5.5 Model 140 (with Bose® Sound System), as of M.Y. 1994

Technical Changes

Manufacturer Code	Model	LHS[1] RHS[1]	Manuf. plant	As of chassis number	Up to chassis number	As of production date	Up to production date	Type and reason for change	Reference/Remarks
WDB	140					approx. 07/95		Revised nominal values.	

[1] LHS: Lefthand steering
RHS: Righthand steering

Diagnosis – Function Test

Function Test Explanation

For the Function Test, adjust the radio as follows:

- Tune-in a strong radio station (music), or play a cassette or CD.
- Set fader, bass, treble and balance to center range (RESET reading in display window).
- Listen to each individual loudspeaker at the various locations.

Diagnosis – Complaint Related Diagnostic Chart

Complaint/Problem	Possible cause	Test step/Remedy [1]
Loudspeaker system not functioning	Left/right audio power amplifier (N40/3) Radio (A2)	23 ⇒ 1.0
Left front door speaker group (H4/1) not functioning	H4/1 Left/right audio power amplifier (N40/3) Radio (A2)	23 ⇒ 2.0
Right front door speaker group (H4/2) not functioning	H4/2 Left/right audio power amplifier (N40/3) Radio (A2)	23 ⇒ 3.0
Sedan Left rear door speaker (H4/3) not functioning **Coupé** Left front door speaker (H4/5) not functioning	H4/3 or H4/5 Left/right audio power amplifier (N40/3) Radio (A2)	23 ⇒ 4.0
Sedan Right rear door speaker (H4/4) not functioning **Coupé** Right front door speaker (H4/6) not functioning	H4/4 or H4/6 Left/right audio power amplifier (N40/3) Radio (A2)	23 ⇒ 5.0
Left rear speaker group (H4/7) not functioning	H4/7 Left/right audio power amplifier (N40/3) Radio (A2)	23 ⇒ 6.0
Right rear speaker group (H4/8) not functioning	H4/8 Left/right audio power amplifier (N40/3) Radio (A2)	23 ⇒ 7.0
Center fill tweeter speaker (H4/11), in mirror base, not functioning	H4/11 Left/right audio power amplifier (N40/3) Radio (A2)	23 ⇒ 8.0

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Component Locations

Loudspeaker Components in Front Passenger Compartment (Sedan)

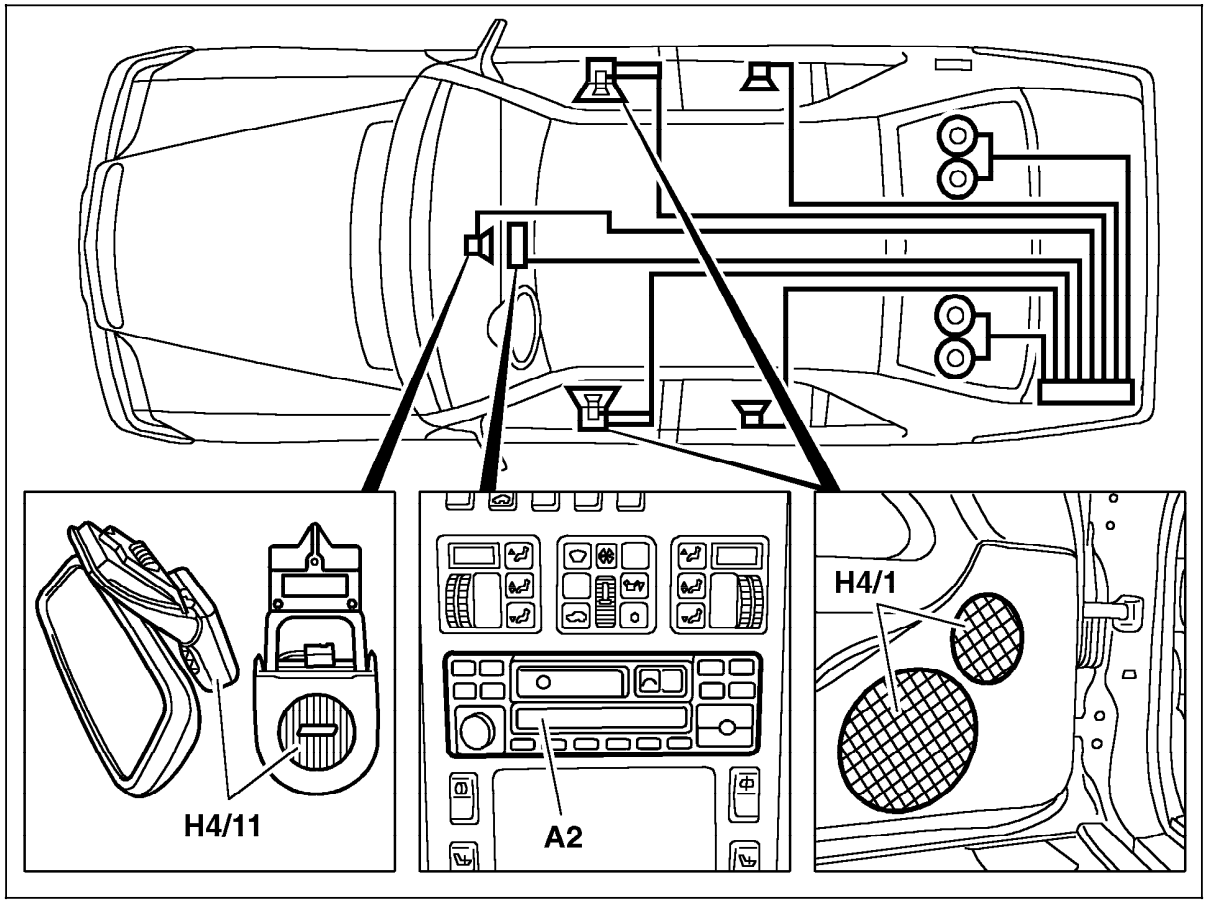

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Figure 1

A2	Radio
H4/1	Left front door speaker group
H4/2	Right front door speaker group (not shown)
H4/11	Center fill tweeter speaker

Electrical Test Program – Component Locations

Loudspeaker Components in Rear Passenger Compartment (Sedan)

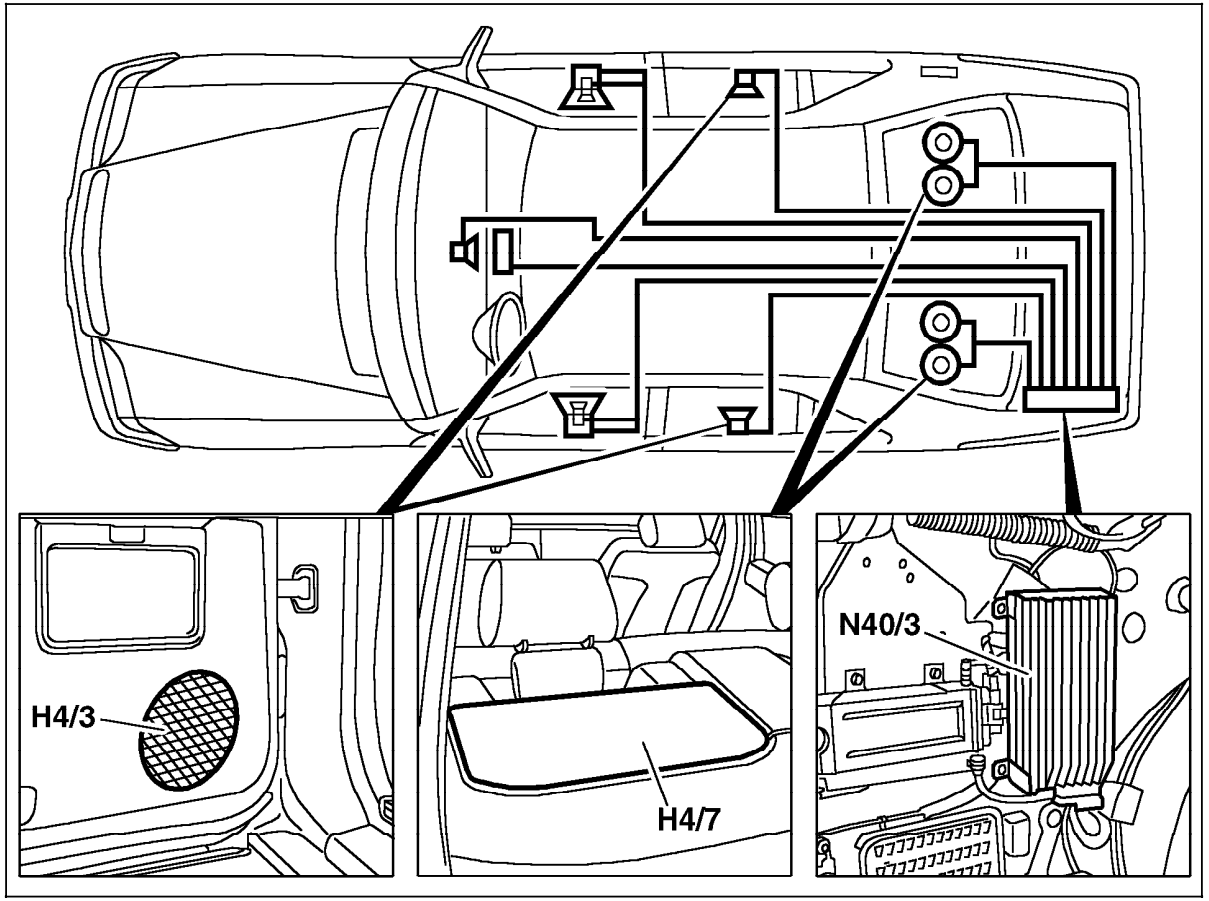

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Figure 2

H4/3 Left rear door speaker
H4/4 Right rear door speaker (not shown)
H4/7 Left rear speaker group
H4/8 Left rear speaker group (not shown)
N40/3 Left/right audio power amplifier

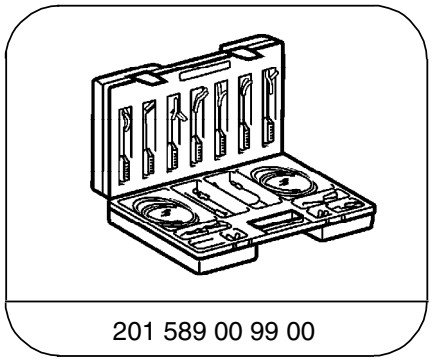
Electrical Test Program – Preparation for Test

1. Battery voltage 11–14 V.
2. Check fuses.
3. Radio OK.
4. Loudspeaker for sound system installed (Marking: blue label).
5. Connections to N40/3 OK.

Note:
To prevent damage to the radio and left/right audio power amplifier, the connectors must only be removed or installed with the ignition and radio **OFF**.

Electrical wiring diagrams:
Electrical Troubleshooting Manual, Model 140

Special Tools



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Electrical connecting set

Conventional tools, test equipment

Description	Brand, model, etc.
Digital multimeter [1]	Fluke models 23, 83, 85, 87

[1] Available through the MBUSA Standard Equipment Program.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
1.0	**Left/right audio power amplifier (N40/3)** Voltage supply	N40/3 9 — (-)(V)(+) — 26	Radio (A2): **OFF** Disconnect N40/3.	11 – 14 V	Fuse F4-16, Fuse in N40/3 (Figure 1), Ground (W6), Wiring, ⇒ 1.1, If nominal value is OK: Replace N40/3.
1.1	Control voltage from radio (A2)	N40/3 9 — (-)(V)(+) — 8	Disconnect N40/3. Radio (A2): **ON**	11 – 14 V	Wiring, Radio (see section 3.1 23), ⇒ 1.2.
1.2	Speaker signal from radio (A2)	N40/3	Disconnect N40/3. Turn volume control to maximum. Radio (A2): **ON**	> 0.2 V A momentary lower value is permissible.	Wiring, Radio (see section 3.1 23).
	left front:	10 — (-)(V)(+) — 18			
	right front:	1 — (-)(V)(+) — 2			
	left rear:	3 — (-)(V)(+) — 5			
	right rear:	4 — (-)(V)(+) — 6			

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
2.0	**Left front door speaker group (H4/1)**	H4/1 21 — Ω — 13 9 — Ω — 13 21 — Ω — 9	Radio (A2): **OFF** Disconnect N40/3.	**Up to 06/95:** 0.6 – 1.2 Ω **As of 07/95:** 1.5 – 2.5 Ω ∞ Ω ∞ Ω	Wiring, H4/1, If nominal values are OK: Replace N40/3.
3.0	**Right front door speaker group (H4/2)**	H4/2 14 — Ω — 22 9 — Ω — 22 14 — Ω — 9	Radio (A2): **OFF** Disconnect N40/3.	**Up to 06/95:** 0.6 – 1.2 Ω **As of 07/95:** 1.5 – 2.5 Ω ∞ Ω ∞ Ω	Wiring, H4/2, If nominal values are OK: Replace N40/3.
4.0	Sedan **Left rear door speaker (H4/3)** Coupé **Left front door speaker (H4/5)**	H4/3 or H4/5 15 — Ω — 23 9 — Ω — 23 15 — Ω — 9	Radio (A2): **OFF** Disconnect N40/3.	**Up to 06/95:** 3.2 – 4.0 Ω **As of 07/95:** 1.5 – 2.5 Ω ∞ Ω ∞ Ω	Wiring, H4/3 or H4/5, If nominal values are OK: Replace N40/3.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
5.0	Sedan **Right rear door speaker (H4/4)** Coupé **Right front door speaker (H4/6)**	H4/4 or H4/6 17 — Ω — 25 9 — Ω — 25 17 — Ω — 9	Radio (A2): **OFF** Disconnect N40/3.	**Up to 06/95:** 3.2 – 4.0 Ω **As of 07/95:** 1.5 – 2.5 Ω ∞ Ω ∞ Ω	Wiring, H4/4 or H4/6, If nominal values are OK: Replace N40/3.
6.0	**Left rear door speaker group (H4/7)**	H4/7 12 — Ω — 20 9 — Ω — 20 12 — Ω — 9	Radio (A2): **OFF** Disconnect N40/3.	0.6 – 1.4 Ω ∞ Ω ∞ Ω	Wiring, ⇒ 6.1, If nominal values are OK: Replace N40/3.
6.1	**Left rear door speaker group (H4/7)** Individual speakers (H4/7h1 or H4/7h2)	H4/7h1 or H4/7h2 — Ω —	Radio (A2): **OFF** Disconnect speaker group connectors.	1.8 – 2.4 Ω	H4/7h1 or H4/7h2.
7.0	**Right rear door speaker group (H4/8)**	H4/8 11 — Ω — 19 9 — Ω — 19 11 — Ω — 9	Radio (A2): **OFF** Disconnect N40/3.	0.6 – 1.4 Ω ∞ Ω ∞ Ω	Wiring, ⇒ 7.1, If nominal values are OK: Replace N40/3.

Electrical Test Program – Test

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
7.1	**Right rear door speaker group (H4/8)** Individual speakers (H4/8h1 or H4/8h2)	H4/8h1 or H4/8h2 —(–Ω+)—	Radio (A2): **OFF** Disconnect speaker group connectors.	1.8 – 2.4 Ω	H4/8h1 or H4/8h2.
8.0	**Center fill tweeter speaker (H4/11)**	H4/11 24 —(–Ω+)— 16 9 —(–Ω+)— 16 24 —(–Ω+)— 9	Radio (A2): **OFF** Disconnect N40/3.	3.6 – 4.2 Ω ∞ Ω ∞ Ω	Wiring, H4/11, If nominal values are OK: Replace N40/3.

Electrical Test Program – Test

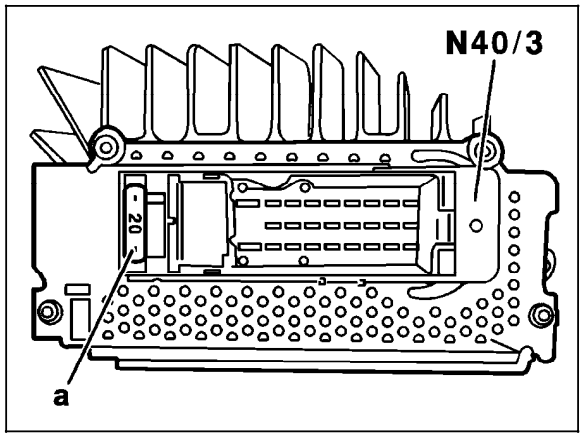

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Figure 1

N40/3 Left/right audio power amplifier

a Fuse