

Oxygen Sensors before Catalytic Converter

Removing Heated Oxygen Sensor (HO2S) -G39- bank 1 and Heated Oxygen Sensor (HO2S) 2 -G108- bank 2, removing and installing

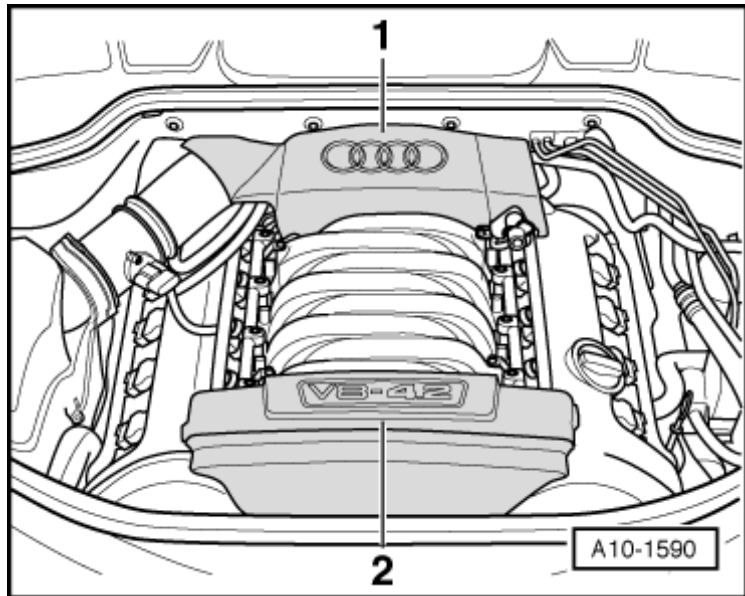
Special tools and workshop equipment required

- ◆ Ring spanner 7-piece set for oxygen sensor -3337-
- Remove engine cover.

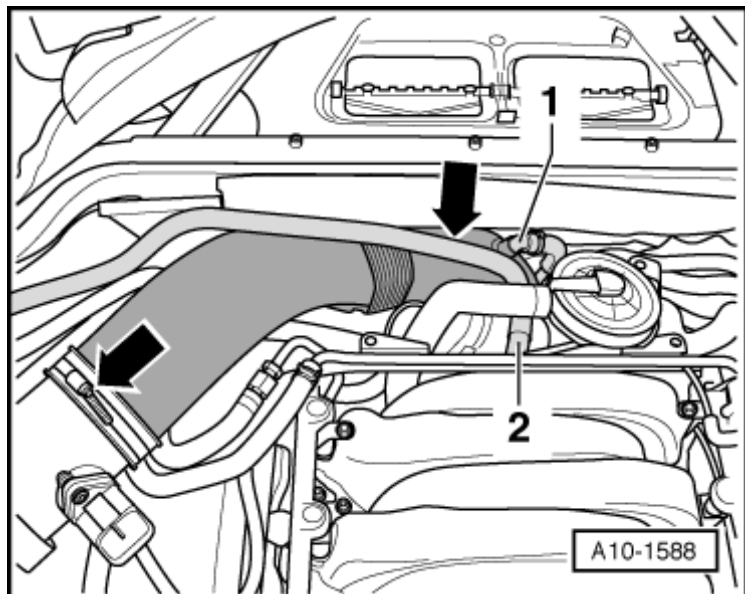


Note

Intake manifold must be removed to remove oxygen sensor before catalytic converter.



- Remove intake air hose between air filter and throttle valve control module.

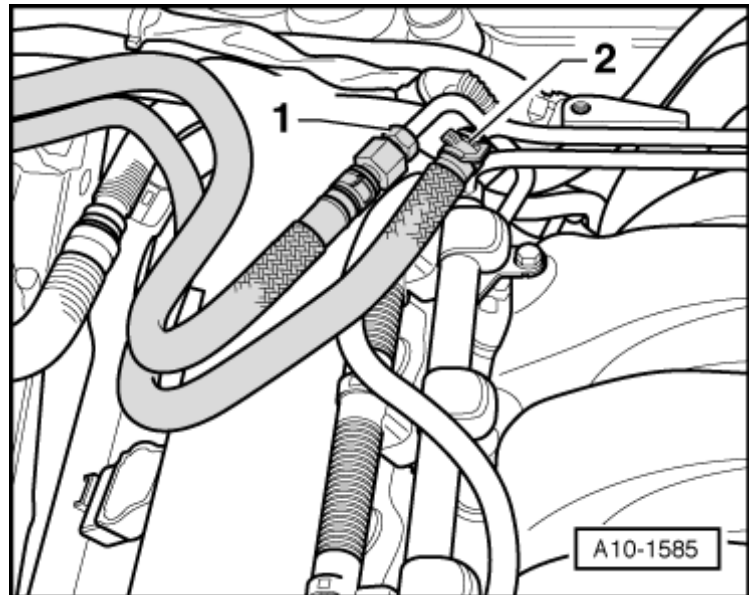


- Open fuel supply and fuel return line -1 and 2-.

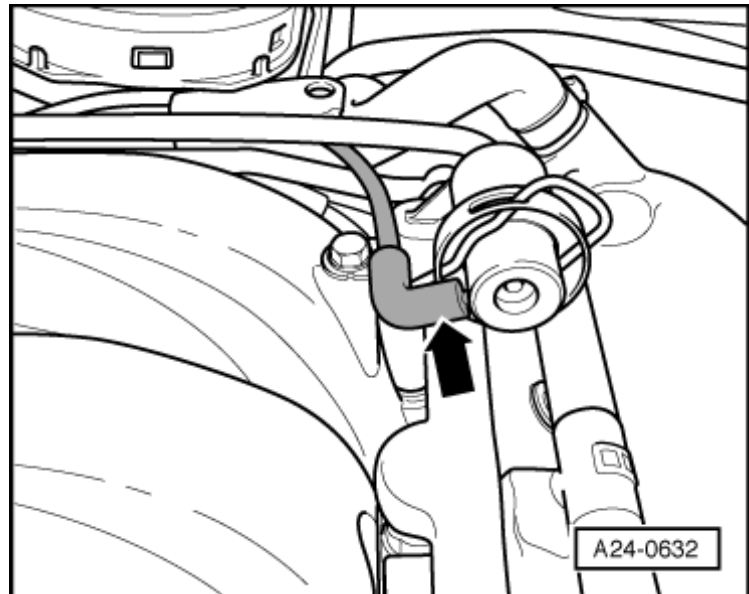


Note

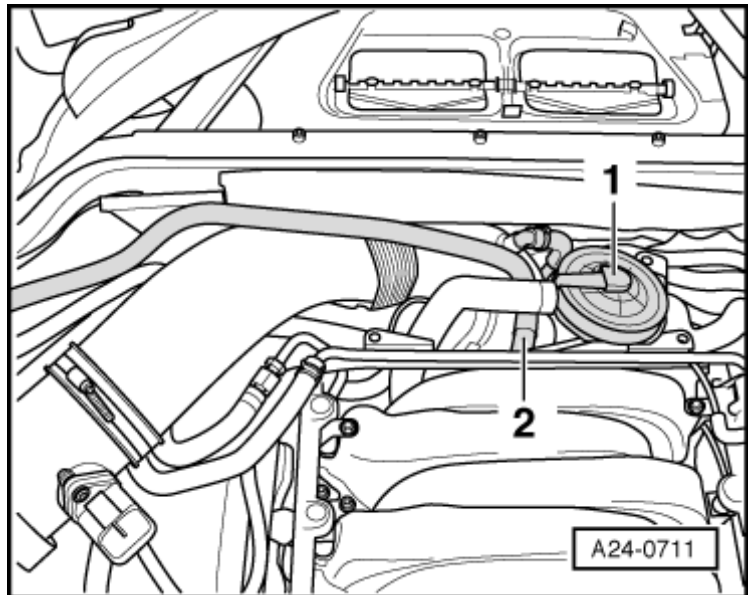
Engine code BGK has no fuel return line.



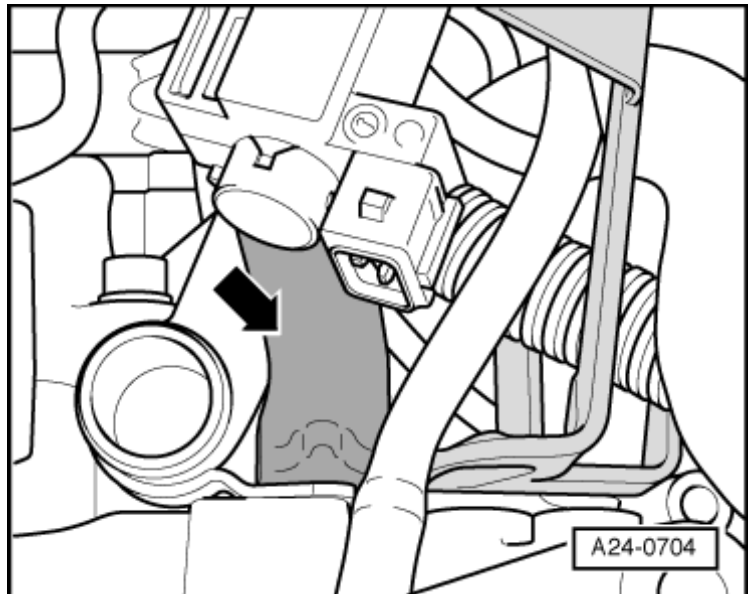
- Remove vacuum hose -- arrow -- from fuel pressure regulator (not on engine code BGK).



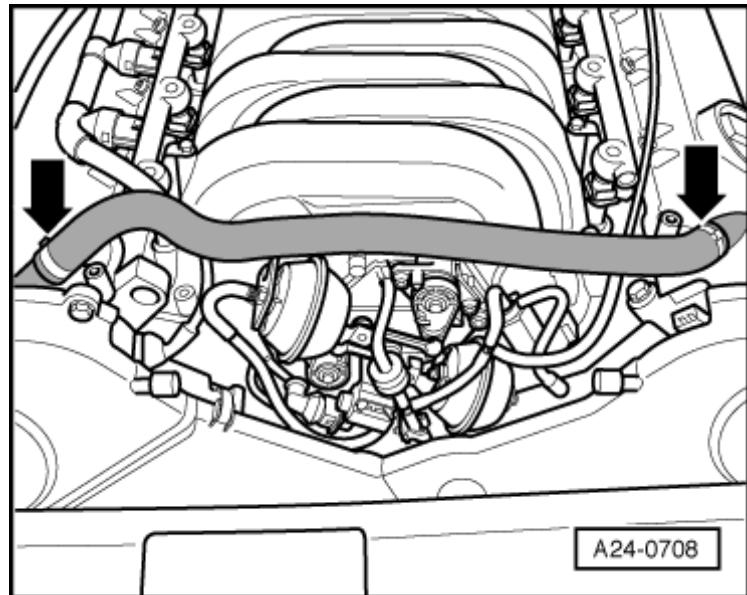
- Remove vacuum diaphragm -1- and hose - 2- from throttle valve control module.
- Remove electrical connector from Secondary Air Injection (AIR) Solenoid Valve and from throttle valve control module.



- Remove bracket from Secondary Air Injection (AIR) solenoid valve.



- Remove connecting hose of crankcase ventilation.
- Remove vacuum supply -1- for intake manifold change-over on intake manifold.



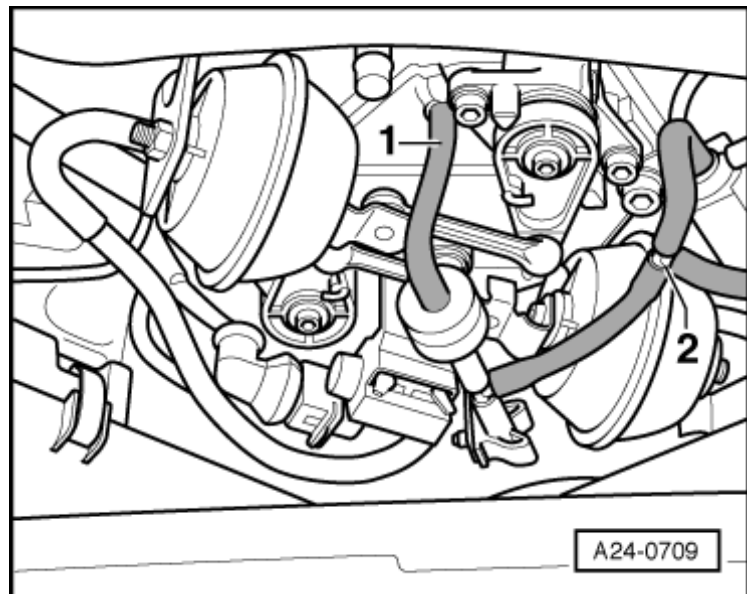
- Disconnect vacuum supply at T-connector 2-.



Note

The illustration is only an example. It shows the 3.7L BFL engine.

- Remove connector from manifold change-over valve.
- Disconnect connector from Hall sensor (bank 1) and from camshaft adjustment valve (bank 2).
- Disconnect all 8-pin connectors from fuel injectors.
- Set both connector strips to the side.
- Remove all socket head cap screws from intake manifold.
- Carefully pull intake manifold up and out. Water connection on throttle valve control module remains connected.
- Set intake manifold to the side, paying attention to the water connection.



Note

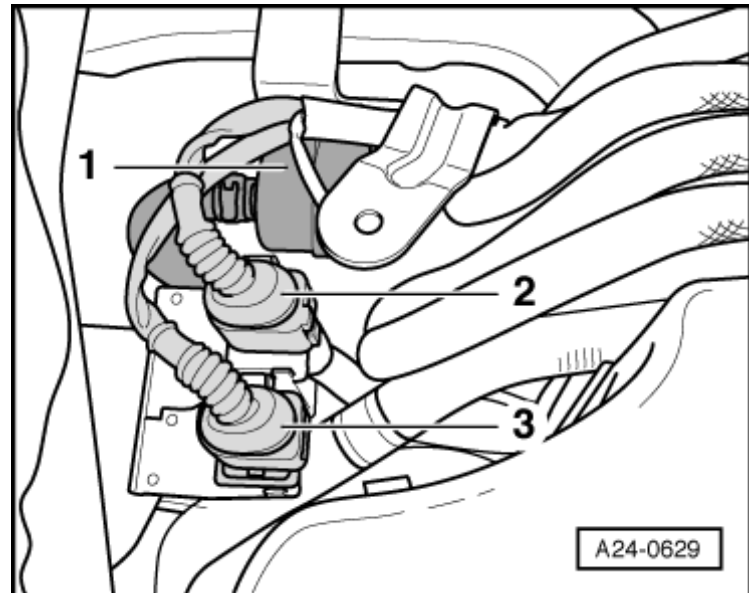
Plug the intake ports of the cylinder head with clean rags.

- Disconnect respective oxygen sensor connector.
- 2 - 4-pin connection for heated oxygen sensor (HO2S) 2 -G108- and oxygen

sensor (O2S) heater 2 -Z28- before catalytic converter of bank 2

3 - 4-pin connection for heated oxygen sensor (HO2S) -G39- and oxygen sensor heater -Z19- before catalytic converter of bank 1

- Open all cable ties in order to expose electrical wires.



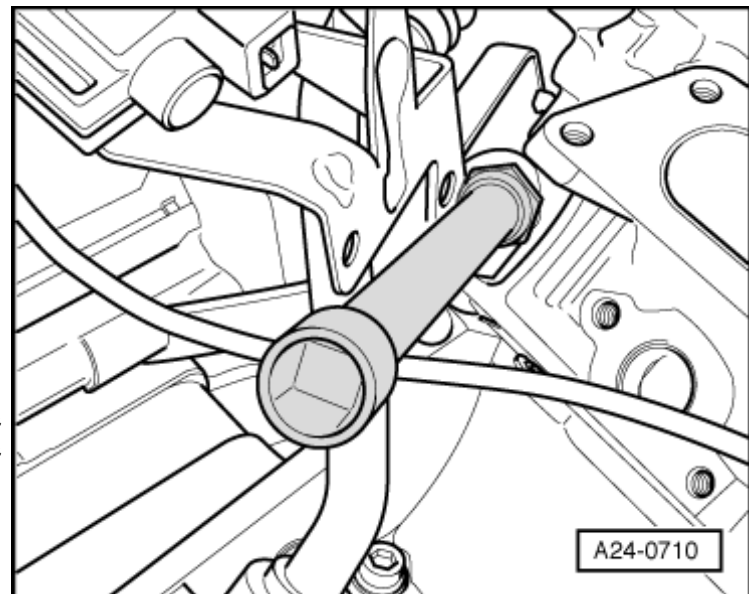
- Remove respective oxygen sensor with tool from Ring Spanner, 7 piece set -3337- (Illustration shows Heated Oxygen Sensor (HO2S) -G108-, bank 2).

Installing



Note

- ◆ *New oxygen sensors are coated with assembly paste; the paste must not get into slots of oxygen sensor body.*
- ◆ *For a used oxygen sensor, only coat threads with hot bolt paste. This paste must not come into contact with sensor slots. Hot bolt paste → [Parts Catalog](#)*
- ◆ *Use a lubricant (silicone-free) for installing the intake hose.*
- ◆ *Wires of oxygen sensors must always be secured in the same position when installing so that contact with the exhaust pipe is avoided.*



Tightening Specifications

Component	Nm
Oxygen sensor	55

Installation of intake manifold is in reverse order of removal. Note the following.



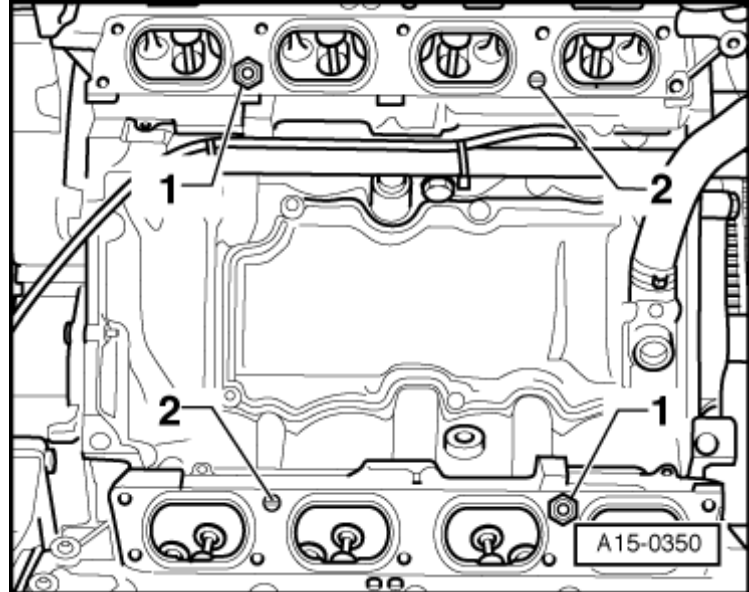
Note

- ◆ *Replace gaskets*
- ◆

All cable ties which are opened or cut open when removing, must be replaced in the same position when installing.

- ◆ *Secure all hose connections again using original hose clamps.*
→ [Parts Catalog](#)
- Replace intake manifold gaskets, thereby removing the locking bolt -1-.
- Note positioning pin -2- when installing intake manifold.
- Bolt on intake manifold in diagonal sequence in stages.
- Check fuel system for leaks → [Anchor](#).

Tightening Specifications



Component	Nm
Intake manifold	10