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MARCONIPHONE

571, 572, 573

HMV 456, 457, 458

Five-valve, plus rectifier and cathode-ray tuning indicator, three-waveband superhet for operation from AC or DC mains, 105-225V, 40-100 cycles (40-60 cycles for radiograms). Models 571 and 456 are table types, 572 and 457 radiograms, 573 and 458 automatic radiograms. Marketed by the Gramophone and Marconiphone Companies, Hayes, Middx.

SIGNALS are fed via C1 to the aerial tuning coils L1 (SW), L2 (MW) and L3 (LW) which are tuned

by VC1 section of the triple ganged condenser. Signals are fed direct to the grid of the HF pentode V1, which incorporates tuned anode circuits L4, L5 and L6.

C5 is a blocking condenser which isolates VC2 section of the ganged condenser from the HT circuit and C6 couples the signals to the grid of the heptode frequency changer V2.

VALVE READINGS

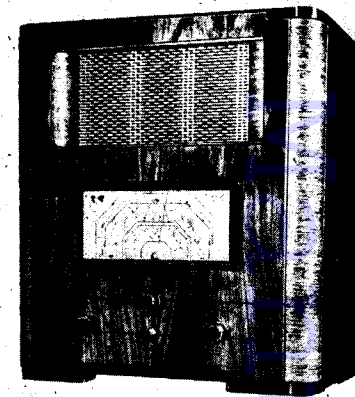
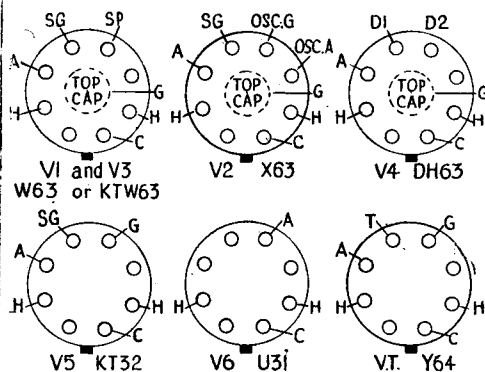
Taken on 225 v AC mains. No aerial and no signals.

V	Type	Electrode	Volts	Ma
1	KTW63 or W63	Anode	135	3.8
		Screen	75	1
2	X63	Anode	135	2.5
		Osc. Anode	110	3
3	KTW63 or W63	Screen	75	2.4
		Anode	125	4
4	DH63	Screen	75	1
		Anode	75	.7
5	KT32	Cathode	1.1	—
		Anode	140	54
6	U31	Screen	135	4
		Cathode	6	—
T.1	Y64	Cathode	157	80
		Cathode	157	80

Pilot lamps, 6-8 v, .15 amp M.E.S. Fuses, 1.25 amp each.

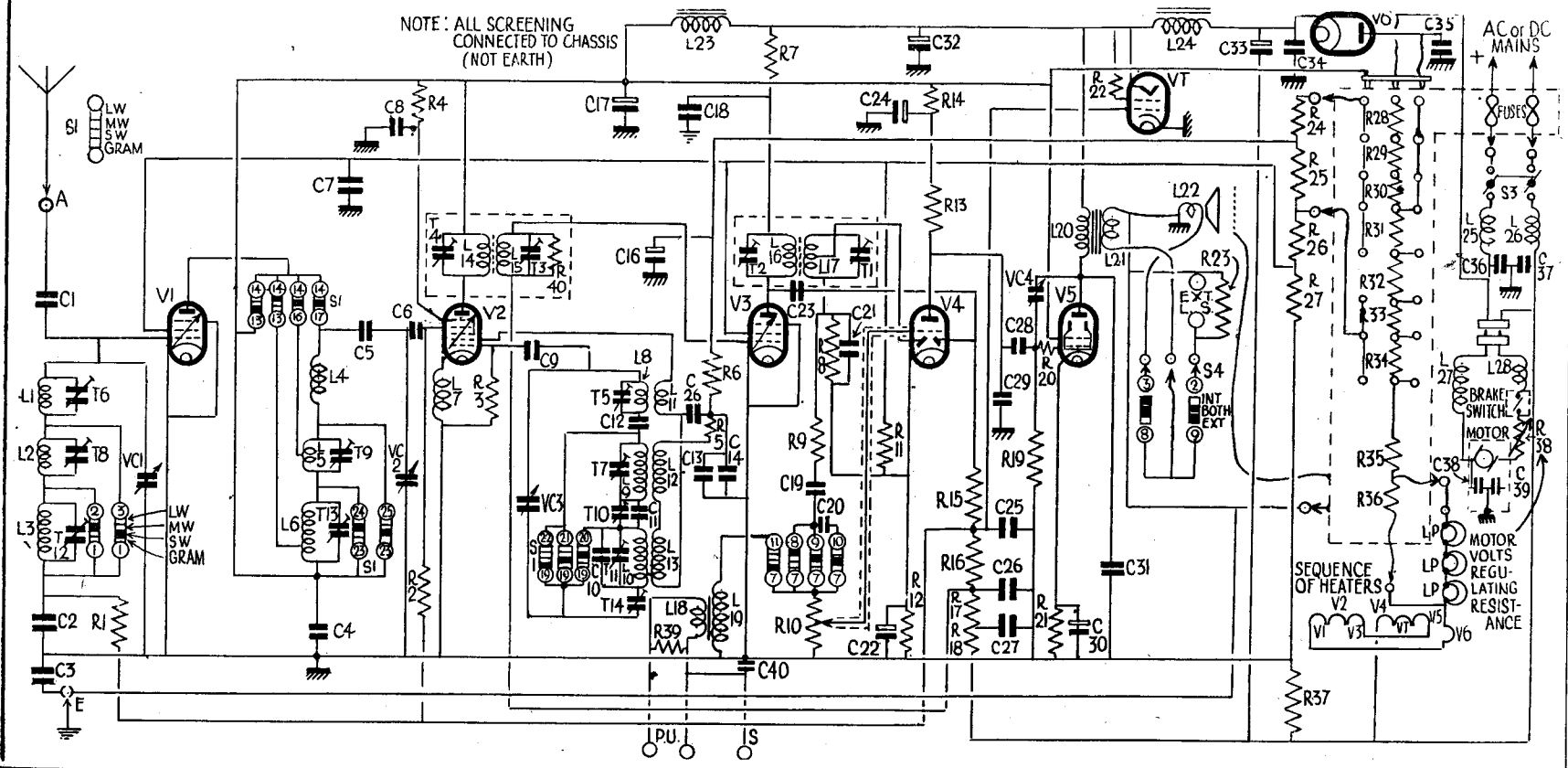
L7 is a short-wave frequency stabilising coil in the cathode circuit of V2; the oscillator circuits employ tuned-grid coils L8, L9, L10, tuned by VC3. R3 and C9 are the grid leak and condenser. Anode reaction coils are L11, L12 and L13.

Continued overleaf



This is the Marconiphone 571 version of the six-valve and tuning indicator, three-waveband AC-DC superhet which was also issued in the HMV 456 range.

NOTE: ALL SCREENING CONNECTED TO CHASSIS (NOT EARTH)



RESISTORS

R.	Ohms	R	Ohms
1	75,000	21	100
2	500,000	22	500,000
3	50,000	23	50
4	35,000	24	1,500
5	100	25	1,500
6	1,000	26	3,500
7	5,000	27	15,000
8	500,000	28	64
9	100,000	29	54
10	2 meg.	30	61
11	100,000	31	62
12	1,000	32	40
13	75,000	33	55
14	35,000	34	37
15	750,000	35	17.5
16	750,000	36	68
17	230,000	37	23
18	500,000	38	250-1,500
19	350,000	39	15,000
20	50,000	40	750,000

CONDENSERS

C	Mfds	C	Mfds
1	.75 mmfd	21	.0001
2	.05	22	.50
3	.005	23	.75 mmfd
4	.1	24	.1
5	.1	25	.1
6	.35 mmfd	26	.1
7	.1	27	.1
8	.05	28	.035
9	.50 mmfd	29	.0005
10	.15 mmfd	30	.50
11	.350mmfd	31	.0023
12	.0035	32	.32
13	.005	33	.16
14	.4	34	.05
15	.0001	35	.05
16	.4	36	.01
17	.8	37	.01
18	.05	38	.02
19	.005	39	.02
20	.001	40	.005

HMV 456 : MARCONI 571

Continued

The tuning indicator grid is fed from the DC potentials across R15 and R16.

The automatic volume control diode of V4 is fed from the anode of V3 via C37, the load resistance being R25.

LF signals are resistance-capacity coupled by R23 and C45 to the primary, L26, of the inter-valve transformer. C42 in the anode circuit of V4 is switched into circuit in the contrast position of the variable selectivity control to increase the bass response.

On gramophone the output from the pickup is fed across R16, from where it is taken via R15 and C40 to the volume control.

From the inter-valve transformer secondary L27 the LF signals are fed via grid stoppers R26, R27 to the grids of the output pentodes V5, V6 working in push-pull and the output transformer L28, L29 couples the valves to the low-impedance energised loudspeaker in which L30 is the speech coil, L31 the hum-bucking coil and L32 the field coil. A variable tone control network comprising R31, C47 and VR is connected across L28.

The high-tension circuit follows the usual lines with a full-wave rectifier V7 supplying the HT which is smoothed by L32, C50 and C51.

GANGING

IF Circuits.—A damping circuit comprising a 30,000 ohm resistance in series

WINDINGS

L	Ohms
1	.1
2	5.9
3	14
4	.1
5	5.5
6	14
7	.1
8	.1
9	5.5
10	4.2
11	1
12	2
13	3
14	6.3
15	6.3
16	6.3
17	6.3
18	172
19	280
20	160
21	.9
22	.5
23	550
24	66
25	2.5
26	2.5
27	.5
28	.5

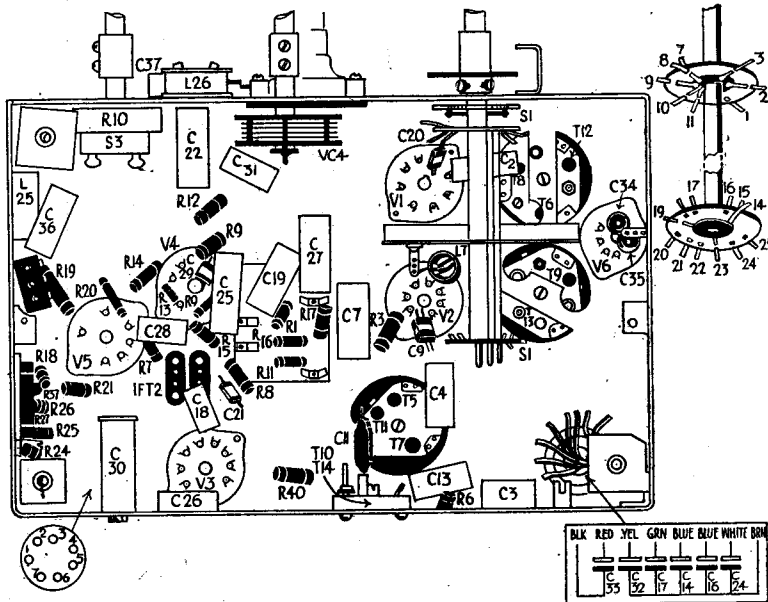
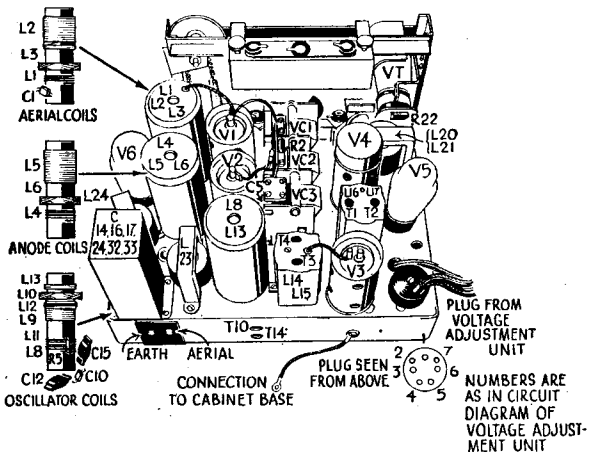
with a .05 mfd condenser must be connected across the winding of an IF transformer when the other winding is being trimmed.

Inject a 465 kc signal into the control grid of V3. Adjust T1, T2, T3 and T4 in that order for maximum output.

SW Band.—Check tuning pointer. With gang condenser at full capacity the centre of the pointer should coincide with the top of the medium or long wave lines on the scale.

Switch to SW, volume control at maximum, tone control to low and variable selectivity switch to normal.

Continued on page viii



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