

HMV 148, 159 MARCONIPHONE 282, 284, 284A, 294 COLUMBIA 1008

All the above models incorporate the basic chassis described in this review. The differences concern only cabinet design, loudspeaker frets and so on. The circuit is a three-valve, two-waveband TRF battery arrangement with reaction and sensitivity controls. Extra loudspeaker of the high-impedance type may be connected across the primary of the output transformer. Marketed by the Gramophone, Marconiphone, and Columbia Graphophone Companies, Hayes, Middx.

SIGNALS from the aerial are coupled by L1 to the grid tuning coils L2 (MW), L3 (LW). These are tuned by VC1 section of the ganged condenser and the signals are fed direct to the grid of the screened grid valve V1.

The filament circuit of this valve incorporates a variable resistance VR1 for adjusting its sensitivity

and is controllable by a knob in the front of the instrument.

Grid bias is applied to V1, the grid circuit being decoupled C1.

An HF transformer L4, L8 (MW), L5, L9 (LW), couples the signal from V1 to the grid circuit of the triode detector V2. L8 and L9 are tuned by VC2 section of the ganged condenser, while detection is effected by the grid condenser and leak C2, R2.

Pick-up sockets are provided for a high resistance pick-up, and V2 is automatically biased as an LF amplifier when the pick-up leads are inserted in their sockets. A separate volume control will be required for the pick-up.

The anode circuit of V2 comprises an HF choke L10 and by-pass condensers C3, C4. Reaction to the grid coils is effected by the variable condenser VC3 which operates as a volume control, and the reaction coils L6 (MW), L7 (LW).

LF signals are resistance-capacity coupled by R1 and C5 to the inter-valve transformer L12, L13, via a whistle suppressor rejector circuit L11, C6.

A separate grid bias lead is provided for the output valve (GB-2) and the highest possible bias should be provided consistent with freedom from distortion in order to minimise HT battery consumption. As the voltage of the battery falls, so the grid bias voltage should be decreased.

From L13 the LF signals are fed to the grid of the output pentode V3. The usual output transformer couples the anode of V3 to the moving-coil PM loudspeaker and terminals are provided for a high resist.

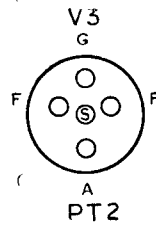
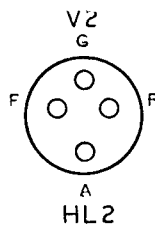
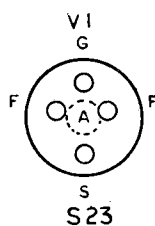
VALVE READINGS

V.	Type.	Electrode.	Volts.	Ma.
1	S23	Anode	114	1.5†
		Screen	60	.75†
2	HL2	Anode	50*	1.25
3	PT2	Anode	106	3.75
		Screen	114	1.25

† With VR1 fully advanced.

* Only a high o-p-v meter will give this reading due to anode resistance.

HT battery consumption will be increased 100 per cent. if LT leads are reversed to accumulator.



This simple battery receiver was a popular model marketed by the EMI companies in different cabinets. The illustration above shows the Marconiphone version.

RESISTORS

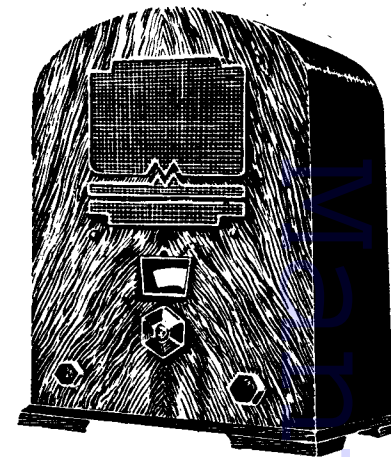
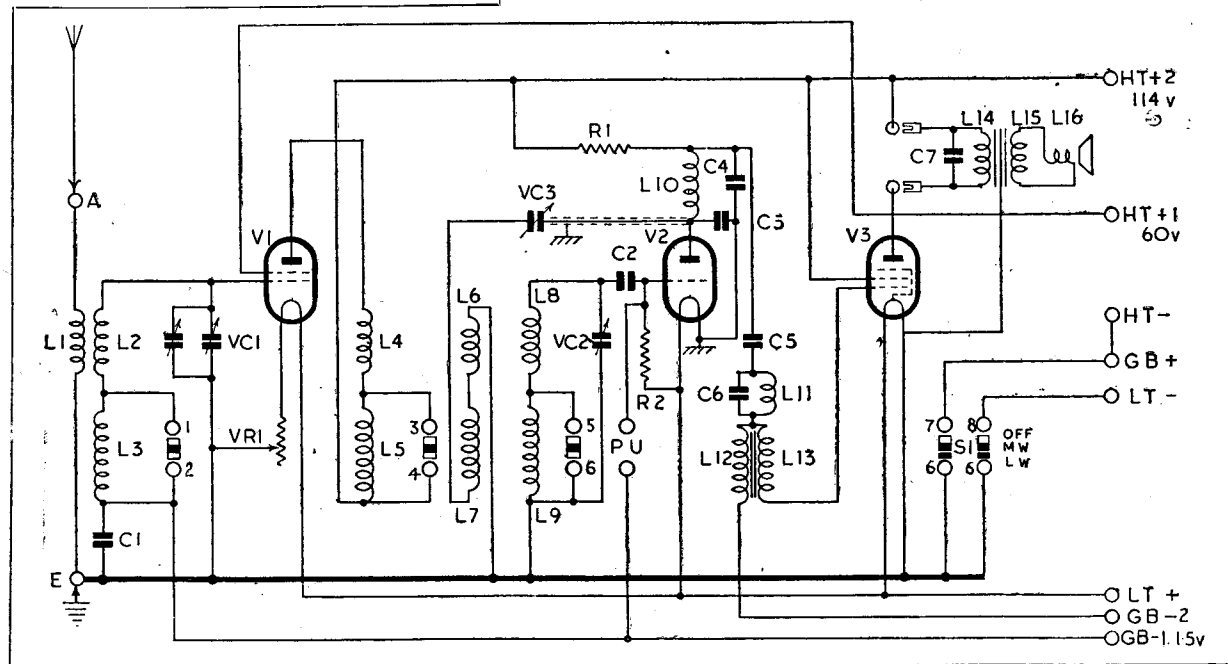
R.	Ohms.
1	50,000
2	2 meg.
VR1	50

CONDENSERS

C.	Mfds.
1	.1
2	.0002
3	.0005
4	.001
5	.1
6	.0005
7	.002

WINDINGS

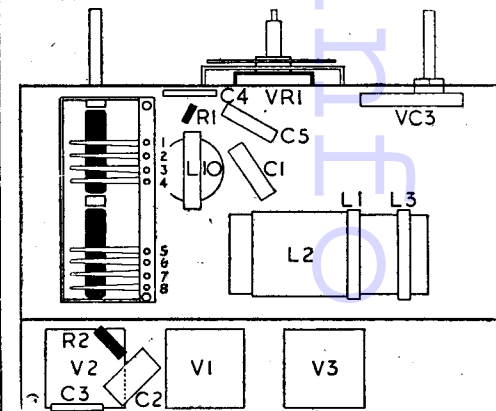
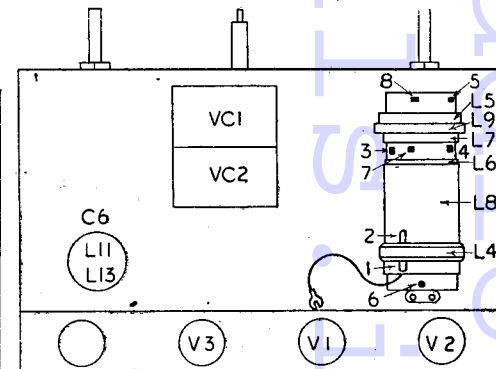
L.	Ohms.
1	10
2	2.5
3	15.5
4	6
5	9
6	4
7	total.. 4
8	2.5
9	13.5
10	95
11	total.. 1,500
12	4,250
13	825
14	1
15	1
16	4



ance extra loudspeaker across the primary, L14, of the output transformer.

A permanent degree of tone correction is effected by C7.

TRIMMING.—Only one trimming condenser is provided across VC1. This should be adjusted on a weak signal input of about 200m for maximum output.



RADIO MARKETING SERVICE ENGINEER-V