
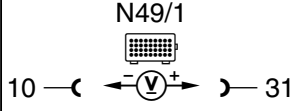
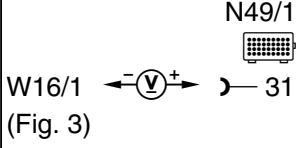
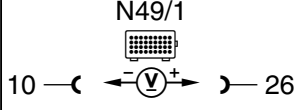
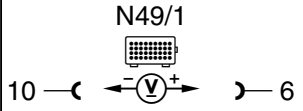

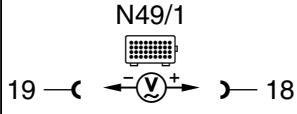
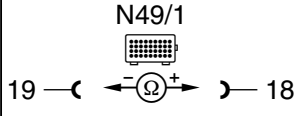

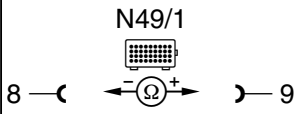

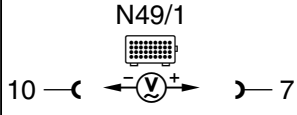


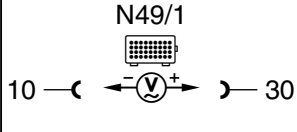
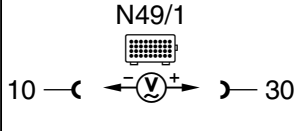
## Electrical Test Program - Test

Test step <b>DTC</b>	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 1.0	 <b>SPS control module (N49/1)</b> Voltage supply Circuit 87 SA		Ignition: <b>ON</b>	11 – 14 V	⇒ 1.1, Ground, electronics output ground (W15) or ground (right rear seat) (W17) with N49/1 under rear seat.
⇒ 1.1	Voltage supply from Base module (N16/1)		Ignition: <b>ON</b>  Ignition: <b>OFF</b>	11 – 14 V  < 1 V	Fuse (F3) at base module BM, N16/1, Volume 1, 1.1 or 1.2 23, respectively, Wiring.
⇒ 2.0	<b>Diagnostic output</b>		Ignition: <b>ON</b>	10 – 14 V	Wiring, SPS control module (N49/1).
⇒ 3.0 (Models 140.0 [up to 05/93], and 140.1 [diesel up to 01/93])	<b>Circuit 61 voltage</b>		Ignition: <b>ON</b>  Engine: <b>Start</b>	< 1 V  11 – 14 V	Wiring, Generator (G2).


Electrical Test Program - Test

Test step DTC	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 4.0	 <b>Speed-sensitive power steering P-valve (Y10)</b> Voltage supply	N49/1 	Engine: <b>Start</b>	5 – 7 V	⇒ 4.1, SPS control module (N49/1).
⇒ 4.1	Coil resistance	N49/1 	Ignition: <b>OFF</b> Pull SPS control module (N49/1) out of contact box.	3 – 5 Ω	Wiring, SPS P-valve (Y10).
⇒ 5.0 (Models 140.0 up to 05/93, and 140.1 up to 01/93)	 <b>Transmission inductive speed sensor (L2)</b>	N49/1 	Ignition: <b>OFF</b> Pull SPS control module (N49/1) out of contact box.	1.6 – 2.1 k Ω	Wiring, L2, SPS control module (N49/1).
⇒ 6.0 (Model 140.0 up to 05/93 with ASR only)	 <b>Vehicle speed sensor output</b> Right rear from ABS/ASR control module (N30/1)	N49/1 	Lift rear of vehicle Ignition: <b>ON</b> Turn right rear wheel approx. 1 revolution/second.	> 3 V	Wiring, Volume 1, 5.2 23 ASR, SPS control module (N49/1).

**Electrical Test Program - Test**

Test step DTC	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 7.0	<p>Models 140.0 up to 05/93, 140.1 up to 01/93 <b>Rear axle vehicle speed sensor output</b> ABS center from ABS control module (N30) or ABS/ASR left rear from ABS/ASR control module (N30/1)</p> <p>Model 140.0 LH-SFI starting 06/93, HFM-SFI, 140.1 starting 02/93 <b>Left front axle vehicle speed sensor output</b> from ABS control module (N30) or ABS/ASR control module (N30/1)</p>		<p>Lift rear of vehicle. Ignition: <b>ON</b> Turn right rear wheel approx. 1 revolution/second.</p>	> 3 V	<p>Wiring, Volume 1, 5.2 23 ASR, Volume 1, 6.2 23 ABS, SPS control module (N49/1).</p>
	<p>Model 140.0 LH-SFI starting 06/93, HFM-SFI, 140.1 starting 02/93 <b>Left front axle vehicle speed sensor output</b> from ABS control module (N30) or ABS/ASR control module (N30/1)</p>		<p>Lift rear of vehicle. Ignition: <b>ON</b> Turn right rear wheel approx. 1 revolution/second.</p>	> 3 V	

Electrical Test Program - Test

Test step <b>DTC</b>	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 8.0 (Model 140.0 LH-SFI starting 06/93, HFM- SFI, 140.1 starting 02/93)	Vehicle speed sensor status from ABS control module (N30) or ABS/ASR control module (N30/1)	N49/1  10 —◀ —▶ — 6	Ignition: <b>ON</b>	> 3 V	Wiring, Volume 1, 5.2 23 ASR, Volume 1, 6.2 23 ABS, SPS control module (N49/1).

Electrical Test Program - Test

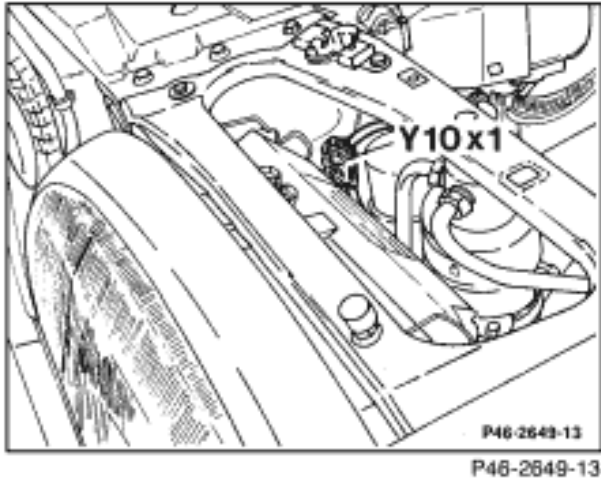


Figure 1

Y10x1 SPS P-valve connector

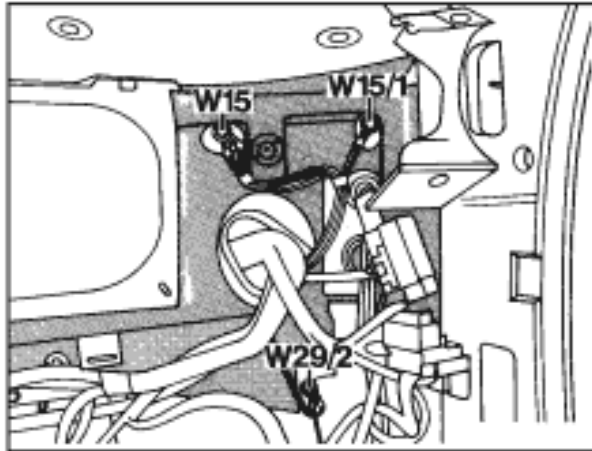


Figure 2

W15 Ground (electronics output ground - right footwell)

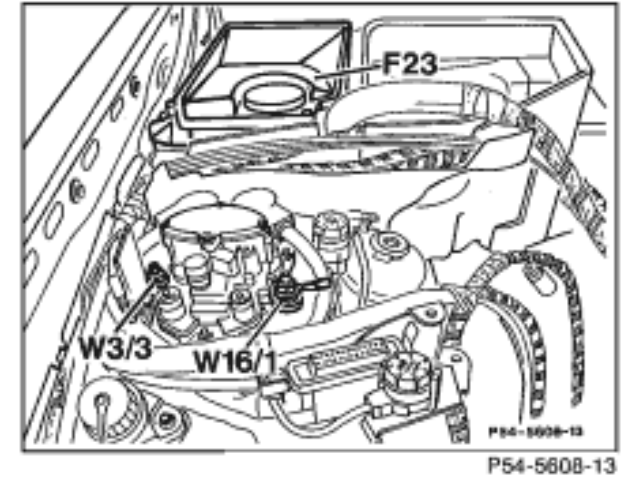


Figure 3

W16/1 Ground (right front spring tower)

Electrical Test Program - Test

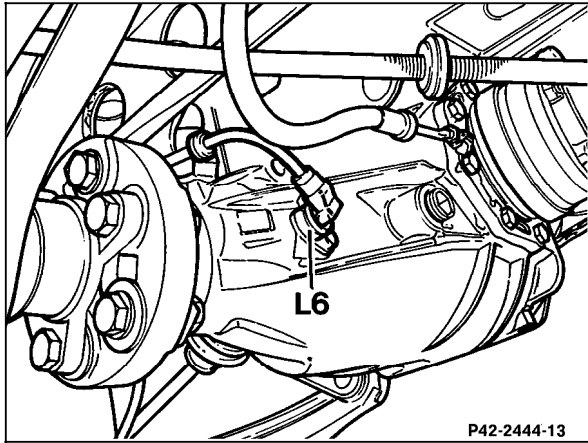


Figure 4

L6 Rear axle vehicle speed sensor (only on vehicles without ASR)

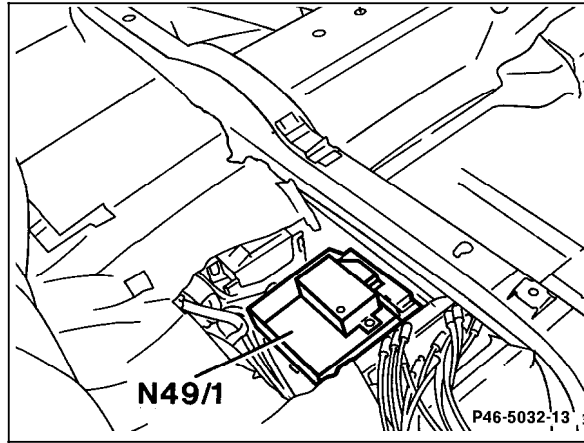


Figure 5

Model 140.057 and California Engines 104/119  
N49/1 SPS control module

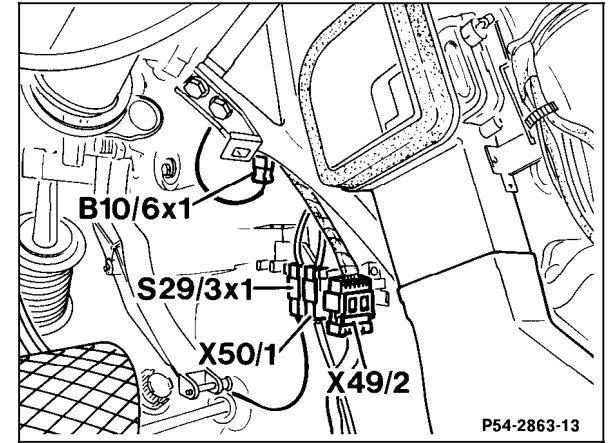
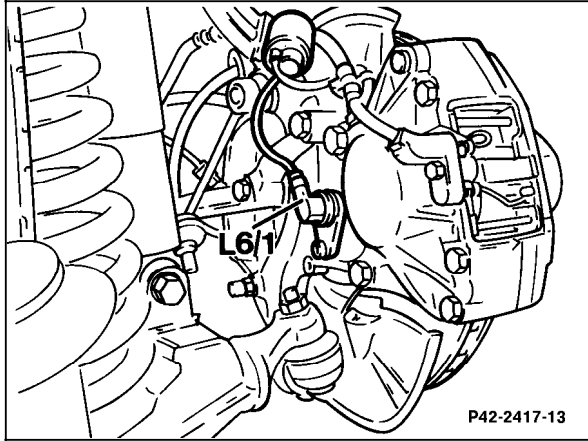


Figure 6

X49/2 Backup lamp/starter lock-out switch connector

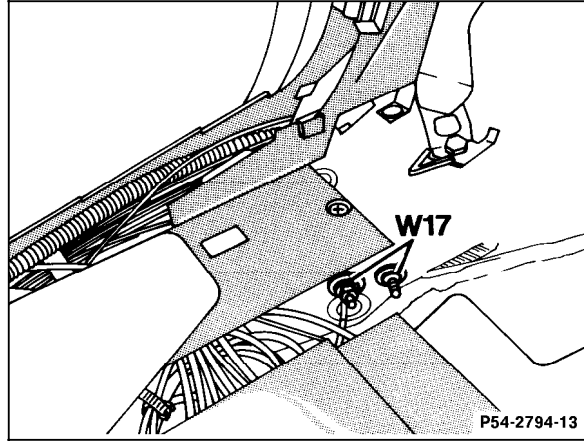
Electrical Test Program - Test



P42-2417-13  
P42-2417-13

Figure 7

L6/1 Left front axle vehicle speed sensor



P54-2794-13  
P54-2794-13

Figure 8

Model 140.057 and California Engines 104/119

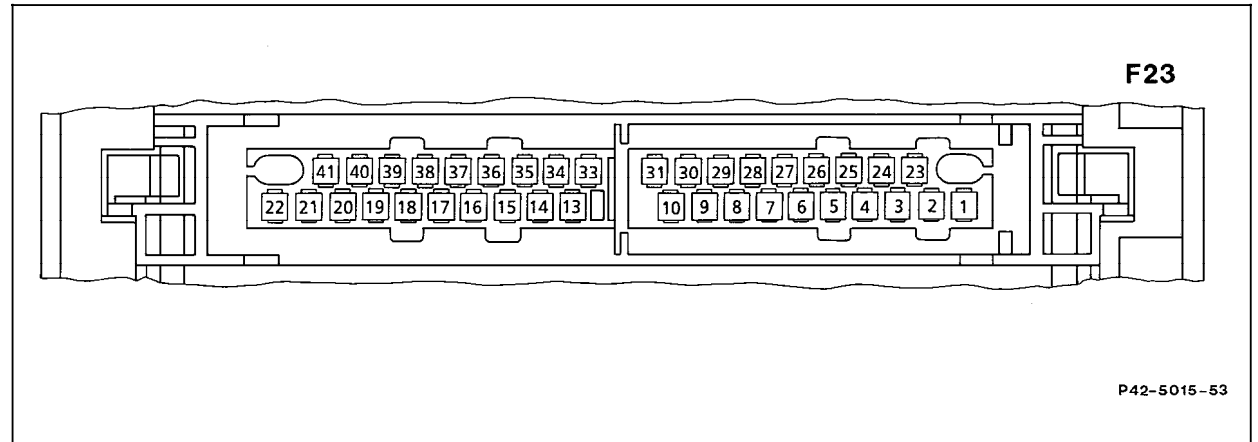
W17 Ground (right rear seat)

Electrical Test Program - Test

Layout of connector for SPS control module (N49/1)

Figure 9

F23	Module box
1-5	Not used
6	<b>Model 140.0 (LH-SFI up to 05/93) and 140.1 (diesel up to 01/93):</b> circuit 61 <b>Model 140.0 (LH-SFI starting 06/93, HFM-SFI, 140.1 starting 02/93):</b> Vehicle speed signal status from ABS control module (N30) or ABS/ASR control module (N30/1)
7	<b>Model 140.0 (LH-SFI up to 05/93) with ASR:</b> Right rear axle vehicle speed signal output from ABS/ASR control module (N30/1)
8	<b>Models 140.0 (LH-SFI up to 05/93) and 140.1 (diesel up to 01/93):</b> Transmission inductive speed sensor (L2) (-)
9	<b>Models 140.0 (LH-SFI up to 05/93) and 140.1 (diesel up to 01/93):</b> Transmission inductive speed sensor (L2) (+)
10	Ground (electronics output ground - right footwell) (W15) or ground (right rear seat) (W17) with control module under rear seat
11-17	Not used
18	SPS P-valve (Y10) (+)
19	SPS P-valve (Y10) (-)
20-25	Not used
26	Diagnosis output
27-29	Not used



P42-5015-53

P42-5015-53

30	<b>Model 140.0 (LH-SFI up to 05/93) with ASR:</b> Left rear axle vehicle speed sensor output from ABS/ASR control module (N30/1) <b>Model 140.0 (LH-SFI up to 05/93) and 140.1 (diesel up to 01/93) with ABS only:</b> Rear axle vehicle speed sensor output from ABS control module (N30) <b>Model 140.0 (LH-SFI starting 06/93, HFM-SFI) and 140.1 starting 02/93:</b> Left front axle vehicle speed sensor output from ABS control module (N30) or ABS/ASR control module (N30/1)
31	Voltage supply circuit 87 SA from base module (N16/1)
33-41	Not used