

General Description : Five-valve (including rectifier), three-waveband superheterodyne table receiver with push-button waveband selectors and flywheel tuning. Released January 1948. Price £26 19s. 1d. (plus tax).

Power Supply : A.C. mains, 200-255 volts. Consumption 57 watts.

Wavebands : S.W. 18.6-5.96 Mc/s. (16.2-50.4 m.); M.W. 1540-538 kc/s. (195-557 m.); L.W. 347-140 kc/s. (865-2135 m.).

Intermediate Frequency : 465 kc/s.

Valve Analysis : Measured with 1000-ohms/volt testmeter with receiver tuned to 600 kc/s. connected to 200-volt mains with correct voltage tap.

Valve	Anode	Screen	Cathode
V ₁ OM10 (osc.)	240 v. 1 mA. 50 v. 3 mA.	60 v. 2 mA.	—
V ₂ OM6	250 v. 6.5 mA.	90 v. 2 mA.	—
V ₃ OM4	75 v. 2.6 mA.	—	—
V ₄ 6V6G	240 v. 41 mA.	210 v. 3 mA.	10 v.
V ₅ 6X5G	330 A.C. each	—	340 v.

Dial Light : 6.5 volts, 0.3 amp.

Loudspeaker : This is an 8-in. moving-coil unit with high-flux-density permanent magnet, and speech-coil impedance of 3 ohms. Provision is made for external loudspeaker, which should have a similar impedance.

Alignment Procedure : Use either ganging oscillator and double-beam oscilloscope or an accurately calibrated signal generator and output meter to match 3 ohms. Allow receiver to reach normal working temperature before commencing operations.

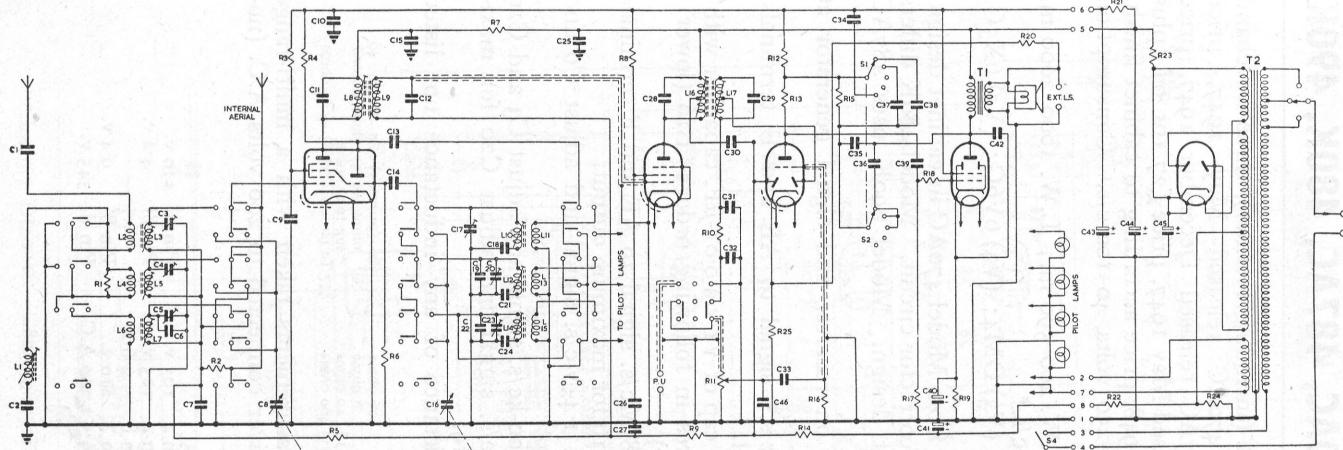
I.F.: Inject a 465-kc/s. signal to grid of V₁ via 0.01 μ F. capacitor. Adjust cores of L₁₇, L₁₆, L₉ and L₈, in that order, to give maximum response, using a non-metallic trimming tool.

I.F. Rejector: Inject a 465-kc/s. signal to AE. and E. sockets via dummy aerial. Adjust core of L₁ for minimum response.

S.W.: Set pointer to 18-Mc/s. and inject signal at that frequency. Adjust C₁₇ for maximum response, choosing peak requiring least capacitance. Then adjust C₃ for maximum response whilst rocking gang. Set pointer to 6 Mc/s. and inject signal at that frequency. Adjust cores of L₁₀ and then L₃ for maximum response. Repeat all operations.

M.W.: Set pointer to 214 m. and inject a 1400-kc/s. signal. Adjust C₂₀ and then C₄ for maximum response. Set pointer to 522 m. and inject a 575-kc/s. signal. Adjust cores of L₁₂ and then L₅ for maximum response. Repeat all operations.

L.W.: Set pointer to 1153 m. and inject a 260-kc/s. signal. Adjust C₂₃ and then C₂₅ for maximum response. Set pointer to 1875 m. and inject a 160-kc/s. signal. Adjust cores of L₁₄ and then L₇ for maximum response. Repeat all operations.

VI
OM10V2
OM6V3
OM4V4
6V6GV5
6X5G

CIRCUIT DIAGRAM—COSSOR MODEL 474AC

Capacitors.

C ₁	470 pF.	C ₁₅	0·1	C ₂₉	75 pF.	C ₄₃	16	R ₉	1M	R ₂₃	1·5k	L ₉	4
C ₂	100 pF.	C ₁₆	gang	C ₃₀	47 pF.	C ₄₄	16	R ₁₀	47k	R ₂₄	22	L ₁₀	Very low
C ₃	5-50 pF.	C ₁₇	5-50 pF.	C ₃₁	100 pF.	C ₄₅	8	R ₁₁	500k	R ₂₅	27	L ₁₁	0·75
C ₄	5-50 pF.	C ₁₈	6750 pF.	C ₃₂	100 pF.	C ₄₆	47 pF.	R ₁₂	22k			L ₁₂	2·5
C ₅	5-50 pF.	C ₁₉	15 pF.	C ₃₃	0·01			R ₁₃	39k			L ₁₃	2·25
C ₆	15 pF.	C ₂₀	5-50 pF.	C ₃₄	0·01			R ₁₄	1M			L ₁₄	6·5
C ₇	0·1	C ₂₁	750 pF.	C ₃₅	0·01			R ₁₅	82k			L ₁₅	3·25
C ₈	gang	C ₂₂	68 pF.	C ₃₆	0·5			R ₁₆	4·7M			L ₁₆	8·9·5
C ₉	0·1	C ₂₃	5-50 pF.	C ₃₇	0·002			R ₁₇	470k			L ₁₇	8
C ₁₀	0·1	C ₂₄	185 pF.	C ₃₈	0·01			R ₁₈	1k			T ₁	600
C ₁₁	225 pF.	C ₂₅	0·1	C ₃₉	0·01			R ₁₉	220			T ₂	(primary) 46
C ₁₂	225 pF.	C ₂₆	0·1	C ₄₀	25			R ₂₀	220			T ₂	(secondary) (total)
C ₁₃	200 pF.	C ₂₇	0·05	C ₄₁	20			R ₂₁	3·9k				70 + 70
C ₁₄	100 pF.	C ₂₈	60 pF.	C ₄₂	0·005			R ₂₂	10k				

Resistors.

C ₂₉	75 pF.	C ₄₃	16	R ₉	1M	R ₂₃	1·5k	L ₉	4
C ₃₀	47 pF.	C ₄₄	16	R ₁₀	47k	R ₂₄	22	L ₁₀	Very low
C ₃₁	100 pF.	C ₄₅	8	R ₁₁	500k	R ₂₅	27	L ₁₁	0·75
C ₃₂	100 pF.	C ₄₆	47 pF.	R ₁₂	22k			L ₁₂	2·5
				R ₁₃	39k			L ₁₃	2·25
				R ₁₄	1M			L ₁₄	6·5
				R ₁₅	82k			L ₁₅	3·25
				R ₁₆	4·7M			L ₁₆	8·9·5
				R ₁₇	470k			L ₁₇	8
				R ₁₈	1k			T ₁	600
				R ₁₉	220			T ₂	(primary) 46
				R ₂₀	220			T ₂	(secondary) (total)
				R ₂₁	3·9k				70 + 70
				R ₂₂	10k				
				R ₂₃	1·5k				
				R ₂₄	22				
				R ₂₅	27				
				R ₂₆	1·5				
				R ₂₇	100				
				R ₂₈	100				
				R ₂₉	100				
				R ₃₀	100				
				R ₃₁	100				
				R ₃₂	100				
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				R ₃₇	100				
				R ₃₈	100				
				R ₃₉	100				
				R ₄₀	25				
				R ₄₁	20				
				R ₄₂	0·005				
				R ₄₃	16				
				R ₄₄	16				
				R ₄₅	8				
				R ₄₆	47 pF.				
				R ₄₇	470k				
				R ₄₈	82k				
				R ₄₉	100				
				R ₅₀	100				
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				R ₁₄₃	16				
				R ₁₄₄	16				
				R ₁₄₅	8				
				R ₁₄₆	47 pF.				
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