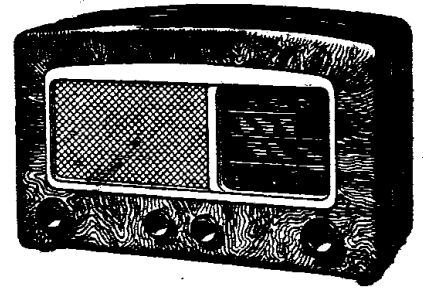


COSSOR MELODY MAKER

MODELS 500 & 501



These two Receivers are identical in every respect except cabinets ; Model 500 is housed in a wooden cabinet, while the 501 employs a moulded one.

GENERAL DESCRIPTION Five valve All-wave Superheterodyne Receiver for A.C. Mains of 200-255 volts at 40-100 cycles, the voltage tapplings being at 200-215 ; 216-234 ; 235-255.

PRICE Model 500: £15 2s. 9d. Plus Tax.

Model 501: £12 19s. 6d. Plus Tax.

DATE RELEASED Model 500: May, 1950.

Model 501: June, 1950.

CABINET Model 500: Walnut, $16\frac{1}{2}'' \times 11\frac{1}{4}'' \times 7\frac{3}{4}''$.

Model 501: Moulded in Brown and Beige, $16\frac{1}{2}'' \times 10\frac{1}{2}'' \times 7\frac{3}{4}''$.

UNDISTORTED OUTPUT 2.5 watts.

CONSUMPTION 40 watts (approx.).

| | | | |
|------------------|----------------|----------------|------------------|
| WAVEBANDS | SHORT waveband | 19.5-8 Mc/s. | 15.8-51.3 metres |
| | MEDIUM " | 1605-520 Kc/s. | 187-575 metres |
| | LONG " | 320-146 Kc/s. | 940-2050 metres |

INTERMEDIATE FREQUENCY 470 Kc/s.

DIAL LIGHT Replacements should be rated 6.5 volts at 0.3 amps M.E.S. fitting.

LOUDSPEAKER An 8" high flux density permanent magnet moving coil unit with a speech coil impedance of 3 ohms. The sockets marked EXT. LS are for an external loudspeaker with a speech coil impedance of 3 ohms.

GRAMOPHONE PICK-UP The sockets marked GRAM on the back of the chassis are for a high impedance or crystal pick-up. No external volume control is required.

BUILT-IN FRAME AERIAL The frame aerial, mounted on the cabinet back, is intended only for local station reception. For more distant station listening a normal aerial and earth should be used.

ALIGNMENT PROCEDURE

The equipment required for alignment of the I.F. and R.F. stages of the Receiver are an accurately calibrated modulated signal generator, an output meter to match to 3 ohms impedance, and a non-metallic trimming tool.

Adjustment of the I.F. transformer inductances should always be followed by complete realignment of the R.F. section.

The output from the Receiver should be maintained at 200 mW, by means of the I.F. attenuator, throughout the entire alignment procedure.

All the operations given below should be repeated to ensure absolute accuracy of alignment.

I.F. TRANSFORMERS

Switch to M.W. and set the tuning condenser at minimum capacity.

Set the Volume and Tone controls fully clockwise.

Inject a 470 Kc/s. modulated signal into the control grid of V1, via a 0.1 mfd. condenser.

Adjust L13, L12, L6 and L5 for maximum response on the output meter, in the order given.

Repeat the procedure and check for sensitivity and bandwidth.

MEDIUM WAVEBAND

Switch to M.W. and set the tuning condenser to mechanical minimum.

Set the tuning pointer to the line marked MIN on top left of scale. *

With the standard dummy aerial in circuit, inject a 1550 Kc/s., modulated signal, via the A and E sockets.

Set pointer to line marked M.W. (or M on some scales).

Adjust the oscillator trimmer C12 for maximum response.

Adjust the aerial trimmer C2 for maximum response.

Check calibration and sensitivity at spot frequencies.

LONG WAVEBAND

Switch to L.W. (fully clockwise), set the tuning pointer to the line marked L on top right of scale and inject a 160 Kc/s. signal. *

Adjust the oscillator padder C18 for maximum response.

Check calibration and sensitivity at spot frequencies.

SHORT WAVEBAND

Switch to S.W. (fully anti-clockwise), set tuning pointer to line marked S on top left of scale and inject an 18 Mc/s. signal. *

Adjust the oscillator trimmer C14 for maximum response. It will be found that there are two positions where this is possible ; the correct one will be that which requires the least capacity.

Adjust the aerial trimmer C4 for maximum response.

Set pointer to line marked S on top right of scale and inject a 6 Mc/s. signal. *

Adjust the iron dust core in the oscillator coil L7 for maximum response.

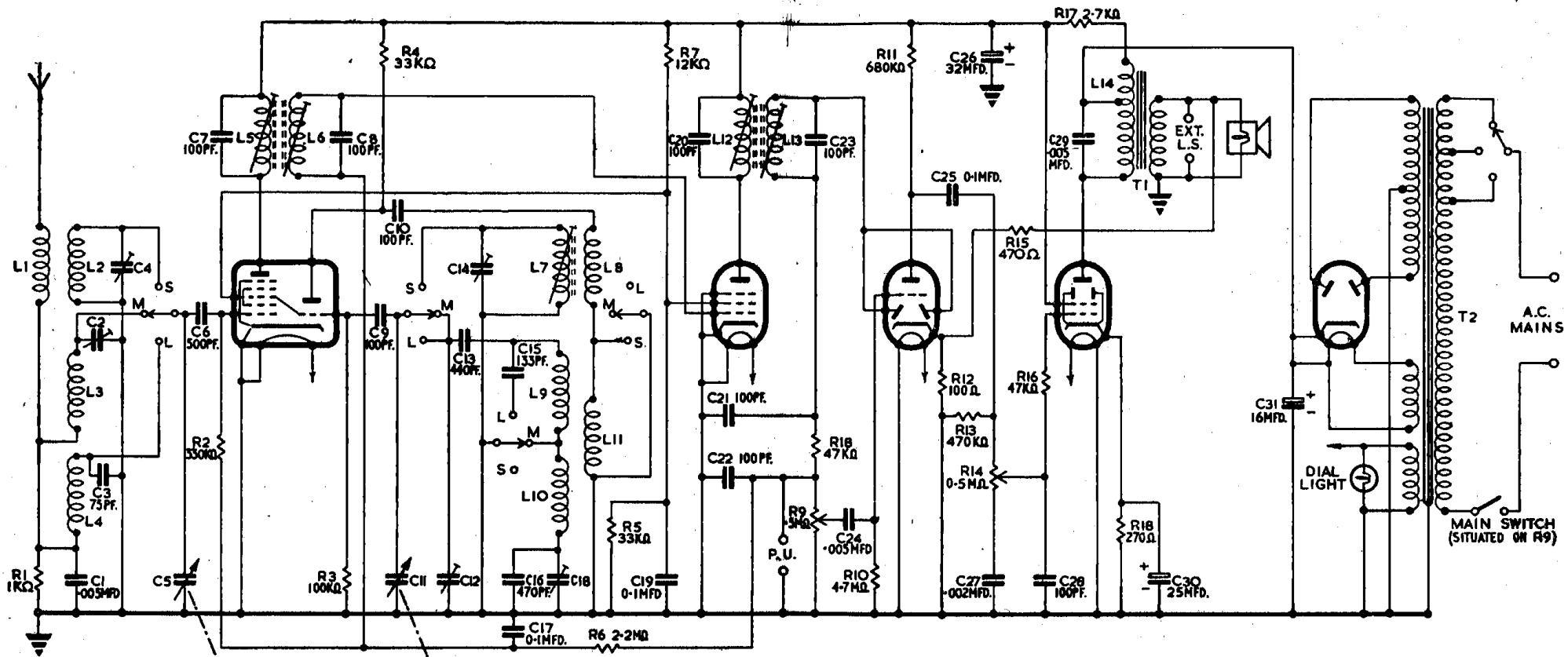
Set pointer to line marked S on top left of scale and retrim C14 and C4.

Check calibration and sensitivity at spot frequencies.

* This alignment marking is not visible when the Receiver is in the cabinet.

A. C. COSSOR LTD.,
COSSOR HOUSE, Highbury Grove, London, N.5. ENGLAND.

Telephone : CANONBURY 1224 (38 lines).



V1
7S7
4V/1V. OSC. G
96V/3-2MA. OSC. A
208V/3MA A
G2 & G4 80V/3-4MA.
G1 VL/VL.
C 9-6 MA.
H H

V2
7B7
80V/2-3MA G2
204V/10MA. A
G1
C 12-3MA.
H H

V3
7C6
202V/2-5MA. G2
268V. A
32MA. A
G1
C 2MA
C 9V/34-5MA.
H H

V5
7Y4
250VAC/29MA. A
280V/58MA.
A 250VAC/29MA.
C 280V/58MA.
H H

APPROXIMATE D.C. RESISTANCE OF COILS AND TRANSFORMERS

| Circuit Code No. | Description | D.C. Resistance | Part Number | Circuit Code No. | Description | D.C. Resistance | Part Number |
|------------------|---|-----------------|----------------|-----------------------------|--|-----------------|-------------|
| L1 ... | S.W. Aerial Coil | Very Low | MC.430221 | L12 ... | 2nd I.F. Transformer (Primary) | 9 ohms | MC.415002/2 |
| L2 ... | S.W. Aerial Coupling Coil | Very Low | | L13 ... | 2nd I.F. Transformer (Secondary) | 9 ohms | |
| L3 ... | M.W. Aerial Coil | 3-5 ohms | | L14 ... | Smoothing Choke winding on T1. (Primary) | 13 ohms | |
| L4 ... | L.W. Aerial Coil | 13.5 ohms | | T1 ... | (Secondary) | 280 ohms | MC.413026 |
| L5 ... | 1st I.F. Transformer (Primary) | 9 ohms | T2 ... | Mains Transformer (Primary) | Very Low | | |
| L6 ... | 1st I.F. Transformer (Secondary) | 9 ohms | MC.430145/3 | (Secondary) | 200V Tapping | 40 ohms | MC.412028 |
| L7 ... | S.W. Oscillator Coil | Very Low | | | 220V Tapping | 43.5 ohms | |
| L8 ... | S.W. Oscillator Coil (Feed-back) | 2-6 ohms | | | 240V Tapping | 47 ohms | |
| L9 ... | M.W. Oscillator Coil | 2-8 ohms | | | H.T. Winding | 265 + 265 ohms | |
| L10 ... | L.W. Oscillator Coil | 7.5 ohms | Heater Winding | Very Low | | | |
| L11 ... | M.W. and L.W. Oscillator Feed-back Coil | 5.5 ohms | | Rectifier Heater Wd'g | Very Low | | |

