Self-diagnosis of Motronic system
Read measured value block

Test conditions

- • Coolant temperature at least 80 °C
- • Electrical consumers switched off (radiator fan must not run during the check)
- • Air conditioner switched off
- • Gear selector lever in P or N position
- • No fault stored in fault memory

- – Connect fault reader V.A.G 1551 (V.A.G 1552) and select engine electronics control unit with the "Address word" 01. When doing this the engine must be running at idling speed. (Connecting fault reader and selecting engine electronics control unit => Page 01-3.)

→ 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
Enter display group number XXX

- – Enter the required display group number and confirm entry with the Q key.

→ Indicated on display:

Read measured value block 0 ⇒
1 2 3 4 5 6 7 8 9 10

Note:

To change to another display group proceed as follows:

Display group	V.A.G 1551	V.A.G 1552
Higher	Press key 3	Press ↑key
Lower	Press key 1	Press ↓key
Skip	Press key C	Press key C

Display group overview

Display Gr. number	Indicated on display	Meaning
00 Basic function	Read measured val. block 00 1 2 3 4 5 6 7 8 9 10	1 = Coolant temperature 2 = Engine load 3 = Engine speed

		4	=	Throttle valve angle
		5	=	Control value for air mass at idling speed (idling speed control)
		6	=	Learned value for air mass at idling speed
		7	=	Control value for mixture formation, Bank 1
		8	=	Control value for mixture formation, Bank 2
		9	=	Learned value for mixture formation, Bank 1
		10	=	Learned value for mixture formation, Bank 2

Display Gr. number	Indicated on display	Meaning		
01	Read measured val. block 1	1	=	Engine speed
Basic function	1 2 3 4	2	=	Engine load (injection period per crankshaft revolution)
		3	=	Throttle valve angle
		4	=	Ignition timing
02	Read measured val. block 2	1	=	Engine speed

Basic function	1 2 3 4	2	=	Engine load (injection period per crankshaft revolution)
		3	=	Injection period (per engine cycle)
		4	=	Intake air mass
03 Basic function	Read measured val. block 3 1 2 3 4	1	=	Engine speed
		2	=	Battery voltage
		3	=	Coolant temperature
		4	=	Intake air temperature

Display Gr. number	Indicated on display	Meaning		
04 Idling speed stabilisation	Read measured val. block 4 1 2 3 4	1	=	Throttle valve angle
		2	=	Idling air mass, learned (automatics: not in drive position)
		3	=	Idling air mass, learned (automatics: drive engaged)
		4	=	Operating state: Idling Part throttle Full throttle Overrun Enrichment
05 Idling speed stabilisation	Read measured val. block 5 1 2 3 4	1	=	Engine speed (actual)
		2	=	Engine speed (specified)
		3	=	Control value for idling speed stabilisation (idling

		speed control) 4 = Air mass

Display Gr. number	Indicated on display	Meaning
06 Idling speed stabilisation	Read measured val. block 6 1 2 3 4	1 = Idling speed 2 = Control value for air mass at idling speed (idling speed control) 3 = Lambda control, Bank 1 4 = Lambda control, Bank 2
07 Lambda learned values	Read measured val. block 7 1 2 3 4	1 = Lambda learned value, Bank 1 (multiplicative) 2 = Lambda learned value, Bank 2 (multiplicative) 3 = Lambda learned value, Bank 1 (additive) 4 = Lambda learned value, Bank 2 (additive)
08 Lambda learned values	Read measured val. block 8 1 2 3 4	1 = Idling speed 2 = Injection period per engine cycle 3 = Lambda learned value, Bank 1 (additive) 4 = Lambda learned value, Bank 2 (additive)

Display Gr. number	Indicated on display	Meaning
	Read	Lambda probe

09 Lambda learned values	measured val. block 9 1 2 3 4	1 2 3 4	= = = =	voltage, Bank 1 Lambda probe voltage, Bank 2 Duty cycle of solenoid valve 1 for activated charcoal filter -N80 Lambda correction factor with active fuel tank breather system
10 Fuel tank breather	Read measured val. block 10 1 2 3 4	1 2 3 4	= = = =	Duty cycle of solenoid valve 1 for activated charcoal filter -N80 Lambda correction factor with active fuel tank breather system Fill level of activated charcoal filter -N80 Purging rate of fuel tank breather system
11 Fuel consumption	Read measured val. block 11 1 2 3 4	1 2 3 4	= = = =	Engine speed Engine load (injection period per crankshaft revolution) Road speed Fuel consumption

Display		

Gr. number	Indicated on display	Meaning		
12	Read measured val. block 12	1	=	Engine speed
Knock control	1 2 3 4	2	=	Ignition timing retardation by knock control, cylinder 1
		3	=	Ignition timing retardation by knock control, cylinder 2
		4	=	Ignition timing retardation by knock control, cylinder 3
13	Read measured val. block 13	1	=	Engine load
Knock control	1 2 3 4	2	=	Ignition timing retardation by knock control, cylinder 1
		3	=	Ignition timing retardation by knock control, cylinder 2
		4	=	Ignition timing retardation by knock control, cylinder 3
14	Read measured val. block 14	1	=	Engine speed
Knock control	1 2 3 4	2	=	Ignition timing retardation by knock control, cylinder 4
				Ignition timing retardation

control		3	=	by knock control, cylinder 5
		4	=	Ignition timing retardation by knock control, cylinder 6

Display Gr. number	Indicated on display	Meaning		
15	Read measured val. block 15	1	=	Engine load
Knock	1 2 3 4	2	=	Ignition timing retardation by knock control, cylinder 4
control		3	=	Ignition timing retardation by knock control, cylinder 5
		4	=	Ignition timing retardation by knock control, cylinder 6
16	Read measured val. block 16	1	=	Engine speed
Knock	1 2 3 4	2	=	Engine load
control		3	=	Ignition timing
		4	=	Total ignition timing retardation by knock control
17	Read measured val. block 17	1	=	Engine speed
Knock	1 2 3 4	2	=	Knock sensor voltage signal, cylinder 1
				Knock

sensor		3	=	sensor voltage signal, cylinder 2
		4	=	Knock sensor voltage signal, cylinder 3

Display Gr. number	Indicated on display	Meaning		
18	Read measured val. block 18	1	=	Engine speed
Knock	1 2 3 4	2	=	Knock sensor voltage signal, cylinder 4
sensor		3	=	Knock sensor voltage signal, cylinder 5
		4	=	Knock sensor voltage signal, cylinder 6
19	Read measured val. block 19	1	=	Engine speed
Torque	1 2 3 4	2	=	Engine load (injection period per crankshaft revolution)
reduction		3	=	Required engine torque (specified torque)
		4	=	Actual engine torque (actual torque)
20	Read measured val. block 20	1	=	Engine speed
Operating	1 2 3 4	2	=	Gear selector lever position

conditions		3	=	Operating condition of air conditioner / rear window heating
		4	=	Air conditioner compressor

Display Gr. number	Indicated on display	Meaning		
21 Operating conditions for lambda control	Read measured val. block 21 1 2 3 4	1	=	Engine speed
		2	=	Engine load (injection period per crankshaft revolution)
		3	=	Coolant temperature
		4	=	Lambda control OFF/ON
22		Ignore		
23 Throttle valve positioner adaption	Read measured val. block 23 1 2 3 4	1	=	Learning requirement display
		2	=	Min. stop of throttle valve positioner
		3	=	Emergency running stop of throttle valve positioner
		4	=	Max. stop of throttle valve positioner

Display Gr. number	Indicated on display	Meaning		
24	Read measured val. block 24	1	=	Engine speed

Traction control	1 2 3 4	2 3 4	= = =	Torque reduction stages Required/specified engine torque (MMS) Actual engine torque (MMI)
25 System status	Read measured val. block 25 1 2 3 4	1 2 3 4	= = = =	Engine speed Engine load System status (Unallocated)

Display Gr. number	Indicated on display	Meaning		
26 Camshaft timing control	Read measured val. block 26 1 2 3 4	1 2 3 4	= = = =	Engine speed Engine load Camshaft timing control, Bank 1 Camshaft timing control, Bank 2
27 Camshaft timing control	Read measured val. block 27 1 2 3 4	1 2 3 4	= = = =	System status (Unallocated) Camshaft timing control, Bank 1 Camshaft timing control, Bank 2
28...94		Ignore		
95 Basic function	Read measured val. block 95 1 2 3 4	1 2 3 4	= = = =	Engine speed Engine load Ignition timing Coolant temperature
96...97		For factory use only		

Display		

Gr. number	Indicated on display	Meaning
98 Throttle valve control part adaption	Read measured val. block 98 1 2 3 4	1 = Throttle valve potentiometer voltage 2 = Throttle valve positioner potentiometer voltage 3 = Operating state: idling / part load 4 = Adaption status: Adaption in progress Adaption OK Adaption ERROR
99 Lambda control	Read measured val. block 99 1 2 3 4	1 = Engine speed 2 = Coolant temperature 3 = Lambda mixture control 4 = Lambda mixture control ON/OFF