



RESISTANCES		Values (ohms)
R1	V1 heptode CG decoupling ...	500,000
R2	V1 osc. CG resistance ...	50,000
R3	V1 osc. anode HT feed ...	25,000
R4	V2 CG decoupling ...	500,000
R5	V1, V2 SG's HT feed ...	25,000
R6	IF stopper ...	100,000
R7	V3 signal diode load ...	500,000
R8	Manual volume control ...	2,000,000
R9	V1, V2 fixed GB; V3 triode GB; AVC delay ...	150
R10	V3 triode anode load ...	50,000
R11	V3 AVC diode load resistances ...	500,000
R12	V3 AVC diode load resistances ...	500,000
R13	V4 CG resistance ...	1,000,000
R14	V4 GB resistance ...	100
R15	Scale lamp shunt ...	50
R16	V5 anode surge limiter ...	100
R17	Heater circuit ballast ...	655

OTHER COMPONENTS		Approx. Values (ohms)
L1	Aerial circuit choke ...	450-0
L2	Aerial LW coupling coil ...	12-5
L3	Aerial MW tuning coil ...	3-5
L4	Aerial LW tuning coil ...	18-5
L5	Osc. circuit MW tuning coil ...	2-8
L6	Osc. circuit LW tuning coil ...	6-1
L7	Oscillator reaction coil ...	1-25
L8	1st IF trans. Pri. ...	7-5
L9	1st IF trans. Sec. ...	13-0
L10	2nd IF trans. Pri. ...	17-0
L11	2nd IF trans. Sec. ...	17-0
L12	Speaker speech coil ...	3-0
L13	Hum neutralising coil ...	0-1
L14	Speaker field coil ...	1,200-0
T1	Speaker input trans. Pri. ...	650-0
T1	Speaker input trans. Sec. ...	0-3
S1-S6	Waveband switches ...	—
S7	Mains switch, ganged R8 ...	—

VALVE ANALYSIS

Valve voltages and currents given in the table below are those measured in our receiver when it was operating with

Valve	Anode Voltage (V)	Anode Current (mA)	Screen Voltage (V)	Screen Current (mA)
V1 ECH3	175	1-5	83	2-2
V2 EF9	75	3-7	—	—
V3 EBC3	175	5-0	83	1-6
V4 7D6	90	—	—	—
V5 1D5	150	29-0	175	5-4
	255†	—	—	—

* Cathode to chassis, DC.

CONDENSERS		Values (μF)
C1	Aerial isolating condenser ...	0-002
C2	Part aerial MW coupling ...	0-0005
C3	Part aerial LW coupling ...	0-002
C4	Part aerial MW coupling ...	0-000075
C5	V1 heptode CG decoupling ...	0-1
C6	V1 osc. anode coupling ...	0-00025
C7	V2 CG decoupling ...	0-1
C8	V1, V2 SG's decoupling ...	0-1
C9	V1, V2, V3 cathodes RF by-pass ...	0-1
C10	Coupling to V3 AVC diode ...	0-0001
C11	IF by-pass condensers ...	0-00025
C12	IF by-pass condensers ...	0-00025
C13	AF coupling to V3 triode ...	0-02
C14*	V1, V2, V3 cathode by-pass ...	25-0
C15	IF by-pass ...	0-00025
C16	V3 triode to V4 AF coupling ...	0-02
C17	Fixed tone corrector ...	0-005
C18*	HT smoothing condensers ...	16-0
C19*	HT smoothing condensers ...	16-0
C20	Mains RF by-pass ...	0-02
C21†	Aerial circuit LW trimmer ...	0-0002
C22†	Aerial circuit tuning ...	—
C23†	Aerial circuit MW trimmer ...	—
C24†	Oscillator circuit tuning ...	—
C25†	Osc. circuit MW trimmer ...	—
C26†	Osc. circuit LW trimmer ...	0-00011
C27†	Osc. circuit MW tracker ...	0-00045
C28†	Osc. circuit LW tracker ...	0-00018
C29†	1st IF trans. pri. tuning ...	—
C30†	1st IF trans. sec. tuning ...	—
C31†	2nd IF trans. pri. tuning ...	—
C32†	2nd IF trans. sec. tuning ...	—

*Electrolytic. †Variable. ‡Pre-set.

CIRCUIT ALIGNMENT

IF Stages.—Remove top cap connector of V1, and connect a 0.5MΩ resistance in series between connector and the top cap of the valve. Connect signal generator from top cap of valve to chassis, via isolating condensers of about 0.1μF. Switch set to MW, turn gang to maximum, and feed in a 470 KC/S signal. Adjust C32, C31, C30 and C29 in turn for maximum output.

RF and Oscillator Stages.—With gang at maximum, pointer should be horizontal. Connect signal generator via a suitable dummy aerial to aerial lead of set, and via a 0.1μF condenser to chassis.

MW.—Switch set to MW, tune to 214m on scale, feed in a 214m (1,400 KC/S) signal, and adjust C25, then C23, for maximum output. Feed in a 500m (600 KC/S) signal, tune it in, and adjust C27 for maximum output, while rocking the gang for optimum results.

LW.—Switch set to LW, tune to 1,250m on scale, feed in a 1,250m (240 KC/S) signal, and adjust C26, then C21, for maximum output. Feed in a 2,000m (150 KC/S) signal, tune it in, and adjust C28 for maximum output, while rocking the gang for optimum results.

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