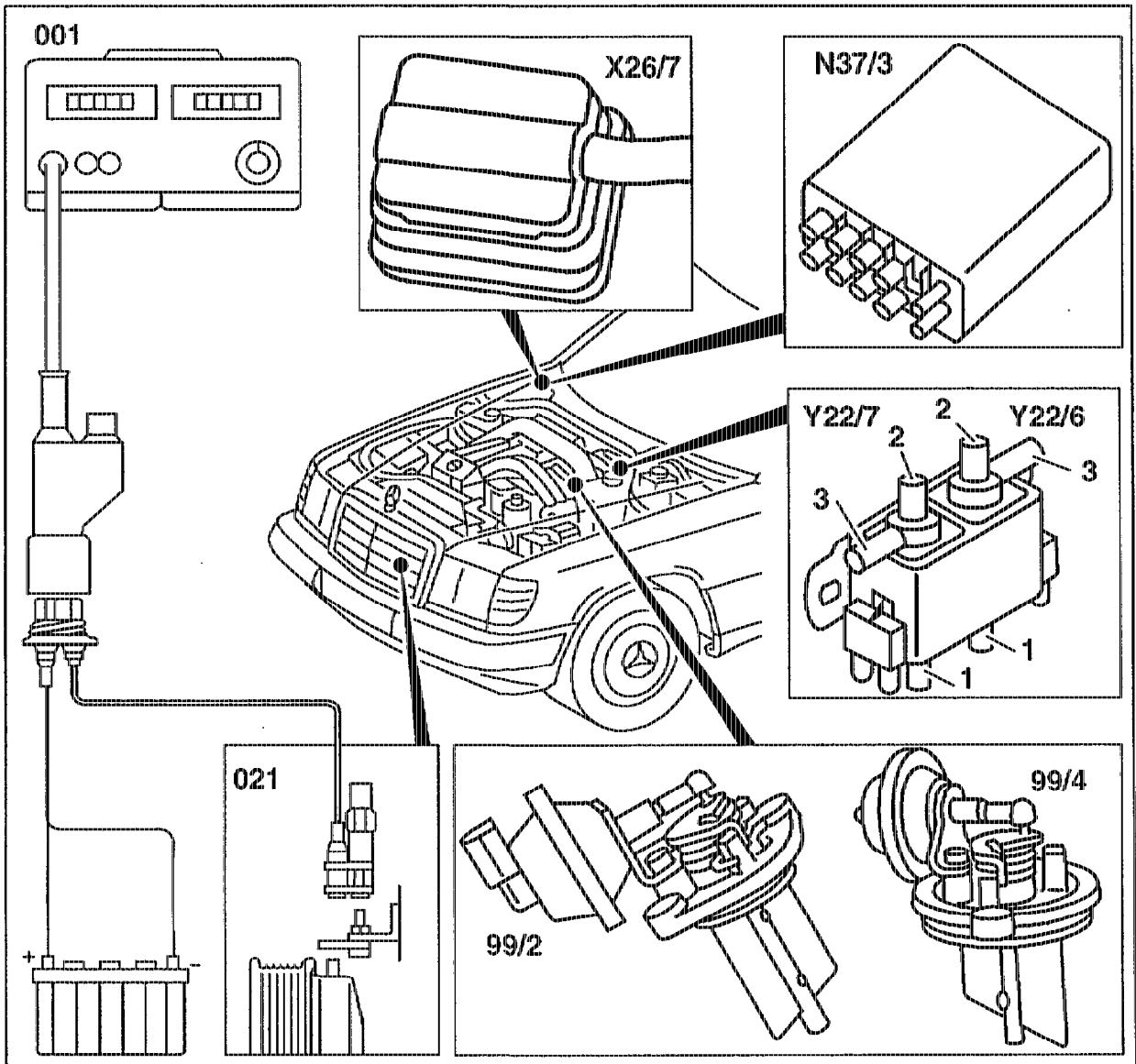


Operation no. of operation texts and work units or standard texts
and flat rates:
14-7550

Engine 606.910

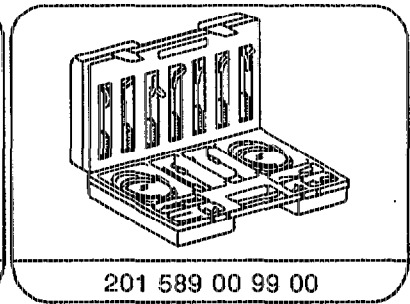
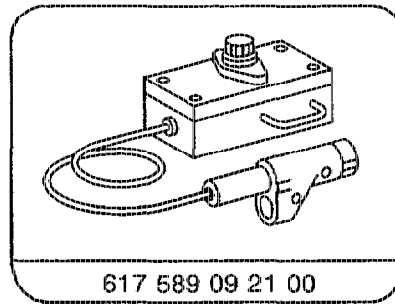
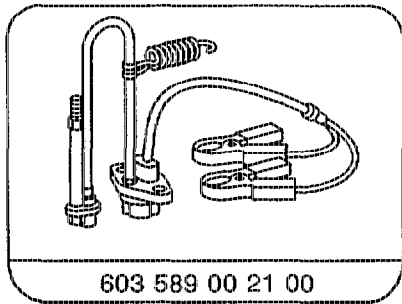


P14-5143-59

Connection diagram of digital tester without adapter, location of components

- Digital tester (001)
- and pulse generator (021) connect, disconnect.
- Test in accordance with test program
- "variable intake manifold system" perform.

Special tools



Commercially available testers (see Workshop Equipment Manual)

Designation	e. g. make, order no.
Multimeter	Sun, DMM-5 Fluke 23 DB, 83, 88 ITT Metrix MX 47, 50, 51, 52
Use without adapter	
Digital tester	Sun, DIT 9100 AVL, Diesel-Tester 873 Bosch, ETD 019.02
Use with adapter	
Digital tester	Bosch, MOT 103, 002.02, 150, 250
Engine diagnostics tester	Hermann D960, D980 Bear, DEACE

Test program variable intake manifold system

Test step/ Test scope	Tester/ Test connection	Operation/ Requirement	Specification	Possible cause/ Remedy
Test switchover valve (Y22/6) voltage supply	X26/7 9 —(←(V)→)— 2	Half unplug connector (X26/7) Engine speed < 1200 rpm at 1200-2800 rpm > 2800 rpm	11-14 V < 1 V 11-14 V	Control module (N37/3) Starter ring gear rpm sensor (L3) Connector of starter ring gear rpm sensor (L3x1) Control module (N8) or (N8/1) Overvoltage protection relay (K1/2) Wiring

Test program variable intake manifold system

Test step/ Test scope	Tester/ Test connection	Operation/ Requirement	Specification	Possible cause/ Remedy
Test switchover valve (Y22/7) Voltage supply	X26/7 10 —(←⊖)→ — 2	Half unplug connector (X26/7) Engine speed < 3800 rpm 3800 rpm	11-14 V < 1 V	Control module (N37/3) Starter ring gear rpm sensor (L3) Connector of starter ring gear rpm sensor (L3x1) Control module (N8) or (N8/1) Overvoltage protection relay (K1/2) Wiring
Wiring	N37/3 Y22/6 7 —(←⊖)→ — 2 11 —(←⊖)→ — 1 N37/3 Y22/7 12 —(←⊖)→ — 2 11 —(←⊖)→ — 1	Engine off Control unit (N37/3) removed Separate plug connection at (Y22/6), (Y22/7)	< 1 Ω < 1 Ω	Plug connection (X26/7) Wiring
Test vacuum at switchover valve (Y22/6) ¹⁾	Connect vacuum tester with Y distributor at connection 3	Engine speed < 1200 rpm at 1200-2800 rpm > 2800 rpm	< 10mbar > 700mbar < 10mbar	(Y22/6) Vacuum supply
Test vacuum at switchover valve (Y22/7) ¹⁾	Connect vacuum tester with Y distributor at connection 3	Engine speed < 3800 rpm > 3800 rpm	< 10mbar > 700mbar	(Y22/7) Vacuum supply
Test intake line resonance flap (99/2) ¹⁾	Connect vacuum tester directly to vacuum unit	Engine off Pressurize resonance flap with 400 mbar Detach vacuum line	Resonance flap can be seen to close	
Test intake manifold resonance flap (99/4) ¹⁾	Connect vacuum tester directly to vacuum unit	Engine off Pressurize resonance flap with 400 mbar Detach vacuum line	Resonance flap can be seen to close	

¹⁾ The resonance intake line must be removed, extended with an appropriate line and installed in order for testing the vacuum at the switchover valves (Y22/6) and (Y22/7) and the resonance flaps.
Inspecting vacuum units of resonance flap intake line + intake manifold see RI Engine 601.91, 602.91, 603.91 Combustion 1 Group 07.1.10-102/2.

Test program variable intake manifold system

Test step/ Test scope	Tester/ Test connection	Operation/ Requirement	Specification	Possible cause/ Remedy
Microswitch (S27/6)	<p style="text-align: center;">X26/7</p> <p>2 --- ← ⊖ ⊕ → --- 5</p> <p>2 --- ← ⊖ ⊕ → --- 6</p> <p>2 --- ← ⊖ ⊕ → --- 11</p>	<p>Engine switched off</p> <p>Connector (X26/7) unplugged</p> <p>with A/C</p>	<p>CTP < 1 Ω</p> <p>WOT ∞ Ω</p> <p>CTP ∞ Ω</p> <p>WOT < 1 Ω</p>	<p>(S27/6)</p> <p>Wiring</p>