

Checking accelerator position senders -G79 and -G185

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Both accelerator pedal position sensors -G79 and -G185 are located on the accelerator pedal and completely independently signal the driver's requirements to the engine control unit. Both senders are located in one housing.

- Connect the vehicle diagnostic, testing and information system VAS 5051 or fault reader V.A.G 1551 and select engine electronics control unit with "Address word" 01 => Page 01-15.
For this purpose, the ignition must be switched on.

→ Indicated on display:

Rapid data transfer HELP
 Select function XX

- Press keys 0 and 8 for the function "Read measured value block" and confirm entry with Q key.

→ Indicated on display:

Reading measured value block Q
 Enter display group number XXX

- Press keys 0, 6 and 2 for "display group number 62" and confirm entry with Q key.

→ Indicated on display:

Read measured value block 62 ⇒
 1 2 3 4

- Check specifications for electronic throttle potentiometer voltages.

	Display zones			
	1	2	3	4
Display group 62: Electronic throttle potentiometer voltages with ignition on				
Display	xx %	xx %	xx %	xx %
Display	Throttle valve angle (angle sender 1)	Throttle valve angle (angle sender 2)	Sender 1 for accelerator pedal position	Sender 2 for accelerator pedal position
Range	min.: 0 % max.: 100 %	min.: 0 % max.: 100 %	min.: 0 % max.: 100 %	min.: 0 % max.: 100 %
Specified value	3...93 %	97...3 %	12...92 %	4...49 %

Note:

The engine control unit converts and displays the voltage readings from the angle senders as percentages of 5 V. (5 Volt supply corresponds to 100 %).

- Observe readouts in display zones 3 and 4.
- Slowly depress accelerator pedal.

Percentage displayed in zone 3 should rise evenly. The tolerance range from 12...92 % is not fully utilised.

Percentage displayed in zone 4 should also rise evenly. The tolerance range from 4...49 % is not fully utilised.

Note:

The value displayed in zone 3 must always be about twice as large as that in zone 4.

If the displays are not as described:

- Check voltage supply and wiring for accelerator position

sender =>Page 24-187.

- Adjust accelerator position sensors

=> Fuel Supply - Petrol Engine; Repair group 20; Fuel supply;
Servicing accelerator mechanism - vehicles with electronic engine
performance control (electronic throttle)

Checking voltage supply for accelerator position senders

- Remove driver's storage compartment:

=> General Body Assembly, Interior; Repair group 68; Dash
panel; Removing driver's storage compartment

- Detach connector for accelerator position sensors.

Note:

*The connector is clipped onto the pedal bracket near the brake
light switch.*

- Switch the ignition on.
- Connect hand-held multimeter (voltage range) between the
following sockets on the connector:

6-pin connector on wiring harness, socket	Specified value
2 + earth	approx. 5 V
2 + 3	approx. 5 V
5 + earth	approx. 5 V
5 + 4	approx. 5 V

If specifications are attained:

- Additionally check signal wires =>Page 24-188.

If the specified values are not obtained:

- Check wiring between engine control unit and accelerator
position senders =>Page 24-188.

Checking signal wiring and wiring connections between accelerator position senders and engine control unit

- Connect test box V.A.G 1598/31 to wiring harness for
engine control unit; do not connect the engine control unit
=> Page 24-12.
- Check for open circuit and short to positive or earth in the
following wiring connections:

Connector Socket	Test box V.A.G 1598/31 Socket
1 (signal wire)	35
2	73
3	36
4	33
5	72
6 (signal wire)	34

Wire resistance: max. 1.5 Ohm

- Rectify any open/short circuit as necessary.

=> Current Flow Diagrams, Electrical Fault-finding and Fitting
Locations binder

If no wiring fault is detected:

- Replace accelerator position senders.

=> Fuel Supply - Petrol Engines; Repair group 20; Fuel supply;
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