ROAD WHEELS & TIRES С

А

В

D

WΤ

CONTENTS

| PRECAUTIONS |
|---|
| Precautions for Supplemental Restraint System |
| (SRS) "AIR BAG" and "SEAT BELT PRE-TEN- |
| SIONER" |
| Precautions for Battery Service |
| Service Notice or Precautions |
| PREPARATION |
| Special Service Tools |
| Commercial Service Tools |
| |
| NOISE, VIBRATION AND HARSHNESS (NVH) |
| TROUBLESHOOTING |
| NVH Troubleshooting Chart |
| ROAD WHEEL |
| Inspection6 |
| ALUMINUM WHEEL 6 |
| STEEL WHEEL 6 |
| ROAD WHEEL TIRE ASSEMBLY 7 |
| Balancing Wheels (Bonding Weight Type)7 |
| REMOVAL |
| WHEEL BALANCE ADJUSTMENT |
| Tire Rotation8 |
| DESCRIPTION8 |
| LOW TIRE PRESSURE WARNING SYSTEM 10 |
| System Components 10 |
| System Description |
| TRANSMITTER 10 |
| REMOTE KEYLESS ENTRY RECEIVER |
| BCM (BODY CONTROL MODULE)11 |
| LOW TIRE PRESSURE WARNING LAMP |
| Can Communication |
| SYSTEM DESCRIPTION11 |
| TROUBLE DIAGNOSES |
| How to Perform Trouble Diagnosis |
| BASIC CONCEPT |
| INTRODUCTION |
| WORK FLOW |
| WORK FLOW |
| Trouble Diagnosis Chart |
| TROUBLE DIAGNOSIS CHART FOR SYMP- |
| |
| TOMS |

| Control Unit Input/Output Signal Standard | F |
|--|-----|
| ID Registration Procedure19 | |
| ID REGISTRATION WITH ACTIVATION TOOL 19 | |
| ID REGISTRATION WITHOUT ACTIVATION | G |
| TOOL19 Transmitter Wake Up Operation | |
| WITH ACTIVATION TOOL | |
| CONSULT-II Function (AIR PRESSURE MONI- | Н |
| TOR) | |
| CONSULT-II MAIN FUNCTION | |
| CONSULT-II SETTING PROCEDURE | |
| WORK SUPPORT MODE21 | |
| SELF-DIAG RESULTS MODE | |
| DATA MONITOR MODE23 | J |
| ACTIVE TEST MODE23 | |
| Diagnosis Procedure with Warning Lamp Function | |
| (Without CONSULT-II)25 | Κ |
| DESCRIPTION25 | 1.0 |
| FUNCTION25 | |
| MALFUNCTION CODE CHART | 1 |
| LOW TIRE PRESSURE WARNING LAMP | |
| SYMPTOM CHART | |
| Preliminary Check | |
| BASIC INSPECTION | M |
| ITEMS | |
| Transmitter or Control Unit (BCM) | |
| MALFUNCTION CODE NO. 21, 22, 23 OR 24 29 | |
| Transmitter - 1 | |
| MALFUNCTION CODE NO. 31, 32, 33, 34, 41, | |
| 42, 43, 44, 45, 46, 47 OR 48 | |
| Transmitter - 2 | |
| MALFUNCTION CODE NO. 35, 36, 37 OR 38 30 | |
| Vehicle Speed Signal | |
| MALFUNCTION CODE NO. 52 | |
| TROUBLE DIAGNOSIS FOR SYMPTOMS | |
| Warning Lamp Does Not Come On When Ignition | |
| Switch Is Turned On | |
| DIAGNOSTIC PROCEDURE | |
| Warning Lamp Stays On When Ignition Switch Is | |

| Turned On | . 32 |
|---|------|
| DIAGNOSTIC PROCEDURE | . 32 |
| Warning Lamp Blinks When Ignition Switch Is | |
| Turned On | . 34 |
| DIAGNOSTIC PROCEDURE | . 34 |
| Turn Signal Lamp Blinks When Ignition Switch Is | |
| Turned On | . 35 |
| DIAGNOSTIC PROCEDURE | . 35 |
| ID Registration Can Not Be Completed | . 35 |
| DIAGNOSTIC PROCEDURE | . 35 |

| TRANSMITTER | 36 |
|---------------------------------------|----|
| Removal and Installation | 36 |
| REMOVAL | 36 |
| INSTALLATION | 36 |
| SERVICE DATA AND SPECIFICATIONS (SDS) | 38 |
| Road Wheel | 38 |
| Tire | 38 |
| Tightening Torque | 38 |

PRECAUTIONS

PRECAUTIONS

PFP:00001

А

В

C

D

WΤ

F

Precautions 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 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 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 Precautions

 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 <u>WT-22, "Erase Memory"</u>, <u>WT-19, "ID Registration Procedure"</u>.

- ID registration is required when replacing wheels. Refer to WT-19, "ID Registration Procedure" .
- Replace grommet seal, valve core and cap of the transmitter in TPMS every tire replacement by reaching wear limit of tire.

NES000CM

NESOOOBK

М

Т

Κ

PREPARATION

PREPARATION

PFP:00002

NES000BL

NES000BM

Special Service Tools

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

| Tool name | | Description | |
|------------|-----------|---------------------|--|
| Power tool | PBIC0190E | Removing wheel nuts | |

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING NVH Troubleshooting Chart

PFP:00003

NES00030

А

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

| | | | 1 | | | - | • | | | r | - , , | | | - 1 | | | 1 | r | 1 | _ |
|--------------|--------------|----------------------------------|----------------------------------|--------------|-------------|-------------------------|------------------|-----------------------|----------------|---------------------|--------------------|---------------------|---------------------------------|-------------------------------|-------------------------------|------------------------------------|---------------------|--------------------|--------------------|-------------|
| Reference pa | age | | <u>FAX-4, FSU-8</u> | <u>WT-6</u> | <u>MT-7</u> | <u>WT-38</u> | 1 | 1 | I | <u>WT-38</u> | 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. | B C D |
| Possible cau | se and SUSPE | CTED 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 WHEELS | DRIVE SHAFT | BRAKE | STEERING | F G H |
| | | Noise | × | × | × | × | × | × | × | | × | × | × | × | | × | × | × | × | J |
| | | Shake | × | × | × | × | × | × | | × | × | | × | × | | × | × | × | × | _ |
| | | Vibration | | | | × | | | | × | × | | × | × | | | × | | × | K |
| | TIRES | Shimmy | × | × | × | × | × | × | × | × | | | × | × | | × | | × | × | _ |
| | | Judder | × | × | × | × | × | × | | × | | | × | × | | × | | × | × | _ |
| Symptom | | Poor quality ride or handling | × | × | × | × | × | × | | × | | | × | × | | × | | | | L |
| | | Noise | × | × | × | | | × | | | × | × | × | × | × | | × | × | × | - |
| | ROAD | Shake | × | × | × | | | × | | | × | | × | × | × | | × | × | × | M |
| | WHEEL | Shimmy, Judder | × | × | × | | | × | | | | | × | × | × | | | × | × | - |
| | | Poor quality ride or handling | × | × | × | | | × | | | | | × | × | × | | | | | |

×: Applicable

ROAD WHEEL

Inspection ALUMINUM WHEEL

- 1. Check tires for wear and improper inflation.
- 2. Check wheels for deformation, cracks and other damage. If deformed, remove wheel and check wheel runout.
- a. Remove tire from aluminum wheel and mount on a tire balance machine.
- b. Set dial indicator as shown in the figure.

Wheel runout (Dial indicator value): Refer to <u>WT-38, "SERVICE DATA AND SPECIFICA-</u> <u>TIONS (SDS)"</u>.

STEEL WHEEL

- 1. Check tires for wear and improper inflation.
- 2. Check wheels for deformation, cracks and other damage. If deformed, remove wheel and check wheel runout.
- a. Remove tire from steel wheel and mount wheel on a 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)/2 Lateral runout = (C+D)/2

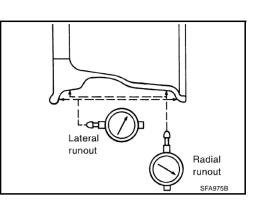
f. Select maximum positive runout value and the maximum negative value.

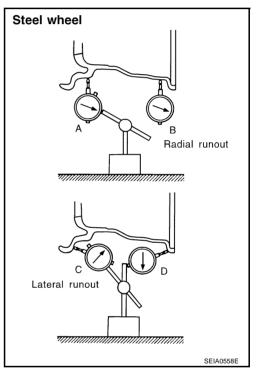
Add the two values to determine total runout.

In case a positive or negative value is not available, use the maximum value (negative or positive) for total runout. If the total runout value exceeds the limit, replace steel wheel.

Wheel runout:

Refer to <u>WT-38, "SERVICE DATA AND SPECIFICA-</u> TIONS (SDS)".





NES00031

| R | DAD WHEEL TIRE ASSEMBLY | PFP:40300 | |
|----------|--|--|-----|
| | lancing Wheels (Bonding Weight Type) | NES00032 | А |
| RE 1. | MOVAL Remove inner and outer balance weights from the road wheel. | | _ |
| | CAUTION: | | В |
| | Be careful not to scratch the road wheel during removal. | | |
| 2. | Using releasing agent, remove double-faced adhesive tape from | the road wheel. | С |
| | CAUTION:Be careful not to scratch the road wheel during removal. | | |
| | After removing double-faced adhesive tape, wipe clean tra wheel. | aces of releasing agent from the road | D |
| Wł | IEEL BALANCE ADJUSTMENT | | |
| • | If a tire balance machine has adhesion balance weight mode se select and adjust a drive-in weight mode suitable for road wheels | | WT |
| 1. | Set road wheel on wheel balancer using the center hole as a guid | | _ |
| 2. | When inner and outer unbalance values are shown on the wheel ance value by 5/3 to determine balance weight that should be us a value closest to the calculated value above and install it to the | ed. Select the outer balance weight with | |
| | designated angle in relation to the road wheel. CAUTION: | | G |
| | Do not install the inner balance weight before installing the | e outer balance weight. | |
| | • Before installing the balance weight, be sure to clean the mating surface of the road wheel. | | Н |
| | 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) = 40 g (1.41 oz) balance | Inner side Outer side | I |
| | weight (closer to calculated balance weight value) | | |
| | Note that balance weight value must be closer to the calculated balance weight value. | | J |
| | Example: | | |
| | 37.4 = 35 g (1.23 oz) 37.5 = 40 g (1.41 oz) | | LZ. |
| | | SMA054D | K |
| a. | Install balance weight in the position shown in the figure. | | |
| b. | When installing balance weight to road wheels, set it into the | | L |
| | 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 wheel | л <u>с</u> | |
| | balancer indication position (angle). | | M |
| | CAUTION: | 40 g (1.41 oz) | |
| | Always use genuine NISSAN adhesion balance weights. Balance weights are unreusable; always replace with new | adhesion // weight | |
| | ones. | | |
| | Do not install more than three sheets of balance weight. | Center of weight | |
| | | Align with | |
| | | groove. | |
| | | | |
| | | Wheel balancer indication | |
| | | position (angle) | |
| | | | |
| | | | |

SEIA0271E

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

CAUTION:

Do not install more than two balance weights.

- 5. Start wheel balancer. 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 | Dynamic (At rim flange) | Less than 5 g (0.17 oz) (one side) |
|-------------------|-------------------------|------------------------------------|
| unbalance | Static (At rim flange) | Less than 10 g (0.35 oz) |

Tire Rotation

CAUTION:

Do not include the T-type spare tire when rotating the tires.

NOTE:

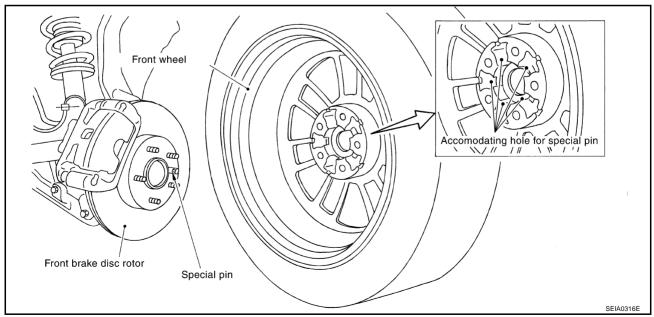
Tire cannot be rotated in vehicle, as front tire are different size from rear tire and the direction of wheel rotation is fixed in each tire.

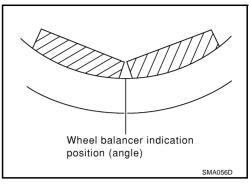
DESCRIPTION

Safety Device Preventing from Being Incorrectly Installed

Front brake disc rotor and front wheel

 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.

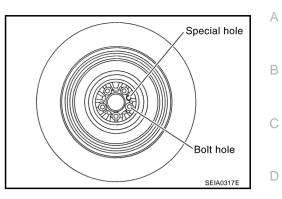




NES00033

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.



F

G

Н

I

J

Κ

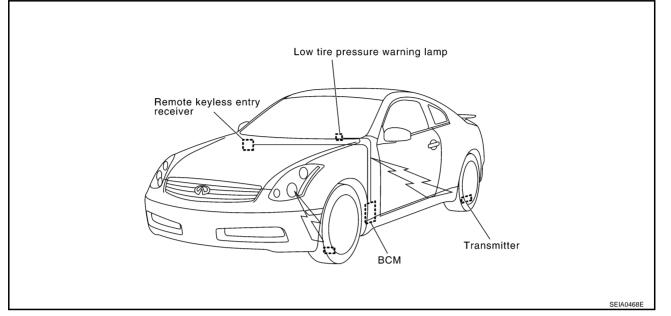
L

Μ

LOW TIRE PRESSURE WARNING SYSTEM

LOW TIRE PRESSURE WARNING SYSTEM

System Components



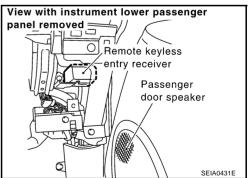
System Description TRANSMITTER

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.

7.5 N·m (0.77 kg-m, 66 in-lb) Transmitter Transmitter Outer Vheel Content of the second second

REMOTE KEYLESS ENTRY RECEIVER

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



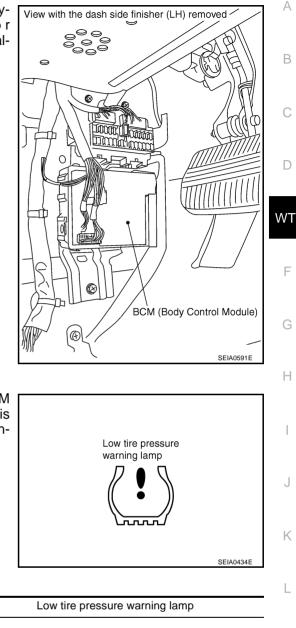
NES00035

PFP:40300

NES00034

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 r operations. It also has a judgement 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 and buzzer are activated.

Low tire pressure warning lamp indication

| Condition | Low tire pressure warning lamp | _ |
|--|--|----|
| Less than 171 kPa (1.71 kg/cm ² , 25 psi) [Note 1] | ON | |
| Less than 194 kPa (1.94 kg/cm ² , 28 psi) [Note 2] | <u> </u> | IV |
| Low tire pressure warning system malfunction [Other diagnostic item] | Warning lamp flashes 1 min, then turns ON. | _ |

Note 1: Standard air pressure is for 210 kpa (2.1 kg/cm², 30 psi) vehicles. Note 2: Standard air pressure is for 240 kpa (2.4 kg/cm², 35 psi) vehicles.

Can Communication 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 <u>LAN-21, "CAN</u> <u>COMMUNICATION"</u>.

How to Perform Trouble Diagnosis 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.

CAUTION:

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

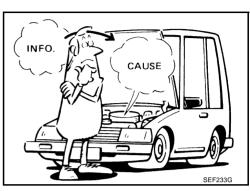
have actually been eliminated.
After completing diagnosis, always erase diagnostic memory. Refer to WT-22. "Erase Memory".

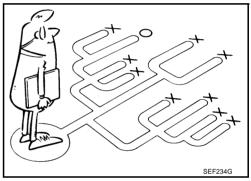
For intermittent malfunctions, move harness or harness connector by hand. Then check for poor contact or reproduced open circuit.

suspected harness or connector by hand. When repairing without any symptom diagnosis, you cannot judge if malfunctions

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.

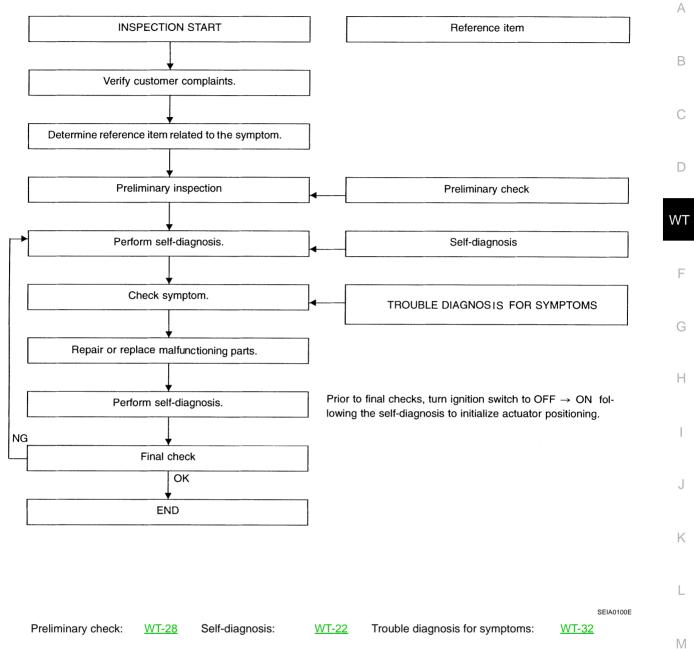




PFP:00004

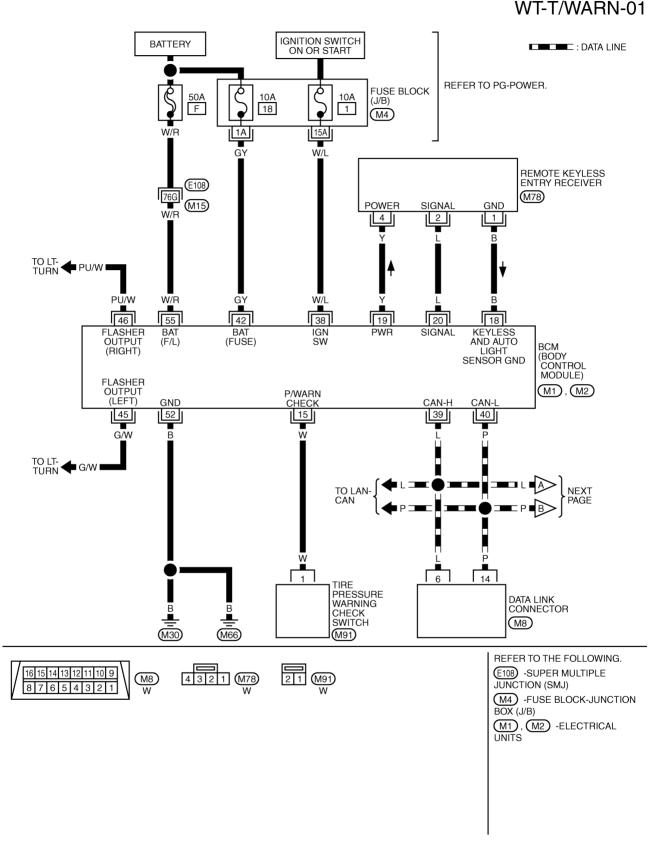
NES000BT

WORK FLOW

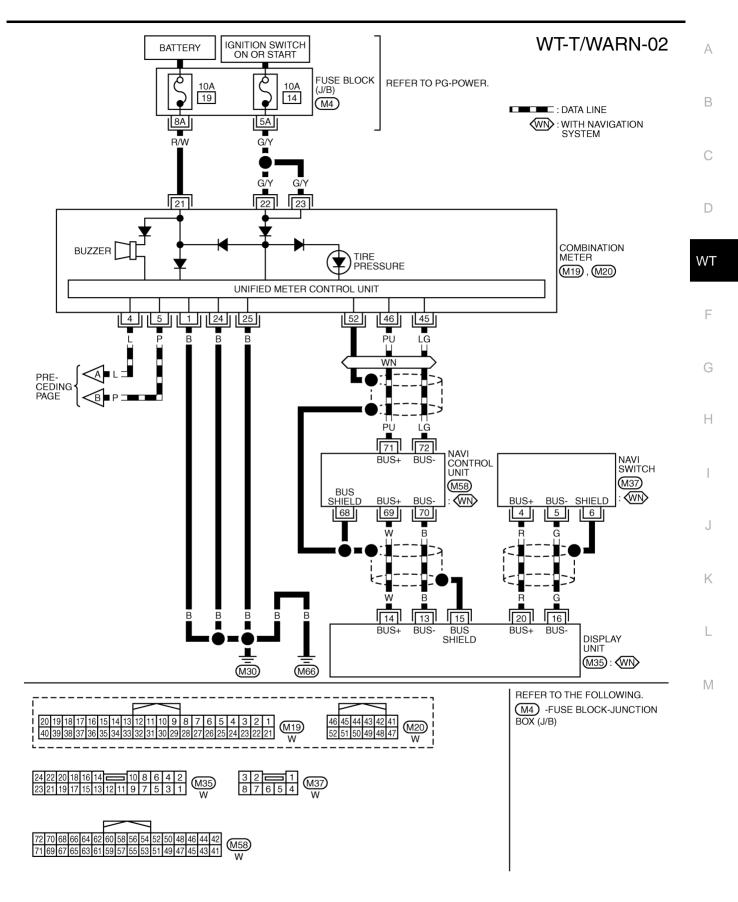


Wiring Diagram — T/WARN —

NES00037



TEWM0109E



TEWM0120E

Trouble Diagnosis Chart TROUBLE DIAGNOSIS CHART FOR SYMPTOMS If low tire pressure warning lamp turns ON, perform self-diagnosis. Refer to <u>WT-22, "SELF-DIAG RESULTS MODE"</u>.

NES000BU

| Symptom | Check item | Reference page |
|--|--|----------------|
| | CAN communication line | |
| Warning lamp does not come on when ignition switch is turned on. | Combination meter | <u>WT-32</u> |
| | BCM | |
| | ID registration | |
| Warning lamp stays on when ignition switch is turned on. | BCM connector or circuit | <u>WT-32</u> |
| | BCM | |
| Warning lamp blinks when ignition switch is turned on | BCM connector or circuit | WT 24 |
| Warning lamp blinks when ignition switch is turned on. | BCM | <u>WT-34</u> |
| Turn signal lamp blinks when ignition switch is turned | vitch is turned BCM connector or circuit | |
| on. | BCM | <u>WT-35</u> |
| | Transmitter | |
| | Remote keyless entry receiver connector or circuit | |
| ID registration can not be operated. | Remote keyless entry receiver | <u>WT-35</u> |
| | BCM connector or circuit | |
| | BCM | |

Control Unit Input/Output Signal Standard

Standards using a circuit tester and oscilloscope

| Terminal (Wire color) | Item | Condition | Voltage (V) Approx. value |
|--------------------------|--|---|---|
| 15 (W) | Tire pressure warning check con- nector | Always | 5 V |
| 18 (B) | Remote keyless entry receiver (Ground) | _ | 0 V |
| 19 (Y) | Remote keyless entry receiver | Stand-by | (V) 4 2 0 + 0.25 OCC3879D |
| ., | (Power supply) | Press any of the keyfob switches | (V) 6 4 2 0 • • 0.2s OCC3862D |
| 20 (L) | Remote keyless entry receiver (Signal) | Stand-by | (V) 6 4 2 0 ••• 0.2s ••• 0.2s |
| | | Press any of the keyfob switches | (V) 6 4 2 0 + 0.2s OCC3860D |
| 38 (W/L) | Ignition switch | Ignition switch ON or START | Battery voltage (12 V) |
| 39 (L) | Data line (CAN H) | _ | — |
| 40 (P) | Data line (CAN L) | _ | — |
| 42 (GY) | Battery power supply (Fuse) | Always | Battery voltage (12 V) |
| 45 (G/W) | Turn signal (left) | Ignition switch ON Combination switch is turn signal (left) ON | (V) 15 10 5 0 • • • 500 ms SKIA3009J |

NES00038

А

| Terminal (Wire color) | ltem | Condition | Voltage (V) Approx. value |
|--------------------------|----------------------------|--|--|
| 46 (PU/W) | Turn signal (right) | Ignition switch ON Combination switch is turn signal (right) ON | (V) 15 10 5 5 0 5 5 0 5 5 5 5 5 5 5 5 5 5 5 5 5 |
| 52 (B) | Ground | — | 0 V |
| 55 (W/R) | Battery power supply (F/L) | Always | Battery voltage (12 V) |

ID Registration Procedure ID REGISTRATION WITH ACTIVATION TOOL

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

- 1. Perform "CONSULT-II SETTING PROCEDURE". Refer to <u>WT-20, "CONSULT-II SETTING PROCE-DURE"</u>.
- 2. Touch "WORK SUPPORT" on "SELECT DIAG MODE" screen, and select "ID REGIST".
- 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 | | Activation tire position Buzzer | | CONSULT-II |
|--------------------------|----------|---------------------------------|------------------|------------|
| 1 | Front LH | Once | | |
| 2 | Front RH | 2 times | 2 times flashing | "YET" |
| 3 | Rear RH | 3 times | 2 unes hashing | "DONE" |
| 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 replacement of a transmitter or BCM.

- 1. Perform "CONSULT-II SETTING PROCEDURE". Refer to <u>WT-20, "CONSULT-II SETTING PROCE-</u> <u>DURE"</u>.
- 2. 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 pressure kPa (kg/cm ² , psi) | K |
|--|---|
| 240 (2.4, 34) | r |
| 220 (2.2, 31) | |
| 200 (2.0, 29) | L |
| 180 (1.8, 26) | |
| | 240 (2.4, 34) 220 (2.2, 31) 200 (2.0, 29) |

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

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

5. Inflate all tires to proper pressure. Refer to WT-38, "SERVICE DATA AND SPECIFICATIONS (SDS)" .



G

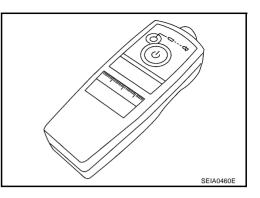
- Н
- . .

NES000BV

А

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.



| 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 |
| ON 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-II Function (AIR PRESSURE MONITOR) CONSULT-II MAIN FUNCTION

NES000BY

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

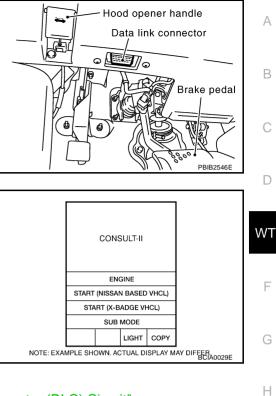
| Mode | Function | Reference |
|-------------------|---|-------------------------------------|
| WORK SUPPORT | This mode enables a technician to adjust some devices faster and more accurately by following the indications on CONSULT-II. | WT-21, "WORK SUP- PORT MODE". |
| SELF-DIAG RESULTS | Self-diagnostic results can be read and erased quickly. | WT-22, "SELF-DIAG RESULTS MODE". |
| DATA MONITOR | Input/Output data in the control unit can be read. | WT-23, "DATA MONITOR MODE". |
| 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. | WT-23, "ACTIVE TEST MODE". |

CONSULT-II SETTING PROCEDURE

CAUTION:

If CONSULT-II is used with no connection of CONSULT-II CONVERTER, malfunctions might be detected in self-diagnosis depending on control unit which carry out CAN communication.

- For details, refer to the separate "CONSULT-II Operations Manual".
- 1. Turn ignition switch "OFF".
- 2. Connect CONSULT-II and CONSULT-II CONVERTER to data link connector on vehicle.
- 3. Turn ignition switch "ON".



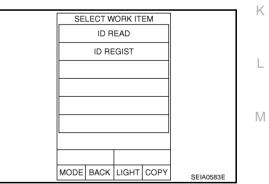
4. Touch "START (NISSAN BASED VHCL)".

- Touch "BCM" on "SELECT SYSTEM" screen. If "BCM" is not indicated, go to <u>GI-39</u>, "CONSULT-II Data Link Connector (DLC) Circuit".
- 6. Touch "AIR PRESSURE MONITOR" on "SELECT TEST ITEM" screen.
- 7. Perform each diagnostic test mode according to each service procedure.

WORK SUPPORT MODE

Operation Procedure

- 1. Perform "CONSULT-II SETTING PROCEDURE". Refer to <u>WT-20, "CONSULT-II SETTING PROCE-</u> J <u>DURE"</u>.
- 2. Touch "WORK SUPPORT".
- 3. Select from "SELECT WORK ITEM", screen of work support made is displayed



ID Read

The registered ID number is displayed.

| | ID R | EAD | | | |
|------|--------|------|----|-------|-----------|
| T DI | YPE1 F | Ľ | 98 | E3D9D | |
| ID T | YPE1 F | R | 91 | E3DE9 | |
| ID T | YPE1 P | R | 91 | D7C07 | |
| ID T | YPE1 F | ۱L | 9 | E0F8E | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | RE | AD | |
| MODE | BACK | LIGH | łΤ | COPY | SEIA0584E |

ID Regist

Refer to WT-19, "ID Registration Procedure" .

SELF-DIAG RESULTS MODE

Operation Procedure

- 1. Perform "CONSULT-II SETTING PROCEDURE". Refer to <u>WT-20, "CONSULT-II SETTING PROCE-DURE"</u>.
- 2. Touch "SELF-DIAG RESULTS". Display shows malfunction experienced since the last erasing operation.

Display Item List

| DTC | Diagnostic item | Diagnostic item is detected when … | Check items |
|-------|--------------------|--|--------------|
| C1704 | FLAT_TIRE_FL | Front-left tire pressure drops to * kPa (* kg/cm ² , * psi) or less. | |
| C1705 | FLAT_TIRE_FR | Front-right tire pressure drops to * kPa (* kg/cm ² , * psi) or less. | |
| C1706 | FLAT_TIRE_RR | Rear-right tire pressure drops to * kPa (* kg/cm ² , * psi) or less. | |
| C1707 | FLAT_TIRE_RL | Rear-left tire pressure drops to * kPa (* kg/cm ² , * 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. | |
| C1710 | [NO_DATA]_RR | Data from rear-right transmitter cannot be received. | <u>WT-29</u> |
| C1711 | [NO_DATA]_RL | Data from rear-left transmitter cannot be received. | |
| 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 00 |
| C1714 | [CHECKSUM_ERR]_RR | Checksum data from rear-right transmitter is malfunctioning. | <u>WT-29</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 20 |
| C1718 | [PRESSDATA_ERR]_RR | Air pressure data from rear-right transmitter is malfunctioning. | <u>WT-30</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 20 |
| C1722 | [CODE_ERROR]_RR | Function code data from rear-right transmitter is malfunctioning. | <u>WT-29</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. | MT 20 |
| C1726 | [BATT_VOLT_LOW]_RR | Battery voltage of rear-right transmitter drops. | <u>WT-29</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-31</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-II.

*:

- 171 kPa (1.71 kg/cm², 25 psi): Standard air pressure is for 210 kpa (2.1 kg/cm², 30 psi) vehicles.
- 194 kPa (1.94 kg/cm², 28 psi): Standard air pressure is for 240 kpa (2.4 kg/cm², 35 psi) vehicles.

Erase Memory

- 1. Turn ignition switch OFF to erase memory.
- 2. Start engine and touch "START (NISSAN BASED VHCL)".
- 3. Select "SELF-DIAG RESULTS" mode for "AIR PRESSURE MONITOR" with CONSULT-II.
- 4. Touch "ERASE" on CONSULT-II screen to erase memory.

DATA MONITOR MODE

Operation Procedure

- 1. Perform "CONSULT-II SETTING PROCEDURE". Refer to <u>WT-20, "CONSULT-II SETTING PROCE-</u> <u>DURE"</u>.
- 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

×: Standard –: Not applicable

А

В

D

| | SELECT MONITOR ITEM | | | |
|-------------------------------|---------------------|------------------------|--|----|
| Monitor item (Unit) | ALL SIGNALS | SELECTION FROM MENU | Remarks | WT |
| VEHICLE SPEED [km/h] or [mph] | × | × | Vehicle speed is displayed. | |
| AIR PRESS FL [kpa] or [psi] | × | × | Tire pressure is displayed. | F |
| 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. | G |
| ID REGST FL 1 [DONE/YET] | × | × | Registration ID is displayed. | |
| ID REGST FR 1 [DONE/YET] | × | × | Registration ID is displayed. | Н |
| 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. | |
| Voltage [V] | - | × | The value measured by the voltage probe is displayed. | J |
| Frequency [Hz] | - | × | | K |
| DUTY-HI (high) [%] | - | × | | N |
| DUTY-LOW (low) [%] | - | × | The value measured by the pulse probe is displayed. | |
| PLS WIDTH-HI [msec] | - | × | | |
| PLS WIDTH-LOW [msec] | - | × | | |

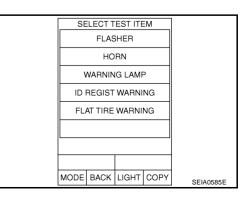
ACTIVE TEST MODE

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-II.

Operation Procedure

- 1. Perform CONSULT-II SETTING PROCEDURE. Refer to <u>WT-20</u>, <u>"CONSULT-II SETTING PROCEDURE"</u>.
- 2. Touch "ACTIVE TEST".
- 3. Select from "SELECT TEST ITEM", screen of active test mode is displayed.



Μ

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. |

Diagnosis Procedure with Warning Lamp Function (Without CONSULT-II) NESCORE

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 judgement 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-42</u>, "<u>HARNESS</u>".

MALFUNCTION CODE CHART

| Code (warning lamp blinks) | Diagnosis item | Reference | |
|----------------------------|--|---|----|
| 15 | Front-left tire pressure drops to * kPa (* kg/cm ² , * psi) or less. | | WT |
| 16 | Front-right tire pressure drops to * kPa (* kg/cm ² , * psi) or less. | | |
| 17 | Rear-right tire pressure drops to * kPa (* kg/cm ² , * psi) or less. | | F |
| 18 | Rear-left tire pressure drops to * kPa (* kg/cm ² , * psi) or less. | | 1 |
| 21 | Transmitter no data (front - left) | | _ |
| 22 | Transmitter no data (front - right) | | G |
| 23 | Transmitter no data (rear - right) | <u></u> | |
| 24 | Transmitter no data (rear - left) | | Н |
| 31 | Transmitter checksum error (front - left) | | |
| 32 | Transmitter checksum error (front - right) | | |
| 33 | Transmitter checksum error (rear - right) | <u>WT-29</u> WT-29 | |
| 34 | Transmitter checksum error (rear - left) | | |
| 35 | Transmitter pressure data error (front - left) | | _ |
| 36 | Transmitter pressure data error (front - right) | | 0 |
| 37 | Transmitter pressure data error (rear - right) | <u></u> | |
| 38 | Transmitter pressure data error (rear - left) | | Κ |
| 41 | Transmitter function code error (front - left) | | |
| 42 | Transmitter function code error (front - right) | | |
| 43 | Transmitter function code error (rear - right) | kg/cm ² , * psi) or less. kg/cm ² , * psi) or less. g/cm ² , * psi) or less. WT-29 WT-29 ft) yWT-29 ft) yWT-29 wT-29 wT-29 ft) yWT-29 wT-29 ft) yHt) wT-29 wT-29 ft) yHt) wT-29 wT-29 wT-29 wT-29 t) th) wT-29 | L |
| 44 | Transmitter function code error (rear - left) | | |
| 45 | Transmitter battery voltage low (front - left) | | M |
| 46 | Transmitter battery voltage low (front - right) | | |
| 47 | Transmitter battery voltage low (rear - right) | <u></u> | |
| 48 | Transmitter battery voltage low (rear - left) | | |
| 52 | Vehicle speed signal | <u>WT-31</u> | |

*:

• 171 kPa (1.71 kg/cm², 25 psi): Standard air pressure is for 210 kpa (2.1 kg/cm², 30 psi) vehicles.

• 194 kPa (1.94 kg/cm², 28 psi): Standard air pressure is for 240 kpa (2.4 kg/cm², 35 psi) vehicles.

А

В

D

| Diagnosis Item | Symptom (Ignition switch ON) | Low tire pressure warning lamp | Cause | Action |
|--|---|---|---|---|
| Low tire pres- sure warning lamp | Warning light comes on immediately and turns off after 1 sec- ond. | ON 1 sec > stays OFF SEIA0592E | All wheel transmit- ters 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 transmit- ters are not acti- vated. | Activate all wheel transmit- ters. Refer to <u>WT-20,</u> <u>"Transmitter Wake Up Oper-</u> ation". |
| | Warning light blinks 1 time. | Blinks 1 time ON 0.3 sec > OFF 1.0 sec PEIA0073E | Front LH wheel transmitter is not activated. | Activate front LH wheel transmitter. Refer to <u>WT-20.</u> <u>"Transmitter Wake Up Oper-ation"</u> . |
| | 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 <u>WT-20,</u> <u>"Transmitter Wake Up Oper-</u> ation". |
| | 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 <u>WT-20,</u> <u>"Transmitter Wake Up Oper- ation"</u> . |

LOW TIRE PRESSURE WARNING LAMP SYMPTOM CHART

| | | | | A | |
|--|--|---|---|---|---|
| Varning light blinks 4 mes. | Blinks 4 times ON 0.3 sec > OFF 0.3 sec SEIA0597E | Rear LH wheel trans- mitter is not acti- vated. | Activate rear LH wheel transmitter. Refer to <u>WT-20.</u> <u>"Transmitter Wake Up Oper- ation"</u> . | B | |
| | Comes ON and stays ON SEIA0598E | Tire pressure is low. | Check tire pressure with CONSULT-II. Refer to <u>WT-</u> 23. "DATA MONITOR <u>MODE"</u> . | D | |
| | | The fuse for combi- nation meter from battery is pulled out. | Check the fuse for combina- tion meter from battery. Install or replace (if needed). | WT | |
| /arning light comes | | BCM connector pulled out. | Check BCM connector. Re- connect if needed. | F | |
| iff. | | and stays ON SEIA0598E Low tire pressure low tire pressure | Low tire pressure or low tire pressure warning system mal- | Perform CONSULT-II Self- Diagnosis. Refer to <u>WT-22, "SELF-DIAG</u> <u>RESULTS MODE"</u>. Perform ID Registration if | G |
| | | function. | needed. Refer to <u>WT-19.</u> <u>"ID Registration Proce-</u> dure" . | Η | |
| | | 1. Tool J-45295 (spe- cial service tool) battery low. | 1. Install new battery. | I | |
| Turn signal lamp does not flash 2 times or horn does not sound after trans- mitter activation. | | 2. Ignition OFF dur- ing activation. | 2. Make sure ignition is ON during activation. | J | |
| | | mes or horn does ot sound after trans- | 3. Tool J-45295 (spe- cial service tool) not positioned cor- rectly. | Position tool correctly dur- ing activation. | K |
| | | 4. Transmitters already activated. | 4. None | L | |
| | arning light comes and does not turn f. urn signal lamp bes not flash 2 nes or horn does bt sound after trans- | arning light comes and does not turn f. Comes ON and stays ON SEIA0598E | arning light comes n and does not turn f. Elinks 4 times ON 0.3 sec > OFF 0.3 sec SELA0597E Tire pressure is low. The fuse for combi- nation meter from battery is pulled out. The fuse for combi- nation meter from battery is pulled out. Comes ON and f. SELA0598E Econector pulled out. Low tire pressure or low tire pressure or low tire pressure warning system mal- function. Low tire pressure or low tire pressure warning system mal- function. Image: space or horn does bit sound after trans- titer activation. 1. Tool J-45295 (spe- cial service tool) not positioned cor- rectly. | arning light comes n and does not turn f. Comes on and does not turn f. Comes on and stays ON Tire pressure is low. Check tire pressure with CONSULT-II. Refer to WT- 23. "DATA MONITOR MODE". The fuse for combin- nation meter from battery is pulled out. The fuse for combin- tion meter from battery is pulled out. Check the fuse for combina- tion meter from battery is pulled out. Check BCM connector. Re- connect if needed. BCM connector pulled out. Check BCM connector. Re- connect if needed. Perform CONSULT-II Self- Diagnosis. Refer to WT-22. "SELF-DIAG. RESULTS MODE". Image: transmitter from battery is pulled out. Self- Diagnosis. Refer to WT-22. "SELF-DIAG. RESULTS MODE". Image: transmitter from battery is pulled out. Self- Diagnosis. Refer to WT-22. "SELF-DIAG. RESULTS MODE". Image: transmitter from battery is pulled out. Self- Diagnosis. Refer to WT-22. "SELF-DIAG. RESULTS MODE". Image: transmitter from battery low. Self- Diagnosis. Refer to WT-22. "SELF-DIAG. RESULTS MODE". Image: transmitter from battery low. Self- Diagnosis. Refer to WT-22. "SELF-DIAG. RESULTS MODE". Image: transmitter from battery low. Self- Diagnosis. Refer to WT-21. Image: transmitter from battery low. Self Diagnosis. Refer to WT-21. Image: transmitter from battery low. Self Diagnosis. Image: transmitter from battery low. Self Diagnosis. Image: transmitter from battery low. Self Diagnosis. Image: transmitter from battery | |

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 BASIC INSPECTION

NES000CN

1. CHECK ALL TIRE PRESSURES

Check all tire pressures. Refer to <u>WT-38, "SERVICE DATA AND SPECIFICATIONS (SDS)"</u>.

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.

3. CHECK CONNECTOR

1. Disconnect BCM harness connectors M90 and M91.

2. Check terminals for damage or loose connection.

OK or NG

OK >> GO TO 4.

NG >> Repair or replace damaged parts.

4. CHECK ACTIVATION TOOL

• Check activation tool battery.

OK or NG

- OK >> Perform self-diagnosis.
- NG >> Replace activation tool battery.

| TROUBLE DIAGNOSIS FOR SELF-DIAGNOSTIC ITEMS | PFP:00000 |
|--|-----------|
| Fransmitter or Control Unit (BCM) MALFUNCTION CODE NO. 21, 22, 23 OR 24 | NES0003F |
| 1. CHECK CONTROL UNIT | |
| | |
| Drive for several minutes. Check all tire pressures with CONSULT-II "DATA MONITOR". Are all tire pressures displayed 0 kPa? | |
| YES $>>$ GO TO 2. | |
| NO >> GO TO 3. | |
| 2. CHECK REMOTE KEYLESS ENTRY RECEIVER CONNECTOR | |
| . Disconnect remote keyless entry receiver harness connector M78. | |
| . Check terminals for damage or loose connection. | |
| Reconnect harness connector. DK or NG | |
| OK >> Replace BCM refer to <u>BCS-18, "Removal and Installation of BCM"</u> , then GO TO 3. | |
| NG >> Repair or replace remote keyless entry receiver harness connector. | |
| . ID REGISTRATION | |
| Perform ID registration of all transmitters. | |
| re there any tires that ID can not be registered to? | |
| YES >> Replace transmitter of the tire, then GO TO 5. NO >> GO TO 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" within 15 minutes after vehicl | le 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. | |
| . ID REGISTRATION AND VEHICLE DRIVING | |
| . 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 s 10 minutes. Then check all tire pressures with CONSULT-II "DATA MONITOR" within 5 minutes. | speed for |
| boes "DATA MONITOR" display tire pressure as normal without any warning lamp? | |
| YES >> INSPECTION END | |
| NO >> GO TO the inspection applicable to DTC. | |
| ransmitter - 1 IALFUNCTION CODE NO. 31, 32, 33, 34, 41, 42, 43, 44, 45, 46, 47 OR 48 | NES0003G |
| . ID REGISTRATION (CORRECTION OF TRANSMITTER LOCATION) | |
| . Perform ID registration of all transmitters. | |
| Drive at a speed of 40 km/b (25 MPH) or more for 3 minutes, and then drive the vehicle at any s | speed for |

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

2. REPLACE TRANSMITTER

- 1. Check low tire pressure warning condition again, and 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 <u>WT-29, "Transmitter or Control Unit (BCM)"</u>.

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 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 >> Replace malfunctioning transmitter, and perform "Step 3" again.

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

NES0003H

1. CHECK ALL TIRE PRESSURES

• Check all tire pressures. Refer to WT-38, "SERVICE DATA AND SPECIFICATIONS (SDS)" .

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.
- 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" within 15 minutes after vehicle speed becomes 17 km/h (11 MPH).

>> Replace transmitter with new one if "DATA MONITOR" display 64 psi or more. Then GO TO 3.

3. 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-II "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.

TROUBLE DIAGNOSIS FOR SELF-DIAGNOSTIC ITEMS

| | hicle Speed Signal NESCOOSI | A |
|------|---|----|
| 1. | CHECK SELF-DIAGNOSTIC RESULTS | |
| 1. | Turn ignition switch OFF. | В |
| 2. | Connect CONSULT-II and CONSULT-II CONVERTER to the data link connector. | |
| 3. | Turn the ignition switch ON. | |
| 4. | Touch "START (NISSAN BASED VHCL)". | С |
| 5. | Touch "BCM" on "SELECT SYSTEM" screen. | |
| | NOTE: If "BCM" is not indicated, go to GI-39, "CONSULT-II Data Link Connector (DLC) Circuit". | D |
| 6. | Touch "BCM C/U" on "SELECT SYSTEM" screen. | |
| 7. | Touch "SELF-DIAG RESULTS" on "SELECT DIAG MODE" screen. | WT |
| 8. | Check display contents in self-diagnostic results. | |
| ls t | he "CAN COMM CIRCUIT" displayed in the self-diagnosis display? | |
| | ES >> Perform trouble diagnosis for CAN communication system. GO TO <u>LAN-3, "Precautions When</u> <u>Using CONSULT-II"</u> . | F |
| N | O >> Check combination meter refer to <u>DI-15, "Vehicle Speed Signal Inspection"</u> . | |
| | | G |
| | | |
| | | |
| | | Н |

J

Κ

L

Μ

TROUBLE DIAGNOSIS FOR SYMPTOMS

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

PFP:00007

NES000C4

1. CHECK SELF-DIAGNOSTIC RESULTS

- 1. Turn ignition switch OFF.
- 2. Connect CONSULT-II and CONSULT-II CONVERTER to the data link connector.
- 3. Turn the ignition switch ON.
- 4. Touch "START (NISSAN BASED VHCL)".
- Touch "BCM" on "SELECT SYSTEM" screen. If the "BCM" is not indicated, go to <u>GI-39, "CONSULT-II Data Link Connector (DLC) Circuit"</u>.
- 6. Touch "BCM C/U" on "SELECT SYSTEM" screen.
- 7. Touch "SELF-DIAG RESULTS" on "SELECT DIAG MODE" screen.
- 8. 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. GO TO <u>LAN-3</u>, "Precautions When <u>Using CONSULT-II"</u>.

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 <u>DI-13, "Trouble Diagnosis"</u>.

3. CHECK LOW TIRE PRESSURE WARNING LAMP

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM harness connectors M1 and M2.

Does the warning lamp activate?

YES >> Replace BCM. Refer to BCS-18, "Removal and Installation of BCM".

NO >> Check combination meter and repair or replace.

Warning Lamp Stays On When Ignition Switch Is Turned On DIAGNOSTIC PROCEDURE

NES000C5

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-II.
- 3. 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-19, "ID Registration Procedure" .

Does low tire pressure warning lamp turn OFF?

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

TROUBLE DIAGNOSIS FOR SYMPTOMS

3. CHECK CONNECTOR 1. Turn ignition switch OFF. 2. Disconnect BCM harness connectors M1 and M2. 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)

Check voltage between BCM harness connector M2 terminals 42, 55 and ground.

| Connector | Terminal | Voltage (Approx.) | | |
|-----------|-------------|-------------------|---------------|----|
| M2 | 42 - Ground | Pottory voltage | | WT |
| IVIZ | 55 - Ground | Battery voltage | BCM connector | |
| OK or NG | | | | F |

OK >> GO TO 5.

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

5. CHECK POWER SUPPLY CIRCUIT (IGN)

- 1. Turn ignition switch ON.
- 2. Check voltage between BCM harness connector M1 terminal 38 and ground.

| Connector | Terminal | Voltage (Approx.) |
|-----------|-------------|-------------------|
| M1 | 38 - Ground | Battery voltage |

OK or NG

OK >> GO TO 6.

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

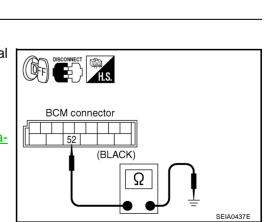


- 1. Turn ignition switch OFF.
- 2. Check continuity between BCM harness connector M2 terminal 52 and ground.

Continuity should exist.

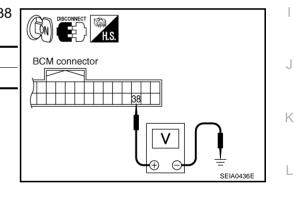
OK or NG

- OK >> Replace BCM. Refer to <u>BCS-18</u>, "Removal and Installation of <u>BCM</u>"
- NG >> Repair or replace BCM ground circuit.





2006 G35 Coupe



V

SEIA0435E

(BLACK)

D

Н

Μ

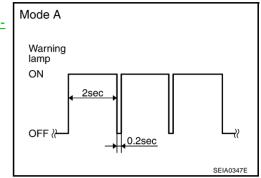
В

Warning Lamp Blinks When Ignition Switch Is Turned On

NOTE:

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

• This mode shows transmitter status is OFF-mode. Perform transmitter wake up operation. Refer to <u>WT-20, "Trans-</u><u>mitter Wake Up Operation"</u>.



DIAGNOSTIC PROCEDURE

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM harness connector M1.
- 3. Check terminals for damage or loose connections.

OK or NG

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

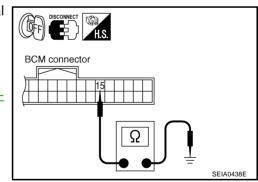
2. CHECK TIRE PRESSURE WARNING CHECK SWITCH CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM harness connector.
- Check continuity between BCM harness connector M1 terminal 15 and ground.

Continuity should exist.

OK or NG

- OK >> Replace BCM. Refer to <u>BCS-18</u>, "Removal and Installation of <u>BCM</u>".
- NG >> Repair or replace harness connector.



Turn Signal Lamp Blinks When Ignition Switch Is Turned On DIAGNOŠTIC PROČEDURE

1. CHECK TIRE PRESSURE WARNING CHECK SWITCH CIRCUIT В 1. Turn ignition switch OFF. 2. Disconnect BCM harness connector. Check continuity between BCM harness connector M1 terminal 3. 15 and ground. ((@F Continuity should exist. BCM connector OK or NG D OK >> Check turn signal lamp operation. Refer to LT-78, "TURN SIGNAL AND HAZARD WARNING LAMPS" . NG >> Repair or replace harness connector. WΤ Ω SEIA0438E F **ID Registration Can Not Be Completed** NES000C8

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-29, "TROUBLE DIAGNOSIS FOR SELF-DIAGNOSTIC ITEMS" .

Μ

L

G

Н

J

Κ

TRANSMITTER

Removal and Installation REMOVAL

- Deflate tire. Unscrew transmitter retaining nut and allow transmitter to fall into tire. 1.
- 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.

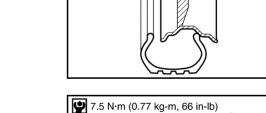
INSTALLATION

CAUTION:

1. Put first side of tire onto rim.

2. Mount transmitter on rim and tighten nut.

Speed for tightening nut should be less than 40 rpm.



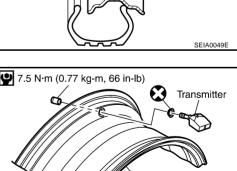
Outer

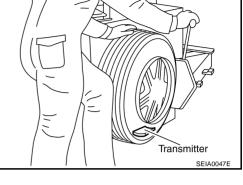
disassembly.

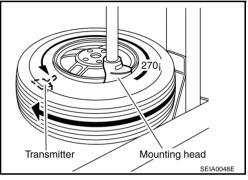
: Always replace after every

Wheel

SEIA0521E







Tire

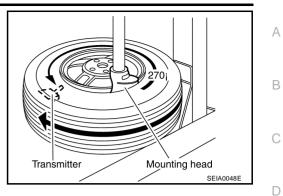
Wheel rim

TRANSMITTER

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.

WΤ

F

G

Н

I

J

Κ

L

Μ

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Road Wheel

| Kind of wheel | | Aluminum | Steel for emergency use |
|--------------------------------|-------------------------|-----------------------------------|-----------------------------|
| Deflection limit | Lateral deflection | Less than 0.3 mm (0.012 in) | Less than 1.5 mm (0.059 in) |
| | Vertical deflection | Less than 0.5 min (0.012 m) | |
| Allowable quantity of residual | Dynamic (At rim flange) | Less than 5g (0.17 oz) (per side) | |
| unbalance | Static (At rim flange) | Less than 10g (0.35 oz) | |

Tire

NES0003Q

Unit: kPa (kg/cm², psi)

| re Rear tire |
|---------------|
| |
| 30) — |
| 210 (2.1, 30) |
| 35) — |
| 240 (2.4, 35) |
| 35) — |
| 240 (2.4, 35) |
| 420 (4.2, 60) |
| |

Wheel nut

108 N.m (11 kg-m, 80 ft-lb)

PFP:00030