

## Checking accelerator position senders -G79 and -G185

### Checking brake light switch -F or brake pedal switch -F47

Because the injection system operates with an accelerator pedal sender (potentiometer) which may be defective, the engine is regulated for reasons of safety when the brakes are operated. For this purpose, the control unit requires signals from both the brake light switch and the brake pedal switch. This means that if the brakes are operated when the accelerator pedal is held at a constant position, the engine speed is immediately reduced. Incorrectly adjusted switches may lead to undesired control action.

- 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:

Read measured value block 08  
Enter display group number XXX

- Press keys 0, 6 and 6 for "display group number 66" and confirm entry with Q key.

→ Indicated on display:

Read measured value block 66    ⇒  
1   2   3   4

- Observe readout in display zone 2.

	Display zones			
	1	2	3	4
<b>Display group 66: Signals to engine control unit with ignition on</b>				
<b>Display</b>	xxx km/h	<b>1 0 0 0</b>	xxx km/h	1 0 0 0
<b>Display</b>	ACTUAL speed	<b>Switch settings</b>	<b>SPECIFIED speed</b>	Switch positions for cruise control system
<b>Range</b>		off = 0 on = 1		off = 0 on = 1
<b>Specified value</b>		<b>1 0 0 0</b>		
<b>Note:</b>		<b>Relevance of figures =&gt; Page 24-192</b>		

- Operate accelerator pedal.

**Significance of 4 digit readout of display zone 2:**

x	x	x	x	Display zone 2
			X	Brake light switch 0 = Brake pedal not operated 1 = Brake pedal operated
		X		Brake pedal switch 0 = Brake pedal not operated 1 = Brake

				<b>pedal operated</b>
	X			Checking clutch pedal switch 0 = Clutch pedal not operated 1 = Clutch pedal operated
X				Cruise control system (CCS) 0 = CCS deactivated 1 = CCS activated

	Display zones			
	1	2	3	4
<b>Display group 66: Signals to engine control unit</b>				
<b>Display</b>	xxx km/h	1 0 1 1	xxx km/h	0 0 0 0
<b>Display</b>	ACTUAL speed	<b>Switch settings</b>	<b>SPECIFIED speed</b>	Switch positions for cruise control system
<b>Range</b>		off = 0 on = 1		off = 0 on = 1
<b>Specified value</b>		1 0 1 1		
<b>Note</b>		<b>Both displays should change from 0 to 1.</b>		

- Allow brake pedal to return slowly to its normal position.
- Both displays should change from 1 back to 0.

If one or both displays do not change:

- Check the voltage supply =>Page 24-195.

#### Checking power supply

- Remove driver's storage compartment:

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

- Unplug 4-pin connector on brake pedal.
- Connect hand-held multimeter (voltage range) between the following sockets on the connector:
- Switch ignition off.

4-pin connector on wiring harness, socket	Specified value
1 + earth	Battery voltage

- Switch the ignition on.

4-pin connector on wiring harness, socket	Specified value

3 + earth	Battery voltage
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If the specified values are attained.

- Check the wiring =>Page 24-195.

If the specified values are not achieved.

- Check the wiring connections from sockets 1 and 3 of connector for open circuit/short to earth (inspect fuse).

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

- Rectify any open/short circuit as necessary.

#### Checking wiring

- 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 the following wiring connections for open circuit and short circuit to positive or earth.

4-pin connector on wiring harness, socket	Test box V.A.G 1598/31, socket
2	56
4	55

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 open circuit is detected:

- Replace brake light/brake pedal switch.