

**Audi > C6 > 2005-2007****4.2 Liter V8 4V Generic Scan Tool, Engine Code(s): BVJ  
01 - Diagnosis and Testing**

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**EVAP Canister Purge Regulator Valve, Checking****Special tools, testers and auxiliary items required**

- ◆ Multimeter .
- ◆ Wiring diagram.

**Test requirements**

- ◆ Fuse SA5 OK.
- ◆ The ignition switched off.

**Note:**

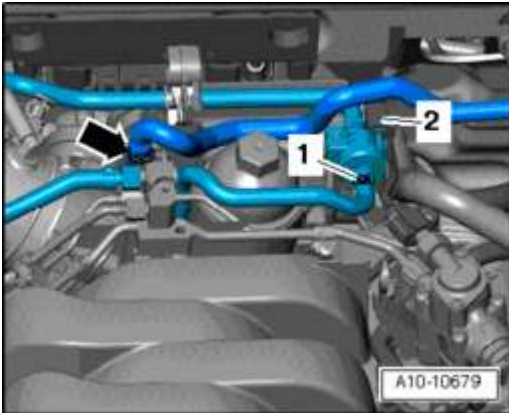
- ◆ *Voltage for the Evaporative Emission (EVAP) Canister Purge Regulator Valve N80 is supplied by the Engine Component Power Supply Relay J757 .*

**Test procedure**

- Perform a preliminary check to verify the customers complaint. Refer to ⇒ [Preliminary Check](#) .

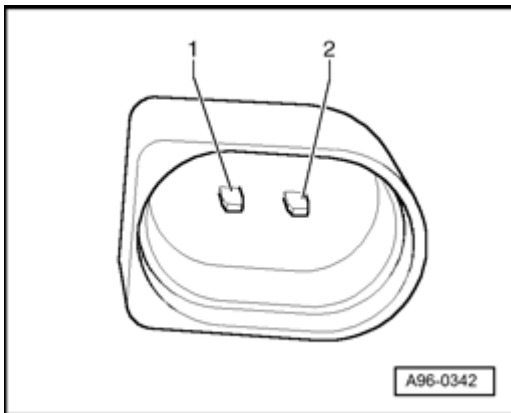
**Start diagnosis**

- Remove the rear engine cover - **arrows** - .



- Disconnect the Evaporative Emission (EVAP) Canister Purge Regulator Valve N80 electrical harness connector - **2** - .

### Checking internal resistance



- Using a Multimeter , check the resistance between terminals 1 and 2 of the Evaporative Emission (EVAP) Canister Purge Regulator Valve N80 .

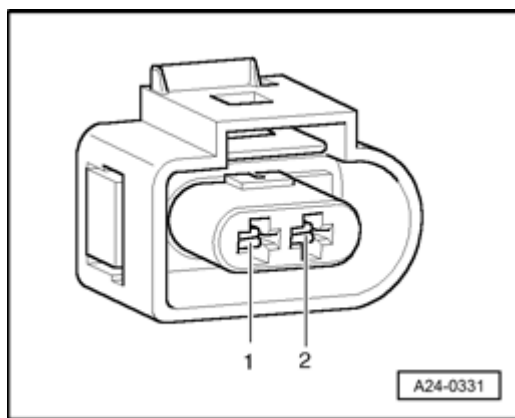
Specified value: 22,0 to 30,0  $\Omega$ .

If the specified value was not obtained:

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

If the specification is obtained:

### Checking voltage supply



- Using a Multimeter , check the electrical harness connector terminal 1 to 2 for voltage.
- Crank the engine.

Specified value: battery voltage.

If the specified value was not obtained:

- Using a Multimeter , check the electrical harness connector terminal 1 to Ground (GND) for voltage.

Evaporative Emission (EVAP) Canister Purge Regulator Valve N80 Electrical Harness connector Terminal	Measure to
1	Engine Ground (GND)

- Operate the starter briefly.

Specified value: battery voltage.

If the specified value was not obtained:

- Check the wiring connection from the Evaporative Emission (EVAP) Canister Purge Regulator Valve N80 electrical harness connector terminal 1 to the Engine Component Power Supply Relay J757 terminal 2/87 for an open circuit or short to ground (GND).
- Check the electrical harness connector for damage, corrosion, loose or broken terminals.
- If necessary, repair the wiring connection.

If the specified value was obtained:

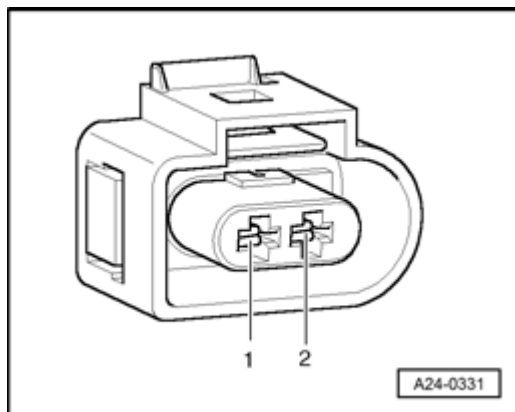
### Checking wiring

If the manufacturers test box is being used. Perform the following step.

- Install the test box. Refer to ⇒ Fuel Injection and Ignition - Repair Group 24 .

If the manufacturers test box is not being used. Perform the following step.

- Remove the Motronic Engine Control Module (ECM) J623 . Refer to ⇒ [Engine Control Module, Removing and Installing](#) .



- Using a Multimeter , check the Evaporative Emission (EVAP) Canister Purge Regulator Valve N80 electrical connector terminal 2 to the Engine Control Module (ECM) J623 electrical connector T94a terminal 9 for an open circuit.

Evaporative Emission (EVAP) Canister Purge Regulator Valve N80 Electrical harness connector terminal	Motronic Engine Control Module (ECM) J623 electrical connector T94a terminal or test box socket
2	9

Specified value: 1.5 Ω.

If the specification was not obtained:

- Check the wiring for a short circuit to Battery positive (+) or an open circuit.
- Check the electrical harness connector for damage, corrosion, loose or broken terminals.
- If necessary, repair the wiring connection.

If the specification was obtained:

- Replace the Engine Control Module (ECM) J623 . Refer to ⇒ [Engine Control Module, Removing and Installing](#) .

Assembly is performed in the reverse order of removal.

### Final procedures

After repair work, the following work steps must be performed in the following sequence:

1. Check the DTC memory. Refer to .
2. If necessary, erase the DTC memory. Refer to .
3. If the DTC memory was erased, generate readiness code. Refer to .

– End of diagnosis.

– End diagnosis and switch the ignition off.

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