Servicing Motronic injection system
Checking fuel pressure regulator and holding pressure

Test conditions

- Fuel pump relay OK
- Fuel pump OK
- Fuel filter OK
- Battery voltage at least 11 volts

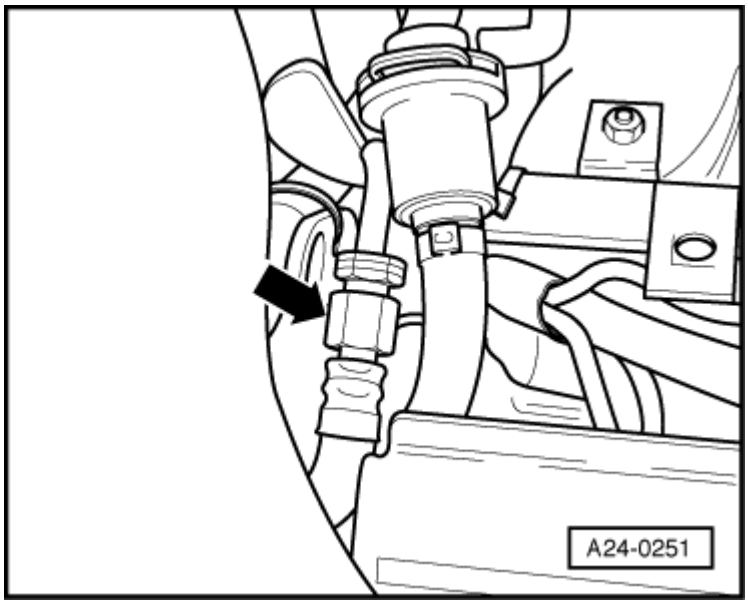
Note:

Fuel pressure regulator regulates fuel pressure as a function of intake pressure.

> ***Important***
> ***The fuel system is pressurised! Before loosening hose connections or opening the test connection (to measure fuel pressure), place a cloth around the connection. Then release pressure by carefully loosening the connection.***

- Briefly open the fuel tank filler cap (to release pressure).

- Cover the pressurised screw connection with a cloth.
- → Open the screw connection - arrow- and catch escaping fuel in a cloth.

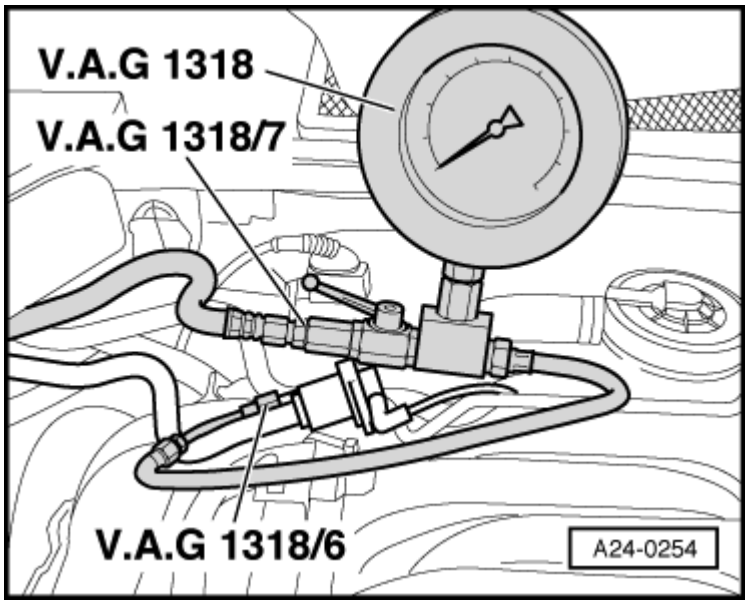


- → Install pressure measuring device V.A.G 1318 together with adapters V.A.G 1318/6, 1318/7 between feed line and fuel rail pipe.
- → Open cut-off valve on pressure gauge. The lever points in the direction of flow.

Note:

The shut-off cock of the pressure measuring device should be open (lever facing in the direction of flow).

- Start the engine and run at idling speed.



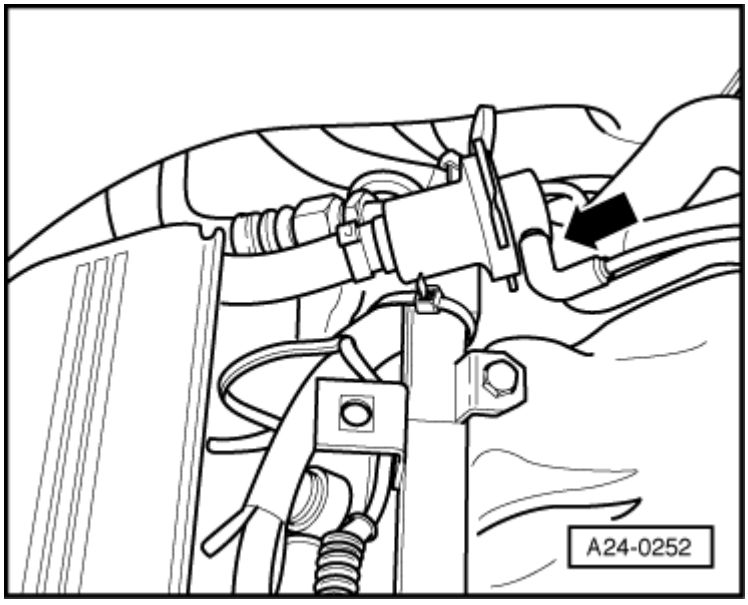
- Measure the fuel pressure.

Specified value: approx. 3.5 bar

- → Disconnect vacuum hose -arrow- from fuel pressure regulator.

Note:

Replace pressure regulator if fuel emerges at the vacuum connection of the pressure regulator in the course of the following pressure test.



The fuel pressure should rise to approx. 4.0 bar.

If specification is not attained:

- Replace pressure controller as a test and repeat pressure test.
- If specification is still not attained, check the fuel pump/feed pipe for damage (e.g. crushing) and replace, if necessary.

If specified value is attained:

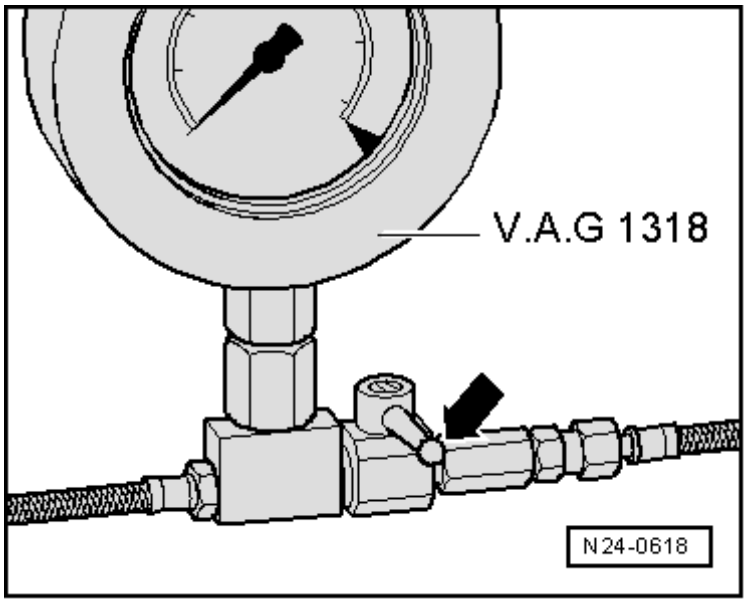
- Reconnect vacuum hose.

- Switch ignition off.
- Test for leaks and holding pressure by watching pressure drop on gauge.

After 10 minutes the remaining pressure should be at least 3 bar.

If the holding pressure drops below 3.0 bar:

- Start the engine and run at idling speed.
- → Allow the pressure to build up, then switch off the ignition. At the same time close the cut off valve on the pressure gauge V.A.G 1318 (valve lever at right angles to direction of flow).
- Observe pressure drop on gauge.



If the pressure drops again, the following faults are possible:

- ◆ Unions on pressure gauge after cut-off valve leaking
- ◆ Fuel pressure regulator defective
- ◆ Injectors leaking

If the pressure does not drop, the following faults are possible:

- ◆ Union between pressure gauge and fuel supply pipe leaking
- ◆ Supply pipe leaking at fuel tank

- Non-return valve in fuel pump leaking

=> Fuel supply - Petrol Engines; Repair group 20; Fuel supply