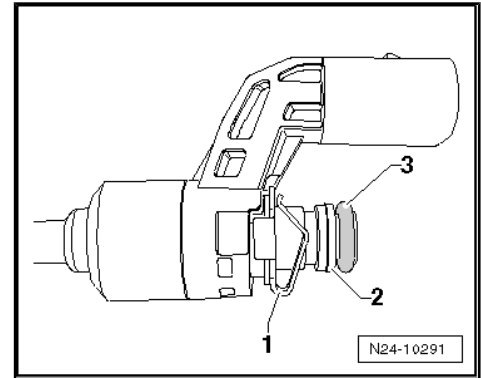




- Now install a new spring -1- using the locking plate - T10133/12- and place a new O-ring -3- in front of the support washer -2-.

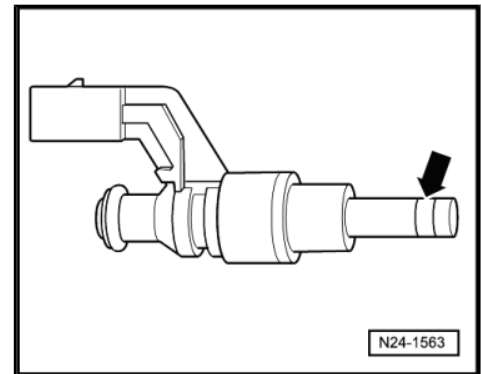
**Note**

The combustion chamber seal (Teflon®) -arrow- must not be oiled when installing the fuel injector.

- Install fuel injectors ⇒ [“5.1.3 Fuel Injectors”, page 259](#) .

**Note**

- ◆ *Sealing ring ⇒ [Item 1 \(page 226\)](#) must also be replaced at fuel injectors for cylinders 1, 3 and 5.*
- ◆ *Install the intake manifold, refer to [“5.1.1 Intake Manifold”, page 251](#) .*



5.2 Two Piece Intake Manifold

⇒ [“5.2.1 Upper Intake Manifold”, page 265](#) .

⇒ [“5.2.2 Lower Intake Manifold with Fuel Rail”, page 268](#) .

⇒ [“5.2.3 High Pressure Pump”, page 271](#) .

⇒ [“5.2.4 Fuel Injectors”, page 273](#) .

⇒ [“5.2.5 Fuel Injector Teflon® Seal and Washer”, page 277](#)

5.2.1 Upper Intake Manifold

Special tools and workshop equipment required

- ◆ Torque Wrench 5-50 Nm -V.A.G 1331-
- ◆ Assembly Tool -T10118-

Removing

**Note**

- ◆ *Read the Safety Precautions before starting. Refer to [“1.1 Safety Precautions”, page 155](#) .*
- ◆ *Follow all the rules of cleanliness. Refer to [“1.2 Clean Working Conditions”, page 221](#) .*
- ◆ *Intake Manifold Assembly Overview. Refer to [“2.2.1 Intake Manifold Overview”, page 234](#) .*

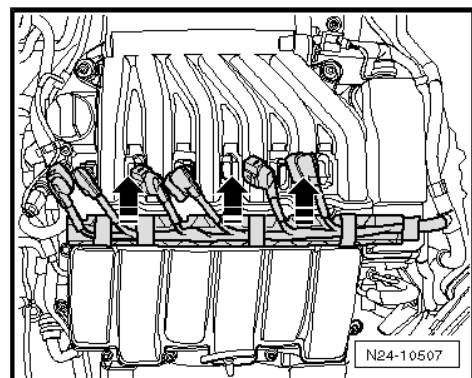
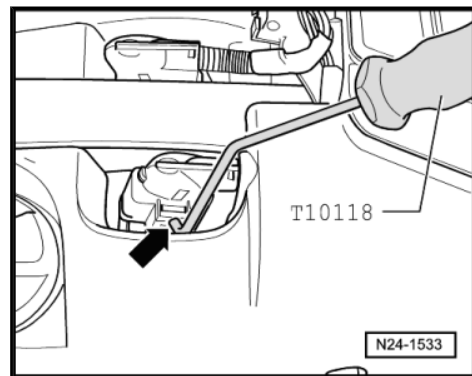
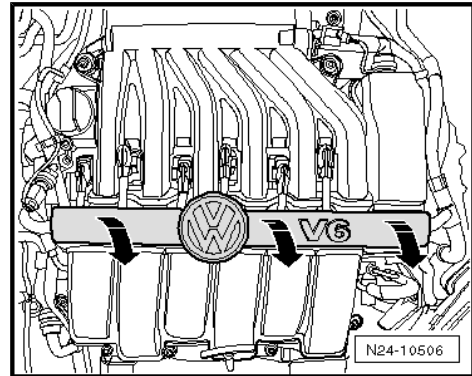


Caution

When doing any repair work, especially in the engine compartment, Pay attention to the following due to clearance issues:

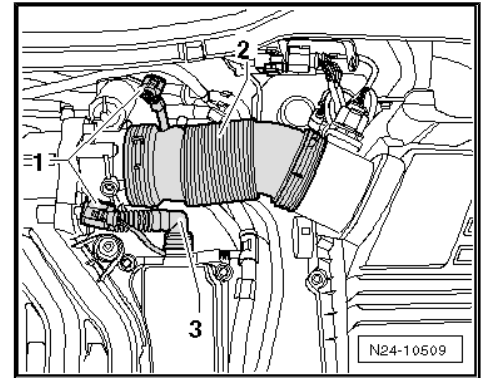
- ◆ *Route all lines and wires in their original locations.*
- ◆ *Make sure the wires have enough clearance to all moving or hot components.*

- Remove the ignition coil wiring harness cover strip in the direction of the -arrows-.
- Place the assembly tool -T10118- against the release button -arrow-, and carefully pull up to remove all the connectors from the Ignition Coil With Power Output Stages .
- Press the cable duct upward using a screwdriver and move the connectors to the side.

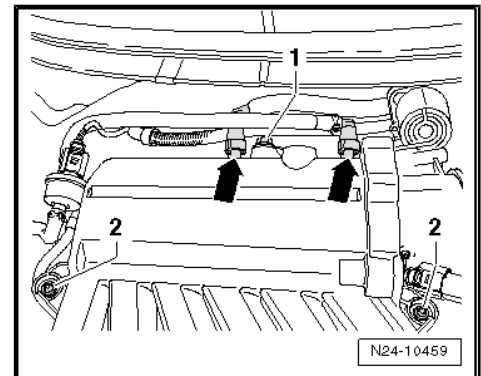




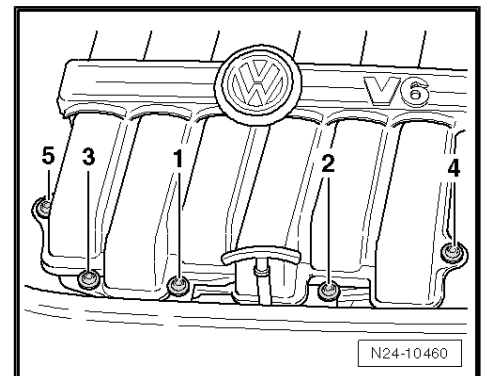
- Disconnect the connectors -1-, remove the intake hose -2- and disconnect the connecting hose -3- for the crankcase ventilation from the cylinder head cover.



- Disconnect the lines -arrows- from the intake manifold upper section.
- Unscrew the mounting bolt -1- for the intake manifold support at the rear .
- Remove the front intake manifold support bolts -2-.



- Unscrew the securing bolts -1 through 5- of the intake manifold upper section/lower section.
- Remove the intake manifold upper section downward and lay it on a suitable surface.

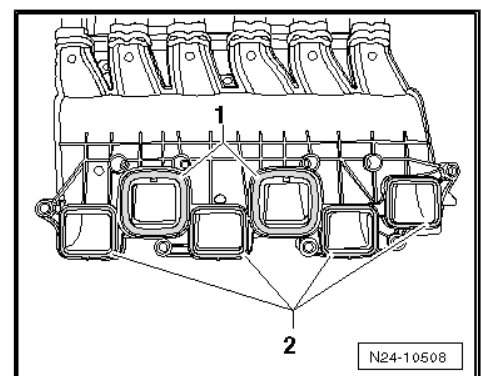
**Note**

Seal the intake channels inside the intake manifold lower section with a clean cloth.

Installing**Caution**

The sealing rings must be forcefully inserted into the upper section of the intake manifold. Leaks will occur if the seals remain in the upper section and are not in the intake manifold lower section.

- Install the sealing rings in the intake manifold upper section and lightly coat them with clean engine oil.
 - 1- large sealing rings
 - 2- small gaskets
- Mount the intake manifold upper section onto the intake manifold lower section.



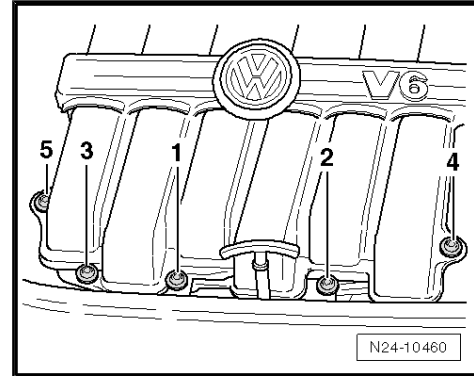


- Tighten the bolts -1 through 5- that connect the intake manifold upper section to the intake manifold lower section starting the inside and working toward the outside . Tightening specifications: 10 Nm
- Then tighten mounting bolts on intake manifold support.

Further installation is in the reverse order of removal.

Tightening specifications. Refer to

⇒ ["2.2.1 Intake Manifold Overview", page 234](#) .



5.2.2 Lower Intake Manifold with Fuel Rail

Special tools and workshop equipment required

- ◆ Torque Wrench 5-50 Nm -V.A.G 1331-
- ◆ Assembly Tool -T10118-