

Throttle Valve Control Module, Checking

Note

Use only gold-plated terminals when servicing terminals in harness connector of throttle valve control module.

Function

The throttle valve activation occurs via an electric motor (throttle drive) in the throttle valve control module. It is activated by the Engine Control Module (ECM) according to specifications of the two sensors, Throttle Position (TP) Sensor -G79- and Sender -2- for accelerator pedal position -G185-.

Components of Throttle Valve Control Module -J338-:

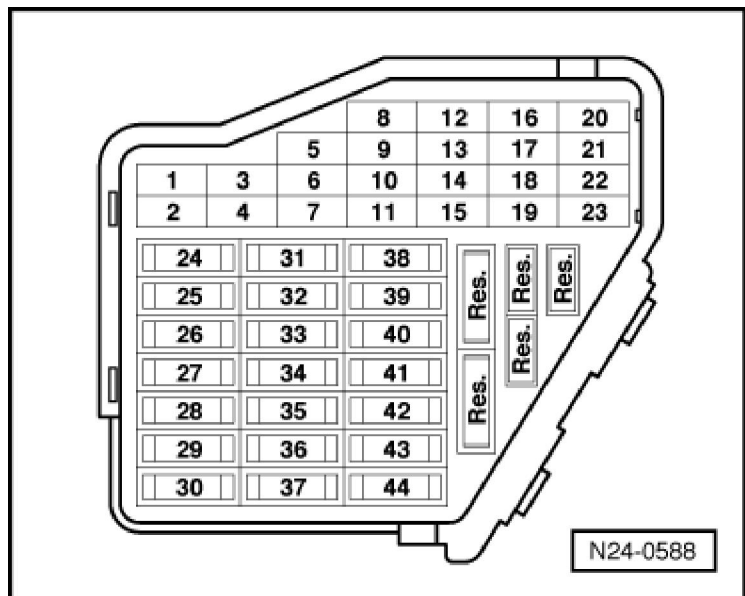
- t Throttle drive (power accelerator actuation) -G186-
- t Angle sensor 1 for throttle drive (power accelerator actuation) -G187-
- t Angle sensor 2 for throttle drive (power accelerator actuation) -G188-

Special tools and workshop equipment required

- t Multimeter -VAG1526- or Multimeter -VAG1715-
- t Connector test kit -VAG1594-
- t Wiring diagram

Requirements

- l The respective fuses of Motronic Engine Control Module (ECM) -J220- must be OK:
[Wiring diagrams, Troubleshooting & Component locations](#)
- l Battery voltage must be at least 11.5 volts.
- l All electrical consumers, e.g. lights and rear window defroster, must be switched off.
- l Parking brake must be engaged or else daylight driving lights will be switched on.
- l If vehicle is equipped with an A/C system, it must be switched off.
- l Ground (GND) connections between engine and chassis must be OK.
- l Throttle valve must not be damaged or dirty.
- l Coolant temperature must be at least 80 °C
[Chapter](#), Diagnostic mode 1: Check measuring values; PID 5, Coolant temperature.



Function test

- Connect diagnostic tester [Chapter](#).
- Switch ignition on.
- Under address word 33, select "Diagnostic mode 1: Checking measuring values."

- Select measuring value “PID 17: Throttle valve position (absolute).”
- Check specified value of throttle valve position (absolute) at idle stop:

PID	Diagnostic text	Specified value:
17:	Throttle valve position (absolute) i Idle stop	8.0 to 18.0%

- Slowly depress accelerator pedal up to Wide Open Throttle (WOT) stop while observing the percentage display.

Percentage display must increase uniformly.

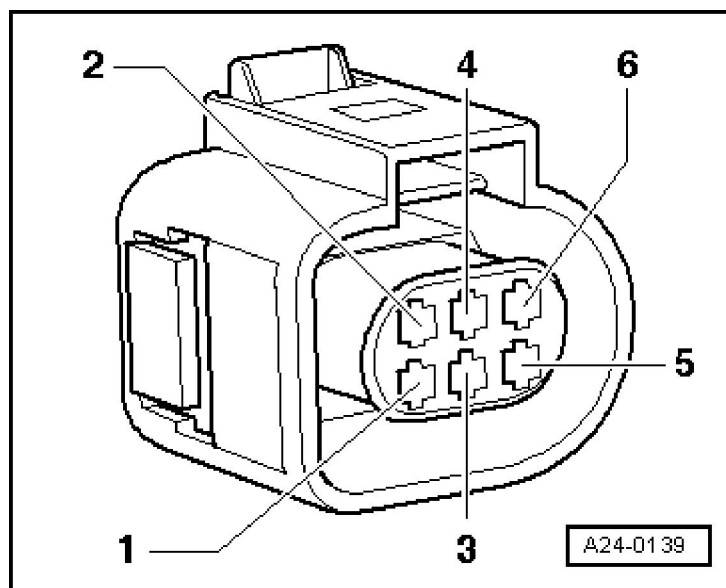
- Check specified value of throttle valve position (absolute) at Wide Open Throttle (WOT) stop:

PID	Diagnostic text	Specified value:
17:	Throttle valve position (absolute) i Wide Open Throttle (WOT) stop	84.0 to 97.0%

- End diagnosis and switch ignition off.

If specified values are not obtained:

- Check voltage supply of throttle valve control module:
- Pull connector off throttle valve control module.
- Switch ignition on.
- Connect multimeter to the following connector terminals for voltage measurement:



6-pin connector at wiring harness, terminal	Specified value
2 & Ground (GND)	about 5 V
2 & 6	about 5 V

If specified values are obtained:

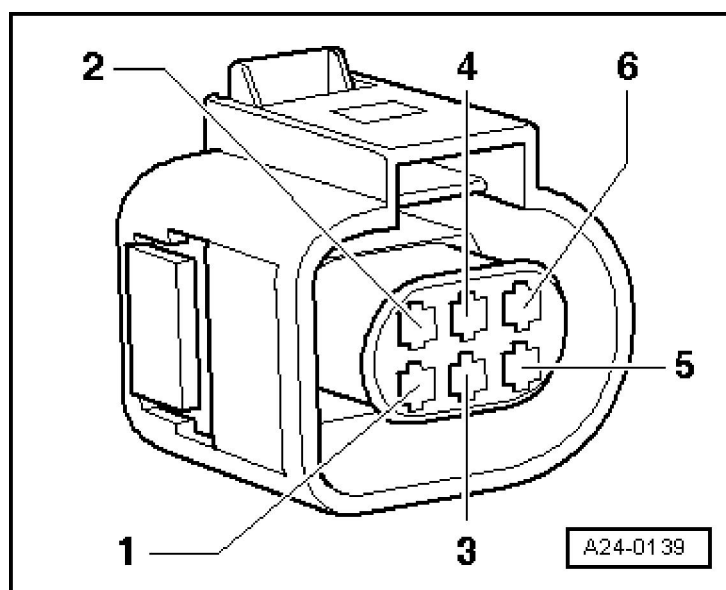
- Also check signal wires and activation wires of throttle valve actuator **Anchor**.

If specified values are not obtained:

- Check wire connections from Engine Control Module (ECM) to throttle valve control module.

Checking wire connections

- Pull connector off throttle valve control module.
- Connect test box to control module wiring harness **Chapter**.
- Check following wire connections for short circuit to B+, Ground (GND) and for open circuit:



6-pin connector at wiring harness, terminal	-VAG1598/31- test box, socket
1	92
2	83
3	117
4	84
5	118
6	91

- Repair open circuit or short circuit if necessary.

If no wiring faults are found:

- Check voltage supply of Engine Control Module (ECM) **Chapter**.

If no wiring faults are found:

- Replace throttle valve control module.
- Erase DTC memory of Engine Control Module (ECM)
 Chapter, Diagnostic mode 4: Reset/erase diagnostic data.
- Generate readiness code Chapter.