

## Checking dash panel insert components

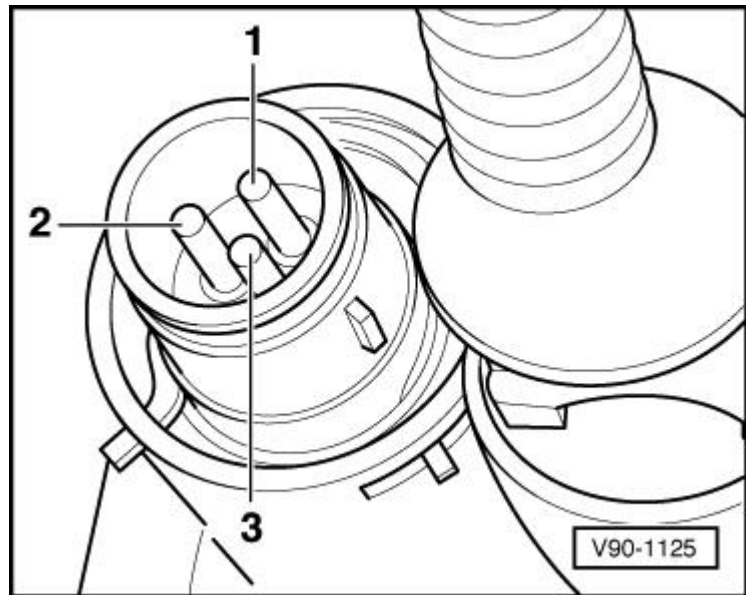
### Checking coolant temperature gauge

**Vehicles with coolant temperature control switch (overheating) -F14 and coolant temperature gauge sensor -G2**

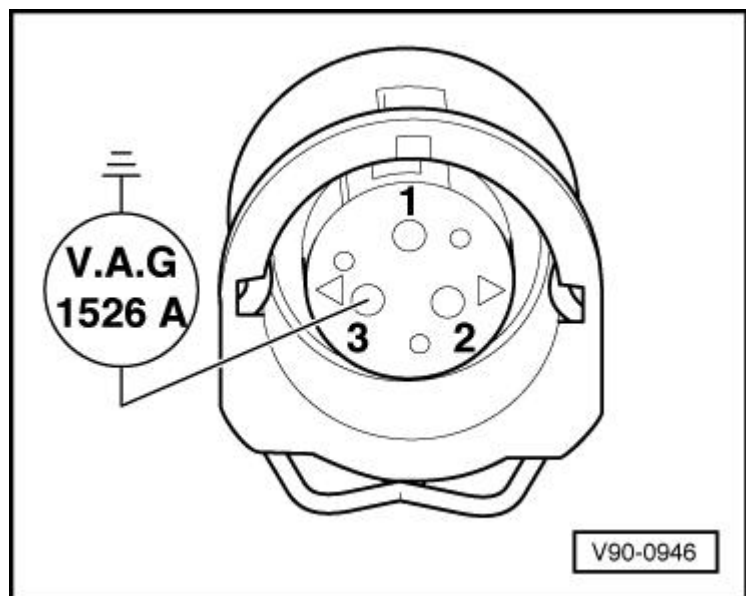
→ Switch/sensor connections:

- 1 - Actuation of coolant temperature warning lamp (overheating)
- 2 - Earth
- 3 - Actuation of coolant temperature gauge

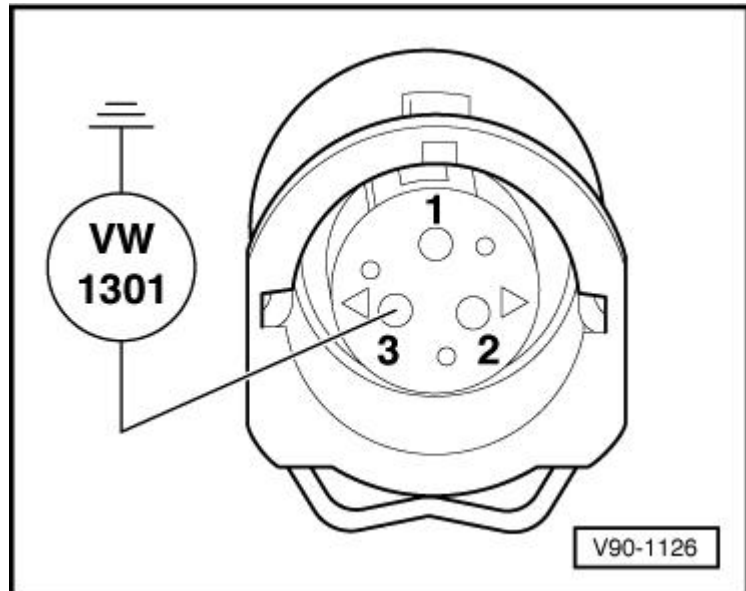
Location in 4-cylinder engine: Back of coolant connection.



- Remove connector from switch/sensor.
- → Use auxiliary cable to connect hand-held multimeter V.A.G 1526 between contact 3 of plug and earth and switch to DC voltage measuring range.
- Switch ignition on.
  - Specified value: 9.8 ... 10.4 V
- Switch off ignition.
- If specified value is not attained, locate open circuit using current flow diagram and rectify fault or check voltage stabilizer => Page [90-22](#).



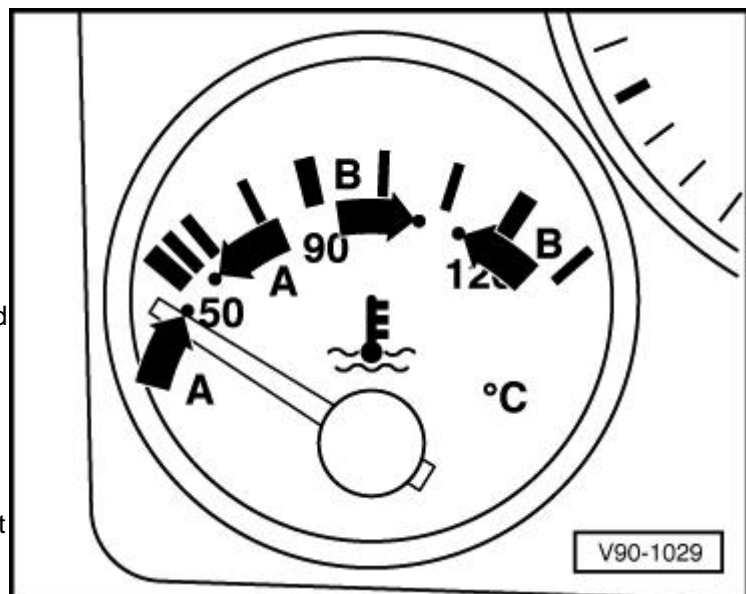
- Connect tester V.A.G 1301 to connector contact -3- and earth.
- Adjust V.A.G 1301 tester as follows:
  - cold - 560
  - hot - 58
- Switch ignition on.



→ At a test setting of 560, the needle must be within the tolerance range of the two test positions-A- in the coolant temperature gauge.

At a test setting of 58, the needle must be within the tolerance range of the two test positions-B- on the coolant temperature gauge.

- If the specified values are not attained in spite of this, check the voltage supply to the coolant temperature gauge, including the voltage stabilizer.
- If these are OK, replace the gauge.
- If the specified values are not attained, but the indicating instrument either does not function or gives an incorrect reading, check earth connection to contact 2 or replace defective coolant temperature sensor.



### Checking coolant temperature warning lamp (overheating)

#### Note:

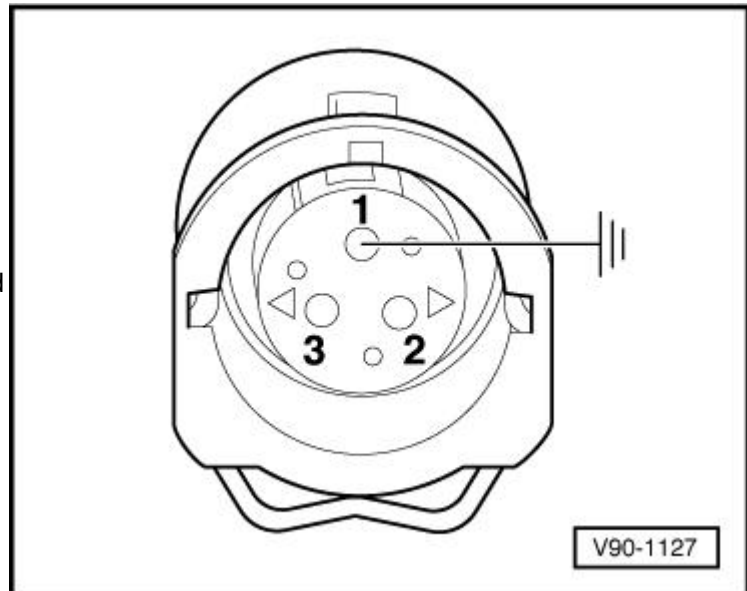
Connections on coolant temperature control switch (overheating)/coolant temperature sensor and fitting location => Page [90-30](#).

- Remove plug from coolant temperature warning switch (overheating).

- → Connect contact -1- to earth using auxiliary cable.
- Run engine.
  - Warning lamp in display unit for mini-check system must flash.
- If the warning lamp does not flash, check bulb (1.2 W) or locate open circuit using current flow diagram and remedy.
- If this is OK, check display unit for mini-check system in dash panel insert in line with troubleshooting instructions.

=> "Current Flow Diagrams, Electrical Fault Finding and Fitting Locations" binder

#### **Vehicles with electronic thermo switch - F76**

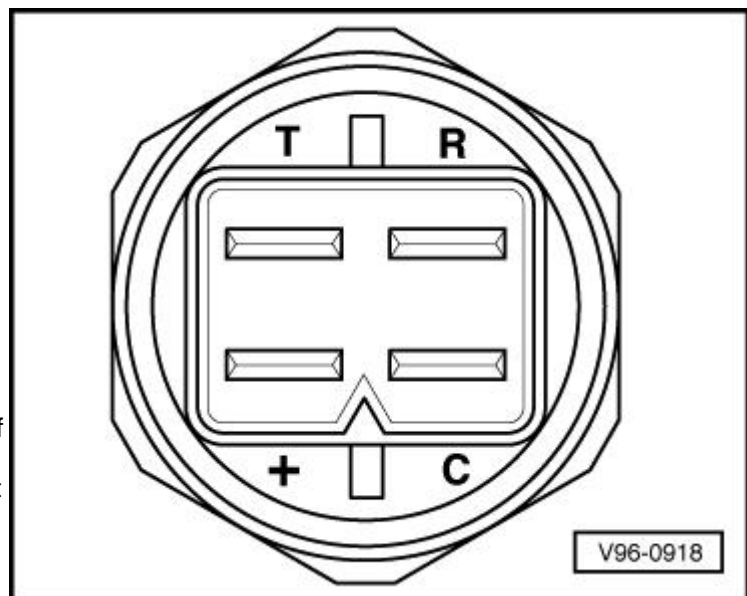


→ Connections at electronic thermo switch:

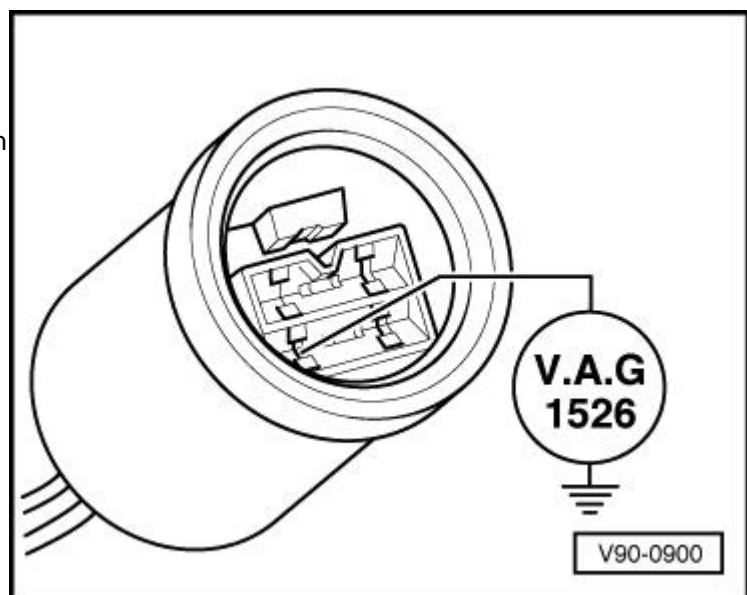
- + - Voltage supply, term. 15a
- C - Actuation of coolant temperature warning lamp (overheating)
- R - Air conditioner safety shutdown
- T - Actuation of coolant temperature gauge

Locations:

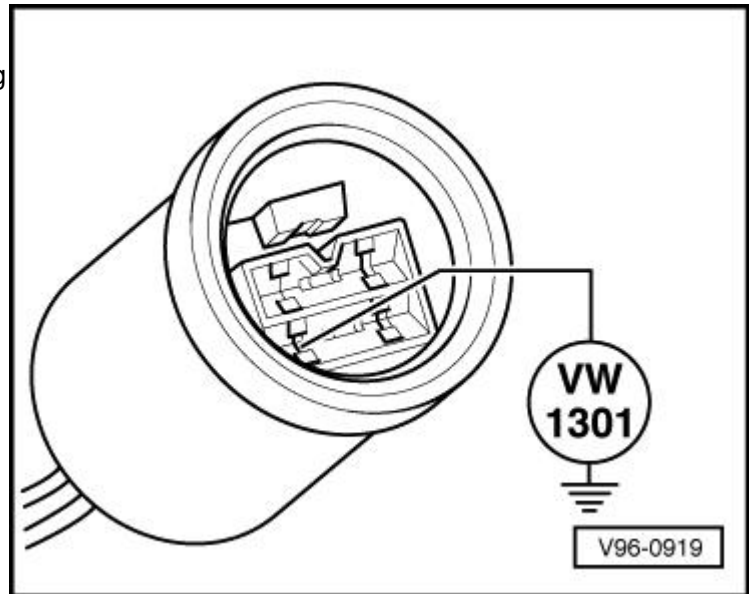
- ◆ 4-cylinder engine: on front or back of coolant connection
- ◆ 5-cylinder engine: on front of coolant connection.
- ◆ 6-cylinder engine: at coolant pipe on right, between plenum chamber and engine.



- Disconnect plug from thermo switch.
- → Use auxiliary cable to connect hand-held multimeter V.A.G 1526 between contact -T- of plug and earth and switch to DC voltage measuring range.
- Switch ignition on.
  - Specified value: 9,8 ... 10.4 V
- Switch off ignition.
- If specified value is not attained, locate open circuit using current flow diagram and rectify fault or check voltage stabilizer => Page [90-22](#).



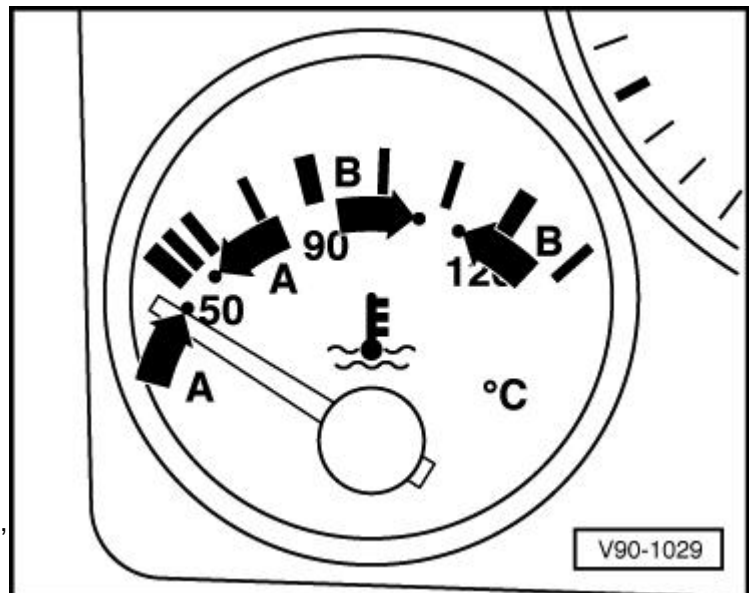
- Connect tester V.A.G 1301 to connector contact -T- and earth using auxiliary cable.
- Adjust V.A.G 1301 tester as follows:
  - cold - 560
  - hot - 58
- Switch ignition on.



→ At a test setting of 560, the needle must be within the tolerance range of the two test positions -A- in the coolant temperature gauge.

At a test setting of 58, the needle must be within the tolerance range of the two test positions -B- on the coolant temperature gauge.

- If specified values are not attained, locate open circuit using current flow diagram and rectify or check voltage stabilizer => [90-22](#).
- If these are OK, replace the gauge.
- If the specified values are attained, but the indicating instrument fails to function or gives an incorrect reading, check earth connection to electronic thermo switch or replace defective thermo switch.



### Checking coolant temperature warning lamp (overheating)

#### Note:

Connections at electronic thermo switch: => [Page 90-33](#).

- Disconnect plug from thermo switch.

- → Connect contact -C- to earth using auxiliary cable.
- Run engine.
  - Warning lamp in display unit for mini-check system must flash.
- If the warning lamp does not flash, check bulb (1.2 W) or locate open circuit using current flow diagram and remedy.
- If this is OK, check display unit for mini-check system in dash panel insert in line with troubleshooting instructions.

=> "Current Flow Diagrams, Electrical Fault Finding and Fitting Locations" binder

