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< BASIC INSPECTION >

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000007254740

DETAILED FLOW

1. COLLECT THE INFORMATION FROM THE CUSTOMER

   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.

   >> GO TO 2.

2. BASIC INSPECTION

   1. Check the power steering fluid leakage and the power steering fluid level. Refer to ST-12, "Inspection".
   2. Check the drive belt tension. Refer to EM-14, "Checking Drive Belts".
   3. Check the power steering gear for damages, cracks and oil leakage. Refer to ST-12, "Inspection".
   4. Check the relief oil pressure. Refer to ST-16, "Inspection".

   >> GO TO 3.

3. TROUBLE DIAGNOSIS FOR SYMPTOM

   Perform the diagnosis by symptom. Refer to STC-19, "Description".

   >> GO TO 4.

4. FINAL CHECK

   Check the input/output standard values for the power steering control unit.

   Are the power steering control unit input/output values within standard ranges respectively?

   YES   >> Inspection End
   NO    >> GO TO 2.
System Description

- The EPS system controls the power steering solenoid valve through the power steering control unit.
- The valve driving voltage to control the power steering solenoid valve varies according to the vehicle speed.

OPERATION PRINCIPLE

During Parking (When Turning The Steering Wheel To The Right)

1. Power steering solenoid valve is closed while a vehicle is stopped.
2. Pinion “1R”, “2R” and “3R” are closed depending on steering torque of steering wheel.
3. Oil pressure “P” in the gear housing assembly is the sum of oil pressures occurring in “2R” and “3R”. This results in a light steering force because of high pressure.

During High-speed Operation
1. Power steering solenoid valve is opened during high-speed operation.
2. Pinion “1R”, “2R” and “3R” are closed depending on steering torque of steering wheel.
3. Oil pressure “2R” does not occur because the power steering solenoid valve is on full throttle.
4. Oil pressure “P” in the gear housing assembly includes only oil pressure occurring in “3R” and results in a heavy steering force.

Component Parts Location
1. Power steering control unit M59 (view with glove box removed)
2. Power steering solenoid valve E14

## Component Description

<table>
<thead>
<tr>
<th>Component parts</th>
<th>Function</th>
</tr>
</thead>
</table>
| Power steering control unit | • Signals from various sensors control the driving voltage to the power steering solenoid valve.  
                              | • The power steering control unit controls the driving voltage to the power steering solenoid valve for maintaining the power steering assist force when the fail-safe function is activated. (The engine speed signals control EPS system if any vehicle speed signal error is detected.) |
| Combination meter        | Refer to STC-12, "Description".                                                                                                          |
| ECM                      | Refer to STC-9, "Description".                                                                                                          |
| Power steering solenoid valve | Refer to STC-7, "Description".                                                                                                          |
POWER SUPPLY AND GROUND CIRCUIT

DTC/CIRCUIT DIAGNOSIS

Description

EPS system functions by ignition power supply.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to STC-16, "Wiring Diagram".

1. CHECK POWER SUPPLY

1. Turn the ignition switch OFF.
2. Disconnect power steering control unit connector.
3. Turn the ignition switch ON.
4. Check voltage between power steering control unit connector M59 terminal 3 and ground.

<table>
<thead>
<tr>
<th>Power steering control unit</th>
<th>Ground</th>
<th>Condition</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector Terminal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M59</td>
<td>3</td>
<td>—</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ignition switch OFF</td>
</tr>
</tbody>
</table>

Is the inspection result normal?

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

2. CHECK GROUND CIRCUIT

1. Turn the ignition switch OFF.
2. Check continuity between power steering control unit connector M59 terminal 6 and ground.

<table>
<thead>
<tr>
<th>Power steering control unit</th>
<th>Ground</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector Terminal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M59</td>
<td>6</td>
<td>—</td>
</tr>
</tbody>
</table>

Is the inspection result normal?

YES  >> GO TO 3.
NO   >> Repair harness or connectors.

3. CHECK TERMINALS AND HARNESS CONNECTORS

Check power steering control unit pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES  >> Inspection End
NO   >> Repair or replace damaged parts.
POWER STEERING SOLENOID VALVE

Description

Power steering solenoid valve controls the power steering oil pressure in the gear housing assembly.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to STC-16, "Wiring Diagram".

1. CHECK POWER STEERING SOLENOID VALVE SIGNAL

   1. Start engine.
   2. Check voltage between power steering control unit connector M59 terminal 1 and ground.

<table>
<thead>
<tr>
<th>Power steering control unit</th>
<th>Ground</th>
<th>Condition</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M59</td>
<td>1</td>
<td>—</td>
<td>Vehicle speed: 0 km/h (0 MPH) (Engine is running) 4.4 - 6.6 V</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Vehicle speed: 100 km/h (62 MPH) 2.5 - 3.7 V</td>
</tr>
</tbody>
</table>

Is the inspection result normal?

YES >> GO TO 2.
NO >> GO TO 4.

2. CHECK POWER STEERING SOLENOID VALVE HARNESS FOR OPEN

   1. Turn ignition switch OFF.
   2. Disconnect power steering solenoid valve connector.
   3. Disconnect power steering control unit connector.
   4. Check continuity between power steering solenoid valve connector E14 (A) terminals 1, 2 and power steering control unit connector M59 (B) terminal 1, 5.

<table>
<thead>
<tr>
<th>Power steering solenoid valve</th>
<th>Power steering control unit</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>E14 (A)</td>
<td>1</td>
<td>M59 (B)</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair harness or connectors.

3. CHECK POWER STEERING SOLENOID VALVE HARNESS FOR SHORT

   1. Check continuity between power steering solenoid valve connector E14 terminals 1, 2 and ground.

<table>
<thead>
<tr>
<th>Power steering solenoid valve</th>
<th>Ground</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>E14</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>
2. Turn ignition switch ON.
3. Check voltage between power steering solenoid valve connector E14 terminals 1, 2 and ground.

<table>
<thead>
<tr>
<th>Power steering solenoid valve</th>
<th>Ground</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>E14</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES >> GO TO 4.
NO >> Repair harness or connectors.

4. CHECK POWER STEERING SOLENOID VALVE

Perform power steering solenoid valve component inspection. Refer to STC-8, "Component Inspection".

Is the inspection result normal?
YES >> GO TO 5.
NO >> Replace power steering solenoid valve. Refer to ST-33, "Exploded View".

5. CHECK TERMINALS AND HARNESS CONNECTORS

1. Check power steering control unit pin terminals for damage or loose connection with harness connector.
2. Check power steering solenoid valve pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?
YES >> Inspection End
NO >> Repair or replace damaged parts.

Component Inspection

1. POWER STEERING SOLENOID VALVE RESISTANCE CHECK

1. Turn ignition switch OFF.
2. Disconnect power steering solenoid valve connector.
3. Check resistance between power steering solenoid valve terminals 1 and 2

<table>
<thead>
<tr>
<th>Power steering solenoid valve terminals</th>
<th>Resistance (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 2</td>
<td>5 Ω</td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES >> GO TO 2.
NO >> Replace power steering solenoid valve. Refer to ST-33, "Exploded View".

2. POWER STEERING SOLENOID VALVE OPERATION CHECK

Check power steering solenoid valve by listening for its operation sound while applying battery voltage to power steering solenoid valve terminal 1 (positive) and battery ground to terminal 2 (negative).

Is the inspection result normal?
YES >> Inspection End
NO >> Replace power steering solenoid valve. Refer to ST-33, "Exploded View".

Revision: August 2012
Description

ECM sends engine speed signal to power steering control unit.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to STC-16, "Wiring Diagram".

1. **PERFORM ECM SELF-DIAGNOSIS**
   - **With CONSULT**
     - Perform ECM self-diagnosis.
     - Is any error system detected?
       - YES >> Check the error system.
       - NO >> GO TO 2.

2. **CHECK HARNESS BETWEEN ECM AND POWER STEERING CONTROL UNIT FOR OPEN**
   1. Turn the ignition switch OFF.
   2. Disconnect ECM connector E10.
   3. Disconnect power steering control unit connector.
   4. Check continuity between ECM connector E10 (A) terminal 94 and power steering control unit connector M59 (B) terminal 10.

<table>
<thead>
<tr>
<th>ECM (Connector)</th>
<th>Power steering control unit (Connector)</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>E10 (A) 94</td>
<td>M59 (B) 10</td>
<td>Yes</td>
</tr>
</tbody>
</table>

   Is the inspection result normal?
   - YES >> GO TO 3.
   - NO >> Repair harness or connectors.

3. **CHECK HARNESS BETWEEN ECM AND POWER STEERING CONTROL UNIT FOR SHORT**
   1. Check continuity between ECM connector E10 terminal 94 and ground.

<table>
<thead>
<tr>
<th>ECM (Connector)</th>
<th>Ground</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>E10 94</td>
<td>—</td>
<td>No</td>
</tr>
</tbody>
</table>

   2. Turn ignition switch ON.
   3. Check voltage between ECM connector E10 terminal 94 and ground.

<table>
<thead>
<tr>
<th>ECM (Connector)</th>
<th>Ground</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>E10 94</td>
<td>—</td>
<td>0V</td>
</tr>
</tbody>
</table>

   Is the inspection result normal?
   - YES >> GO TO 4.
ENGINE SPEED SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

NO >> Repair harness or connectors.

4. CHECK ENGINE SPEED SIGNAL (ECM SIDE)

1. Turn the ignition switch OFF.
2. Connect ECM connector E10.
3. Start the engine.
4. Check signal between ECM connector E10 terminal 94 and ground with oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>E10</td>
<td>94 - Ground</td>
<td></td>
</tr>
</tbody>
</table>

- Engine speed: At idle (Warm-up condition)
- Engine speed: Approx. 2,000 rpm (Warm-up condition)

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace ECM.

5. CHECK ENGINE SPEED SIGNAL (POWER STEERING CONTROL UNIT SIDE)

1. Turn the ignition switch OFF.
2. Connect power steering control unit harness connector.
3. Start the engine.
4. Check signal between power steering control unit harness connector M59 terminal 10 and ground with oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>M59</td>
<td>10 - Ground</td>
<td></td>
</tr>
</tbody>
</table>

- Engine speed: At idle (Warm-up condition)
- Engine speed: Approx. 2,000 rpm (Warm-up condition)

Is the inspection result normal?
ENGINE SPEED SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

YES   >> GO TO 6.
NO    >> Replace power steering control unit. Refer to STC-21, "Removal and Installation".

6. CHECK TERMINALS AND HARNESS CONNECTORS

1. Check power steering control unit pin terminals for damage or loose connection with harness connector.
2. Check ECM pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES   >> Inspection End.
NO    >> Repair or replace damaged parts.
VEHICLE SPEED SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

VEHICLE SPEED SIGNAL CIRCUIT

Description

Combination meter sends vehicle speed signal to power steering control unit.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to STC-16, "Wiring Diagram".

1. PERFORM COMBINATION METER SELF-DIAGNOSIS

Perform combination meter self-diagnosis.

Is any error system detected?

YES >> Check the error system.

NO >> GO TO 2.

2. CHECK HARNESS BETWEEN COMBINATION METER AND POWER STEERING CONTROL UNIT FOR OPEN

1. Turn the ignition switch OFF.
2. Disconnect combination meter connector.
3. Disconnect power steering control unit connector.
4. Check continuity between combination meter connector M24 (A) terminal 30 and power steering control unit connector M59 (B) terminal 8.

<table>
<thead>
<tr>
<th>Combination meter</th>
<th>Power steering control unit</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>M24 (A)</td>
<td>30</td>
<td>M59 (B)</td>
</tr>
</tbody>
</table>

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connectors.

3. CHECK HARNESS BETWEEN COMBINATION METER AND POWER STEERING CONTROL UNIT FOR SHORT

1. Check continuity between combination meter connector M24 terminal 30 and ground.

<table>
<thead>
<tr>
<th>Combination meter</th>
<th>Ground</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>M24</td>
<td>30</td>
<td>—</td>
</tr>
</tbody>
</table>
2. Turn ignition switch ON.
3. Check voltage between combination meter connector M24 terminal 30 and ground.

<table>
<thead>
<tr>
<th>Combination meter</th>
<th>Ground</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>M24</td>
<td>30</td>
<td>—</td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES >> GO TO 4.
NO  >> Repair harness or connectors.

4. CHECK VEHICLE SPEED SIGNAL (COMBINATION METER SIDE)
1. Turn the ignition switch OFF.
2. Connect combination meter connector.
3. Check combination meter input/output standard values. Refer to MWI-47, "Reference Value".

Is the inspection result normal?
YES >> GO TO 5.
NO  >> Replace combination meter. Refer to MWI-121, "Removal and Installation".

5. CHECK VEHICLE SPEED SIGNAL (POWER STEERING CONTROL UNIT SIDE)
1. Turn the ignition switch OFF.
2. Connect power steering control unit connector.
3. Start the engine.
4. Check signal between power steering control unit connector M59 terminal 8 and ground with oscilloscope.

<table>
<thead>
<tr>
<th>Power steering control unit</th>
<th>Value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
</tr>
<tr>
<td>M59</td>
<td>8 - Ground</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES >> GO TO 6.
NO  >> Replace power steering control unit. Refer to STC-21, "Removal and Installation".

6. CHECK TERMINALS AND HARNESS CONNECTORS
1. Check power steering control unit pin terminals for damage or loose connection with harness connector.
2. Check combination meter pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?
YES >> Inspection End
NO  >> Repair or replace damaged parts.
### TERMINAL LAYOUT

![Terminal Layout Diagram](image)

### PHYSICAL VALUES

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Wire color</th>
<th>Description</th>
<th>Condition</th>
<th>Value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>-</td>
<td>Signal name</td>
<td>Input/Output</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Ground</td>
<td>R/Y Power steering solenoid valve</td>
<td>Output</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Voltage</td>
<td>Vehicle speed: 0 km/h (0 MPH) (Engine is running)</td>
<td>4.4 - 6.6 V</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Vehicle speed: 100 km/h (62 MPH)</td>
<td>2.5 - 3.7 V</td>
</tr>
<tr>
<td>3</td>
<td>Ground</td>
<td>G Ignition power supply</td>
<td>Input</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ignition switch: ON</td>
<td>Battery voltage</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ignition switch: OFF</td>
<td>0 V</td>
</tr>
<tr>
<td>5</td>
<td>Ground</td>
<td>LG/W Power steering solenoid valve</td>
<td>—</td>
<td>Always 0 V</td>
</tr>
<tr>
<td>6</td>
<td>Ground</td>
<td>B Ground</td>
<td>—</td>
<td>Always 0 V</td>
</tr>
<tr>
<td>8</td>
<td>Ground</td>
<td>L/B Vehicle speed signal</td>
<td>Input</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Vehicle speed: 40 km/h (25 MPH)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>CAUTION:</strong> Check air pressure of tire under standard condition.</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Ground</td>
<td>V/W Engine speed signal</td>
<td>Input</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Engine speed: At idle (Warm-up condition)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Engine speed: Approx. 2,000 RPM (Warm-up condition)</td>
<td></td>
</tr>
</tbody>
</table>

**CAUTION:**

- 50 ms

Revision: August 2012
POWER STEERING CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

When using circuit tester or oscilloscope to measure voltage for inspection, be sure not to extend forcibly any connector terminals.

Fail Safe

EPS system

• EPS system enters the fail-safe mode (that allows the steering force to be controlled without impairing the drive ability) if any of the input/output signals to/from EPS system (power steering control unit) deviate from the standard.

NOTE:
The system enters the fail-safe mode if the engine speed remains at 1,500 RPM or more for over 10 seconds while the vehicle is stopped. This is normal.

• The fail-safe function is cancelled when a vehicle speed signal of 2 km/h (1.2 MPH) or more is inputted or the key switch is turned OFF→ON. EPS system restores the normal operation at that time.

### Function Warning lamp DTC No. Detection point (malfunction part) Malfunction part and cause

<table>
<thead>
<tr>
<th>Function</th>
<th>Warning lamp</th>
<th>DTC No.</th>
<th>Detection point (malfunction part)</th>
<th>Malfunction part and cause</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fail-safe function</td>
<td>—</td>
<td>—</td>
<td>Vehicle speed signal</td>
<td>• Engine speed is 1,500 RPM or more and there is no vehicle speed signal input for over 10 seconds during vehicle travel.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Vehicle speed signal has abruptly dropped from 30 km/h (19 MPH) or more to 2 km/h (1.2 MPH) or less within 1.4 seconds.</td>
</tr>
</tbody>
</table>

Revision: August 2012 2012 Maxima
### ELECTRONICALLY CONTROLLED POWER STEERING SYSTEM

#### WIRING DIAGRAM

<table>
<thead>
<tr>
<th>Connector No.</th>
<th>Connector Name</th>
<th>Connector Color</th>
<th>Color of Wire</th>
<th>Terminal No.</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1</td>
<td>M1</td>
<td>WHITE</td>
<td>176</td>
<td>1</td>
<td>RY</td>
</tr>
<tr>
<td>M2</td>
<td>M2</td>
<td>WHITE</td>
<td>176</td>
<td>2</td>
<td>B</td>
</tr>
<tr>
<td>M3</td>
<td>FUSE BLOCK (J/B)</td>
<td>WHITE</td>
<td>60G</td>
<td>7</td>
<td>-</td>
</tr>
<tr>
<td>M4</td>
<td>POWER STEERING</td>
<td>WHITE</td>
<td>61G</td>
<td>8</td>
<td>LNB</td>
</tr>
<tr>
<td>M5</td>
<td>CONTROL UNIT</td>
<td>WHITE</td>
<td>62G</td>
<td>9</td>
<td>VSW</td>
</tr>
<tr>
<td>M6</td>
<td>COMBINATION METER</td>
<td>WHITE</td>
<td>63G</td>
<td>10</td>
<td>ENG TACHO</td>
</tr>
<tr>
<td>M7</td>
<td></td>
<td></td>
<td>64G</td>
<td>11</td>
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<tr>
<td>M8</td>
<td></td>
<td></td>
<td>65G</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

Revision: August 2012

STC-17

2012 Maxima
SYMPTOM DIAGNOSIS

Description

- Hard steering when fully turning the steering wheel.
- Light steering when driving at a high speed.

Diagnosis Procedure

1. CHECK SYSTEM FOR POWER SUPPLY AND GROUND

Perform trouble diagnosis for power supply and ground circuit. Refer to STC-6, "Diagnosis Procedure".

Is the inspection result normal?

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

2. CHECK SYSTEM FOR VEHICLE SPEED SIGNAL

Perform trouble diagnosis for vehicle speed signal. Refer to STC-12, "Diagnosis Procedure".

Is the inspection result normal?

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

3. CHECK SYSTEM FOR ENGINE SPEED SIGNAL

Perform trouble diagnosis for engine speed signal. Refer to STC-9, "Diagnosis Procedure".

Is the inspection result normal?

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

4. CHECK SYSTEM FOR POWER STEERING SOLENOID VALVE

Perform trouble diagnosis for power steering solenoid valve. Refer to STC-7, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Perform the symptom diagnosis for the steering system. Refer to ST-8, "NVH Troubleshooting Chart".
NO >> Repair or replace damaged parts.
PRECAUTIONS

PRECAUTION

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

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

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

REMOVAL
1. Disconnect negative battery terminal. Refer to PG-67, "Removal and Installation (Battery)".
2. Remove audio/navigation unit. Refer to AV-66, "Removal and Installation" (BASE AUDIO), AV-159, "Removal and Installation" (BOSE W/MONOCHROME DISPLAY), AV-322, "Removal and Installation" (BOSE W/COLOR DISPLAY), AV-490, "Removal and Installation" (BOSE W/COLOR DISPLAY W/NAVIGATION).
3. Remove automatic drive position control unit (if equipped). Refer to ADP-172, "Removal and Installation".
4. Remove EPS control unit (1) from the bracket.
5. Disconnect EPS control unit connector (A) and remove the EPS control unit (1).

INSTALLATION
Installation is in the reverse order of removal.