Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
1.0		**LH-SFI control module (N3/1)** Voltage supply Circuit 30	N3/1  64 (1.23) — V — 67 (1.26)	Ignition: **ON**	11 – 14 V	⇒ 1.1 – 1.3
1.1		Ground connection	N3/1  64 (1.23) — V — X11/4 — 2	Ignition: **ON**	11 – 14 V	Wiring, **Model 124** Ground, component compartment (W16, Figure 9) **Model 129** Ground (module box bracket) (W27, Figure 5) **Model 140** Ground (electronics output ground - right footwell) (W15, Figure 17).
1.2		Base module (N16/1) Voltage supply Circuit 30	N16/1  28 (1.28) — V — 1 (3.1) 29 (1.29) — V — 1 (3.1)	Ignition: **OFF** **Connect socket box to N16/1.** Ignition: **ON**	11 – 14 V	Wire to terminal block (X4/10) (Figures 1 – 3).

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
1.3	9	⚠ **DTC readout from base module (N16/1)** Voltage supply from N16/1 to LH-SFI control module (N3/1) Circuit 30	N16/1 28 (1.28) — 12 (1.12)	Ignition: **ON**	11 – 14 V	N16/1.
2.0		**LH-SFI control module (N3/1)** Voltage supply Circuit 87/M1e	N3/1 76 (1.35) — 77 (1.36)	Ignition: **ON**	11 – 14 V	⇒ 2.1 – 2.5
2.1		Ground connection	N3/1 76 (1.35) — X11/4 2	Ignition: **ON**	11 – 14 V	Wiring, **Model 124** Ground, module box bracket (W27, Figure 9) **Models 129 and 140** Ground, electronics (right footwell) (W15/1, Figure 16 and 17).
2.2		Base module (N16/1) Voltage supply Circuit 15 unfused	N16/1 28 (1.28) — 34 (1.34)	**Connect socket box to N16/1.** Ignition: **ON** Ignition: **OFF**	11 – 14 V < 1 V	Wiring, Ignition/starter switch (S2/1), Wiring, S2/1.

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
2.3		Base module (N16/1) Voltage supply Circuit 15	N16/1 28 (1.28) — V — 15 (1.15)	Ignition: **ON** Ignition: **OFF**	11 – 14 V < 1 V	Wiring, Fuse.
2.4		Output ground, base module (N16/1)	N16/1 28 (1.28) — V — X11/4 2 N16/1 29 (1.29) — V — X11/4 2	Ignition: **ON**	11 – 14 V 11 – 14 V	Ground wire.
2.5		⚠ **DTC readout from base module (N16/1)** Voltage supply (fused) for LH-SFI control module (N3/1)	N16/1 28 (1.28) — V — 7 (1.7)	Ignition: **ON** Ignition: **OFF**	11 – 14 V < 1 V	Fuse (F2) at N16/1, N16/1.

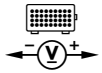
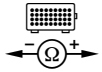
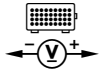
Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
3.0		**LH-SFI control module (N3/1)** Voltage supply Circuit 87	N3/1 78 (1.37) — V — 65 (1.24)	Ignition: **ON**	11 – 14 V	Wiring, ⇒ 3.1
3.1		Ground connection	N3/1 78 (1.37) — V — X11/4 2	Ignition: **ON**	11 – 14 V	**Model 124** Ground, component compartment (W16) **Models 129 and 140** Ground, electronics output ground (W15, right footwell)
4.0		⚠ **DTC readout from base module (N16/1)** Voltage supply for injectors	N16/1 28 (1.28) — V — 38 (2.38)	**Connect socket box to N16/1** Ignition: **ON** Ignition: **OFF**	 11 – 14 V < 1 V	Fuse (F2) at N16/1.
5.0	Ч 1)	**Hot wire MAF sensor (B2/2)** Voltage at hot wire	N3/1 34 (2.34) — V — 17 (2.17)	**Connect socket box to N3/1** Ignition: **ON** Engine: **at Idle**	 1.0 – 1.2 V 1.3 – 1.7 V 2)	Wiring, ⇒ 5.1, ⇒ 6.0, B2/2.

1) The DTC "Ч" can be displayed on vehicles up to 7/91 even if no fault exists.

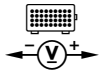
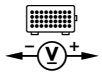
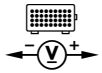
2) Voltage increases with increasing rpm.

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
5.1		Hot wire MAF sensor (B2/2) Voltage supply	N3/1  64 (1.23) — 23 (2.23)	Ignition: **ON**	11 – 14 V	LH-SFI control module (N3/1).
6.0	Ч 1)	**Ground wire for hot wire MAF sensor (B2/2)**	N3/1  34 (2.34) — 76 (1.35)	Ignition: **OFF**	< 6 Ω	Ground wire (W11) (engine ground).
7.0	12	**Hot wire MAF sensor (B2/2)** Burn-off control	N3/1  76 (1.35) — 37 (2.37)	Ignition: **OFF** Unplug LH-SFI control module (N3/1), wait approx. 5 sec. and then plug back in again. Engine: **Start** Engine coolant temperature > 60 °C. Engine speed > 2000 rpm for 15 seconds. Turn off engine.	After approx. 4 sec., 3 – 5 V for approx. 1 sec. Simultaneous visual check: hot-wire glows briefly.	Wiring, B2/2, LH-SFI control module (N3/1).

1) The DTC "Ч" can be displayed on vehicles up to 7/91 even if no fault exists.

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
8.0	9	**FP relay module (K27)** Control signal	N3/1  66 (1.25) — 65 (1.24)	Engine: **Start**	11 – 14 V while cranking.	⇒ 8.1, LH-SFI control module (N3/1).
8.1		Starter signal Circuit 50	N3/1  64 (1.23) — 75 (1.34)	Engine: **Start**	11 – 14 V while cranking.	Wiring.
9.0	2	**ECT sensor (B11/2)** Voltage at sensor circuit 1	N3/1  16 (2.16) — 18 (2.18)	Ignition: **ON**	°C V Ω 20 3.5 2500 30 3.1 1700 40 2.7 1170 50 2.3 830 60 1.9 600 70 1.5 435 80 1.2 325 90 1.0 245 100 0.8 185 ± 5% ± 5%	⇒ 9.1, N3/1.

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
9.1		Resistance Sensor circuit 1	N3/1 16 (2.16) — Ω — 18 (2.18)	Ignition: **OFF** Disconnect N3/1 from contact box (070).	Nominal values, see ⇒ 9.0	Wiring, ⇒ 9.2.
9.2		Resistance ECT sensor (B11/2) Sensor circuit 1	B11/2 2 — Ω — 4	Connector on B11/2 unplugged.	Nominal values, see ⇒ 9.0, Connection see Figure 24.	B11/2.
10.0		**ECT sensor (B11/2)** Voltage at sensor circuit 2	N3/1 16 (2.16) — V — 31 (2.31)	Ignition: **ON**	°C V Ω 20 3.5 2500 30 3.1 1700 40 2.7 1170 50 2.3 830 60 1.9 600 70 1.5 435 80 1.2 325 90 1.0 245 100 0.8 185 ± 5% ± 5%	⇒ 10.1, LH-SFI control module (N3/1).

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
10.1		Resistance Sensor circuit 2	N3/1 16 (2.16) — Ω — 31 (2.31)	Ignition: **OFF** Disconnect N3/1 from contact box (070).	Nominal values, see ⇒ 10.0	Wiring, ⇒ 10.2
10.2		Resistance ECT sensor (B11/2) Sensor circuit 2	B11/2 1 — Ω — 3	Connector on B11/2 unplugged.	Nominal values, see ⇒ 10.0, Connection see Figure 24.	B11/2.
11.0		**IAT sensor (B17/7)** Voltage	N3/1 16 (2.16) — V — 8 (2.8)	Ignition: **ON**	°C V Ω 10 1.8 3700 20 1.5 2500 30 1.2 1700 40 0.9 1170 50 0.6 830 60 0.5 600 70 0.4 435 80 0.3 325 ± 5% ± 5%	⇒ 11.1, LH-SFI control module (N3/1).

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
11.1		Resistance	N3/1 16 (2.16) — Ω — 8 (2.8)	Ignition: **OFF** Disconnect N3/1 from socket box.	Nominal values, see ⇒ 11.0	Wiring, IAT sensor (B17/7).
12.0		**TN-signal (rpm signal) – input** from DI control module (N1/3)	N3/1 1) 76 (1.35) — ⏚ — 5 (2.5) N3/1 2) 76 (1.35) — V — 5 (2.5)	Engine: **Start** Engine: **at Idle**	Signal, see Figure 21. 5 – 7.5 V	Wiring, N1/3, N3/1.
13.0		**LH-SFI control module (N3/1)** TN-signal (rpm signal) – output	N3/1 1) 76 (1.35) — ⏚ — 69 (1.28) N3/1 2) 76 (1.35) — V — 69 (1.28)	Engine: **Start** Engine: **at Idle**	Signal, see Figure 21. 5 – 7.5 V.	Wiring, N3/1, Base module (N16/1).

1) Test with oscilloscope.

2) Test with multimeter only if oscilloscope is not available.

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
14.0		**CMP sensor (L5/1) signal** from DI control module (N1/3)	N3/1 1) 77 (1.36) — 6 (2.6) N3/1 2) 77 (1.36) — 6 (2.6)	Engine: **Start** Engine: **at Idle**	Signal, see Figure 20. 0.8 – 1.5 V	Wiring, L5/1 (Test, see DM, Engines, Vol. 2, section 5.2), N1/3.
15.0	3)	**CTP (idle) recognition signal** from EA/CC/ISC actuator (M16/1)	N3/1 76 (1.35) — 52 (1.11)	Ignition: **ON** Accelerator pedal in CTP (idle). Accelerator pedal in WOT (full throttle).	4.8 V 5.5 V	Wiring, M16/1 (Test, see DM, Engines, Vol. 3, section 6.2), EA/CC/ISC control module (N4/1).

1) Test with oscilloscope.
2) Test with multimeter only if oscilloscope is not available.
3) The DTC "I□" can be displayed on vehicles up to 7/91 even if no fault exists.

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
16.0		**Fuel safety shut-off** from EA/CC/ISC actuator (M16/1) or CC/ISC actuator (M16/2)	N3/1 76 (1.35) — (V) — 71 (1.30)	Ignition: **ON**	2.2 – 11 V	Wiring M16/1 or M16/2 (Test, see DM, Engines, Vol. 3, section 6.2 or 7.1), N4/1 or N4/3.
17.0		**Fuel safety shut-off**	N3/1 76 (1.35) — 71 (1.30)	Engine: **Start** and apply WOT (full throttle).	Engine speed surges between 1200 – 2200 rpm.	N3/1.
18.0	21	**O2S 1 (before TWC) (G3/2)** O2S 1 signal	N3/1 15 (2.15) — (V) — 14 (2.14)	Engine: **at Idle** and at operating temperature > 80 °C let engine run for a minimum of 2 minutes.	Oscillates between. –0.2 and +1.0 V by more than 0.3 V	Wiring, G3/2, ⇒ 18.1, ⇒ 18.2, ⇒ 19.0.
18.1		Insulation, O2S 1 wire	N3/1 13 (2.13) — (Ω) — 14 (2.14)	Ignition: **OFF** Disconnect N3/1 from contact box (070).	∞ Ω	Wiring.

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
18.2		O2S 1 control from LH-SFI control module (N3/1)	N3/1 14 (2.14) — 76 (1.35)	On-off ratio tester connected. Engine: **at Idle** and at operating temperature > 80 °C	90 – 100% at on-off ratio tester	N3/1.
19.0	22	**O2S 1 (before TWC) heater** Control signal	N3/1 15 (2.15) — V — 9 (2.9)	Engine: **at Idle** Engine coolant temperature > 80 °C	11 – 14 V	⇒ 19.1, N3/1.
19.1		O2S 1 (before TWC) heater Current draw	N3/1 9 (2.9) — A — 77 (1.36)	N3/1 connected in contact box (070). Ignition: **ON**	0.6 – 3.4 A	Wiring, G3/2.
20.0	16 [1]	**EGR switchover valve (Y27)** Control signal	N3/1 39 (2.39) — V — 77 (1.36)	Engine: **at Idle** Engine coolant temperature > 60 °C Accelerate briefly.	11 – 14 V	⇒ 21.0 – 22.0, Wiring, N3/1.

[1] The DTC "16" can be displayed on vehicles up to 7/91 even if no fault exists.

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
20.1		EGR switchover valve (Y27) Current draw	N3/1 64 (1.23) — A — 39 (2.39)	Disconnect N3/1 from contact box (070). Ignition: **ON**	0.3 – 0.5 A	Wiring, Y27.
21.0		**EGR switchover valve (Y27)** Vacuum control		**Test connection note:** Connect vacuum tester to EGR valve according to Figure 18. N3/1 plugged in. Engine: **at Idle** Engine coolant temperature > 60 °C. Accelerate briefly.	 > 400 mbar	Vacuum lines, EGR valve, Y27.
22.0		**EGR valve** Mechanical test		**Test connection note:** Connect vacuum tester directly to EGR valve. Using vacuum tester, apply 500 mbar vacuum. Disconnect vacuum line on EGR valve.	 EGR valve closes audibly.	EGR valve.

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
23.0	II [1]	**AIR relay module (K17)** Control signal	N3/1 19 (2.19) — V — 77 (1.36)	Disconnect ECT sensor (B11/2) and simulate 2.5 kΩ at sockets 2 and 4 with resistance substitution unit. Engine: **at Idle**	11 – 14 V for approx. 2 minutes after start **and** AIR pump runs.	⇒ 23.1, N3/1.
23.1		AIR relay module (K17) Current draw	N3/1 64 (1.23) — A — 19 (2.19)	Disconnect N3/1 from contact box (070). Ignition: **ON**	0.1 – 0.3 A	Wiring, K17.
24.0	23	**Purge control valve (Y58/1)** Control signal	N3/1 38 (2.38) — ⏚ — 77 (1.36)	Engine: **at Idle** and at operating temperature.	After approx. 1 minute, purge control valve (Y58/1, Figure 19) must cycle noticeable. Signal, see Figure 31.	⇒ 24.1, ⇒ 25.0. N3/1.
24.1		Current draw	N3/1 64 (1.23) — A — 38 (2.38)	Disconnect LH-SFI control module (N3/1) from contact box (070). Ignition: **ON**	0.2 – 0.4 A	Wiring, Y58/1.

[1] The DTC "II" can be displayed on vehicles up to 7/91 even if no fault exists.

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
25.0		**Purge control valve (Y58/1)** Vacuum control		**Note to test connection:** Connect vacuum tester to Y58/1 (Figure 19), connection (A). Engine: **at Idle** and at operating temperature.	 After approx. 1 minute, > 400 mbar	Vacuum lines, Y58/1.
26.0	25	**Adjustable camshaft timing solenoid (Y49 or Y49/2)** Current draw **Engine 104** (Y49) **Engine 119** right (Y49/2)	Y49 1 — (A) — 2 Y49/2 1 — (A) — 2	**Note to test connection:** Connect test cable (102 589 04 63 00) to solenoid. Engine: **Start** and raise engine speed to approx. 3000 rpm.	 Briefly approx. 1.5 A, then 1 A	⇒ 26.1, ⇒ 28.0, N3/1.
26.1		Resistance **Engine 104** (Y49) **Engine 119** right (Y49/2)	N3/1 41 — (Ω) — 77 (2.41) (1.36)	Disconnect N3/1 from contact box (070).	4 – 6 Ω	Wiring, Y49 or Y49/2.

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
27.0	24	***Engine 119 only*** **Left adjustable camshaft timing solenoid (Y49/1)** Current draw	1 — (A) — 2	**Note to Test connection:** Connect test cable (102 589 04 63 00) to solenoid (Y49/1). Engine: **Start** and raise engine speed to approx. 3000 rpm.	Briefly approx. 1.5 A, then 1 A	Wiring, ⇒ 27.1, ⇒ 29.0.
27.1		***Engine 119 only*** Resistance	N3/1 22 (2.22) — (Ω) — 77 (1.36)	Disconnect N3/1 from contact box (070).	4 – 6 Ω	Wiring, Y49/1.
28.0		**Adjustable camshaft timing solenoid (Y49 or Y49/2)** Mechanical operation **Engine 104** (Y49) **Engine 119** right (Y49/2)	N3/1 41 (2.41) — — 76 (1.35)	Engine: **at Idle** Bridge socket box sockets for maximum of 10 seconds.	Engine runs unevenly after approx. 5 sec.	Mechanical camshaft adjustment (see SMS, Job No. 05-216).

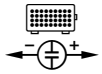
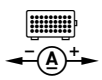
Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
29.0		***Engine 119 only*** **Left adjustable camshaft timing solenoid (Y49/1)** Mechanical operation	N3/1  22 (2.22) — 76 (1.35)	Engine: **at Idle** Bridge socket box sockets for maximum of 10 seconds.	 Engine runs unevenly after approx. 5 sec.	Mechanical camshaft adjustment (see SMS, Job No. 05-216).
30.0	6	***Non-USA vehicles only.*** ***Continue to next test step.***				
31.0	28	***Non-USA vehicles only.*** ***Continue to next test step.***				

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
32.0	27	**Injectors (Y62)** Resistance and assignment		**Test connection note:** Connect ohmmeter to socket box for each subsequent injector.		Wiring, Y62, Wires reversed, ⇒ 33.0
		Engine 104	N3/1	Ignition: **OFF** Disconnect N3/1 from		
		Cylinder 1	27 — Ω — 77	contact box (070).		
		Cylinder 2	25 — Ω — 77			
		Cylinder 3	26 — Ω — 77			
		Cylinder 4	2 — Ω — 77	Connector on injector	14 – 16 Ω	
		Cylinder 5	4 — Ω — 77	connected.		
		Cylinder 6	3 — Ω — 77			
				Connector on injector unplugged.	∞ Ω	
		Engine 119	N3/1			
		Cylinder 1	27 — Ω — 77	Connector on injector	14 – 16 Ω	Wiring, Injectors (Y62), Wires reversed, ⇒ 33.0
		Cylinder 2	1 — Ω — 77	connected.		
		Cylinder 3	2 — Ω — 77			
		Cylinder 4	26 — Ω — 77	Connector on injector	∞ Ω	
		Cylinder 5	4 — Ω — 77	unplugged.		
		Cylinder 6	25 — Ω — 77			
		Cylinder 7	24 — Ω — 77			
		Cylinder 8	3 — Ω — 77			

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
33.0		**Injectors (Y62)** Control and injection time	N3/1 	**Test connection note:** For connection information on individual injectors, see ⇒ 32.0. **Engine coolant temperature approx. 20 °C** at start → **Engine coolant temperature approx. 80 °C** at idle → accelerate briefly →	 Injection time: approx. 8 ms approx. 3 – 5 ms approx. 17 ms (see signals, Figures 22 and 23)	Wiring, ECT sensor (B11/2), IAT sensor (B17/7), O2S 1 (before TWC) (G3/2). LH-SFI control module (N3/1).
34.0	26 [4]	**Upshift delay switchover valve (Y3/3)** Current draw	N3/1  64 (1.23) — 20 (2.20)	Disconnect N3/1 from contact box (070). Ignition: **ON**	 450 ± 80 mA	Wiring, Y3/3, ⇒ 35.0

[4] The DTC "26" can be displayed on vehicles up to 7/91 even if no fault exists.

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
35.0	3)	**Pneumatic upshift delay** Vacuum control and sealing	N3/1 64 (1.23) — 20 (2.20)	**Note to Test connection:** Connect vacuum tester to upshift delay switchover valve (Y3/3) according to Figure 30 and connect bridge to socket box. Engine: **at Idle**	 > 400 mbar	Vacuum lines, Y3/3.
36.0	15	⚠ **DTC readout from base module (N16/1)** **Automatic transmission kickdown valve (Y3)** Voltage supply	N16/1 28 (1.28) — V — 36 (1.36)	**Connect socket box to N16/1.** Engine: **at Idle** Engine: **OFF**	 11 – 14 V < 1 V	Wiring, N16/1, ⇒ 36.1
36.1		⚠ DTC readout from base module (N16/1) Automatic transmission kickdown valve (Y3) Current draw	N16/1 36 (1.36) — A — 34 (1.34)	N16/1 disconnected from contact box (070). Ignition: **ON** Accelerator pedal in wide open throttle position and kickdown switch engaged.	 480 ± 50 mA 1) 950 ± 80 mA 2)	Wiring, Y3, Kickdown switch (S16/6).

1) 5-speed automatic transmission.
2) 4-speed automatic transmission.
3) On vehicles as of 8/91.

Electrical Test Program – Test

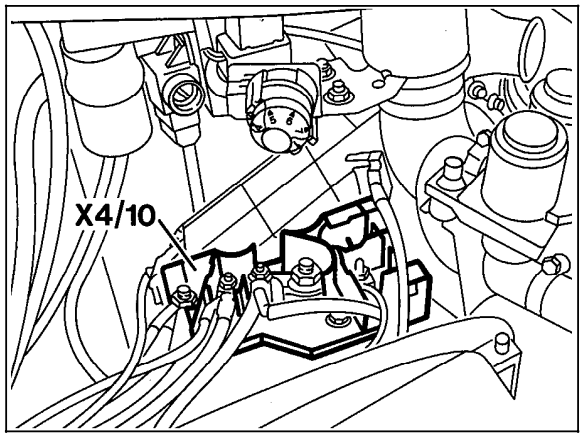
⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
37.0		**Diagnostic wire activation**	N3/1 76 (1.35) — V — 54 (1.13)	Ignition: **ON**	11 – 14 V	Wiring, N3/1.
38.0		**Fuel consumption indicator (A1p10)**	N3/1 76 (1.35) — V — 50 (1.9)	Engine: **at Idle** and briefly depress accelerator pedal.	> 0.5 V	Wiring, N3/1, A1p10.
39.0	17 18 1)	**Serial data bus (CAN)**	N3/1 L — Ω — H	Ignition: **OFF** Remove contact module or N3/1 and measure resistance directly at CAN connector for LH-SFI control module (Figure 25).	115 – 125 Ω	Data line, DI control module (N1/3).
40.0	20	**CAN element in LH-SFI control module (N3/1)** Resistance	N3/1 L — Ω — H	Remove N3/1 and measure resistance directly on LH-SFI control module (Figure 26).	115 – 125 Ω	N3/1.
41.0		***Non-USA vehicles only. Continue to next test step.***				

1) The DTC "18" can be displayed on vehicles up to 7/91 even if no fault exists.

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
42.0	15	***Non-USA vehicles only. Continue to next test step.***				
43.0	28	**Coding** LH-SFI control module (N3/1)	N3/1 30 (2.30) — V — 77 (1.36)	Ignition: **ON**	11 – 14 V	Wiring.
44.0	29	**Model 124.034 only** **1GR start relay module (K29/1)** Current draw	N3/1 64 (1.23) — A — 40 (2.40)	Disconnect LH-SFI control module (N3/1) from contact box (070). Ignition: **ON**	200 ± 80 mA	Wiring, K29/1.

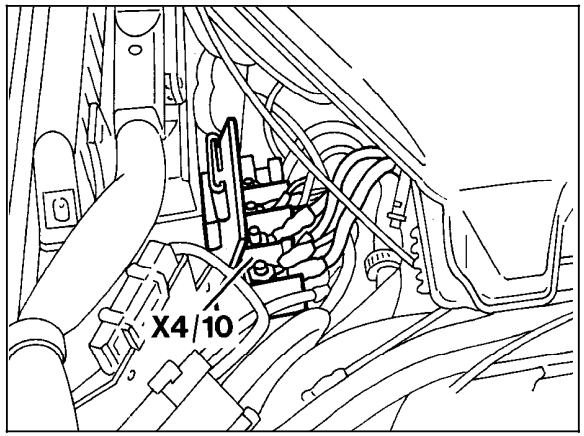
Electrical Test Program – Test



P07-5175-13

Figure 1
Model 124

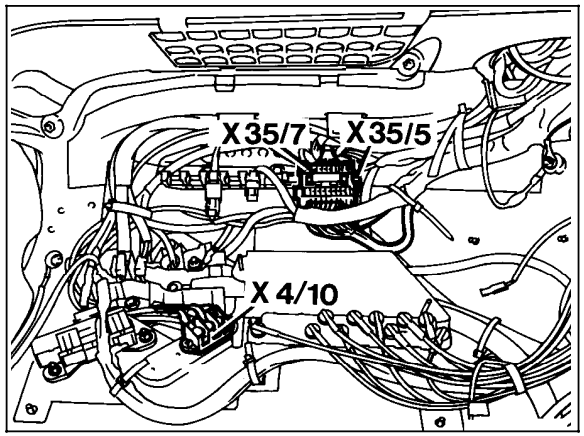
X4/10 Terminal block (circuit 30/circuit 61 battery)



P07-5970-13

Figure 2
Model 129

X4/10 Terminal block (circuit 30/30Ü/61e/87L) (6-pole)



P07-2623-13

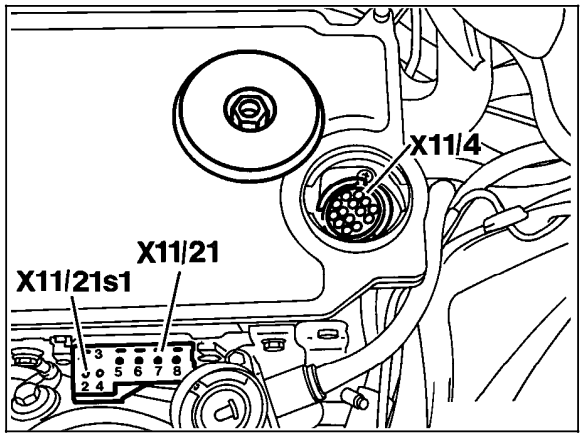
Figure 3
Model 140

X4/10 Terminal block (circuit 30/circuit 61 battery)

X35/5 Module box/taillamp harness separation point (ASR/ASD) (12-pole)

X35/7 Cockpit/module box separation point (18-pole)

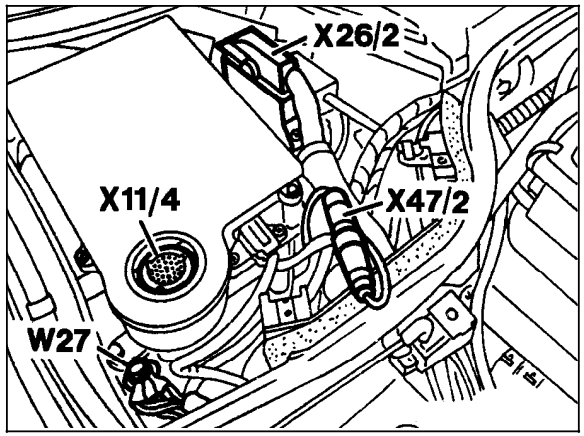
Electrical Test Program – Test



P07-5295-13

Figure 4
Model 124

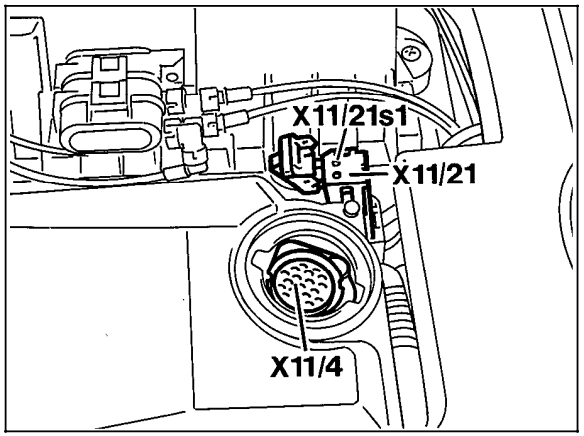
X11/4	Data link connector (DTC readout)
X11/21	Diagnostic module test connector (3-pole) (USA) - California
X11/21s1	Pushbutton (with LED) (USA) - California



P07-5961-13

Figure 5
Model 129

W27	Ground (module box bracket)
X26/2	Engine separation point connector
X47/2	CMP sensor intermediate connector

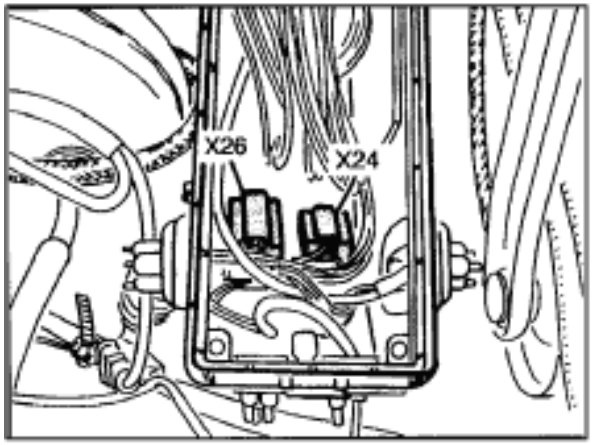


P07-5246-13

Figure 6
Model 140

X11/4	Data link connector (DTC readout)
X11/21	Diagnostic module test connector (3-pole) (USA) - California
X11/21s1	Pushbutton (with LED) (USA) - California

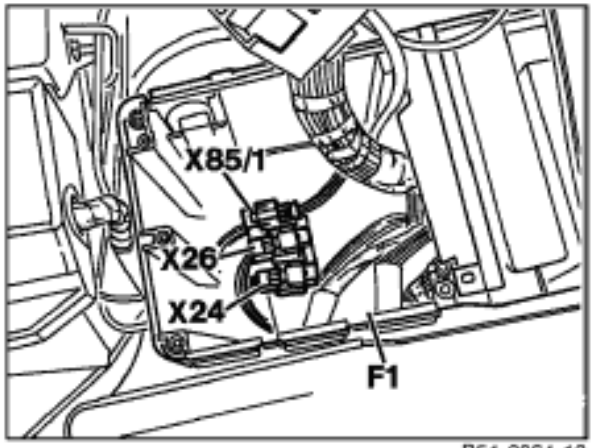
Electrical Test Program – Test



0154-34186-1

Figure 7
Models 124 and 129

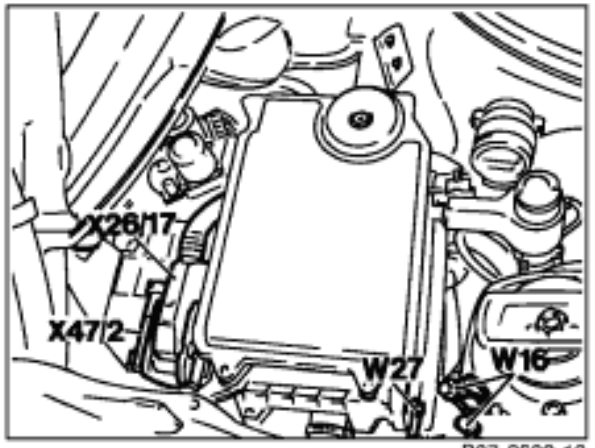
X24 Headlamp harness connector
X26 Interior/engine connector



P54-2864-13

Figure 8
Model 140

F1 Fuse and relay box
X24 Headlamp harness connector
X85/1 A/C harness/engine harness connector
X26 Interior/engine connector

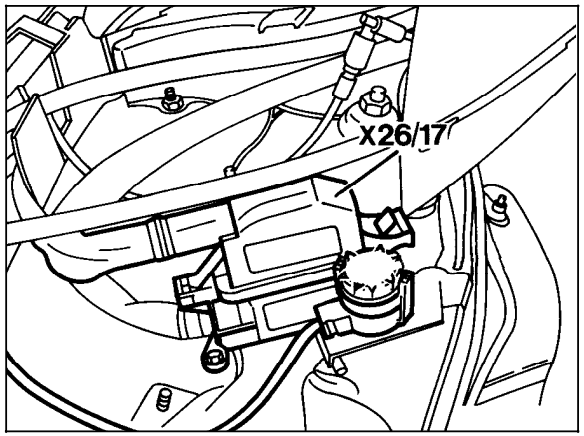


P07-2609-13

Figure 9
Model 124

W16 Ground (component compartment
W27 Ground (module box bracket)
X26/17 Engine separation point connector
X47/2 CMP sensor intermediate connector

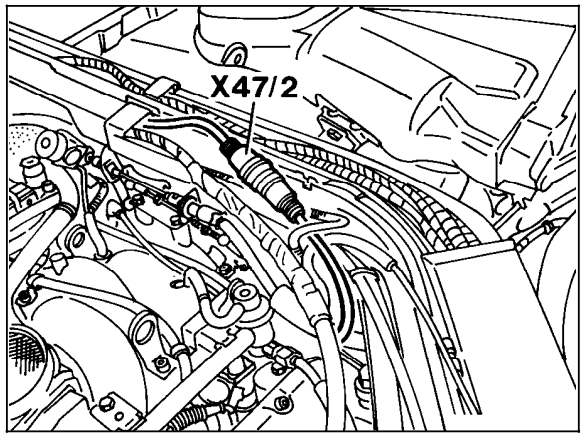
Electrical Test Program – Test



P07-2588-13

Figure 10
Model 140

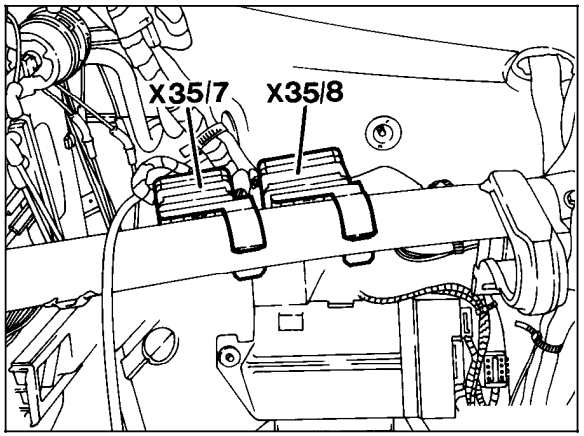
X26/17 LEngine separation point connector



P07-2637-13

Figure 11
Model 140

X47/2 CMP sensor intermediate connector



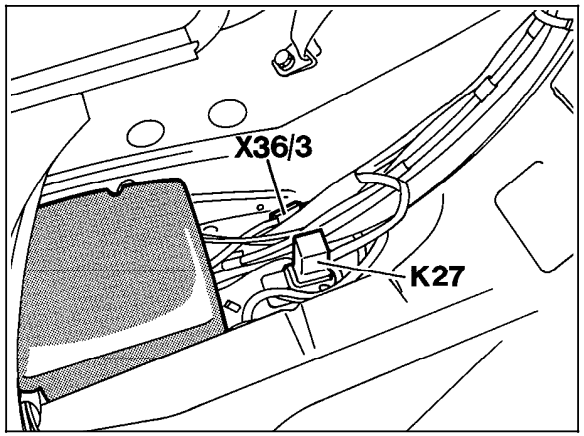
P07-2595-13

Figure 12
Model 124

X35/7 Cockpit/module box separation point (12-pole)

X35/8 Cockpit/module box separation point (EA/CC/ISC) (14-pole)

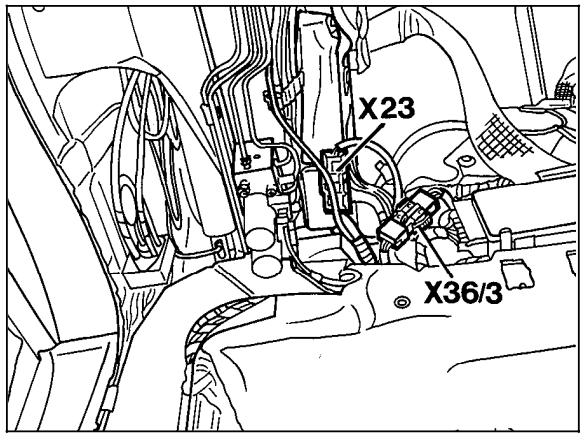
Electrical Test Program – Test



P07-2604-13A

Figure 13
Model 124

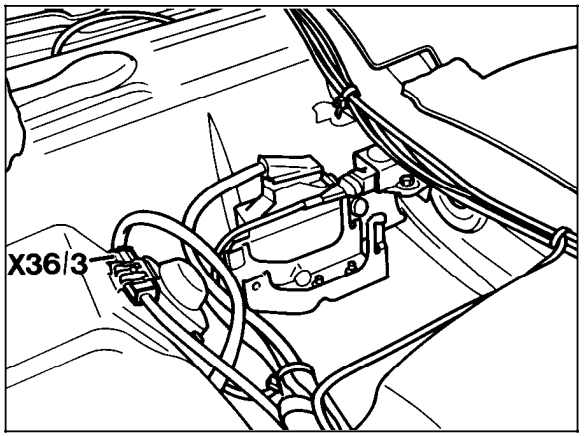
X36/3 FP harness connector (2-pole)



P54-2036-13

Figure 14
Model 129

X36/3 FP harness connector (2-pole)

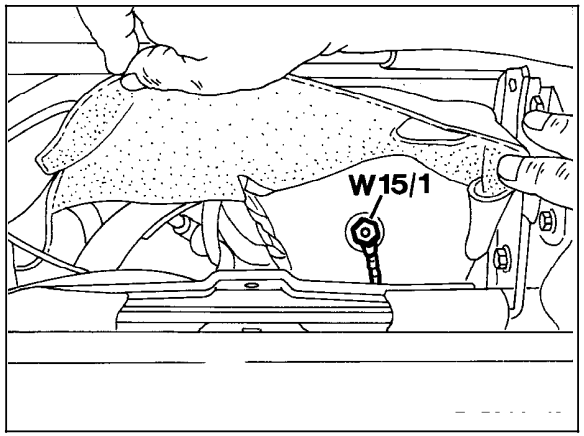


P07-2573-13

Figure 15
Model 140

X36/3 FP harness connector (2-pole)

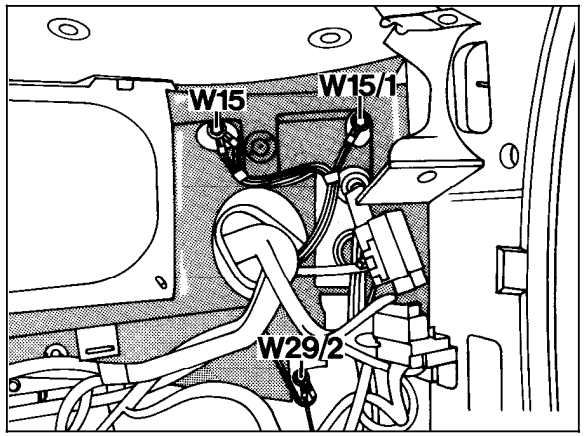
Electrical Test Program – Test



P07-5963-13

Figure 16
Model 129

W15/1 Ground (electronics - right footwell)



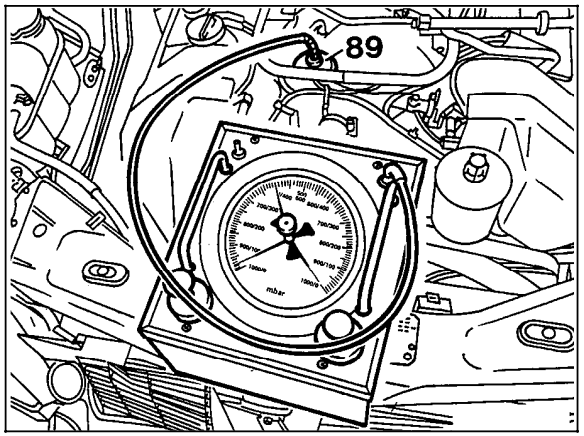
P54-2796-13

Figure 17
Model 140

W15 Ground (electronics output ground - right footwell)

W15/1 Ground (electronics - right footwell)

W29/2 Ground (right A-pillar)

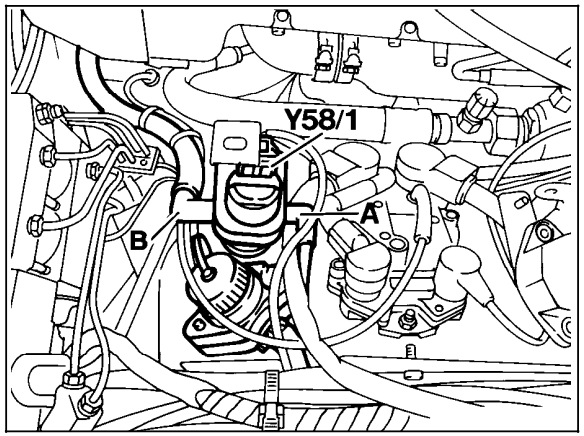


P07-5146-13

Figure 18
Engine 119

89 EGR valve

Electrical Test Program – Test



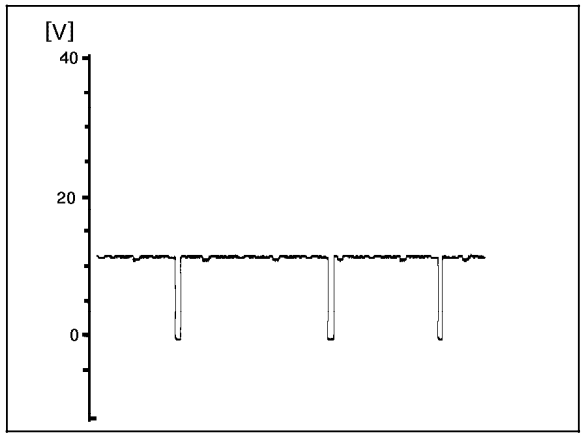
P07-5598-13

Figure 19
Engine 104, 119

Y58/1 Purge control valve

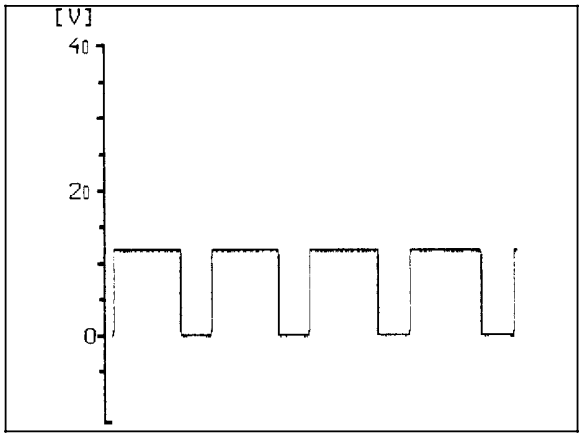
A Purge line to charcoal canister

B Purge line to engine



P07-0724-13

Figure 20
Processed CMP sensor signal from DI control module



P15-0370-13

Figure 21
TN-signal

Electrical Test Program – Test

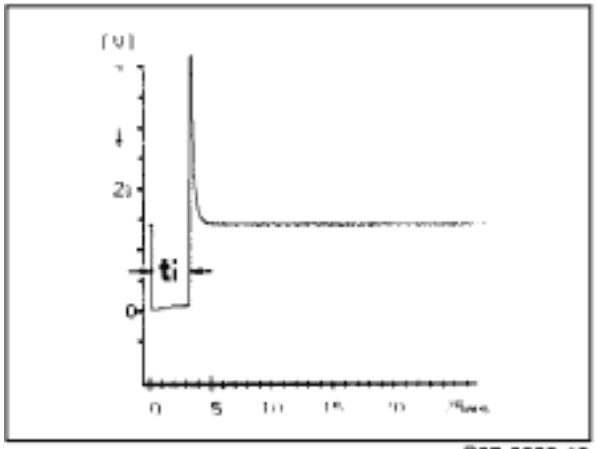


Figure 22
Injection time signal "ti" of injectors at CTP (idle)

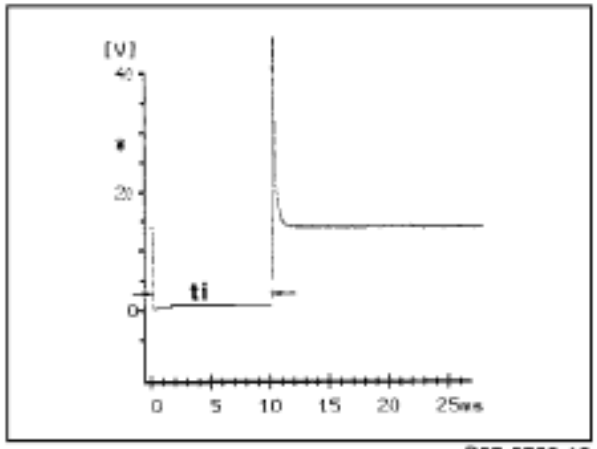


Figure 23
Injection time signal "ti" of injectors when briefly accelerating

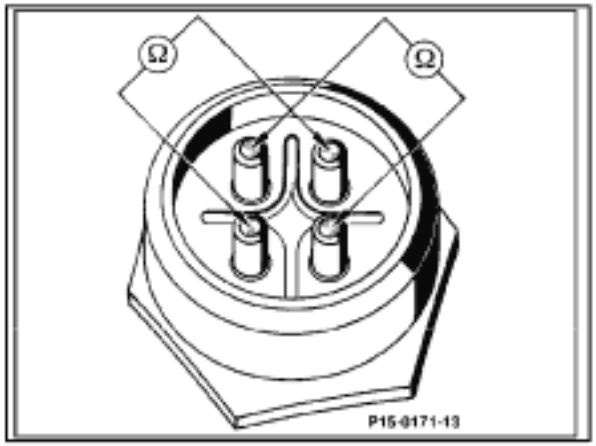
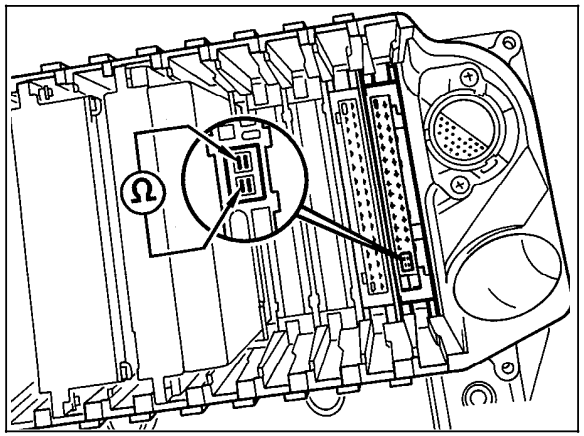


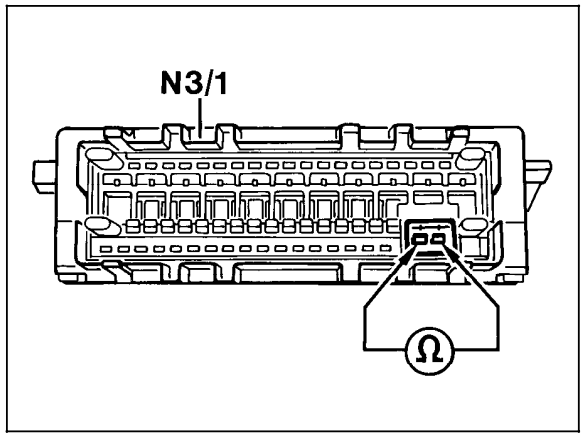
Figure 24
ECT sensor

Electrical Test Program – Test



P07-5160-13

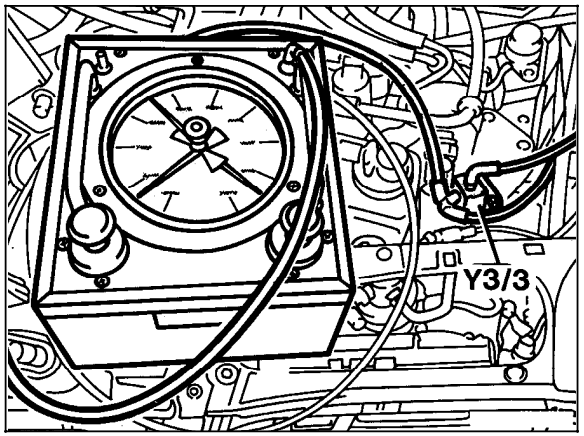
Figure 25



P07-5159-13A

Figure 26

N3/1 LH-SFI control module

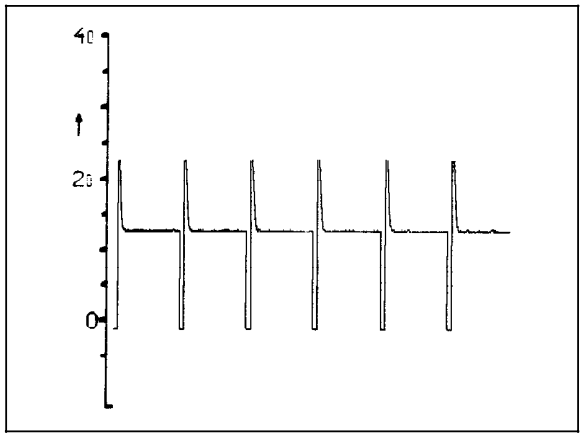


P07-5221-13A

Figure 27
Model 124

Y3/3 Upshift delay switchover valve

Electrical Test Program – Test



P07-5330-13

Figure 28

Purge control valve signal