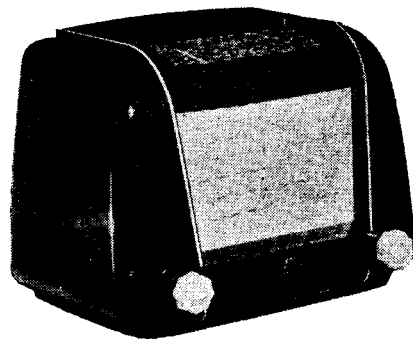




MULLARD MASTER RADIO

MODEL MBS1049A



SPECIFICATIONS

(Subject to alteration without notice)

| | |
|------------------------------|--|
| Tuning Range | 530-1620kc/s. |
| Intermediate Frequency | 455kc/s. |
| Cabinet | Moulded bakelite mantel. |
| Battery Equipment | 2 x 45V heavy duty plug-in type and 1 x 1.5V plug-in type, dry batteries. |
| Battery Consumption | "A", 0.25A. "B", 14mA. |

VALVE EQUIPMENT AND VOLTAGE ANALYSIS

| Valve Function | Valve No. | Valve Type | Plate Volts | Screen Volts | Bias Volts | Bias Resistor |
|--------------------------------------|-----------|------------|-------------|--------------|------------|---------------|
| Frequency Converter | V1 | 1R5 | 85 | 42 | 0 | — |
| I.F. Amplifier | V2 | 1T4 | 85 | 54 | 0 | — |
| Demodulator, A.V.C. and 1st Audio | V3 | 1S5 | 10 | 10 | 0 | — |
| Power Amplifier | V4 | 3V4 | 82 | 85 | -5.4 | R11 |

NOTE: These voltages are measured with an "1,000 ohms per volt" meter, and may vary \pm 10% from the figures quoted. They are measured from the socket points indicated, or resistor quoted, to chassis. The receiver should be in a "no signal" condition.

TO REMOVE CHASSIS FROM CABINET.

Remove plugs from batteries. Remove the two control knobs—a firm pull is all that is required. Remove the combined back and bottom cover. The chassis is held to the cabinet by four screws, two at the top of the metal speaker plate and two at the bottom. After these screws have been removed, the chassis may be withdrawn from the cabinet.

The chassis may be refitted to the cabinet by a reversal of the above procedure.

DIAL CALIBRATION.

If station calibrations are incorrect by an equal amount over the dial scale, the condition can be corrected by moving the dial cursor assembly on the dial drive cord.

ALIGNMENT.

The iron cores for the secondaries of the I.F. transformers are in the top of the cans; those for the primaries are in the bottom.

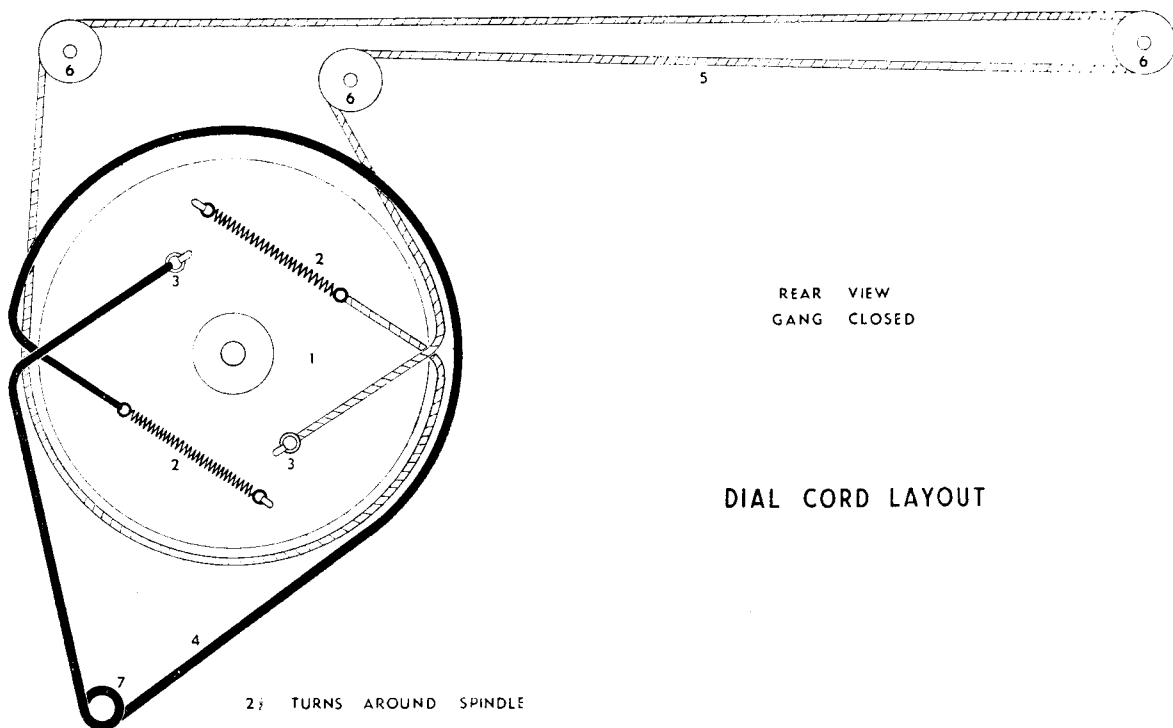
Before commencing alignment, set the dial cursor with the tuning gang fully closed at the stop mark on the top edge of the dial back plate.

Broadcast band alignment frequencies are 1,420 kc/s. and 600 kc/s. Capacitive trimmer adjustments are used at 1,420 kc/s.; the iron core of the oscillator coil is used for padding at 600 kc/s. **Do not attempt to adjust the aerial coil iron core.**



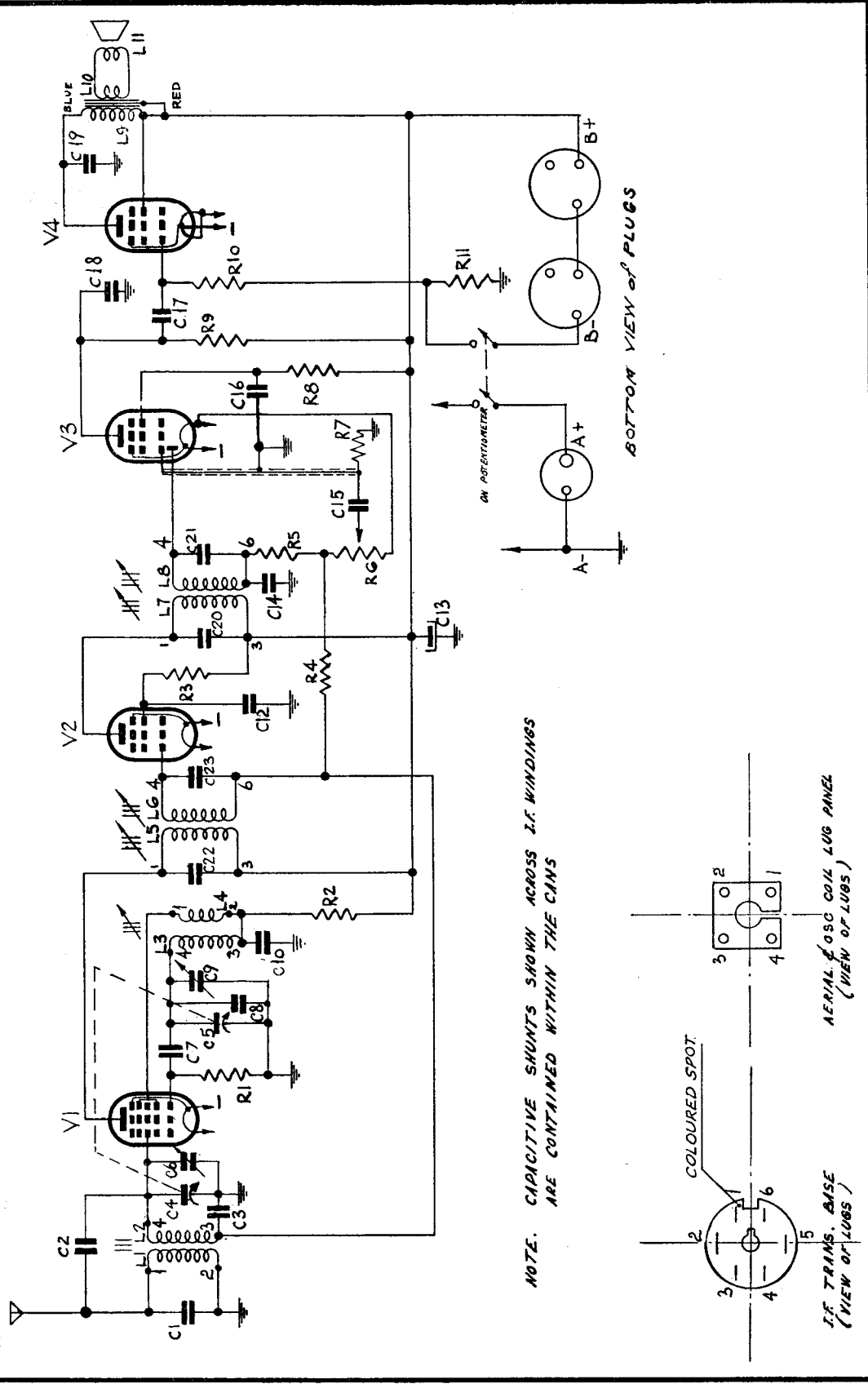
MISCELLANEOUS COMPONENTS

| No. on Dial Parts Diagram | Description | Code No. | No. on Dial Parts Diagram | Description | Code No. |
|------------------------------|--------------------------------|------------|------------------------------|--------------------------------|------------|
| --- | Assembly, cursor and slider | CR.480.633 | 1 | Drum, dial | CS.360.005 |
| --- | Assembly, speaker plate | CR.005.006 | --- | Glass, dial | CS.412.324 |
| 7 | Assembly, tuning spindle | CR.371.213 | --- | Knob, ivory | CS.432.623 |
| --- | Back, cabinet | CS.462.056 | --- | Plate, dial back | CS.034.004 |
| --- | Badge, Mullard | CS.436.409 | --- | Plug, 2 pin polarised | CR.102.200 |
| --- | Bracket, cabinet back mounting | CS.244.603 | --- | Plug, 3 pin polarised | CZ.365.204 |
| --- | Cabinet, walnut | CS.460.490 | 6 | Pulley, wooden | CS.360.201 |
| --- | Clamp, dial | CS.228.561 | 3 | Ring, dial cord | CS.281.807 |
| --- | Clip, coil can mounting | CS.235.833 | --- | Ring, rubber (dial glass mtg.) | CS.433.406 |
| 5 | Cord, dial | CS.361.824 | 2 | Spring, dial drum | CS.210.020 |
| 4 | Cord, drum | CS.361.823 | --- | Washer, felt (knobs) | CS.424.049 |

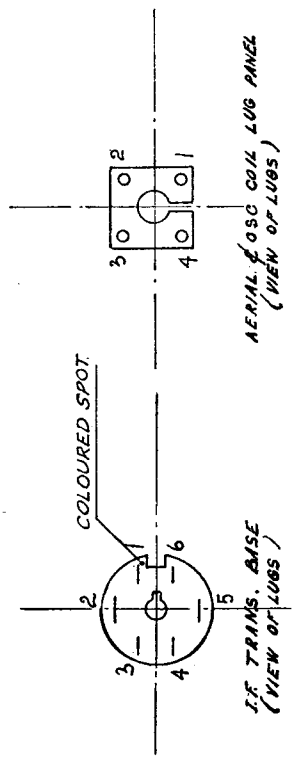




| | | | | | | | | | | | | | | |
|---|------|------------|------|-------------|---|--------|------|-------------------|----|----|----|----|--------|----|
| L | 1, 2 | 3, 4 | 5, 6 | 7, 8 | 9 | 10, 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| C | 1 | 2, 3, 4, 6 | 7 | 5, 8, 9, 10 | 2 | 23 | 12 | 20, 3, 14, 24, 21 | 15 | 7 | 8 | 9 | 10, 11 | 4 |
| R | | | | | | | 3, 4 | | | | | | | |
| V | | | | | 2 | | | | | | | | | |



NOTE. CAPACITIVE SHUNTS SHOWN ACROSS I.F. WINDINGS ARE CONTAINED WITHIN THE CANS





PARTS LISTS

CAPACITORS

| No. | Description | Code No. |
|-----------|-------------------------|------------|
| C1-7 | 100 pF mica 10% | |
| C2 | 5 pF mica | |
| C3 | 0.02 mF 400V paper | |
| C4-5 | 2 gang tuning | CZ.107.746 |
| C6-9 | 30 pF air trimmer | CZ.113.700 |
| C8 | 20 pF mica 10% | |
| C10 | 450 pF mica 2% | |
| C11 | 0.002 mF mica 10% | |
| C12-15-17 | 0.01 mF 600V paper | |
| C13 | 24 mF 350V electrolytic | |
| C14-18 | 100 pF ceramic 10% | CZ.096.602 |
| C16 | 0.1 mF 200V paper | |
| C19 | 0.004 mF 600V paper | |
| C20-21-22 | 100 pF mica 5% | |
| C23 | 80 pF mica 5% | |

RESISTORS

| No. | Description | Code No. |
|-------|--------------------------------------|------------|
| R1 | 100,000 ohms 1/2W carbon | |
| R2-3 | 20,000 ohms 1W carbon | |
| R4-10 | 3 megohms 1/2W carbon | |
| R5 | 50,000 ohms 1/2W carbon | |
| R6 | 1 megohm carbon switch potentiometer | CZ.032.302 |
| R7 | 10 megohms 1W carbon | |
| R8 | 2 megohms 1W carbon | |
| R9 | 0.5 megohm 1/2W carbon | |
| R11 | 450 ohms 1W W/W 5% | |

COILS

| No. | Description | Ohms | Code No. |
|-----|---------------------------------------|------|------------|
| L1 | Aerial Coil (2 blue spots) | 28 | CZ.323.007 |
| L2 | | 2 | |
| L3 | Oscillator Coil (1 blue spot) | 3 | CZ.330.602 |
| L4 | | 1 | |
| L5 | 1st I.F. Transformer | 12 | CZ.320.423 |
| L6 | | 12 | |
| L7 | 2nd I.F. Transformer | 12 | CZ.320.424 |
| L8 | | 12 | |
| L9 | Speaker and Transformer 8,000 ohms | 520 | CZ.161.110 |
| L10 | | 3 | |
| L11 | | <0.5 | |

IMPORTANT! In ordering spare parts, quote CODE NUMBER of part and MODEL NUMBER of Receiver. In claiming free replacement under GUARANTEE, return defective part PROMPTLY and quote MODEL and SERIAL NUMBER of Receiver and DATE OF PURCHASE.