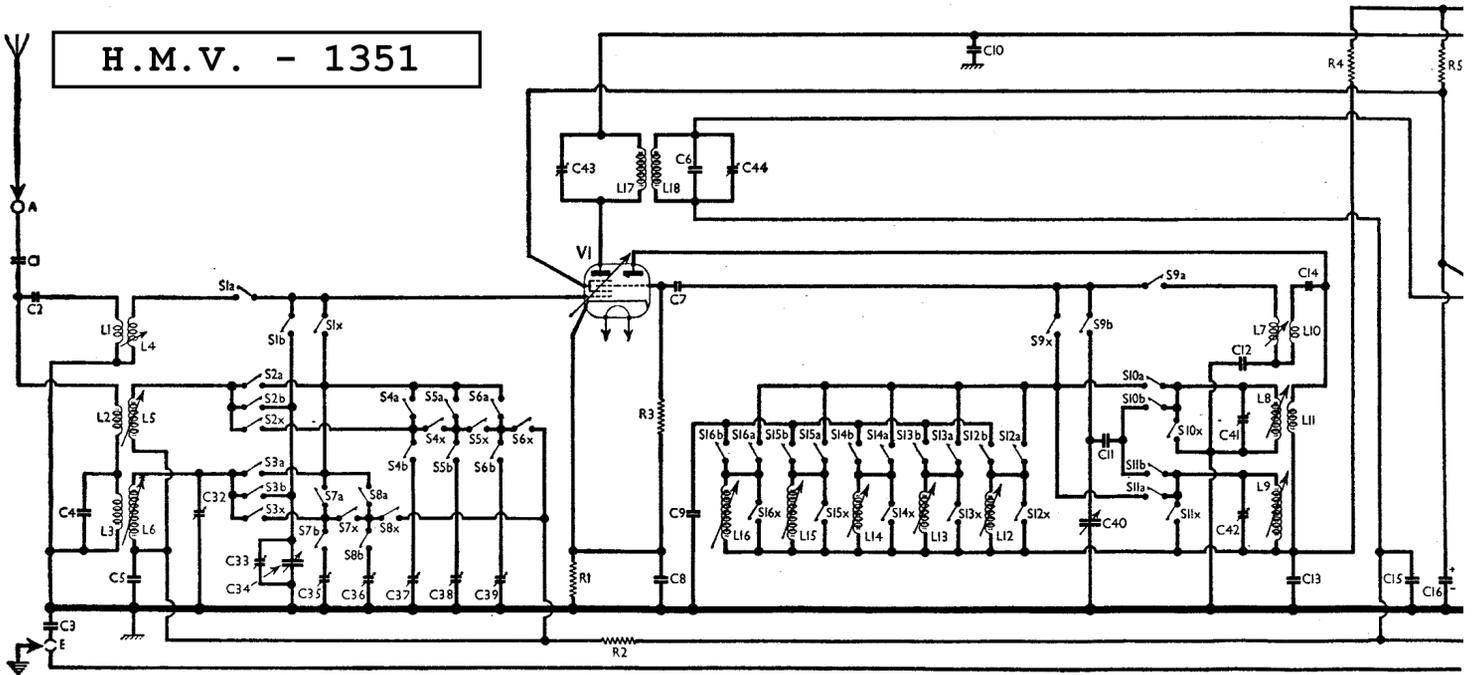


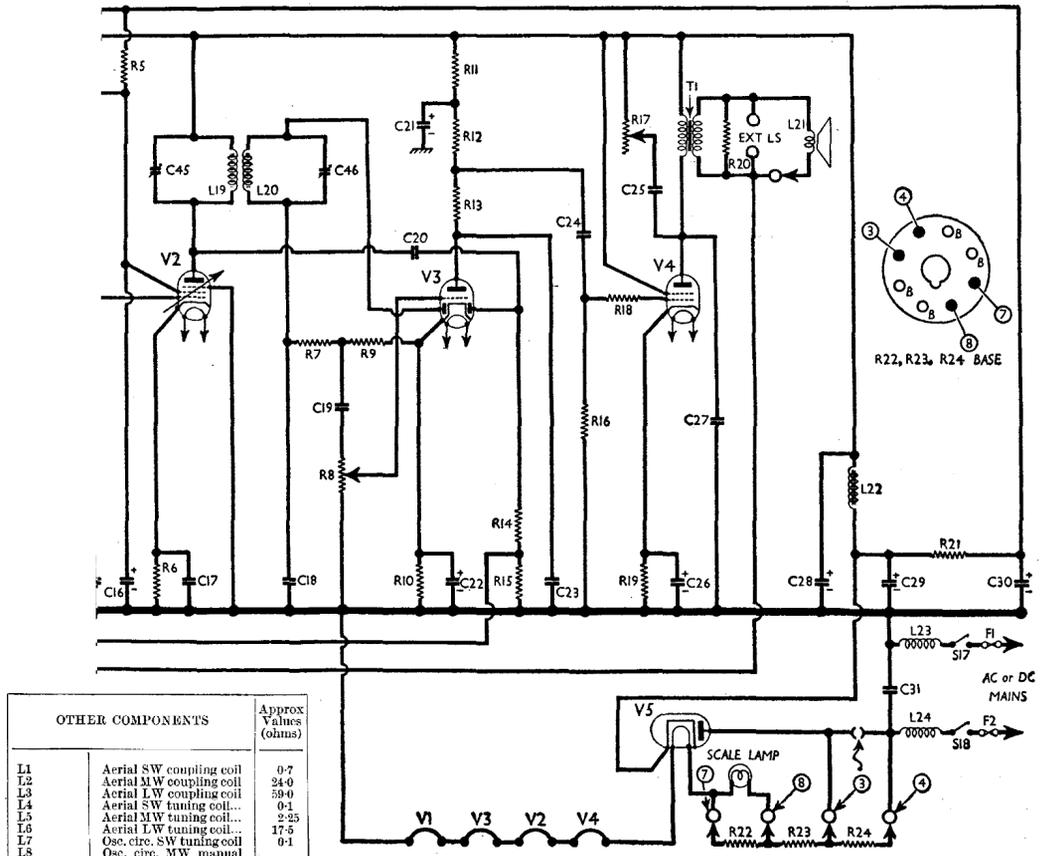
H.M.V. - 1351



CONDENSERS		Values (μF)
C1	Aerial isolating condenser	0-0005
C2	Aerial SW coupling...	0-000035
C3	Earth isolating condenser...	0-01
C4	Image suppressor	0-0005
C5	V1 hexode CG decoupling...	0-05
C6	1st IF trans. sec. trimmer...	0-00025
C7	V1 osc. CG condenser	0-000075
C8	V1 cathode by-pass...	0-05
C9	Osc. circuit auto tuning	0-00023
C10	HT circuit RF by-pass	0-1
C11	Osc. circ. MW & LW tracker	0-0005
C12	Osc. circuit SW tracker	0-005
C13	Osc. LW and auto reaction coupling condenser	0-00035
C14	SW reaction coupling	0-00005
C15	V2 CG decoupling	0-05
C16*	V1, V2 SG's decoupling	2-0
C17	V2 cathode by-pass...	0-05
C18	IF by-pass	0-0001
C19	AF coupling to V3 triode	0-05
C20	Coupling to V3 AVC diode	0-0001
C21*	V3 triode anode decoupling	4-0
C22*	V3 cathode by-pass...	50-0
C23	IF by-pass	0-0005
C24	V3 triode to V4 AF coupling	0-05
C25	Part of variable tone control	0-15
C26*	V4 cathode by-pass...	25-0
C27	Fixed tone corrector	0-0023
C28*	HT smoothing condensers	32-0
C29*		16-0
C30*		4-0
C31	Mains RF by-pass	0-01
C32†	Aerial (manual) LW trimmer	—
C33†	Aerial (manual) MW trimmer	—
C34†	Aerial circ. manual tuning	—
C35†	Aerial circuit LW auto tuning trimmers	—
C36†		—
C37†	Aerial circuit MW auto tuning trimmers	—
C38†		—
C39†		—
C40†	Osc. circ. manual tuning	—
C41†	Osc. circuit MW trimmer	—
C42†	Osc. circuit LW trimmer	—
C43†	1st IF trans. pri. tuning	—
C44†	1st IF trans. sec. tuning	—
C45†	2nd IF trans. pri. tuning	—
C46†	2nd IF trans. sec. tuning	—

*Electrolytic. †Variable. ‡Pre-set.

RESISTANCES		Values (ohms)
R1	V1 fixed GB resistance	350
R2	V1 hexode CG decoupling...	230,000
R3	V1 osc. CG resistance	50,000
R4	V1 anode HT feed	5,000
R5	V1, V2 SG's HT feed	5,000
R6	V2 fixed GB resistance	350
R7	IF stopper	100,000
R8	Manual volume control	2,000,000
R9	V3 signal diode load	500,000
R10	V3 triode GB; AVC delay	2,300
R11	V3 triode anode decoupling	10,000
R12	V3 triode anode load	50,000
R13	IF stopper	50,000
R14	V3 AVC diode load	500,000
R15	resistances	1,500,000
R16	V4 CG resistance	230,000
R17	Variable tone control	50,000
R18	V4 grid stopper	23,000
R19	V4 GB resistance	200
R20	T1 sec. artificial loading	50
R21	HT feed resistance	10,000
R22	Heater circuit ballast	20-7
R23	resistances	400
R24	resistances	48-5



OTHER COMPONENTS		Approx Values (ohms)
L1	Aerial SW coupling coil	0-7
L2	Aerial MW coupling coil	24-0
L3	Aerial LW coupling coil	59-0
L4	Aerial SW tuning coil...	0-1
L5	Aerial MW tuning coil...	17-5
L6	Aerial LW tuning coil...	1-5
L7	Osc. circ. SW tuning coil	0-1
L8	Osc. circ. MW manual tuning	3-0
L9	Osc. circ. LW manual tuning	7-5
L10	Oscillator SW reaction	0-8
L11	Oscillator MW reaction	1-75
L12	Oscillator circuit automatic MW tuning coils	3-5
L13		3-5
L14		10-0
L15	Oscillator circuit automatic LW tuning coils	10-0
L16		10-0
L17	1st IF trans. Pri.	0-5
L18	1st IF trans. Sec.	2-75
L19	2nd IF trans. Pri.	4-0
L20	2nd IF trans. Sec.	4-0
L21	Speaker speech coil	4-0
L22	HT smoothing choke	150-0
L23	Mains filter chokes	3-0
L24		3-0
T1	Output trans. (Sec.)	230-0
T2		0-8
S1a, b, x to S9a, b, x	Aerial circuit waveband switches	—
S4a, b, x to S8a, b, x	Aerial circuit automatic selector switches	—
S9a, b, x to S11a, b, x	Oscillator circuit waveband switches	—
S12a, b, x to S16a, b, x	Oscillator circuit automatic selector switches	—
S17, S18	Mains switches, ganged	—
R17		—
F1, F2	Mains circuit fuses	—

VALVE ANALYSIS

Valve voltages and currents given in the table below are those measured in our receiver when it was operating on AC mains of 236V, using the 228-255V mains tapping. The receiver was tuned to the lowest wavelength on the MW band, and the volume control was at maximum, but there was no signal input.

Voltages were measured on the 400 V scale of a model 7 Universal Avometer, chassis being negative.

Valve	Anode Voltage (V)	Anode Current (mA)	Screen Voltage (V)	Screen Current (mA)
V1 X65	205	2-0	80	3-2
V2 KTW61	55	3-5	—	—
V3 DH63	205	6-7	80	2-0
V4 KT35	120	0-7	—	—
V5 U31	190	52-0	205	10-0

† Cathode to chassis, DC.

CIRCUIT ALIGNMENT

IF Stages.—Switch set to MW, turn tone control fully clockwise, and gang condenser and volume control to maximum. Connect signal generator via a 0-1 μF condenser to grid (top cap) of V1, and E socket. Leave existing top cap connector in place. Feed in a 465 KC/S signal, and adjust C46, C45, C44 and C43 in turn for maximum output.

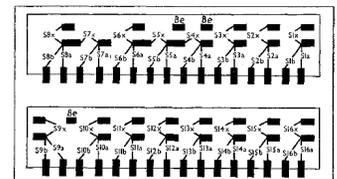
RF and Oscillator Stages.—Check that the pointer covers the 192m mark on the MW scale, when the gang is at minimum. If adjustment is necessary, slide the pointer up or down the drive wire. Connect signal generator, via a suitable dummy aerial, to A and E sockets.

SW.—Switch set to SW, tune to 50m on scale, and feed in a 50m (6 MC/S) signal. Adjust loops of L4 and L7 for maximum output. Repeat until no further improvement results. Check sensitivity at 16-8m (17-86 MC/S).

MW.—Switch set to MW, turn gang to minimum, and feed in a 192m (1,562-5 KC/S) signal. Adjust C41 for maximum output. Tune to 220m on scale, feed in a 220m. (1,963-6 KC/S) signal, and adjust C33 for maximum output. Tune to 530m on scale, feed in a 530m (563 KC/S) signal, and adjust cores of L8 and L5 for maximum output.

LW.—Switch set to LW, tune to 1,000m on scale, feed in a 1,000m (300 KC/S) signal, and adjust C42, then C32, for maximum output. Tune to 1,750m on scale, feed in a 1,750m (171-4 KC/S) signal and adjust cores of L9 and L6 for maximum output.

Finally, check adjustments of all press-button trimmers.



Diagrams of the press-button switch unit. The upper one is the view looking at the underside of the chassis, while the lower one shows the switches on the side of the unit facing the chassis deck.