



Mass Air Flow (MAF) sensor, checking

Special tools, testers and auxiliary items

- ◆ VAG 1551/1552 scan tool with VAG 1551/3 adapter cable
- ◆ VAG 1598/18 test box
- ◆ Multimeter (Fluke 83 or equivalent)
- ◆ Connector test kit VW 1594
- ◆ Wiring diagram

Test conditions

- Electrical consumers switched off (radiator coolant fan must not run during the check)
- A/C switched off

Test sequence

- Engine running at idle

Rapid data transfer

HELP

Select function XX

- Connect VAG 1551/1552 scan tool and select "Engine Electronics" address word 01 ⇒ [Page 01-7](#) .



Indicated on display

- Press buttons -0- and -8- to select "Read Measuring Value Block" function 08 and press -Q- button to confirm input.



Read Measuring Value Block **HELP**
Input display group number XXX

◀ Indicated on display

- Press buttons -0-, -1- and -5- to input display group 015 and press -Q- button to confirm input.

Read Measuring Value Block 15 →
1 2 3 4

◀ Indicated on display (1-4 = display fields)

- Check load registration 1 specifications (display fields 2 and 3).

	Display fields			
	1	2	3	4
Display group 015: Load registration 1				
Display	xxx RPM	xx.xx ms	xx %	xx.x g/s
Indicated	Engine speed	Engine load	Engine load	Mass air flow
Working range	650 - 6000 RPM	0.00 - 25.00 ms	0 - 40%	-
Specification	650 - 750 RPM	1.00 - 3.00 ms	10 - 30%	3.0 - 4.0 g/s
	-	If specification is not attained ⇒ Page 24-65 , check voltage supply and ⇒ Page 24-66 , check wiring		-



- Press -C- button.
- Press buttons -0-, -1- and -6- to input display group 016 and press -Q- button to confirm input.

Read Measuring Value Block 16 →
1 2 3 4



Indicated on display (1-4 = display fields)

- Check load registration 2 specifications (display field 3).

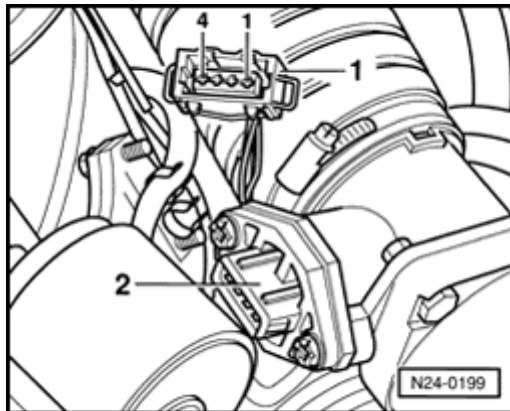
	Display fields			
	1	2	3	4
Display group 016: Load registration 2				
Display	xxx RPM	xx.xx ms	xx.xx ms	xx.xx ms
Indicated	Engine speed	Engine load	Engine load	Engine load substitute value from throttle valve angle
Working range	650 - 6000 RPM	0.00 - 25.00 ms	0 - 25.00 ms	0.00 - 25.00 ms
Specification	650 - 750 RPM	1.00 - 3.00 ms	1.00 - 3.00 ms	1.00 - 3.00 ms
	-	-	If specification is not attained ⇒ Page 24-65 , evaluating display group 016	-



Evaluating display group 016

Display group: 016	Possible malfunction cause	Malfunction elimination
Display field: 3		
0.00 ms	◆ Wiring open circuit in wire 3 or 4 between MAF sensor and ECM	- Check voltage supply ⇒ Page 24-65
Smallest value: 5.30 ms	◆ Wiring open circuit in wire 1 or 2 between MAF sensor and ECM	- Check wiring ⇒ Page 24-66

Checking voltage supply



A

- Disconnect 4-pin connector from Mass Air Flow (MAF) sensor.
- Connect multimeter with test leads from VW 1594 to measure voltage at terminals 1 and 3.

Specification: 9.0-14.5 volts

If no voltage is present:

- Switch ignition off.
- Check wiring according to wiring diagram.

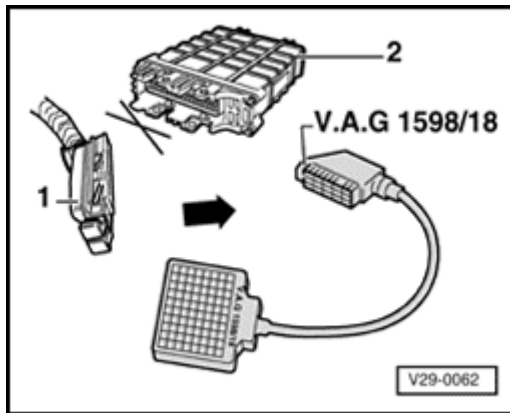


Checking wiring

- Switch ignition off.

A

- Connect VAG 1598/18 test box to ECM wiring harness (arrow).



A

- Check wiring between test box and 4-pin connector for open circuit according to wiring diagram.

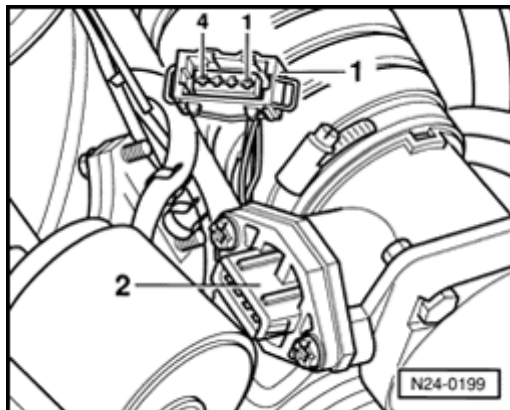
- ◆ Terminal 2 and test box socket 16
- ◆ Terminal 4 and test box socket 17

Resistance: max. 1.5 ohms (Ω)

- Additionally, check 4-pin connector terminals for short circuit to one another.

Terminal 4 and test box socket 16

Specification: ∞ ohms (Ω)





- Set multimeter to voltage measurement range.
- Check 4-pin connector terminals for short circuit to battery positive (B+) according to wiring diagram.
 - ◆ Terminal 2 and vehicle Ground (GND)
 - ◆ Terminal 4 and vehicle Ground (GND)

Specification: 0 volts

If no wiring malfunction is detected:

- Replace Mass Air Flow (MAF) sensor -G70-.
- Read the readiness code ⇒ [Page 01-32](#) . If DTC memory has been erased, repair must be verified via appropriate display group ⇒ [Page 01-34](#) , Readiness code, creating.