

CONDENSERS		Values (μF)
C1	Aerial MW coupling ...	0.0008
C2	V1 pent. CG decoupling ...	0.1
C3	V1 osc. CG condenser ...	0.001
C4	Osc. LW tracker ...	0.0007
C5	V1 HT decoupling ...	0.1
C6	V2 CG decoupling ...	0.0008
C7	V3 cathode by-pass ...	0.1
C8*	V2 cathode by-pass ...	25.0
C9	V2 SG RF by-pass ...	0.0008
C10	} IF by-pass condensers ... {	0.0003
C11		0.0003
C12	AF coupling to V2 ...	0.01
C13	Bass compensator ...	0.1
C14*	V2 SG decoupling ...	2.0
C15	Coupling to V3 AVC diode ...	0.0001
C16	V1 AVC line decoupling ...	0.1
C17	AF coupling to V4 ...	0.1
C18*	V4 cathode by-pass ...	25.0
C19	Tone corrector ...	0.004
C20*	} HT smoothing condensers ... {	8.0
C21*		8.0
C22†	Band-pass pri. tuning ...	—
C23†	B-P pri. MW trimmer ...	—
C24†	Image suppressor ...	—
C25†	Band-pass sec. tuning ...	—
C26†	B-P sec. MW trimmer ...	—
C27†	Oscillator circuit tuning ...	—
C28†	Osc. circ. MW trimmer ...	—
C29†	Osc. circ. LW tracker ...	—
C30†	1st IF trans. pri. tuning ...	—
C31†	1st IF trans. sec. tuning ...	—
C32†	2nd IF trans. pri. tuning ...	—
C33†	2nd IF trans. sec. tuning ...	—

* Electrolytic. † Variable. ‡ Pre-set.

RESISTORS		Values (ohms)
R1	V1 pent. CG decoupling ...	500,000
R2	V1 osc. CG resistor ...	50,000
R3	V1 HT feed resistor ...	30,000
R4	Part of V3 AVC diode load ...	250,000
R5	V2 fixed GB resistor ...	300
R6	Noise supp. limiter ...	75
R7	Noise suppressor control ...	2,000
R8	IF stopper ...	50,000
R9	V3 signal diode load ...	250,000
R10	Manual volume control ...	250,000
R11	V2 SG decoupling ...	15,000
R12	V2 SG AF load ...	50,000
R13	} Parts of V3 AVC diode {	250,000
R14		load ...
R15	V4 CG resistor ...	250,000
R16	V4 GB resistor ...	140

OTHER COMPONENTS		Approx. Values (ohms)	
L1	Aerial MW suppressor ...	46.0	
L2	} Band-pass primary coils ... {	2.2	
L3		29.0	
L4		2.2	
L5	} Band-pass secondary coils {	29.0	
L6		4.6	
L7	} Oscillator grid tuning coils {	9.6	
L8		5.0	
L9	Oscillator anode reaction coils, total ...	5.0	
L10	} 1st IF trans. {	75.0	
L11		Sec. ...	75.0
L12	} 2nd IF trans. {	75.0	
L13		Sec. ...	75.0
L14	Speaker speech coil ...	1.3	
L15	Hum neutralising coil ...	0.1	
L16	Speaker field coil ...	2,000.0	
T1	} Output trans. {	600.0	
		Sec. ...	0.15
T2	} Mains trans. {	37.0	
		Heater sec. ...	0.1
		Rect. heat. sec. ...	0.15
	HT sec., total ...	560.0	
S1-S5	Waveband switches ...	—	
S6	Radio muting switch ...	—	
S7	Gram pick-up switch ...	—	
S8	Internal speaker switch ...	—	
S9	Mains switch, ganged R10 ...	—	

VALVE ANALYSIS

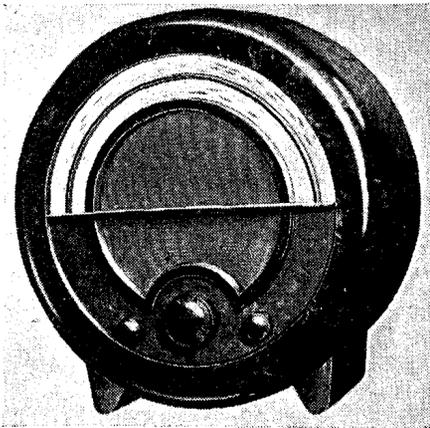
Valve	Anode Voltage (V)	Anode Current (mA)	Screen Voltage (V)	Screen Current (mA)
V1 FC4	{ 275 75	{ 2.8 2.2	80	4.3
V2 AC/VP1	275	5.7	160	1.5
V3 V914	—	—	—	—
V4 AC/2Pen	250	37.0	275	7.4
V5 UU3	345†	—	—	—

† Each anode, AC

Switch	MW	LW	Gram
S1	—	—	—
S2	—	—	—
S3	—	—	—
S4	—	—	—
S5	—	—	—
S6	—	—	—
S7	—	—	—
S8	—	—	—

CIRCUIT ALIGNMENT

IF Stages.—Remove chassis from cabinet. Switch set to LW and tune to about 1,000 m. Connect 0.10 millimeter across R7, which should be at maximum (clockwise). Connect signal generator to A and E sockets, feed in a 130 kc/s (2,307.7 m) signal, and adjust C30, C32 and C31 in that order, for minimum reading on milliammeter. Now adjust C33 for maximum milliammeter reading. Keep input signal as low as possible during alignment.



The appearance of the Ekco AC76 in the walnut finish.

EKCO - AC76

RF and Oscillator Stages: MW.—Switch set to MW, turn gang to minimum capacity, feed in a 194.5 m (1,540 kc/s) signal, and adjust **C28** for minimum reading on the milliammeter.

Feed in a 250 m (1,200 kc/s) signal, and tune receiver for minimum reading on the meter. Now adjust **C23** and **C26** for a second minimum reading, reducing input signal if necessary. Check calibration on MW at several points on the scale.

LW.—Switch set to LW, and check calibration at 1,600 m (187.5 kc/s). If not accurate, adjust **C29** (at rear of chassis) for maximum output (minimum meter reading) while rocking the gang for optimum results.

Image Suppressor.—If image interference is experienced, it may be minimised by tuning the receiver to the frequency at which it is found and adjusting **C24** for minimum interference, using the speaker as an indicator.

Do not screw up the trimmer further than is necessary, as otherwise the local transmitter image will take the place of the whistle, and other whistles will occur on the MW band.

Replacing Drive Cable.—The new cord must be 33 in. long, with a knot $\frac{1}{4}$ in. from each end to prevent it slipping from the small metal "Y" clip supplied with each length. After clamping ends of the cord into arms of the "Y" clip with pliers, the loop thus formed should be passed from inside of lower drum through small slot in its rim.

Rotate gang condenser to bring slot uppermost, and pass each side of the loop round lower drum for $\frac{3}{4}$ of a complete turn before leaving the edge at a tangent to the upper drum. Turn latter so that the slot in its rim is uppermost, and pass loop round the groove and finally through the slot towards centre of the drum. Loop the cord over the brass centre bush, and then hook one end of tensioning spring through hole in the "Y" piece, and the other end over projection provided on lower drum.

Before finally clamping cord by means of the $\frac{3}{4}$ in. brass washer fixed to indicator arm, rotate latter to its limit in a clockwise direction viewed from back of chassis to bring gang condenser to its maximum capacity.

Replacing Scale.—Remove chassis from cabinet, and remove the two semi-circular metal clamping brackets round periphery of scale inside cabinet (2 nuts at ends, and 5 screws). Scale can now be removed, with moulded semi-circular centre bar at front. Before fitting new scale, refix this bar to it (2 bolts and 3 screws). This will assist in spacing wavelength and station markings accurately in scale aperture.