

Evaporative Emission (EVAP) system, checking

Evaporative Emission (EVAP) Canister Purge Regulator Valve -N80, checking

Checking for leaks

If there is no electrical signal (not activated) the solenoid valve remains closed.

- Disconnect hoses from Evaporative Emission (EVAP) Canister Purge Regulator Valve -N80.
- Start output Diagnostic Test Mode and select Evaporative Emission (EVAP) Canister Purge Regulator Valve -N80 ⇒ [Page 01-75](#) .

Output Diagnostic Test Mode →
EVAP canister purge regulator valve -N80



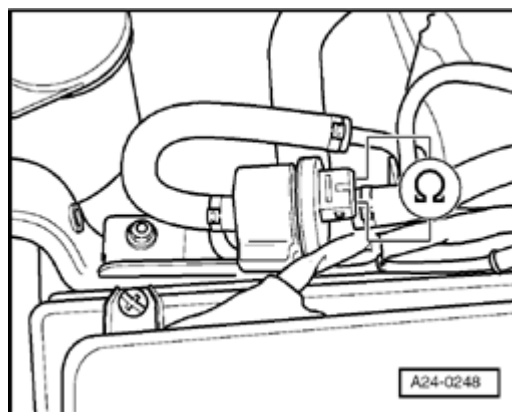
Indicated on display

The valve should click and should open and close (test by blowing into auxiliary hose).

- If valve does not click, carry out electrical test of Evaporative Emission (EVAP) Canister Purge Regulator Valve ⇒ [Page 24-135](#) .
- If valve does not open and close properly, replace Evaporative Emission (EVAP) Canister Purge Regulator Valve.

Electrical testing of Evaporative Emission (EVAP) Canister Purge Regulator Valve -N80

- Disconnect connector from Evaporative Emission (EVAP) Canister Purge Regulator Valve-N80.

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- Measure resistance between contacts on valve using hand-held multimeter Fluke 83 (or equivalent).

Specified value: 22 - 30 ohm

If the specification is not obtained:

- Replace Evaporative Emission (EVAP) Canister Purge Regulator Valve -N80.

If the specification is obtained:

- Check voltage supply ⇒ [Page 24-136](#) .

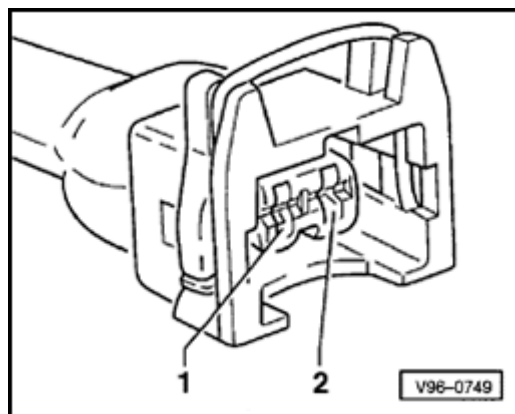
Checking voltage supply to Evaporative Emission (EVAP) Canister Purge Regulator Valve (solenoid valve)

Note:

The Evaporative Emission (EVAP) Canister Purge Regulator Valve receives its power supply via the fuel pump relay.

Test requirements

- Fuse for EVAP valve OK
- Disconnect harness connector on Evaporative Emission (EVAP) Canister Purge Regulator Valve -N80.



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- Connect VAG1527 diode test lamp between engine Ground (GND) and socket 1 on connector.
- Operate starter.

The diode test lamp should light up.

If diode test lamp does not light up:

- Check continuity of wiring from socket 1 to fuel pump relay via fuse. Repair open circuit if necessary.

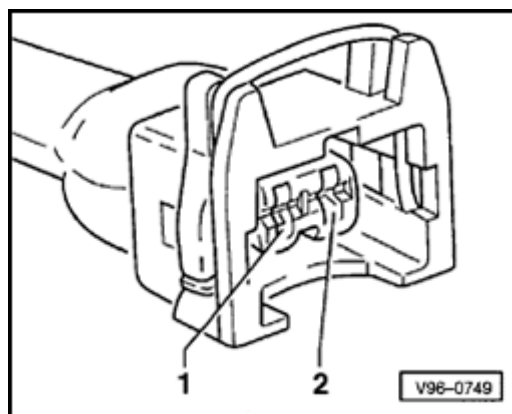
⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations*

- If wiring is OK, check fuel pump relay ⇒ [Page 24-54](#) .

If the diode test lamp lights up, check activation ⇒ [Page 24-137](#) .

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Testing activation of Evaporative Emission (EVAP) Canister Purge Regulator Valve

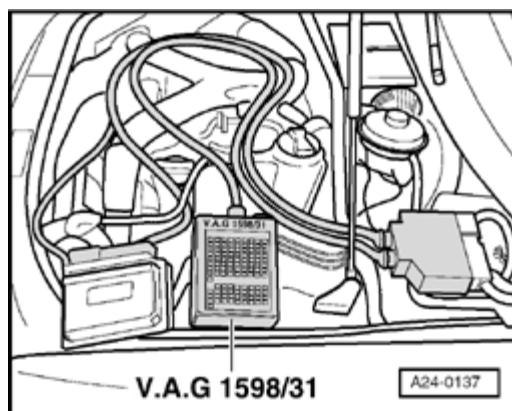


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- Connect VAG1527 between diode test lamp sockets 1 (B+) and 2 of harness connector.
- Start output Diagnostic Test Mode (DTM) and select Evaporative Emission (EVAP) Canister Purge Regulator Valves -N80 ⇒ [Page 01-75](#) . (To initiate DTM a second time, the engine must be started and switched off)

The diode test lamp should blink.

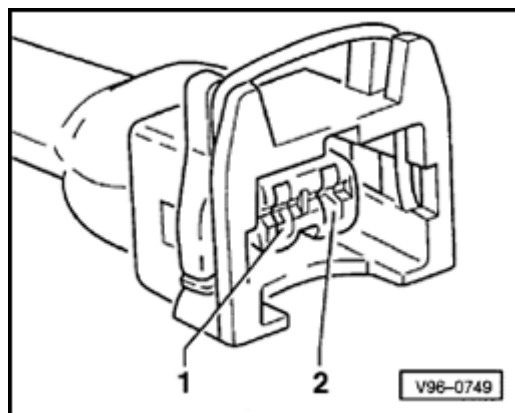
If the diode test lamp does not blink or lights up continuously:



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- Connect VAG1598/31 test box to multi-pin harness connector for engine control module. Do not connect to the engine control module itself ⇒ [Page 24-20](#) .

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If the diode test lamp lights up continuously:

- Check for short circuit to Ground (GND) in wiring between contact 2 on EVAP valve harness connector and socket 64 on test box.

If the diode test lamp does not flash:

- Check for open circuit as well as short circuit to B+ in wiring between contact 2 on EVAP valve harness connector and socket 64 on test box.

Resistance in wiring: max. 1.5 ohm

⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations*

- If necessary, repair short circuit to Ground (GND) or open circuit.

If no short circuit or open circuit is found

- Replace Motronic Engine Control Module (ECM) -J220 ⇒ [Page 24-24](#) .