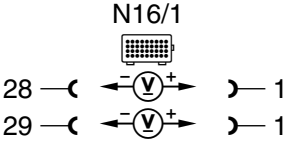
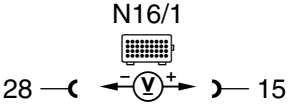
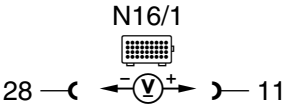
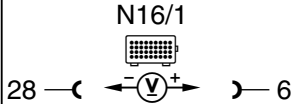
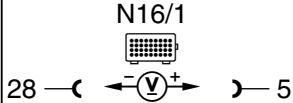

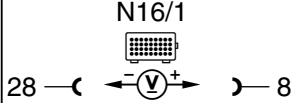

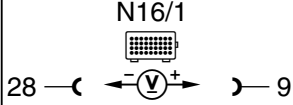


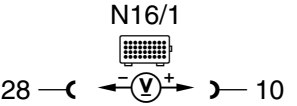
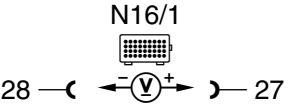
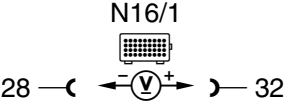


Electrical Test Program - Test

Test step DTC	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 1.0	Base module (N16/1) Voltage supply Circuit 30	<p>N16/1</p>  <p>28 —(←(V)→)— 1 29 —(←(V)→)— 1</p>	—	11 – 14 V	Wiring, Battery (G1), Model 129 Ground (module box bracket) (W27) Model 140 Ground (electronics output ground – right footwell) (W15)
⇒ 2.0	Base module (N16/1) Voltage supply Circuit 15, unfused	<p>N16/1</p>  <p>28 —(←(V)→)— 15</p>	Ignition: ON Ignition: OFF	11 – 14 V < 1 V	Wiring, Ignition/starter switch (S2/1)
⇒ 3.0	Base module (N16/1) Voltage supply Circuit 15, fused	<p>N16/1</p>  <p>28 —(←(V)→)— 11</p>	Ignition: ON Ignition: OFF	11 – 14 V < 1 V	Wiring

Electrical Test Program - Test

Test step DTC	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 4.0	Voltage supply (unfused) for N4/1	 <p>N16/1 28 — ◀ — (V) — ▶ — 6</p>	Ignition: ON Ignition: OFF	11 – 14 V < 1 V	⇒ 2.0, Base module (N16/1).
⇒ 5.0	Voltage supply (unfused) for N3/4, N4/1, B2/5	 <p>N16/1 28 — ◀ — (V) — ▶ — 5</p>	Ignition: ON Ignition: OFF	11 – 14 V < 1 V	⇒ 2.0, Base module (N16/1).
⇒ 6.0	 Voltage supply (fused) for N30 or N30/1, S9/1	 <p>N16/1 28 — ◀ — (V) — ▶ — 8</p>	Ignition: ON Ignition: OFF	11 – 14 V < 1 V	Fuse (F1) in base module (N16/1), ⇒ 2.0, Base module (N16/1).
⇒ 7.0	 Voltage supply (fused) for X11/4	 <p>N16/1 28 — ◀ — (V) — ▶ — 9</p>	Ignition: ON Ignition: OFF	11 – 14 V < 1 V	Fuse (F1) in base module (N16/1), ⇒ 2.0, Base module (N16/1).

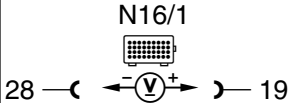
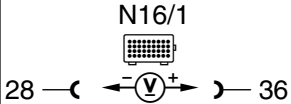
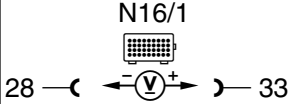
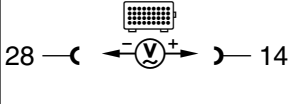
Electrical Test Program - Test

Test step DTC	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 8.0 I1	Voltage supply (fused) for N3/4	N16/1 	Ignition: ON Ignition: OFF	11 – 14 V < 1 V	⇒ 2.0, ⇒ 3.0, Base module (N16/1).
⇒ 9.0 II	Voltage supply (fused) for N49/1, N51, N15/1, S16/9, S45/1	N16/1 	Ignition: ON Ignition: OFF	11 – 14 V < 1 V	Fuse (F3) in base module (N16/1), ⇒ 2.0, Base module (N16/1).
⇒ 10.0	Idle speed increase signal for N3/4, N4/1	N16/1 	Engine: at Idle  	10 – 14 V < 1 V	⇒ 11.0, ⇒ 12.0, ⇒ 2.0, Base module (N16/1).

Electrical Test Program - Test

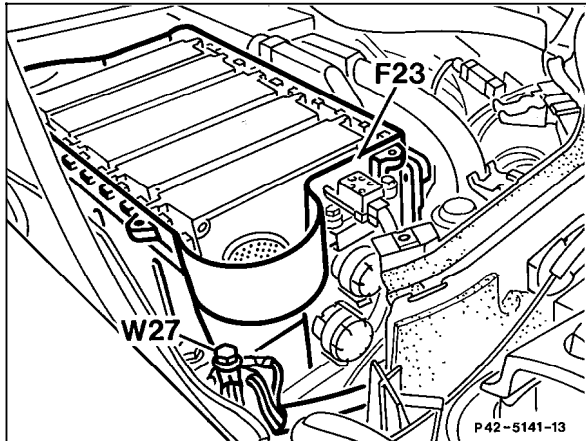
Test step DTC	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 11.0	A/C compressor RPM sensor signal (A9I1)	<p>N16/1</p>	<p>Engine: at Idle</p>	<p>Model 129 > 0.30 V Model 140 > 0.04 V</p>	⇒ 11.1
⇒ 11.1	Resistance	<p>N16/1</p>	<p>Ignition: OFF</p> <p>Disconnect base module (N16/1) from contact box.</p>	<p>Model 129 530 – 900 Ω Model 140 165 – 205 Ω</p>	Wiring, A9/1.
⇒ 12.0	A/C “ON” signal from A/C pushbutton control module (N22)	<p>N16/1</p>	<p>Ignition: ON</p>	<p>11 – 14 V</p> <p>< 2 V</p>	Wiring, See DM, Climate Control, Vol. 1, section 3.1 or 3.2 23
⇒ 13.0	A/C compressor electromagnetic clutch (A9k1) Voltage supply Circuit 15	<p>N16/1</p>	<p>Engine: at idle</p>	<p>11 – 14 V</p> <p>< 2 V</p>	⇒ 11.0, ⇒ 2.0, Base module (N16/1).
⇒ 14.0	RPM signal TN (input) from engine control module (N3/4)	<p>N16/1</p>	<p>Engine: at Idle</p>	>3 V	Wiring, N3/4, Base module (N16/1).

Electrical Test Program - Test

Test step DTC	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 15.0 5 17 Model 129 only	Module box blower motor (M2/2) ¹⁾ Voltage supply	N16/1 	Engine: start RPM > 1500 rpm	11 – 14 V only for approx. 1.5 seconds after reaching 1500 rpm	Wiring, ⇒14.0, ⇒2.0, Base module (N16/1).
⇒ 16.0 15	Kickdown switch (S16/6) Voltage supply	N16/1 	Engine: at Idle Engine: OFF	11 – 14 V < 1 V	⇒ 14.0, ⇒ 2.0, Wiring, Base module N16/1).
⇒ 17.0	Diagnostic output	N16/1 	Ignition: ON	10 – 14 V	Wiring, Base module (N16/1).
⇒ 18.0	Vehicle speed signal (VSS) from ABS control module (N30) or ABS/ASR control module (N30/1)	N16/1 	Ignition: ON Raise vehicle Turn right front wheel at 1 rev./second	>3 V	Wiring, ABS DM, Chassis & Drivetrain, Vol. 2, section 6.1 or 6.2 23, ASR DM, Chassis & Drivetrain, Vol. 2, section 5.1 or 5.2 23.

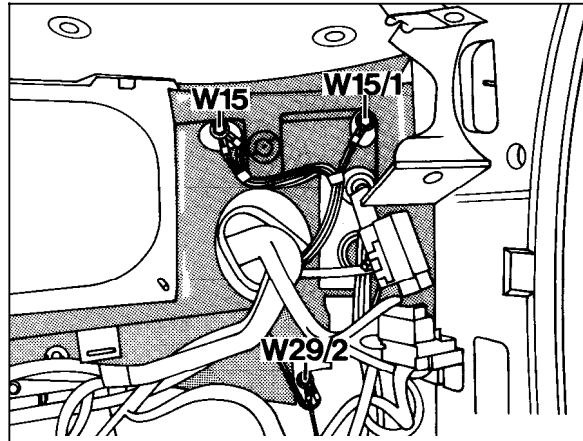
¹⁾ As of M.Y. 1994, M2/2 is no longer installed on model 140.

Electrical Test Program - Test



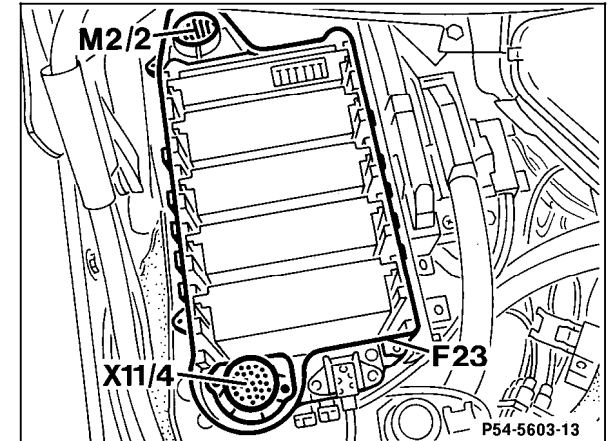
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Figure 1
Model 129
W27 Ground (module box bracket)



P54-2796-13

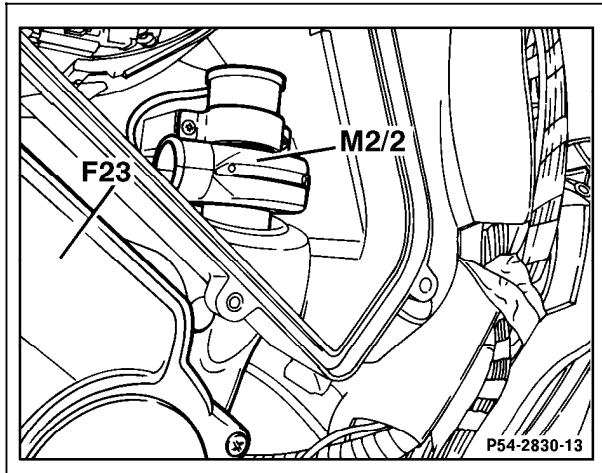
Figure 2
Model 140
W15 Ground (electronics output ground - right footwell)



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Figure 3
Model 129
M2/2 Module box blower motor

Electrical Test Program - Test



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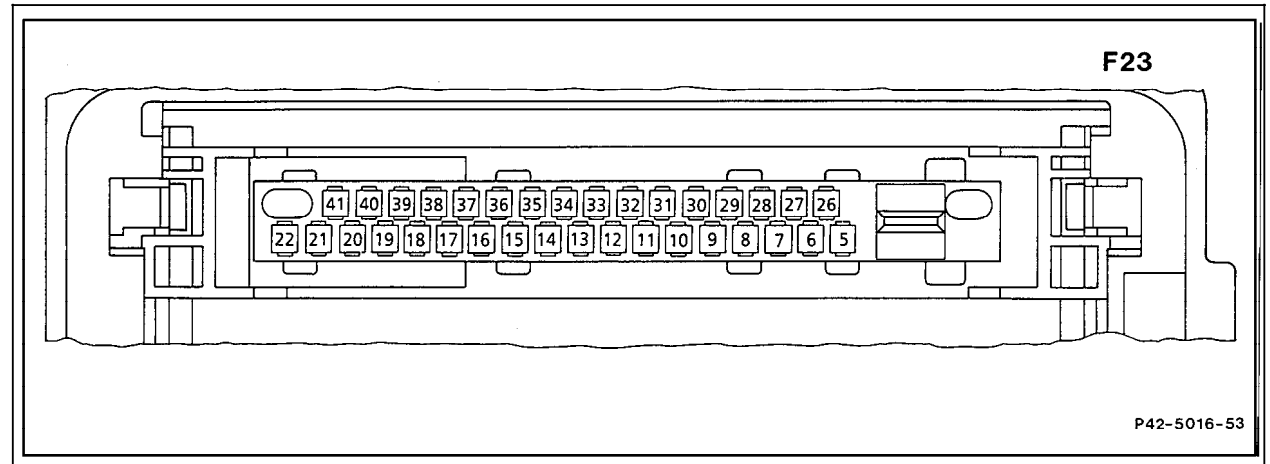
Figure 4
Model 140
M2/2 Module box blower motor

Electrical Test Program - Test

Base Module connector layout

Figure 5

F23	Module box
1	Voltage supply circuit 30 (wide socket)
2-4	Not used
5	Engine control module (N3/4), EA control module (N4/1)
6	EA control module (N4/1)
7	Not used
8	ABS control module (N30) or ABS/ASR control module (N30/1), ASD/ASR stop lamp switch (S9/1)
9	Voltage supply for data link connector (X11/4)
10	Engine control module (N3/4)
11	Voltage supply circuit 15
12-13	Not used
14	Processed right front VSS from ABS (N30) or ABS/ASR (N30/1) control module
15	Voltage supply circuit 15
16-18	Not used
19	Module box blower motor (M2/2)
20	Electromagnetic clutch (A9k1)
21-26	Not used
27	ADS (N51), SPS (N49/1), Transmission, (N15/1) control modules, TR "D" contact switch (S16/9), Comfort/sport switch (S45/1)
28	Ground (W15 or W27)
29	Ground (W15 or W27)
30	Not used



P42-5016-53

P42-5016-53

31	Engine speed signal TN (input) from Engine control module (N3/4)
32	Idle speed increase signal for EA control module (N4/1)
33	Diagnosis (output)
34-38	Not used
39	A/C "ON" signal
40	A/C compressor speed sensor (A9I1) (-)
41	A/C compressor speed sensor (A9I1) (+)