

CONDENSERS		Values (μF)
C1	Aerial MW coupling ..	0.00002
C2	Band-pass coupling ..	0.05
C3	V1 osc. CG condenser ..	0.00006
C4	Osc. circ. LW fixed tracker	0.0005
C5	Osc. circ. MW fixed tracker	0.0037
C6	Osc. circ. LW fixed trimmer ..	0.00003
C7	Oscillator MW coupling ..	0.01
C8	HT circuit RF by-pass ..	0.1
C9	V1 SG decoupling ..	0.1
C10	V2 CG decoupling ..	0.05
C11	RF by-pass condensers	0.0001
C12		0.00015
C13	Coupling to V3 AVC diode ..	0.00006
C14	AF coupling to V3 triode ..	0.02
C15	V3 triode to V4 AF coupling	0.01
C16	Part of fixed tone corrector ..	0.002
C17*	HT reservoir condenser ..	2.0
C18*	Auto GB by-pass ..	200.0
C19†	Band-pass pri. tuning	0.0005
C20†	Band-pass pri. MW trimmer	—
C21†	Aerial circ. SW trimmer ..	—
C22†	Band-pass sec. MW trimmer	—
C23†	Aerial SW and band-pass sec. tuning	0.0005
C24†	Oscillator circuit tuning	0.0005
C25†	Osc. circuit SW trimmer ..	—
C26†	Osc. circuit MW trimmer ..	—
C27†	Osc. circuit LW trimmer ..	—
C28†	Osc. circuit LW tracker ..	0.0002
C29†	Osc. circuit MW tracker ..	0.0002
C30†	1st IF trans. pri. tuning	—
C31†	1st IF trans. sec. tuning	—
C32†	2nd IF trans. pri. tuning	—
C33†	2nd IF trans. sec. tuning	—

OTHER COMPONENTS		Approx. Values (ohms)
L1	Aerial MW and LW coupling coils ..	18.0
L2	Band-pass primary coils ..	70.0
L3	Band-pass secondary coils ..	4.5
L4	Aerial SW coupling coil ..	45.0
L5	Band-pass MW coupling ..	1.3
L6	Aerial SW tuning coil ..	0.2
L7	Band-pass secondary coils ..	4.5
L8	Osc. circuit MW tuning coil ..	40.0
L9	Osc. circuit LW tuning coil ..	0.05
L10	Osc. circuit MW tuning coil ..	8.5
L11	Osc. circuit LW tuning coil ..	17.5
L12	Oscillator SW reaction ..	0.8
L13	Oscillator MW reaction ..	7.2
L14	Oscillator LW reaction ..	6.0
L15	1st IF trans. Pri. ..	80.0
L16	1st IF trans. Sec. ..	80.0
L17	2nd IF trans. Pri. ..	80.0
L18	2nd IF trans. Sec. ..	80.0
L19	Speaker speech coil ..	1.5
L20	Speaker input Pri. ..	620.0
T1	trans. Sec. ..	0.17
S1-S15	Waveband switches ..	—
S16	HT circuit switch ..	—
S17	LT circuit switch ..	—

VALVE ANALYSIS

Valve	Anode Voltage (V)	Anode Current (mA)	Screen Voltage (V)	Screen Current (mA)
V1 FC2A	116	0.1	30.0	1.0
V2 VP2	60	1.75	—	—
V3 TDD2A	116	0.9	116	1.1
V4 KT2	77	0.6	—	—
	112	4.5	116	1.0

Valve voltages and currents given in the table above are those measured in our receiver when it was operating with a new HT battery reading 120 V on load. The receiver was tuned to the lowest wavelength on the medium band and the volume control was at maximum, but there was no signal input.

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

If, as in our case V1 should become unstable when its screen current is being measured, it can be stabilised by connecting a non-inductive condenser of about 0.1 μF from grid (top cap) to chassis.

CIRCUIT ALIGNMENT

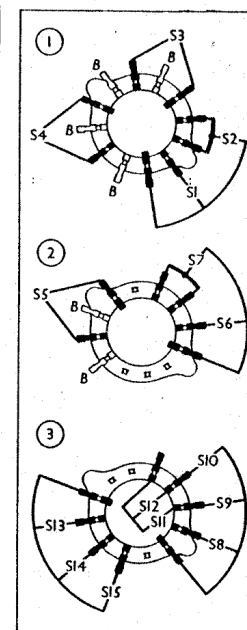
IF Stages.—Connect signal generator to control grid (top cap) of V1 and chassis. Turn gang to minimum and switch set to LW. Feed in a 125 KC/S signal, and adjust C30, C31, C29 and C33 for maximum output. Check these settings, then remove signal generator.

RF and Oscillator Stages.—With gang at minimum, pointer should cover the 200 m mark on the scale. Connect signal generator to A and E terminals via a suitable dummy aerial.

MW.—Switch set to MW, and turn gang to minimum (200 m). Feed in 200 m (1,500 KC/S) signal, and adjust C26 for maximum output on the correct signal. If several signals are noticed, reduce generator output until there are only two, and adjust C26 for maximum output on the peak requiring the lesser trimmer capacity.

TABLE AND DIAGRAMS OF SWITCH UNITS

Switch	SW	MW	LW
S1	C	—	—
S2	—	C	C
S3	—	C	—
S4	—	C	—
S5	—	C	—
S6	C	—	—
S7	—	C	C
S8	C	—	—
S9	—	C	—
S10	—	—	C
S11	C	—	—
S12	C	C	—
S13	C	—	—
S14	—	C	—
S15	—	—	C



Feed in a 230 m (1,300 KC/S) signal, tune it in, and adjust C22, then C20 (on gang) for maximum output.

Feed in a 500 m (600 KC/S) signal, tune it in, and adjust C29 for maximum output, while rocking the gang for optimum results. Re-check the settings of C26, C22 and C20.

LW.—Switch set to LW, and tune to 1,100 m on scale. Feed in a 1,100 m (272 KC/S) signal, and adjust C27 for maximum output. Feed in an 1,800 m (166.5 KC/S) signal, tune it in, and adjust C28 for maximum output, while rocking the gang for optimum results. Re-check the setting of C27.

SW.—Switch set to SW, and tune to 20 m on scale. Feed in a 20 m (15 MC/S) signal, and adjust C25 for maximum output on the peak involving the lesser trimmer capacity. Then adjust C21 for maximum output.

* Electrolytic. † Variable. ‡ Pre-set.