



BLAUPUNKT - CAR - RADIO

Wolfburg

from set no. G 450 001

Service Information

A. Changing from 6 V to 12 V and vice versa

a) Receiver Unit:

1. Reconnect the heater circuit in accordance with Fig. 1 or 2.
2. Change the 7 V/0.1 A pilot lamp (order no. GL 701/1x) for a 14 V/0.1 A lamp (order no. GL 701/2x).
3. Change the 8 A fuse with 6 volts (order no. SG 704/1n) for a 4 A fuse with 12 volts (order no. SG 704/3n).

b) Power Unit:

1. Change the 6 V vibrator (order no. SM 702/1z) for a 12 V vibrator (order no. SM 702/2z).
2. Reconnect vibrator transformer in accordance with Fig. 3 or 4.

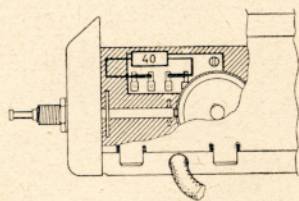


Fig. 1
heater circuit
arranged
for 6 V

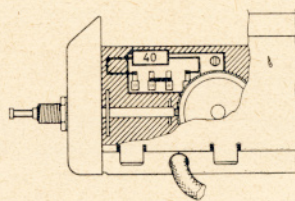


Fig. 2
heater circuit
arranged
for 12 V

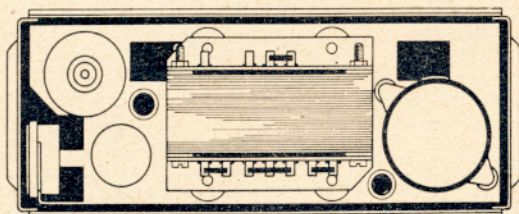


Fig. 3 6 V arrangement

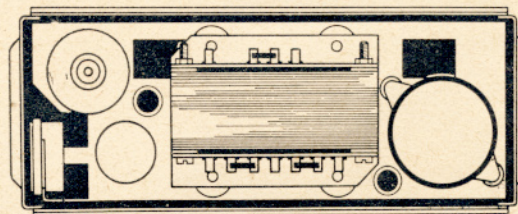
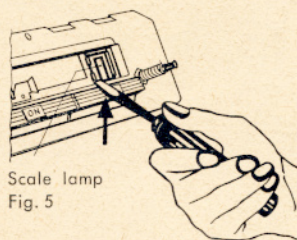


Fig. 4 12 V arrangement

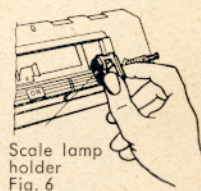
B. Changing the Scale Lamp

Shift the pointer fully to the left. At the right-hand end of the scale frame is a slot containing a spring clip which holds the scale in place. Press this inwards with a screwdriver until the scale springs out. Press the scale lamp holder gently upwards with a screwdriver (see Fig. 5). The holder will then spring out and the lamp can be changed.

Replace the holder at an angle in the recess with its flattened side downwards (Fig. 6) and press home lightly with the finger until a click is heard. Replace the scale.



Scale lamp
holder
Fig. 5



Scale lamp
holder
Fig. 6

C. Removing and Changing the Push-Buttons

Nip the button which is to be changed in the middle with side cutters and break it off. No adhesive is to be applied to the new button; simply press it right home on to the slide. It is then firmly secured.

D. Alignment, Sensitivity, Measurement and Aerial Matching

All current and voltage readings shown on the circuit diagram are taken using a battery with exactly 7 V, or 14 V, at its terminals. They are measured by a tube voltmeter ($R_i < 10 \text{ M}\Omega$) and are correct at normal operating temperature (at least ten minutes after switching on).

1. Preparation

- Earthing: earth the signal generator and the receiver.
- Pointer adjustment: The pointer should be brought into correspondence with the end of the scale. The pointer's travel must be 60 mm to agree with the length of the calibrated scale.
- Connect the output meter in parallel with a loudspeaker of 5 ohms impedance. The internal resistance of the meter should not be less than 100 ohms. Volume control to be turned fully up and tone control to be at 'bright'.
0.5 V on the output meter then represents 50 mW output power.
- For alignment and sensitivity measurements a dummy aerial is to be used as shown in Fig. 7.
N. B. Do not use any dummy aerial which may be built in to the signal generator, as this is probably arranged for domestic receivers.

Please note: with the Neuwirth signal generator types EP 104 A and EP 104 B the additional dummy aerial, as shown in Fig. 7, is unnecessary if the signal generator is used with its own detachable dummy aerial.

2. Alignment

- IF:** Connect the signal generator to the aerial socket via dummy aerial. IF circuits are then aligned repeatedly to maximum in the given order.

Adjust the IF rejector for minimum.

Sensitivity measurement: to measure the IF sensitivity the aerial circuit must be unsoldered from the grid of ECH 81 and the signal generator connected through 10.000 pF to this grid.

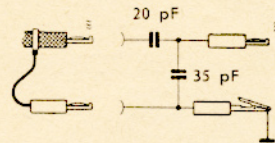


Fig. 7

- RF:** To measure the RF sensitivity connect the signal generator to the aerial socket via the dummy aerial.
- Wave Band:** repeat alignment several times according to the table.

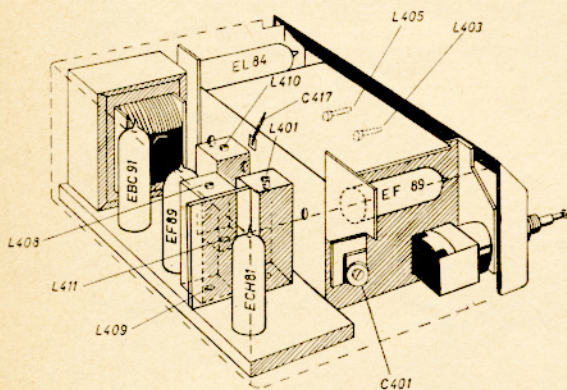


Fig. 8 Positions of Trimming Points

Wave Band	Sig. Gen. Mc/s	to	Scale Setting	Trimming points	IF & RF sensitivity for 50 mW output	
1. IF	0.46	aer.	11	L 411; L 410; L 409; L 408 to max.	at grid EF 89	at grid ECH 81
2. IF	0.46	aer.	11	L 401 to min.	1 mV	15 μ V
				Osc.	at grid ECH 81	at aerial
3. M	1.1	aer.	11	L 405	18 μ V	1.8 μ V
4. M	0.519	aer.	5.19	C 417	20 μ V	12 μ V
LF sensitivity				at Volume control	11 mV	50 mW output at 400 c/s with ton control up
Hum voltages measured at:				C 618 C 619 T 401 (prim.)	0.5 V 0.3 V 0.2 V	Voltages measured with a tube voltmeter

E. Aerial Matching

After alignment and reinstallation the receiver has to be matched to the aerial again. The aerial is fully extended, the volume control turned fully up and the set tuned to a weak signal at about 600 kc/s. Then the aerial trimmer, C 401 should be adjusted for maximum volume.

EF89

Rö401

ECH81

Rö402

EF89

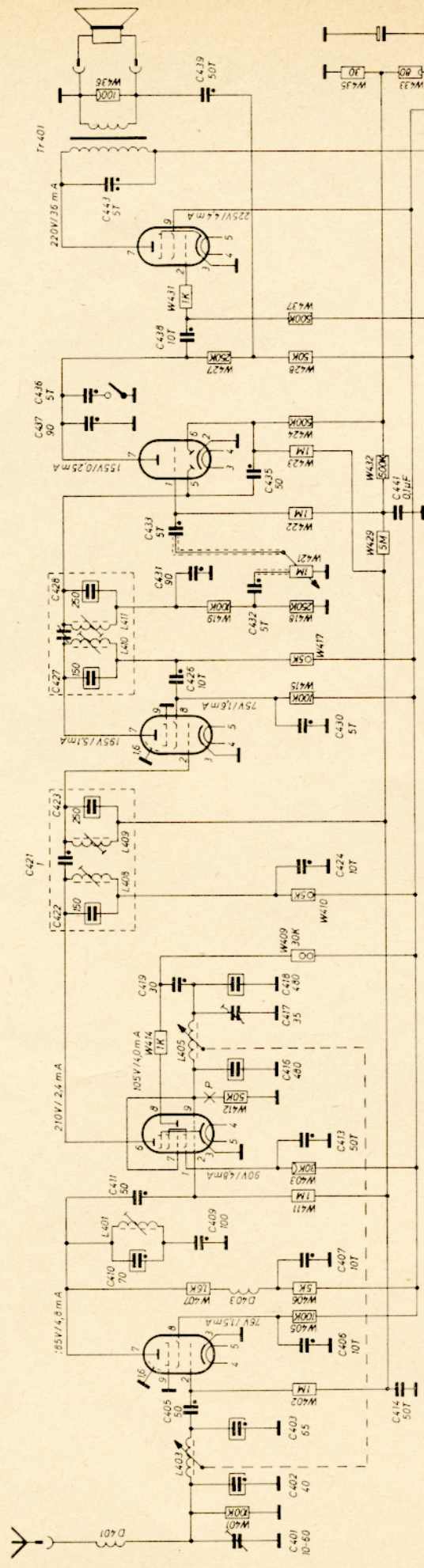
Rö403

EBC91

Rö404

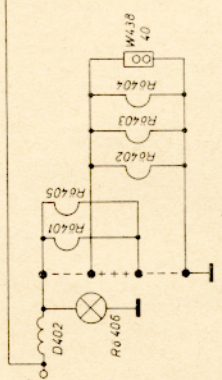
EL84

Rö405



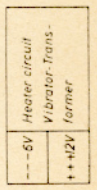
Current consumption
 7V = 6A
 14V = 3.3A

Fuse:
 6V = 8A
 12V = 4A

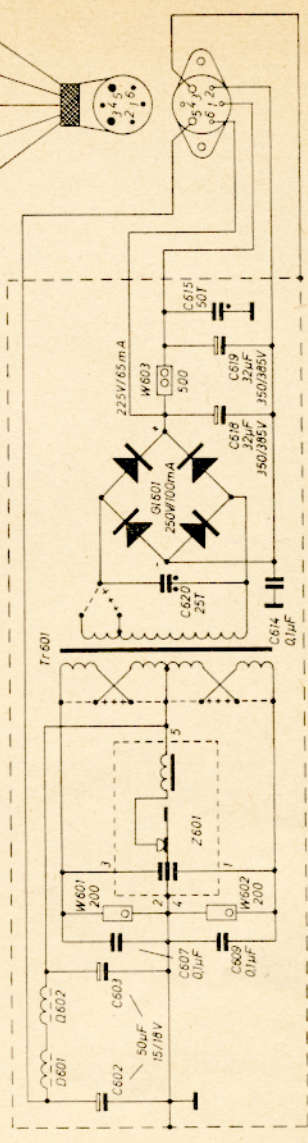
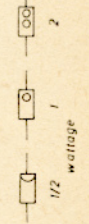
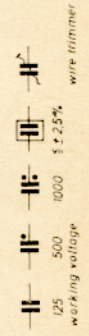


IF = 460 kc/s

Volts are measured by a tube voltmeter (R_i = 10MΩ) and currents by a Multival I (R_i 665Ω/V) with 7 or 14V battery voltage



Oscillator voltages at P_x
 Wave band 1 min. f middle f max.
 M ab.17V ab.14V ab.8.5V



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Modifications reserved!

