Checking accelerator position senders -G79 and -G185
Checking accelerator position senders -G79 and -G185

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; Servicing accelerator mechanism - vehicles with electronic engine performance control (electronic throttle)