FUEL PUMP CONTROL MODULE REPLACEMENT

TECHNICAL SERVICE BULLETIN

Reference Number(s): 23-32, Date of Issue: April 30, 2008

VOLVO:
- S60 (plastic tank) 2005-2006
- S60 R-line 2004-2006
- S80 2005-2006
- V70 (plastic tank) 2005-2006
- V70 R-line 2004-2006
- V70 R-line 2004-2006
- V70 XC / XC70 2005-2006

NOTE: If using a printed version of this TNN, first check for the latest online version.

Description

A new fuel pump control module (also referred to as Pump Electronic Module, or PEM) has been introduced as a spare part, which requires a new location if it is replaced. This TNN applies to vehicles manufactured up to the chassis number in the chart below. If the PEM needs to be replaced, install the PEM in the new location as per the Service method below.

Vehicles:

MODEL YEAR, FACTORY CODE AND CHASSIS NO REFERENCE

<table>
<thead>
<tr>
<th>Model</th>
<th>Model Year</th>
<th>Type</th>
<th>Factory code(1)</th>
<th>Chassis No</th>
</tr>
</thead>
<tbody>
<tr>
<td>S60 (plastic tank)</td>
<td>2005-2006</td>
<td>384</td>
<td>2</td>
<td>-509560</td>
</tr>
<tr>
<td>S60 R-line</td>
<td>2004-2006</td>
<td>384</td>
<td>2</td>
<td>-509560</td>
</tr>
<tr>
<td>S80</td>
<td>2005-2006</td>
<td>184</td>
<td>1</td>
<td>-430120</td>
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<tr>
<td>V70 (plastic tank)</td>
<td>2005-2006</td>
<td>285</td>
<td>1</td>
<td>-541131</td>
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<tr>
<td>V70 (plastic tank)</td>
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<td>285</td>
<td>2</td>
<td>-539327</td>
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<tr>
<td>V70 R-line</td>
<td>2004-2006</td>
<td>285</td>
<td>1</td>
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<tr>
<td>V70 R-line</td>
<td>2004-2006</td>
<td>285</td>
<td>2</td>
<td>-539327</td>
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<tr>
<td>V70XC / XC70</td>
<td>2005-2006</td>
<td>295</td>
<td>1</td>
<td>-214136</td>
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</tbody>
</table>

NOTE: S60/V70 cars with steel fuel tanks are not included in this method.

(1) Factory code is position #11 in the vehicle's VIN.

Parts:

PARTS
<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
<th>Part No.</th>
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<tbody>
<tr>
<td>PEM</td>
<td>1</td>
<td>30769225</td>
</tr>
<tr>
<td>Cable harness, 2004 S60R and V70R only</td>
<td>1</td>
<td>30798698</td>
</tr>
<tr>
<td>Cable harness, all other listed vehicles</td>
<td>1</td>
<td>30798596</td>
</tr>
<tr>
<td>Flange screw</td>
<td>1</td>
<td>985191</td>
</tr>
<tr>
<td>Flange screw</td>
<td>1</td>
<td>985055</td>
</tr>
<tr>
<td>Flange lock nut</td>
<td>1</td>
<td>985869</td>
</tr>
<tr>
<td>Washer</td>
<td>1</td>
<td>960143</td>
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**Service**

1. **Information on new location**

   

   **NOTE:** The pump electronic module (PEM) has a new location. The PEM has been moved from its previous located on the fuel tank, as illustrated. The new location is on the right rear edge of the spare wheel well.
2. Preparatory work

Removal of interior components

Ignition key in position 0.

Open the trunk lid/tailgate

Remove:

1. the cargo compartment mat/floor hatches
2. the rear seat cushion

Fold forward the backseat's backrest.

Remove the side cushion. See:

1. Removal, replacement and installation

2. Body and interior

3. Interior

4. Rear seat, passenger seat, seat

5. Upholstery, side cushion, replacing

Remove the right part of the backrest

Removing the child seat bracket:

1. Remove the bracket from the floor

2. Place the insulation to one side
3. **Cable harness removal**

Remove the right floor hatch over the fuel tank

Remove:

1. the cable harness connector by the wheel housing/sill (arrow in photo)
2. the cable harness connector at the fuel pump
3. the cable from its mountings
Fig 4: Locating Cable Harness Connector

Cut the cable harness as illustrated. This makes the cable harness easier to remove from the vehicle. Remove the remaining part of the cable harness with connector.
Fig 5: Cutting Cable Harness

Courtesy of VOLVO CARS OF NORTH AMERICA.

4. Removing the old PEM

Raise the vehicle. PEM is located at the fuel tank on the right side.

Remove:

1. the connector from the PEM
2. the PEM from the vehicle
3. the cable harness from its mountings
4. the cable harness from the vehicle

Check that the fuel line sits in its clamps.

Installation

5. Replacing the cable harness

Replace the rear cable harness with a new one according to the Parts chart on page 1.
NOTE: The photos illustrate the two different types of terminals on the two harnesses. Ensure that the correct parts are used.

Fig 6: Identifying Harness Terminals For Model Year 2004 S60R/V70R Only

![Harness terminals for Model Year 2004 S60R/V70R only](image)

Courtesy of VOLVO CARS OF NORTH AMERICA.

Fig 7: Identifying Harness Terminals For All Other Vehicles

![Harness terminals for all other listed vehicles](image)

Courtesy of VOLVO CARS OF NORTH AMERICA.

6. **Cable harness installation**

   Connect the connectors at the sill and fuel pump.
Position the cable harness in the sealing ring socket and in the mounting on the body (arrow in photo).

Install the floor hatch. Tighten to 6 Nm (4.5 lb. ft.).

Carefully check that the seal is in place when the hatch is installed.

Fig 8: Locating Cable Harness

7. New PEM installation

The new PEM is to be positioned on the rear part of the spare wheel well on the right side between the two stampings and below the bead of sealant, as shown in the photo.
Fig 9: Locating New Pump Electronic Module

Remove the backing tape from the self adhesive Velcro strap and install the PEM. Connect the cable's connector from the cable harness to the PEM.

8. **Finishing work**

Reposition the insulating mat.

**Install:**

1. the child seat bracket to the floor.

Use new screws:

1. 1 M10 tightened to 50 Nm (37 lb. ft.)
2. 1 M12 tightened to 80 Nm (60 lb. ft.).

2. the backrest. Use new screw:

   1. 1 M10, tightened to 50 Nm (37 lb. ft.)

3. Side cushion

4. seat cushion

5. cargo compartment carpeting/floor hatches.

WARRANTY CLAIM INFORMATION

<table>
<thead>
<tr>
<th>LABOR OP</th>
<th>LABOR DESCRIPTION</th>
<th>LABOR TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>28911-2</td>
<td>fuel pump control module, relocate</td>
<td>0.9 hr.</td>
</tr>
</tbody>
</table>

Claims may be submitted under the new car warranty when there is a documented customer complaint using claim type: 01