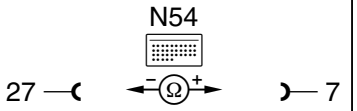
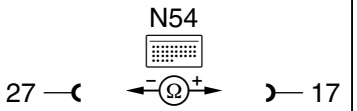
Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
1.0		**IRCL control module (N54) circuit 30, circuit 15** Voltage supply	N54 27 — (V) — 9	Ignition: **OFF**	11 – 14 V	⇒ 1.1, Circuit 31.
			N54 27 — (V) — 14	Ignition: **OFF**	< 1 V	⇒ 1.1, Circuit 31.
				Ignition: **ON**	11 – 14 V	
1.1		Circuit 30	N54 ⊥ — (V) — 9	Ignition: **OFF**	11 – 14 V	Circuit 30.
		Circuit 15	N54 ⊥ — (V) — 14	Ignition: **OFF**	< 1 V	Circuit 15.
				Ignition: **ON**	11 – 14 V	

Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
2.0		**Vehicles up to11/93 only** **Left front door actuator (S47)** Resistance	N54 27 — Ω — 6	Disconnect IRCL control module (N54) from . Disconnect ATA control module (N26). Central locking: **Locked manually with key** **Unlocked manually with key**	< 5 Ω > 20 k Ω	Wiring, S47. Wiring, S47.
3.0		**Sedans up to11/93 only** **Left rear rotary tumbler microswitch (S87/2)** Resistance	N54 27 — Ω — 15	Disconnect N54 from . **Rest position** (Left rear door closed) Operate left rear catch by opening door.	>20 kΩ <5 Ω	Wiring, S87/2. Wiring, S87/2.

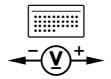
Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
4.0		**Sedans up to 11/93 only** **Right rear door rotary tumbler microswitch (S87/3)** Resistance		Disconnect N54 from  . **Rest position** (Right rear door closed) Operate right rear tumbler by opening door.	> 20 k Ω < 5 Ω	Wiring, S87/3. Wiring, S87/3.
5.0		**Vehicles up to 11/93 only** **Right front door rotary tumbler microswitch (S87/6)** Resistance		Disconnect N54 from  . **Rest position** (Right front door closed) Operate right front catch by opening door.	>20 kΩ <5 Ω	Wiring, S87/6. Wiring, S87/6.

Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
6.0	3 4	**Vehicles up to 11/93 only** **Ignition/starter switch (S2/1)** Warning buzzer contact	N54 16 — ◖ V ◗ — 9	Disconnect N54 from ⌨. Remove key from ignition. Ignition key in position “1”.	11 – 14 V < 1 V	Wiring, 3.1 PSE 23 ⇒ 4.0, 5.0. Wiring, 3.1 PSE 23 ⇒ 4.0, 5.0.
7.0		**Vehicles up to 11/93 only** **Rotary tumbler/trunk lid microswitch (S88/1)** Resistance	N54 26 — ◖ V ◗ — 9	Disconnect N54 from ⌨. Close tumbler by hand. Open trunk lid tumbler.	< 1 V 11 – 14 V	Wiring, 3.1 PSE/RTG 23 ⇒ 1.0. Wiring, 3.1 PSE/RTG 23 ⇒ 1.0, 3.1 PSE/CL 23 ⇒ 8.0, Closing assist supply pump (M14/3).

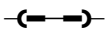
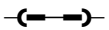
Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
8.0	7 8	**IRCL control module (N54)** **Left front door lock switch (S86/1)** Voltage supply	N54  27 — 11	All doors closed and **locked manually with key**.	11 – 14 V	Wiring, 3.1 PSE/CL 23 ⇒ 4.0, (on vehicles up to 11/93). N54.
				Unlock vehicle via left front door with IR transmitter and hold button.	<1 V Green indicator lamp flashes.	Wiring, ⇒ 9.0 to 12.0, N54.
			N54  27 — 23	All doors closed and **unlocked manually with key**.	11 – 14 V	Wiring, 3.1 PSE/CL 23 ⇒ 4.0, (on vehicles up to 11/93). N54.
				Lock vehicle via left front door with IR transmitter and hold button.	<1 V Red indicator lamp flashes.	Wiring, ⇒ 9.0 to 12.0, N54.
9.0		**Left front door IR receiver (A26/1)** Voltage supply	N54  13 — 12		11 – 14 V	Wiring, ⇒ 9.1, N54.

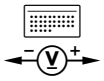
Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
9.1		A26/1 Voltage supply	A26/1 2 — (V) — 3	Remove A26/1.	11 – 14 V	Wiring, N54.
10.0		**Left front door IR receiver (A26/1)** Infrared signal control circuit	N54 27 — (V) — 18	Lock vehicle using 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.	Wiring, A26/1.
11.0	9	**Left front door IR receiver (A26/1)** Red indicator lamp		Disconnect N54 from . No bridge connected.	 Red indicator lamp off.	 Wiring, A26/1, N54.
			N54 27 — 13 3 — 9	Both bridges connected.	Red indicator lamp lights.	Wiring, A26/1.

Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
12.0	6 10	**Left front door IR receiver (A26/1)** Green indicator lamp		Disconnect N54 from  . No bridge connected.	Green indicator lamp off.	Wiring, A26/1, N54.
			N54  27  13 10  9	Both bridges connected.	Green indicator lamp lights.	Wiring, A26/1.

Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
13.0	7 8	**IRCL control module (N54)** **Right front door lock switch (S87/1)** Voltage supply	N54  27 — 11	All doors closed and **locked manually with key**.	11 – 14 V	Wiring, 3.1 PSE/CL 23 ⇒ 2.0, (vehicles up to 11/93 only). N54.
				Unlock vehicle via right front door with IR transmitter and hold button.	<1 V Green indicator lamp flashes.	Wiring, ⇒ 14.0 to 17.0, N54.
			N54  27 — 23	All doors closed and **unlocked manually with key**.	11 – 14 V	Wiring, 3.1 PSE/CL 23 ⇒ 2.0, (vehicles up to 11/93 only). N54.
				Lock vehicle via right front door with IR transmitter and hold button.	<1 V Red indicator lamp flashes.	Wiring, ⇒ 14.0 to 17.0, N54.
14.0		**Right front door IR receiver (A26/2)** Voltage supply	N54  13 — 22		11 – 14 V	Wiring, ⇒ 14.1, N54.

Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
14.1		A26/2 Voltage supply	A26/2 2 — (V) — 3	Remove A26/2.	11 – 14 V	Wiring, N54.
15.0		**Right front door IR receiver (A26/2)** Infrared signal control circuit	N54 27 — (V) — 8	Lock vehicle using 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.	Wiring, A26/2.
16.0	9	**Right front door IR receiver (A26/2)** Red indicator lamp		Disconnect N54 from ⌨. No bridge connected.	 Red indicator lamp off.	 Wiring, A26/2, N54.
			N54 27 — 13 1 — 9	Both bridges connected.	Red indicator lamp lights.	Wiring, A26/2.

Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
17.0	6 10	**Right front door IR receiver (A26/2)** Green indicator lamp		Disconnect N54 from . No bridge connected.	 Green indicator lamp off.	 Wiring, A26/2, N54.
			N54 27 — 13 2 — 9	Both bridges connected.	Green indicator lamp lights.	Wiring, A26/2.

Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
18.0	7 8	**IRCL control module (N54)** **Trunk lid lock switch (S88/2)** Voltage supply	N54 27 — (V) — 11	All doors closed and **locked manually with key**.	11 – 14 V	Wiring, 3.1 PSE/CL 23 ⇒ 3.0, (vehicles up to 11/93 only). N54.
				Unlock vehicle via trunk lid with IR transmitter and hold button.	<1 V Green indicator lamp flashes.	Wiring, ⇒ 19.0 to 22.0, N54.
			N54 27 — (V) — 23	All doors closed and **unlocked manually with key**.	11 – 14 V	Wiring, 3.1 PSE/CL 23 ⇒ 3.0, (vehicles up to 11/93 only). N54.
				Lock vehicle via trunk lid with IR transmitter and hold button.	<1 V Red indicator lamp flashes.	Wiring, ⇒ 19.0 to 22.0, N54.
19.0		**Trunk lid IR receiver (A26/3)** Voltage supply	N54 24 — (V) — 5		11 – 14 V	Wiring, ⇒ 19.1, N54.

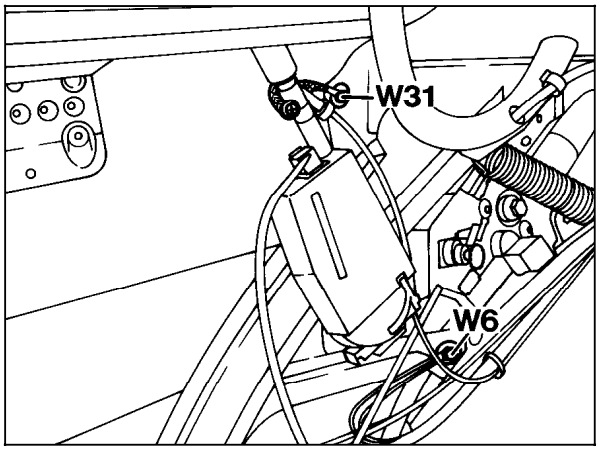
Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
19.1		A26/3 Voltage supply	A26/3 2 — (V) — 3	Remove A26/3.	11 – 14 V	Wiring, N54.
20.0		**Trunk lid IR receiver (A26/3)** Infrared signal control circuit	N54 27 — (V) — 4	Lock vehicle using IR transmitter at trunk 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.	Wiring, A26/3.
21.0	9	**Trunk lid IR receiver (A26/3)** Red indicator lamp		Disconnect N54 from ⌨. No bridge connected.	Red indicator lamp off.	Wiring, A26/3, N54.
			N54 27 — 24 21 — 9	Both bridges connected.	Red indicator lamp lights.	Wiring, A26/2.

Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
22.0	6 10	**Trunk lid IR receiver (A26/3)** Green indicator lamp		Disconnect N54 from . No bridge connected.	 Green indicator lamp off.	 Wiring, A26/3, N54.
			N54 27 — 13 2 — 9	Both bridges connected.	Green indicator lamp lights.	Wiring, A26/2.
23.0	12	**Vehicles as of 12/93 only** **Immobilization output**	N54 25 — V — 9	Unlock vehicle by pointing IR transmitter toward one of the three IR receivers. Open driver's window. Lock vehicle by pointing IR transmitter toward one of the three IR receivers. Ignition: **ON**	 11 – 14 V < 1 V	Wiring, ⇒ 1.0, 8.0 – 22.0, N54.
24.0		**Diagnosis output**	N54 27 — V — 19		 10 – 14 V	 Wiring, N54.

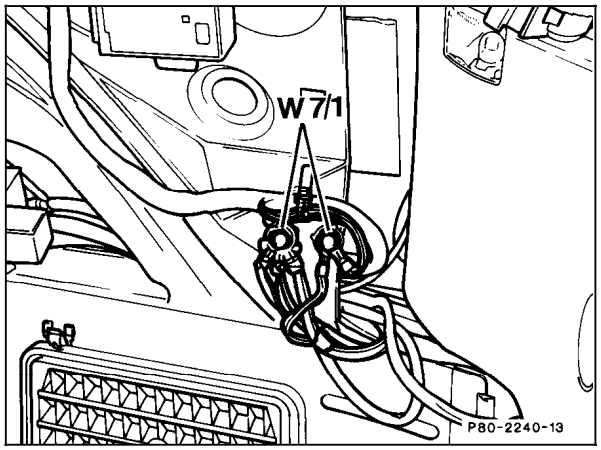
Electrical Test Program - Test



P54-2786-13

Figure 1

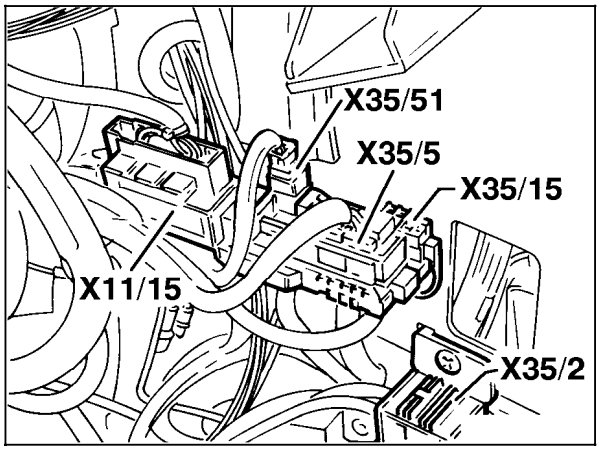
W6 Ground (left wheelhousing in trunk) (coupé)



P80-2240-13

Figure 2

W7/1 Ground (right rear taillamp in trunk) (sedan)

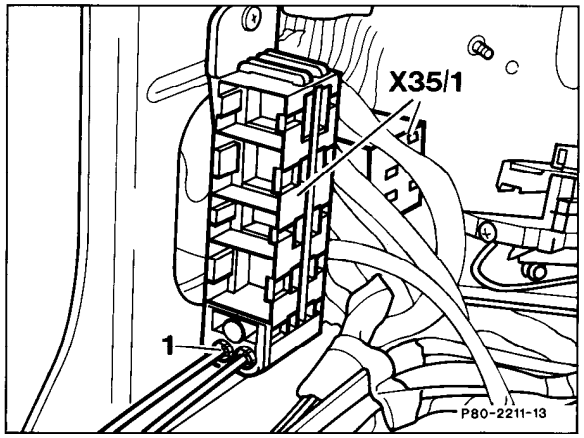


P54-2842-13

Figure 3

X11/15 Diagnostic intermediate connector (taillamp harness) (16-pole)

Electrical Test Program - Test

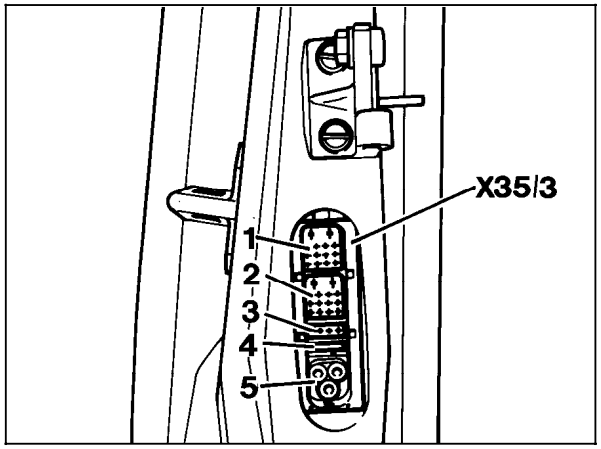


P80-2211-13

Figure 4

X35/1 Left front door separation point

X35/2 Right front door separation point (mirror image of left shown)

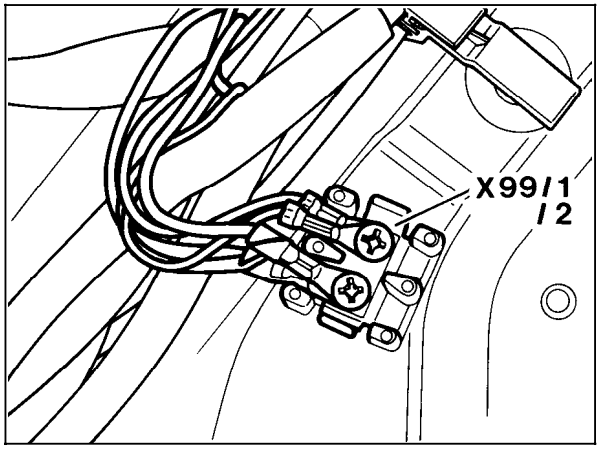


P54-2808-13

Figure 5

X35/3 Left rear door separation point (sedan only)

X35/4 Right rear door separation point (sedan only) (mirror image of left shown)



P82-2995-13A

Figure 6

X99/1 Terminal block (left front door ground)

X99/2 Terminal block (right front door ground) (mirror image of left shown)