

Servicing Digifant fuel injection system

Testing injectors

Special tools, testers and auxiliary equipment required

- ◆ Hand-held multimeter V.A.G 1526 or V.A.G 1526 A
- ◆ Voltage tester V.A.G 1527 B
- ◆ Adapter cable set V.A.G 1594 A
- ◆ Test box V.A.G 1598 A with adapter cable V.A.G 1598/9

Testing internal resistance

- Unplug connector on injector to be checked.
- → Set hand-held multimeter V.A.G 1526 to resistance measuring range and connect it to the contacts of the injector that is to be tested using test cables from V.A.G 1594 A.

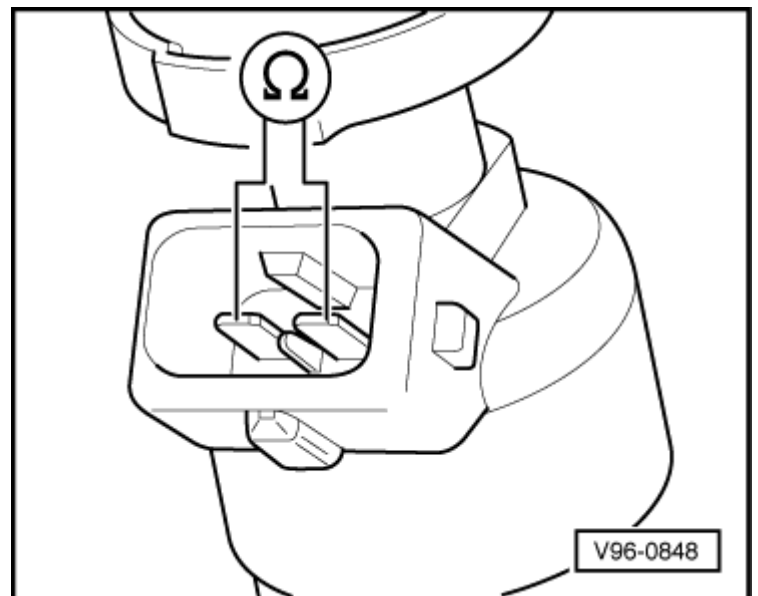
- Specification

Bosch injector: 15 ... 17 ω

Siemens injector: 13.5 ... 15.5 ω

If the specification is not obtained:

- Replace the injector => Page [24-43](#).



Testing voltage supply

Test requirements:

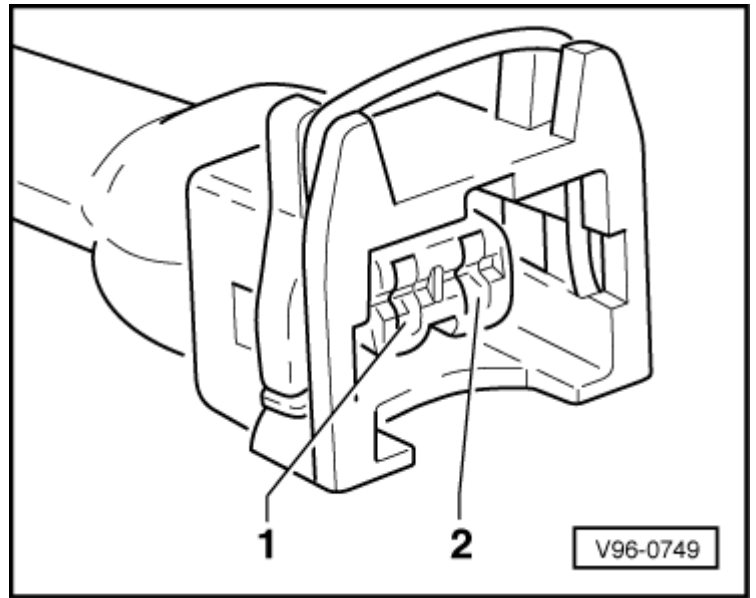
- Fuse 28 OK
- Fuel pump relay OK, testing =>Page [24-31](#).
- Unplug the connector at the cold start valve.
- Unplug the connector on the injector that is to be checked.
- → Connect voltage tester V.A.G 1527 B as follows:

Injector plug connection Contact	Measure to
1	Engine earth

- Operate the starter briefly.
 - The LED should light up.

If the LED does not light up:

- Test the wiring connection between contact 1 and fuse 28 for open circuit using the current flow diagram.
- Rectify any open circuit in the wiring.

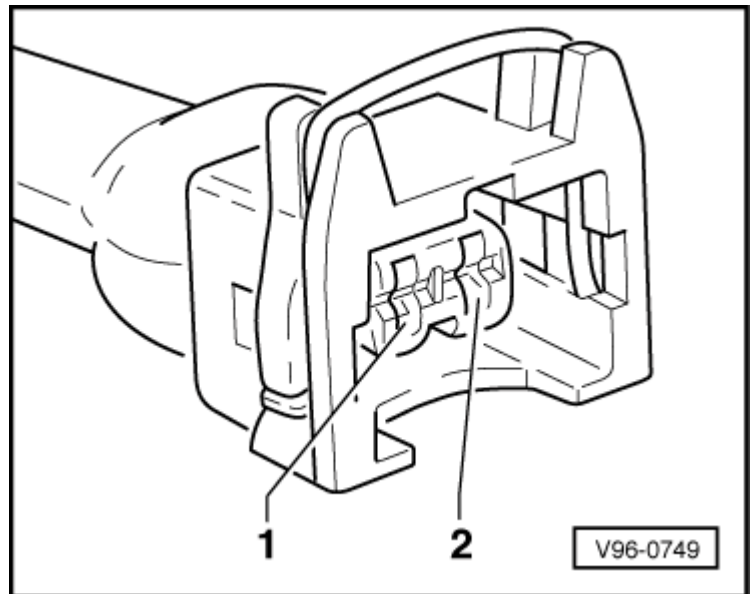


Testing actuation

Test requirement:

- Hall sensor G40 OK; testing => Page [28-12](#).
- Unplug the connector on the injector that is to be checked.
- → Connect voltage tester V.A.G 1527 B as follows with auxiliary leads from V.A.G 1594 A:

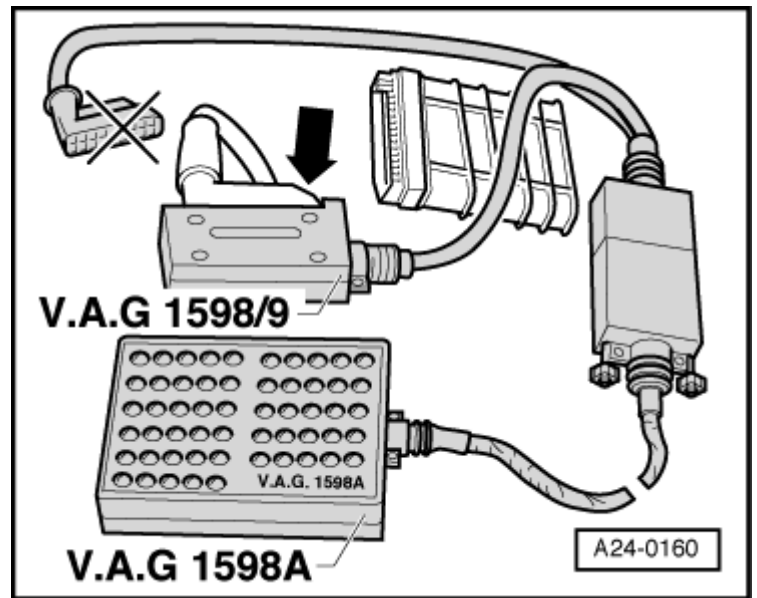
Injector plug connection Contact	Measure to
2	Battery positive



- Operate the starter briefly (the engine may start).
 - The LED should flash.

If the LED lamp does not flash or if it lights up continuously:

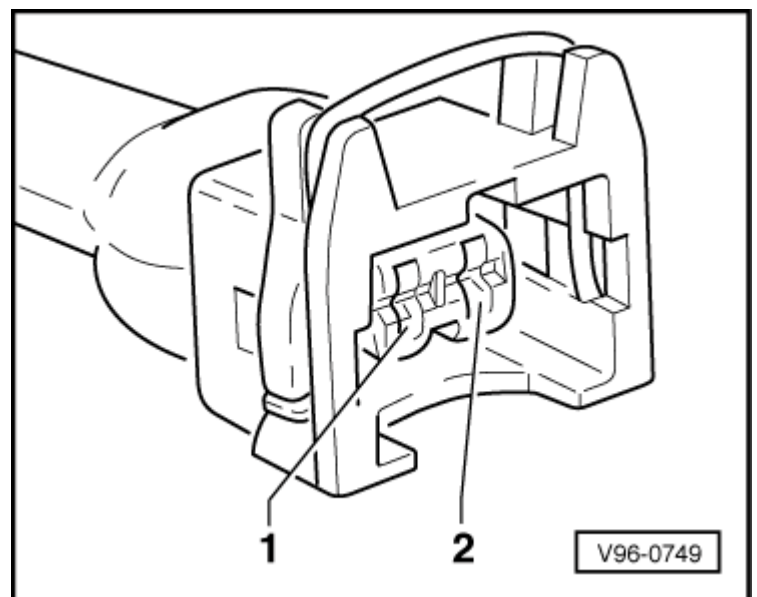
- → With the ignition switched off, use adapter V.A.G 1598/9 to connect test box V.A.G 1598 A only to the plug connection of the engine control unit (control unit remains disconnected) => Page [24-16](#).



- → Test for open circuit and short to positive or earth in the following wiring connection:

Injector plug connection Contact	Test box V.A.G 1598 A
	Socket
2	2

- Rectify any open/short circuit as necessary.



If the wiring connection is OK, but the LED does not flash or comes on continuously:

- Test the voltage supply to the Digifant control unit => Page [28-29](#).

Testing spray pattern and leak-tightness

Special tools, testers and auxiliary equipment required

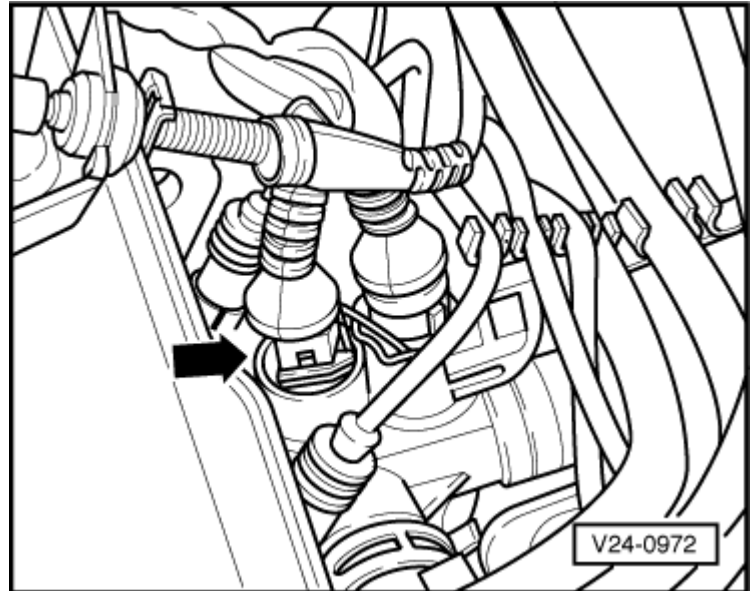
- ◆ Tester for fuel injection quantity
V.A.G 1602

Test requirements:

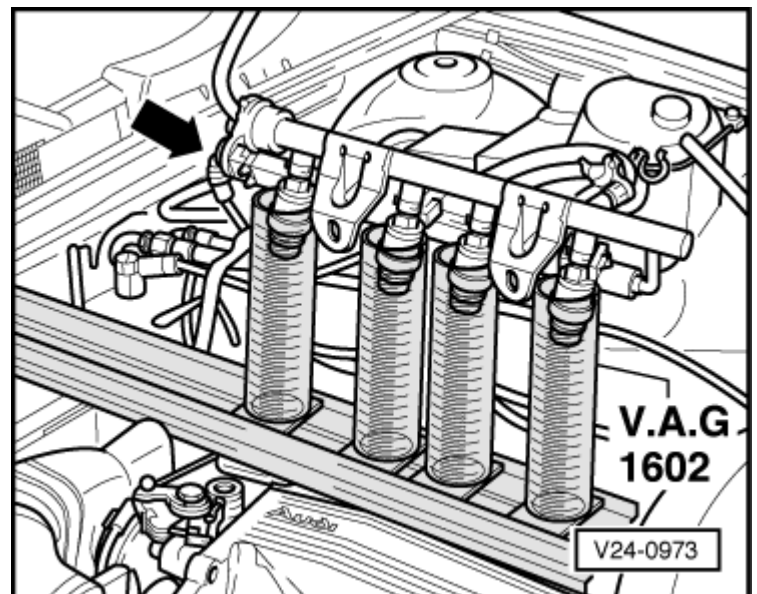
- Connector unplugged from cold start valve
- Remove the fuel rail together with the injectors => Removing and installing injectors, Page [24-43](#).
- → Unplug connector from coolant temperature sensor -G62 -arrow-.
- Attach the fuel supply and return pipes to the fuel rail.
- If fitted, detach the cold start valve with connected fuel line from the intake manifold.

Note:

Do not remove the retaining clip (Part No. 035 906 037) at the injector/fuel rail connection until after installation in the intake manifold.



- → Plug in the connector at the line guide and the connectors at the injectors.
- Insert the injectors in the openings of measuring device V.A.G 1602.
- Operate the starter.
 - The injectors should eject fuel with even pulsations
- Unplug the connectors from the injectors.
- Switch the ignition on for about 5 seconds and check the injectors for leaks.
 - No more than 2 drops per minute should flow out from each injector.



Notes:

- ◆ When installing the injectors, ensure that the O-rings are not damaged.

◆ Replace any damaged O-rings.