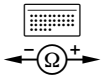
Electrical Test Program - Test

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

Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
2.1	Б	Control signal CL supply pump (M14/1 or M14/2) Check wiring for short to circuit 30.	N54 9 —  — 23	Disconnect M14/1 or M14/2 and N54. Disconnect ground wire from ⊓.	> 20 kΩ	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	M14/1 7 —  — N54 23	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.

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	N54 27 — Ω — 1	Disconnect N54.	> 20 kΩ	A26/1, Open circuit in wiring from N54 to A26/1.
			N54 27 — Ω — 1	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	N54 9 — Ω — 1	Disconnect N54. Disconnect ground wire from m.	> 20 kΩ	A26/1, Open circuit in wiring from N54 to A26/1.
			N54 9 — Ω — 1	Remove A26/1.	> 20 kΩ	Open circuit in wiring from N54 to A26/1.
			A26/1 1 — Ω — N54 1		< 1 Ω	Open circuit in wiring from N54 to A26/1.

Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
3.2		Left front door IR receiver (A26/1) Green indicator lamp, wiring for short to circuit 31	N54 27 — Ω — 20	Disconnect N54.	> 20 kΩ	A26/1, Open circuit in wiring from N54 to A26/1.
			N54 27 — Ω — 20	Remove A26/1.	> 20 kΩ	Open circuit in wiring from N54 to A26/1.
3.3		Wiring for short to circuit 30 or open circuit	N54 9 — Ω — 20	Disconnect N54. Disconnect ground wire from ⏚.	> 20 kΩ	A26/1, Open circuit in wiring from N54 to A26/1.
			N54 9 — Ω — 20	Remove A26/1.	> 20 kΩ	Open circuit in wiring from N54 to A26/1.
			A26/1 2 — Ω — N54 20		< 1 Ω	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	A26/1 3 — (V) — 7	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	N54 27 — (V) — 18	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	N54 27 — (Ω) — 3	Disconnect N54.	> 20 kΩ	A26/2, Open circuit in wiring from N54 to A26/2.
			N54 27 — (Ω) — 3	Remove A26/2.	> 20 kΩ	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		Wiring for short to circuit 30 or open circuit	N54 9 — 3	Disconnect N54. Disconnect ground wire from ⏚.	> 20 kΩ	A26/2, Open circuit in wiring from N54 to A26/2.
			N54 9 — 3	Remove A26/2.	> 20 kΩ	Open circuit in wiring from N54 to A26/2.
			A26/2 6 — N54 3		< 1 Ω	Open circuit in wiring from N54 to A26/2.
4.2		Right front door IR receiver (A26/2) Green indicator lamp, wiring for short to circuit 31	N54 27 — 10	Disconnect N54.	> 20 kΩ	A26/2, Open circuit in wiring from N54 to A26/2.
			N54 27 — 10	Remove A26/2.	> 20 kΩ	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	N54 9 — Ω — 10	Disconnect N54. Disconnect ground wire from ⏚.	> 20 kΩ	A26/2, Open circuit in wiring from N54 to A26/2.
			N54 9 — Ω — 10	Remove A26/2.	> 20 kΩ	Open circuit in wiring from N54 to A26/2.
			A26/2 5 — Ω — N54 10		< 1 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
4.4		Right front door IR receiver (A26/2) Voltage supply	A26/2 7 — (V) — 3	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	N54 27 — (V) — 8	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	N54 27 — (Ω) — 21	Disconnect N54.	> 20 kΩ	A26/3, Open circuit in wiring from N54 to A26/3.
			N54 27 — (Ω) — 21	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		Wiring for short to circuit 30 or open circuit	N54 9 — Ω — 21	Disconnect N54. Disconnect ground wire from ⏚.	> 20 kΩ	A26/3, Open circuit in wiring from N54 to A26/3.
			N54 9 — Ω — 21	Remove A26/3.	> 20 kΩ	Open circuit in wiring from N54 to A26/3.
			A26/3 6 — Ω — N54 21		< 1 Ω	Open circuit in wiring from N54 to A26/3.

Electrical Test Program - Test

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

Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
5.4		Trunk lid IR receiver (A26/3) Voltage supply	A26/3 7 — 3	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	N54 27 — 4	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		**ATA/CF microswitch (S86s1, S87s1, S88s1)** wiring for short to circuit 30	N54 9 — Ω — 11	Disconnect N54. Disconnect ground wire from ⏚.	> 20 kΩ	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			N54 9 — Ω — 11	Disconnect M14/1 or M14/2.	> 20 kΩ	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			N54 9 — Ω — 11	Disconnect N26.	> 20 kΩ	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)	N54 27 — Ω — 7	Close door to first detent.	< 1 Ω	S87s2, Adjustment.
			N54 27 — Ω — 7	Close door completely.	> 20 kΩ	S87s2, Adjustment.
6.4		**Vehicles up to 11/93 only** Rotary tumbler/trunk lid microswitch (S88/1)	N54 27 — Ω — 26	Trunk lid open.	< 1 Ω	S88/1.
			N54 27 — Ω — 26	Trunk lid closed.	> 20 kΩ	S88/1.

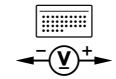
Electrical Test Program - Test

⇒		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	N54 27 — Ω — 16	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.

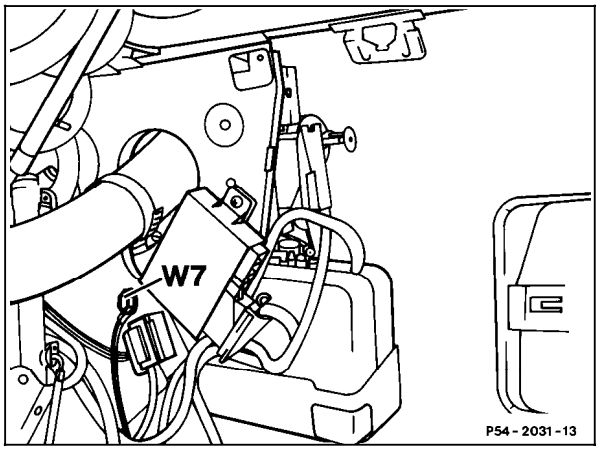
Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
7.1	11	**Vehicles up to 11/93 only** Wiring for short to circuit 31	N54 27 — (Ω) — 16	Ignition key in position “1”.	> 20 kΩ	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.
8.0	12	**Actuation of left front door actuator (S47)**	N54 27 — (V) — 6	Unlock the driver‘s door.	11 – 14 V	Open circuit in: Connector X18/9, Wire from N54 to X18/9, Wire from M14/1 to X18/9.

Electrical Test Program - Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
9.0	13	**Vehicles up to 11/93 only** **Actuation of right front door actuator (S48)**	N54  27 — 17	Unlock the passenger door.	11 – 14 V	Open circuit in: Connector X18/9, Wire from N54 to X18/9, Wire from M14/1 to X18/9.
10.0	14	**Vehicles up to 11/93 only** **Actuation of trunk lid lock actuator (S49)**	N54  27 — 25	Unlock the trunk.	11 – 14 V	Open circuit in: Connector X18/9, Wire from N54 to X18/9, Wire from M14/1 to X18/9.
11.0	15	**Vehicles as of 12/93 only** **Immobilization output**	N54  27 — 9	Unlock vehicle by pointing IR transmitter toward one of the three IR receivers. Open driver's window. Lock vehicle by pointing IRCL transmitter toward one of the three IR receivers. Ignition: **ON**	11 – 14 V < 1 V	Wiring, ⇒ 1.0, 3.0 – 5.0, N54.

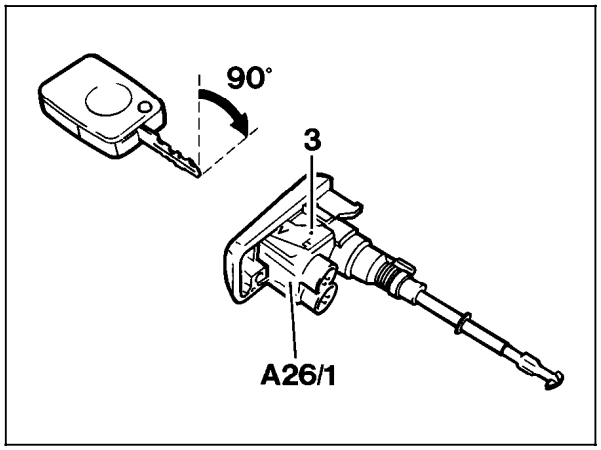
Electrical Test Program - Test



P54-2031-13

Figure 1

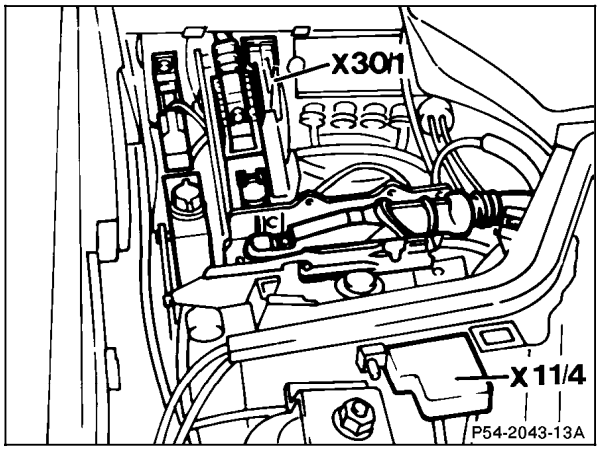
W7 Ground (right wheelhousing in trunk)



P80-2039-13

Figure 2

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



P54-2043-13A

Figure 3

X11/4 Data link connector (DTC readout)

Electrical Test Program - Test

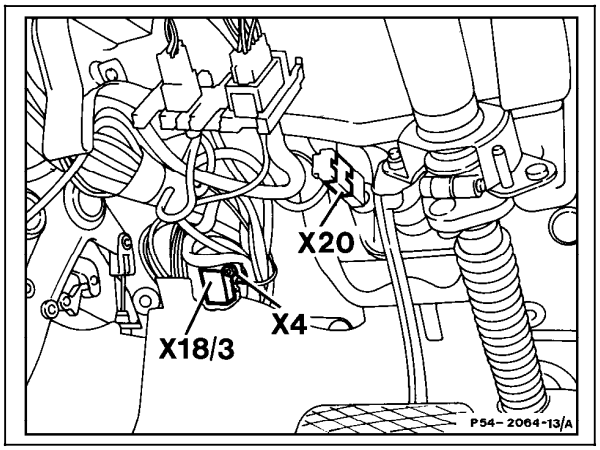


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Figure 4

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

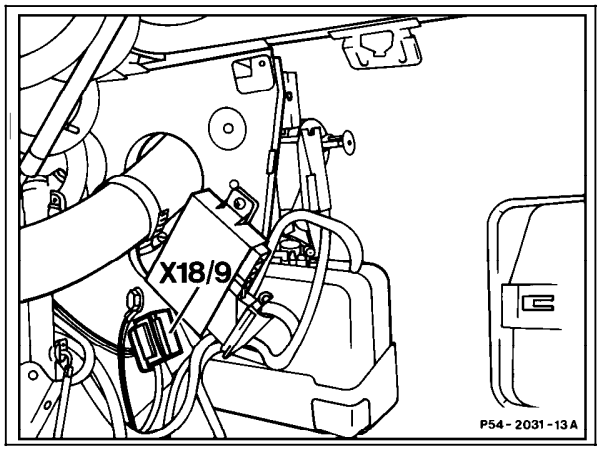

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Figure 5

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