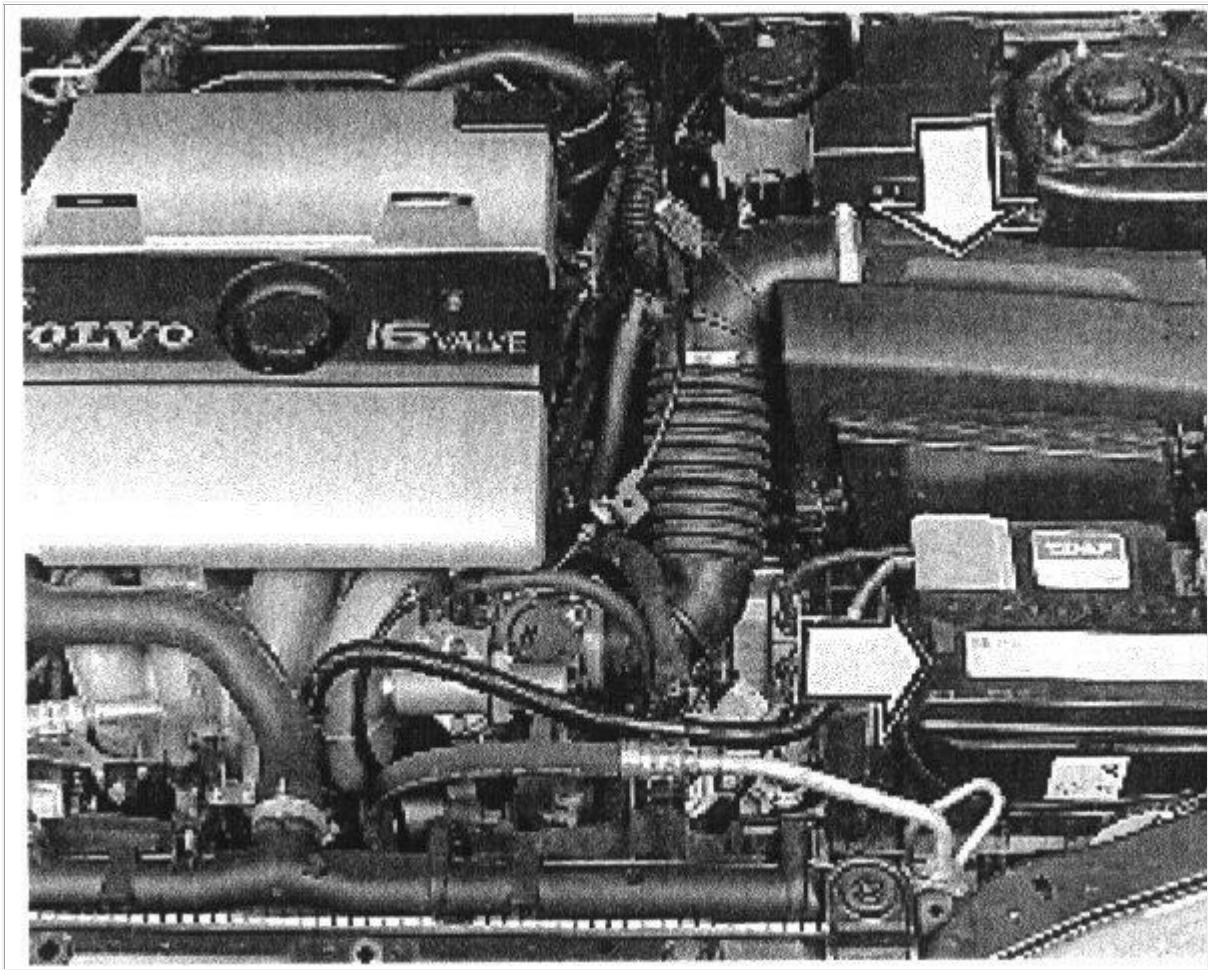


Replacing the gear-shift position sensor

Special tools: 9995-475

Removal

Preparations



Zoom

Sized for Print

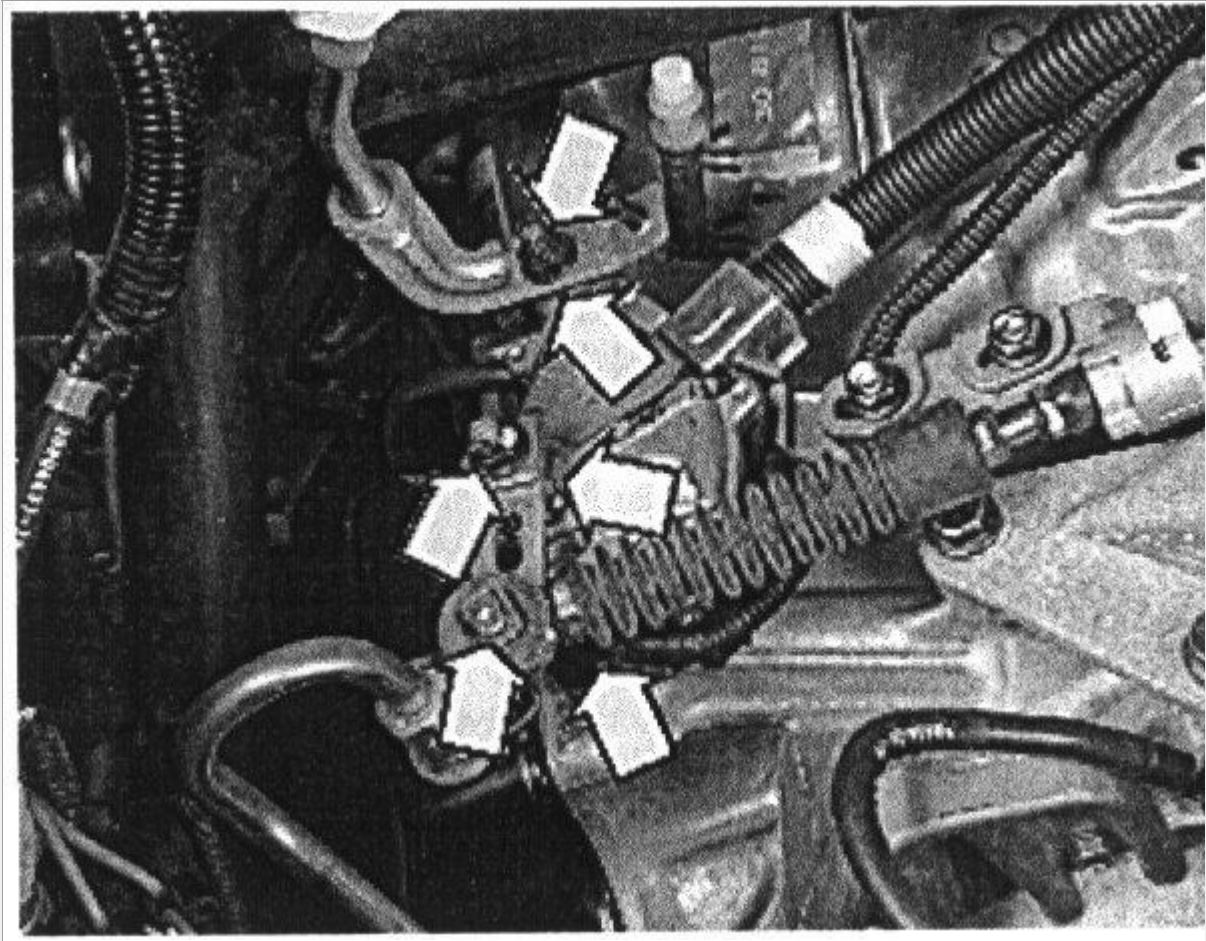
Remove:

- The battery.

- The air cleaner (ACL) housing assembly, see Replacing the air cleaner (ACL).
- The battery shelf.
- The tie straps from the cable harness for the sensor. (The straps can be reused.)

Disconnect the 10-pin connector from the sensor.

Removing the gear-shift position sensor



Zoom

Sized for Print

Remove:

- The transmission cable from the lever.
- The lever.
- The nut, the locking washer and the rubber washer for the gear shift linkage rod.

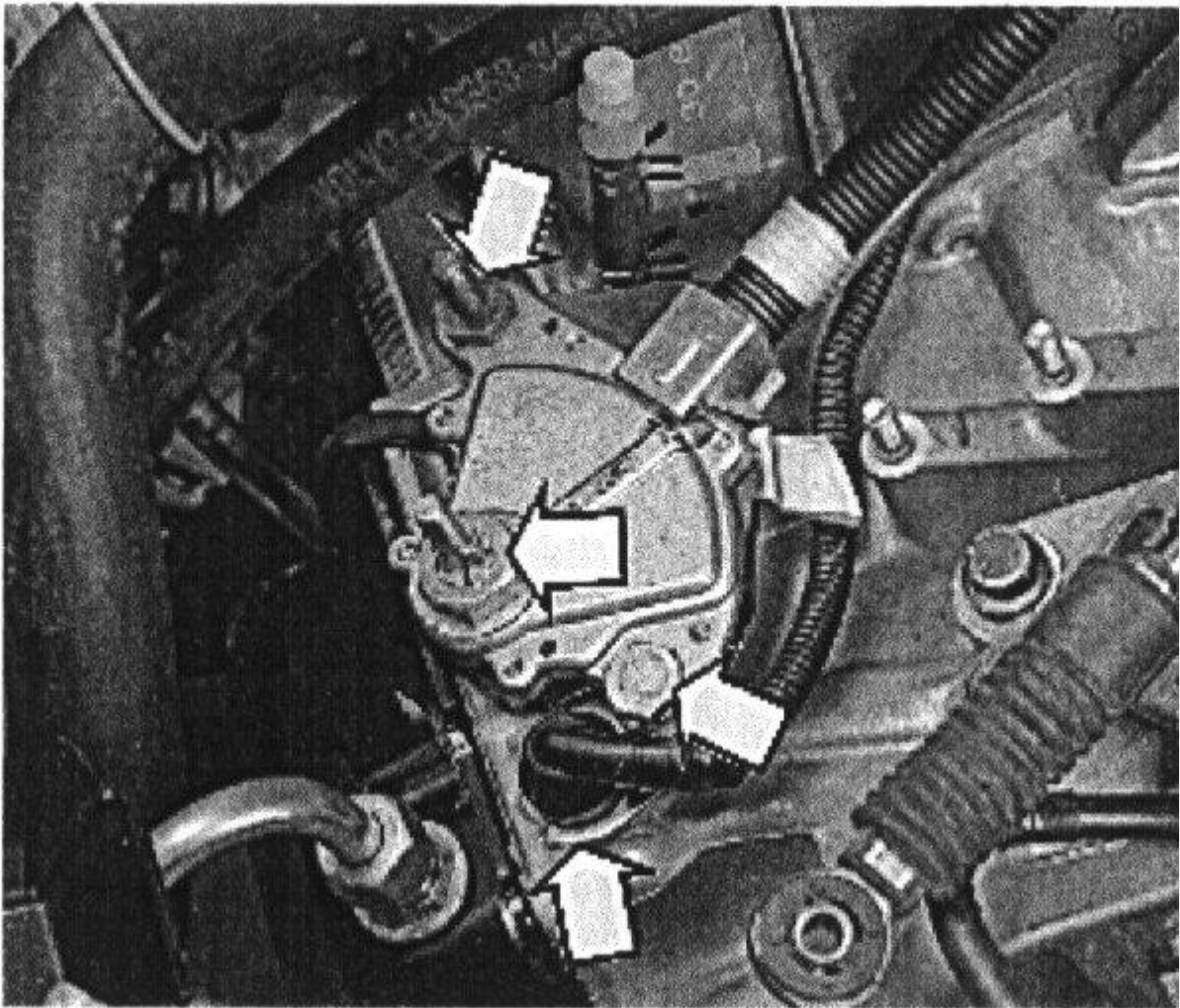
- The dip stick pipe. Lift up the pipe and turn it to one side.
- The mounting screws for the gear-shift position sensor (two).

Carefully lift the sensor from the gear shift linkage rod.

If the metal tongue on the gear-shift position sensor gets stuck on the transmission cable bracket:

Remove the bracket and put it to one side.

Installing, adjusting and checking Installing the gear-shift position sensor



Zoom

Sized for Print

Ensure that the holder / spacer for the solenoid cable harness is in position.

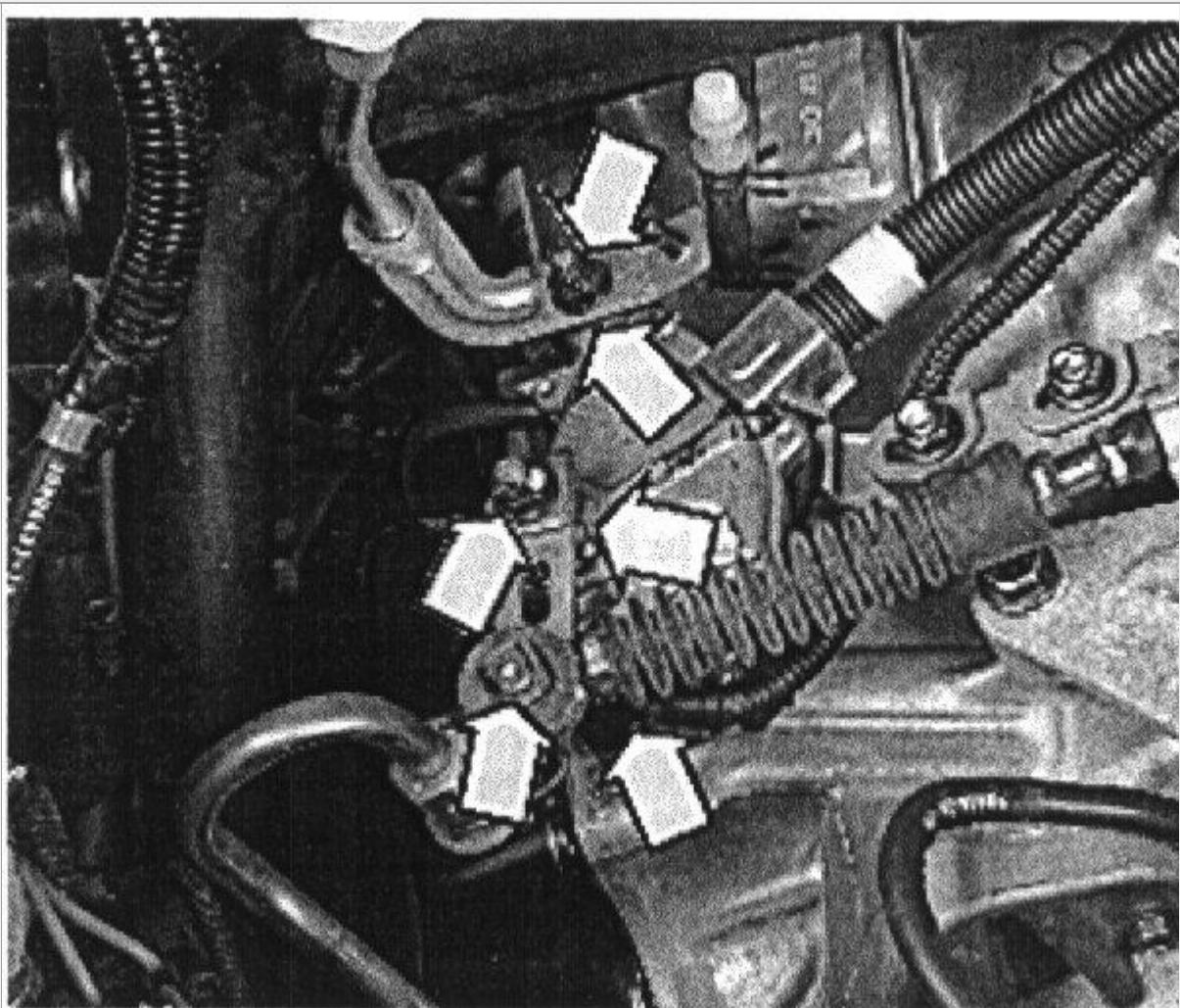
Install:

- The sensor. Finger tighten the mounting screws.
- The rubber washer, the lock washer and the nut for the gear shift linkage rod. Lock the nut with the washer.

Adjusting and checking

Adjust the gear-shift position sensor.

Installation, continued



Zoom

Sized for Print

Install:

- The bracket for the dip stick pipe. Ensure that the O-ring is in position.

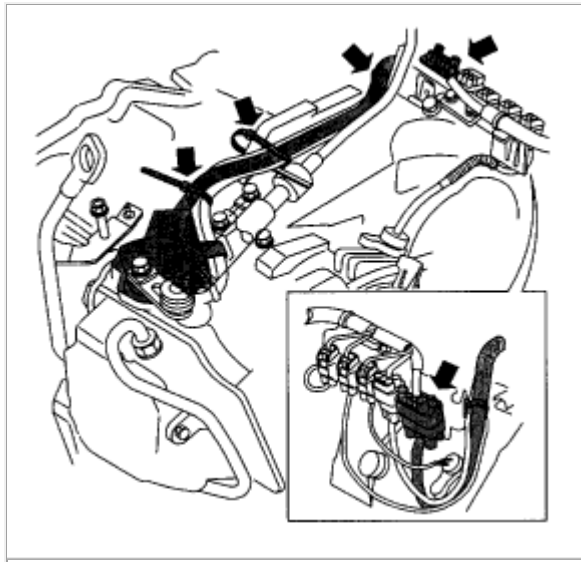
Tighten the nut Torque: 25 Nm

- The lever on the gear shift linkage rod.

Torque: 16 Nm

- The transmission cable on the lever with a washer and retaining clip. Apply a small amount of grease (P/N 1161241-3) to the lever shaft journal. If the transmission cable bracket was removed: Install the bracket. Adjust the transmission cable.

Installing connectors / cable harnesses



Zoom

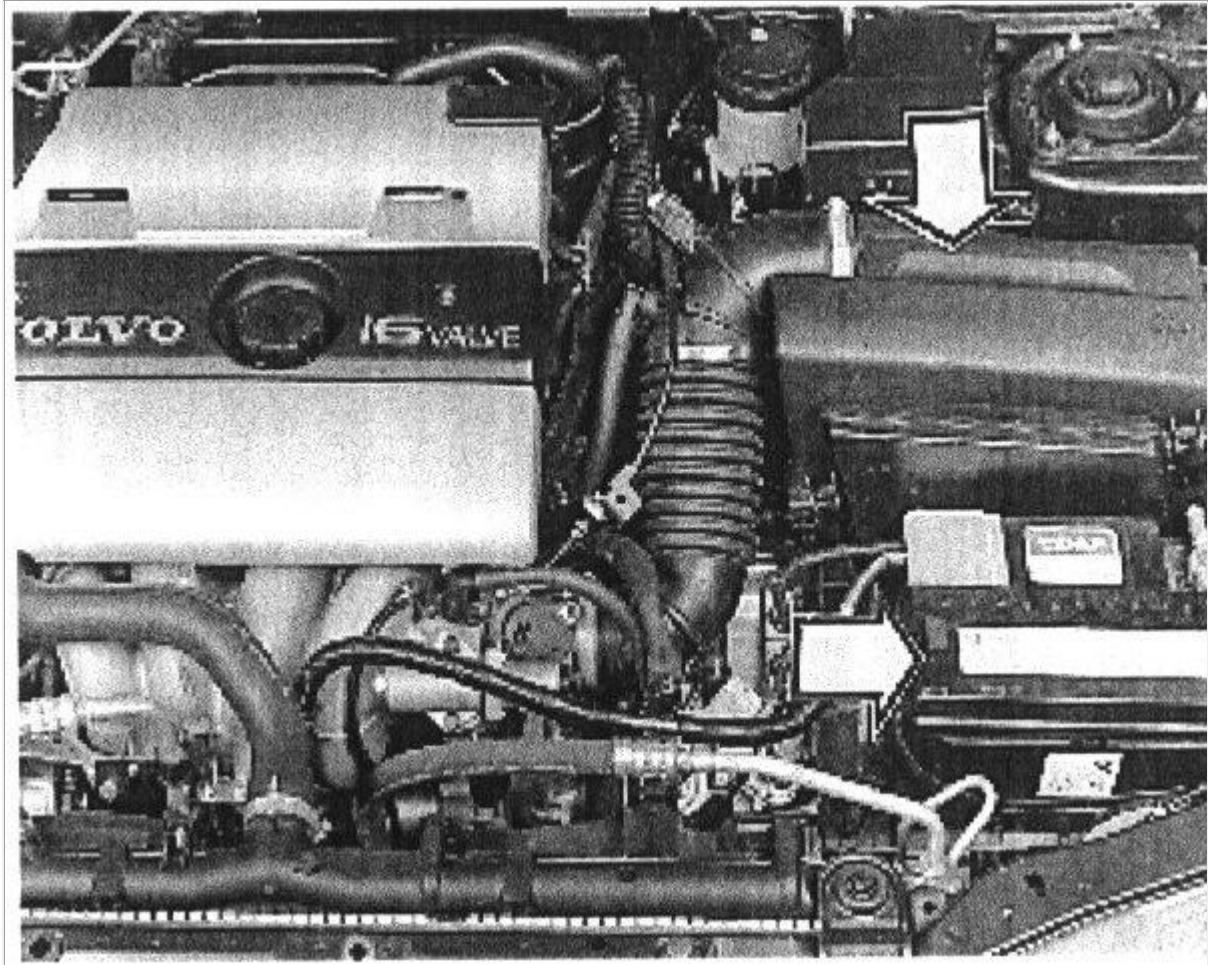
Sized for Print

Connect the gear-shift position sensor connector. Install the connector on the bracket.

Clamp the cable harness for the sensor to the cable harnesses for the solenoids and oil temperature sensor.

Clamp the cable harnesses under the transmission cable harness and the gear-shift position sensor.

Installing engine compartment components



Zoom

Sized for Print

Install:

- The battery shelf
- The air cleaner (ACL) housing assembly, see Replacing the air cleaner (ACL).
- The battery

Checking diagnostic trouble codes (DTCs)

Check and erase any diagnostic trouble codes (DTCs). Check the positions of the gear-shift position sensor. If it is not possible to use VCT 2000 as a handheld test tool, use the Volvo Scan Tool (ST) as

the test instrument instead. To connect the Volvo Scan Tool (ST), see [Connecting the Volvo Scan Tool \(ST\)](#).