

LEKMEK RADIO LABORATORIES

Model No. 501

(3 Sheets)

TECHNICAL DATA

Sheet No.1

SERVICE NOTES.

MODEL 501 BATTERY.

The Model 501 Battery Superheterodyne utilises 5 valves, the general arrangement and circuit being somewhat similar to Model 601 except that the audio driver and the B class stage are omitted and a penthode type 38 valve used as the output valve.

The sensitivity of this model is lower than that of the 601, although fair daylight and strong night reception may be expected.

The 6F7 valve is used as a separate oscillator and first detector; this method has proved itself most satisfactory, as the oscillator will maintain its function under adverse circumstances, such as low batteries, high humidity etc.

CIRCUIT. The circuit diagram shows clearly that the filaments of the valves have been connected in series parallel, and in order to keep down the A drain, the pilot lamp should not exceed 6v at 100 m.a. The circuit arrangement is briefly as follows: The first stage is tuned radio frequency, a type 15 valve being used which is followed by a 6F7 valve arranged to act as the first detector and also as a separate oscillator. The output from this stage is fed to the intermediate frequency section, which is tuned to 186KC, a type 15 valve being used. The second detector or demodulator is of the anode bend type, using a type 15 valve, the plate circuit of which is decoupled from the main plate supply to prevent feedback and subsequent instability. The 2nd Detector stage is resistance capacity coupled to a type 38 output valve. The output from the set is handled by an Amplion Permagnetic Speaker.

VALVES. The valves required for the 501 model are: 3 type 15 valves.
1 type 6F7 valve.
1 type 38 valve.

The valve positions are shown in the layout diagram.

BATTERIES. 3/45v triple cap. B Batteries.
1/3 volt 90 ampere hour A Battery.

See the layout diagram for the colour code adopted for the Battery leads.

VOLTAGE CHART. A chart showing voltages, plate currents, etc. is shown on next page. The voltages were measured with a 1000 ohm per volt meter, with the valves, speaker and batteries connected. These values may differ slightly due to the condition of either the valves and the batteries.

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TECHNICAL DATA

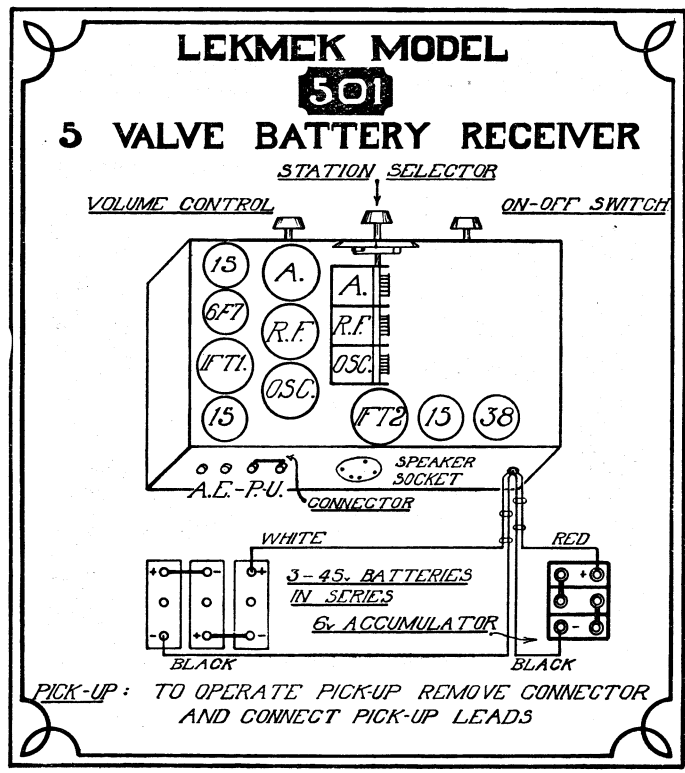
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Sheet No. 2

VOLTAGE CHART.

MODEL 501.

VALVE FUNCTION	VALVE TYPE	PLATE VOLTS	SCREEN VOLTS	BIAS VOLTS	FIL. VOLTS	PLATE CURRENT	SCREEN CURRENT
OUTPUT PENTHODE	38	135	135	-12	6	9 m.a.	2 m.a.
2ND DET.	15	40	20	-1.5	2	.2 m.a.	-
I.F. AMP.	15	135	60	-1	2	2 m.a.	.5 m.a.
1ST DET. and SEPARATE OSCILLATOR	6F7 DUAL PURPOSE	135	60	-4	6	2 m.a.	.5 m.a.
		60	-	-		1.5 m.a.	-
R.F. AMP.	15	135	60	-1	2	2 m.a.	.5 m.a.

VOLUME CONTROL FULL ON - NO SIGNAL.



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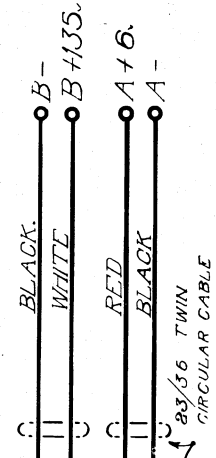
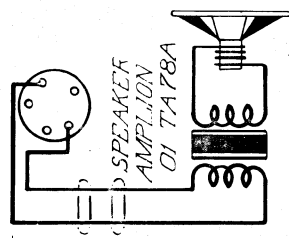
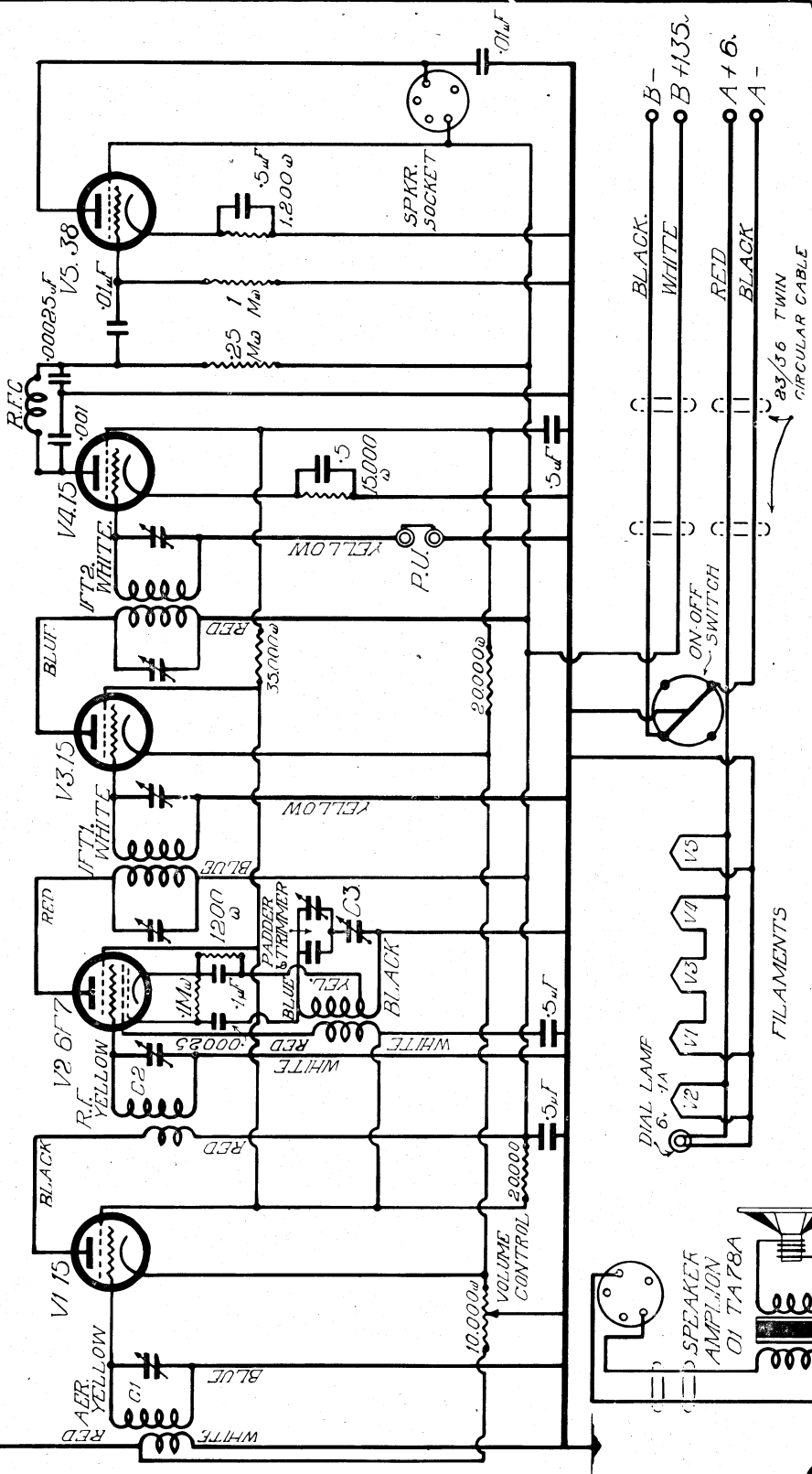
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ISSUE	No.1
DATE	6-8-34
CHD.	<i>g.c.h.</i>

LEKMEK RECEIVER TYPE 501

VALVES: $\frac{3}{5}$ · $\frac{1}{6F7}$ · $\frac{1}{38}$



83/56 TWIN CIRCULAR CABLE

FILAMENTS

BLACK.
WHITE
RED
BLACK

B-
B+35.
A+6.
A-