# Test program - Electrics Preconditions for test

Preceding work:
Diagnosis - Fault memory 

11

#### Preconditions for test

- 1. Ignition: OFF
- 2. Remove LH control unit (N3 /1).
- 3. Connect socket box with contacting module 2 and contacting box to LH control unit (N3/1) according to connection diagram.
- 4. Only for test steps 1.2, 1.3, 2.3 2.5, 4 and 37

Ignition: OFF

Remove base module (N16/1) and connect socket box with contacting module 1 and contacting box (see Chassis Volume 1  $\,$  - 1.0  $\,$   $\square$  22).

 $\overline{\mathbb{V}}$ 

- When performing test and adjustment operations, the engine speed must only be increased by operating the accelerator pedal. If the engine speed is increased at the accelerator control linkage in the engine compartment, the emergency running properties will be activated and a fault will be stored in the electronic accelerator pedal fault memory and the ASR indicator lamp will come on.
- $\bullet$  If the LH control unit from another vehicle is installed, the self-adaptation of the control unit must be reset to the average value, see  $\;\;\square$  11.

# Reference to wiring diagrams

See "Wiring Diagrams Model 124, Volume 4"

Model 140, Volume 1"

Designation: Group

Model 124 Wiring diagram 12

Model 140 07

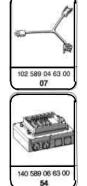
### Note regarding column tester/test connection

The numbers entered in parentheses, e.g. in  $\Rightarrow$  1.0 (1.23) mean:

- 1 = Coupling 1 in wiring diagram
- 23 = Contact 23 in wiring diagram

# Test program - Electrics Preconditions for test

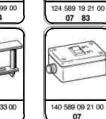
#### Special tools





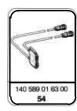














Test program - Electrics Preconditions for test

Commercially available tools and testers, MB testers (see Workshop Equipment Manual)

Designation	e.g. make, order no.	
Multimeter	Fluke, 23-DB, 83, 88	
	SUN, DMM-5	
	Hermann, Avometer 2003	
Lambda control tester	Hermann, L116	
	Bosch, KDJE-P600	
Test and adjustment equipment, diagnostic tester	Baer DACE,	
	Bosch, MOT 250/400	
	Hermann Datascope 960/980	

Test program - Electrics Preconditions for test

# Connection diagram of socket box, models 124 and 129

Fig. 1

003 Multimeter

050 Socket box, 126-pin

070 Contacting box

072 Contacting module

F23 Module box

Control unit (LH) N3/1 Test coupling for diagnosis, pulse signal (38-pin)

bl=

#### Test program - Electrics Preconditions for test

# Connection diagram of socket box, model 140



X11/4 Test coupling for diagnosis, pulse signal (38-pin)

bl= blue

#### Test program - Electrics **Preconditions for test**

### Pin assignment at coupling "1", interior for LH control unit

Fig. 3

1-8 9 Fuel consumption display

Catalytic converter overheating warning lamp (only J) 10

Idle speed recognition from EFP control unit, LLR control unit 11

or TPM/LLR control unit 12

13 14 Diagnostic cable

Diagnostic cable insulation

15-22

23 Ground, component compartment (W16) model 124 Ground, module box bracket (W27) model 129 Ground, power ground (W15) model 140 Voltage supply, terminal 87

24

25 Fuel pump relay

Voltage supply, terminal 30 26

Ground coding (only (J) 27

28 TN speed signal (output) 29

Immobilizer signal (as of 12/94) Safety fuel cutoff from EFP/TPM control unit

30 31 32

Exhaust temperature signal, ground (only J)

33 Exhaust temperature signal (only J)

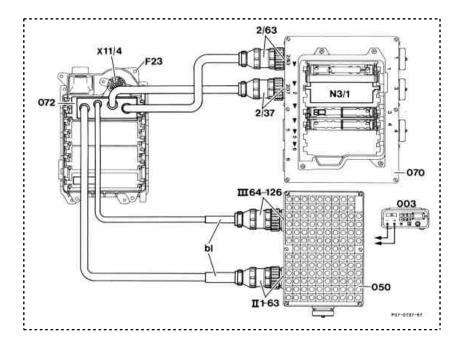
34

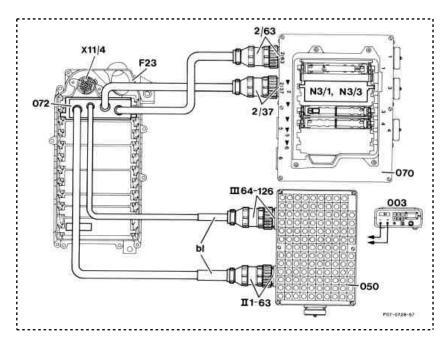
Starter signal, terminal 50 Ground, module box bracket (W27) model 124 35

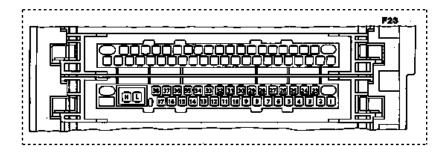
Ground, electronics, right footwell (W15/1) model 129 and 140

36 Voltage supply, terminal 87

37 Ground component compartment (W16) model 124
Copyright Daimler AG 7/20/11 G/06/08. This WIS printout will not be recorded by the update service







Ground, module box bracket (W27) model 129 Ground, power ground (W15) model 140

38 CAN data line

(LH, EZL, ASR, EFP, TPM control unit)

Н CAN data line

(LH, EZL, ASR, EFP, TPM control unit)

### Test program - Electrics Preconditions for test

### Pin assignment at coupling "2", engine compartment for LH control unit

### Fig. 4

- Fuel injection valve 2 (only M119)
- Fuel injection valve (engine 104 (4), engine 119 (3)) Fuel injection valve (engine 104 (6), engine 119 (8)) 2 3
- Fuel injection valve 5
- 5 TN speed signal (input) up to 11/94
- 5 CO potentiometer (only without CAT) as of 12/94

## with immobilizer stage 2

- 6 Camshaft position sensor signal up to 11/94
- Intake air temperature sensor as 12/94 with immobilizer stage 2 CO potentiometer (only without KAT) up 11/94 6
- 7
- TN speed signal (input) as of 12/94 with immobilizer stage 2 Intake air temperature sensor up to 11/94 7
- 8 8 Camshaft position sensor signal as 12/94 with immobilizer

# stage 2

9 Oxygen sensor heater

10-12

- 13 Oxygen sensor cable insulation
- 14 Oxygen sensor
- 15 Oxygen sensor ground
- Sensor ground 16
- Air mass sensor signal 17
- Coolant temperature sensor, circuit 2 18
- 19 Air pump relay (only CAT)
- Shiftpoint retard actuation (only AG) [Cold 2-3 Upshift Delay, Signal to Y3/3] 20
- 21
- Right camshaft timing actuator (only M119) 22

# Test program - Electrics Preconditions for test

# Pin assignment at coupling "2", engine compartment for LH control unit (continued)

# Fig. 4

- 23 Air mass sensor voltage supply
- 24 Fuel injection valve 7 (only M119)
- 25 Fuel injection valve (engine 104 (2) engine 119 (6))
- Fuel injection valve (engine 104 (3) engine 119 (4)) Fuel injection valve 1 26
- 27
- 28 29 30
- Resistance trimming plug (except USA) or ground coding (only
- USA) 31
- Coolant temperature sensor, circuit 1
- 32-33
- 34 Air mass sensor ground 35
- 36 37 Test output, lambda control Cleaning signal for air mass sensor
- 38 Regeneration switchover valve
- 39 Exhaust gas recirculation switchover valve
- 40 USA 124.034 - Cold 1-2 Upshift Delay, Signal to K29/1
- Left camshaft timing actuator

