

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
1.0	Instrument cluster (A1) Voltage supply Terminal 30		Ignition: OFF Remove instrument cluster (A1) Disconnect connector 1 (30-pin)	11 – 14 V	Fuse 17 in fuse and relay box (F3), Wiring, ⇒ 1.1
1.1	Voltage supply Terminal 15		Ignition: ON	11 – 14 V	Fuse 24 in fuse and relay box (F3), Wiring, A1
2.0	HHT interface Connection between A1 and data link connector (X11/4)		Ignition: OFF Remove A1, Disconnect connector 1 (30-pin)	5 Ω	Wiring.
3.0	ECL and windshield washer level: ECL level switch (S41), windshield washer level switch (S42) and wiring		Ignition: OFF Coolant level and windshield washer fluid level: OK Remove A1 Disconnect connector 1 (30 pin)	233 - 297 Ω	Wiring ⇒ 3.1 Values O.K.: A1

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
3.1	ECL switch (S41)	<p>S41 1 — 2</p>	Ignition: OFF Remove expansion tank Disconnect connector at S41. Coolant level OK	102 - 120 Ω	S41 Values O.K.: ⇒ 3.2
3.2	Windshield washer fluid level switch (S42)	<p>S42 1 — 2</p>	Ignition: OFF Disconnect connector at S42. Washer fluid level OK	145 - 185 Ω	S42
4.0	CAN bus data lines Resistance	<p>A1 9 — 10 (1B.9) (1B.10)</p>	Ignition: OFF Disconnect connector 1 (All control modules are connected to CAN)	around 60 Ω	CAN: -//-, □ □ - N47 N3 Values O.K.: ⇒ 4.1
4.1	CAN bus data lines Voltage Low-data line	<p>A1 9 (1B.9)</p>	Ignition: ON	around 2.3 V	N47 N3 Values O.K.: ⇒ 4.2
4.2	CAN bus data lines Voltage High-data line	<p>A1 10 (1B.10)</p>	Ignition: ON	around 2.6 V	N47 N3

Electrical Test Program – Test

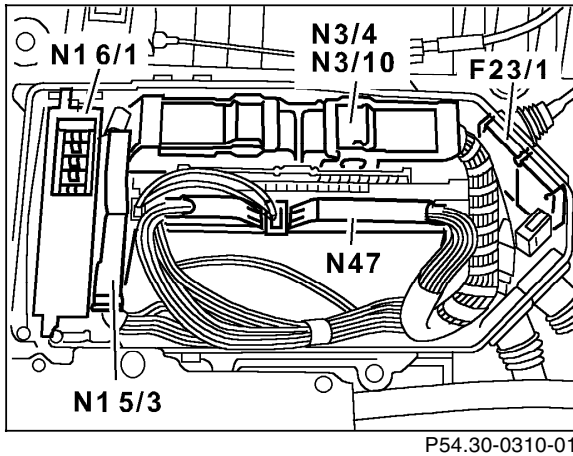


Figure 1 6/8 Cylinder models

- F23/1 Control module box
- N3/10 Engine control module (ME - SFI)
- N15/3 Transmission control module
- N16/1 Base module (BM)
- N47 Traction systems control module

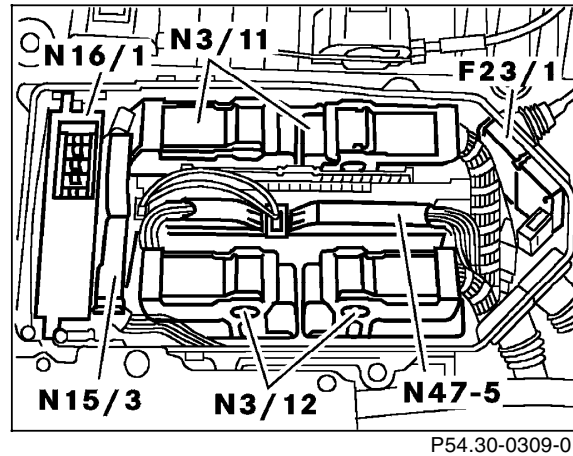


Figure 2 12 Cylinder models

- F23/1 Control module box
- N3/11 Left engine control module (ME-SFI)
- N3/12 Right engine control module (ME-SFI)
- N15/3 Transmission control module
- N16/1 Base module (BM)
- N47/5 ESP/SPS control module