS ENTRY RECEIVER ..... 11</p> <p style="padding-left: 40px;">BCM (BODY CONTROL MODULE) ..... 12</p> <p style="padding-left: 40px;">LOW TIRE PRESSURE WARNING LAMP ..... 12</p> <p style="padding-left: 40px;">RUN-FLAT TIRE WARNING LAMP ..... 12</p> <p style="padding-left: 40px;">DISPLAY UNIT ..... 13</p> <p><b>CAN COMMUNICATION</b> ..... 14</p> <p style="padding-left: 20px;">System Description ..... 14</p> <p><b>TROUBLE DIAGNOSES</b> ..... 15</p> <p style="padding-left: 20px;">Schematic ..... 15</p> <p style="padding-left: 20px;">Wiring Diagram — T/WARN — ..... 16</p> <p style="padding-left: 20px;">Control Unit Input/Output Signal Standard ..... 19</p> <p style="padding-left: 20px;">ID Registration Procedure ..... 20</p> <p style="padding-left: 40px;">ID REGISTRATION WITH ACTIVATION TOOL.. 20</p>	<p style="padding-left: 20px;">ID REGISTRATION WITHOUT TRANSMITTER ACTIVATION TOOL ..... 21</p> <p style="padding-left: 20px;">Transmitter Wake Up Operation ..... 22</p> <p style="padding-left: 40px;">WITH ACTIVATION TOOL ..... 22</p> <p style="padding-left: 20px;">Self-Diagnosis ..... 23</p> <p style="padding-left: 40px;">DESCRIPTION ..... 23</p> <p style="padding-left: 40px;">FUNCTION ..... 23</p> <p style="padding-left: 20px;">LOW TIRE PRESSURE WARNING LAMP DIAGNOSTIC CHART ..... 23</p> <p style="padding-left: 20px;">RUN-FLAT TIRE WARNING LAMP DIAGNOSTIC CHART ..... 24</p> <p style="padding-left: 20px;">CONSULT-II Function (BCM) ..... 25</p> <p style="padding-left: 40px;">FUNCTION ..... 25</p> <p style="padding-left: 40px;">CONSULT-II SETTING PROCEDURE ..... 25</p> <p style="padding-left: 40px;">WORK SUPPORT MODE ..... 25</p> <p style="padding-left: 40px;">SELF-DIAGNOSTIC RESULTS MODE ..... 26</p> <p style="padding-left: 40px;">DATA MONITOR MODE ..... 27</p> <p style="padding-left: 40px;">ACTIVE TEST MODE ..... 27</p> <p style="padding-left: 20px;">How to Perform Trouble Diagnosis for Quick and Accurate Repair ..... 30</p> <p style="padding-left: 40px;">INTRODUCTION ..... 30</p> <p style="padding-left: 40px;">WORK FLOW ..... 30</p> <p style="padding-left: 20px;">Preliminary Check ..... 31</p> <p style="padding-left: 20px;">Malfunction Code/Symptom Chart ..... 32</p> <p><b>TROUBLE DIAGNOSIS FOR SELF-DIAGNOSTIC ITEMS</b> ..... 33</p> <p style="padding-left: 20px;">Transmitter or Control Unit (BCM) ..... 33</p> <p style="padding-left: 40px;">MALFUNCTION CODE NO. 21, 22, 23 OR 24 ... 33</p> <p style="padding-left: 20px;">Transmitter - 1 ..... 33</p> <p style="padding-left: 40px;">MALFUNCTION CODE NO. 31, 32, 33, 34, 41, 42, 43, 44, 45, 46, 47 OR 48 ..... 33</p> <p style="padding-left: 20px;">Transmitter - 2 ..... 34</p> <p style="padding-left: 40px;">MALFUNCTION CODE NO. 35, 36, 37 OR 38 ... 34</p> <p style="padding-left: 20px;">Vehicle Speed Signal ..... 35</p> <p style="padding-left: 40px;">MALFUNCTION CODE NO. 52 ..... 35</p> <p><b>TROUBLE DIAGNOSIS FOR SYMPTOMS</b> ..... 36</p> <p style="padding-left: 20px;">Low Tire Pressure Warning Lamp Does Not Come On When Ignition Switch Is Turned On ..... 36</p> <p style="padding-left: 20px;">Low Tire Pressure Warning Lamp Stays On When Ignition Switch Is Turned On ..... 36</p>
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F  
G  
H  
I  
J  
K  
L  
M

---

Low Tire Pressure Warning Lamp Blinks When Ignition Switch Is Turned On .....	37	<b>REMOVAL AND INSTALLATION .....</b>	<b>39</b>
Run-Flat Tire Warning Lamp Stays On When Ignition Switch is Turned On .....	38	Transmitter .....	39
Turn Signal Lamp Blinks When Ignition Switch Is Turned On .....	38	REMOVAL .....	39
ID Registration Can Not Be Completed .....	38	INSTALLATION .....	39
		<b>SERVICE DATA AND SPECIFICATIONS (SDS) .....</b>	<b>41</b>
		Road Wheel .....	41
		Tire .....	41

# INDEX FOR DTC

## INDEX FOR DTC

PF0:00024

### DTC No. Index

NES000L2

DTC	Items (CONSULT-II screen terms)	Reference page
C1704	LOW PRESSURE FL	<a href="#">WT-31</a>
C1705	LOW PRESSURE FR	
C1706	LOW PRESSURE RR	
C1707	LOW PRESSURE RL	
C1708	[NO DATA] FL	<a href="#">WT-33</a>
C1709	[NO DATA] FR	
C1710	[NO DATA] RR	
C1711	[NO DATA] RL	
C1712	[CHECKSUM ERR] FL	<a href="#">WT-33</a>
C1713	[CHECKSUM ERR] FR	
C1714	[CHECKSUM ERR] RR	
C1715	[CHECKSUM ERR] RL	
C1716	[PRESSDATA ERR] FL	<a href="#">WT-34</a>
C1717	[PRESSDATA ERR] FR	
C1718	[PRESSDATA ERR] RR	
C1719	[PRESSDATA ERR] RL	
C1720	[CODE ERR] FL	<a href="#">WT-33</a>
C1721	[CODE ERR] FR	
C1722	[CODE ERR] RR	
C1723	[CODE ERR] RL	
C1724	[BATT VOLT LOW] FL	<a href="#">WT-33</a>
C1725	[BATT VOLT LOW] FR	
C1726	[BATT VOLT LOW] RR	
C1727	[BATT VOLT LOW] RL	
C1729	VHCL SPEED SIG ERR	<a href="#">WT-35</a>
C1730	FLAT TIRE FL	<a href="#">WT-38</a>
C1731	FLAT TIRE FR	
C1732	FLAT TIRE RR	
C1733	FLAT TIRE RL	

A  
B  
C  
D  
WT  
F  
G  
H  
I  
J  
K  
L  
M

# PRECAUTIONS

## PRECAUTIONS

PFP:00001

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

NES000L3

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 and SB section of this Service Manual.

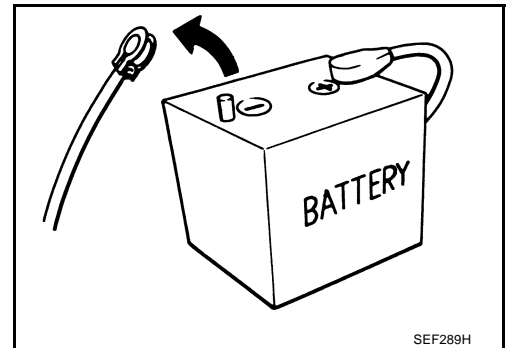
#### WARNING:

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

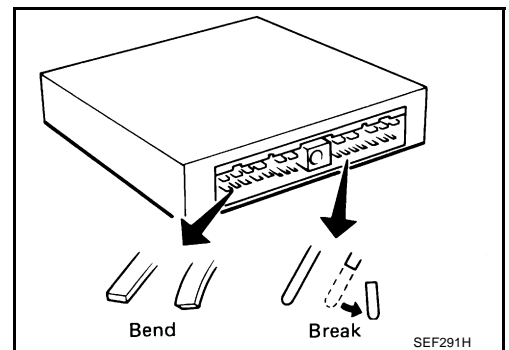
#### Precautions

NES000L5

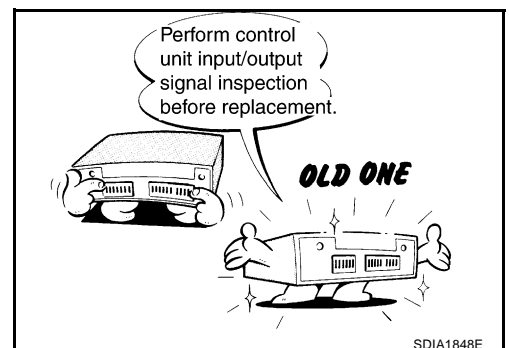
- Before connecting or disconnecting the BCM harness connector, turn ignition switch "OFF" and disconnect the battery cable from the negative terminal. Battery voltage is applied to BCM even if ignition switch is turned "OFF".



- When connecting or disconnecting pin connectors into or from BCM, take care not to damage pin terminals (bend or break). When connecting pin connectors make sure that there are not any bends or breaks on BCM pin terminals.



- Before replacing BCM, perform control unit input/output signal inspection and make sure whether BCM functions properly or not. Refer to [WT-19. "Control Unit Input/Output Signal Standard"](#).



# PRECAUTIONS

## Service Notice or Precautions

NES000L6

- Low tire pressure warning lamp flashes 1min, then turns ON when occurring any malfunction except low tire pressure. Delete the memory with CONSULT-II, or register the ID to turn low tire pressure warning lamp OFF. Refer to [WT-26, "How to Erase Self- diagnostic Results"](#) , [WT-20, "ID Registration Procedure"](#) .
- ID registration is required when replacing or rotating wheels, replacing transmitter or BCM. Refer to [WT-20, "ID Registration Procedure"](#) .
- Replace grommet seal, valve core and cap of the transmitter in TPMS every tire replacement by reaching wear limit of tire.

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# PREPARATION

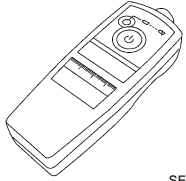
## PREPARATION

PFP:00002

### Special Service Tools

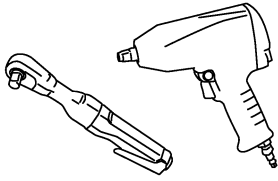
NES000GJ

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

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

### Commercial Service Tools

NES000GK

Tool name	Description
Power tool  PBIC0190E	Loosen bolts and nuts

# NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

## NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

PFP:00003

### NVH Troubleshooting Chart

NES000GL

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

Reference page		FAX-4, FAX-10, FSU-6	WT-8	WT-9	WT-41	WT-10	—	—	WT-41	NVH in PR section	NVH in RFD section	NVH in FAX and FSU section	NVH in RAX and RSU section	Refer to TIRES in this chart.	Refer to ROAD WHEEL in this chart.	NVH in FAX, RAX section	NVH in BR section	NVH in PS 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	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
		Shake	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
		Vibration				x				x	x		x	x					x
		Shimmy	x	x	x	x	x	x	x	x			x	x	x	x	x	x	x
		Judder	x	x	x	x	x	x		x			x	x		x		x	x
		Poor quality ride or handling	x	x	x	x	x	x		x			x	x		x			
	ROAD WHEEL	Noise	x	x	x			x			x	x	x	x	x		x	x	x
		Shake	x	x	x			x			x		x	x	x		x	x	x
		Shimmy, Judder	x	x	x			x					x	x	x		x	x	x
		Poor quality ride or handling	x	x	x			x					x	x	x				

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# ROAD WHEEL

## ROAD WHEEL

PFP:40300

### Inspection ALUMINUM WHEEL

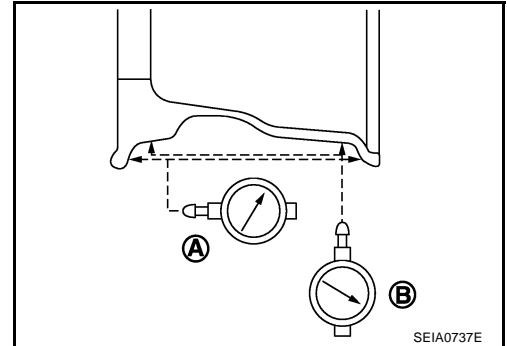
NES000KX

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 illustration.

**Lateral runout limit (A) : 0.3 mm (0.012 in)**

**Radial runout limit (B) : 0.3 mm (0.012 in)**

- c. If the total runout value exceeds the limit, replace aluminum wheel.



### STEEL WHEEL (FOR EMERGENCY USE)

1. Check tires for wear and improper inflation.
2. Check wheels for deformation, cracks and other damage. If deformed, remove wheel and check wheel runout.
  - a. Remove tire from steel wheel and mount wheel on a 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.

**Lateral runout limit (A) : (1+2)/2**

**Vertical runout limit (B) : (3+4)/2**

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

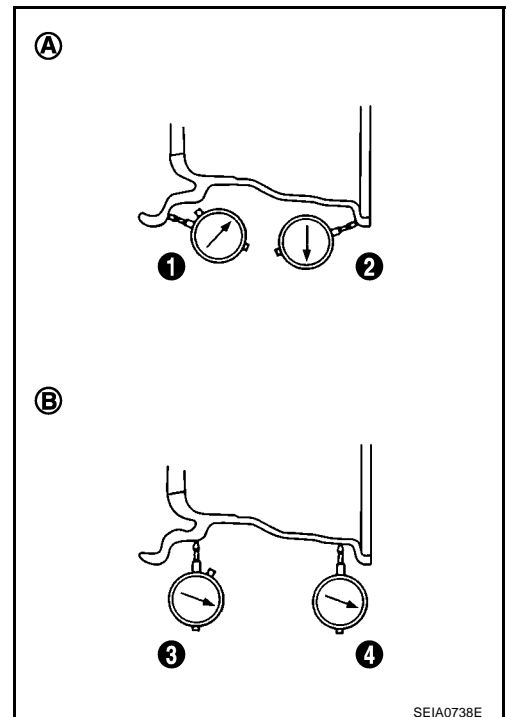
#### **CAUTION:**

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

**Lateral runout limit (A) : 1.5 mm (0.059 in)**

**Vertical runout limit (B) : 1.5 mm (0.059 in)**

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





# ROAD WHEEL TIRE ASSEMBLY

## ROAD WHEEL TIRE ASSEMBLY

PFP:40300

### Balancing Wheels (Bonding Weight Type) REMOVAL

NES000KY

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

#### CAUTION:

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

### WHEEL BALANCE ADJUSTMENT

- If a tire balance machine has adhesion balance weight mode settings and drive-in weight mode setting, select and adjust a drive-in weight mode suitable for road wheels.
1. Set road wheel on tire balance machine using the center hole as a guide. Start the tire balance machine.
  2. When inner and outer unbalance values are shown on the tire balance machine indicator, multiply outer unbalance value by  $5/3$  to determine balance weight that should be used. Select the outer balance weight with a value closest to the calculated value above and install 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.
- a. Indicated unbalance value  $\times 5/3$  = balance weight to be installed

#### Calculation example:

23 g (0.81 oz)  $\times 5/3$  = 38.33 g (1.35 oz)  $\Rightarrow$  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:

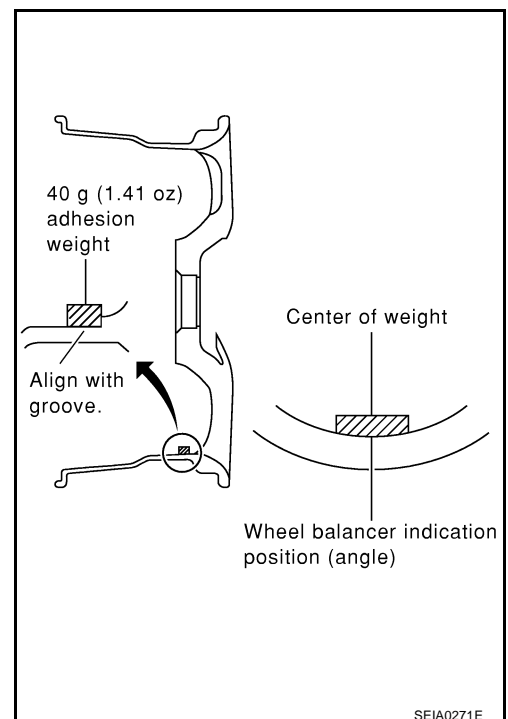
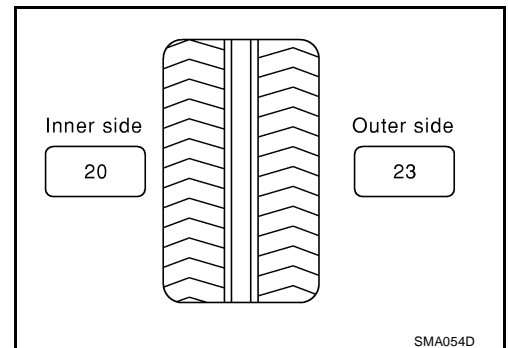
36.2  $\Rightarrow$  35 g (1.23 oz)

36.3  $\Rightarrow$  37.5 g (1.32 oz)

- b. Install balance weight in the position shown in the figure.
- c. 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 non-reusable; always replace with new ones.
- Do not install more than three sheets of balance weight.



# ROAD WHEEL TIRE ASSEMBLY

- d. 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:**

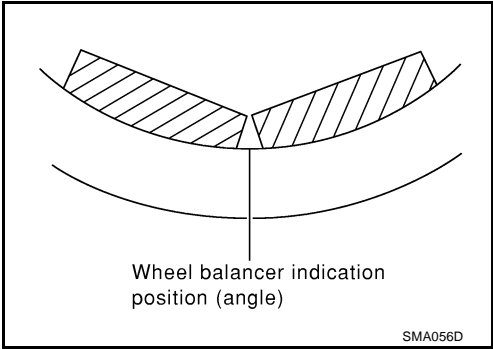
**Do not install one balance weight sheet on top of another.**

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 (0.2 oz) each or below.  
 6. If either residual unbalance value exceeds 5 g (0.2 oz), repeat installation procedures.



Wheel balance	Dynamic (At rim flange)	Static (At rim flange)
Maximum allowable unbalance	5 g (0.2 oz) (one side)	20 g (0.7 oz)

## Tire Rotation

NES000KZ

1. Follow the maintenance schedule for tire rotation service intervals. Refer to [MA-7, "Introduction of Periodic Maintenance"](#).
2. Do not include the spare tire when rotating the tires.
3. When installing the wheel, tighten wheel nuts to the specified torque.

**Wheel nuts : 108 N·m (11 kg-m, 80 ft-lb)**

**CAUTION:**

- When installing wheels, tighten them diagonally by dividing the work two to three times in order to prevent the wheels from developing any distortion.
  - Be careful not to tighten wheel nut at torque exceeding the criteria for preventing strain of disc rotor.
4. Perform the ID registration, after tire rotation. Refer to [WT-20, "ID Registration Procedure"](#).

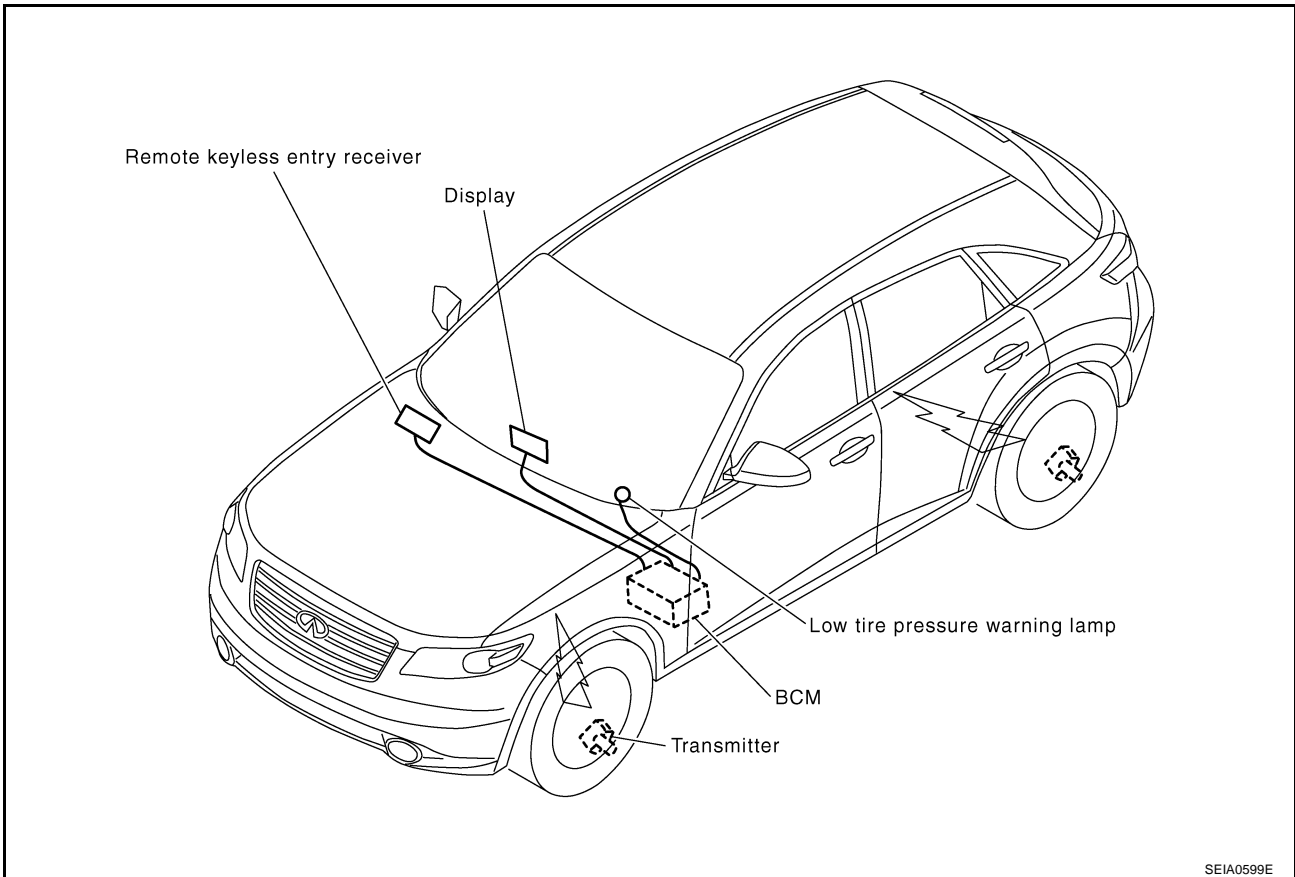
# TIRE PRESSURE MONITORING SYSTEM

## TIRE PRESSURE MONITORING SYSTEM

PFP:40720

### System Components

NES000GP

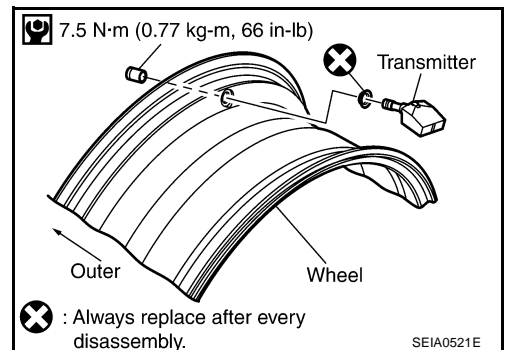


SEIA0599E

### System Description TRANSMITTER

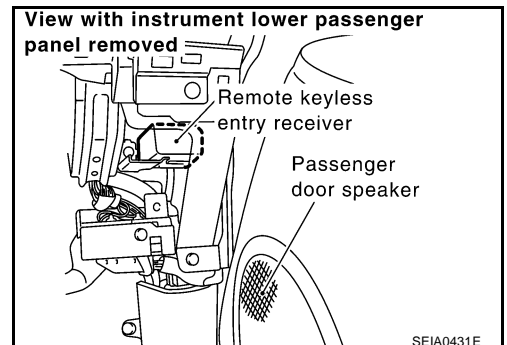
NES000GQ

A sensor-transmitter integrated with a valve is installed on a wheel, and transmits a detected air pressure signal in the form of a radio wave.



### REMOTE KEYLESS ENTRY RECEIVER

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

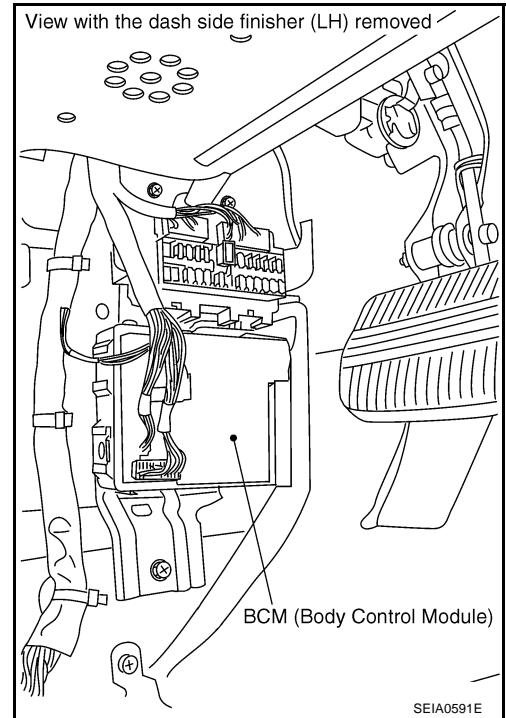


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# TIRE PRESSURE MONITORING SYSTEM

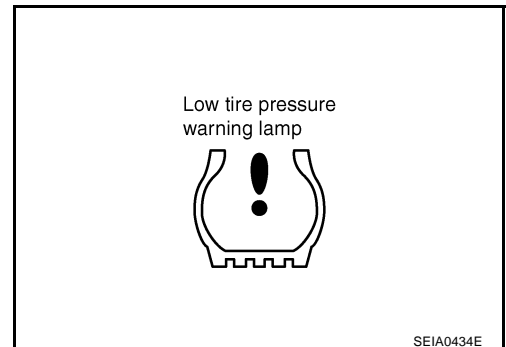
## BCM (BODY CONTROL MODULE)

The BCM reads the air pressure signal received by the remote keyless entry receiver, and controls the low tire pressure warning lamp and the buzzer 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 is activated.



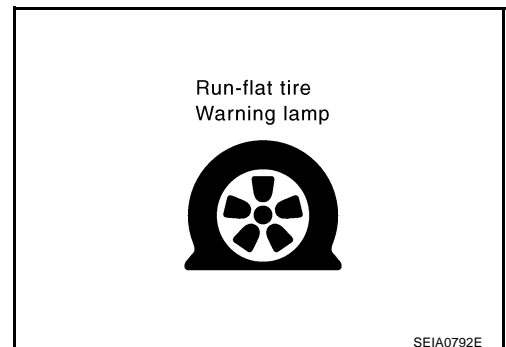
## Low Tire pressure Warning Lamp Indication

Condition	Warning lamp
Less than 173 kPa (1.8 kg/cm <sup>2</sup> , 25 psi) [Note 1]	ON
Low tire pressure warning system malfunction [Other diagnostic item]	Warning lamp flashes 1 min, then turns ON

Note 1: Standard air pressure is for 220 kpa (2.2 kg/cm<sup>2</sup>, 32 psi) vehicles.

## RUN-FLAT TIRE 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 run-flat tire warning lamp and buzzer are activated.



# TIRE PRESSURE MONITORING SYSTEM

## Run-Flat Tire Warning Lamp Indication

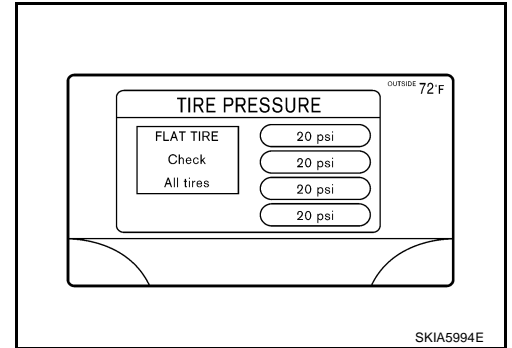
Condition	Warning lamp
Less than 86 kPa (0.88 kg/cm <sup>2</sup> , 12.5 psi) [Note 1]	ON

Note 1: Standard air pressure is for 220 kpa (2.2 kg/cm<sup>2</sup> , 32 psi) vehicles.

## DISPLAY UNIT

Displays the air pressure of each tire.

- After the ignition switch is turned ON, the pressure values are not displayed until the data of each wheel stabilizes.



A  
B  
C  
D  
WT  
F  
G  
H  
I  
J  
K  
L  
M

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## CAN COMMUNICATION

PFP:23710

### System Description

NES000GR

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-49. "CAN System Specification Chart"](#) .

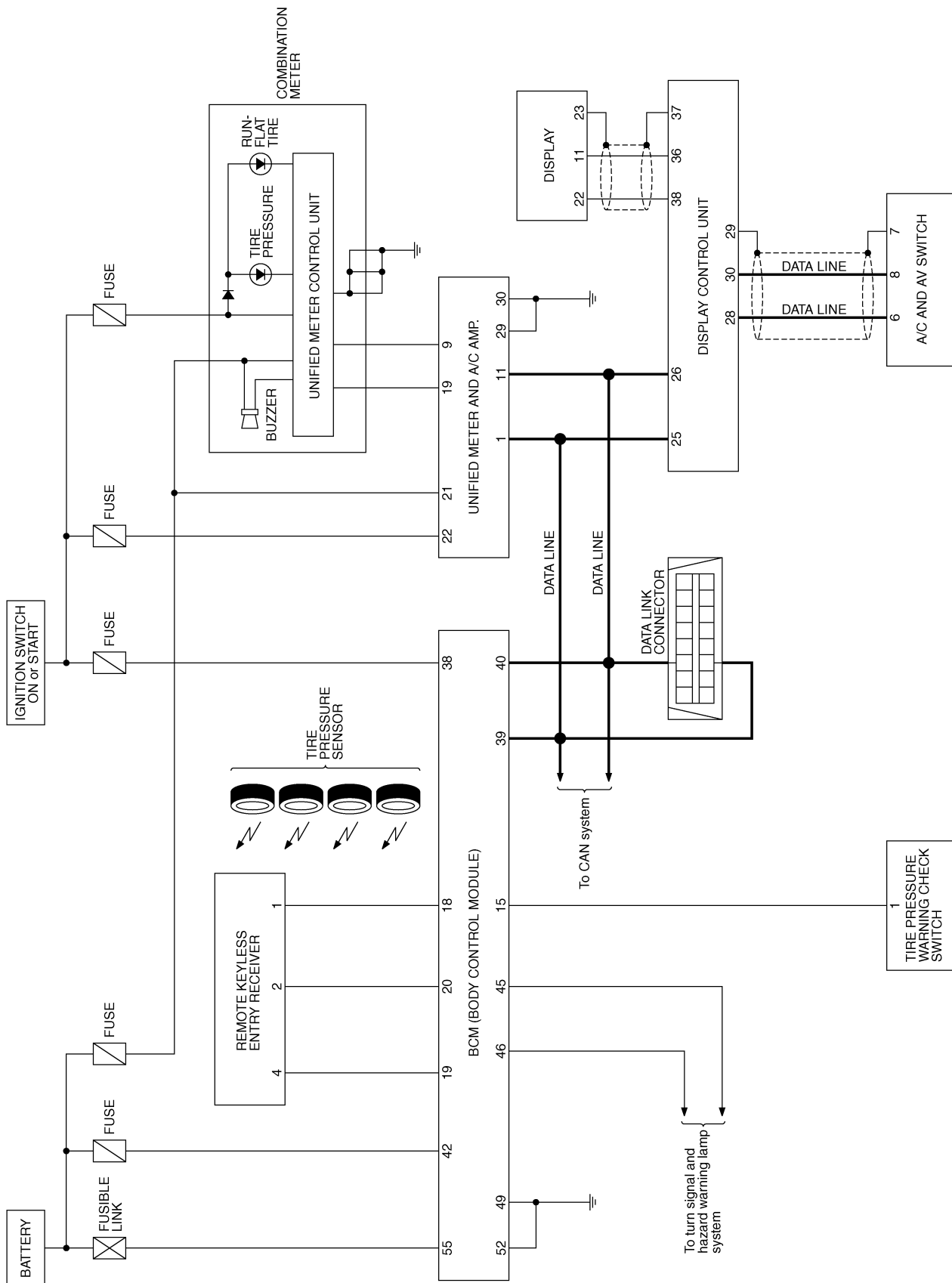
# TROUBLE DIAGNOSES

## TROUBLE DIAGNOSES

### Schematic

PFP:00004

NES000GS



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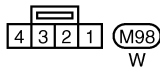
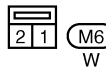
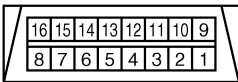
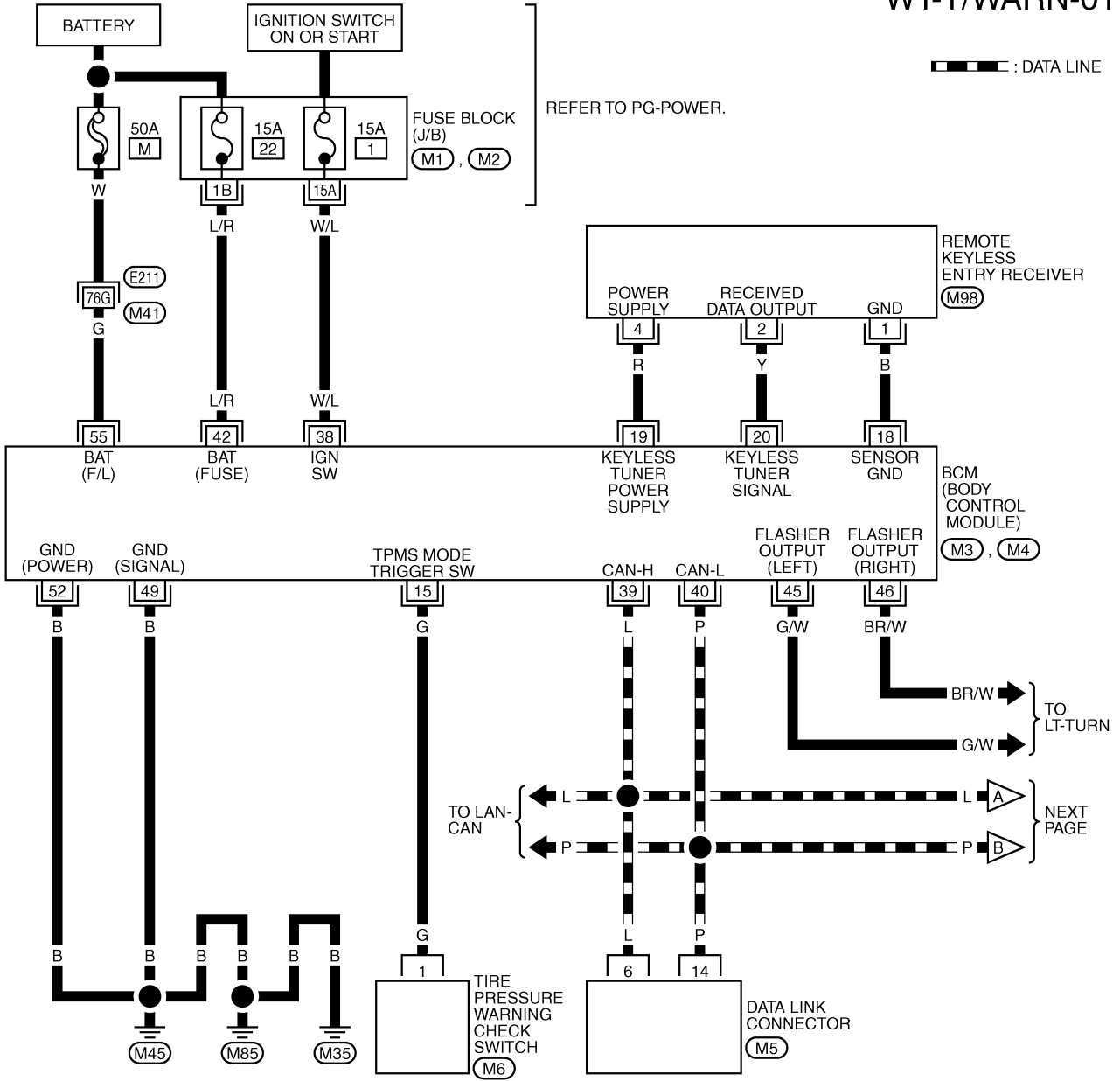
TEWM0162E

# TROUBLE DIAGNOSES

## Wiring Diagram — T/WARN —

NES000GT

### WT-T/WARN-01



REFER TO THE FOLLOWING.

- (E211) -SUPER MULTIPLE JUNCTION (SMJ)
- (M1), (M2) -FUSE BLOCK-JUNCTION BOX (J/B)
- (M3), (M4) -ELECTRICAL UNITS

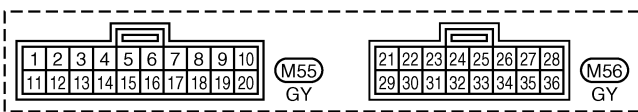
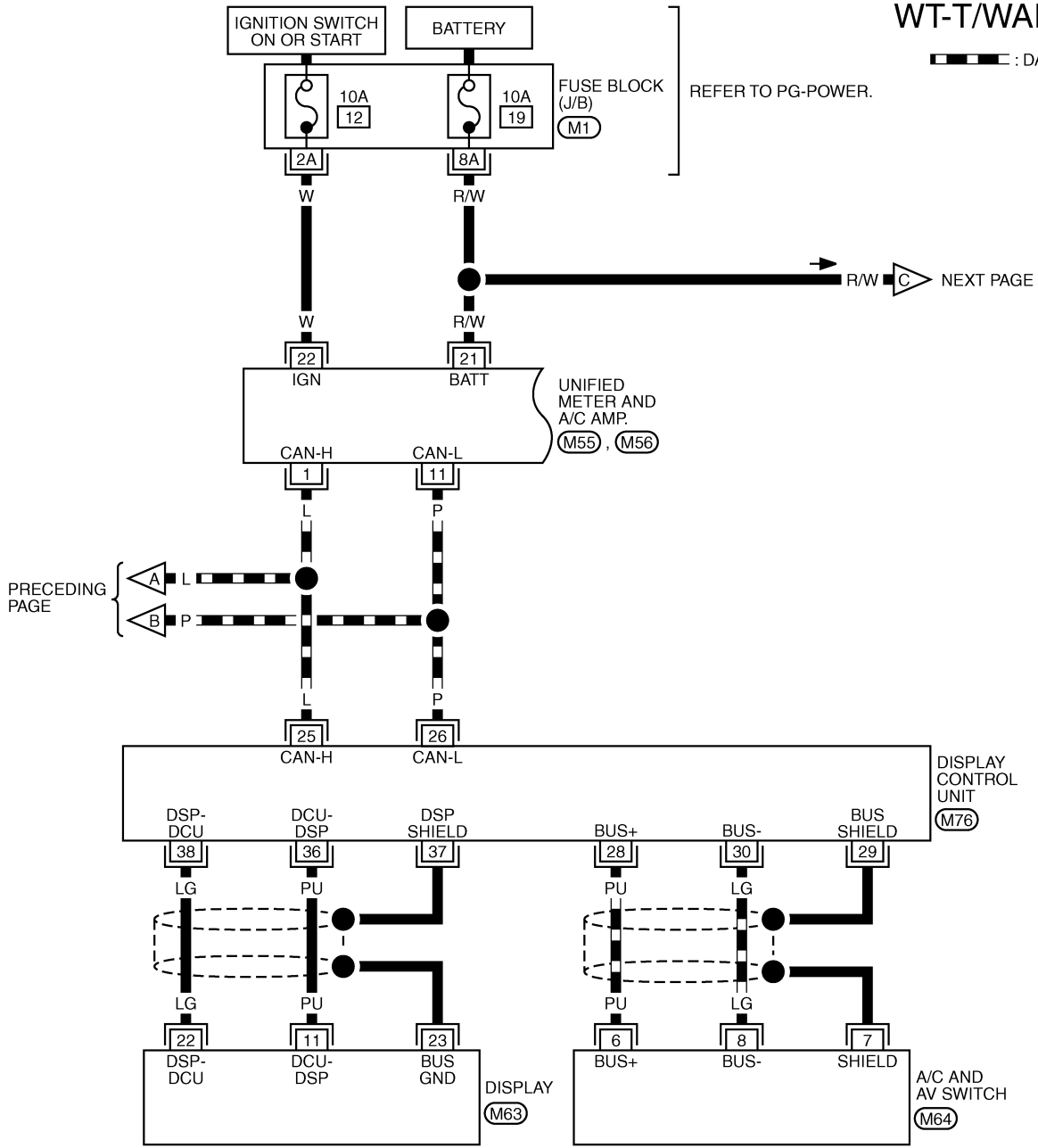
TEWM0149E



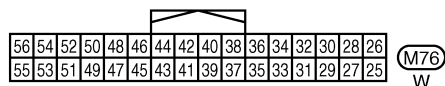
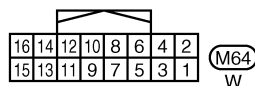
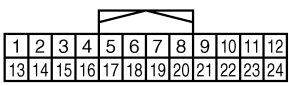
# TROUBLE DIAGNOSES

WT-T/WARN-02

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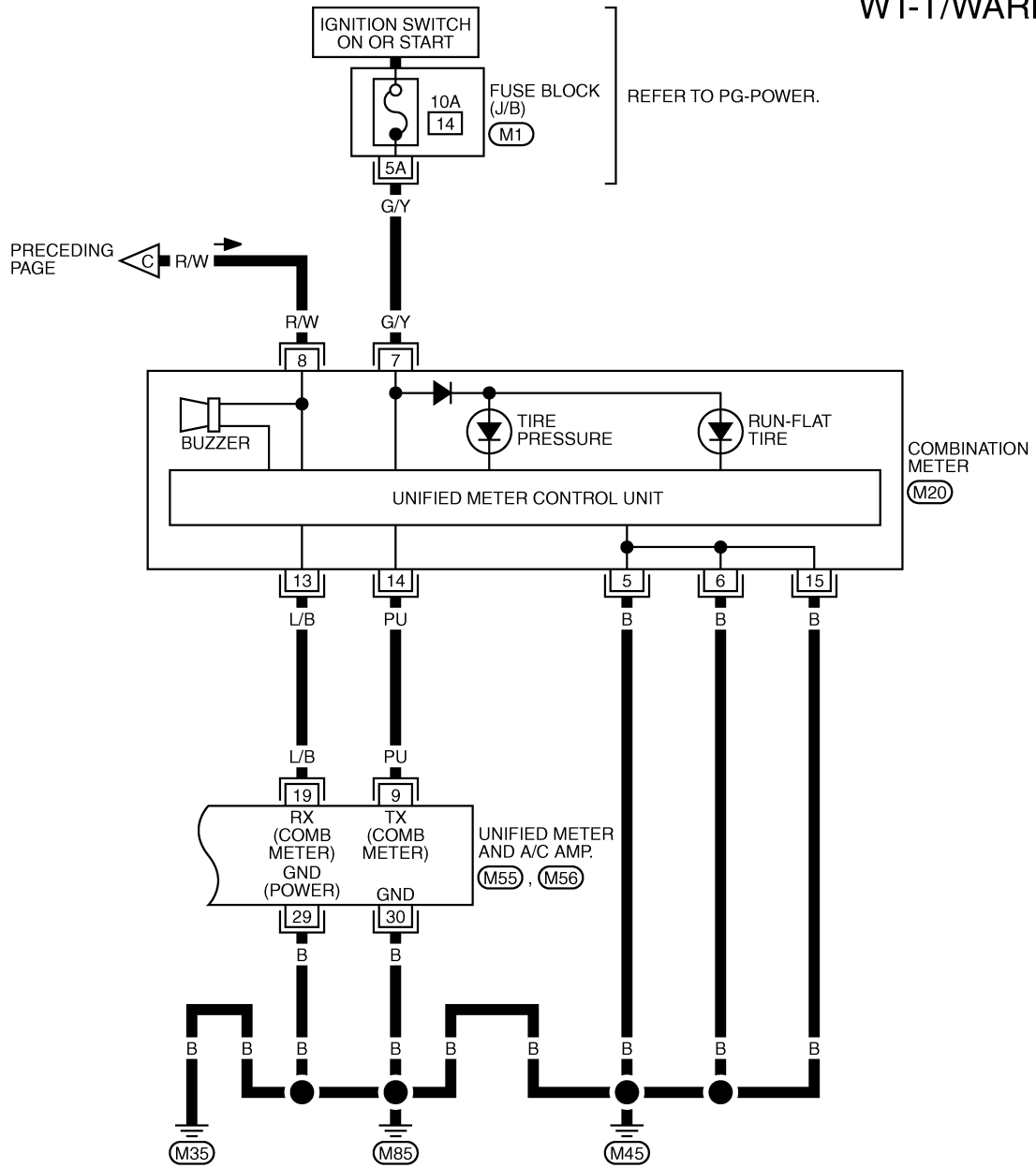


REFER TO THE FOLLOWING.  
(M1) - FUSE BLOCK-JUNCTION BOX (J/B)



# TROUBLE DIAGNOSES

WT-T/WARN-03

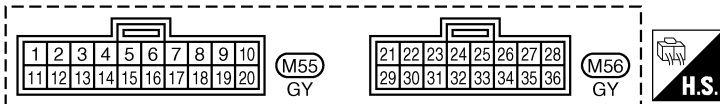
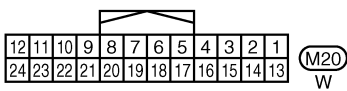


REFER TO PG-POWER.

PRECEDING PAGE

COMBINATION METER (M20)

UNIFIED METER AND A/C AMP. (M55, M56)



REFER TO THE FOLLOWING.

(M1) - FUSE BLOCK-JUNCTION BOX (J/B)

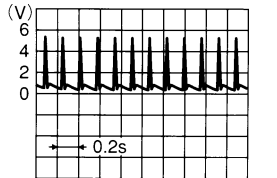
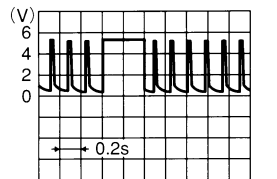
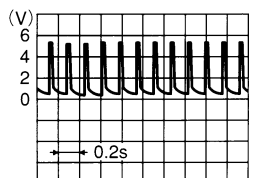
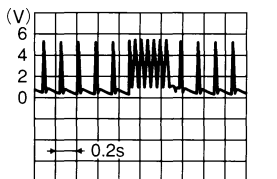
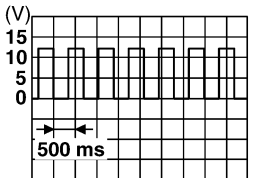
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# TROUBLE DIAGNOSES

## Control Unit Input/Output Signal Standard

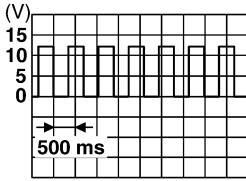
NES000GU

### Standards using a circuit tester and oscilloscope

Terminal		Item	Condition	Voltage (V) Approx. value
+ (wire color)	-			
15 (G)	Ground	Tire pressure warning check connector	Always	5V
18 (B)		Remote keyless entry receiver (Ground)	—	0V
19 (R)		Remote keyless entry receiver (Power supply)	Stand-by	
			Press any of the keyfob switches	
20 (Y)		Remote keyless entry receiver (Signal)	Stand-by	
			Press any of the keyfob switches	
38 (W/L)		Ignition switch	Ignition switch ON or START	Battery voltage (12V)
39 (L)		CAN-H	—	—
40 (P)		CAN-L	—	—
42 (L/R)		Battery power supply (Fuse)	Always	Battery voltage (12V)
45 (G/W)	Turn signal (left)	<ul style="list-style-type: none"> <li>● Ignition switch ON</li> <li>● Combination switch is turn signal (left)</li> </ul>		

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# TROUBLE DIAGNOSES

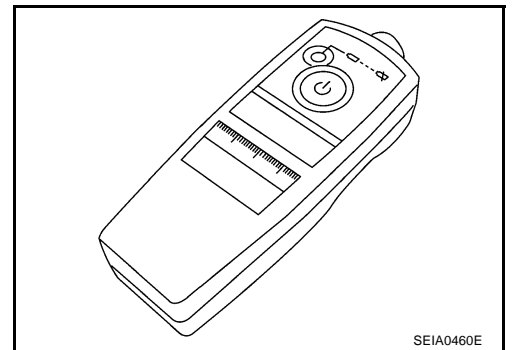
Terminal		Item	Condition	Voltage (V) Approx. value
+	-			
46 (BR/W)	Ground	Turn signal (right)	<ul style="list-style-type: none"> <li>● Ignition switch ON</li> <li>● Combination switch is turn signal (right)</li> </ul>	 SKIA3009J
49 (B)		Ground	—	0V
52 (B)				
55 (G)		Battery power supply (F/L)	Always	Battery voltage (12V)

## ID Registration Procedure ID REGISTRATION WITH ACTIVATION TOOL

NES000GV

**This procedure must be done after replacement of a transmitter, BCM or rotating wheels.**

1. Perform "CONSULT-II Start Procedure". Refer to [GI-38, "CONSULT-II Start Procedure"](#).
2. Select "AIR PRESSURE MONITOR" on "SELECT WORK ITEM"
3. Touch "WORK SUPPORT" on "SELECT DIAG MODE" screen, and select "ID REGIST".
4. With the transmitter activation tool (J-45295) pushed against the front-left transmitter position of the air valve, press and hold the button 5 seconds.
5. Register the IDs in order from FR LH, FR RH, RR RH to RR LH. When ID registration of each wheel has been completed, turn signal lamp blinks.



Activation tire position		Turn signal lamp	CONSULT-II
1	Front LH	2 times flashing	"YET" ↓ "DONE"
2	Front RH		
3	Rear RH		
4	Rear LH		

6. 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.

# TROUBLE DIAGNOSES

## ID REGISTRATION WITHOUT TRANSMITTER ACTIVATION TOOL

**CAUTION:**

This procedure must be done after replacement of a transmitter, BCM, or rotating wheels.

1. Perform "CONSULT-II Start Procedure". Refer to [GI-38, "CONSULT-II Start Procedure"](#).
2. Select "AIR PRESSURE MONITOR" on "SELECT WORK ITEM"
3. Touch "WORK SUPPORT" on "SELECT DIAG MODE" screen, and select "ID REGIST".
4. 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 several minutes.

**NOTE:**

If ID registration is unable, buzzer beeps.

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

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

Activation tire position	CONSULT-II
Front LH	"YET" ↓ "DONE"
Front RH	
Rear RH	
Rear LH	

6. Inflate all tires to proper pressure. Refer to [WT-41, "Tire"](#).

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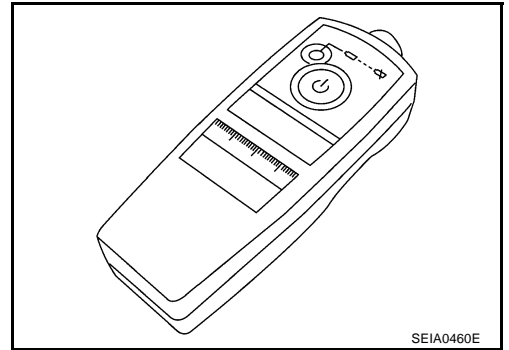
WT

# TROUBLE DIAGNOSES

NES000GW

## Transmitter Wake Up Operation WITH ACTIVATION TOOL

1. With the transmitter 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 following diagram, the respective transmitter then must be woken up.



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

SEIA0794E

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

# TROUBLE DIAGNOSES

NES000GX











## Self-Diagnosis DESCRIPTION

During driving, the low tire pressure warning system receives the signal transmitted from the transmitter installed in each wheel, and gives alarms when the tire pressure becomes low. 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 and the buzzer sounds.

## LOW TIRE PRESSURE WARNING LAMP DIAGNOSTIC CHART

Diagnosis Item	Symptom (Ignition switch ON)	Low tire pressure warning lamp	Cause	Action
Low tire pressure warning lamp	Warning lamp comes on immediately and turns off after 1 second	  ON 1 sec > stays OFF <small>SEIA0592E</small>	All wheel transmitters are "activated" (working).	None (system OK)
	Warning lamp blinks on for 2 seconds, then turns off for 0.2 seconds-repeats	 Blinks:  ON 2 sec > OFF 0.2 sec <small>SEIA0593E</small>	All wheel transmitters are not activated.	Activate all wheel transmitters. Refer to <a href="#">WT-22. "Transmitter Wake Up Operation"</a> .
	Warning lamp blinks 1 time	 Blinks 1 time ON 0.3 sec > OFF 1.0 sec <small>PEIA0073E</small>	Front LH wheel transmitter is not activated.	Activate front LH wheel transmitter. Refer to <a href="#">WT-22. "Transmitter Wake Up Operation"</a> .
	Warning lamp blinks 2 times	  Blinks 2 times ON 0.3 sec > OFF 0.3 sec <small>SEIA0595E</small>	Front RH wheel transmitter is not activated.	Activate front RH wheel transmitter. Refer to <a href="#">WT-22. "Transmitter Wake Up Operation"</a> .
	Warning lamp blinks 3 times	   Blinks 3 times ON 0.3 sec > OFF 0.3 sec <small>SEIA0596E</small>	Rear RH wheel transmitter is not activated.	Activate rear RH wheel transmitter. Refer to <a href="#">WT-22. "Transmitter Wake Up Operation"</a> .


# TROUBLE DIAGNOSES

Diagnosis Item	Symptom (Ignition switch ON)	Low tire pressure warning lamp	Cause	Action
Low tire pressure warning lamp	Warning lamp blinks 4 times	 Blinks 4 times ON 0.3 sec > OFF 0.3 sec <small>SEIA0597E</small>	Rear LH wheel transmitter is not activated.	Activate rear LH wheel transmitter. Refer to <a href="#">WT-22, "Transmitter Wake Up Operation"</a> .
	Warning lamp comes on and does not turn off	 Comes ON and stays ON <small>SEIA0598E</small>	The fuse for combination meter from battery is pulled out.	Check the fuse for combination meter from battery. Install or replace (if needed).
			BCM connector pulled out.	Check BCM connector. Reconnect if needed.
			Low tire pressure or tire pressure monitoring system malfunction.	<ul style="list-style-type: none"> <li>● Perform CONSULT-II Self Diagnosis. Refer to <a href="#">WT-23, "Self-Diagnosis"</a>.</li> <li>– Perform ID Registration if needed. Refer to <a href="#">WT-20, "ID Registration Procedure"</a>.</li> </ul>
Turn signal lamp	Turn signal lamp does not flash 2 times or horn does not sound after transmitter activation.		<ol style="list-style-type: none"> <li>1. Tool J-45295 (special service tool) battery low.</li> <li>2. Ignition OFF during activation.</li> <li>3. Tool J-45295 (special service tool) not positioned correctly.</li> <li>4. Transmitters already activated.</li> </ol>	<ol style="list-style-type: none"> <li>1. Install new battery.</li> <li>2. Make sure ignition is ON during activation.</li> <li>3. Position tool correctly during activation.</li> <li>4. None</li> </ol>

**NOTE:**

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

## RUN-FLAT TIRE WARNING LAMP DIAGNOSTIC CHART

Diagnosis Item	Symptom (Ignition Switch ON)	Run-flat tire warning lamp	Cause	Action
Run-flat tire warning lamp	Warning lamp comes on and does not turn off	 Comes ON and stays ON <small>SEIA0793E</small>	Tire pressure drop to 86 kPa (0.88 kg/cm <sup>2</sup> , 12.5 psi) or less.	<ol style="list-style-type: none"> <li>1. Check air pressure of tire.</li> <li>2. Repair or change the tire (if needed)</li> <li>3. Perform CONSULT-II Self Diagnosis. Refer to <a href="#">WT-25, "CONSULT-II Function (BCM)"</a></li> </ol>



# TROUBLE DIAGNOSES

## CONSULT-II Function (BCM) FUNCTION

NES000KR

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

BCM diagnosis part	Diagnostic test mode	Function	Reference
Air pressure monitor	WORK SUPPORT	This mode enables a technician to adjust some devices faster and more accurately by following the indications on CONSULT-II.	<a href="#">WT-25. "WORK SUPPORT MODE".</a>
	SELF-DIAGNOSTIC RESULTS	Self-diagnostic results can be read and erased quickly.	<a href="#">WT-26. "SELF-DIAGNOSTIC RESULTS MODE".</a>
	DATA MONITOR	Input/Output data in the control unit can be read.	<a href="#">WT-27. "DATA MONITOR MODE".</a>
	ACTIVE TEST	Diagnostic Test Mode in with CONSULT-II drives some actuators apart from the control unit (BCM) and also shifts some parameters in a specified range.	<a href="#">WT-27. "ACTIVE TEST MODE".</a>

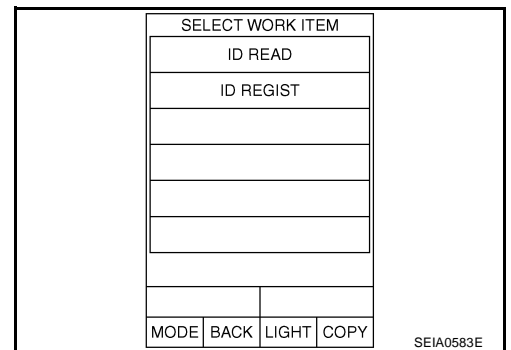
## CONSULT-II SETTING PROCEDURE

Perform "CONSULT-II Start Procedure". Refer to [GI-38. "CONSULT-II Start Procedure"](#).

## WORK SUPPORT MODE

### Operation Procedure

1. Touch necessary test item.
2. The "Work support" screen will be displayed, so perform the following test.

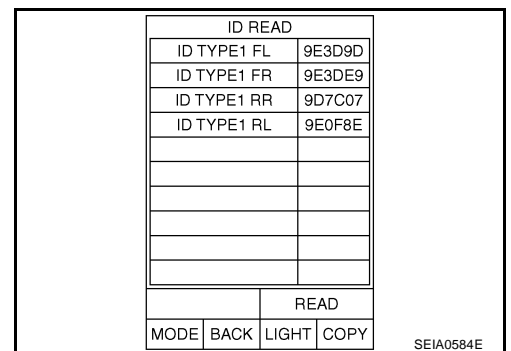


### Test Item

- ID Read
- ID Regist

### ID Read

The registered ID number is displayed.



### ID Regist

Refer to [WT-20. "ID Registration Procedure"](#).

# TROUBLE DIAGNOSES

## SELF-DIAGNOSTIC RESULTS MODE

Diagnostic item	Diagnostic item is detected when ...
[C1704] LOW PRESSURE FL [C1705] LOW PRESSURE FR [C1706] LOW PRESSURE RR [C1707] LOW PRESSURE RL	Front-left tire pressure drops to 173 kPa (1.8 kg/cm <sup>2</sup> , 25 psi) or less. Front-right tire pressure drops to 173 kPa (1.8 kg/cm <sup>2</sup> , 25 psi) or less. Rear-right tire pressure drops to 173 kPa (1.8 kg/cm <sup>2</sup> , 25 psi) or less. Rear-left tire pressure drops to 173 kPa (1.8 kg/cm <sup>2</sup> , 25 psi) or less.
[C1708] [NO DATA] FL [C1709] [NO DATA] FR [C1710] [NO DATA] RR [C1711] [NO DATA] RL	Data from front-left transmitter can not be received. Data from front-right transmitter can not be received. Data from rear-right transmitter can not be received. Data from rear-left transmitter can not be received.
[C1712] [CHECKSUM ERR] FL [C1713] [CHECKSUM ERR] FR [C1714] [CHECKSUM ERR] RR [C1715] [CHECKSUM ERR] RL	Checksum data from front-left transmitter is malfunctioning. Checksum data from front-right transmitter is malfunctioning. Checksum data from rear-right transmitter is malfunctioning. Checksum data from rear-left transmitter is malfunctioning.
[C1716] [PRESS DATA ERR] FL [C1717] [PRESS DATA ERR] FR [C1718] [PRESS DATA ERR] RR [C1719] [PRESS DATA ERR] RL	Air pressure data from front-left transmitter is malfunctioning. Air pressure data from front-right transmitter is malfunctioning. Air pressure data from rear-right transmitter is malfunctioning. Air pressure data from rear-left transmitter is malfunctioning.
[C1720] [CODE ERR] FL [C1721] [CODE ERR] FR [C1722] [CODE ERR] RR [C1723] [CODE ERR] RL	Function code data from front-left transmitter is malfunctioning. Function code data from front-right transmitter is malfunctioning. Function code data from rear-right transmitter is malfunctioning. Function code data from rear-left transmitter is malfunctioning.
[C1724] [BATT VOLT LOW] FL [C1725] [BATT VOLT LOW] FR [C1726] [BATT VOLT LOW] RR [C1727] [BATT VOLT LOW] RL	Battery voltage of front-left transmitter drops. Battery voltage of front-right transmitter drops. Battery voltage of rear-right transmitter drops. Battery voltage of rear-left transmitter drops.
[C1729] VHCL SPEED SIG ERR	Vehicle speed signal is error.
[C1730] FLAT TIRE FL [C1731] FLAT TIRE FR [C1732] FLAT TIRE RR [C1733] FLAT TIRE RL	Front-left tire pressure drops to 86 kPa (0.88 kg/cm <sup>2</sup> , 12.5 psi) or less. Front-right tire pressure drops to 86 kPa (0.88 kg/cm <sup>2</sup> , 12.5 psi) or less. Rear-right tire pressure drops to 86 kPa (0.88 kg/cm <sup>2</sup> , 12.5 psi) or less. Rear-left tire pressure drops to 86 kPa (0.88 kg/cm <sup>2</sup> , 12.5 psi) or less.

**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-II.

### How to Erase Self- diagnostic Results

1. Perform applicable inspection of malfunctioning item and then repair or replace.
2. Turn ignition switch "ON" and select "SELF-DIAG RESULTS" mode for "AIR PRESSURE MONITOR" with CONSULT-II.
3. Touch "ERASE" on CONSULT-II screen to erase DTC memory.

**CAUTION:**

**If memory cannot be erased, perform applicable diagnosis.**

# TROUBLE DIAGNOSES

## DATA MONITOR MODE

### Operation Procedure

1. Perform "CONSULT-II Start Procedure". Refer to [GI-38, "CONSULT-II Start Procedure"](#) .
2. Touch "DATA MONITOR".
3. Select from "SELECT MONITOR ITEM", screen of data monitor mode is displayed.

**NOTE:**

When malfunction is detected, CONSULT-II performs REAL-TIME DIAGNOSIS.  
Also, any malfunction detected while in this mode will be displayed at real time.

### Display item List

MONITOR	CONDITION	SPECIFICATION
VEHICLE SPEED	Drive vehicle.	Vehicle speed (km/h or MPH)
AIR PRESS FL AIR PRESS FR AIR PRESS RR AIR PRESS RL	<ul style="list-style-type: none"> <li>● Drive vehicle for a few minutes.</li> <li style="text-align: center;">or</li> <li>● Ignition switch ON and activation tool is transmitting activation signals.</li> </ul>	Tire pressure (kPa or Psi)
ID REGST FL 1 ID REGST FR 1 ID REGST RR 1 ID REGST RL 1	Ignition switch ON	Registration ID: DONE No registration ID: YET
WARNING LAMP		Low tire pressure warning lamp on: ON Low tire pressure warning lamp off: OFF
BUZZER		Buzzer in combination meter on: ON Buzzer in combination meter off: OFF

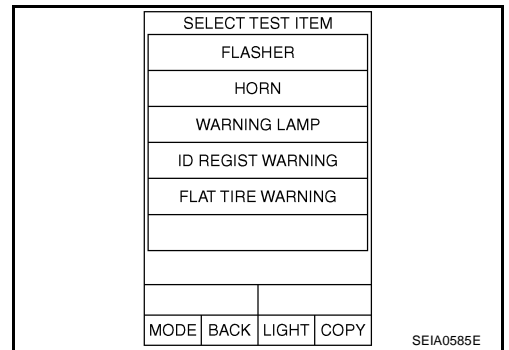
**NOTE:**

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-II.

## ACTIVE TEST MODE

### Operation Procedure

1. Perform "CONSULT-II Start Procedure", Refer to [GI-38, "CONSULT-II Start Procedure"](#) .
2. Touch "ACTIVE TEST".
3. Select from "SELECT TEST ITEM ", screen of active test mode is displayed.



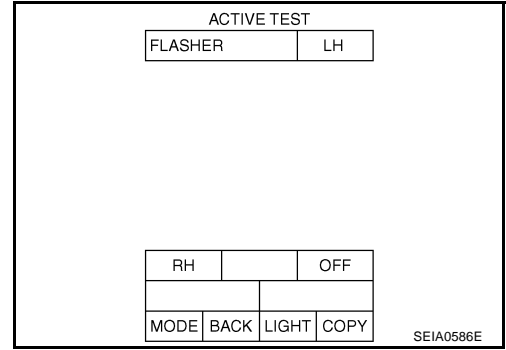
### Test Item

- Flasher
- Horn
- Warning lamp
- ID regist warning
- Flat tire warning

# TROUBLE DIAGNOSES

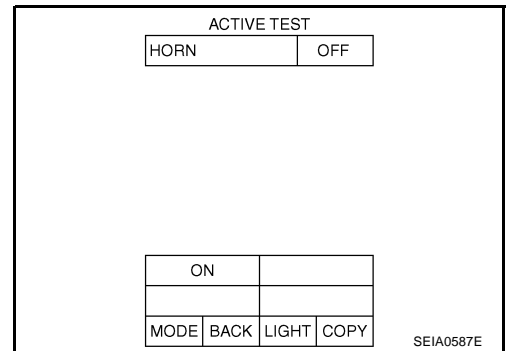
## Flasher

Touch "LH" and "RH" on the display, and then check to make sure that each turn signal lamp turns on.



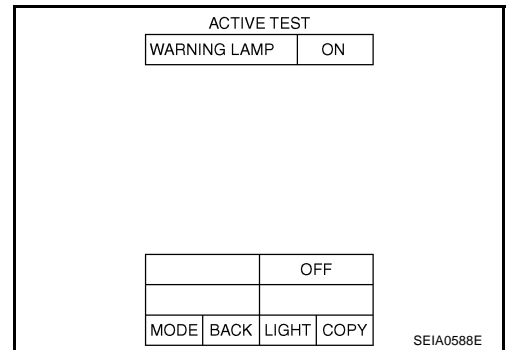
## Horn

Touch "LH" and "RH" on the display, and then check to make sure that the horn sounds.



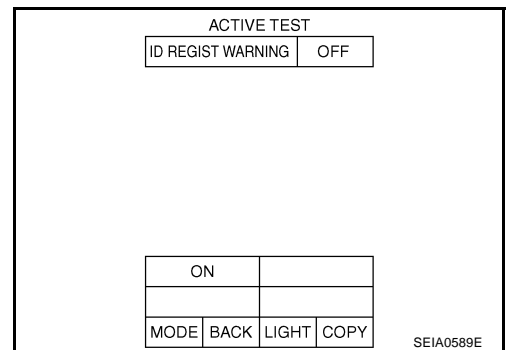
## Warning Lamp

Touch "LH" and "RH" on the display, and then check to make sure that the warning lamp turns on.



## ID Regist Warning

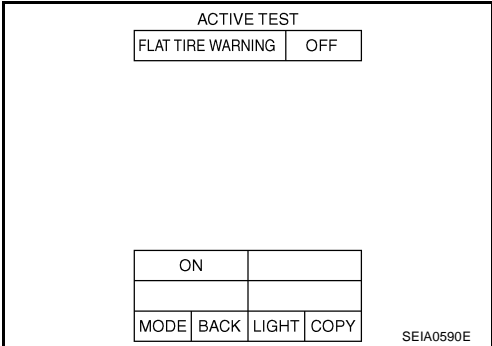
Touch "LH" and "RH" on the display, and then check to make sure that the buzzer sounds or the warning lamp turns on.



# TROUBLE DIAGNOSES

## Flat Tire Warning

Touch "LH" and "RH" on the display, and then check to make sure that the buzzer sounds or the warning lamp turns on.



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# TROUBLE DIAGNOSES

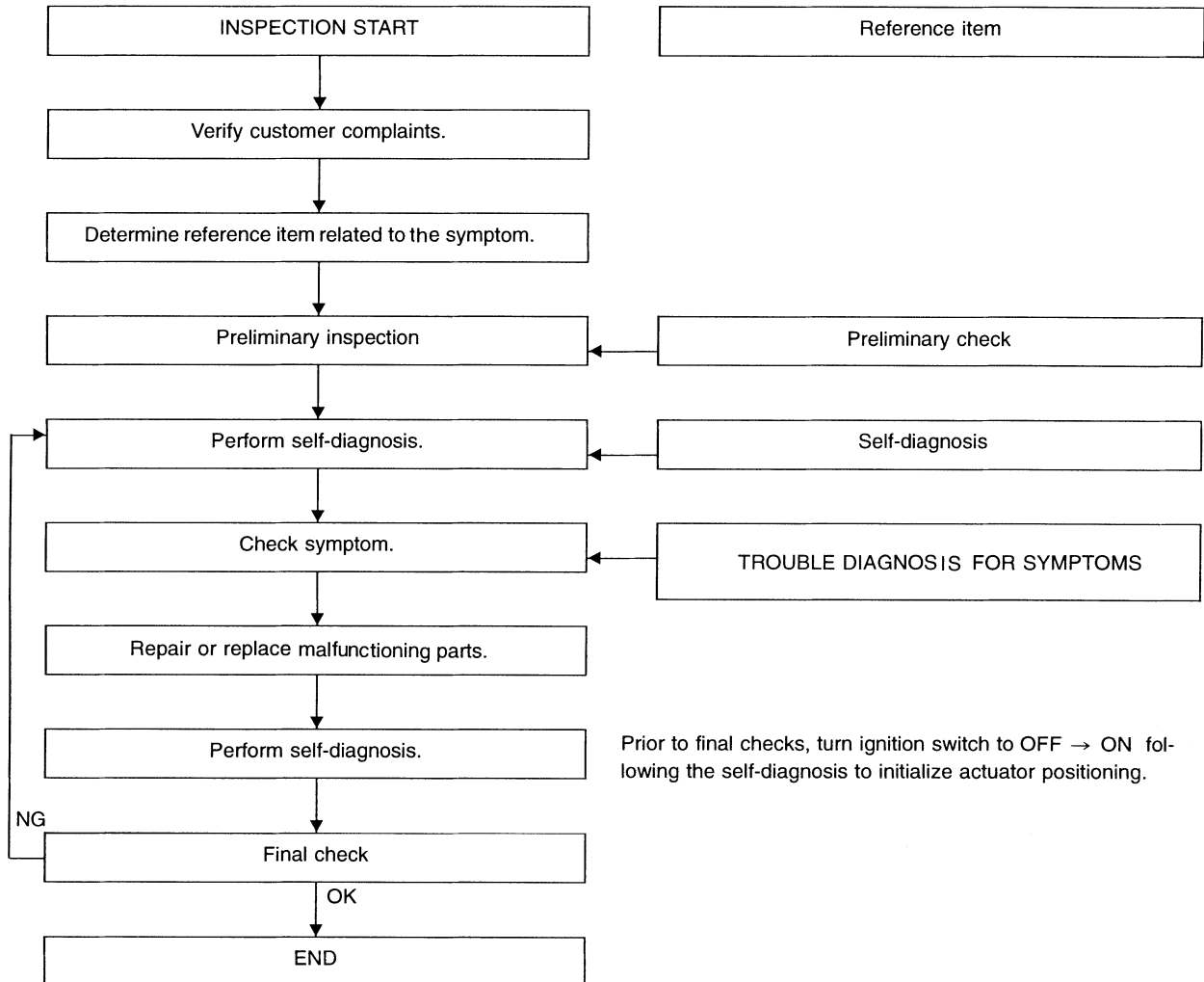
## How to Perform Trouble Diagnosis for Quick and Accurate Repair

NES000GY

### 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



SEIA0100E

Preliminary check: [WT-31](#) Self-diagnosis: [WT-23](#) Trouble diagnosis for symptoms: [WT-36](#)

# TROUBLE DIAGNOSES

NES000GZ

## Preliminary Check

### BASIC INSPECTION

#### 1. CHECK ALL TIRE PRESSURES

- Check all tire pressures. Refer to [WT-41, "Tire"](#) .

##### OK or NG

OK >> GO TO 2.

NG >> Adjust tire pressure to specified value.

#### 2. CHECK LOW TIRE PRESSURE WARNING LAMP ACTIVATION

1. Check low tire pressure warning lamp activation.
2. Does low tire pressure warning lamp activate for 1 second when ignition switch is turned "ON"?

##### Does warning lamp activate?

YES >> GO TO 3.

NO >> Check fuse and combination meter.

#### 3. CHECK CONNECTOR

1. Disconnect BCM harness connectors M3 and M4.
2. Check terminals for damage or loose connection.

##### OK or NG

OK >> GO TO 4.

NG >> Repair or replace damaged parts.

#### 4. CHECK TRANSMITTER TOOL

- Check activation tool battery.

##### OK or NG

OK >> Perform self-diagnosis.

NG >> Replace activation tool battery.

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# TROUBLE DIAGNOSES

## Malfunction Code/Symptom Chart

NES000H0

Code/Symptom	Malfunction part	Reference page
06 07 08 09	Front-left tire pressure drops to 86 kPa (0.88 kg/cm <sup>2</sup> , 12.5 psi) or less. Front-right tire pressure drops to 86 kPa (0.88 kg/cm <sup>2</sup> , 12.5 psi) or less. Rear-right tire pressure drops to 86 kPa (0.88 kg/cm <sup>2</sup> , 12.5 psi) or less. Rear-left tire pressure drops to 86 kPa (0.88 kg/cm <sup>2</sup> , 12.5 psi) or less.	—
15 16 17 18	Front-left tire pressure drops to 173 kPa (1.8 kg/cm <sup>2</sup> , 25 psi) or less. Front-right tire pressure drops to 173 kPa (1.8 kg/cm <sup>2</sup> , 25 psi) or less. Rear-right tire pressure drops to 173 kPa (1.8 kg/cm <sup>2</sup> , 25 psi) or less. Rear-left tire pressure drops to 173 kPa (1.8 kg/cm <sup>2</sup> , 25 psi) or less.	—
21 22 23 24	Transmitter no data (front - left) Transmitter no data (front - right) Transmitter no data (rear - right) Transmitter no data (rear - left)	<a href="#">WT-33</a>
31 32 33 34	Transmitter checksum error (front - left) Transmitter checksum error (front - right) Transmitter checksum error (rear - right) Transmitter checksum error (rear - left)	<a href="#">WT-33</a>
35 36 37 38	Transmitter pressure data error (front - left) Transmitter pressure data error (front - right) Transmitter pressure data error (rear - right) Transmitter pressure data error (rear - left)	<a href="#">WT-34</a>
41 42 43 44	Transmitter function code error (front - left) Transmitter function code error (front - right) Transmitter function code error (rear - right) Transmitter function code error (rear - left)	<a href="#">WT-33</a>
45 46 47 48	Transmitter battery voltage low (front - left) Transmitter battery voltage low (front - right) Transmitter battery voltage low (rear - right) Transmitter battery voltage low (rear - left)	<a href="#">WT-33</a>
52	Vehicle speed signal	<a href="#">WT-35</a>
Low tire pressure warning lamp does not come on when ignition switch is turned on.	Fuse or combination meter BCM connector or circuit BCM	<a href="#">WT-36</a>
Low tire pressure warning lamp stays on when ignition switch is turned on.	Combination meter BCM connector or circuit BCM	<a href="#">WT-36</a>
Low tire pressure warning lamp blinks when ignition switch is turned on.	BCM connector or circuit BCM Transmitter's mode off ID registration not yet	<a href="#">WT-37</a>
Run-flat tire warning lamp stays on when ignition switch is turned on.	Combination meter Tire pressure	<a href="#">DI-5</a>
Turn signal lamp blinks when ignition switch is turned on.	BCM connector or circuit BCM	<a href="#">WT-38</a>
ID registration can not be operated.	Transmitter Remote keyless entry receiver connector or circuit Remote keyless entry receiver BCM connector or circuit BCM	<a href="#">WT-38</a>



# TROUBLE DIAGNOSIS FOR SELF-DIAGNOSTIC ITEMS

## TROUBLE DIAGNOSIS FOR SELF-DIAGNOSTIC ITEMS

PFP:00000

### Transmitter or Control Unit (BCM) MALFUNCTION CODE NO. 21, 22, 23 OR 24

NES000H1

#### 1. CHECK CONTROL UNIT

- Drive for several minutes. Check all tire pressures with CONSULT-II "DATA MONITOR ITEM".

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 M98.
2. Check terminals for damage or loose connection.
3. Reconnect harness connector.

OK or NG

- OK >> Replace BCM refer to [BCS-14, "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 can not 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-II "DATA MONITOR ITEM" within 15 minutes after vehicle speed becomes 17 km/h (11 MPH).

Does "DATA MONITOR ITEM" 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.
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-II "DATA MONITOR ITEM" within 5 minutes.

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

- YES >> INSPECTION END
- NO >> GO TO the inspection applicable to DTC.

### Transmitter - 1 MALFUNCTION CODE NO. 31, 32, 33, 34, 41, 42, 43, 44, 45, 46, 47 OR 48

NES000H2

#### 1. ID REGISTRATION (CORRECTION OF TRANSMITTER LOCATION)

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.

>> GO TO 2.

# TROUBLE DIAGNOSIS FOR SELF-DIAGNOSTIC ITEMS

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## 2. REPLACE TRANSMITTER

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

Can ID registration of all transmitters be completed?

YES >> GO TO 3.

NO >> GO TO the inspection 1. Refer to [WT-33, "Transmitter or Control Unit \(BCM\)"](#) .

## 3. VEHICLE DRIVING

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- 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-II "DATA MONITOR ITEM" within 5 minutes.

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

YES >> INSPECTION END.

NO >> Replace malfunctioning transmitter, and perform "Step 3" again.

### Transmitter - 2 MALFUNCTION CODE NO. 35, 36, 37 OR 38

NES000H3

## 1. CHECK ALL TIRE PRESSURES

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- Check all tire pressures. Refer to [WT-41, "Tire"](#) .

Are there any tires whose pressure is "64 psi" or more?

YES >> Adjust tire pressure to specified value.

NO >> GO TO 2.

## 2. VEHICLE DRIVING

---

1. 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-II "DATA MONITOR ITEM" within 15 minutes after vehicle speed become 17 km/h (11 MPH).

>> Replace transmitter with new one if "DATA MONITOR ITEM" displayed 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-II "DATA MONITOR ITEM" within 5 minutes.

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

YES >> INSPECTION END

NO >> GO TO the inspection applicable to DTC.

# TROUBLE DIAGNOSIS FOR SELF-DIAGNOSTIC ITEMS

## Vehicle Speed Signal MALFUNCTION CODE NO. 52

NES000H4

A

### 1. CHECK SELF-DIAGNOSIS RESULTS

1. Perform "CONSULT-II Start Procedure", Refer to [GI-38, "CONSULT-II Start Procedure"](#) .
2. Select "SELF-DIAG RESULTS" on "SELECT DIAG MODE" screen.
3. Check display contents in self-diagnostic results.

B

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

C

- YES >> Malfunction in CAN communication system. GO TO [LAN-49, "CAN System Specification Chart"](#) .
- NO >> No malfunction. Check combination meter refer to [DI-5, "System Description"](#) .

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# TROUBLE DIAGNOSIS FOR SYMPTOMS

## TROUBLE DIAGNOSIS FOR SYMPTOMS

PF0:00007

### Low Tire Pressure Warning Lamp Does Not Come On When Ignition Switch Is Turned On

NES000H5

#### DIAGNOSTIC PROCEDURE

#### 1. CHECK SELF-DIAGNOSIS RESULTS

1. Perform "CONSULT-II Start Procedure". Refer to [GI-38, "CONSULT-II Start Procedure"](#).
2. Select "SELF-DIAG RESULTS" on "SELECT DIAG MODE" screen.
3. Check display contents in self-diagnostic results.

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

- YES >> Malfunction in CAN communication system. GO TO [LAN-49, "CAN System Specification Chart"](#).  
NO >> No malfunction. 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-5, "System Description"](#).

#### 3. CHECK LOW TIRE PRESSURE WARNING LAMP

- Disconnect BCM harness connectors M3 and M4.

Does the warning lamp activate?

- YES >> Replace BCM. Refer to [BCS-14, "Removal and Installation of BCM"](#).  
NO >> Check combination meter and repair or replace.

### Low Tire Pressure Warning Lamp Stays On When Ignition Switch Is Turned On

NES000H6

#### DIAGNOSTIC PROCEDURE

#### 1. CHECK CONNECTOR

1. Disconnect BCM harness connectors M3 and M4.
2. Check terminals for damage or loose connections.

OK or NG

- OK >> GO TO 2.  
NG >> Repair or replace damaged parts.

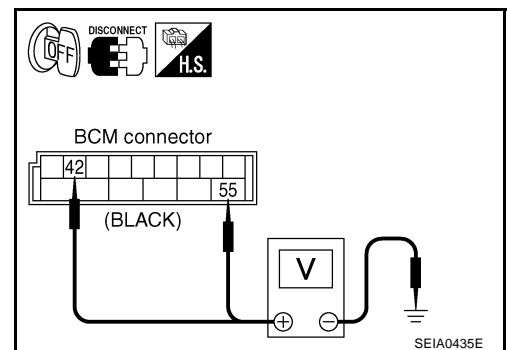
#### 2. CHECK POWER SUPPLY CIRCUIT (BATTERY)

Make sure voltage between BCM harness connector M4 and ground.

Terminal		Voltage
(+)	(-)	
42, 55	Ground	12V

OK or NG

- OK >> GO TO 3.  
NG >> Check BCM power supply circuit for open or short.



# TROUBLE DIAGNOSIS FOR SYMPTOMS

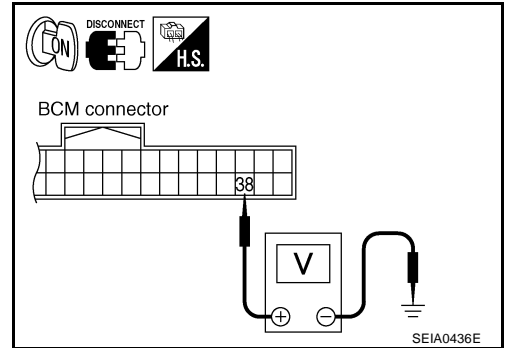
## 3. CHECK POWER SUPPLY CIRCUIT (IGN)

1. Turn ignition switch ON.
2. Make sure voltage between BCM harness connector M3 and ground.

Terminal		Voltage
(+)	(-)	
38	Ground	12V

OK or NG

- OK >> GO TO 4.  
 NG >> Check BCM power supply circuit for open or short.



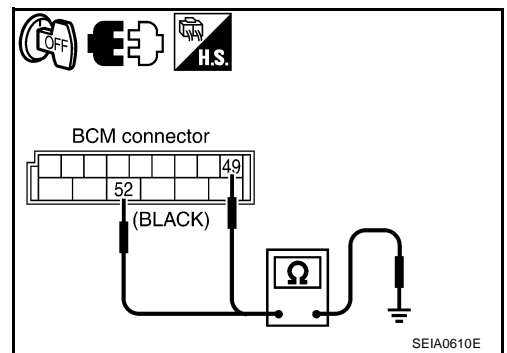
## 4. CHECK GROUND CIRCUIT

- Check continuity between BCM harness connector M4 and ground.

Terminal		Continuity
(+)	(-)	
49, 52	Ground	Yes

OK or NG

- OK >> Replace BCM. Refer to [BCS-14, "Removal and Installation of BCM"](#) .  
 NG >> Repair or replace BCM ground circuit.



## Low Tire Pressure Warning Lamp Blinks When Ignition Switch Is Turned On

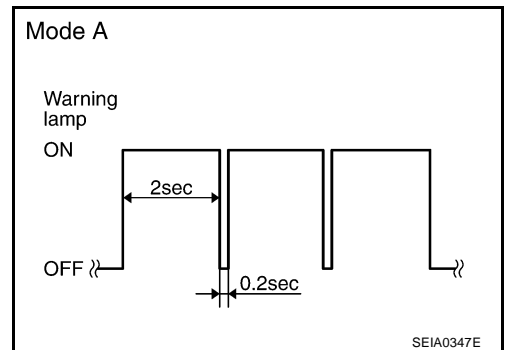
NES000H7

### NOTE:

If warning lamp blink below, the system is normal.

Blink Mode A

- This mode shows transmitter status is OFF-mode. Perform transmitter wake up operation. Refer to [WT-22, "Transmitter Wake Up Operation"](#) .



## DIAGNOSTIC PROCEDURE

### 1. CHECK CONNECTOR

1. Disconnect BCM harness connector M3.
2. Check terminals for damage or loose connections.

OK or NG

- OK >> GO TO 2.  
 NG >> Repair or replace damaged parts.

# TROUBLE DIAGNOSIS FOR SYMPTOMS

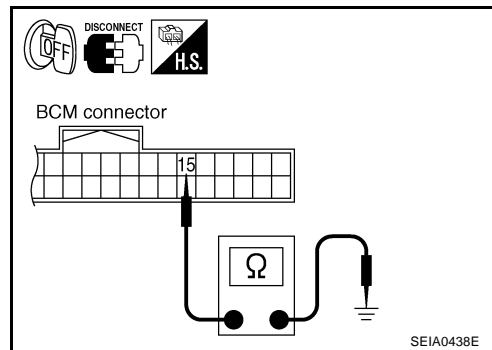
## 2. CHECK TIRE PRESSURE WARNING CHECK SWITCH CIRCUIT

- Check continuity between BCM harness connector M3 and ground.

Terminal		Continuity
(+)	(-)	
15	Ground	No

OK or NG

- OK >> Replace BCM. Refer to [BCS-14, "Removal and Installation of BCM"](#).
- NG >> Repair or replace harness connector.



## Run-Flat Tire Warning Lamp Stays On When Ignition Switch is Turned On

NES000L0

DIAGNOSTIC PROCEDURE

### 1. CHECK ALL TIRE PRESSURES

- Check all tire pressures. Refer to [WT-41, "Tire"](#).

OK or NG

- OK >> Check combination meter. Refer to [DI-5, "COMBINATION METERS"](#).
- NG >> Adjust tire pressure to specified value or change the tires.

## Turn Signal Lamp Blinks When Ignition Switch Is Turned On

NES000H8

DIAGNOSTIC PROCEDURE

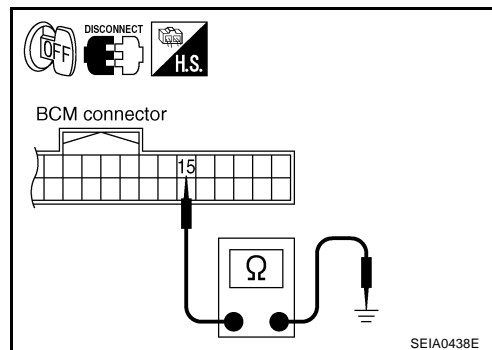
### 1. CHECK TIRE PRESSURE WARNING CHECK SWITCH CIRCUIT

- Check continuity between BCM harness connector M3 and ground.

Terminal		Continuity
(+)	(-)	
15	Ground	No

OK or NG

- OK >> Check turn signal lamp operation. Refer to [LT-90, "System Description"](#).
- NG >> Repair or replace harness connector.



## ID Registration Can Not Be Completed

NES000H9

DIAGNOSTIC PROCEDURE

### 1. ID REGISTRATION (ALL)

- Perform ID registration of all transmitters.

Can ID registration of all transmitters be completed?

- YES >> INSPECTION END
- NO >> GO TO [WT-33, "TROUBLE DIAGNOSIS FOR SELF-DIAGNOSTIC ITEMS"](#).

# REMOVAL AND INSTALLATION

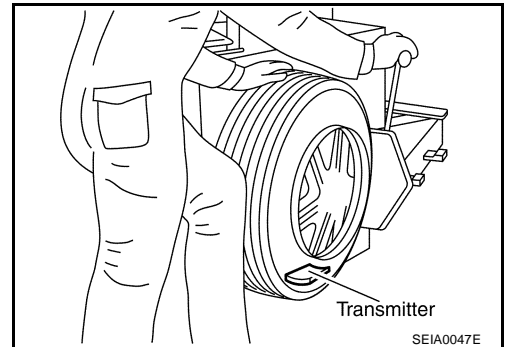
## REMOVAL AND INSTALLATION

PPF:00000

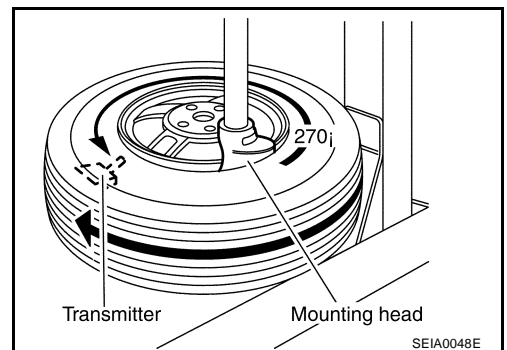
### Transmitter REMOVAL

NES000HA

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.

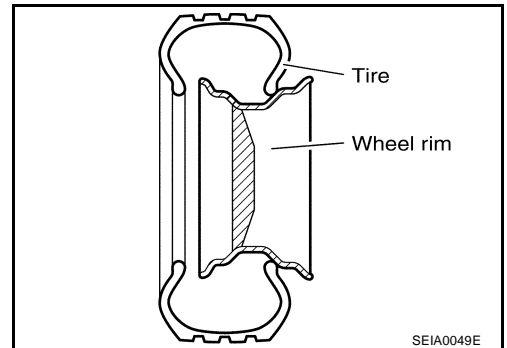


3. Turn tire so that valve hole is at bottom and bounce so that transmitter is near valve hole. Carefully lift tire onto turntable and position valve hole (and transmitter) 270 degree from mounting/dismounting head.
4. Lubricate tire well and remove first side of the tire. Reach inside the tire and remove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

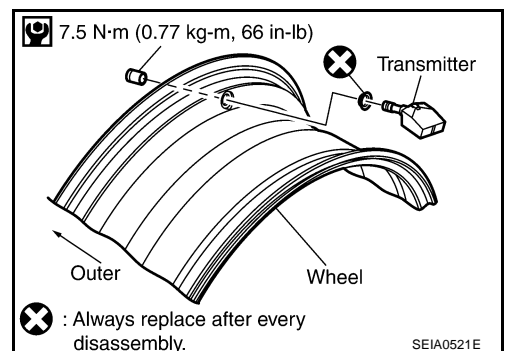


### INSTALLATION

1. Put first side of tire onto rim.



2. Mount transmitter on rim and tighten nut.



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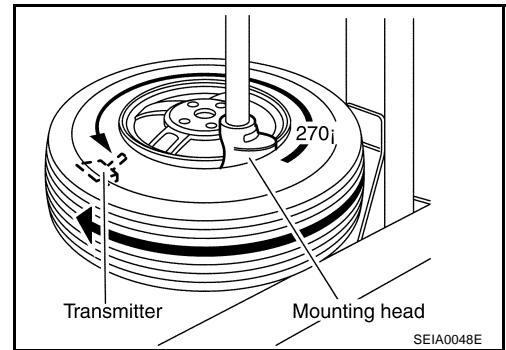
## REMOVAL AND INSTALLATION

3. Place wheel on turntable of tire machine. Ensure that transmitter is 270 degree from mounting head 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.





# SERVICE DATA AND SPECIFICATIONS (SDS)

## SERVICE DATA AND SPECIFICATIONS (SDS)

PFP:00030

### Road Wheel

NES000HB

Kind of wheel		Aluminum	Steel (for emergency use)
Maximum radial runout limit	Lateral deflection	Less than 0.3 mm (0.012 in)	Less than 1.5 mm (0.059 in)
	Vertical deflection	Less than 0.3 mm (0.012 in)	Less than 1.5 mm (0.059 in)
Maximum allowable unbalance	Dynamic (At rim flange)	Less than 5.0 g (0.2 oz) (one side)	—
	Static (At rim flange)	Less than 20 g (0.7 oz)	—

### Tire

NES000HC

Unit: kPa (kg/cm<sup>2</sup>, psi)

Tire size	Air pressure	
	Front	Rear
P265/60R18 109V	220 (2.2, 32)	220 (2.2, 32)
P265/50R20 106V	220 (2.2, 32)	220 (2.2, 32)
T175/90D18 110M	420 (4.2, 60)	420 (4.2, 60)

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# SERVICE DATA AND SPECIFICATIONS (SDS)

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