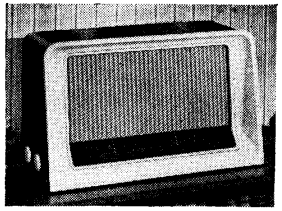
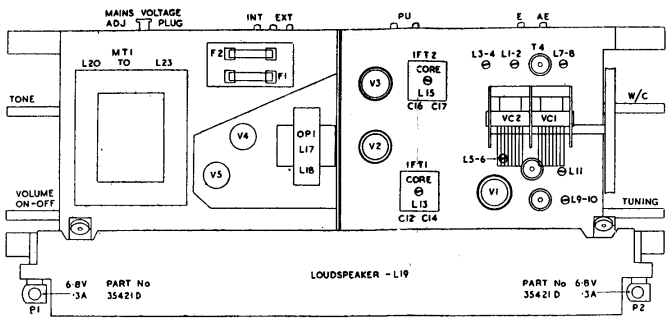
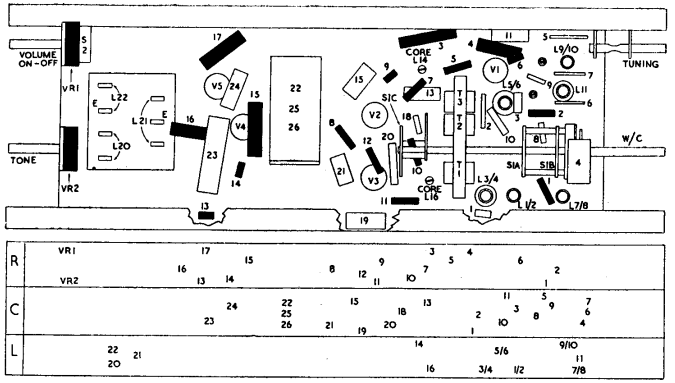
HMV 1125



Price £24 3*s*. (£18 4*s*. 6*d*. *plus* £5 18*s*. 6*d*. *tax*).
Release date : July 1953.

Five-valve three-waveband table model superhet covering 16.3—51.7, 187—575, 900—2000 *metres. Dark polished wood cabinet with cream plastic escutcheon. For* 195-255*V* 50-100c/s *AC. Distributed by E.M.I. Sales and Service Ltd., Hayes, Middlesex.*

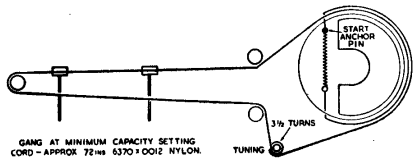




THE receiver is a five-valve table model superhet employing an X78 triode-hexode frequency-changer with tuned-anode shunt-fed oscillator circuit, a W77 IF amplifier, a DH77 signal rectifier and AF amplifier, an N78 pentode output amplifier, and a U78 indirectly heated full-wave rectifier.

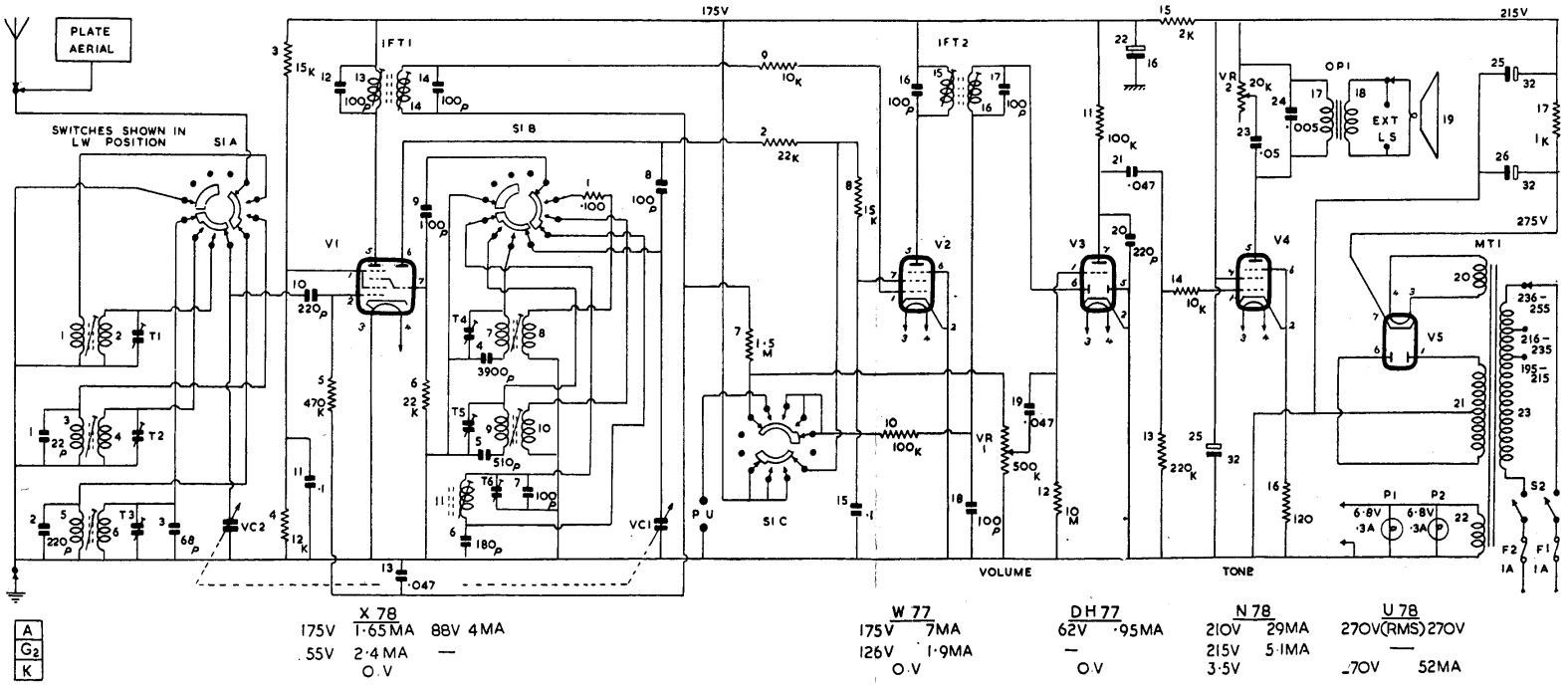
Aerial. Receiver is fitted with an internal plate aerial which is formed by a sheet of metal-foil glued to inside of rear cover. The plug on the plate aerial lead is inserted into aerial socket at rear of chassis. The plate aerial is only intended for reception of the more powerful transmissions on MW and LW bands, and in difficult reception areas or where max. sensitivity is desired, then a good external aerial should be employed. An earth terminal is provided

Continued overleaf



COMPONENT RATINGS

Resistors
1 Watt R1, 2, 5, 7, 8, 10-12
1 Watt R3
2 Watt R4 16
6 Watt R15, R17
All rest ¼Watt
VR1 is a 500K carbon potentiometer with DP switch
VR2 is a 20K carbon potentiometer
Capacitors
Silver Mica—C1-7, 12, 14, 16, 17
Ceramicon—C8-10, 18, 20
Tubular 150V—C11, 13, 15, 19, 21
Tubular 1000V—C23 24
Electrolytic 375V—C22 25 26



X 78			W 77		DH 77	N 78		U 78	
175V	1·65MA	88V 4MA	175V	7MA	62V	·95MA	210V	29MA	270V(RMS) 270V
55V	2·4MA	—	126V	1·9MA	—		215V	5·1MA	—
	O·V			O·V		O·V	3·5V		·70V 52MA

INDUCTORS

L	*Ohms*
1	... Very low
2	... Very low
3	... 29
4	... 3.5
5	... 62
6	... 25
7	... Very low
8	5
9	... 3.9
10	... 3.5
11	... 7
13	... 15
14	... 5
15	... 5
16	... 5
17	... 310
18	... Very low
19	... 3
20	... Very low
21	... 900
22	... Very low
23	... 60 Total

HMV 1125—*continued*

to which is secured tag on lead from metal foil screening adjacent to plate aerial on inside of rear cover.

Volume is controlled by VR1 which functions as signal diode rectifier load. Signal from VR1 is coupled by C19 to grid of triode AF amplifier section of V3.

AVC. The DC component of signal voltage developed across VR1 is decoupled by R7 C13 and applied to control grids of V1 V2 as AVC voltage.

Tone control is provided by VR2 which, in series with C23, is shunted across primary L24 of output matching transformer OP1.

HT is provided by an indirectly heated full-wave rectifier V5 fed from HT secondary L21 of mains input transformer MT1. Resistance-capacity smoothing is given by R17 C25 C26, and by R15 C22. Reservoir smoothing capacitor should be rated to handle 85mA ripple current.

Heaters of V1 to V4 and dial lamps are wired in a parallel circuit fed from 6.3V secondary L22 of mains input transformer MT1. It should be noted that the cathode of V1 (X78) is internally connected to one side of heater.

On-off switch S2 is ganged to volume control spindle. Mains input is fitted with a 1A fuse in each lead.

Chassis Removal. Complete access to receiver chassis is given if the combined rear and base cover is removed. Removal of chassis—pull off the four control knobs, unscrew and remove the four chassis-fixing bolts and unsolder the leads from tags on speaker.

Alignment. Input to receiver must be progressively reduced as circuits are brought into line so that the output, measured on an AC meter (rectifier type), connected across secondary L18 of OP1, does not exceed 1.4V.

TRIMMING INSTRUCTIONS

(1) 470kc/s to gl of V1 via .01mF capacitor	MW band with VC1-VC2 at minimum cap.	Cores L16, L15, L14, L13
(2) 5.8mc/s to aerial socket via suitable dummy aerial	51.7 metres	Core L7
(3) 18.4mc/s as above	16.3 metres	T4
(4) 6mc/s as above ...	50 metres	Core L2
(5) 17.8mc/s as above ...	16.8 metres	T1
(6) Repeat operations 2 to 5		
(7) 522kc/s as above ...	575 metres	Core L9
(8) 1.605mc/s as above...	186.9 metres	T5
(9) 588kc/s as above ...	510 metres	Core L4
(10) 1.427mc/s as above	210 metres	T2
(11) Repeat operations 7 to 10		
(12) 150kc/s as above ...	2,000 metres	Core L11
(13) 333kc/s as above ...	901 metres	T6
(14) 162kc/s as above ...	1,850 metres	Core L6
(15) 300kc/s as above ...	1,000 metres	T3
(16) Repeat operations 12 to 15		

SERVICE CASEBOOK

KOLSTER-BRANDES FV30

LACK of height. Checked 6SM7 frame osc., also 6V6 for emission. These proved OK. All voltages seemed close enough to data values. Height control R37 (ERT sheet) was correct and FT2, frame OP transformer, proved OK.

After systematically checking the rest of components the fault was found to be R41, 390K having gone high.—H. H.

PYE TV MODEL V4

LOSS of line hold which could not be locked either by hold control or by varying C97 (ERT service sheet), the preset horizontal hold.

It was presumed that sync pulses were lacking. Checking the various sync components failed to find the fault. The faulty component was finally traced to C93 which cross-couples the pentode section screen grid to the triode section grid. Replacing this 100pF condenser brought things to normal.

Here is a footnote. As most engineers will know, this model has never been particularly good on line hold ; in fact, Pye sent out modification data to help correct this. I did the modification on two sets and improved them a little. But I found that by changing the aforesaid C93 (the culprit which gave trouble) to 300pF the lock was improved considerably.—H. H.

THREE QUICKIES

SMALL universal superhet was unstable with aerial connected. It was found that the set was stable with a different speaker.

Inspection of the speaker showed that windings of speech coil were shorting intermittently to the pole pieces, causing interference to be picked up on the aerial, so introducing feedback.—G. W.

ELUSIVE crackling when on radio on two radiograms has proved to be due to leakage across the capacitor shunting the gram motor switch.

DISTORTION varying with volume on an Ekco A28 was found to be caused through the reversal of top two leads of the volume control when the latter was replaced by previous serviceman.—G. W.

PHILCO MODEL 1551T

COMPLAINT—background noise, almost a whistle. As I was about to start checking the sound receiver side for o/c decoupling components, I noticed a steady stream of blue sparks at the base (inside the valve) of the PY80 booster rectifier. A new rectifier cured the background noise.

The timebase had another fault on it so no raster was visible, or the two faults would have been connected, but the noise was such that it appeared to emanate from the sound receiver side and not related to the timebases at all.—A. R.

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