

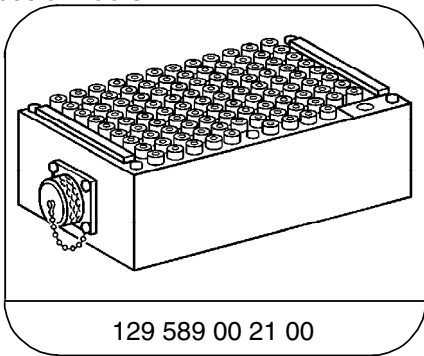
Electrical Test Program - Preparation for Test

Preliminary work: Diagnosis – Diagnostic Trouble Code (DTC) Memory ..... 11

1. Ignition: **OFF**.
2. Connect socket box according to connection diagram (Figure 1 to 3).

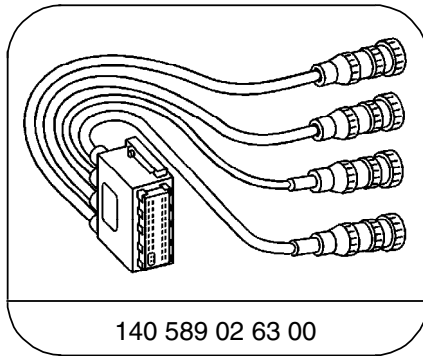
Electrical wiring diagrams :  
 Electrical Troubleshooting Manual, Model 124  
 Electrical Troubleshooting Manual, Model 129  
 Electrical Troubleshooting Manual, Model 140

Special Tools



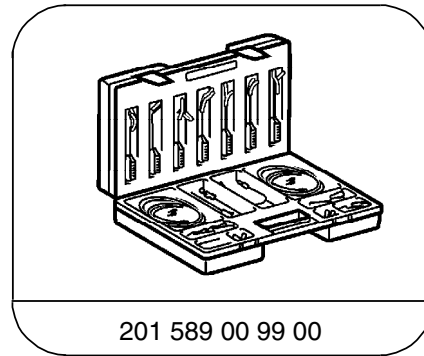
129 589 00 21 00

126-pin socket box



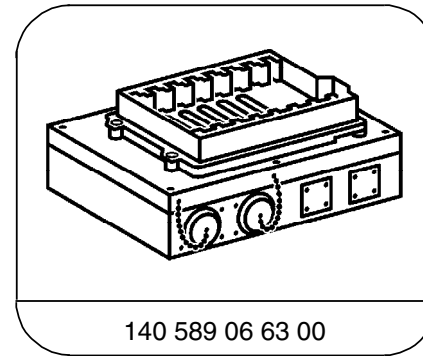
140 589 02 63 00

Contacting module 2



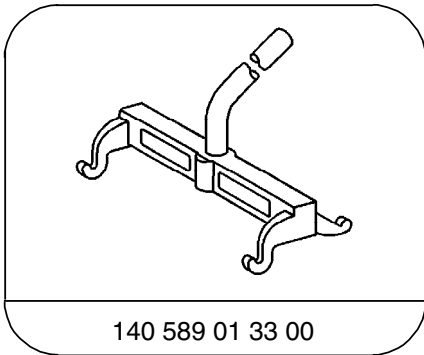
201 589 00 99 00

Electrical connecting set



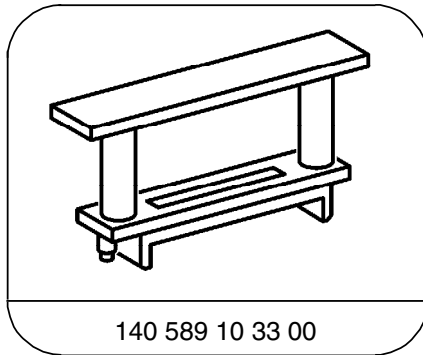
140 589 06 63 00

Contacting box



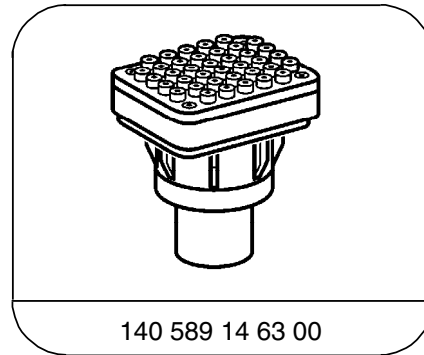
140 589 01 33 00

Mounting lever



140 589 10 33 00

Spacer



140 589 14 63 00

Adapter

Equipment

Digital multimeter <sup>1)</sup>

Fluke models 23, 83, 85, 87

<sup>1)</sup> Available through the MBUSA Standard Equipment Program.

Electrical Test Program - Preparation for Test

Connection Diagram – Socket Box  
 Model 124  
 Engine 119

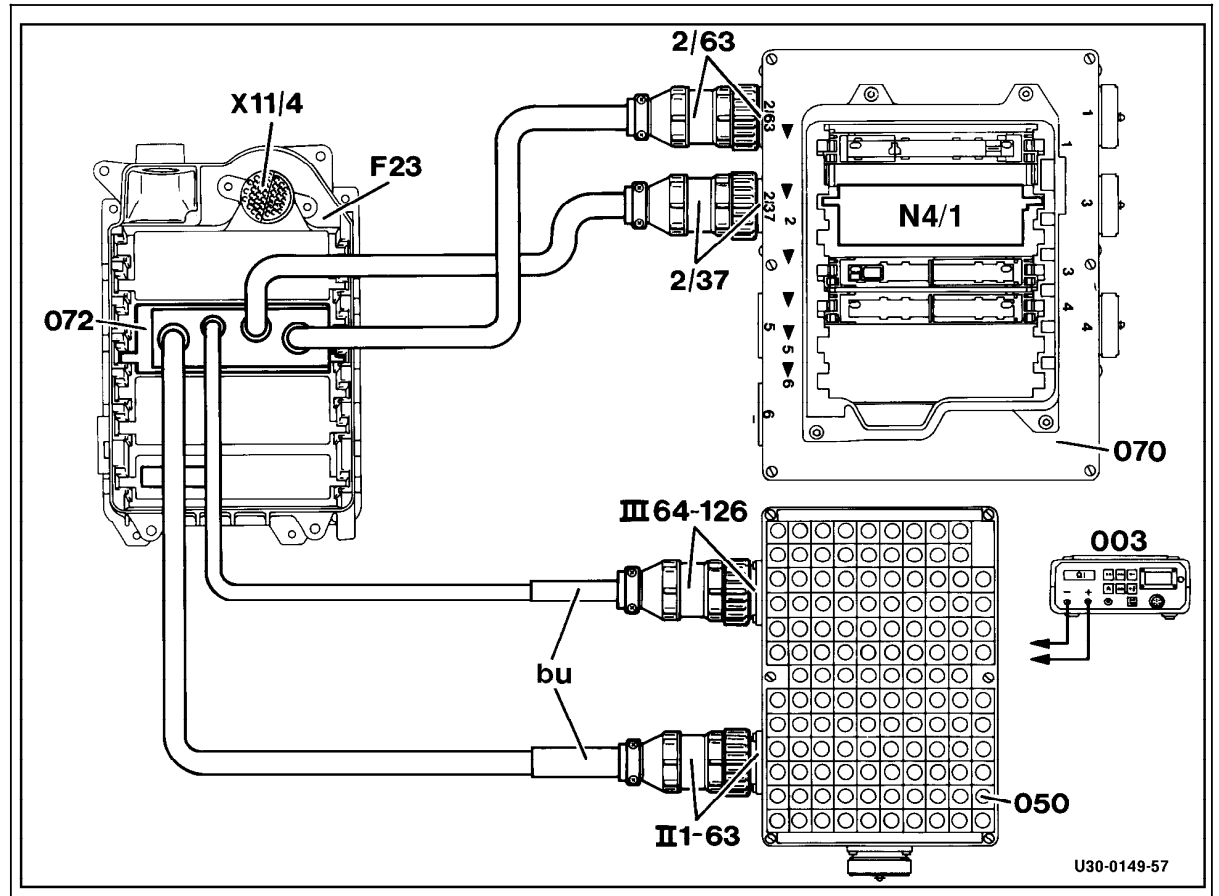


Figure 1

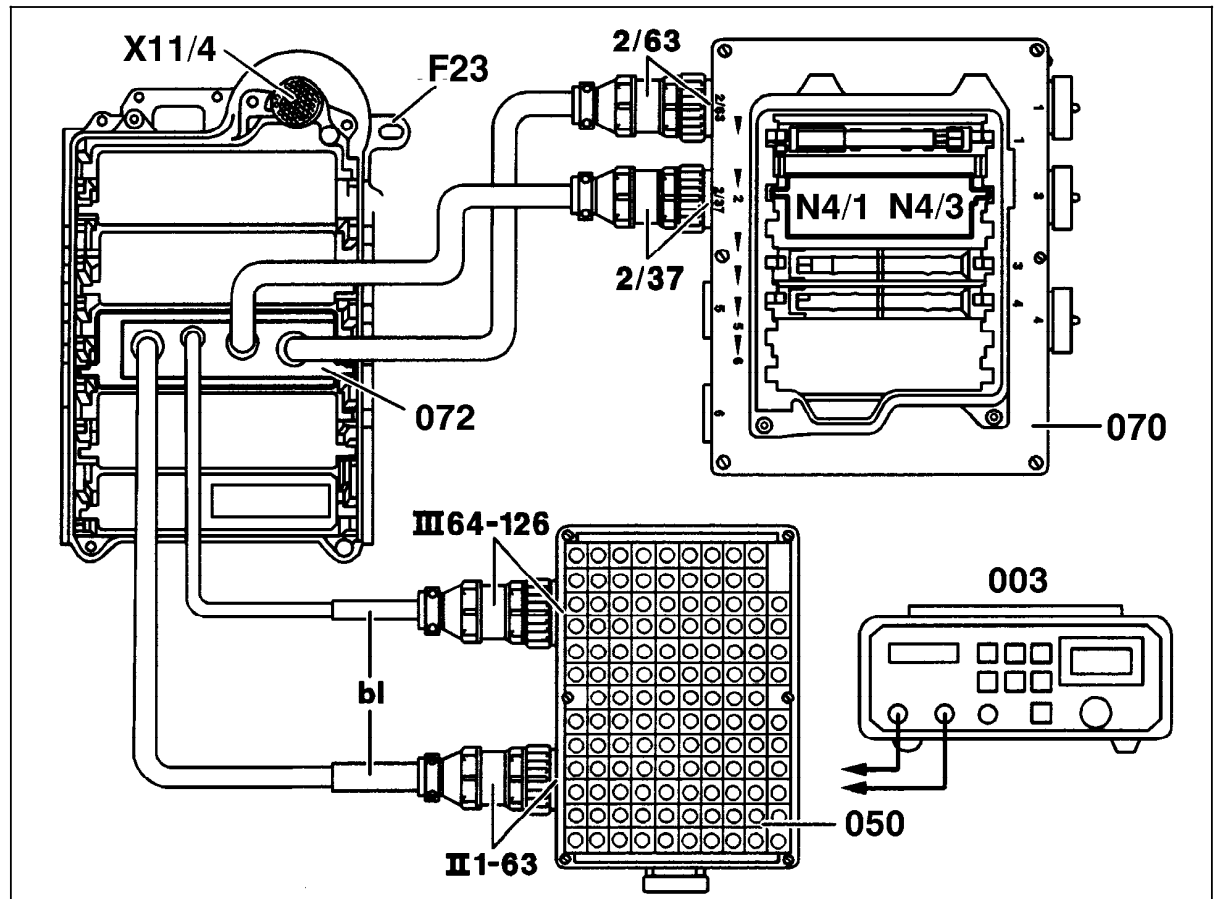
- F23 Module box
- N4/1 EA/CC/ISC control module
- X11/4 Data link connector (DTC readout)
- 003 Digital multimeter
- 050 Socket box (126-pole)
- 070 Contact box
- 072 Contact module 2
- bu blue

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Electrical Test Program - Preparation for Test

Connection Diagram – Socket Box  
 Model 129  
 Engine 119



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Figure 1

- F23 Module box
- N4/1 EA/CC/ISC control module
- X11/4 Data link connector (DTC readout)
- 003 Digital multimeter
- 050 Socket box (126-pole)
- 070 Contact box
- 072 Contact module 2
- bu blue

Electrical Test Program - Preparation for Test

Connection Diagram – Socket Box  
Model 140  
Engines 104, 119

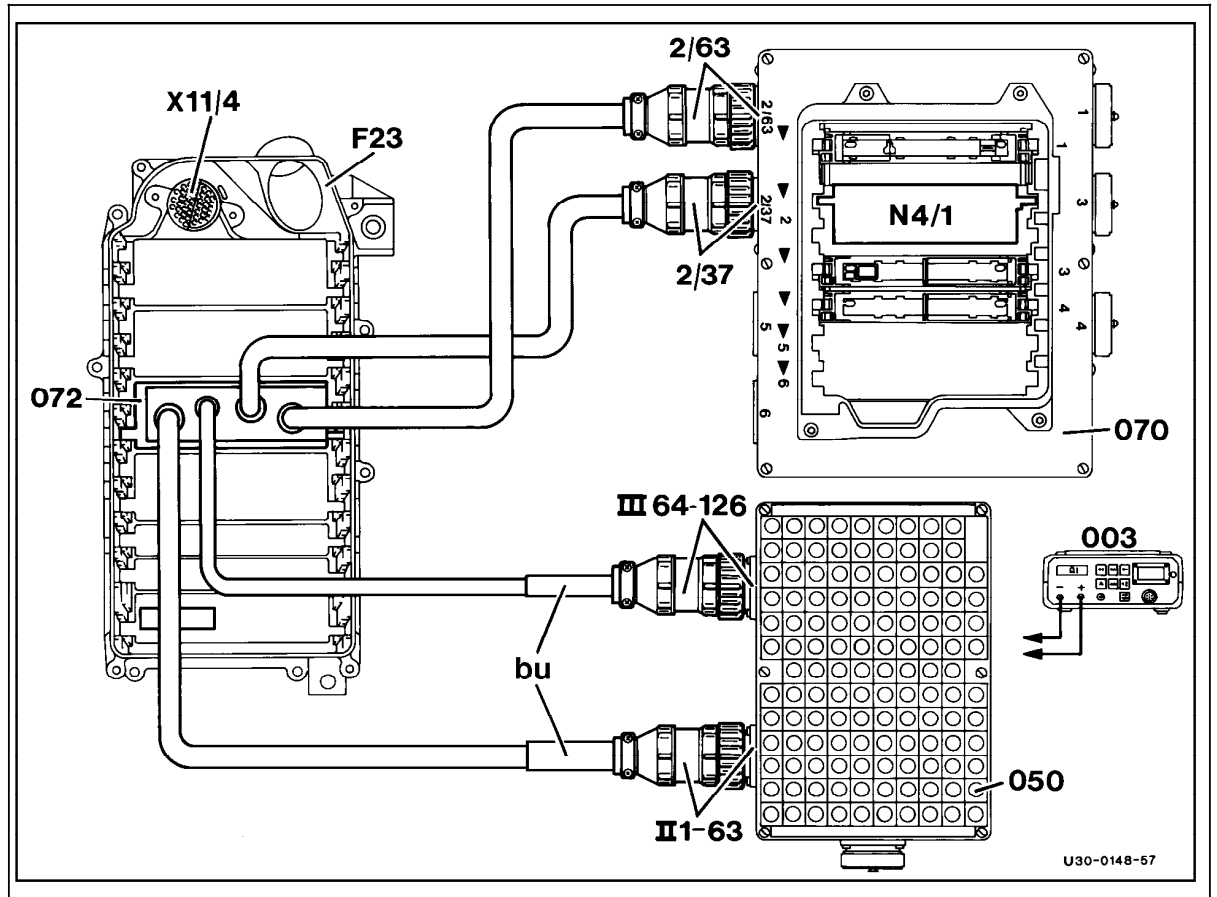


Figure 1

- F23 Module box
- N4/1 EA/CC/ISC control module
- X11/4 Data link connector (DTC readout)
- 003 Digital multimeter
- 050 Socket box (126-pole)
- 070 Contact box
- 072 Contact module 2
- bu blue

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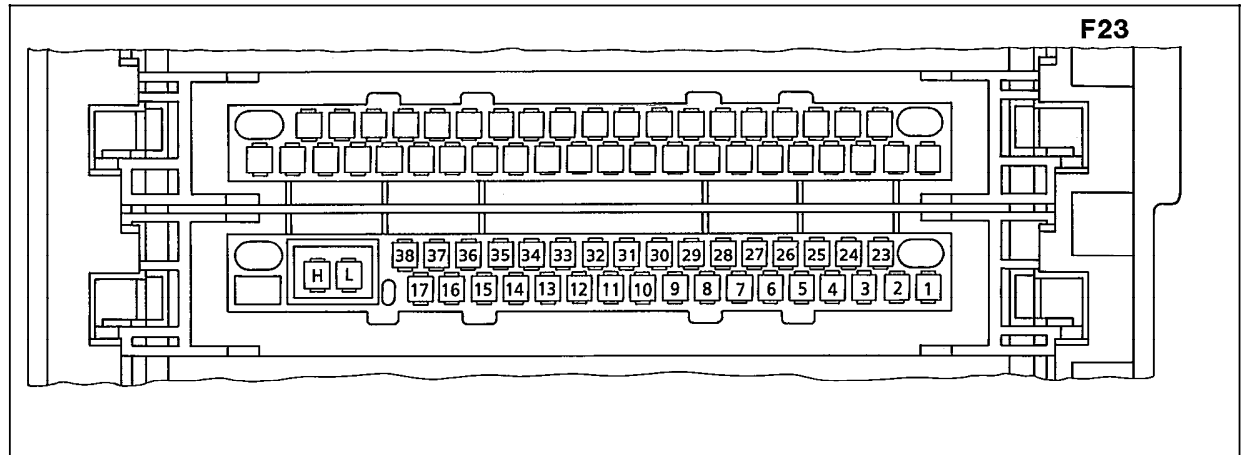
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### Electrical Test Program - Preparation for Test

#### Layout of EA/CC/ISC Control Module Connector "1"

Figure 4

- |         |   |
|---------|---|
| 1       | Not used  |
| 2       | Cruise control switch   |
| 3       | Starter lock-out/backup lamp switch, transmission range "D" recognition |
| 4       | Starter lock-out/backup lamp switch, transmission range "D" recognition |
| 5       | Data link connector (Socket 7)  |
| 6       | Not used  |
| 7       | Fuel safety shut-off (LH-SFI control module)                            |
| 8       | Not used  |
| 9       | Closed throttle position switch (ground)                                |
| 10      | Cruise control switch   |
| 11      | Cruise control switch .   |
| 12      | Left rear wheel speed sensor, ABS/ASR control                           |
| 13      | Brake lamp switch (ground)  |
| 14      | Not used  |
| 15      | Left front wheel speed sensor,  |
| 16      | A/C compressor input signal (base module)                               |
| 17 - 23 | Not used  |
| 24      | Closed throttle position recognition                                    |
| 25      | Closed throttle position recognition (positive)                         |
| 26-28   | Not used  |
| 29      | Starter lock-out/backup lamp switch, transmission range "R" recognition |

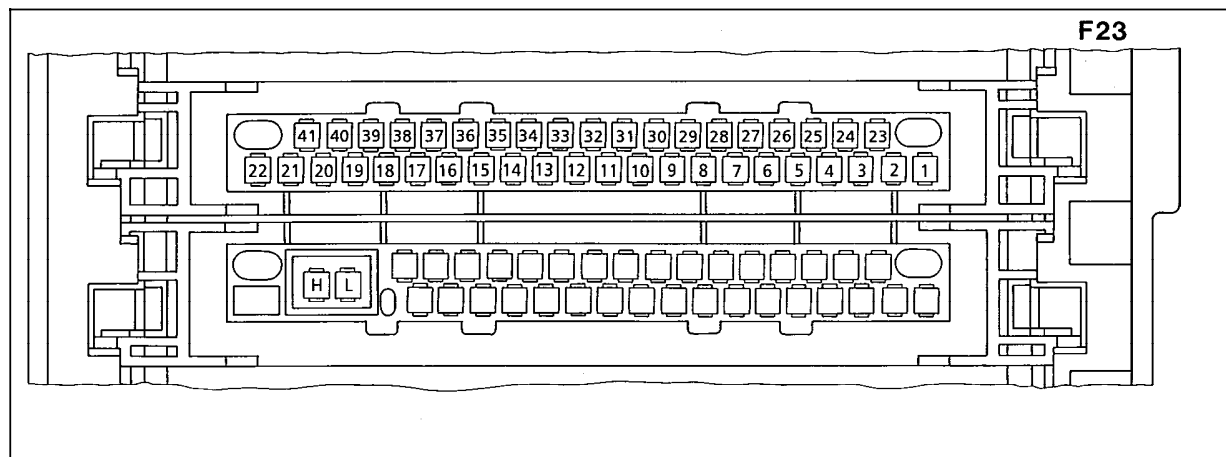


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- |    |   |
|----|---|
| 30 | Brake lamp switch   |
| 31 | Cruise control switch   |
| 32 | Idle speed increase diode matrix (V2), Model 140 with M119 only |
| 33 | Cruise control switch (OFF)                                     |
| 34 | Engine speed signal (base module)                               |
| 35 | Voltage supply unfused circuit 87 Ug                            |
| 36 | Voltage supply unfused circuit 87 Ug                            |
| 37 | Ground, Model 124: W16  |
| 38 | Ground, Models 129, 140: W15                                    |
| L  | Data line (-)<br>Controller Area Network                        |
| H  | Data line (+)<br>Controller Area Network                        |

### Electrical Test Program - Preparation for Test

#### Layout of EA/CC/ISC Control Module Connector "2"



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Figure 4

1-7	Not used
8	EA/CC/ISC actuator (reference potentiometer, socket 1)
9	EA/CC/ISC actuator (actual value potentiometer, socket 2)
10	EA/CC/ISC actuator (ground, socket 18)
11	Not used
12	EA/CC/ISC actuator (positive, socket 9)
13-15	Not used
16	EA/CC/ISC actuator (positive, socket 7)
17-18	Not used
19	EA/CC/ISC actuator (magnetic clutch ground, socket 11)
20	EA/CC/ISC actuator (positive, socket 12)
21	EA/CC/ISC actuator (ground, socket 13)
22	EA/CC/ISC actuator (ground, socket 13)
23-34	Not used
35	EA/CC/ISC actuator (ground, socket 4)
36-37	Not used
38	EA/CC/ISC actuator (closed throttle position switch, ground, socket 5)
39	Not used
40	EA/CC/ISC actuator (magnetic clutch, positive, socket 10)
41	EA/CC/ISC actuator (actuator motor positive, socket 12)