

### 4.3 Models 124, 129.061, 201 (as of 06/92), 202

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### Diagnosis - Diagnostic Trouble Code (DTC) Memory

#### Preparation for DTC Readout

1. Connect impulse counter scan tool or Hand-Held Testr (HHT) to data link connector (X11/4) according to connection diagram (see section 0).

#### Note:

Connect yellow wire from impulse counter scan tool to:

ASD control module (N30/2)

- 16-pole data link connector (X11/4) socket 5
- 38-pole data link connector (X11/4) socket 26

2. Engine: **at Idle**.
3. Read out DTC's for ASD control module (N30/2).

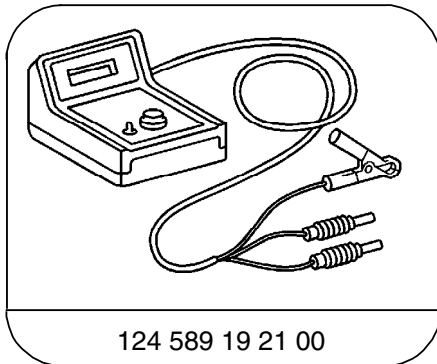


To erase DTC's, Engine: **at Idle**.

#### Note:

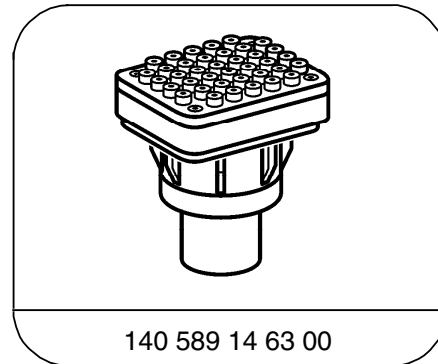
To activate the DTC memory of a new ASD control module (N30/2), see 12.

#### Special Tools



124 589 19 21 00

Pulse counter



140 589 14 63 00



Adapter

#### Equipment

Hand-Held Tester (HHT)

See S.I. in groups 58 and 99.

#### Diagnosis - Diagnostic Trouble Code (DTC) Memory

Diagnostic trouble code (DTC)  	Possible cause	Test step/Remedy <sup>1)</sup>
1            -	No fault in system.	In case of complaint: 23 and 33 (entire test)
2            002	ASD control module (N30/2).	Replace N30/2.
3            003	Stop lamp switch (S9/1).	23⇒ 6.0 23⇒ 7.0
4            004	Left front axle VSS sensor (L6/1) or from ABS control module (N30).	23⇒ 10.0
5            005	Right front axle VSS sensor (L6/2) or from ABS control module (N30).	23⇒ 9.0
6            006	Rear axle VSS sensor (L6) or from ABS control module (N30).	23⇒ 11.0
7            007	No VSS from any sensor (L6, L6/1, L6/2).	23⇒ 9.0 23⇒ 10.0 23⇒ 11.0
8            008	ASD valve (Y38) or stop lamp switch (S9/1).	23⇒ 6.0 23⇒ 7.0 23⇒ 8.0
9            009	Incorrect front axle tooth count, signal implausible <sup>2)</sup>	Visually inspect

<sup>1)</sup> Observe Preparation for Test, see 22.

<sup>2)</sup> Rotor with incorrect tooth count, dirt accumulation on or damaged rotor, incorrect rear axle ratio, wrong wheel or tire size.

Diagnosis - Complaint Related Diagnostic Chart

Complaint/Problem	Possible cause	Remedy/Test step
<p>ASD MIL (A1e24) blinks when first using vehicle with new control module installed (N30/2).</p>	<p>Initialization of front rotors to rear axle has not been performed.</p>	<p>Drive vehicle up to a speed &gt; 19 mph (30km/h) without applying the brakes. Once speed is attained, vehicle may be braked.</p>

Electrical Test Program - Component Locations

Electrical Components in Engine Compartment and in Instrument Cluster Model 124

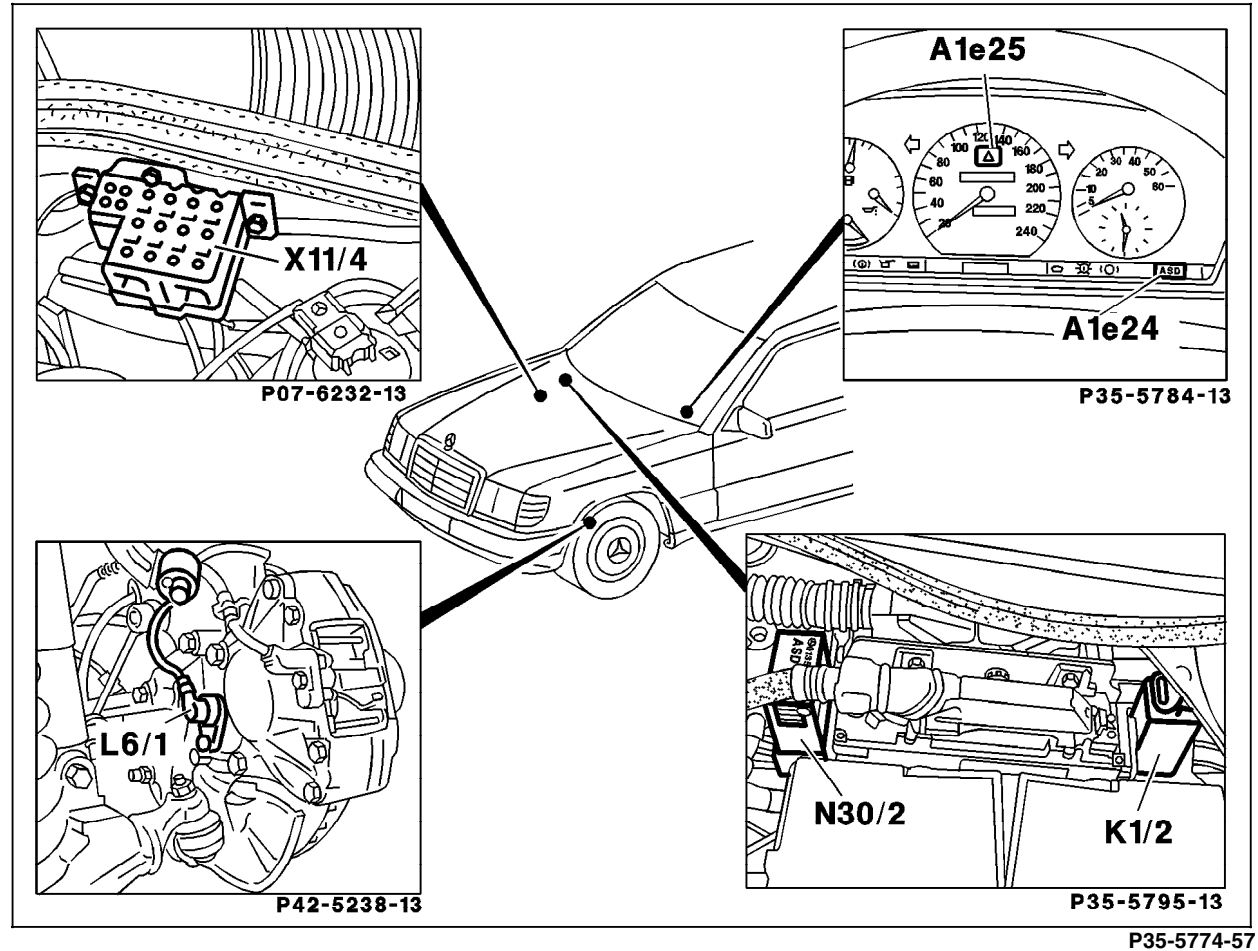


Figure 1

- A1e24 ASD malfunction indicator lamp
- A1e25 ASD function indicator lamp
- L6/1 Left front axle vehicle speed sensor
- L6/2 Right front axle vehicle speed sensor
- K1/2 Overvoltage protection relay module (87E/87L/30a, 9-pole)
- N30/2 ASD control module
- X11/4 Data link connector, 16-pole (DTC readout)

Electrical Test Program - Component Locations

Electrical Components in Right Rear Chassis,  
Rear Axle and Passenger Compartment  
Model 124

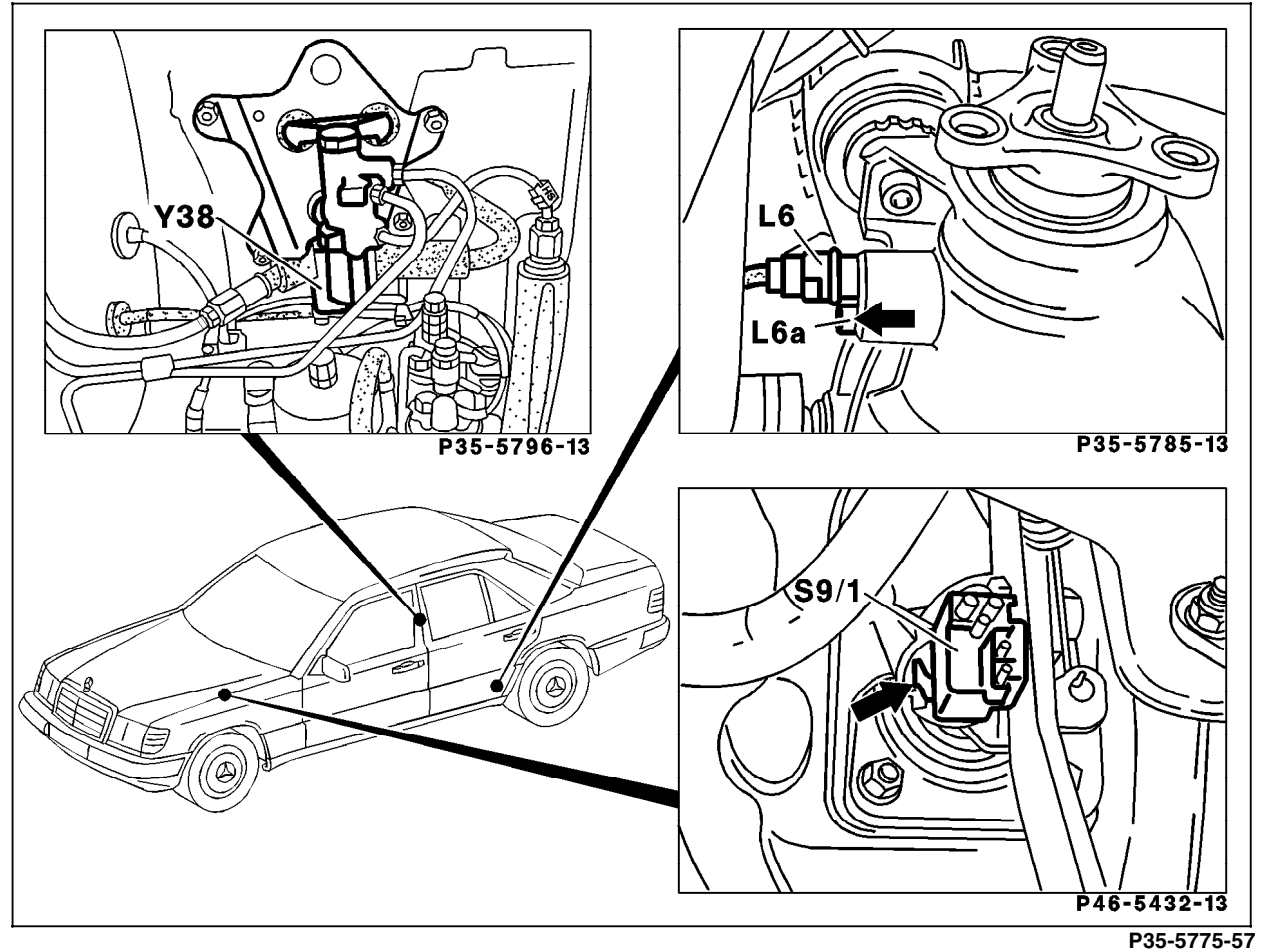


Figure 2

- L6 Rear axle vehicle speed sensor
- S9/1 Stop lamp switch (4-pole)
- Y38 ASD valve

Electrical Test Program - Component Locations

Electrical Components in Engine Compartment,  
and Passenger Compartment  
Model 129

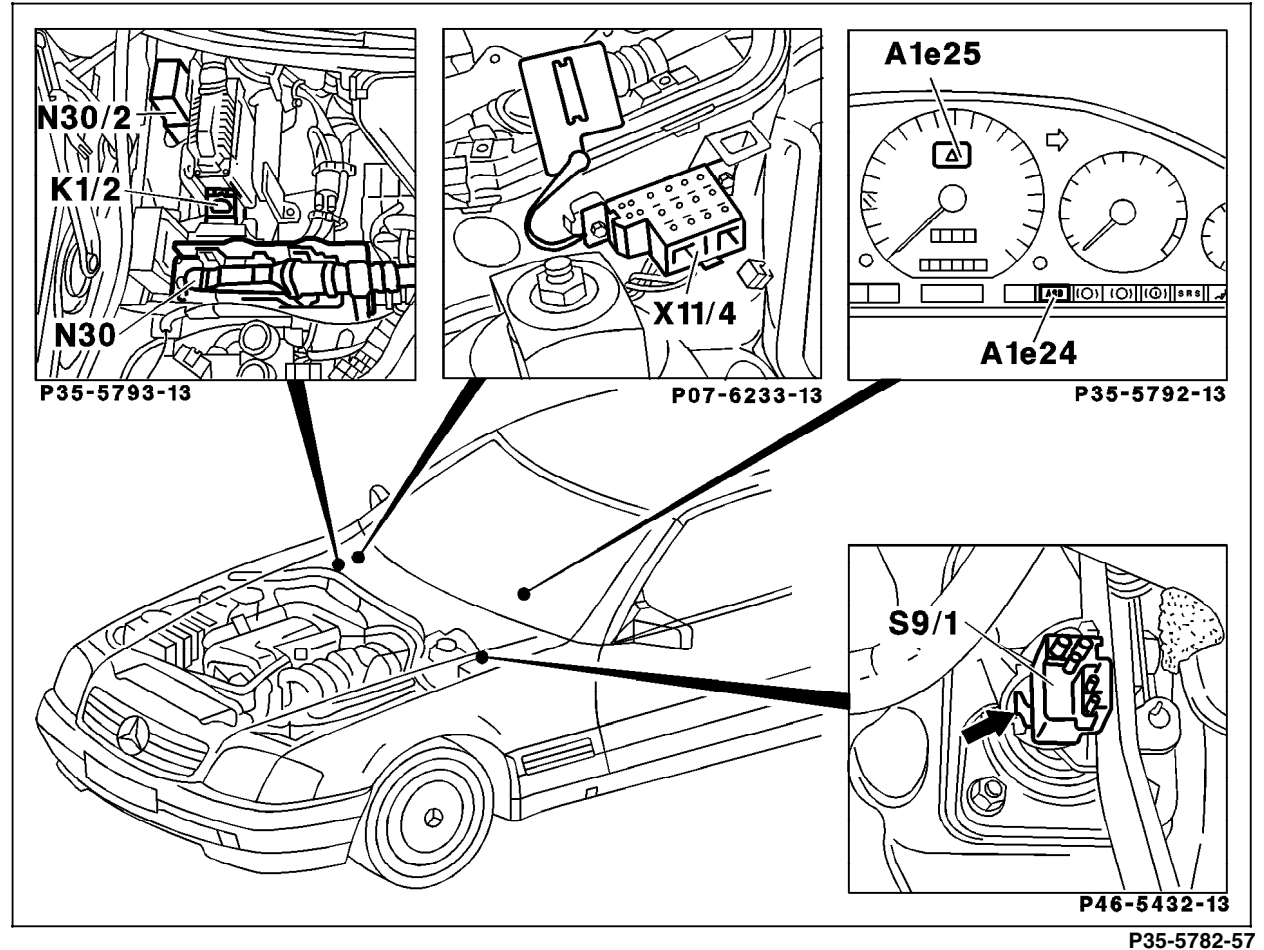


Figure 3

- A1e24 ASD malfunction lamp
- A1e25 ASD function indicator lamp
- K1/2 Overvoltage protection relay module (87E/87L/30a, 9-pole)
- N30 ABS control module
- N30/2 ASD control module
- S9/1 Stop lamp switch (4-pole)
- X11/4 Data link connector, 16-pole or 38-pole (DTC readout)

Electrical Test Program - Component Locations

Electrical Components in Right Rear Chassis,  
on Front and Rear Axles  
Model 129 shown

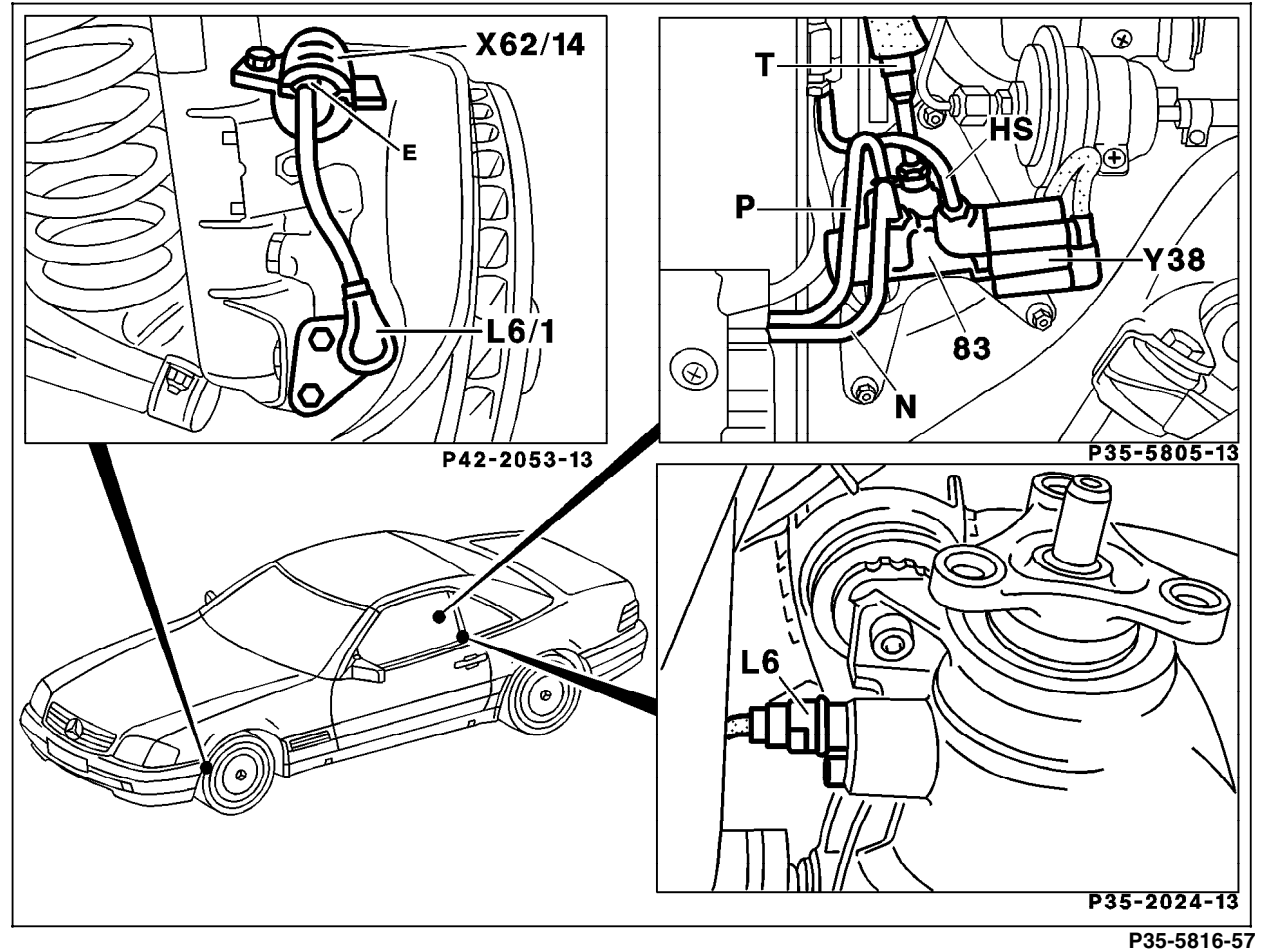


Figure 4

- L6 Rear axle vehicle speed sensor
- L6/1 Left front axle speed sensor
- L6/2 Right front axle speed sensor (mirror image of left shown)
- X62/14 Left front wheel vehicle speed sensor connector (axle spindle)
- Y38 ASD valve



Electrical Test Program - Component Locations

Electrical Components in Engine Compartment and Passenger Compartment  
Model 201

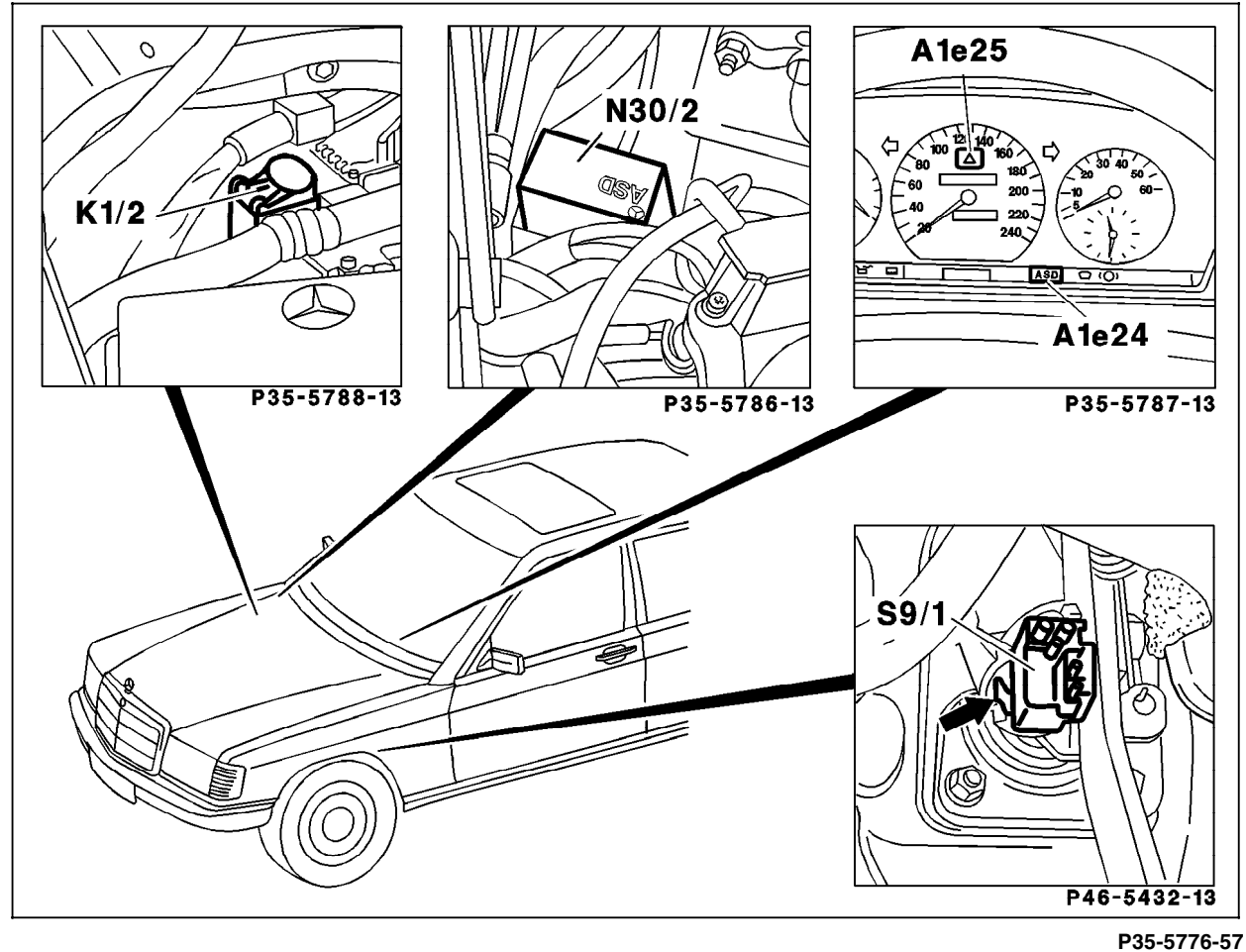


Figure 5

- A1e24 ASD malfunction indicator lamp
- A1e25 ASD function indicator lamp
- K1/2 Overtorque protection relay module (87E/87L/30a, 9-pole)
- N30/2 ASD control module
- S9/1 Stop lamp switch (4-pole)

Electrical Test Program - Component Locations

Electrical Components in Engine Compartment,  
Front and Rear axle and ASD Valve Location  
Model 201

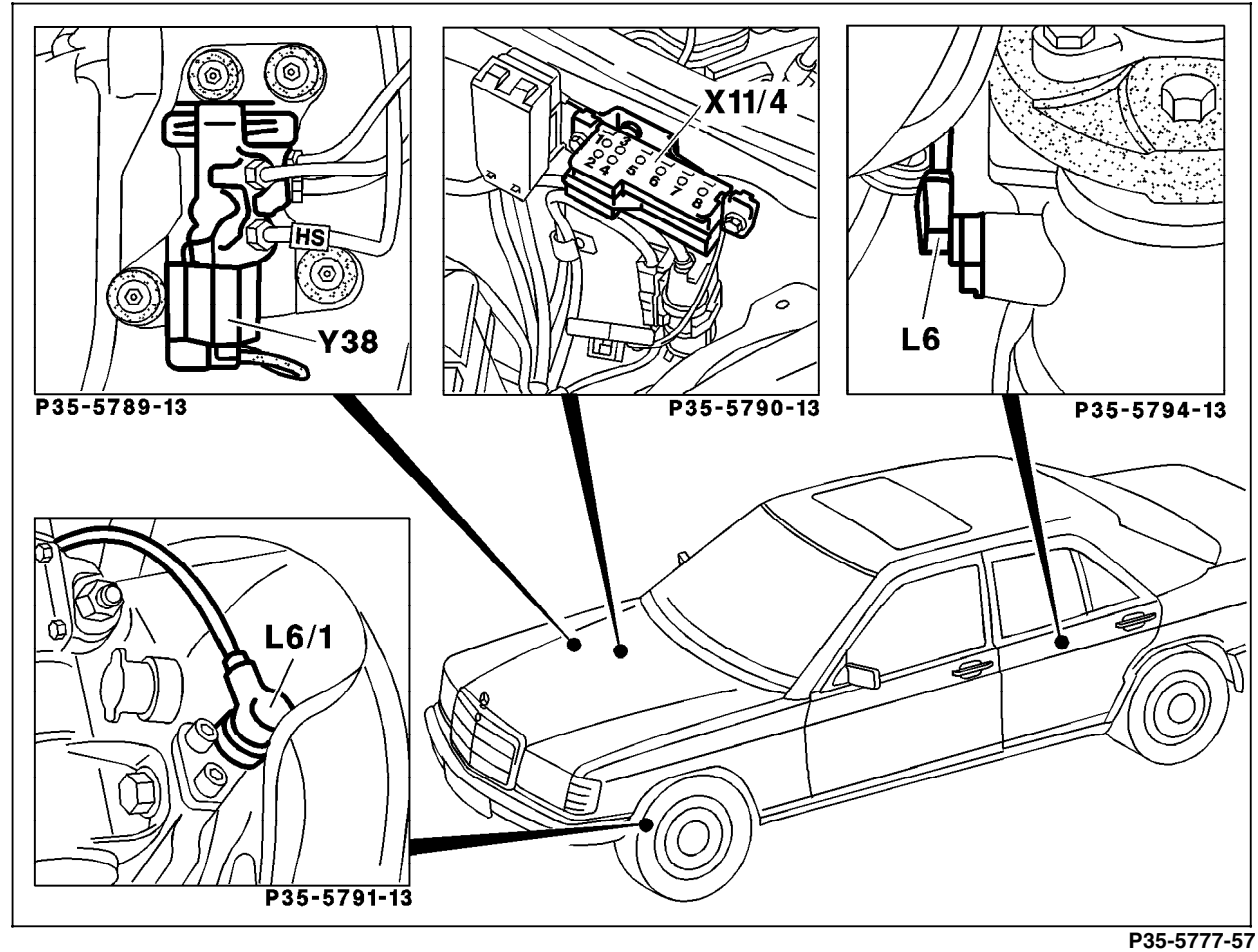


Figure 6

- L6 Rear axle speed sensor
- L6/1 Left front wheel speed sensor
- L6/2 Right front wheel speed sensor (mirror image of left shown)
- X11/4 Data link connector, (DTC readout)
- Y38 ASD valve

Electrical Test Program - Component Locations

Electrical Components in Engine Compartment,  
Front Axle and Right Front Foot Well  
Model 202

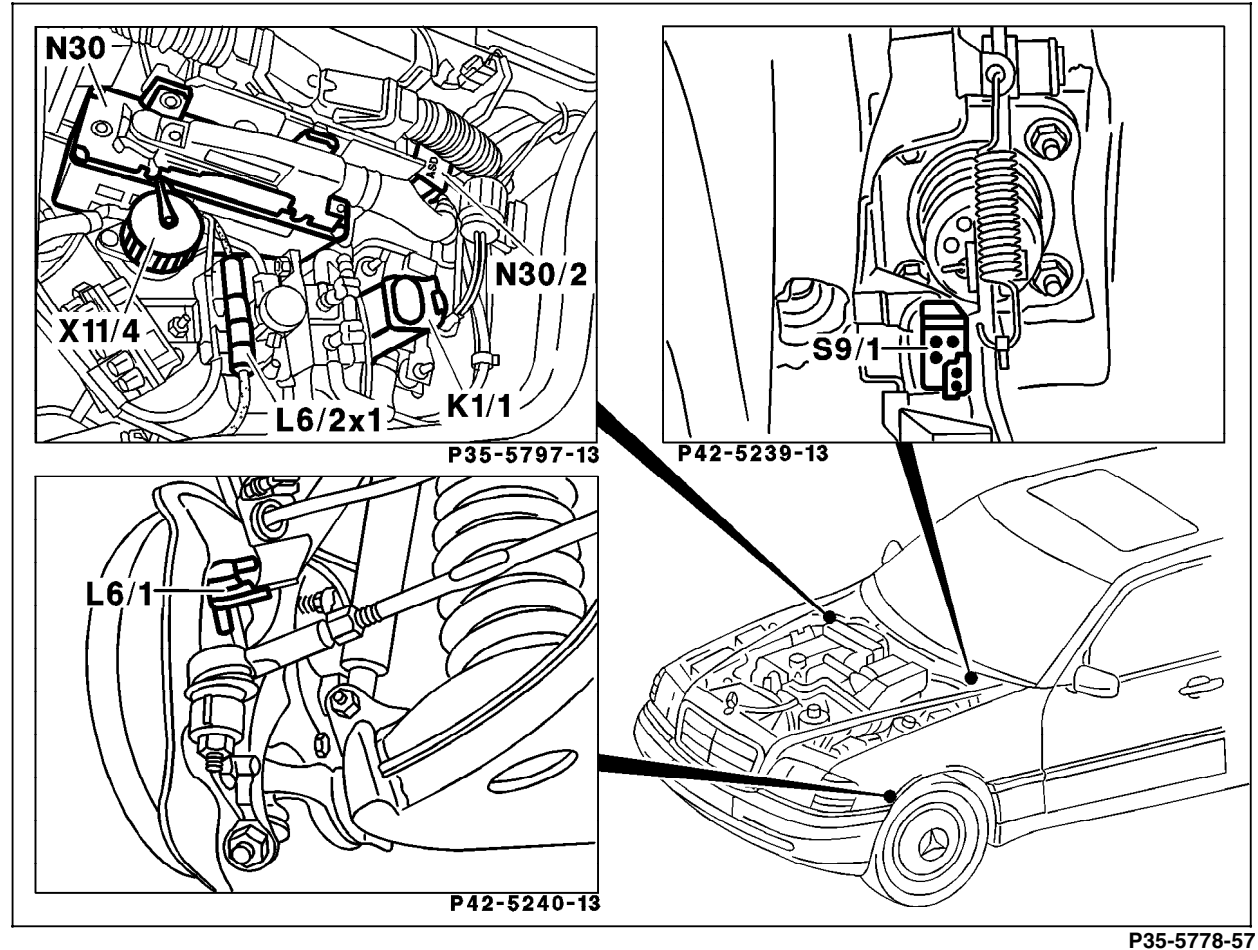


Figure 7

- L6/1 Left front wheel speed sensor
- L6/2 Right front wheel speed sensor
- L6/2x1 Right front wheel speed sensor connector
- K1/1 Overtoltage protection relay module (87E/87L/30a, 9-pole)
- N30 ABS control module
- N30/2 ASD control module
- S9/1 Stop lamp switch (4-pole)
- X11/4 Data link connector, 38-pole (DTC readout)

Electrical Test Program - Component Locations

Electrical Components in Instrument Cluster and ASD Valve Layout  
Model 202

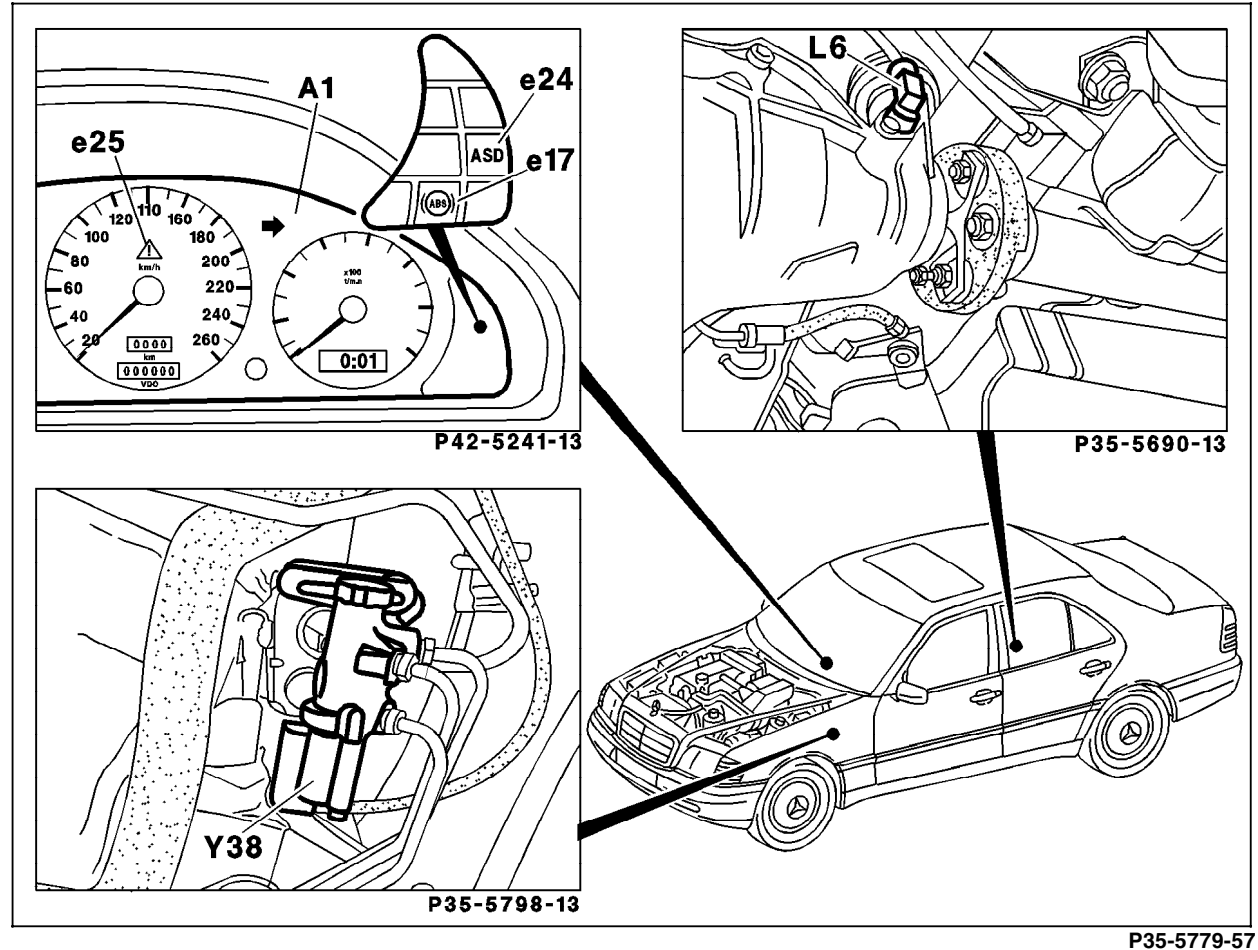


Figure 8

- A1 Instrument cluster
- A1e17 ABS malfunction indicator lamp
- A1e24 ASD malfunction indicator lamp
- A1e25 ASD function indicator lamp
- L6 Rear axle vehicle speed sensor
- Y38 ASD valve

**Electrical Test Program - Preparation for Test**

Preliminary work:

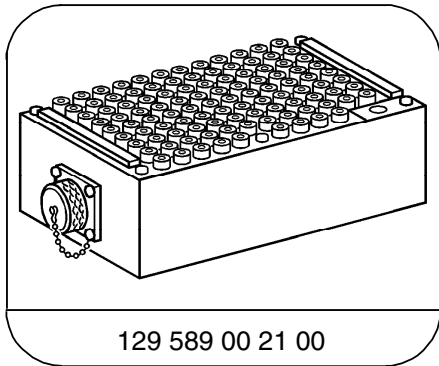
Diagnosis - Diagnostic Trouble Code (DTC) Memory ..... 11

1. Ignition: **OFF**
2. Remove plastic cover.
3. Remove ASD control module.
3. Connect socket box with test cable according to connection diagram (Figures 1-5).

**Electrical Wiring Diagrams:**

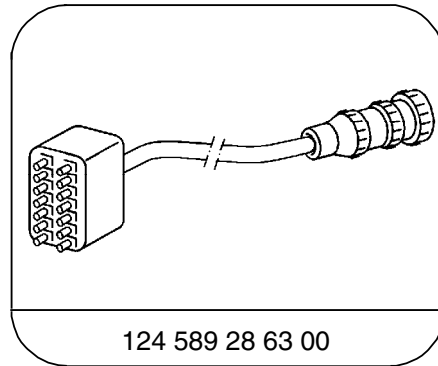
Electrical Troubleshooting Manual, Model 124,  
 Electrical Troubleshooting Manual, Model 129,  
 Electrical Troubleshooting Manual, Model 201,  
 Electrical Troubleshooting Manual, Model 202.

**Special Tools**



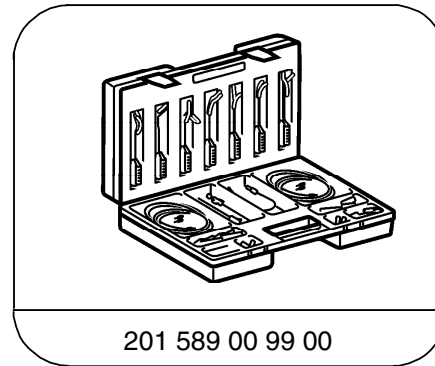
129 589 00 21 00

126-pin socket box



124 589 28 63 00

Test cable



201 589 00 99 00

Electrical connecting set

**Equipment**

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 (up to 09/92 production)

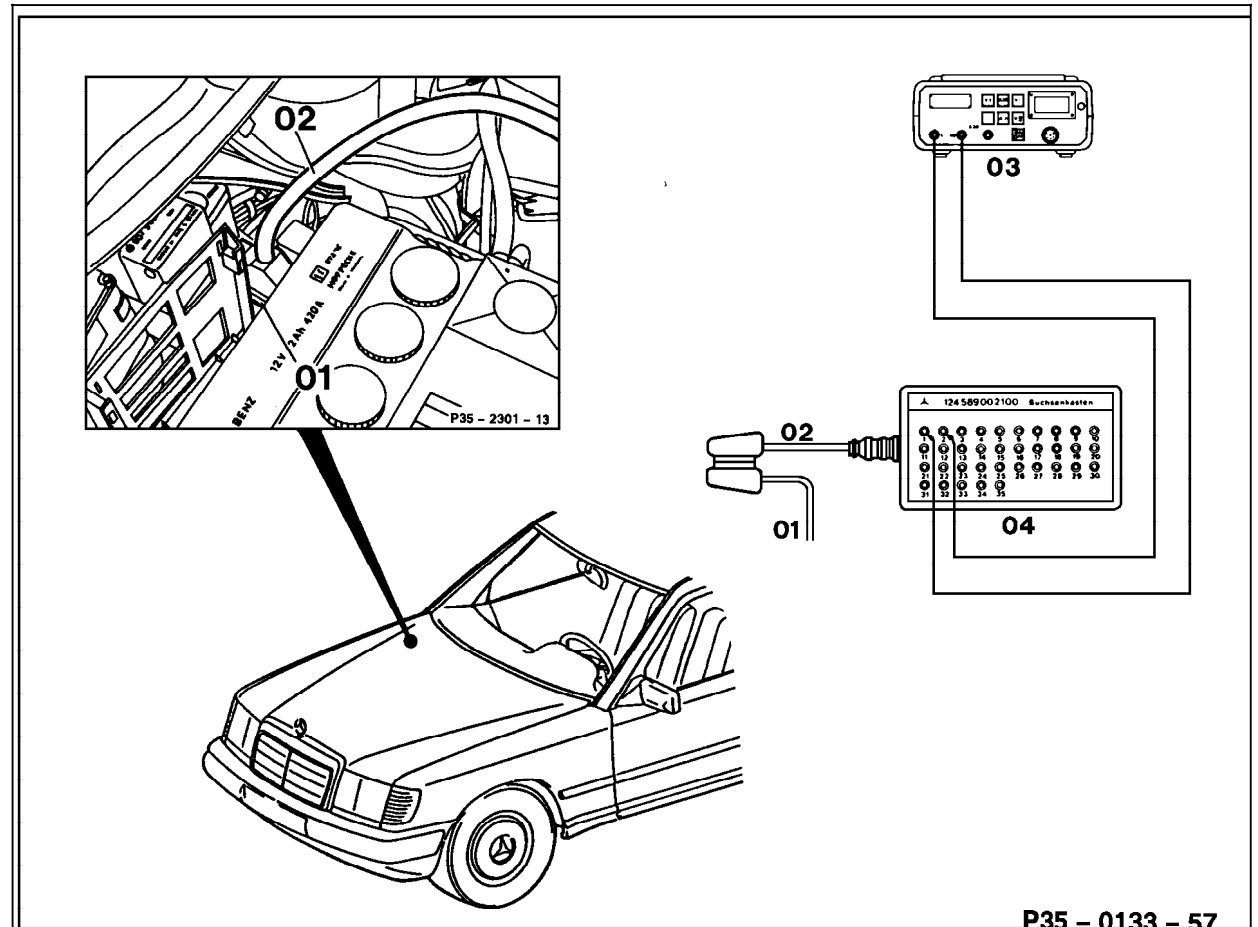


Figure 1

- 01 ASD control module connector
- 02 Test cable
- 03 Multimeter
- 04 Socket box

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Electrical Test Program - Preparation for Test

Connection Diagram - Socket Box  
Model 124 (as of 10/92 production)

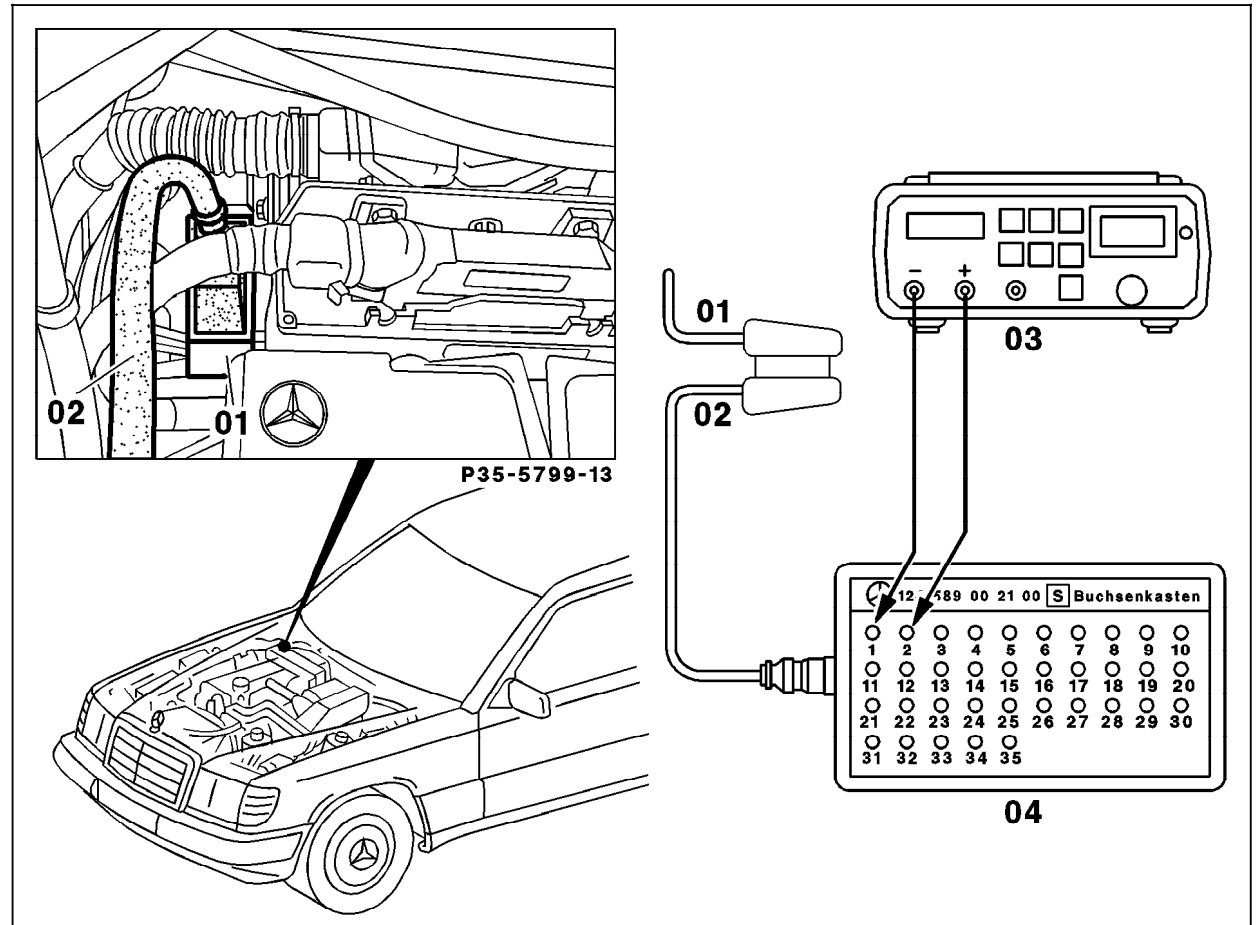


Figure 2

- 01 ASD control module connector
- 02 Test cable
- 03 Multimeter
- 04 Socket box

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Electrical Test Program - Preparation for Test

Connection Diagram - Socket Box  
Model 129

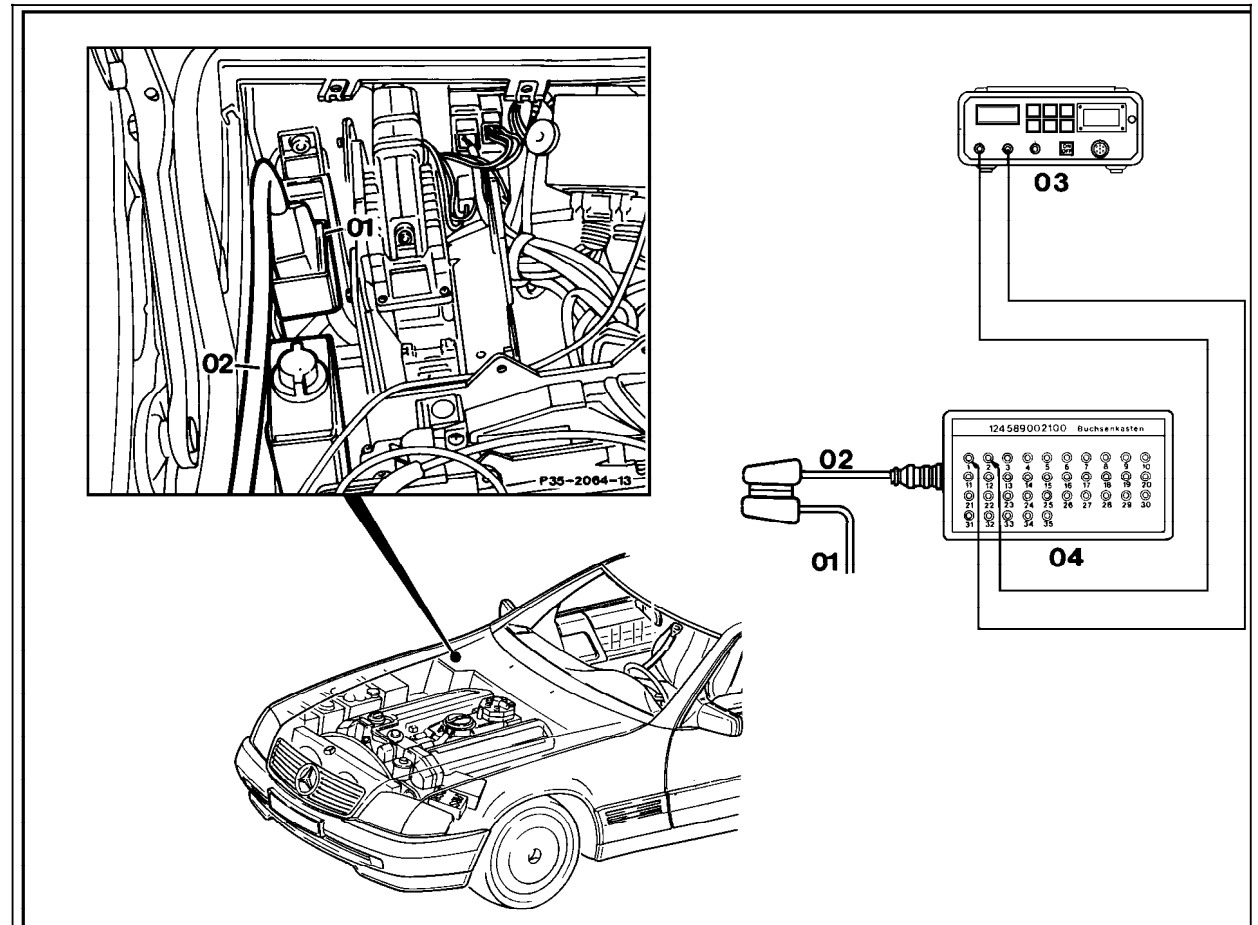


Figure 3

- 01 ASD control module connector
- 02 Test cable
- 03 Multimeter
- 04 Socket box

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Electrical Test Program - Preparation for Test

Connection Diagram - Socket Box  
Model 201

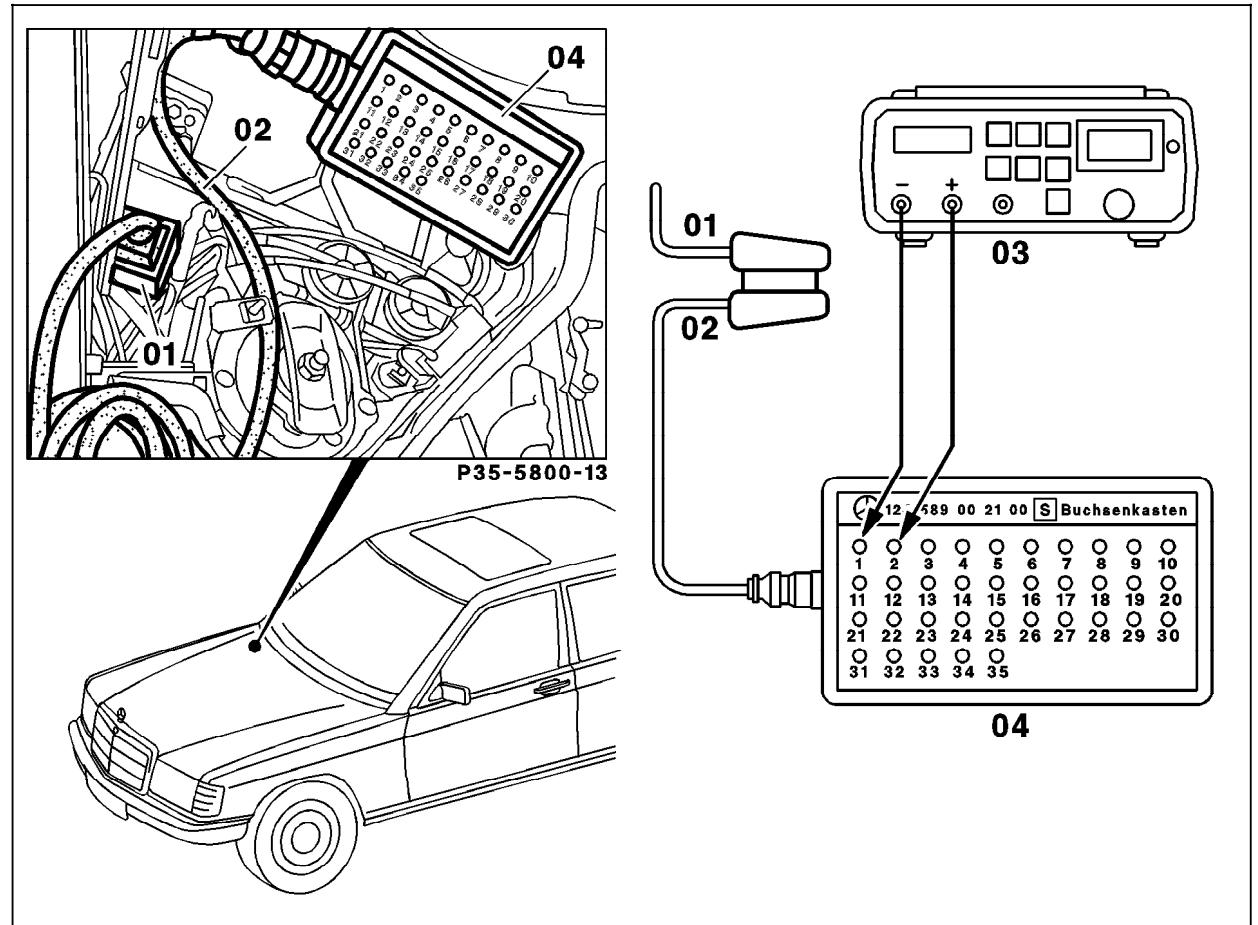


Figure 4

- 01 ASD control module connector
- 02 Test cable
- 03 Multimeter
- 04 Socket box

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Electrical Test Program - Preparation for Test

Connection Diagram - Socket Box  
Model 202

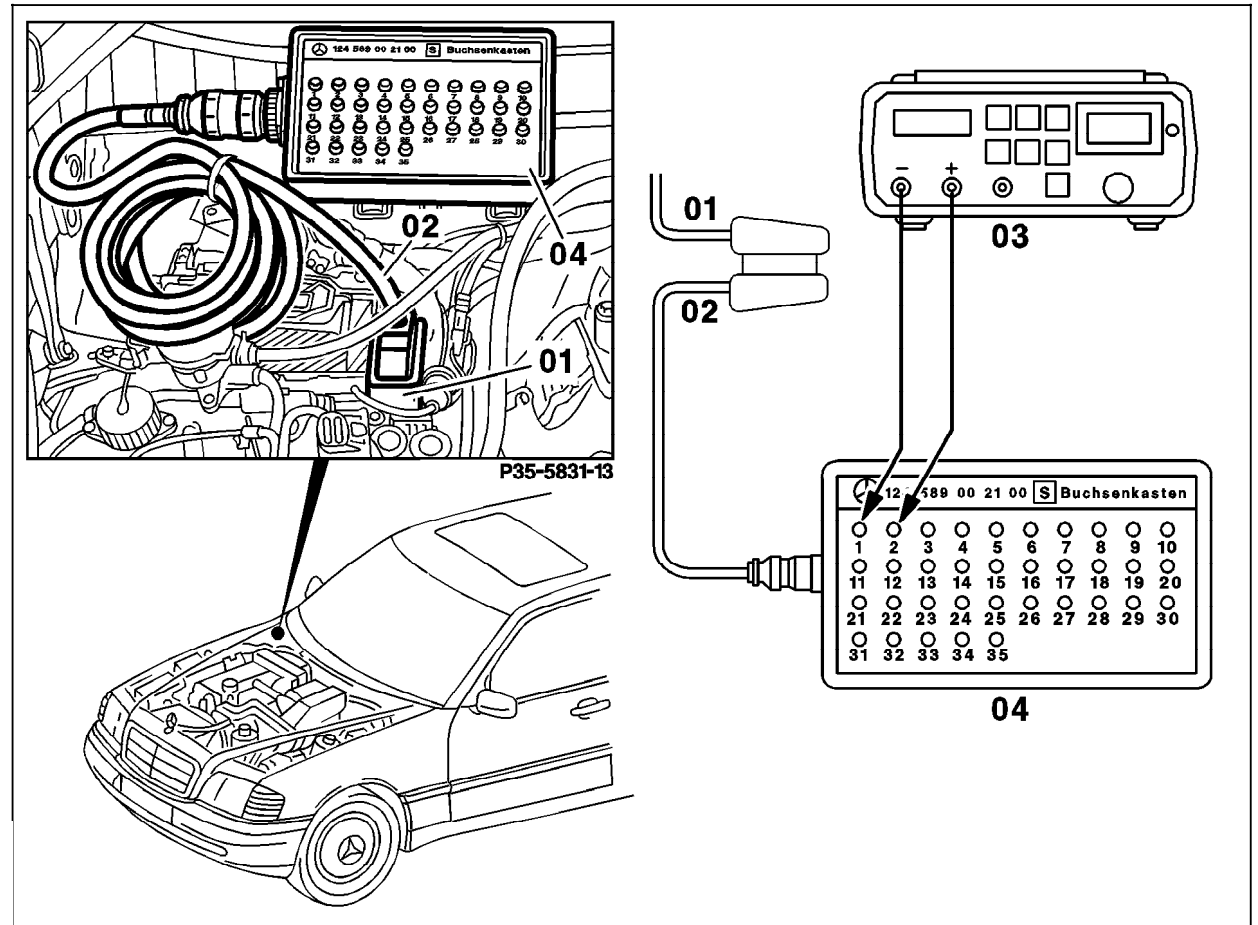

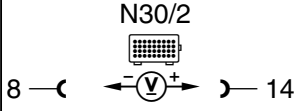
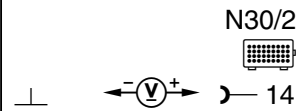
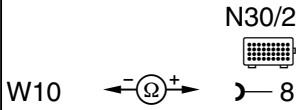
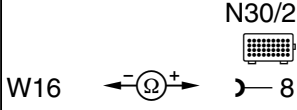


Figure 5

- 01 ASD control module connector
- 02 Test cable
- 03 Multimeter
- 04 Socket box

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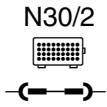
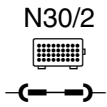

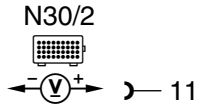
Electrical Test Program - Test

Test step DTC	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 1.0	 <b>ASD control module (N30/2)</b> Voltage supply Circuit 87 E	 <p>N30/2</p>	Ignition: <b>ON</b>	11 – 14 V	⇒ 1.1
⇒ 1.1	Voltage supply from overvoltage protection relay module (K1/1 or K1/2)	 <p>N30/2</p>	Ignition: <b>ON</b>	11 – 14 V	Fuse in K1/2, Wiring, K1/2, ⇒ 1.2
⇒ 1.2	Ground wire	<p><b>Models 124, 201</b></p>  <p>N30/2</p> <p><b>Models 129, 202</b></p>  <p>N30/2</p> <p>W16 W16/4</p>	Ignition: <b>OFF</b>	< 1 Ω	Wiring, <b>Models 124, 201</b> Ground (battery) (W10).  <b>Model 129</b> Ground (component compartment) (W16). <b>Model 202</b> Ground (component compartment, right) (W16/4).


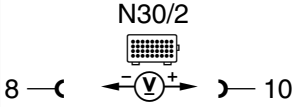

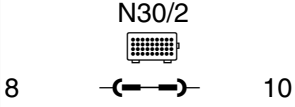

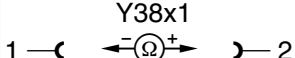
## Electrical Test Program - Test

Test step DTC	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 2.0	<b>Circuit 61 voltage</b>	N30/2  8 —( —( ← ⊕ ⊖ → —) —) 13	Ignition: <b>ON</b>  Engine: <b>Start</b>	< 1.5 V  11 – 14 V	Wiring, Generator (G2).
⇒ 3.0	<b>Diagnosis output</b>	<b>X11/4 8-pole/16-pole</b> N30/2  5 —( ← ⊖ ⊕ → —) —) 6  <b>X11/4 38-pole</b> N30/2  26 —( ← ⊖ ⊕ → —) —) 6	Engine: <b>OFF</b>	< 1 Ω	Wiring, Data link connector (X11/4).
⇒ 4.0	<b>ASD warning lamp (A1e25)</b>	N30/2  8 —( ← ⊕ ⊖ → —) —) 4	Ignition: <b>ON</b>	A1e25: <b>ON</b>	Wiring, A1e25, DM, Body & Accessories, Vol. 1, section 1.4, 23.


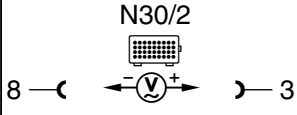

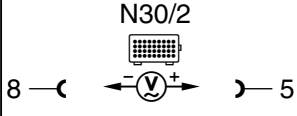

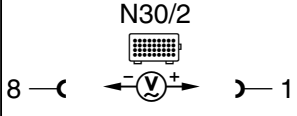
Electrical Test Program - Test

Test step DTC	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 5.0	<b>ASD MIL (A1e24)</b>	<p><b>Models 124, 129, 201</b></p>  <p>8 —(←→)— 2</p> <p><b>Model 202</b></p>  <p>8 —(←→)— 2</p>	<p>Ignition: <b>ON</b></p> <p>Bridge sockets 8 and 2.</p> <p>Ignition: <b>ON</b></p> <p>Bridge sockets 8 and 2.</p>	<p>A1e24: <b>ON</b></p> <p>A1e24: lamp goes <b>out</b> after 30 seconds.</p> <p>A1e24: <b>ON</b></p>	<p>Wiring, A1e24.</p> <p>Wiring.</p> <p>Wiring, A1e24, DM, Body &amp; Accessories, Vol. 1, section 1.4, 23.</p>
⇒ 6.0	 <b>Stop lamp switch (S9/1)</b> N.O. contact	 <p>8 —(←V→) 11</p>	<p>Ignition: <b>OFF</b></p> <p>Brake pedal not depressed.</p> <p>Depress brake pedal.</p>	<p>&lt; 1 V</p> <p>11 – 14 V</p>	<p>Fuse in overvoltage protection relay module (K1/2), Wiring, S9/1.</p>

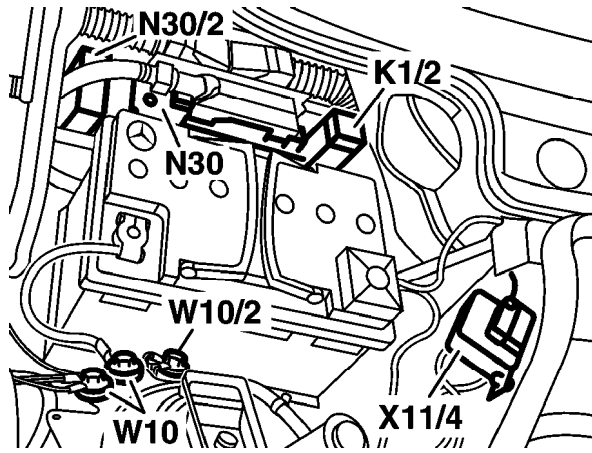
Electrical Test Program - Test

Test step DTC	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 7.0	 <b>Stop lamp switch (S9/1)</b> N.C. contact	N30/2 	Ignition: <b>ON</b> Brake pedal not depressed. Depress brake pedal.	11 – 14 V < 1 V	Wiring, S9/1, ⇒ 8.0
⇒ 8.0	 <b>ASD solenoid valve (Y38)</b> Function	N30/2 	Ignition: <b>ON</b> Depress brake pedal.	ASD valve switches on. ASD valve switches off.	⇒ 8.1, Wiring.
⇒ 8.1	 Coil resistance	Y38x1 	Ignition: <b>OFF</b> Brake pedal not depressed.	5 – 7 Ω.	Wiring, Y38.

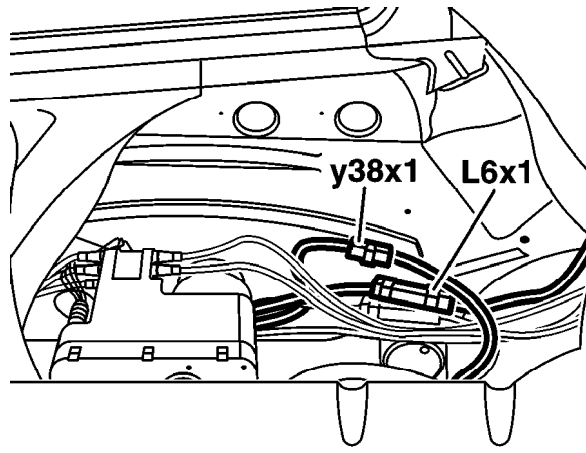
#### Electrical Test Program - Test

Test step DTC	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 9.0	 <b>Right front axle VSS sensor (L6/2)</b>	<p>N30/2</p> 	<p>Raise front of vehicle. Ignition: <b>ON</b> Rotate right front wheel (approx. 1 rev./sec.).</p>	> 3 V~	Wiring, DM, Chassis & Drivetrain, Vol. 2, section 6.1–6.3 23.
⇒ 10.0	 <b>Left front axle VSS sensor (L6/1)</b>	<p>N30/2</p> 	<p>Raise front of vehicle. Ignition: <b>ON</b> Rotate left front wheel (approx. 1 rev./sec.).</p>	> 3 V~	Wiring, DM, Chassis & Drivetrain, Vol. 2, section 6.1–6.3 23.
⇒ 11.0	 <b>Rear axle VSS sensor (L6)</b>	<p>N30/2</p> 	<p>Raise rear of vehicle. Selector lever in: <b>N</b> Ignition: <b>ON</b> Rotate a rear wheel (approx. 1 rev./sec.).</p>	> 3 V~	Wiring, DM, Chassis & Drivetrain, Vol. 2, section 6.1–6.3 23.

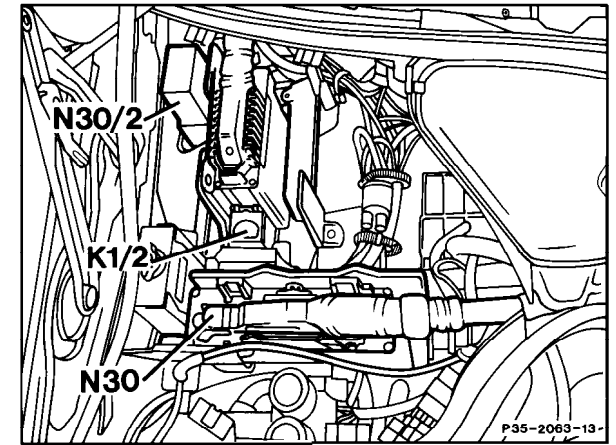
Electrical Test Program - Test



P35-5771-13



P35-5772-13



P35-2063-13

Figure 1  
Model 124 Right component compartment  
(as of 10/92)

- K1/2 Overvoltage protection relay module (87E/87L/30a, 9-pole)
- N30 ABS control module
- N30/2 ASD control module
- W10 Ground (battery)
- W10/2 Ground (electronics)
- X11/4 Data link connector (DTC readout)

Figure 2  
Model 124 Right rear passenger compartment

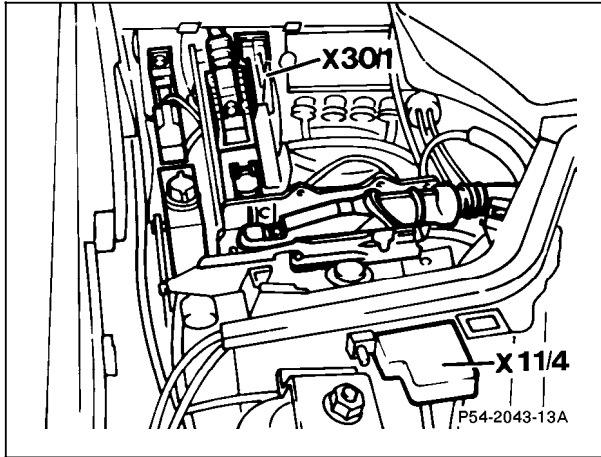
- L6x1 Rear axle VSS sensor connector
- Y38x1 ASD solenoid valve connector

Figure 3  
Model 129

- K1/2 Overvoltage protection relay module (87E/87L/30a, 9-pole)
- N30 ABS control module
- N30/2 ASD control module



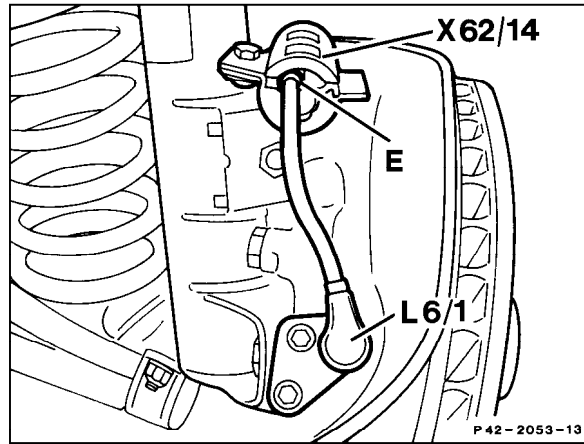
Electrical Test Program - Test



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Figure 4  
Model 129

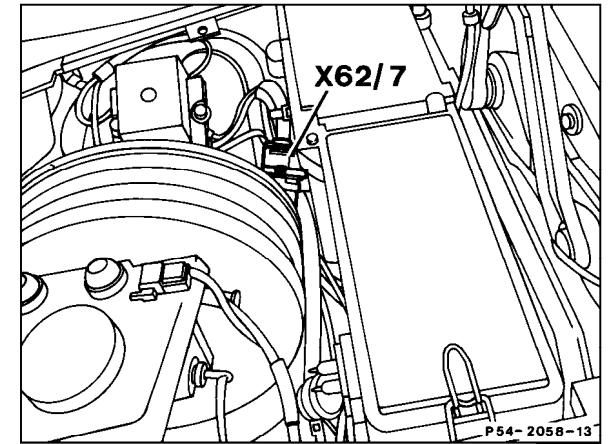
- X30/1 Multi-function connector block
- X11/4 Data link connector (DTC readout)



P42-2053-13

Figure 5  
Model 129

- L6/1 Left front axle VSS sensor
- L6/2 Right front axle VSS sensor
- X62/14 Left front axle VSS sensor connector (axle spindle)
- X62/15 Right front axle VSS sensor connector (axle spindle)

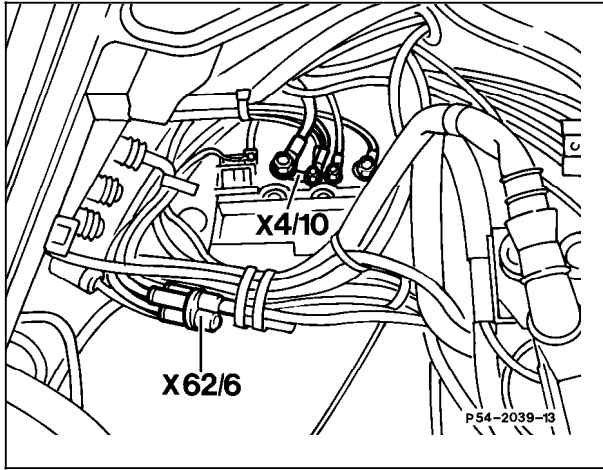


P54-2058-13

Figure 6  
Model 129

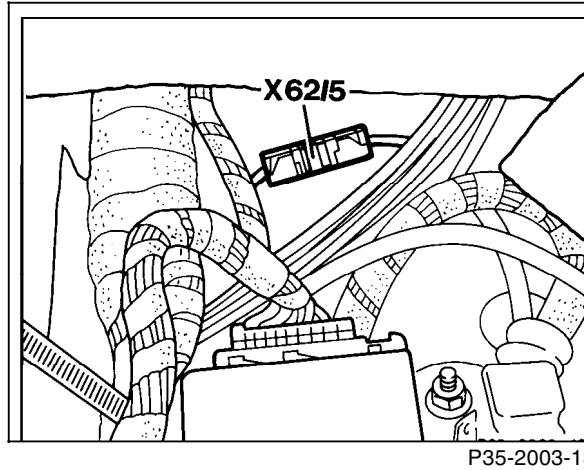
- X62/7 Left front axle VSS sensor connector (component compartment)

Electrical Test Program - Test



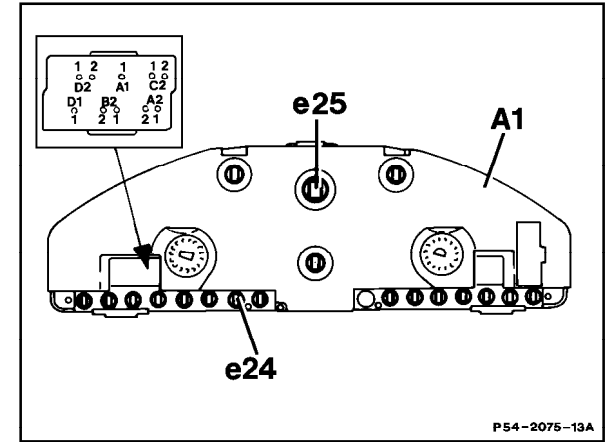
P54-2039-13

Figure 7  
Model 129  
X4/10 Terminal block (circuit 30/circuit 61 battery) (3-pole)  
X62/6 Right front axle VSS sensor connector (component compartment)



P35-2003-13

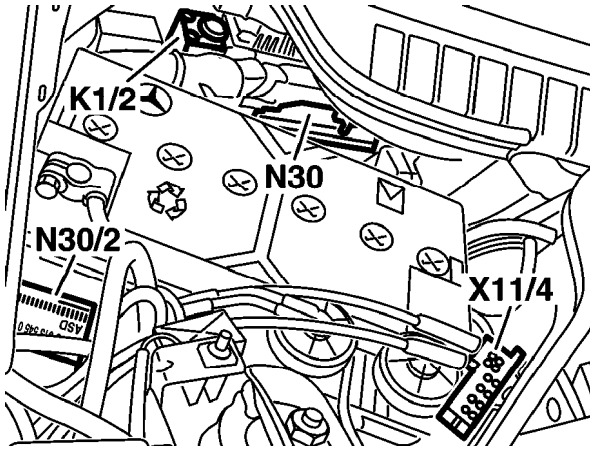
Figure 8  
Model 129  
X62/5 Valve connector (ASD) (2-pole)



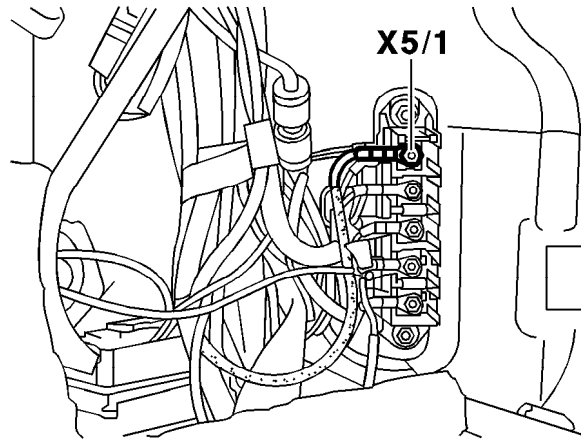
P54-2075-13A

Figure 9  
Model 129  
A1 Instrument cluster  
A1e24 ASD MIL  
A1e25 ASD warning lamp

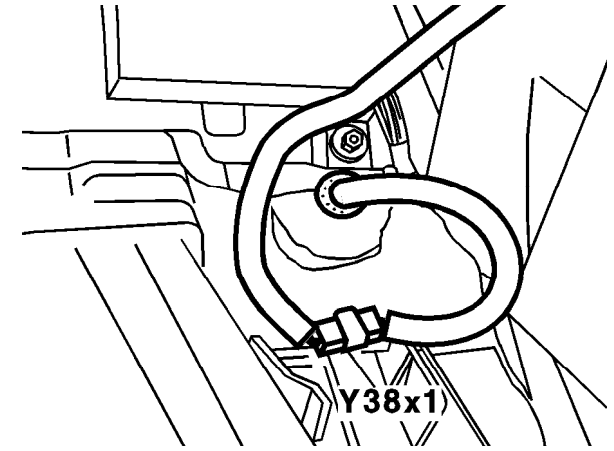
Electrical Test Program - Test



P35-5773-13



P35-5808-13



P35-5802-13

Figure 10

Model 201 Right component compartment

- K1/2    Overvoltage protection relay module (87E/87L/30a, 9-pole)
- N30     ABS control module
- N30/2   ASD control module
- X11/4   Data link connector (DTC readout)

Figure 11

Model 201 Left footwell

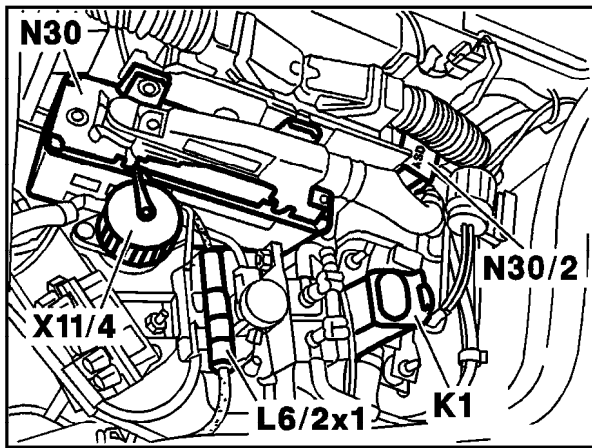
- X5/1    Terminal block (interior)

Figure 12

Model 201 Right footwell

- Y38x1   ASD solenoid valve connector

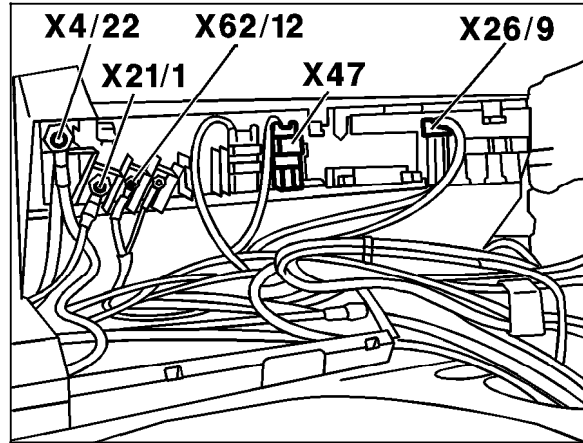
Electrical Test Program - Test



U35-5797-13

Figure 13  
Model 202 Right component compartment

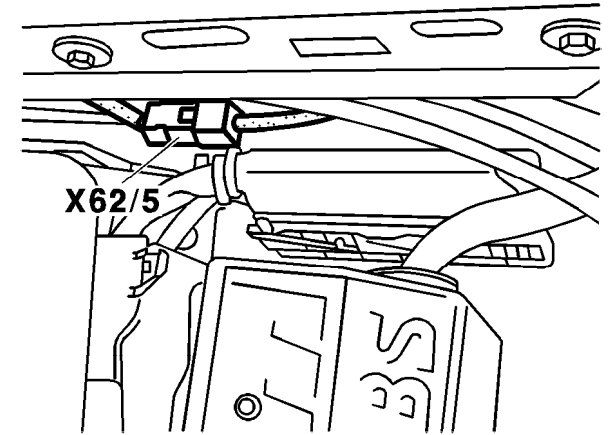
- K1 Overvoltage protection relay module
- L6/2x1 Right front axle VSS sensor connector
- N30 ABS control module
- N30/2 ASD control module
- X11/4 Data link connector (DTC readout)



P35-5801-13

Figure 14  
Model 202 Right footwell

- X4/22 Terminal block (circuit 30Z) (1-pole)
- X21/1 Terminal block (stop lamp switch)
- X26/9 Interior/systems connector
- X47 Rear axle VSS sensor harness connector (2-pole) (right footwell)
- X62/12 Terminal block (front VSS) (1-pole)

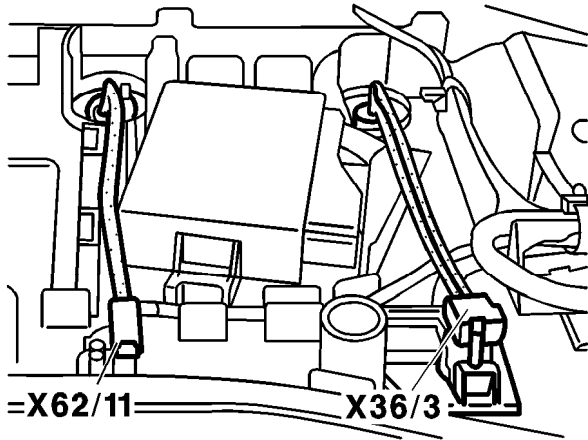


P35-5814-13

Figure 15  
Model 202 Engine compartment/right wheel arch

- X62/5 Valve connector (ASD) (2-pole)

Electrical Test Program - Test

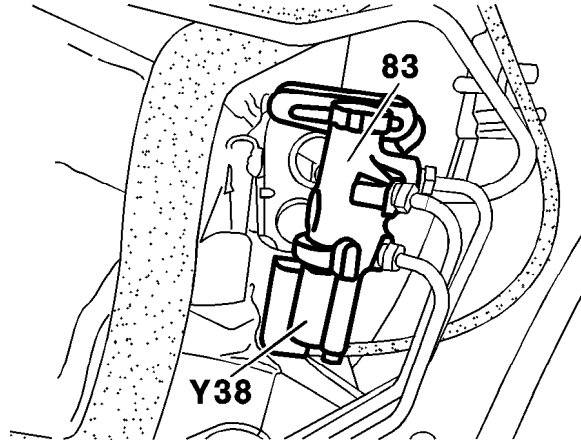


P35-5770-13

Figure 16

Model 202 Trunk

- X36/3 FP harness connector (2-pole)
- X62/11 ABS rear axle VSS sensor (2-pole)

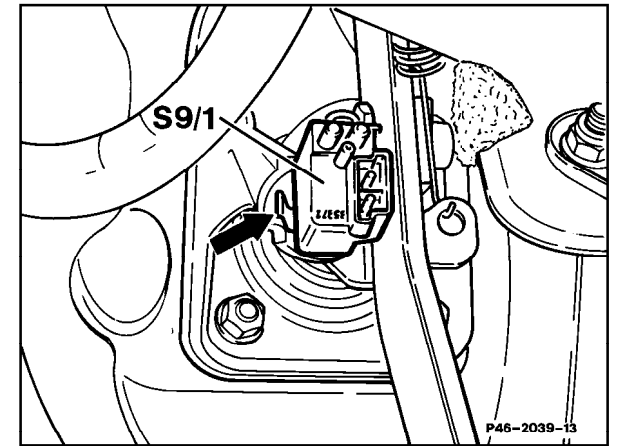


P35-5798-13

Figure 17

Model 202 Left front wheel arch

- Y38 ASD solenoid valve



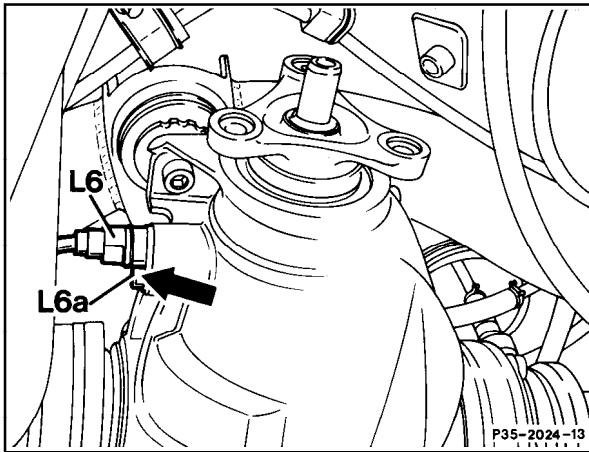
P46-2039-13

Figure 18

Pedal assembly, all models

- S9/1 Stop lamp switch (4-pole)

Electrical Test Program - Test

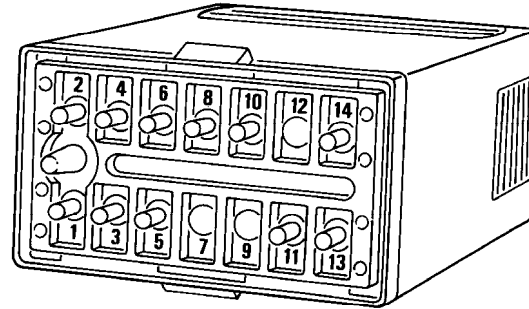


P35-2024-13

Figure 19

Rear axle center piece, all models

- L6 Rear axle VSS sensor
- L6a Rear axle VSS sensor mounting screw



P35-5537-13

Figure 20

ASD control module (N30/2) connections

- 1 Rear axle VSS sensor (L6)
- 2 ASD MIL (A1e24)
- 3 Right front axle VSS sensor (L6/2)
- 4 ASD warning lamp (A1e25)
- 5 Left front axle VSS sensor (L6/1)
- 6 Data link connector (X11/4)
- 7 Not used
- 8 Ground
- Model 124:** W10
- Model 129:** W16
- Model 201:** W10
- Model 202:** W16/4
- 9 Not used
- 10 ASD solenoid valve (Y38) (-)
- 11 Stop lamp switch (S9/1), N.O. contact
- 12 Not used
- 13 Circuit 61 voltage
- 14 Stop lamp switch (S9/1), N.C. contact and Circuit 87e voltage

Hydraulic Test Program - Component Locations

Hydraulic Components Locations  
Model 124 with engine 602

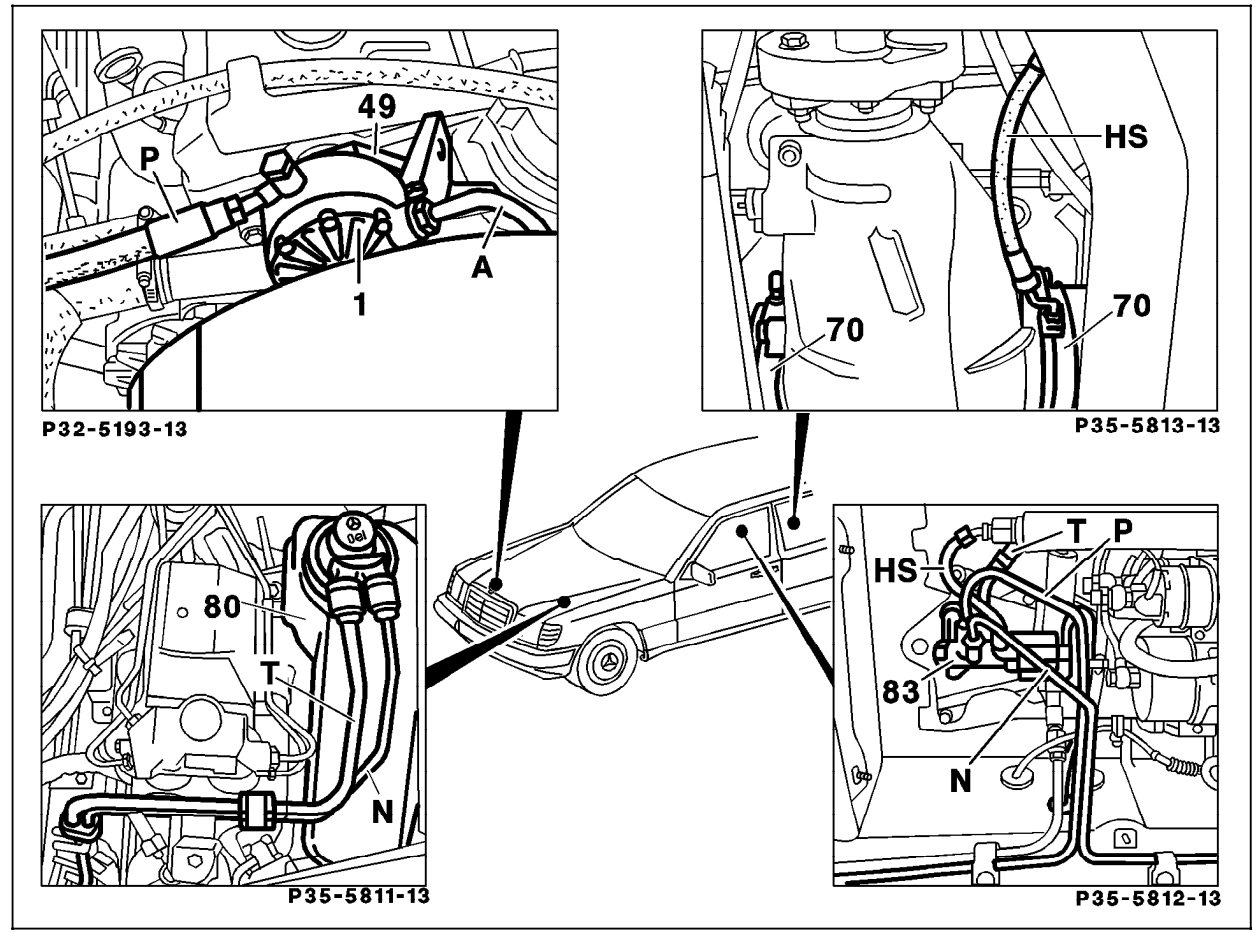


Figure 1

- 1 Hydraulic oil pump (camshaft driven)
- 70 Ring cylinder
- 80 Oil reservoir
- 83 Hydraulic unit without pressure reservoir
- A Suction line-from oil reservoir to pressure pump
- HS Pressure line from hydraulic unit to ring cylinder
- T Return line - hydraulic unit to oil reservoir
- N Without leveling function:  
Return line - hydraulic unit to oil reservoir  
With leveling function:  
Return line - leveling valve to oil reservoir
- P Pressure line - pressure pump to hydraulic unit

P35-5817-57

Hydraulic Test Program - Component Locations

Hydraulic Components Locations  
Model 124 with engines 104, 602.962

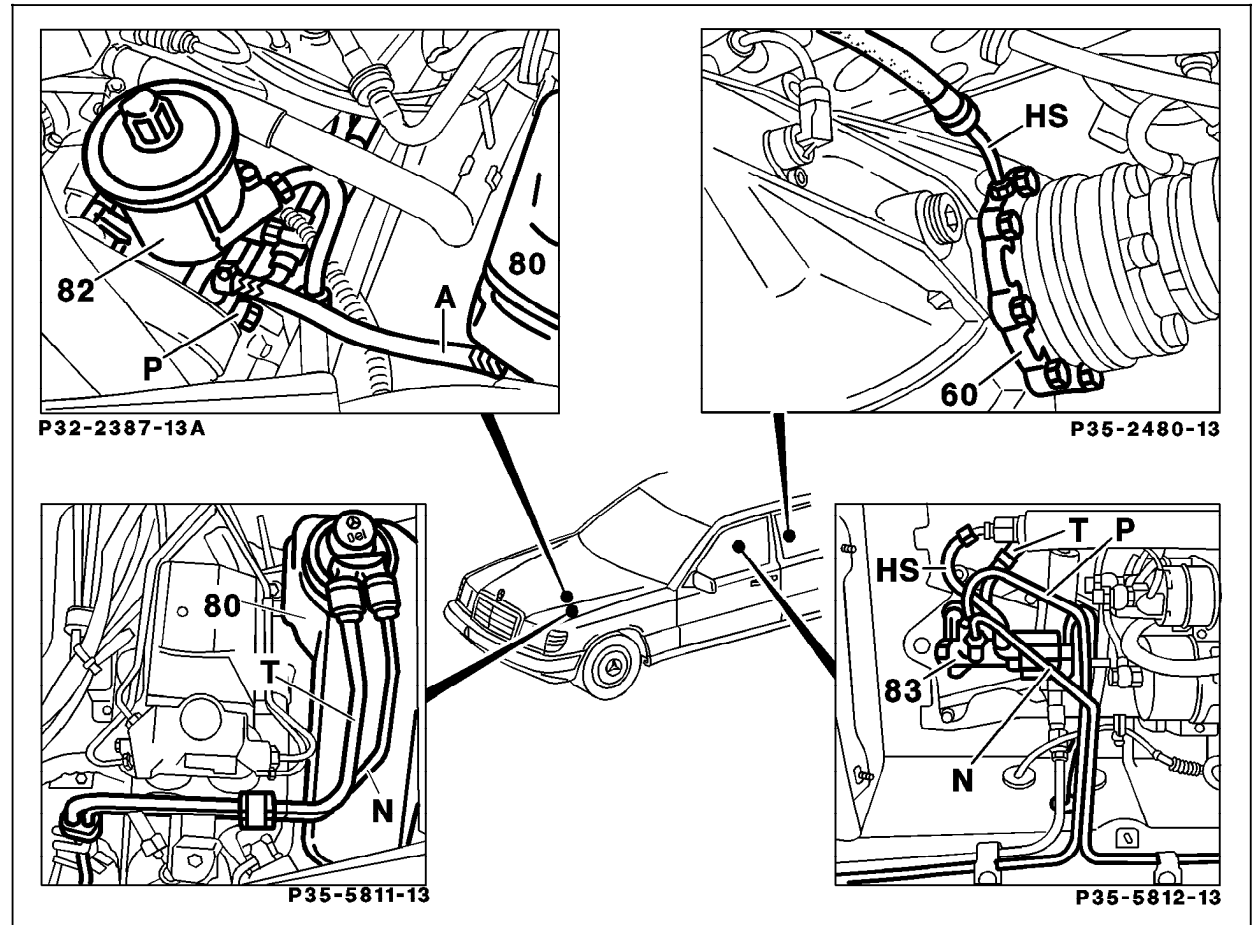


Figure 2

- 60 Bearing cover plate with ring cylinder (M104)
- 80 Hydraulic oil reservoir
- 82 Hydraulic tandem pump
- 83 Hydraulic unit without pressure reservoir
- A Suction line - oil reservoir to pressure pump
- HS Pressure line - hydraulic unit to ring cylinder
- T Return line - hydraulic unit to oil reservoir
- N Without leveling function:  
Return line - hydraulic unit to oil reservoir  
With leveling function:  
Return line - leveling valve to oil reservoir
- P Pressure line - pressure pump to hydraulic unit

P35-5818-57



Hydraulic Test Program - Component Locations

Hydraulic Components Locations  
Model 129.061

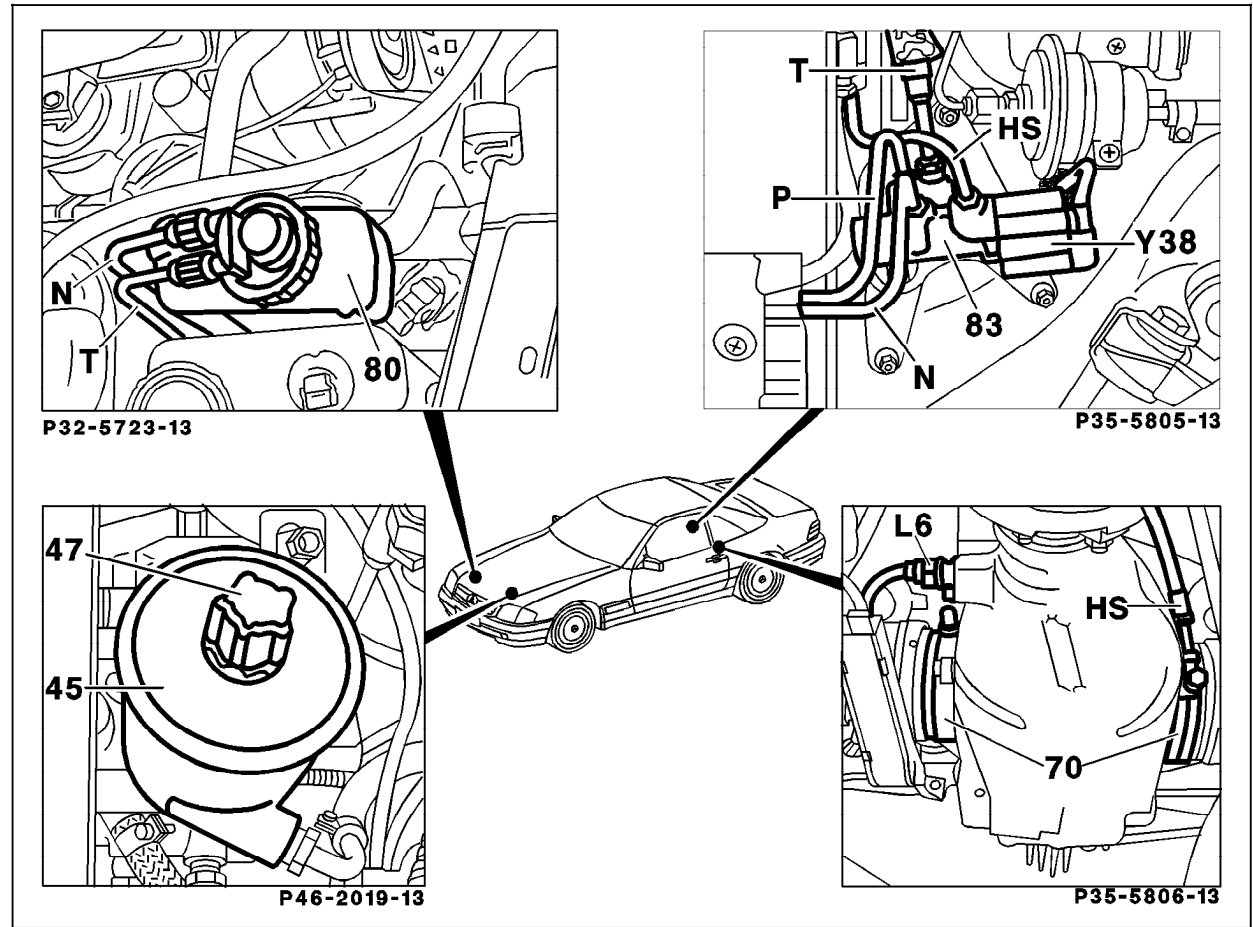


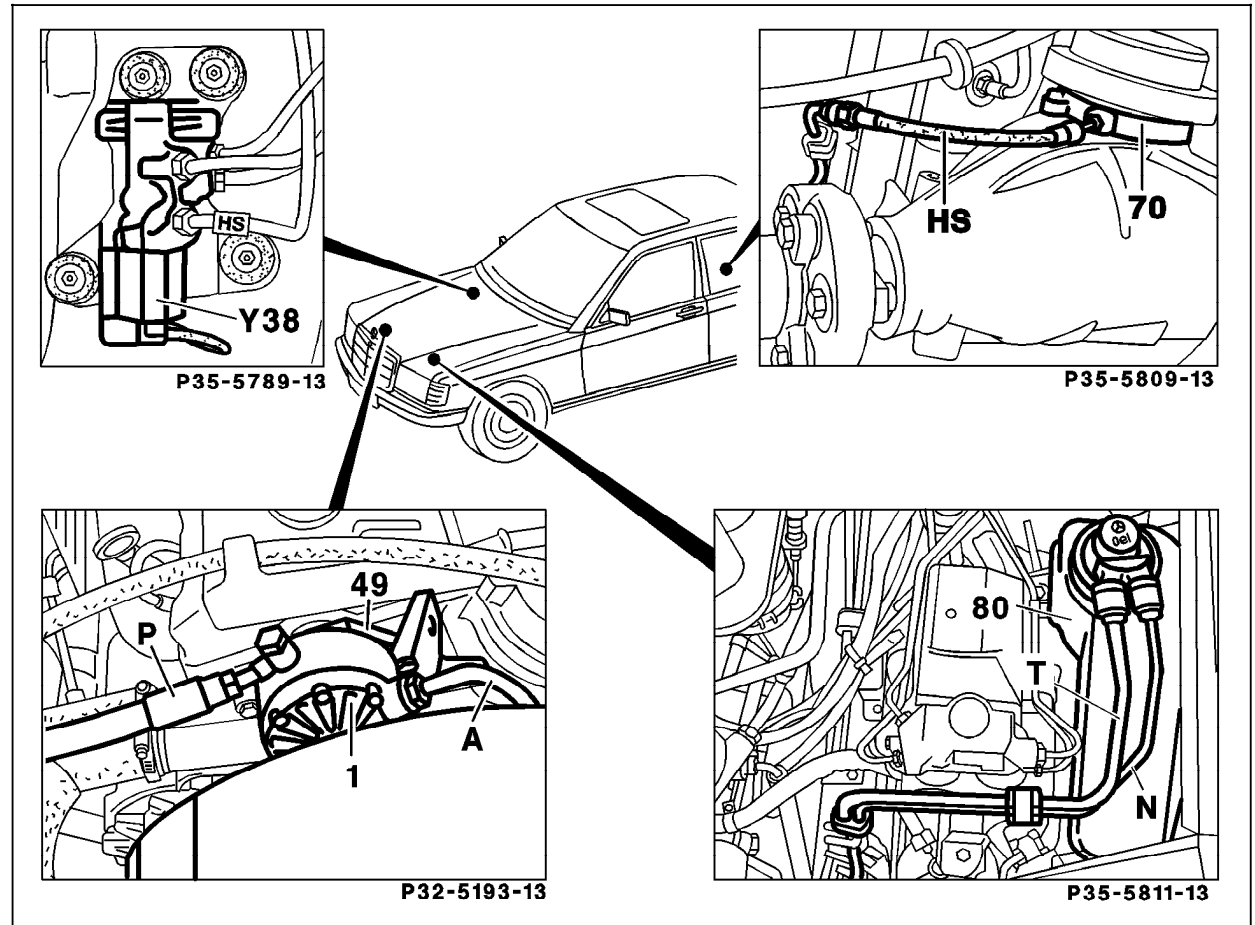
Figure 3

- 45 Tandem pump
- 70 Ring cylinder
- 80 Oil reservoir
- 83 Hydraulic unit without pressure reservoir
- L6 Rear axle vehicle speed sensor
- Y38 ASD valve
- HS Pressure line - hydraulic unit to ring cylinder
- T Return line - hydraulic unit to oil reservoir
- N Without leveling function:  
Return line - hydraulic unit to oil reservoir
- With leveling function:  
Return line - leveling valve to oil reservoir
- P Pressure line - pressure pump to hydraulic unit

P35-5819-57

Hydraulic Test Program - Component Locations

Hydraulic Components Locations  
Model 201 with engine 102



P35-5820-57

Figure 4

- 1 Hydraulic oil pump (camshaft driven)
- 70 Ring cylinder
- 80 Oil reservoir
- 83 Hydraulic unit without pressure reservoir
- A Suction line - oil reservoir to pressure pump
- HS Pressure line - hydraulic unit to ring cylinder
- T Return line - hydraulic unit to oil reservoir
- N Without leveling function:  
Return line - hydraulic unit to oil reservoir
- With leveling function:  
Return line - leveling valve to oil reservoir
- P Pressure line - pressure pump to hydraulic unit

Hydraulic Test Program - Component Locations

Hydraulic Components Locations  
Model 201 with engine 103

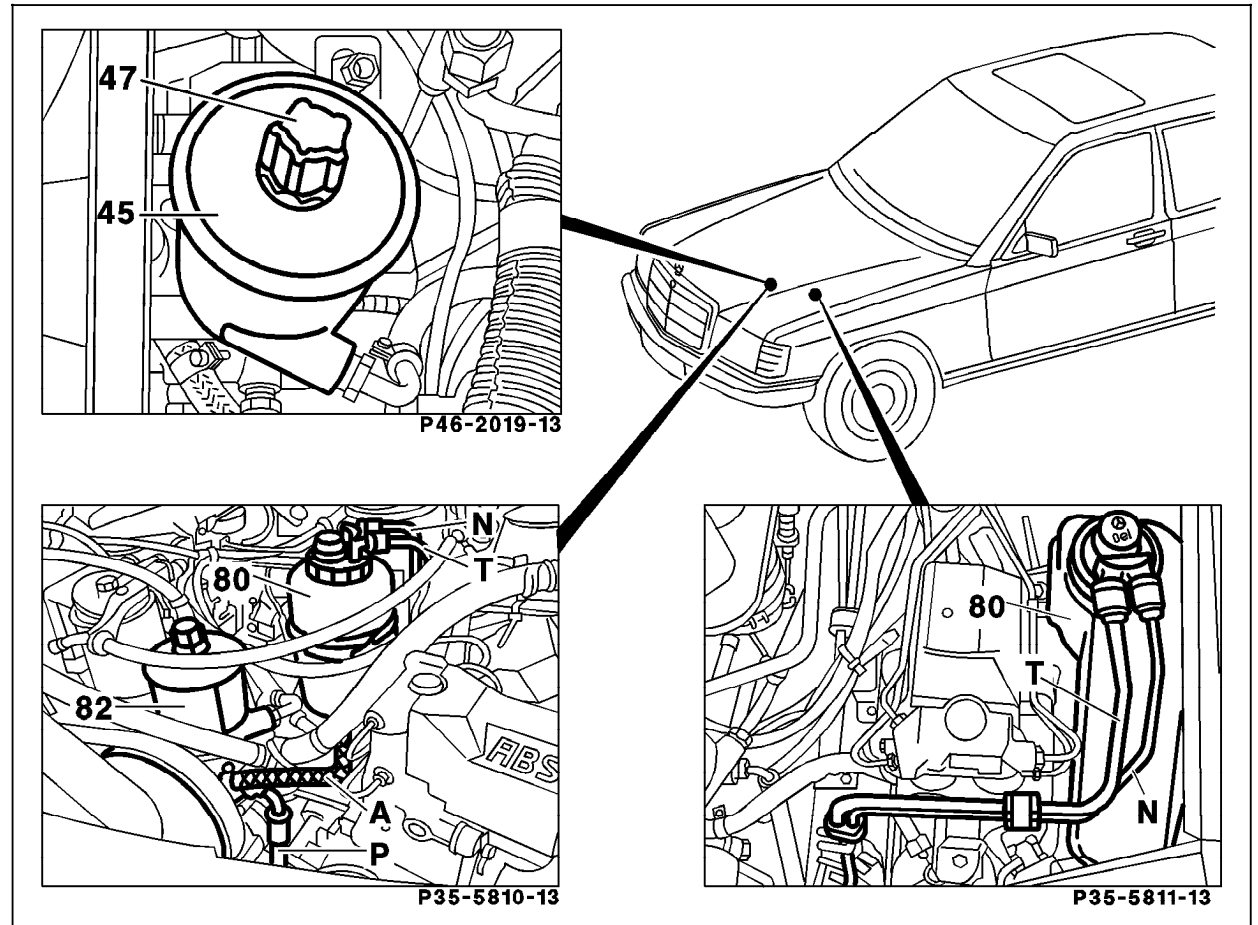


Figure 5

- 45 Tandem pump
- 80 Oil reservoir
- A Suction line - oil reservoir to pressure pump
- T Return line - hydraulic unit to oil reservoir
- N Without leveling function:  
Return line - hydraulic unit to oil reservoir  
With leveling function:  
Return line - leveling valve to oil reservoir
- P Pressure line - pressure pump to hydraulic unit

P35-5821-57

Hydraulic Test Program - Component Locations

Hydraulic Components Locations  
Model 202

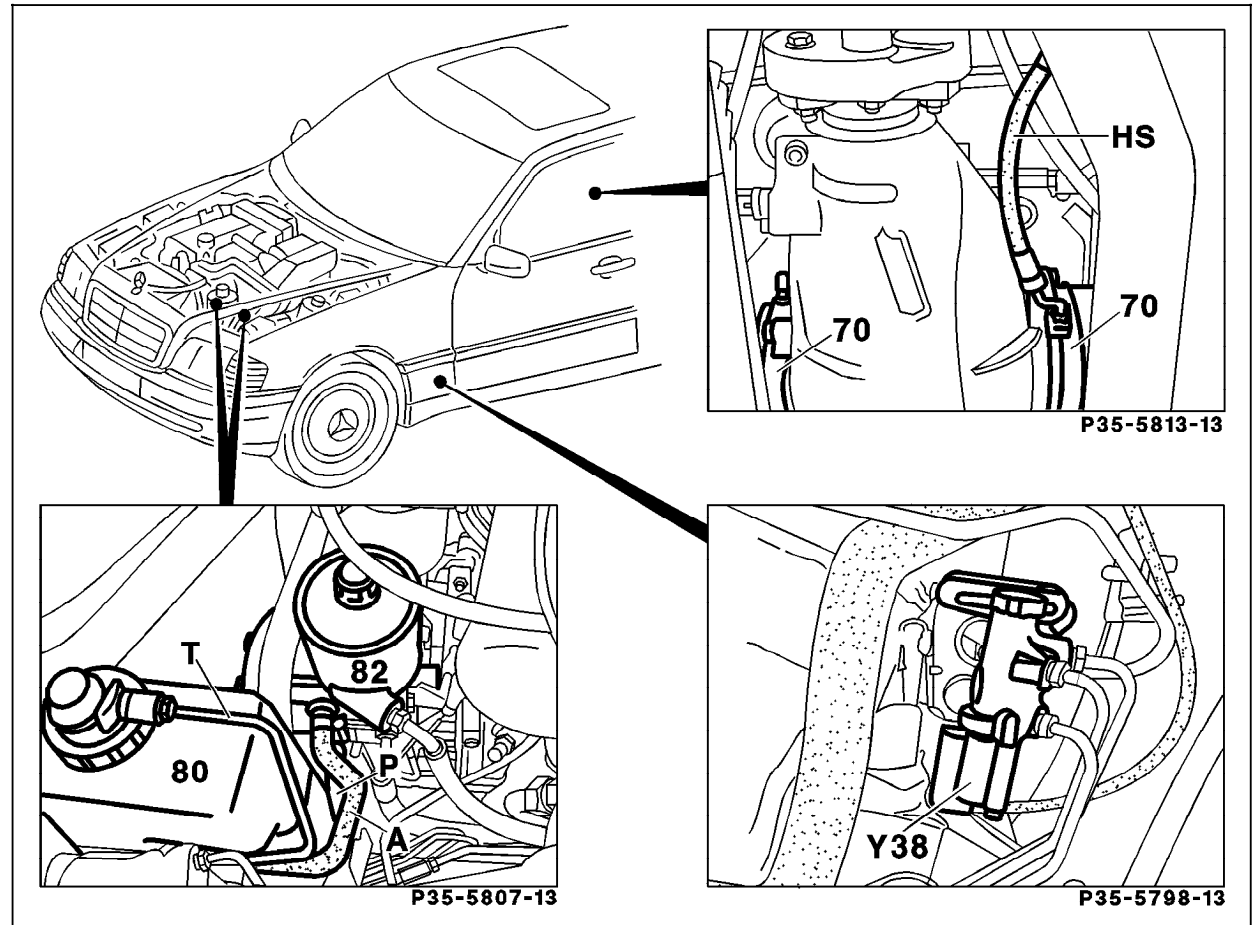


Figure 6

- 70 Ring cylinder
- 80 Oil reservoir
- 82 Tandem pump
- 83 Hydraulic unit without pressure reservoir
- A Suction line - oil reservoir to pressure pump
- HS Pressure line - hydraulic unit to ring cylinder
- T Return line - hydraulic unit to oil reservoir
- N Without leveling function:  
Return line - hydraulic unit to oil reservoir
- With leveling function:  
Return line - leveling valve to oil reservoir
- P Pressure line - pressure pump to hydraulic unit

P35-5822-57

Hydraulic Test Program - Preparation for Test

Preparation for Test

1. Ignition: **OFF**
2. Check oil level in oil reservoir and correct if necessary.
3. Remove plastic cover.
4. Remove ASD control module.
5. Bridge socket 8 and socket 10 at the electrical connector for ASD control module.
6. Connect the pressure test tool to the ring cylinder as per the connection diagram.

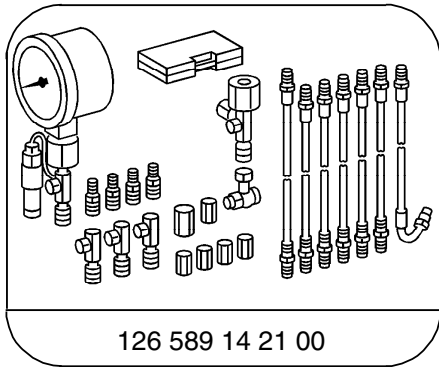
**Note:**

Depending on accessibility, the pressure test tool can be installed on either the right vent screw or the left “HS” line.

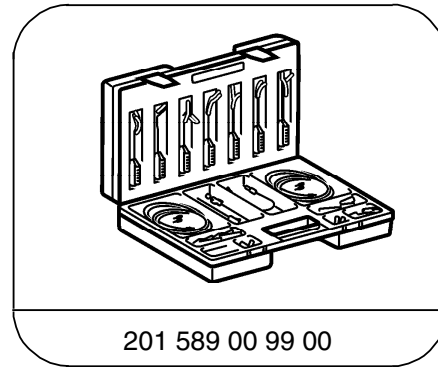
**Note:**

Checking hydraulic pump: Model 129, 140: 3.2 32 (ADS)  
 Model 124, 201, 202: See SMS, Job no. 32-0530

Special Tools



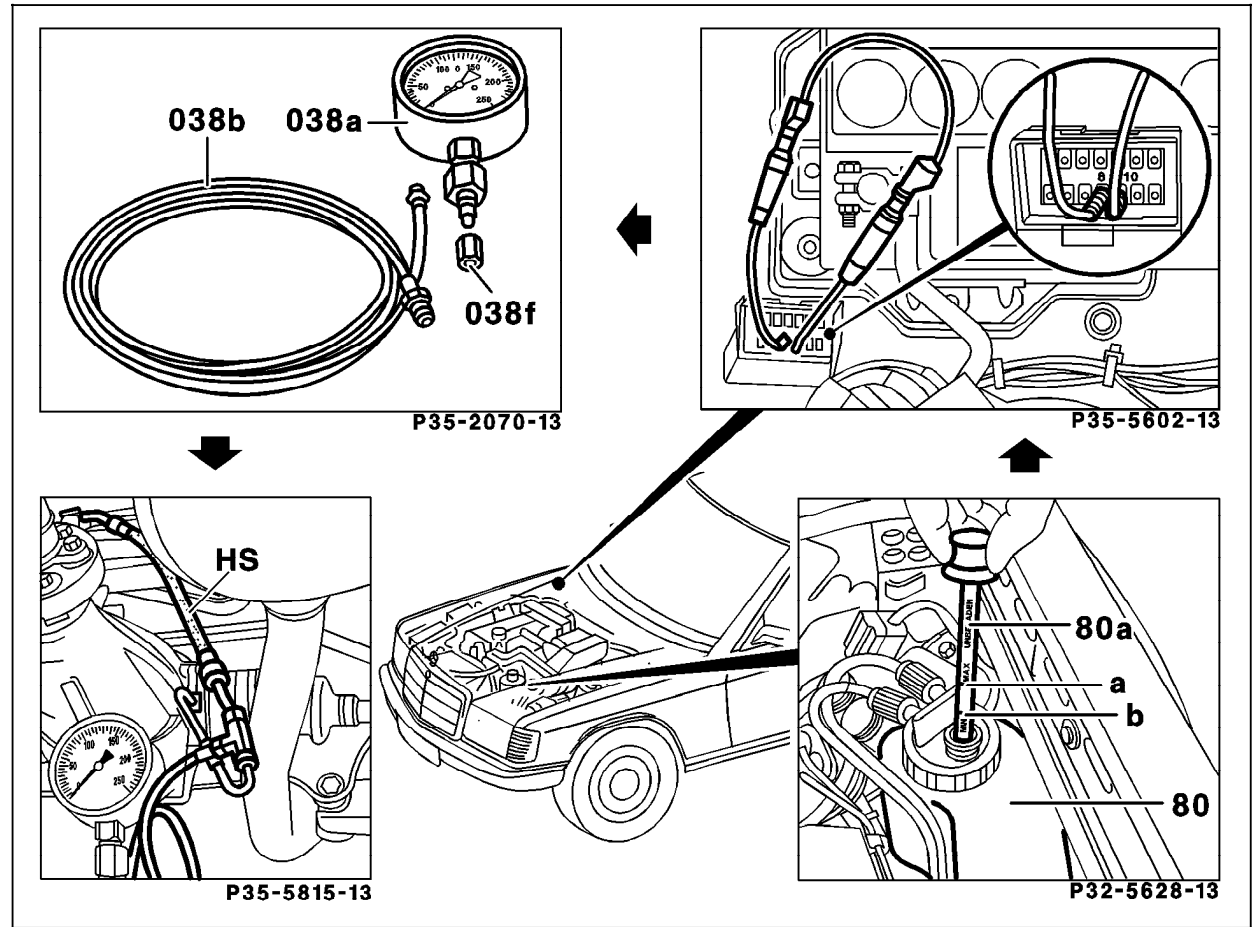
Tester



Electrical connecting set

Hydraulic Test Program - Preparation for Test

Connection Diagram - Pressure Test Tool  
(Model 201 shown)



P35-5823-57

Figure 1

- 80 Oil reservoir
- 80a Oil reservoir dip stick
- a Maximum oil level
- b Minimum oil level
- HS Pressure line

Hydraulic Test Program - Test

Test step	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 1.0	<b>Pressure test</b>	⊗ 250 bar at ring cylinder	Engine: <b>Start</b>	50 – 63 bar	Checking pressure pump: <b>Model 140:</b> 3.2 32. <b>Models 124, 129, 201, 202:</b> SMS, Repair Instructions, Job. no. 32-0530.

Mechanical Test Program - Component Locations

Component Locations  
(Model 129 shown)

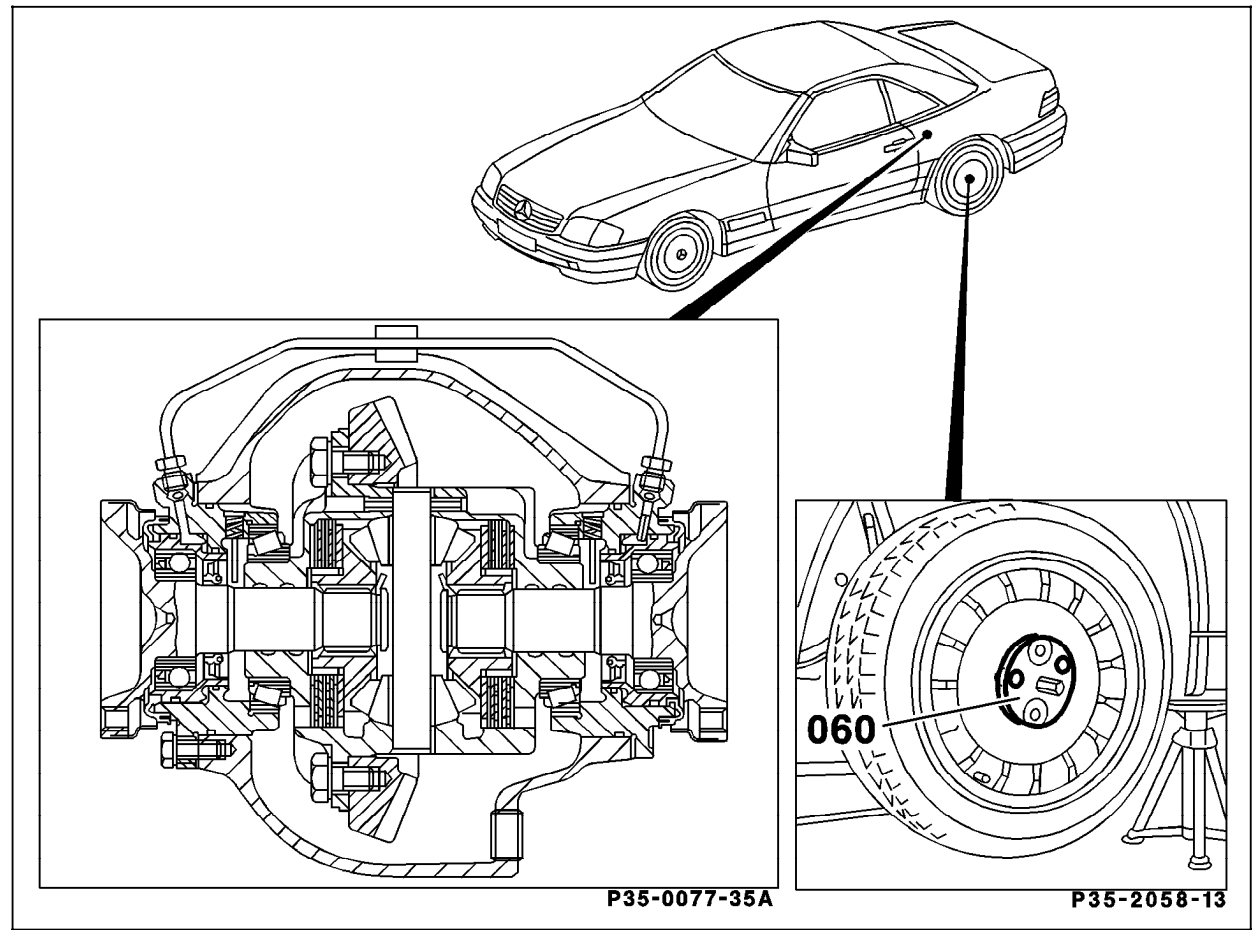


Figure 1

060 Frictional torque measurement adaptor plate

P35-5824-57

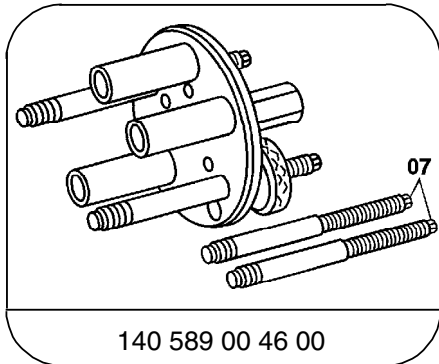


### Mechanical Test Program - Preparation for Test

#### Preparation for Test

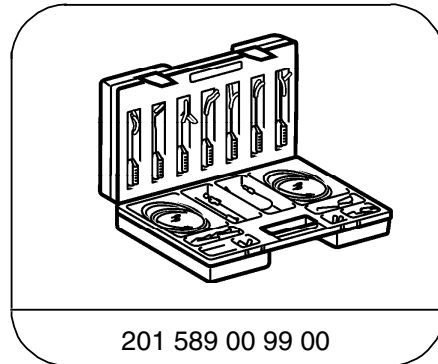
1. Ignition: **OFF**
2. Check oil level in oil reservoir, correct if necessary.
3. Lift vehicle at rear on one side.
4. Attach frictional torque measurement adaptor plate (Figure 1) using two opposing wheel bolts on raised wheel. Screw studs with shorter threads into the rear axle shaft flange until they bottom out. Slide frictional torque measurement adaptor plate over studs and tighten knurled nuts by hand.
5. Disconnect ASD control module (N30/2).
6. Bridge sockets 8 and 10 on ASD control module (N30/2) connector.

#### Special Tools



140 589 00 46 00

Drive flange



201 589 00 99 00

Electrical connecting set

#### Equipment

Torque Wrench  
Range: 16 – 65 Nm  
80 – 260 Nm

Local Purchase

Mechanical Test Program - Test

Frictional Torque Measurement  
Shown on Model 201

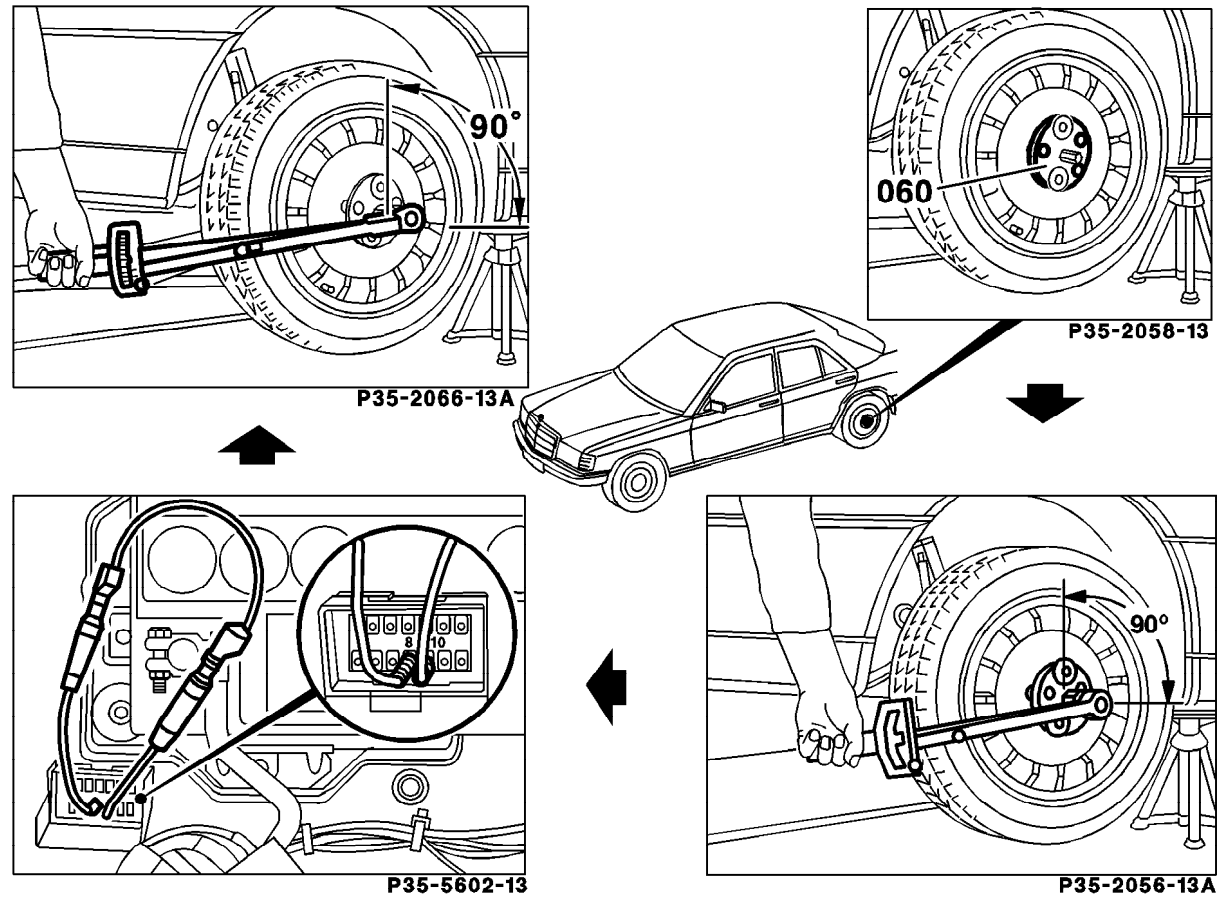



Figure 1  
060 Frictional torque measurement adaptor plate

P35-5825-57

Mechanical Test Program - Test

Test step	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 1.0	<b>Mechanical disengaged frictional torque</b>	Torque wrench (15 – 65 Nm)	Turn torque wrench through 90° (see 42, Figure 1, step 2).	See ⇒ 2.0	⇒ 2.0
⇒ 2.0	<b>Mechanical engaged frictional torque</b>	<p style="text-align: center;">N30/2                        8      ←(---)→      10</p> <p>Torque wrench (80 – 260 Nm)</p>	<p>Disconnect ASD control module(N30/2). (see 42, Figure 1, step 3).</p> <p>Return wheel to its starting position in ⇒ 1.0 (see 42, Figure 1, step 2).</p> <p>Engine: <b>at idle</b>                      Pressure within hydraulic system: 50 – 63 bar. (see 33 ⇒ 1.0)</p> <p>Turn torque wrench through 90° (see 42 figure 1, step 4).                      Observe and record the value.</p>	<p>Measured frictional torque in ⇒ 2.0 <b>minus</b> measured frictional torque in ⇒ 1.0 should be &gt; 100 Nm.</p>	<p>If frictional torque difference is &lt; 100 Nm, replace rear axle center piece.</p>