

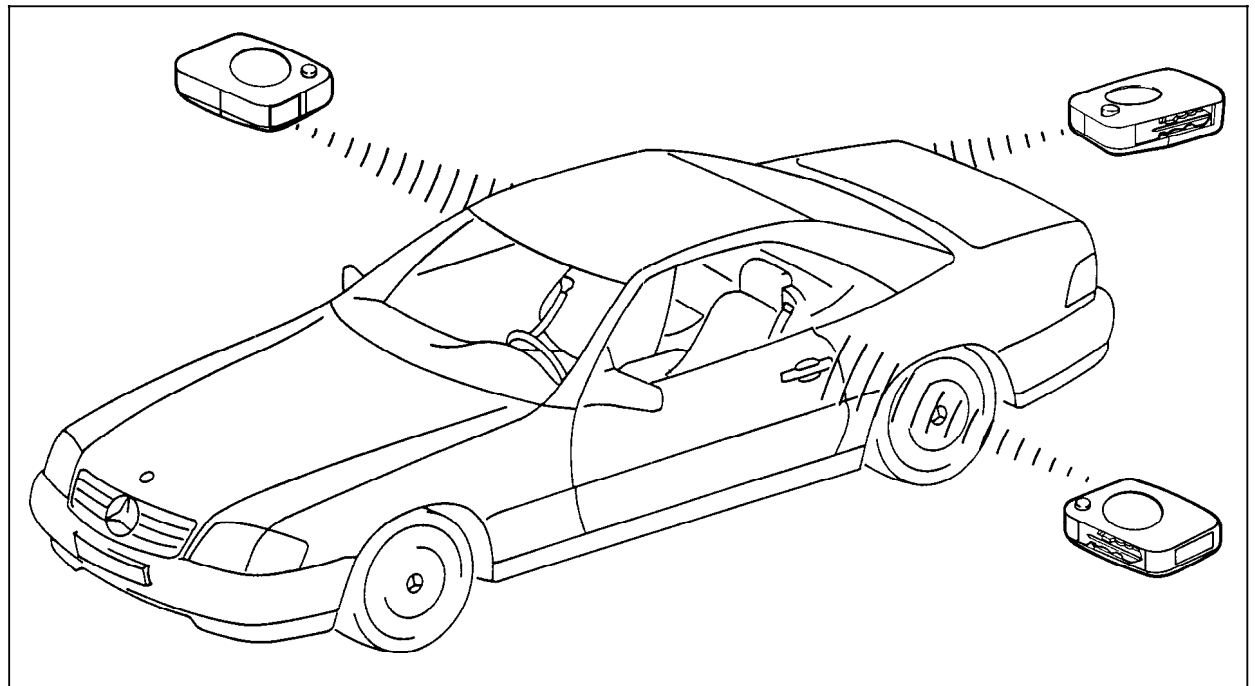
4.1 Model 129 up to M.Y. 1995

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Diagnosis – Function Test

Preliminary work:

- Check operation of central locking,
see SMS, Repair Instructions, Job No. 80-090
- Check batteries in infrared transmitter key,
see SMS, Repair Instructions, Job No. 80-420



P80-0028-55

Figure 1

Diagnosis – Function Test

Preparation for Test:

1. Battery voltage 11 – 14 V,
2. Fuse F1–C, F1–8, F20–4 and F20–6 ok,
3. Central locking system in proper operating condition,
4. Batteries in key holder (infrared transmitter) ok,
5. Infrared transmitter synchronized (see note below),
6. Key removed from steering lock,
7. Side windows lowered approx. 100 mm (4 in.),
8. Doors and trunk lid closed,
9. Central locking system unlocked.

Electrical wiring diagrams

See Electrical Troubleshooting Manual, Model 129.

Note for models as of 12/93:

If an IR transmitter is lost, it can be disabled from controlling the IRCL system by de-synchronizing the IRCL control module and then resynchronizing (recoding) the remaining IR transmitter(s). Thus, only the mechanical locks need to be replaced to assure vehicle security.

De-synchronizing/Re-synchronizing Infrared Signal for IRCL

De-synchronizing (as of 12/93 production only)

1. Ground the IRCL pin in the data link connector (X11/4) for 30 - 40 seconds with the ignition **ON**.
2. De-synchronization can also be performed with the impulse counter scan tool by connecting the scan tool to the data link connector (see section 0), turning the ignition **ON** and pressing the start button for 30 - 40 seconds.
3. The HHT can be used as well by following the menu-driven commands.

Re-synchronizing (as of 12/93 production only)

1. To synchronize the infrared transmitter, point the infrared transmitter toward a receiver and press button momentarily. Using the mechanical key, switch on ignition within 30 seconds. This will synchronize and enable the control module to recognize the infrared transmitter.

Diagnosis – Function Test

Test step/Test scope	Test condition	Nominal value	Possible cause/Remedy ¹⁾
⇒ 1.0 Locking of vehicle with infrared remote control via left front door receiver (A26/1).	Lock vehicle using IR transmitter via the left front door.	Vehicle is locked. All red indicator lamps blink for a maximum of approx. 3 seconds (vehicles up to 11/93). Red indicator lamp of receiver in left front door blinks for a maximum of approx. 3 seconds (vehicles as of 12/93).	23 ⇒ 1.0 – 10.0
⇒ 2.0 Unlocking of vehicle with infrared remote control via left front door receiver (A26/1).	Unlock vehicle using IR transmitter via the left front door.	Vehicle is unlocked. All green indicator lamps blink for a maximum of approx. 3 seconds (vehicles up to 11/93). Green indicator lamp of receiver in left front door blinks for a maximum of approx. 3 seconds (vehicles as of 12/93).	23 ⇒ 1.0 – 10.0
⇒ 3.0 Locking of vehicle with infrared remote control via right front door receiver (A26/2).	Lock vehicle using IR transmitter via the right front door.	Vehicle is locked. All red indicator lamps blink for a maximum of approx. 3 seconds (vehicles up to 11/93). Red indicator lamp of receiver in right front door blinks for a maximum of approx. 3 seconds (vehicles as of 12/93).	23 ⇒ 1.0 – 10.0

¹⁾ Observe Preparation for Test, see 22.

Diagnosis – Function Test

Test step/Test scope	Test condition	Nominal value	Possible cause/Remedy ¹⁾
⇒ 4.0 Unlocking of vehicle with infrared remote control via right front door receiver (A26/2).	Unlock vehicle using IR transmitter via the right front door.	Vehicle is unlocked. All green indicator lamps blink for a maximum of approx. 3 seconds (vehicles up to 11/93). Green indicator lamp of receiver in right front door blinks for a maximum of approx. 3 seconds (vehicles as of 12/93).	23 ⇒ 1.0 – 10.0
⇒ 5.0 Locking of vehicle with infrared remote control via trunk lid receiver (A26/3).	Lock vehicle using IR transmitter via the trunk lid.	Vehicle is locked. All red indicator lamps blink for a maximum of approx. 3 seconds (vehicles up to 11/93). Red indicator lamp of receiver in trunk lid blinks for a maximum of approx. 3 seconds (vehicles as of 12/93).	23 ⇒ 1.0 – 10.0
⇒ 6.0 Unlocking of vehicle with infrared remote control via trunk lid receiver (A26/3).	Unlock vehicle using IR transmitter via the trunk lid.	Vehicle is unlocked. All green indicator lamps blink for a maximum of approx. 3 seconds (vehicles up to 11/93). Green indicator lamp of receiver in trunk lid blinks for a maximum of approx. 3 seconds (vehicles as of 12/93).	23 ⇒ 1.0 – 10.0

¹⁾ Observe Preparation for Test, see 22.

Diagnosis – Function Test

Test step/Test scope	Test condition	Nominal value	Possible cause/Remedy ¹⁾
⇒ 7.0 Close side windows with infrared remote control.	Point IR transmitter towards one of the IR receivers and press transmit button for > 1 second.	Side windows close.	23 ⇒ 1.0 – 10.0
⇒ 8.0 Indication of an improperly closed door or trunk lid (vehicles up to 11/93).	Open one of the doors or the trunk lid. Lock vehicle using IR transmitter	Red indicator blinks for approx. 10 seconds.	23 ⇒ 1.0 – 10.0
⇒ 9.0 Activate immobilization (vehicles as of 12/93) .	Lock vehicle using IR transmitter. Try to start engine.	Starter motor does not turn. Engine does not start.	23⇒ 11.0 Wiring, Starter lock-out relay module (K38).
⇒ 10.0 Deactivate immobilization (vehicles as of 12/93) .	Unlock vehicle using IR transmitter. Try to start engine.	Starter motor turns. Engine starts.	23⇒ 11.0 Wiring, Circuit 15, Circuit 50, Starter lock-out relay module (K38), Ignition starter switch (S2/1), Starter (M1).

¹⁾ Observe Preparation for Test, see 22.

Diagnosis - Diagnostic Trouble Code (DTC) Memory

Preliminary work:
Function check 11

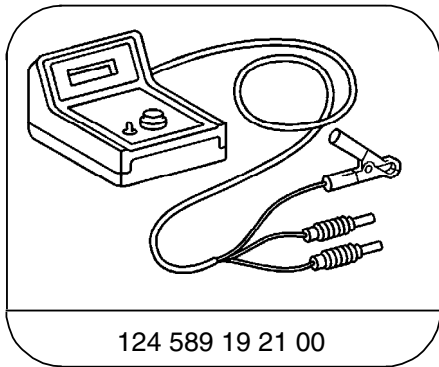
Preparation for Test:

- Connect impulse counter according to diagram, see section 0.
Read out Diagnostic Trouble Codes (DTC's) and record.

Electrical wiring diagrams

See Electrical Troubleshooting Manual, Model 129, Volume 2.

Special Tools



Pulse counter

Diagnosis - Diagnostic Trouble Code (DTC) Memory

Diagnostic Trouble Code (DTC) Readout, Infrared Remote Central Locking (IRCL) Control Module

Diagnostic trouble code (DTC)	Possible cause	Test step/Remedy ¹⁾
1	No malfunction in memory.	²⁾
2	IRCL control module (N54).	Replace.
3	Supply pump, central locking system (M14/1 or M14/2), short to circuit 31 (ground).	23 ⇒ 2.0
4	Left front door IR receiver (A26/1). Right front door IR receiver (A26/2). Trunk lid IR receiver (A26/3). Red indicator lamps, short to circuit 31	23 ⇒ 3.0 23 ⇒ 4.0 23 ⇒ 5.0
5	Left front door IR receiver (A26/1). Right front door IR receiver (A26/2). Trunk lid IR receiver (A26/3). Green indicator lamps, short to circuit 31	23 ⇒ 3.2 23 ⇒ 4.2 23 ⇒ 5.2
6	Supply pump, central locking system (M14/1), short to circuit 30	23 ⇒ 2.1
7	Left front door IR receiver (A26/1). Right front door IR receiver (A26/2). Trunk lid IR receiver (A26/3). Red indicator lamps, short to circuit 30 or open circuit.	23 ⇒ 3.1 23 ⇒ 4.1 23 ⇒ 5.1

¹⁾ Observe Preparation for Test, see 22.

²⁾ If the diagnostic trouble code "1" (no malfunction in memory) appears, but the vehicle cannot be locked or unlocked from either door or trunk lid, perform Function Test, Test steps 1 – 6 with the second infrared transmitter. If the infrared remote control functions with the second transmitter, replace the first transmitter. If the infrared remote control does not function with the second transmitter, perform "Test" (23) using the socket box.

Diagnosis - Diagnostic Trouble Code (DTC) Memory

Diagnostic Trouble Code (DTC) Readout, Infrared Remote Central Locking (IRCL) Control Module

Diagnostic trouble code (DTC)	Possible cause	Test step/Remedy ¹⁾
8	Left front door IR receiver (A26/1). Right front door IR receiver (A26/2). Trunk lid IR receiver (A26/3). Green indicator lamps, short to circuit 30 or open circuit.	23 ⇒ 3.3 23 ⇒ 4.3 23 ⇒ 5.3
9	Left door switch group (S86) wiring, short to circuit 30 ATA/CF microswitch (S87s1) wiring, short to circuit 30 ATA/CF microswitch (S88s1) wiring, short to circuit 30	23 ⇒ 6.0 23 ⇒ 6.1 23 ⇒ 6.2
10	Ignition/starter switch - position recognition switch (S2/1s2) open circuit.	23 ⇒ 7.0
11	Ignition/starter switch - position recognition switch (S2/1s2) short to circuit 31	23 ⇒ 7.1
12	Left front door actuator (S47) open circuit.	23 ⇒ 8.0
13	Right front door actuator (S48) open circuit.	23 ⇒ 9.0
14	Trunk lid lock actuator (S49) open circuit.	23 ⇒ 10.0
15	Immobilization output, short to circuit 30	23 ⇒ 11.0

¹⁾ Observe Preparation for Test, see 22.

Electrical Test Program – Component Locations

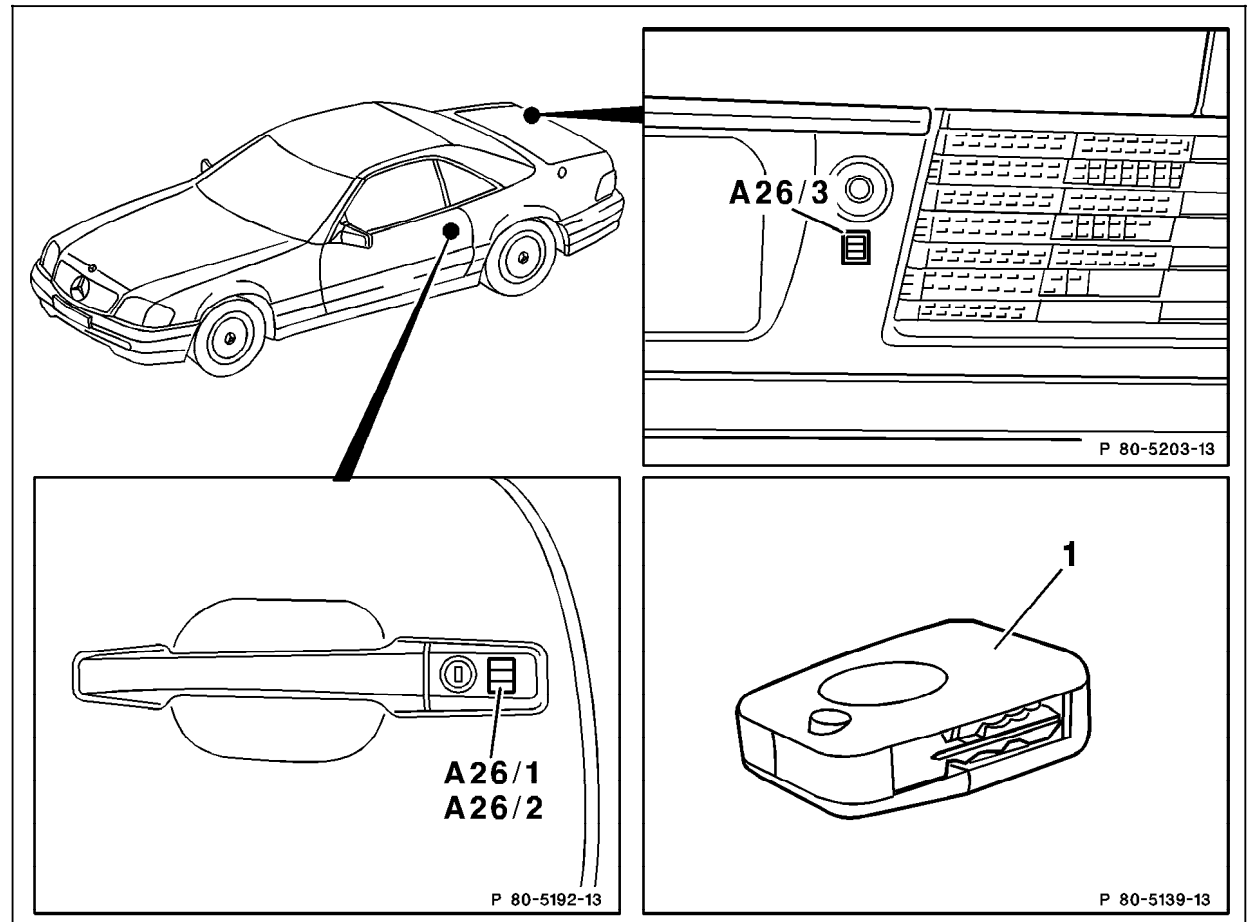


Figure 1

- 1 Infrared transmitter
- A26/1 Left front door IR receiver
- A26/2 Right front door IR receiver
- A26/3 Trunk lid IR receiver

P80-5181-57

Electrical Test Program – Component Locations

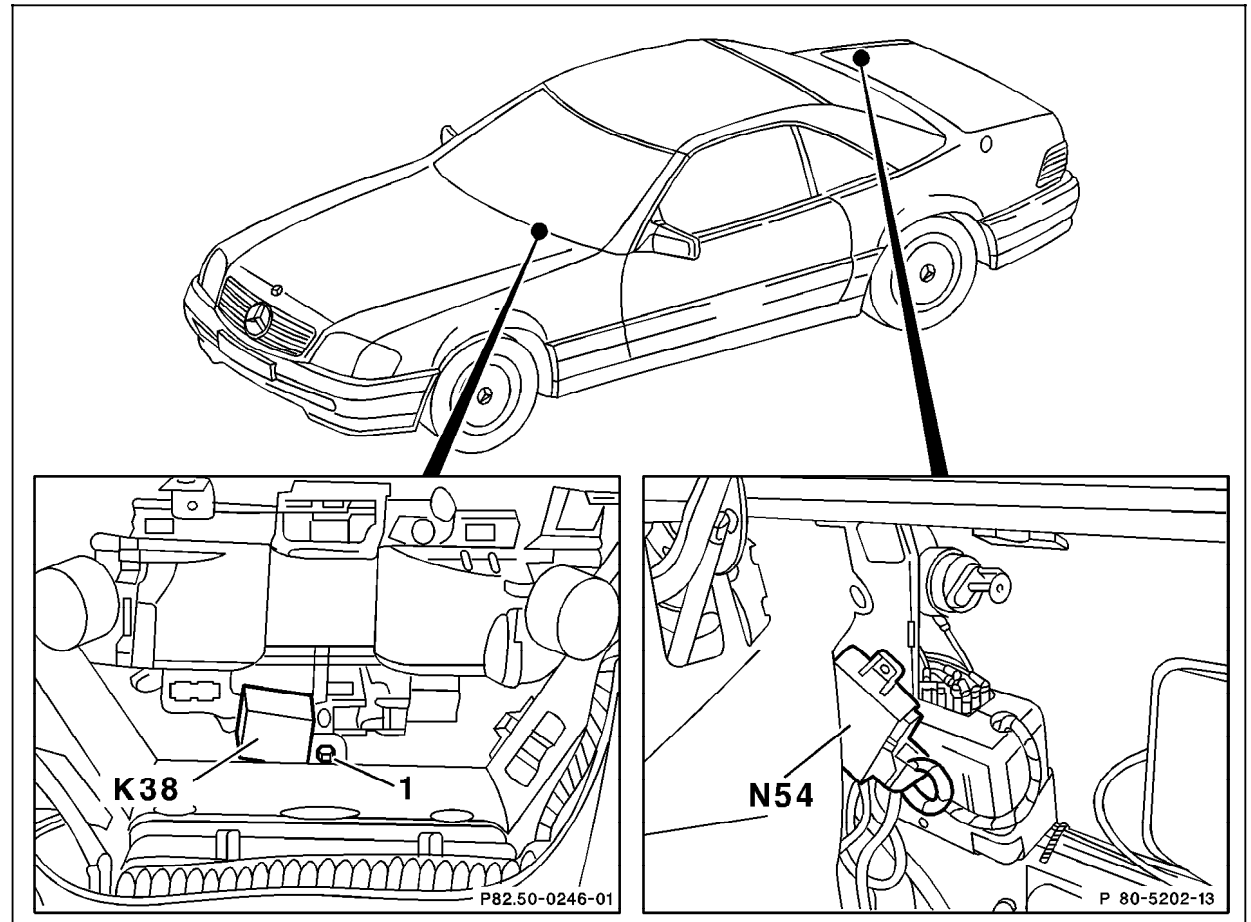
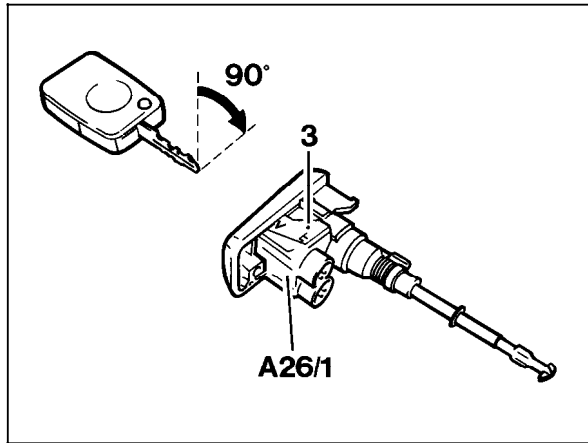


Figure 2

- K38 Starter lock-out relay module
- N54 IRCL control module

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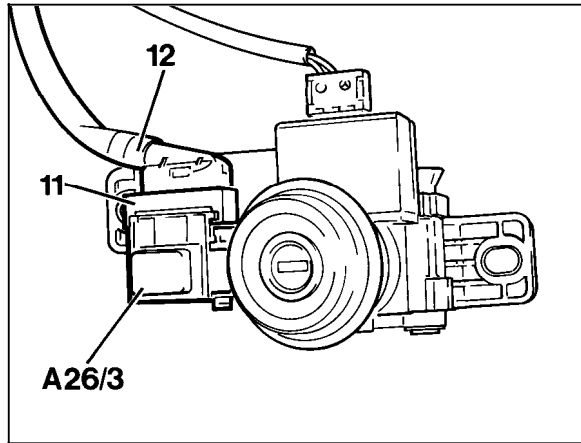
Electrical Test Program – Component Locations



P80-2039-13

Figure 3

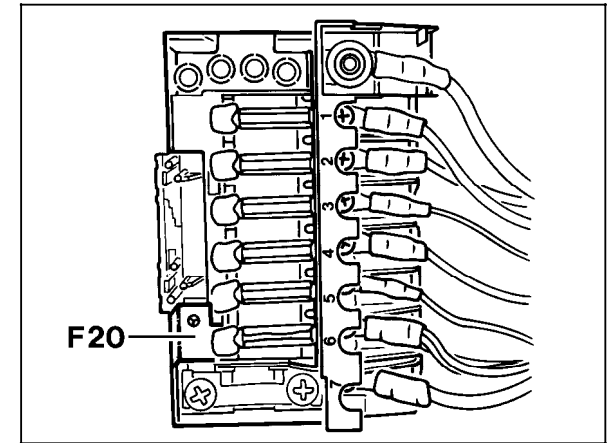
- A26/1 Left front door IR receiver
- A26/2 Right front door IR receiver
(mirror image of left shown)



P80-2040-13

Figure 4

- A26/3 Trunk lid IR receiver



P80-2035-13

Figure 5

- F20 Auxiliary fuse holder (trunk)

Electrical Test Program – Component Locations

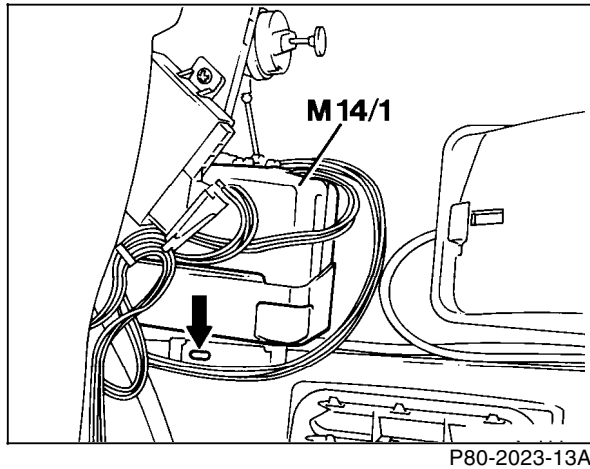


Figure 6

M14/1 Supply pump (CL/vacuum)

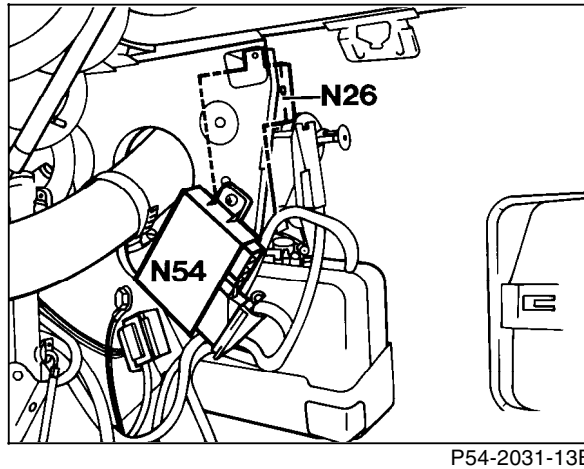


Figure 7

N26 ATA control module
N54 IRCL control module

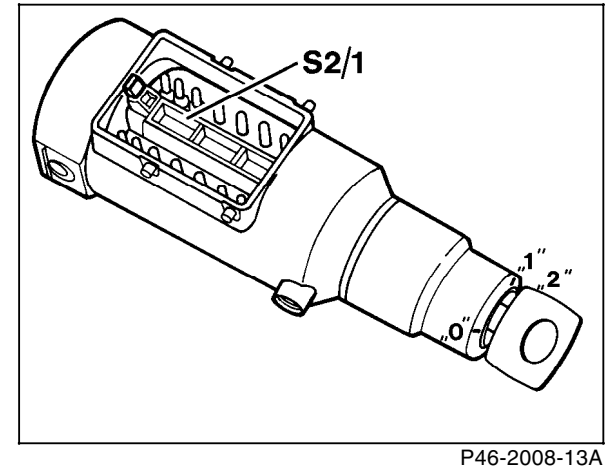


Figure 8

S2/1 Ignition/starter switch

Electrical Test Program - Preparation for Test

Preliminary work:

Diagnosis - Diagnostic Trouble Code (DTC) Memory 12

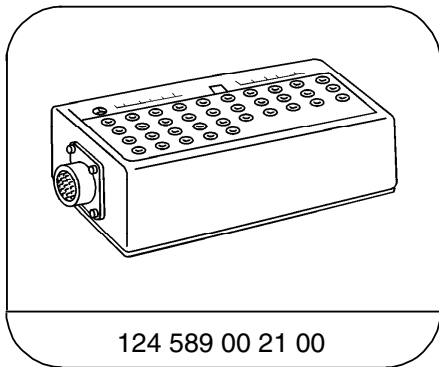
Preparation for Test:

- Provide access to IRCL control module (N54).
- Provide access to supply pump, central locking system (M14/1 or M14/2)
- Connect socket box with test cable according to connection diagram, see 22 Figure 1.

Electrical wiring diagrams

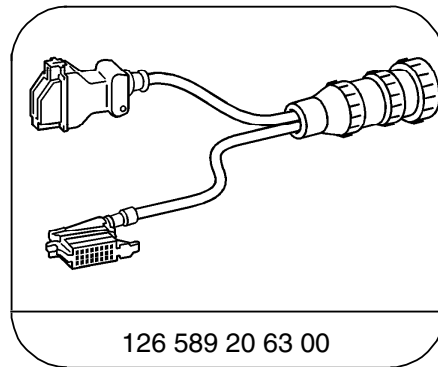
See Electrical Troubleshooting Manual, Model 129, Volume 2.

Special Tools



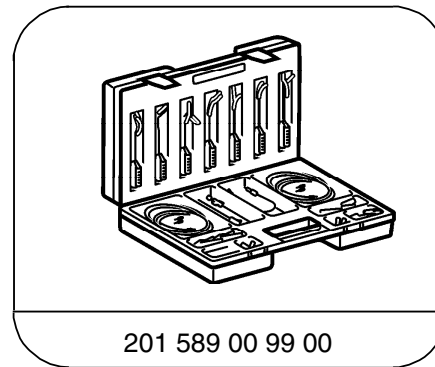
124 589 00 21 00

35-pin socket box



126 589 20 63 00

27-pin test cable



201 589 00 99 00

Electrical connecting set

Equipment

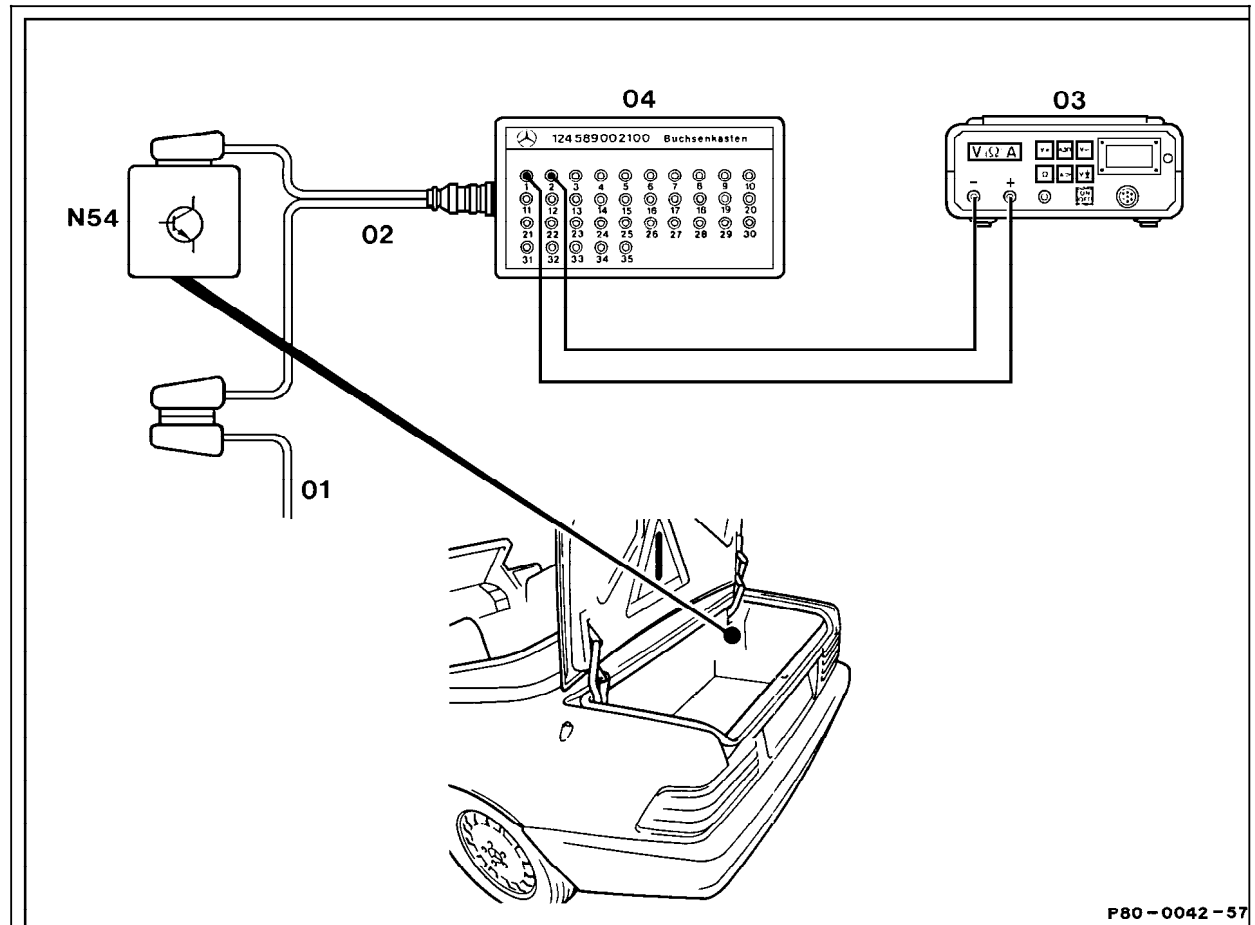
Multimeter ¹⁾

Fluke models 23, 83, 85, 87

¹⁾ Available through the MBUSA Standard Equipment Program.

Electrical Test Program - Preparation for Test

Connection Diagram - Socket Box










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


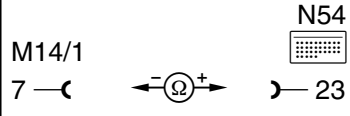
Figure 1

- 001 IRCL control module connector
- 002 Test cable
- 003 Multimeter
- 004/050 Socket box
- N54 IRCL control module

Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
1.0		<p>Voltage supply (circuit 30)</p> <p>Ground (right wheelhousing in trunk) W7</p> <p>Wiring (circuit 30)</p> <p>Voltage supply (circuit 15)</p>	<p>N54  27 —(←(V)→)— 9</p> <p>W7  ←(Ω)→)— 27</p> <p>F20-6  Cir. 30 ←(Ω)→)— 9</p> <p>N54  27 —(←(V)→)— 14</p>	<p>Disconnect ground wire from m.</p> <p>Ignition: ON</p>	<p>11 – 14 V</p> <p>< 1 Ω</p> <p>< 1 Ω</p> <p>11 – 14 V</p>	<p>F20-6 (auxiliary fuse holder in trunk)</p> <p>W7 loose, Open circuit.</p> <p>Open circuit.</p> <p>F1-8 (fuse and relay box).</p>
2.0		<p>Control signal to CL supply pump (M14/1, M14/2)</p> <p>Check wiring for short to circuit 31.</p>	<p>N54  27 —(←(Ω)→)— 23</p>	<p>Unplug IRCL control module (N54).</p>	<p>> 20 kΩ</p>	<p>M14/1, M14/2. Open circuit in wiring from N54 to M14/1 or M14/2.</p>

Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
2.1		Control signal CL supply pump (M14/1 or M14/2) Check wiring for short to circuit 30.		Disconnect M14/1 or M14/2 and N54. Disconnect ground wire from Γ .	> 20 k Ω	Open circuit in wiring from N54 to M14/1 or M14/2.
2.2		Taillamp harness connector (X18/9) and wiring from IRCL control module (N54) to CL supply pump (M14/1, M14/2) for open circuit		Disconnect N54 and M14/1 or M14/2.	< 1 Ω	Connector (X18/9) interrupted, Open circuit in wiring from N54 to M14/1 or M14/2.

4.1 Infrared Remote Central Locking (IRCL)

Model 129




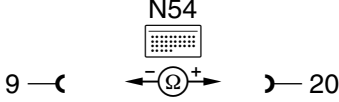
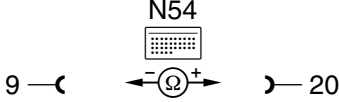
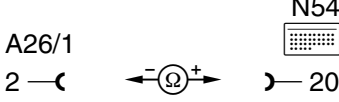
Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
3.0	4	Left front door IR receiver (A26/1) Red indicator lamp, wiring for short to circuit 31	<p>N54 27 — Ω — 1</p>	Disconnect N54.	> 20 kΩ	A26/1, Open circuit in wiring from N54 to A26/1.
			<p>N54 27 — Ω — 1</p>	Remove A26/1.	> 20 kΩ	Open circuit in wiring from N54 to A26/1.
3.1	7	Wiring for short to circuit 30 or open circuit	<p>N54 9 — Ω — 1</p>	Disconnect N54. Disconnect ground wire from 31.	> 20 kΩ	A26/1, Open circuit in wiring from N54 to A26/1.
			<p>N54 9 — Ω — 1</p>	Remove A26/1.	> 20 kΩ	Open circuit in wiring from N54 to A26/1.
			<p>A26/1 1 — Ω — 1</p> <p>N54</p>		< 1 Ω	Open circuit in wiring from N54 to A26/1.


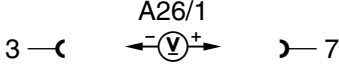
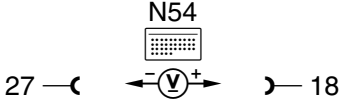


4.1 Infrared Remote Central Locking (IRCL)

Model 129




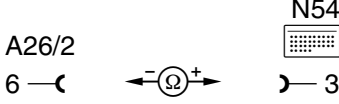


Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
3.2	5	Left front door IR receiver (A26/1) Green indicator lamp, wiring for short to circuit 31	 	Disconnect N54. Remove A26/1.	> 20 kΩ > 20 kΩ	A26/1, Open circuit in wiring from N54 to A26/1. Open circuit in wiring from N54 to A26/1.
3.3		Wiring for short to circuit 30 or open circuit	  	Disconnect N54. Disconnect ground wire from 31. Remove A26/1.	> 20 kΩ > 20 kΩ < 1 Ω	A26/1, Open circuit in wiring from N54 to A26/1. Open circuit in wiring from N54 to A26/1. Open circuit in wiring from N54 to A26/1.



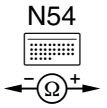
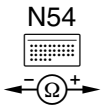
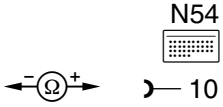
Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
3.4		Left front door IR receiver (A26/1) Voltage supply		Connect N54.	11 – 14 V	N54, Open circuit in wiring from N54 to A26/1.
3.5		Left front door IR receiver (A26/1) Signal wire		Lock vehicle with IR transmitter at left front door and keep button depressed. After completion of the locking process, read value. Afterwards, release button and read second value.	Difference of values between button depressed and button released approx. +0.3 – +0.5 V.	A26/1.
4.0	4	Right front door IR receiver (A26/2) Red indicator lamp, wiring for short to circuit 31	 	Disconnect N54. Remove A26/2.	> 20 kΩ > 20 kΩ	A26/2, Open circuit in wiring from N54 to A26/2. Open circuit in wiring from N54 to A26/2.

Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
4.1	7	Wiring for short to circuit 30 or open circuit		Disconnect N54. Disconnect ground wire from Γ .	> 20 k Ω	A26/2, Open circuit in wiring from N54 to A26/2.
				Remove A26/2.	> 20 k Ω	Open circuit in wiring from N54 to A26/2.
					< 1 Ω	Open circuit in wiring from N54 to A26/2.
4.2	5	Right front door IR receiver (A26/2) Green indicator lamp, wiring for short to circuit 31		Disconnect N54.	> 20 k Ω	A26/2, Open circuit in wiring from N54 to A26/2.
				Remove A26/2.	> 20 k Ω	Open circuit in wiring from N54 to A26/2.






Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
4.3		Wiring for short to circuit 30 or open circuit	<div style="text-align: center;">  <p>N54</p> </div> <div style="text-align: center;">  <p>N54</p> </div> <div style="text-align: center;">  <p>A26/2 N54</p> </div>	<p>Disconnect N54. Disconnect ground wire from Γ.</p> <p>Remove A26/2.</p>	<p>> 20 kΩ</p> <p>> 20 kΩ</p> <p>< 1 Ω</p>	<p>A26/2, Open circuit in wiring from N54 to A26/2.</p> <p>Open circuit in wiring from N54 to A26/2.</p> <p>Open circuit in wiring from N54 to A26/2.</p>


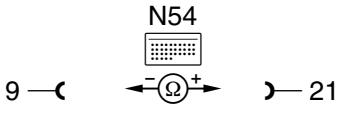

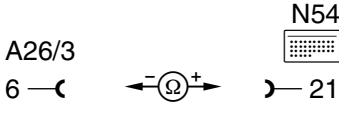
4.1 Infrared Remote Central Locking (IRCL)

Model 129

Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
4.4		Right front door IR receiver (A26/2) Voltage supply	7 —( —) 3 A26/2	Connect N54.	11 – 14 V	N54, Open circuit in wiring from N54 to A26/2.
4.5		Right front door IR receiver (A26/2) Signal wire	27 —( —) 8 N54	Lock vehicle with IR transmitter at right front door and keep button depressed. After completion of the locking process, read value. Afterwards, release button and read second value.	Difference of values between button depressed and button released approx. +0.3 – +0.5 V.	A26/2.
5.0	4	Trunk lid IR receiver (A26/3) Red indicator lamp, wiring for short to circuit 31	27 —( —) 21 N54	Disconnect N54.	> 20 kΩ	A26/3, Open circuit in wiring from N54 to A26/3.
			27 —( —) 21 N54	Remove A26/3.	> 20 kΩ	Open circuit in wiring from N54 to A26/3.

Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
5.1	7	Wiring for short to circuit 30 or open circuit	  	<p>Disconnect N54. Disconnect ground wire from Γ.</p> <p>Remove A26/3.</p>	<p>> 20 kΩ</p> <p>> 20 kΩ</p> <p>< 1 Ω</p>	<p>A26/3, Open circuit in wiring from N54 to A26/3.</p> <p>Open circuit in wiring from N54 to A26/3.</p> <p>Open circuit in wiring from N54 to A26/3.</p>

4.1 Infrared Remote Central Locking (IRCL)

Model 129


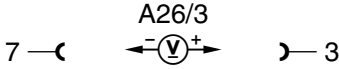
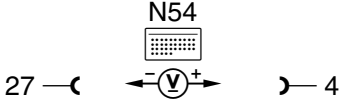
Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
5.2	5	Trunk lid IR receiver (A26/3) Green indicator lamp, wiring for short to circuit 31	<p>N54 27 — Ω — 2</p>	Disconnect N54.	> 20 kΩ	A26/3, Open circuit in wiring from N54 to A26/3.
			<p>N54 27 — Ω — 2</p>	Remove A26/3.	> 20 kΩ	Open circuit in wiring from N54 to A26/3.
5.3	8	Wiring for short to circuit 30 or open circuit	<p>N54 9 — Ω — 2</p>	Disconnect N54.	> 20 kΩ	A26/3, Open circuit in wiring from N54 to A26/3.
			<p>N54 9 — Ω — 2</p>	Disconnect ground wire from Γ .	> 20 kΩ	Open circuit in wiring from N54 to A26/3.
			<p>A26/3 5 — Ω — 2</p> <p>N54</p>	Remove A26/3.	> 20 kΩ	Open circuit in wiring from N54 to A26/3.
			<p>A26/3 5 — Ω — 2</p> <p>N54</p>		< 1 Ω	Open circuit in wiring from N54 to A26/3.


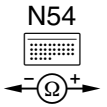
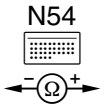
4.1 Infrared Remote Central Locking (IRCL)

Model 129

Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
5.4		Trunk lid IR receiver (A26/3) Voltage supply		Connect N54.	11 – 14 V	N54, Open circuit in wiring from N54 to A26/3.
5.5		Trunk lid IR receiver (A26/3) Signal wire		Lock vehicle with IR transmitter at trunk lid and keep button depressed. After completion of the locking process, read value. Afterwards, release button and read second value.	Difference of values between button depressed and button released approx. +0.3 – +0.5 V.	A26/3.




Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
6.0	9	ATA/CF microswitch (S86s1, S87s1, S88s1) wiring for short to circuit 30		Disconnect N54. Disconnect ground wire from Γ .	> 20 k Ω	Open circuit in wiring to S86s1, S87s1, S88s1 (vehicles up to 11/93), M14/1 or M14/2 short to circuit 30, ATA control module (N26), CF control module (N57).
6.1	9			Disconnect M14/1 or M14/2.	> 20 k Ω	Open circuit in wiring to S86s1, S87s1, S88s1 (vehicles up to 11/93), ATA control module (N26), CF control module (N57).

Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
6.2	9		 9 —(— Ω —) — 11	Disconnect N26.	> 20 k Ω	Open circuit in wiring to S86s1, S87s1, S88s1 (vehicles up to 11/93), M14/1 or M14/2 short to circuit 30, ATA control module (N26), CF control module (N57).
6.3		Vehicles up to 11/93 only Right front door rotary tumbler microswitch (S87s2)	 27 —(— Ω —) — 7	Close door to first detent.	< 1 Ω	S87s2, Adjustment.
			 27 —(— Ω —) — 7	Close door completely.	> 20 k Ω	S87s2, Adjustment.
6.4		Vehicles up to 11/93 only Rotary tumbler/trunk lid microswitch (S88/1)	 27 —(— Ω —) — 26	Trunk lid open.	< 1 Ω	S88/1.
			 27 —(— Ω —) — 26	Trunk lid closed.	> 20 k Ω	S88/1.



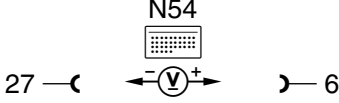
Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
7.0		Vehicles up to 11/93 only Ignition/starter switch (S2/1), Interior/taillamp harness connector (X18/3), Taillamp harness connector (X18/9) Wiring for open circuit		Disconnect N54. Remove key from ignition.	< 1 Ω	S2/1, X18/3 open circuit, X18/9 open circuit, Open circuit, wire: from S2/1 to X18/3, from S2/1 to W1, from N54 to X18/9, from M14/1 to X18/9, from M14/1 to X18/3.

4.1 Infrared Remote Central Locking (IRCL)

Model 129

Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
7.1	11	<p>Vehicles up to 11/93 only</p> <p>Wiring for short to circuit 31</p>		Ignition key in position "1".	> 20 kΩ	<p>S2/1, X18/3 open circuit, X18/9 open circuit, Open circuit, wire: from S2/1 to X18/3, from S2/1 to W1, from N54 to X18/9, from M14/1 to X18/9, from M14/1 to X18/3.</p>
8.0	12	<p>Actuation of left front door actuator (S47)</p>		Unlock the driver's door.	11 – 14 V	<p>Open circuit in: Connector X18/9, Wire from N54 to X18/9, Wire from M14/1 to X18/9.</p>

Electrical Test Program - Test

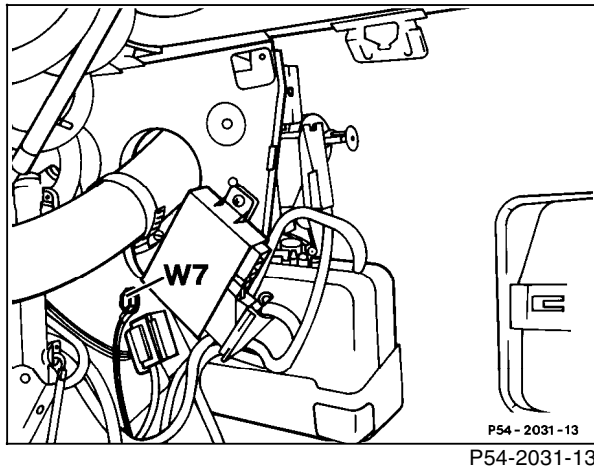


Figure 1
W7 Ground (right wheelhousing in trunk)

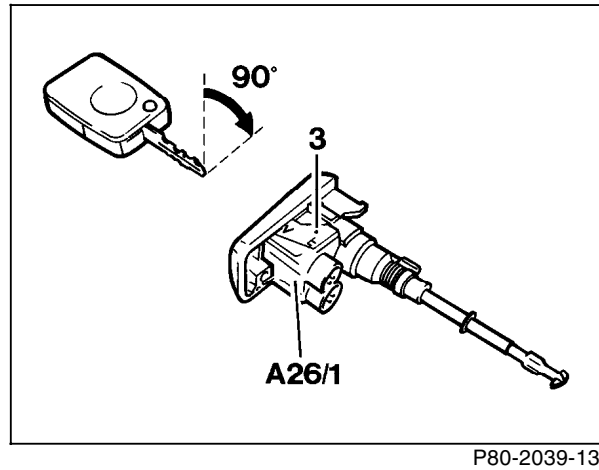


Figure 2
X4/10 Terminal block (terminal 30/30Ü/61e/87L) (6-pole)

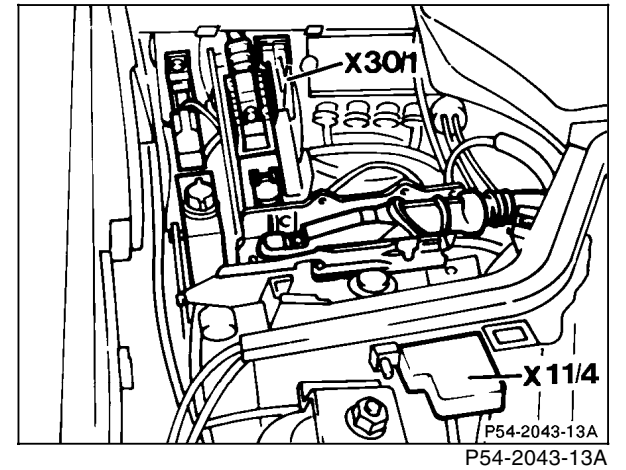
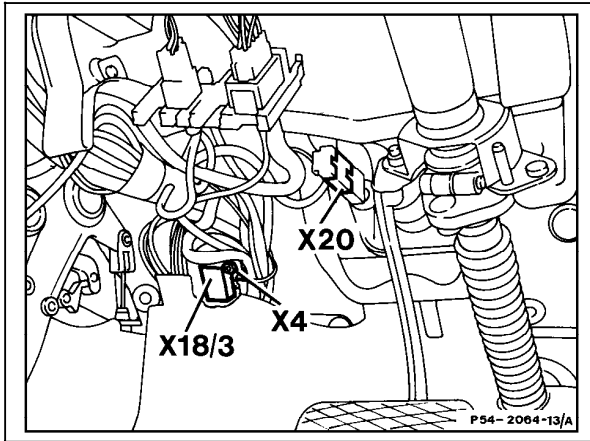


Figure 3
X11/4 Data link connector (DTC readout)

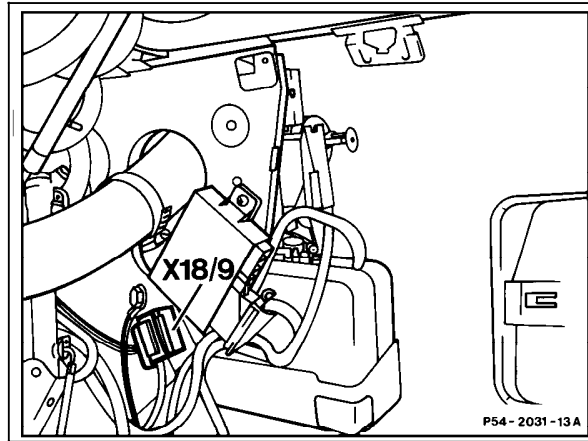
Electrical Test Program - Test



P54-2064-13a

Figure 4

X18/3 Interior/taillamp harness connector (8-pole)



P54-2031-13A

Figure 5

X18/9 Taillamp harness connector (ATA, IRCL) (12-pole)