

Checking dash panel insert components

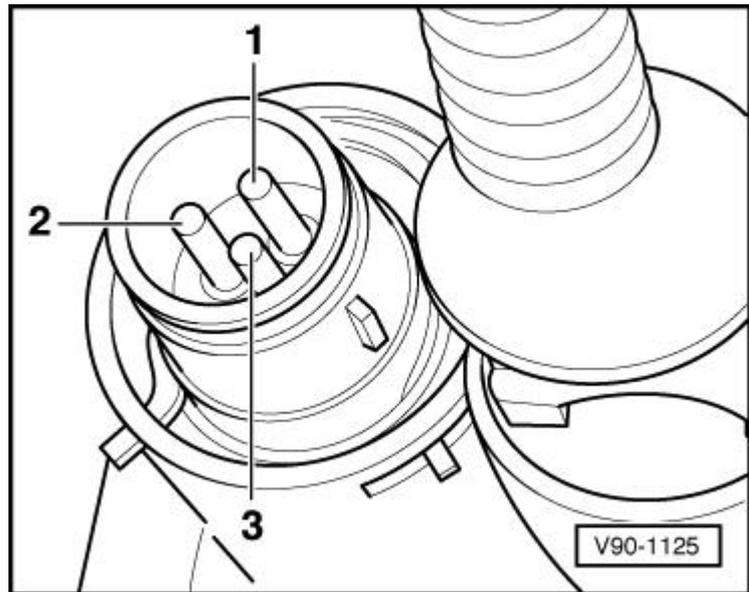
Checking coolant temperature gauge

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

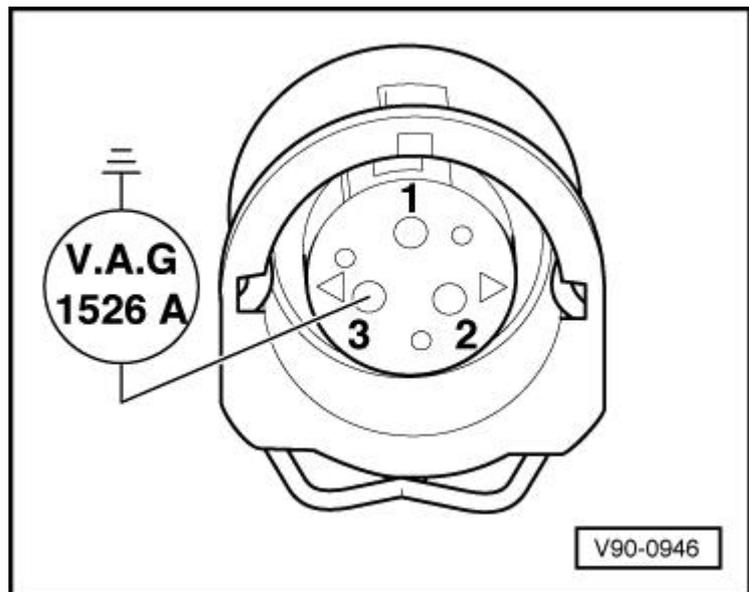
→ Switch/sensor connections:

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

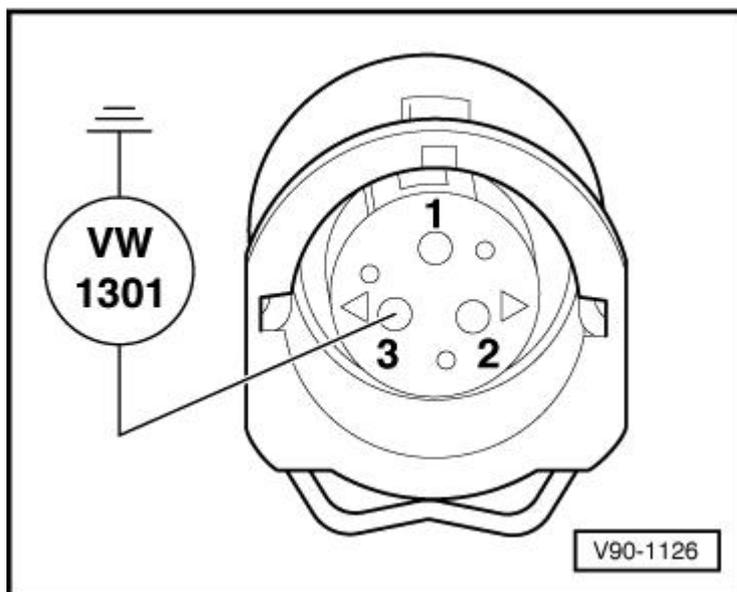
Location in 4-cylinder engine: Back of coolant connection.



- 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](#).



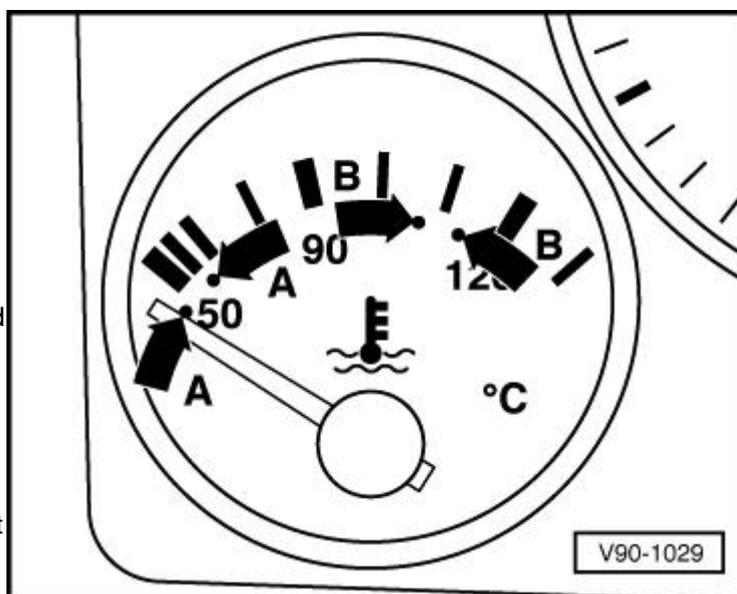
- → Connect tester V.A.G 1301 to connector contact -3- and earth.
- Adjust V.A.G 1301 tester as follows:
 - cold - 560
 - hot - 58
- Switch ignition on.



→ 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:

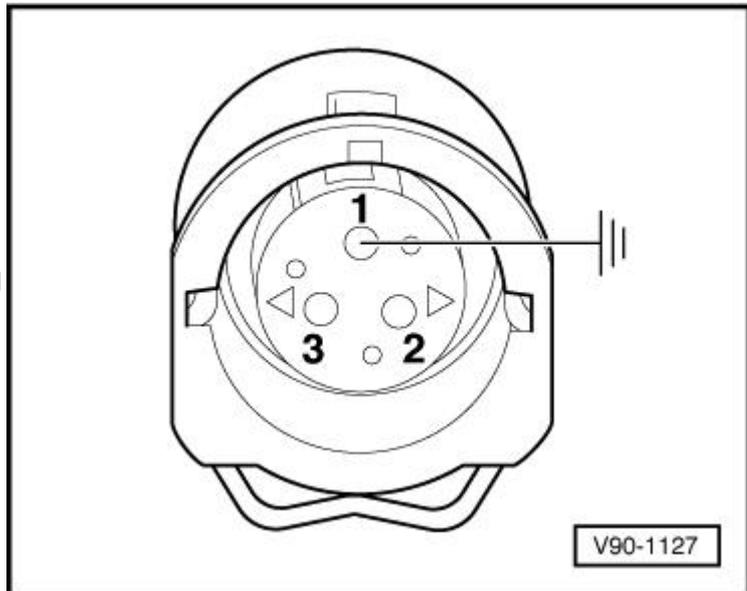
Connections on coolant temperature control switch (overheating)/coolant temperature sensor and fitting location => Page [90-30](#).

- 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

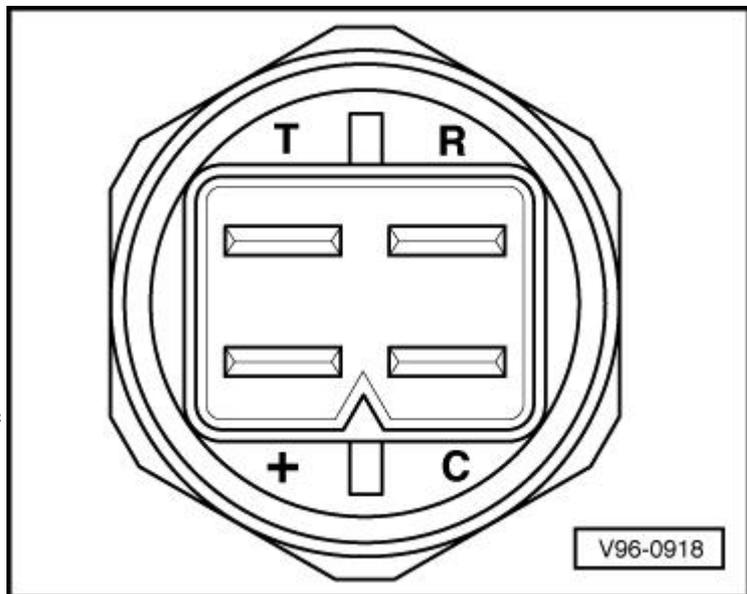


→ Connections at electronic thermo switch:

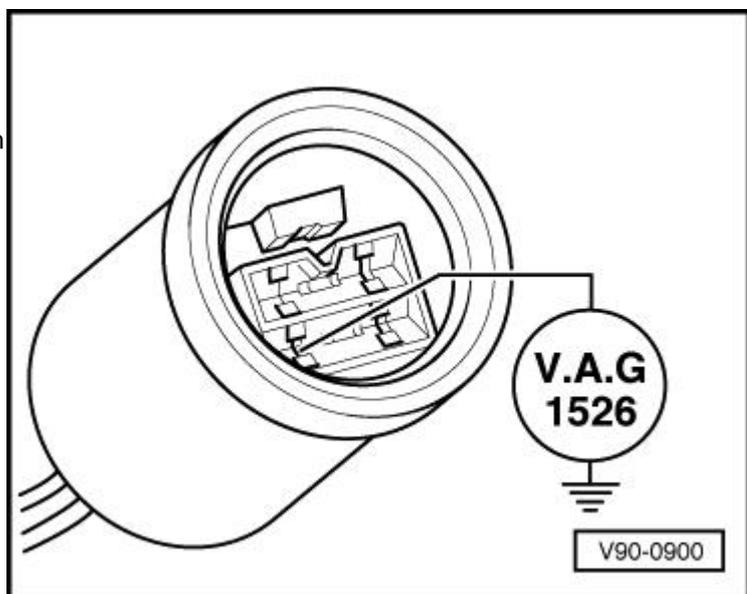
- + - Voltage supply, term. 15a
- C - Actuation of coolant temperature warning lamp (overheating)
- R - Air conditioner safety shutdown
- T - Actuation of coolant temperature gauge

Locations:

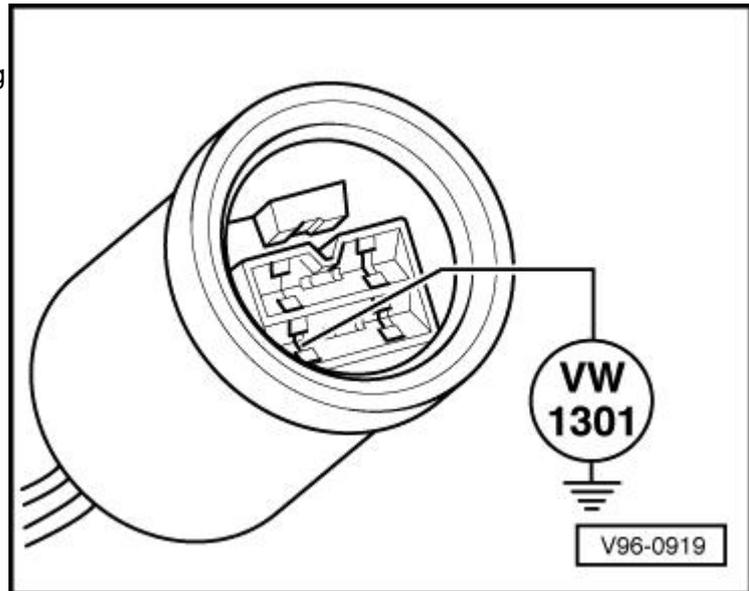
- ◆ 4-cylinder engine: on front or back of coolant connection
- ◆ 5-cylinder engine: on front of coolant connection.
- ◆ 6-cylinder engine: at coolant pipe on right, between plenum chamber and engine.



- 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](#).



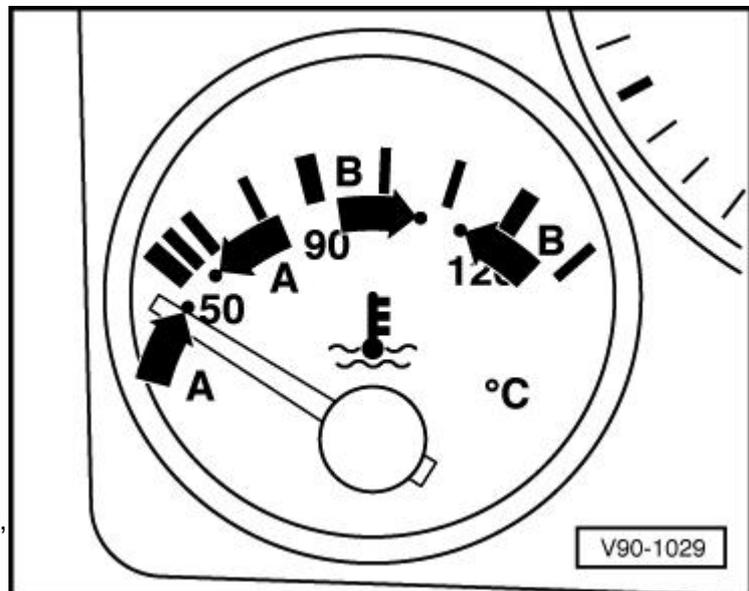
- → Connect tester V.A.G 1301 to connector contact -T- and earth using auxiliary cable.
- Adjust V.A.G 1301 tester as follows:
 - cold - 560
 - hot - 58
- Switch ignition on.



→ 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

