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Closed Throttle Position (CTP) switch, checking and adjusting

Notes:

- To functionally check the Closed Throttle Position (CTP) switch ⇒ Repair Group 01, Read measuring value block, display group 002, display field 4.
- The Closed Throttle Position (CTP) switch is located in the Throttle Position (TP) sensor assembly.
- Component locations \Rightarrow page 24-1.
- If, while checking or adjusting the Closed Throttle Position (CTP) switch, the noise deadener is removed; make sure during reassembly that there is a tight fit to the throttle body to avoid the possibility of an intake air leak.
- For safety, make sure that the Mass Air Flow (MAF) sensor output voltage is correct ⇒ page <u>01-150</u>, "Basic Setting" function 04, display group 002, display field 2.

Requirements

• Accelerator pedal cable adjustment OK:

⇒ <u>Repair Manual, 2.8 Liter V6 2V Engine</u> <u>Mechanical, Engine Code(s): AFC, Repair Group</u> <u>20</u>

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Electrical check

- Remove intake air sound absorber.
- Disconnect harness connector at throttle body.

 Switch multimeter (Fluke 83 or equivalent) to measure resistance (Ω) and connect between terminals 4 and 6 using jumper wires from connector test kit VW 1594.

Specified value: 0 ohms (continuity)

- Open throttle slightly.

Specified value: $\infty \Omega$ (no continuity)

If the specified value is not obtained by opening the throttle slightly, or if the specified value is obtained only by moving the throttle:

- Adjust CTP switch \Rightarrow page 24-75.

If, after adjusting the CTP switch, it is still not possible to obtain the specified function:

- Replace throttle position sensor assembly.

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Adjusting

- Remove throttle body.
- Loosen two throttle position sensor mounting screws.
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- Turn throttle position sensor in direction shown (arrows), without moving throttle valve shaft, until stop can be felt.
- Tighten throttle position sensor in this position.
- Check CTP switch again \Rightarrow page 24-74.
- Re-install throttle body and adjust accelerator pedal cable

⇒ <u>Repair Manual, 2.8 Liter V6 2V Engine Mechanical, Engine Code(s):</u> <u>AFC, Repair Group 20</u>

Checking wiring between CTP switch and ECM

- **<** Terminal assignments for throttle position sensor connector.
 - Connect VAG 1598/19 test box to ECM harness connector \Rightarrow page 01-255 .
 - Check wiring for continuity or short to B+ between throttle position sensor connector terminal 4 (GND) and test box socket D12.

Specified value: max. 1 ohm (Ω)





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- Check wiring for continuity or short to Ground (GND) between throttle position sensor connector terminal 6 (signal) and test box socket A4.

Specified value: max. 1 Ω

If the specified value is not obtained:

- Determine open or short circuit in wiring using wiring diagram; repair as necessary.

6-pin TP sensor connector terminal	ECM connector A terminal
6	A4
4	Intake manifold Ground (GND)

Note:

If it becomes necessary to repair or replace any of the throttle position sensor electrical terminals, ONLY replace with gold-plated terminals.