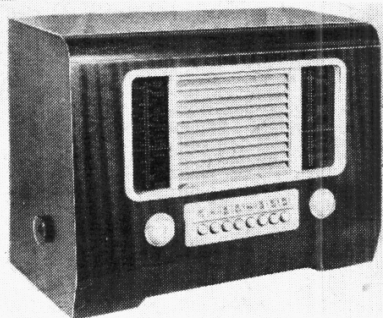


"TRADER" SERVICE SHEET

848

H.M.V. 1119

Covering also 1114 and Radiogram 1605



The appearance of the H.M.V. 1119 A.C. superhet. The 1114 is of somewhat similar appearance, but the cabinet is a plastic moulding.

PRESS-BUTTON tuning is provided for five stations in the H.M.V.1119, a 4-valve (plus rectifier) 3-band superhet, designed to operate from A.C. mains of 195-255V, 40-60 c/s. Switching is provided for a gramophone pick-up and external speakers, and they may be left permanently connected.

The 1114 chassis is like that in the 1119, but the cabinet is made of plastic instead of wood. The 1605 autoradiogram employs a modified 1119 chassis, the differences being explained overleaf.

Release dates and original prices: 1119, April, 1947, £26 5s, increased October, 1947, to £28 7s; 1114, October, 1946, £18 18s, increased February, 1947, to £24 3s; 1605, February, 1947, £73 10s, increased October, 1947, to £78 15s. Purchase tax is not included in these prices.

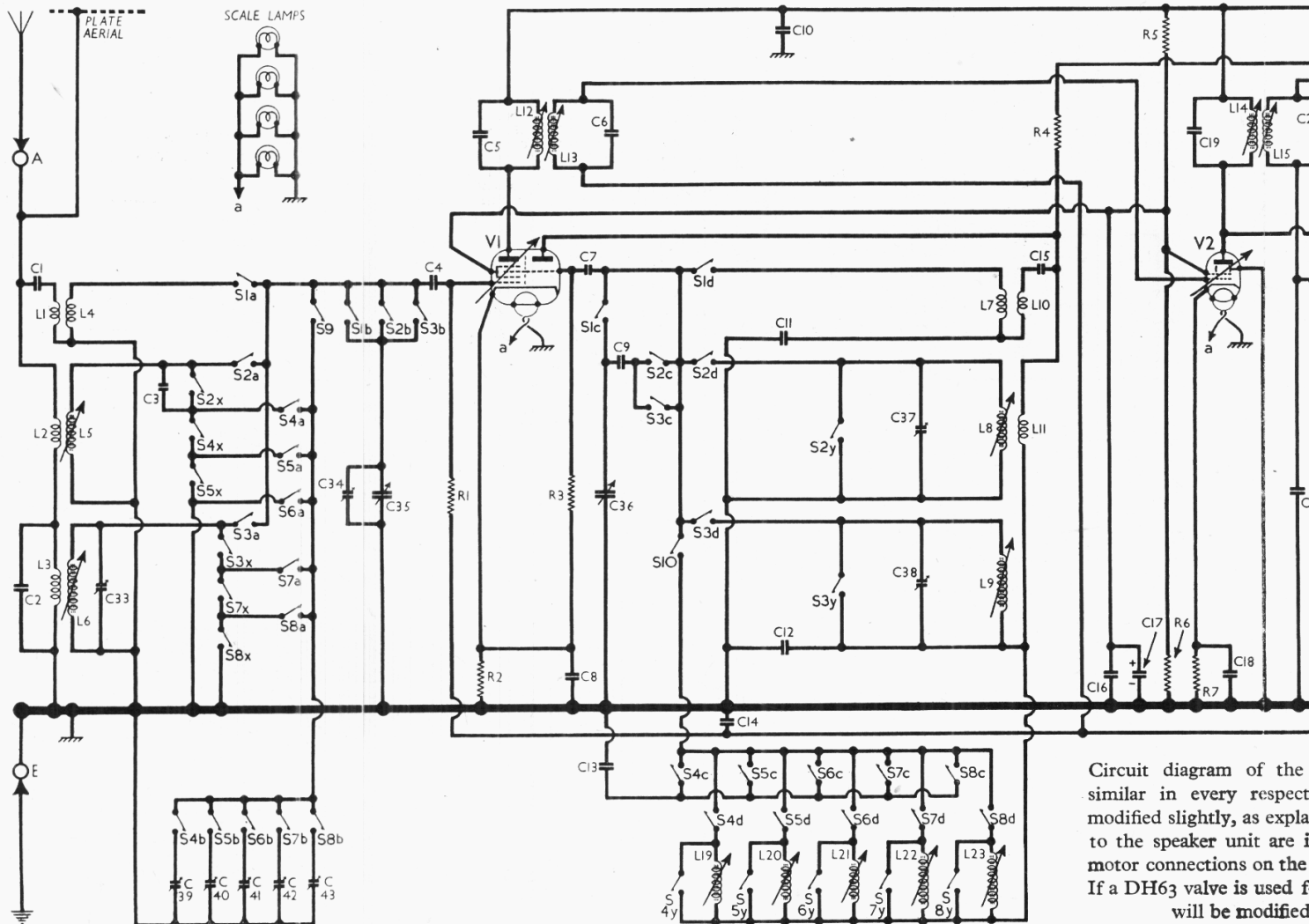
CIRCUIT DESCRIPTION

Aerial input is via coupling coils L1 (S.W.), L2 (M.W.) and L3 (L.W.) to L4 (S.W.), L5 (M.W.) and L6 (L.W.), tuned manually by C35, via S1a, b (S.W.), S2a, b (M.W.) and S3a, b (L.W.). For automatic tuning, C35 is replaced by pre-set trimmer type capacitors C39, C40, C41 (M.W.) and C42, C43 (L.W.). Selection is achieved by press-button switches

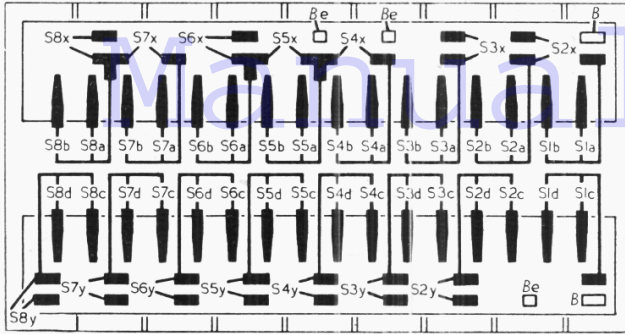
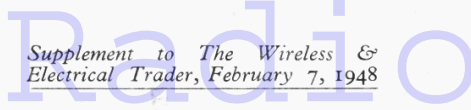
S4a, b to S8a, b, x. These switches are coded with suffix letters to indicate their functions, and are arranged in groups. Two groups are controlled by each press-button, one belonging to the aerial circuit and one to the oscillator.

All the switches in the two groups belonging to a given press-button bear the same number, the individual switches in each group being identified by the suffix letter. If the suffix is a, b, c or d, the switch closes when its button is pressed; if the suffix is x or y, the switch opens. When a button is released (by pressing another button), its a, b, c, d switches open, and its x and y switches close. When the manual tuning system is in operation the automatic tuning switches are disconnected, via master switches S9, S10.

First valve (V1, Marconi metallised X61M) is a triode-hexode operating as frequency changer with internal coupling. For manual operation, triode oscillator grid coils L7 (S.W.), L8 (M.W.), and L9 (L.W.) are tuned by C36 via S1c, d to S3c, d. Parallel trimming by C37 (M.W.) and C38 (L.W.); series tracking by C11 (S.W.), C9 (M.W.), and C9, C12 (L.W.). Mixed reaction coupling from anode, via C15, L10 and common impedance of tracker C11 on



Circuit diagram of the similar in every respect modified slightly, as explained to the speaker unit are identical motor connections on the If a DH63 valve is used for will be modified



Diagrams of the two sides of the press-button switch unit. Upper, the side seen in our under-chassis view; lower, the side seen in our view of the tuning assembly at the foot of cols. 5 and 6.

OTHER COMPONENTS (continued)	Approx. Values (ohms)	Location
S9	—	G4
S10	—	M7
S11, S12	—	H4
S13-S15	—	I6
S16, S17	—	G6
S18	—	E3

VALVE ANALYSIS

Valve voltages and currents given in the table below are those quoted by the manufacturers. With the receiver operating on mains of 220V they give the total H.T. current as 72mA. Voltages were measured with a meter having a resistance of 500 ohms-per-volt.

Valve	Anode Voltage (V)	Anode Current (mA)	Screen Voltage (V)	Screen Current (mA)
V1 X61M	244	5.8	92	1.3
V2 KTW61M	65	6.0	—	—
V3 DL63M	244	8.2	92	2.7
V4 KT61	68	0.5	—	—
V5 U50	230	35.2	244	5.9
	319§	—	—	—

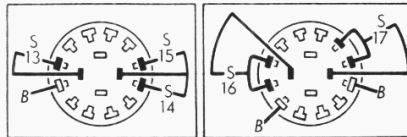
§ Each anode, A.C.

DISMANTLING THE SET

Almost unimpeded access to the underside of the chassis may be obtained upon removal of

the bottom cover (three round-head wood screws).

Removing Chassis.—Remove the two front control knobs (take care not to loose their fixing screws) and the side control knob (pull off); detach the plate aerial lead (one round-head wood screw and washer), and unclip the four scale lamp holders; loosen the clamping screw of each scale cursor, and lift out the associated drive wire; loosen the speaker lead cleat on the sub-baffle, lift out the leads, and remove the four hexa-



Diagrams of the two small switch units, drawn as seen from the front of an inverted chassis. Left, the radio/gram switch unit; right, the speaker switch unit.

gon-head chassis retaining bolts (with spring and claw washers) from the underside of the cabinet;

the chassis may now be removed from the cabinet to the extent of the speaker leads, which is sufficient for most purposes.

To free the chassis entirely, unsolder from the panel on the speaker the four leads joining it to chassis.

When replacing, reconnect the speaker leads as follows, numbering the tags on the panel in a clockwise direction when viewed from the

rear: 1, no external connection; 2, blue; 3, yellow, 4, red; 5, black.

Removing Speaker.—Remove the four round-head bolts (with washers) securing the speaker to the sub-baffle.

When replacing, the connecting panel should be at the top, and if the leads have been unsoldered they should be reconnected as previously described.

Removing Tuning Assembly.—Unsolder the ten leads connecting the assembly (at points indicated in our under-chassis picture by the numbers 1-10 in squares), remove the top cap connector from V1 grid lead, and draw the lead back into the chassis through grommet provided;

remove the four self-threading screws securing the tuning assembly and substitute scale to the front chassis member, and lift out the assembly, taking care not to foul the pointer drive wire.

When replacing, the ten leads should be reconnected to the numbered points indicated in our under-chassis picture as follows: 1, metal braided lead from tuning assembly; 2, stiff tinned copper lead; 3, short green lead from press-button switch unit; 4, screened aerial lead; 5, yellow plastic covered lead; 6, white; 7, yellow rubber covered lead; 8, lead from C25; 9, screened lead from S14; 10, lead from C24.

The long green lead from C4, R1 on the press-button switch should be threaded back, through the grommet provided, to the chassis deck where V1 top cap connector may be resoldered to it.

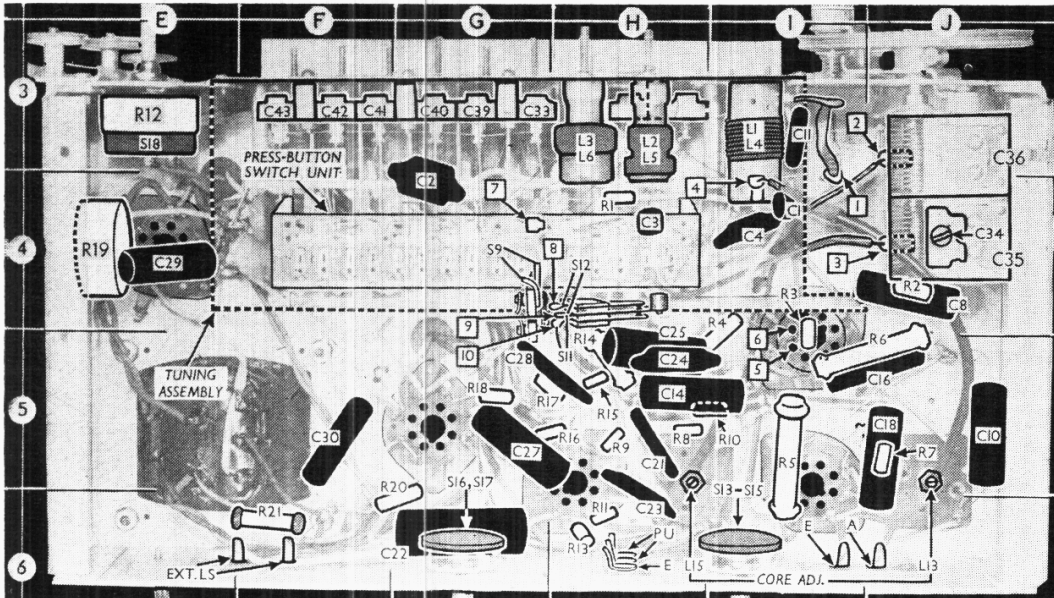
GENERAL NOTES

Switches.—The press-button switches are numbered S1 to S8, with suffix letters a, b, c, d, as explained under "Circuit Description" overleaf. The S1 switches are controlled by the S.W. manual button, the S2 switches by the M.W. manual button, and the S3 group by the L.W. manual button. S4, S5 and S6 groups are controlled by the three M.W. pre-set station buttons, and S7 and S8 by the two L.W. pre-set buttons. Both sides of the press-button switch unit are shown in detail in the diagrams at the head of cols. 1 and 2.

S9, S10 and S11, S12 are in two external units mounted on the press-button unit and operated by the plungers. S9, S10 open when any manual button is pressed, and close when any auto button is pressed. When the S.W. button is pressed, S12 opens and S11 closes, but otherwise S12 is closed, and S11 open.

S13-S15 is the radio/gram switch unit, and S16, S17 is a 3-position speaker muting switch unit. Both are indicated in our under-chassis view, mounted on the rear chassis member. They are shown in detail in the diagrams in col. 2, where they are viewed from the front of an inverted chassis.

S13 and S14 close when their control is turned to radio (anti-clockwise), or S15 closes when



Under-chassis view. The press-button unit is indicated here, but diagrams at the head of cols. 1 and 2 above show both sides in detail. The upper side of the tuning unit is shown in the photograph at the foot of cols. 5 and 6. The numbers 1 to 8 in squares show the interconnecting points between the tuning assembly and the main chassis.

