

## Testing throttle valve control part

### Performing adaption of throttle valve control part

The adaption process enables the engine control unit to learn the stop positions of the throttle valve control part with the ignition switched on and the engine not running.

If the throttle valve control part -J338 or the engine control unit is removed and refitted or replaced, or if the power supply to the engine control unit is interrupted, an adaption must be performed.

### Test conditions

- • No faults stored in fault memory  
=> Page [01-10](#), interrogating fault memory
- • Idling speed switch closed  
Testing=>Page [24-78](#).
- • Throttle valve closed (throttle valve angle check by engine control unit), throttle cable correctly adjusted

=> [Mechanics; Repair Group 20; Removing and installing parts of fuel system; Adjusting throttle cable.](#)

- • Engine not running, ignition switched on
- • Power supply to engine control unit more than 8 V  
Testing =>Page [28-27](#).
- – Connect fault reader V.A.G 1551 (or V.A.G 1552) and select engine electronics control unit with the "Address word" 01. When doing this the ignition must be switched on.  
(Connecting fault reader and selecting engine electronics control unit => Page [01-4](#).)

→ Indicated on display:

Rapid data  
transfer HELP  
Select function XX

- – Press keys 0 and 4 for the function "Introduction of basic setting" and confirm entry with Q key.

→ Indicated on display:

Basic setting HELP  
Input display group number  
XXX

- – Press keys 0, 9 and 8 for "Display Group 98" and confirm entry by pressing Q.

→ Indicated on display:

System in basic  
setting 98 =>  
x.xx V x.xx  
V 0000 01

When Q is pressed the throttle valve positioner will move to the minimum stop limit (throttle valve closed) and to the maximum stop limit (throttle valve open).

The control unit records the voltage reading for each position in its non-volatile memory.

This process takes no more than 10 seconds. The throttle valve then remains still without receiving any electrical signals (voltage 0).

→ Indicated on display:

System in basic setting

98 ⇒

x.xx V x.xx  
V 0100 00

The adaption of the engine control unit to the throttle valve control part is now complete.

Note:

If one of the following readouts appears on the display, this means that the adaption has not been completed successfully:

→ Indicated on display:

System in basic setting

98 ⇒

x.xx V x.xx  
V 1100 10

Note:

Relevance of figures in display zone 3:

Display zone 3	Meaning of readout
1XXX	Fault recorded in memory during diagnosis; interrogate fault memory =>Page <a href="#">01-10</a> .
X1XX	No current in throttle valve control part (duty cycle = 0)
XX1X	Adaption terminated because battery voltage is too low
XXX1	Idling speed switch open (position check); testing =>Page <a href="#">24-78</a>

Relevance of figures in display zone 4: see next page

Relevance of figures in display zone 4:

Display zone 4	Meaning of readout
1X	Fault recorded in memory during diagnosis; interrogate fault memory =>Page <a href="#">01-10</a>
X1	Adaption of throttle valve control part in progress

→ Indicated on display:

Basic setting  
not completed  
Implausible  
signal

## Notes:

- ♦ See Fault Table, fault code 01087
- ♦ If the adaption process for the throttle valve control part is unsuccessful, the reason can be determined by checking Display Group 01 ("Read measured value block" with ignition switched on)  
=>Page [01-85](#).
- ♦ If the adaption process is unsuccessful, check the test requirements  
=>Page [24-73](#).
- ♦ Make sure that the first test requirement has been met, then perform another adaption of the engine control unit to the throttle valve control part  
=>Page [24-73](#). Repeat the same procedure (if necessary) for each remaining test requirement.

## Note:

If the adaption of the control unit is interrupted, the reason could be one of the following:

- ♦ The requirements for the adaption of the engine control unit to the throttle valve control part have not been met. For a list of the requirements, see Fault Table, fault code 01087.
- ♦ The throttle valve cannot reach the mechanical idling stop because of a build-up of dirt (e.g. oil carbon deposits) or an incorrectly adjusted throttle cable.
- ♦ Throttle valve control part or wiring is defective.

After an interruption the fault "Basic setting not completed; Implausible signal" is recorded in fault memory.

The next time the ignition is switched on the engine control unit will try to perform the adaption again.

- – End the engine basic setting by pressing the⇒ key.
- – Press keys 0 and 6 for the "End data transfer" function and confirm input with the Q key.