CIRCUIT ALIGNMENT

I.F. Stages.—Switch set to M.W., short-circuit **C14** (front section of gang), turn volume control to maximum and connect signal generator leads to top cap (control grid) of **V1** and chassis. Feed in a 452 kc/s (663.7m) signal and adjust **C22, C21, C20** and **C19,** in that order, for maximum output. Remove short-circuit from **C14.**

R.F. and Oscillator Stages.—Owing to the interdependence of certain adjustments, it is important that the procedure to be descibed should be closely followed. With the gang at maximum the pointer should be horizontal. Couple the signal generator output by means of a loop of wire about 12in from, and in the same plane as, the receiver frame aerial.

M.W.—Switch set to M.W., tune to 214m (calibration line) on scale, feed in a 214m (1,400 kc/s) signal and adjust **C15,** then **C12,** for maximum output. Tune to 500m on scale, feed in a 500m (600 kc/s) signal and adjust **C18,** whilst rocking the gang, for maximum output. Repeat the 214m and 500m adjustments until no improvement results.

L.W.—Switch set to L.W., tune to 1,700m (calibration line) on scale, feed in a 1,700m (176.5kc/s) signal and adjust **C17** for maximum output. Tune to 1,000m on scale, feed in a 1,000m (300 kc/s) signal and adjust **C16,** then **C11,** for maximum output. Repeat the 1,700m and 1,000m adjustments until no improvement results.

OTHER COMPONENTS		Approx. Values (ohms)
L1, L2	Frame aerial windings	1·4
L3, L4	Oscillator circuit tuning coils	20·0
L5, L6	Oscillator circuit reaction coils	1·8
L7, L8	1st I.F. trans. Pri.	6·0
	1st I.F. trans. Sec.	3·5
L9, L10	2nd I.F. trans. Pri.	7·0
	2nd I.F. trans. Sec.	25·0
L11	Speaker speech coil	25·0
T1	Output trans. Pri.	25·0
	Output trans. Sec.	3·0
S1–S4	Waveband and battery switches	670·0
		0·25
		—
		—

VALVE ANALYSIS

Valve	Anode Voltage (V)	Anode Current (mA)	Screen Voltage (V)	Screen Current (mA)
V1 1A7GT	84	0·48	37	0·6
	Oscillator			
	84	1·3		
V2 IN5GT	84	1·1	84	0·25
V3 1H5GT	14	0·03	—	—
V4 1C5GT	79	5·6	84	1·25

Drive Cord Replacement.—Inset in the front chassis illustration is a sketch of the drive cord as seen from the front above the control panel, after removing the scale, when the gang is at maximum.

Intermediate frequency 452 kc/s.

RESISTORS.		Values (ohms)
R1	V1 osc. C.G. resistor	220,000
R2	V1 S.G. H.T. feed	68,000
R3	A.V.C. potential divider	10,000,000
R4	A.V.C. potential divider	4,700,000
R5	I.F. stopper	100,000
R6	Manual volume control	500,000
R7	V3 triode C.G. resistor	10,000,000
R8	V3 triode anode load	1,000,000
R9	V4 C.G. resistor	2,200,000
R10	V4 G.B. resistor	820

CAPACITORS		Values (μF)
C1	A.V.C. line decoupling	0·05
C2	V1 osc. C.G. capacitor	0·0001
C3	V1 S.G. decoupling	0·01
C4	I.F. by-pass capacitors	0·00005
C5	I.F. by-pass capacitors	0·00005
C6	A.F. coupling to V3 triode	0·001
C7	I.F. by-pass capacitor	0·0001
C8	A.F. coupling to V4 C.G.	0·005
C9	Fixed tone corrector	0·001
C10*	H.T. reservoir capacitor	8.0
C11‡	Aerial circ. L.W. trimmer	0·0001
C12‡	Aerial circ. M.W. trimmer	0·00005
C13†	Frame aerial tuning	§0·000444
C14†	Oscillator circuit tuning	§0·000444
C15‡	Osc. circ. M.W. trimmer	0·00005
C16‡	Osc. circ. L.W. trimmer	0·0001
C17‡	Osc. circ. L.W. tracker	0·0006
C18‡	Osc. circ. M.W. tracker	0·0006
C19‡	1st I.F. trans. pri. tuning	0·0001
C20‡	1st I.F. trans. sec. tuning	0·0001
C21‡	2nd I.F. trans. pri. tuning	0·0001
C22‡	2nd I.F. trans. sec. tuning	0·0001

* Electrolytic. † Variable. ‡ Pre-set.
§ "Swing" value, minimum to maximum.

EVER READY - C