
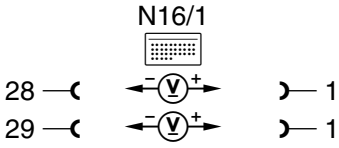
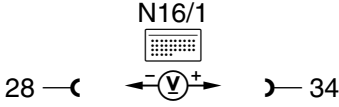

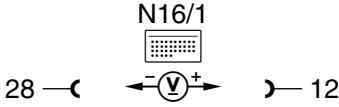


## 1.1 Base Module (BM)

## Models 124.034/036, 129.067/076, 140 (EDS, LH-SFI, ME-SFI)



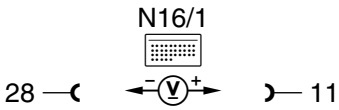

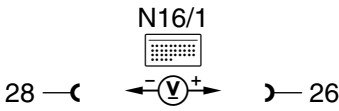

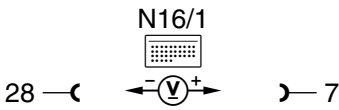
### Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
1.0		<b>Base module (N16/1)</b> Voltage supply Circuit 30		–	11 – 14 V	Wiring, Battery (G1).
2.0		<b>Base module (N16/1)</b> Voltage supply Circuit 15, unfused		– Ignition: <b>ON</b>  Ignition: <b>OFF</b>	11 – 14 V  < 1 V	Wiring, Ignition/starter switch (S2/1).
3.0		<b>Voltage supply (unfused)</b> for: <b>Engines 104, 119 LH-SFI</b> N3/1, N59 (M.Y. 93 Calif. version only)  <b>Engine 120 LH-SFI</b> N3/3, N59  <b>Engine 119, 120 ME-SFI</b> N3/10, N3/12		–	11 – 14 V	⇒ 1.0, Base module (N16/1).

## 1.1 Base Module (BM)

## Models 124.034/036, 129.067/076, 140 (EDS, LH-SFI, ME-SFI)



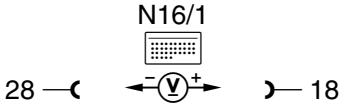
### Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
4.0		<b>Voltage supply (unfused)</b> for: <b>Engine 120 LH-SFI</b> N3/2  <b>Engine 120 ME-SFI</b> N3/11		–	11 – 14 V	⇒ 1.0, Base module (N16/1).
5.0		<b>Voltage supply (fused)</b> for: <b>Engine 120 LH-SFI</b> N3/2, K27/1 or K27/2  <b>Engine 119, 120 ME-SFI</b> Z7/36		Ignition: <b>ON</b>  Ignition: <b>OFF</b>	11 – 14 V  < 1 V	Fuse (F4 with LH-SFI, F2 with ME-SFI) in base module (N16/1), ⇒ 2.0, N16/1.
6.0		<b>Voltage supply (fused)</b> for: <b>Engine 104, 119 LH-SFI</b> A1e26, N3/1, N59 (M.Y. 92 Calif.), K27  <b>Engine 120 LH-SFI</b> A1e26, N3/3, N59 (M.Y. 92 Calif.), K27/1 or K27/2  <b>Engine 119, 120 ME-SFI</b> Z7/35		Ignition: <b>ON</b>  Ignition: <b>OFF</b>	11 – 14 V  < 1 V	Fuse (F2 with LH-SFI, F1 with ME-SFI) in base module (N16/1), ⇒ 2.0, N16/1.

## 1.1 Base Module (BM)

## Models 124.034/036, 129.067/076, 140 (EDS, LH-SFI, ME-SFI)

### Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
7.0		<p><b>Voltage supply (fused)</b> for:</p> <p><b>Engine 104, 119 LH-SFI (09/92 →)</b> K17, K29, Y3/2, Y27, Y49, Y49/1, Y49/2, Y58/1</p> <p><b>Engine 120 LH-SFI</b> N1/4 (06/91 →), Y27/2, Y49/1, Y58/2, Y63</p> <p><b>Engine 119, 120 ME-SFI</b> X35/63</p>	<p>N16/1</p> 	<p>Ignition: <b>ON</b></p> <p>Ignition: <b>OFF</b></p>	<p>11 – 14 V</p> <p>&lt; 1 V</p>	<p>Fuse (F4 with LH-SFI, F2 with ME-SFI ) in base module (N16/1), ⇒ 2.0, N16/1.</p>

# 1.1 Base Module (BM)

# Models 124.034/036, 129.067/076, 140 (EDS, LH-SFI, ME-SFI)


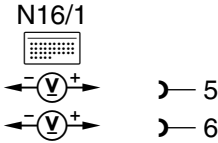

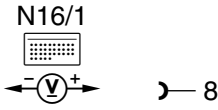

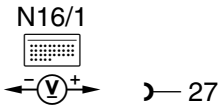
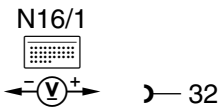


## Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
8.0		<p><b>Voltage supply (fused)</b> for:</p> <p><b>Engine 104, 119 LH-SFI</b> (→ 08/92) N1/3 (06/91→), K17, K29, Y3/2, Y27, Y49, Y49/1, Y49/2, Y58/1, Y62</p> <p><b>Engine 104, 119 LH-SFI</b> <b>(09/92 →)</b> N1/3, Y62</p> <p><b>Engine 120 LH-SFI</b> N1/5 (06/91→), K17, Y3/2, Y27/3, Y49/2, Y58/3, Y64</p> <p><b>Engine 603</b> N39, Y27, Y31/1, Y31/4, Y31/6</p> <p><b>Engine 119, 120 ME-SFI</b> X35/63</p>	<p>N16/1</p> <p>28 ← — (V) — → 38</p>	<p>Ignition: <b>ON</b></p> <p>Ignition: <b>OFF</b></p>	<p>11 – 14 V</p> <p>&lt; 1 V</p>	<p>Fuse (F2 with LH-SFI, F1 with ME-SFI) in base module (N16/1) ⇒ 2.0, N16/1.</p>

## 1.1 Base Module (BM)

## Models 124.034/036, 129.067/076, 140 (EDS, LH-SFI, ME-SFI)


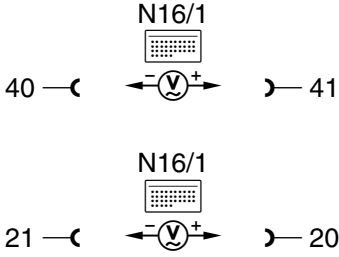
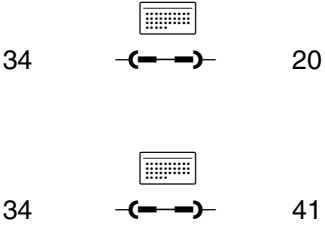
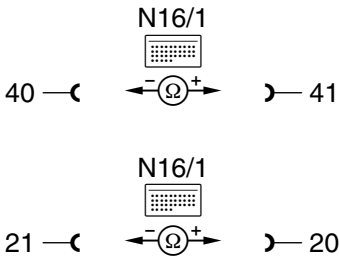
### Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
9.0		<b>Voltage supply (unfused)</b> for: <b>Engine 104, 119, 120</b> <b>LH-SFI</b> N4/1	N16/1 	Ignition: <b>ON</b>  Ignition: <b>OFF</b>	11 – 14 V  < 1 V	⇒ 2.0, Base module (N16/1).
10.0		<b>Voltage supply (fused)</b> for: N30 or N30/1 or N47-1, N30/2, N47-5, S9/1	N16/1 	Ignition: <b>ON</b>  Ignition: <b>OFF</b>	11 – 14 V  < 1 V	Fuse (F1 with LH-SFI, F3 with ME-SFI) in base module (N16/1) ⇒ 2.0, N16/1.
11.0		<b>Voltage supply (fused)</b> for: N49/1, N51, N15/1, N15/3, N49, S16/9, S45/1	N16/1 	Ignition: <b>ON</b>  Ignition: <b>OFF</b>	11 – 14 V  < 1 V	Fuse (F3) in base module (N16/1) ⇒ 2.0, N16/1.
12.0		<b>Idle speed increase signal</b> for: <b>Engine 104, 119, 120</b> <b>LH-SFI</b> N4/1  <b>Model 129 with engine 119</b> <b>ME-SFI</b> N3/10	N16/1 	Engine: <b>at Idle</b>    	10 – 14 V  < 1 V	⇒ 13.0, ⇒ 14.0, N16/1.

## 1.1 Base Module (BM)

## Models 124.034/036, 129.067/076, 140 (EDS, LH-SFI, ME-SFI)


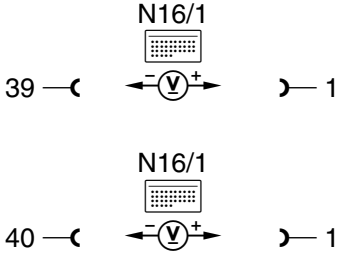





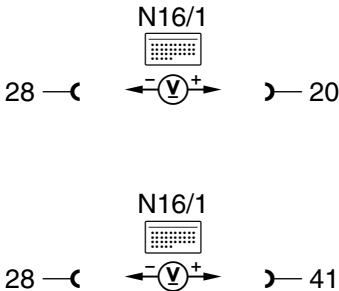


### Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
13.0		<b>A/C compressor RPM sensor signal (A9/1)</b>  <b>Model 124, 129, 140.0 LH-SFI,</b> <b>Model 129 with ME-SFI</b>  <b>Model 140.1</b>		<b>Engine: at Idle</b>  	<b>Model 124, 129</b> > 0.30 V  <b>Model 140.0</b> > 0.04 V  <b>Model 140.1</b> > 0.04 V	⇒ 13.1
13.1		Resistance  <b>Model 124, 129, 140.0 LH-SFI,</b> <b>Model 129 with ME-SFI</b>  <b>Model 140.1</b>		<b>Ignition: OFF</b>  Disconnect base module (N16/1) from contact box.	<b>Model 124, 129</b> 530 – 900 Ω  <b>Model 140.0</b> 165 – 205 Ω  <b>Model 140.1</b> 165 – 205 Ω	Wiring, A9/1.

## 1.1 Base Module (BM)

## Models 124.034/036, 129.067/076, 140 (EDS, LH-SFI, ME-SFI)














### Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
14.0		<b>A/C “ON” signal</b> from A/C pushbutton control module (N22)  <b>Model 124, 129, 140.0 LH-SFI,</b> <b>Model 129 with ME-SFI</b>  <b>Model 140.1</b>		Ignition: <b>ON</b>    	11 – 14 V  < 2 V	Wiring, See DM, Climate Control, Vol. 1, section 3.1 or 3.2, 23.
15.0	  	<b>A/C compressor electromagnetic clutch (A9k1)</b> Voltage supply Circuit 15  <b>Model 124, 129, 140.0 LH-SFI,</b> <b>Model 129 with ME-SFI</b>  <b>Model 140.1</b>		Engine: <b>at idle</b>   	11 – 14 V  < 1 V	⇒ 13.0 ⇒ 15.1 Base module (N16/1).

## 1.1 Base Module (BM)

## Models 124.034/036, 129.067/076, 140 (EDS, LH-SFI, ME-SFI)

### Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
15.1		<b>Base module (N16/1)</b> Voltage supply Circuit 15  <b>Models 124, 129, 140.0 LH-SFI, 140.1</b> <b>Model 129 with ME-SFI only</b>	28 —    —  15	Ignition: <b>ON</b>  Ignition: <b>OFF</b>	11 – 14 V  < 1 V	Wiring, Fuse.
16.0		<b>RPM signal TN or TD (output)</b> to EA/CC/ISC control module (N4/1) and tachometer (A1p5)  <b>Models 124, 129, 140.0 LH-SFI, 140.1 only</b>	28 —    —  13	Engine: <b>at Idle</b>	>3 V	Wiring, ⇒17.0, Base module (N16/1).
17.0		<b>RPM signal TN (input)</b> from LH-SFI or ME-SFI control module (N3/1 or N3/3 or N3/10) <b>Engine 104, 119:</b> N3/1, N3/10 <b>Engine 120:</b> N3/3  <b>Model 140.0 LH-SFI, Model 129 with ME-SFI only</b>	30 —    —  31	Engine: <b>at Idle</b>	>3 V	Wiring, N3/1 or N3/3, N16/1.



## 1.1 Base Module (BM)

## Models 124.034/036, 129.067/076, 140 (EDS, LH-SFI, ME-SFI)

### Electrical Test Program – Test


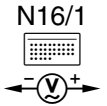
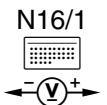
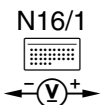
⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
18.0		<b>Processed RPM signal TD (input)</b> from EDS control module (N39)  <b>Model 140.1 only</b>		Engine: <b>at Idle</b>	>2.8 V (voltage drops with increased rpm, by approx. 0.5 V, then stabilizes).	Wiring, N39, Base module (N16/1).
19.0		<b>Module box blower motor (M2/2) <sup>1)</sup></b> Voltage supply  <b>Model 124, 129 only</b>		Engine: <b>at Idle</b> RPM > 1500 rpm	11 – 14 V <b>only</b> for approx. 1.5 seconds after reaching > 1500 rpm	Wiring, ⇒17.0, ⇒2.0, N16/1.
20.0		<b>Kickdown switch (S16/7) (transmission mode)</b> Voltage supply  <b>Models 124, 129, 140.0 LH-SFI, 140.1 only</b>		Engine: <b>at Idle</b>  Engine: <b>OFF</b>	11 – 14 V  < 1 V	Wiring, ⇒ 17.0, N16/1.
21.0		<b>Diagnostic output</b>  <b>Models 124, 129, 140.0, 140.1 only</b>		Ignition: <b>ON</b>	10 – 14 V	Wiring, N16/1.

<sup>1)</sup> Module box blower motor was phased out of production on model 140 starting M.Y. 1994..

## 1.1 Base Module (BM)

## Models 124.034/036, 129.067/076, 140 (EDS, LH-SFI, ME-SFI)

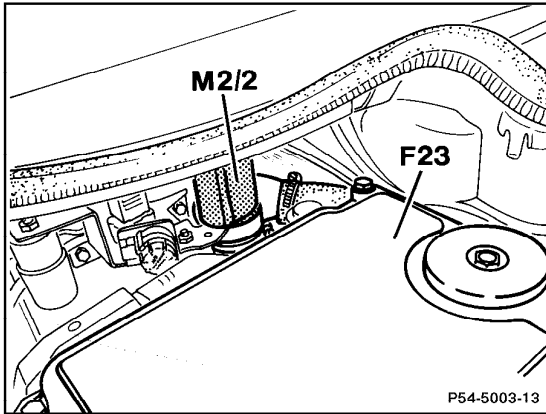
### Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
22.0		<b>Vehicle speed signal (VSS)</b> from ABS control module (N30) or ASR control module (N30/1)  <b>Models 124, 129, 140.0 LH-SFI, 140.1 only</b>	N16/1 	Ignition: <b>ON</b> 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.
23.0		<b>A/C compressor cut-out/EGR microswitch (S27/6)</b>  <b>Model 140.1 only</b>	N16/1 	Depress accelerator pedal  Release accelerator pedal	11 – 14 V  < 1 V	Wiring, S27/6.
24.0		<b>Diagnostic coupling for diagnostics</b> Voltage supply	N16/1 	Ignition: <b>ON</b>	10 – 14 V	Wiring, Base module (N16/1).

## 1.1 Base Module (BM)

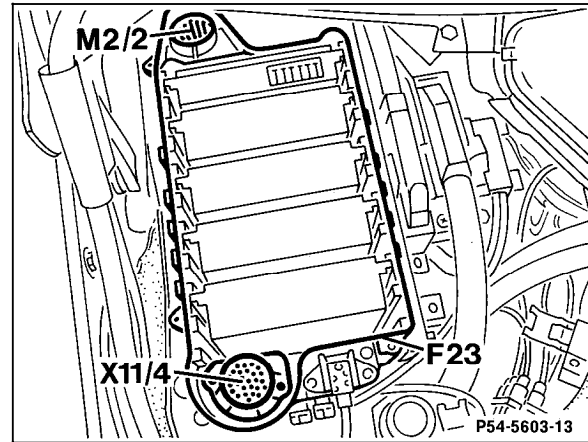
Models 124.034/036, 129.067/076, 140 (EDS, LH-SFI, ME-SFI)

### Electrical Test Program – Test



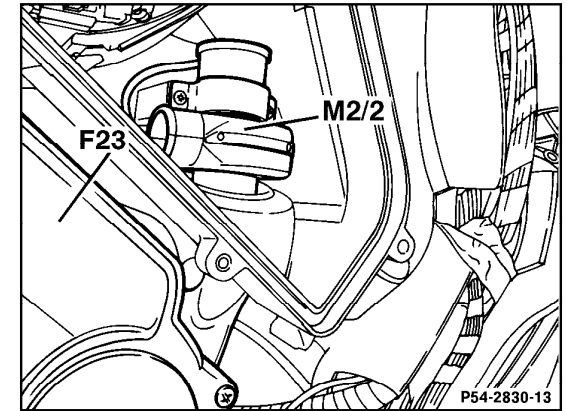
P54-5003-13

Figure 1  
Model 124  
M2/2 Module box blower motor



P54-5603-13

Figure 2  
Model 129  
M2/2 Module box blower motor



P54-2830-13

Figure 3  
Model 140  
M2/2 Module box blower motor

# 1.1 Base Module (BM)

# Models 124.034/036, 129.067/076, 140 (EDS, LH-SFI, ME-SFI)

## Electrical Test Program – Test

### Connector Layout – Base Module (BM) (N16/1) Part 1, Sockets 1 – 20

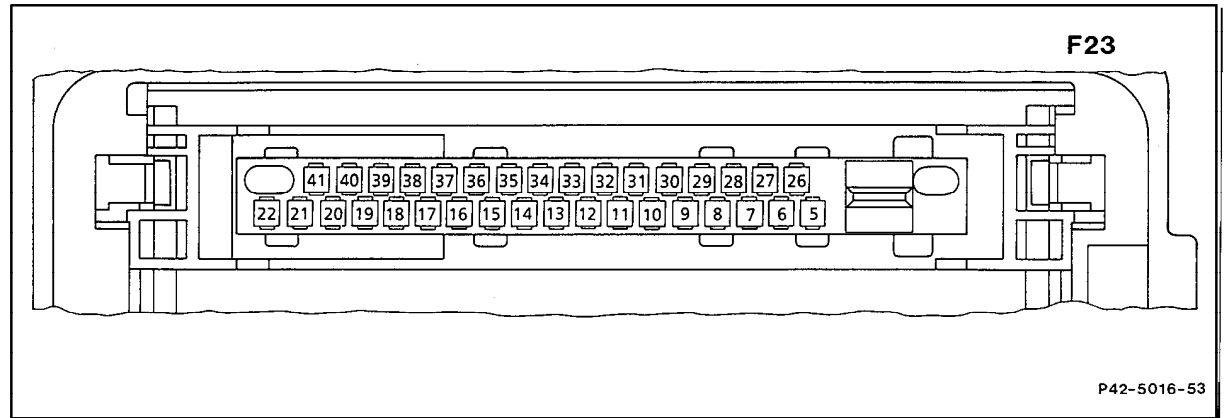


Figure 4

Models 124, 129, 140.0

P42-5016-53

F23	Module box	14	Processed VSS from ABS (N30) or ASR (N30/1) control module
1	Voltage supply circuit 30 (wide socket)	15	Voltage supply, circuit 15
2-4	Not used	16-17	–
5	EA/CC/ISC control module (N4/1)	18	<b>Engine 104, 119 (09/92 →):</b> AIR relay module (K17), Upshift delay solenoid valve (Y3/2), EGR switchover valve (Y27), Left/right adjustable camshaft timing solenoid (Y49/1, Y49/2), Purge control valve (Y58/1)
6	EA/CC/ISC control module (N4/1)		<b>Engine 120 LH-SFI:</b> Left DI control module (N1/4), EGR switchover valve (Y27/2), Adjustable camshaft timing solenoid (Y49/1), Purge control valve (Y58/2), Left injectors (Y63)
7	LH-SFI control module (N3/1, N3/3), ME-SFI control module (N3/10, N3/12), FP relay (K27, K27/1, K27/2), DM (N59), "CHECK ENGINE" MIL (A1e26), Circuit 87 connector sleeve (Z7/35)		<b>Engine 120 ME-SFI</b> Control module box/engine separation point (X35/63)
8	ABS control module (N30), ASR control module (N30/1), ASR/SPS control module (N47-1), ESP/SPS control module (N47-5), ASD control module (N30/2), ASD/ASR stop lamp switch (S9/1)	19	Module box blower motor (M2/2)
9	Voltage supply for data link connector (X11/4)	20	A/C compressor electromagnetic clutch (A9k1)
10	–		
11	<b>Engine 120:</b> LH-SFI control module (N3/2), ME-SFI control module (N3/11)		
12	LH-SFI control module (N3/1, N3/3), DM (N59)		
13	Engine speed signal TN (output)		

# 1.1 Base Module (BM)

# Models 124.034/036, 129.067/076, 140 (EDS, LH-SFI, ME-SFI)

## Electrical Test Program – Test

### Connector Layout – Base Module (BM) (N16/1) Part 2, Sockets 21 – 41

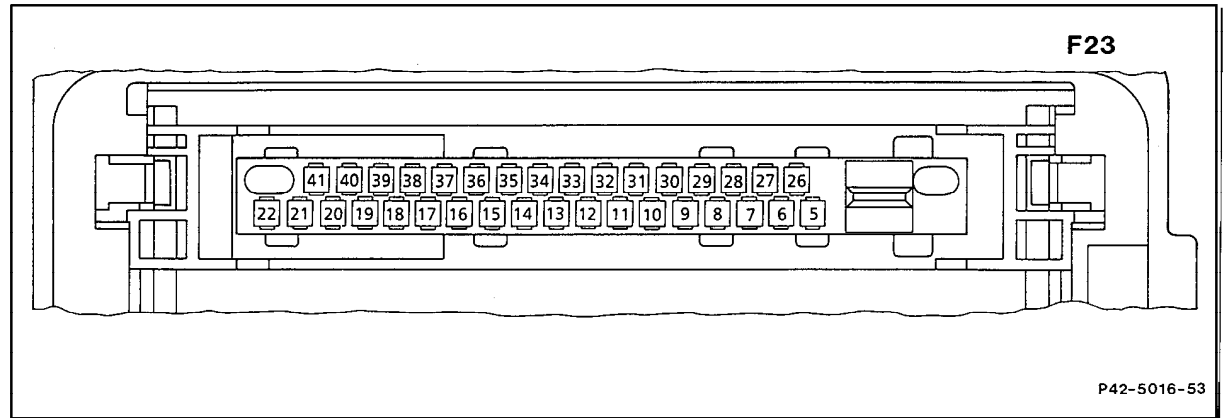


Figure 5

Models 124, 129, 140.0

F23	Module box	35	–
21-25	–	36	Kickdown switch (transmission mode) (S16/7)
26	<b>Engine 120, LH-SFI:</b> LH-SFI control module (N3/2), FP relay (K27/1, K27/1), DM (N59), “CHECK ENGINE” MIL (A1e26) <b>Engine 119, 120, ME-SFI:</b> Circuit 87 connector sleeve (Z7/36)	37	–
27	ADS (N51), SPS (N49/1), Transmission, 5-speed automatic) (N15/1), control modules, ETC control module (N15/3), Steering angle sensor (N49), Transmission range “D” contact switch (5-spd automatic transmission) (S16/9), Comfort/sport switch (ADS) (S45/1)	38	<b>Engine 104, 119 (→08/92) and Engine 120:</b> DI control module (N1/3, N1/5), AIR relay module (K17), Transmission upshift delay relay module (K29), Upshift delay solenoid valve (Y3/2), EGR /right switchover valve, (Y27, Y27/3), adjustable, left/right adjustable camshaft timing solenoid (Y49, Y49/1, Y49/2), Purge /right purge control valve (Y58/1, Y58/3), Injectors, right injectors (Y62, Y64) <b>Engine 104, 119 (09/92 →):</b> DI control module (N1/3), Injectors (Y62) <b>Engine 119, 120, ME-SFI:</b> Control module box/engine separation point (X35/63)
28	Ground (W15 or W27)	39	A/C “ON” signal
29	Ground (W15 or W27)	40	A/C compressor RPM sensor (A911) (–)
30	Engine speed signal TN (input) from LH-SFI control module (N3/1 or N3/3)	41	A/C compressor RPM sensor (A911) (+)
31	Engine speed signal TN (input) from LH-SFI control module (N3/1 or N3/3)		
32	Idle speed increase signal for EA/CC/ISC control module (N4/1)		
33	Diagnosis (output)		
34	Voltage supply, circuit 15, unfused		

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# 1.1 Base Module (BM)

# Models 124.034/036, 129.067/076, 140 (EDS, LH-SFI, ME-SFI)

## Electrical Test Program – Test

### Connector Layout – Base Module (BM) (N16/1) Part 1, Sockets 1 – 20

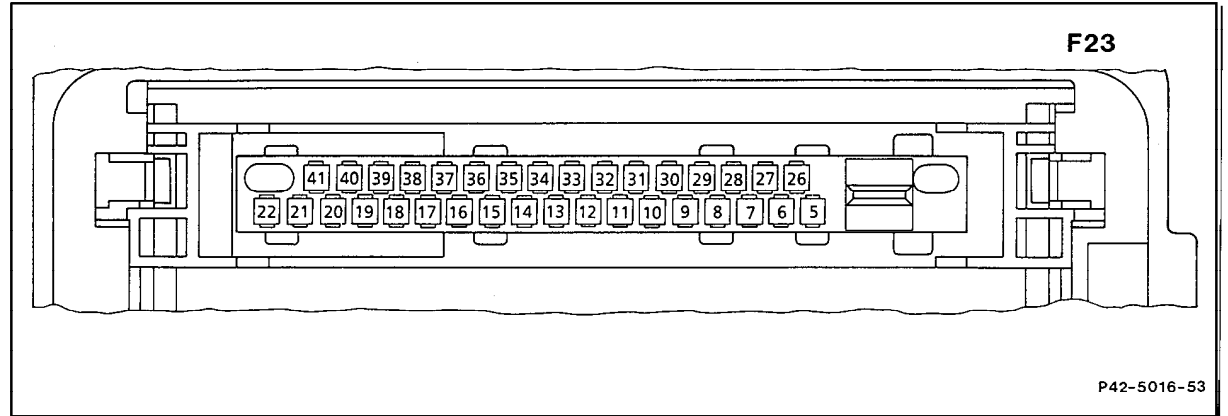


Figure 6

Model 140.1

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F23	Module box	14	Processed VSS from ABS (N30) or ASR (N30/1) control module
1	Voltage supply, circuit 30 (wide socket)	15	Voltage supply, circuit 15
2-7	–	16-17	–
8	ABS control module (N30), or ASR control module (N30/1), ASD control module (N30/2) and ASD/ASR stop lamp switch (S9/1)	18	Processed engine speed signal TD (input)
9	Voltage supply for data link connector (X11/4)	19	Module box blower motor (M2/2)
10-12	–	20	A/C compressor RPM sensor (A911) (+)
13	Processed engine speed signal TD (output)		

# 1.1 Base Module (BM)

# Models 124.034/036, 129.067/076, 140 (EDS, LH-SFI, ME-SFI)

## Electrical Test Program – Test

### Connector Layout - Base Module (BM) (N16/1) Part 2, Sockets 21 – 41

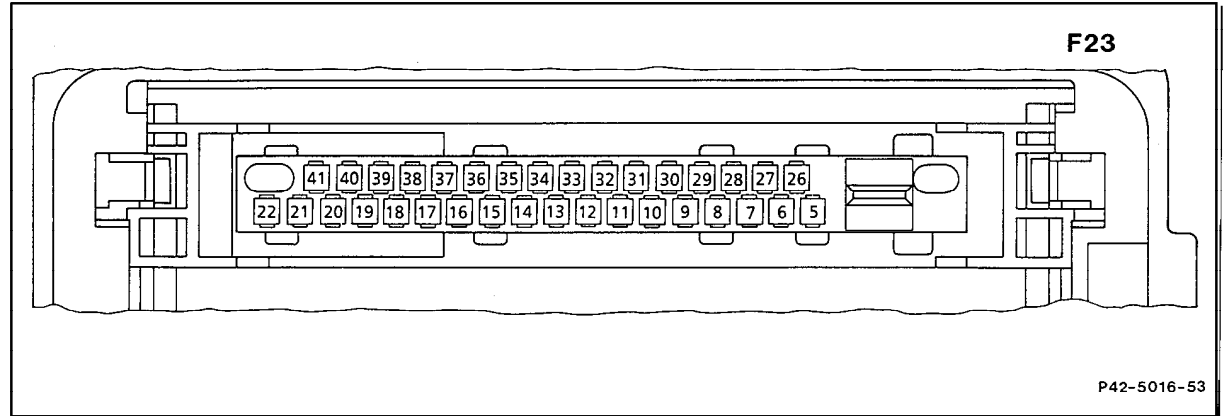


Figure 7

### Model 140.1

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F23	Module box	36	Kickdown switch (transmission mode) (S16/7)
21	A/C compressor RPM sensor (A9I1) (–)	37	–
22-26	–	38	EDS control module (N39), EGR switchover valve (Y27), EGR valve vacuum transducer (Y31/1), Pressure control flap vacuum transducer (Y31/4), Boost pressure cut-out switchover valve (Y31/6)
27	SPS control module (N49/1), Comfort/sport switch (S45/1), ADS control module (N51)	39	A/C compressor cut-out/EGR microswitch (S27/6)
28	Ground (electronics output ground) (W15)	40	A/C “ON” signal
29	Ground (electronics output ground) (W15)	41	A/C compressor electromagnetic clutch (A9k1)
30-32	–		
33	Diagnosis (output)		
34	Voltage supply, circuit 15, unfused		
35	–		