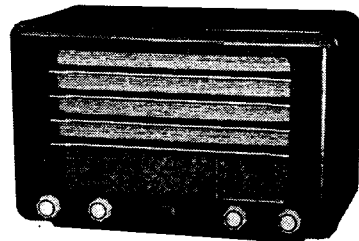




## MULLARD MASTER RADIO

## MODEL MAS1110



## SPECIFICATIONS

(Subject to alteration without notice)

Power Supply .....	220-260V. 40-60c/s.
Tuning Range .....	530-1620Kc/s.
Intermediate Frequency .....	455Kc/s.
Cabinet .....	Bakelite table.

## VALVE EQUIPMENT AND VOLTAGE ANALYSIS

Valve Function	Valve No.	Valve Type	Plate Volts	Screen Volts	Osc. P. Volts
Frequency Converter	V1	6AN7	240	20	85
I.F. Amplifier, Demodulator and A.V.C.	V2	6N8	240	45	—
Audio Amplifier	V3	6N8	10	9	—
Power Amplifier	V4	6M5	215	240	—
Rectifier	V5	6X5GT	Cathode — L13 C.T., 262V		
Dial Lamps	V11 & V12	6.3V 0.32A tubular screw			

Voltage across R17, -1.7V; across R16 and 17, -6.4V.

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 to chassis, or across the resistors listed. The receiver should be in a "no signal" condition.

## TO REMOVE CHASSIS FROM CABINET.

Remove the power plug from the supply outlet socket. Remove the four control knobs (a firm pull is all that is necessary) and the cabinet back. The chassis is held to the cabinet by three screws in the baffle—two along the top and one on the right-hand side—and four screws through the bottom of the cabinet. Removal of these seven screws allows the chassis to be withdrawn from the cabinet.

The chassis may be replaced by a reversal of the above procedure.

## MAINS VOLTAGE ADJUSTMENT.

The power transformer is provided with two mains voltage tappings—220/240 volts and 250/260 volts—for adjustment to the supply voltage at the point of installation. This receiver is adjusted at the factory to the 220/240 volts tapping.

## DIAL CALIBRATION.

If it is required to correct dial calibrations for an equal error on all stations, the cursor assembly can be moved on the dial cord. Loosen the clamping screw, make the necessary adjustment to the cursor position and securely retighten the clamping screw.

## 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.

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.** Before commencing alignment, set the dial cursor, with the tuning gang fully closed, to the thin line at the extreme R.H. end of the calibration marks on the bottom of the dial scale.

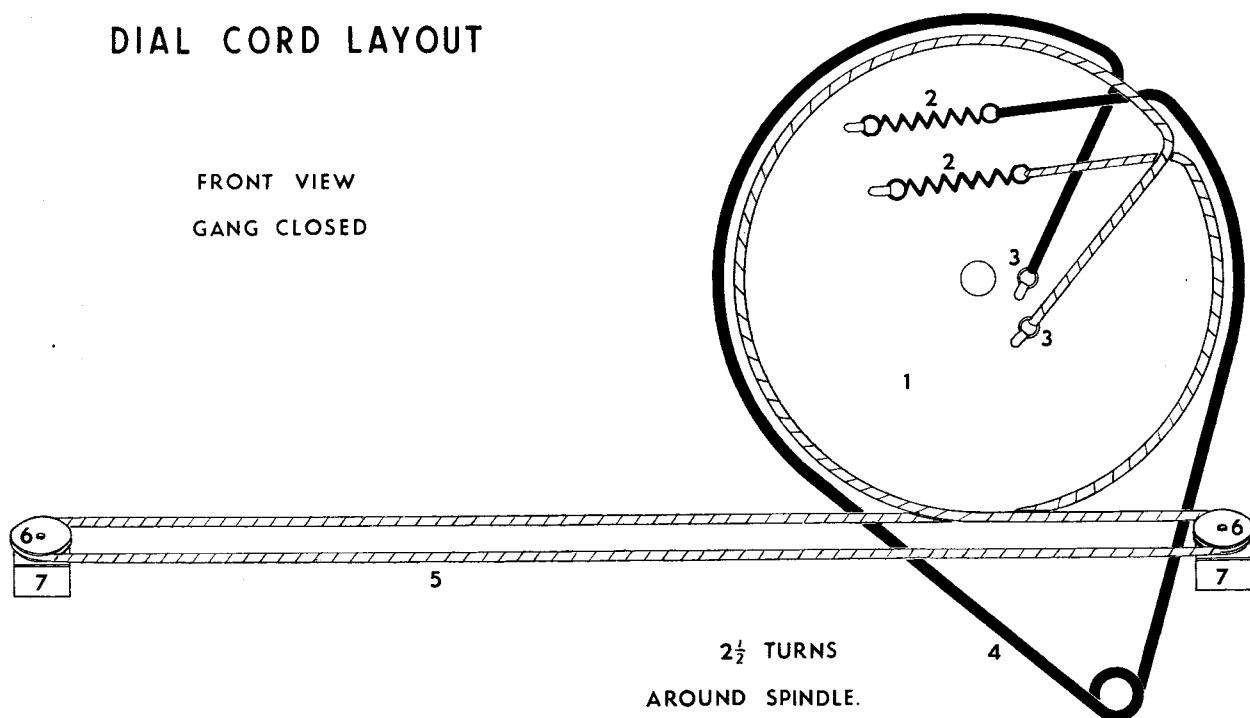


### MISCELLANEOUS COMPONENTS

No. on Dial Parts Diagram	Description	Code No.	No. on Dial Parts Diagram	Description	Code No.
—	Assembly, baffle	CR.005.227	5	Cord, dial	CS.361.825
—	Assembly, cursor	CR.480.630	4	Cord, drum	CS.361.826
1	Assembly, dial drum	CR.382.815	—	Glass, dial, printed	CS.412.305
—	Assembly, lampholder	CZ.367.900	—	Knob, ivory, brown line	CS.432.623
7	Assembly, pulley spindle	CR.436.206	—	Nipple, slide rod adj.	CS.274.603
—	Assembly, T/C switch	CZ.200.223	—	Plate, lamp holder mtg.	CS.241.641
—	Back, cabinet	CS.462.057	6	Pulley, wooden	CS.360.201
—	Badge, Mullard	CR.531.409	—	Ring, C, tuning spindle	CS.281.802
—	Band, rubber (dial glass mtg.)	CS.433.406	3	Ring, dial cord	CS.281.807
—	Block, dial glass mtg.	CS.424.054	—	Rod, dial slide	CS.382.213
—	Bracket, cab. back mtg.	CS.244.602	—	Socket, noval wafer	CZ.369.702
—	Bracket, tuning spindle	CS.224.607	—	Socket, octal moulded	CZ.369.515
—	Cabinet, walnut	CS.460.486	—	Spindle, tuning	CS.351.316
—	Cabinet, ivory	CS.460.504	2	Spring, dial drum	CS.210.010
—	Clamp, dial glass mtg.	CS.228.569	—	Switch, mains On/Off	CZ.210.104
—	Clamp, speaker mtg.	CS.234.813	—	Washer, felt (knobs)	CS.424.056
—	Clip, coil can mtg. (18G chassis)	CS.235.833			
—	Clip, coil can mtg. (20G chassis)	CS.235.831			
—	Cloth, baffle	CE.081.14			

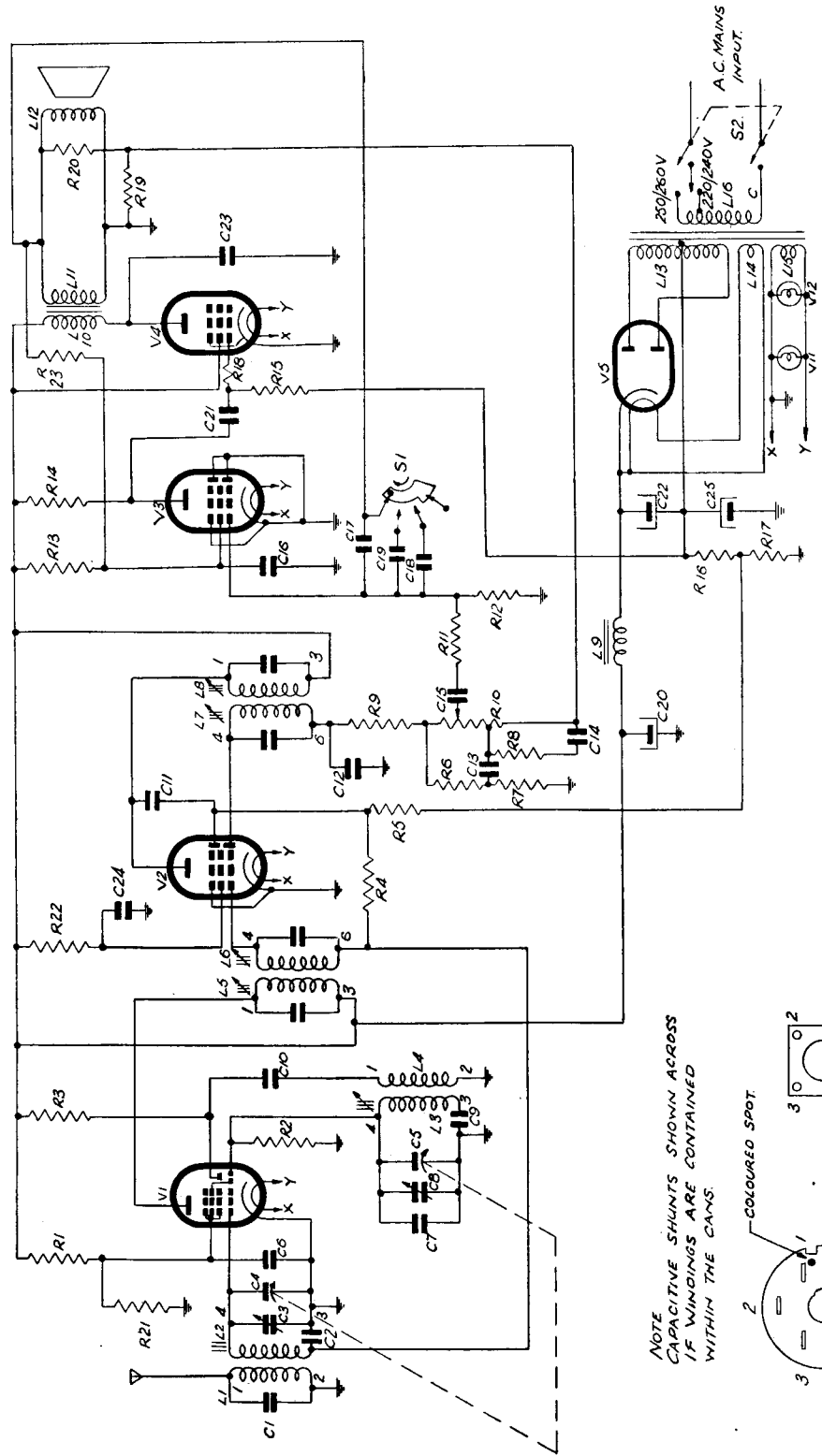
### DIAL CORD LAYOUT

FRONT VIEW  
GANG CLOSED

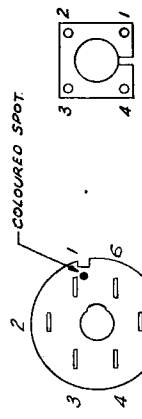




L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
C	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
R	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
V	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25



NOTE  
CAPACITIVE SHUNTS SHOWN ACROSS  
IF WINDINGS ARE CONTAINED  
WITHIN THE CAN.



AERIAL & OSCILLATOR  
COIL LUG PANEL  
(VIEW OF LUGS)

IF TRANSFORMER  
BASE  
(VIEW OF LUGS)



PARTS LISTS

CAPACITORS

No.	Description	Code No.
C1-10	100 pF mica	
C2-14	0.05 mF 200V paper	
C3-8	30 pF air trimmer	CZ.113.700
C4-5	2 gang tuning	CZ.107.720
C6-24	0.01 mF 600V paper	
C7	20 pF mica	
C9	475 pF mica 2%	CZ.066.119
C11-17	30 pF mica	
C12	100 pF ceramic	CZ.096.602
C13	0.002 mF 600V paper	
C15-16-21	0.02 mF 400V paper	
C18	47 pF ceramic	CZ.096.604
C19	150 pF mica	
C20-22	24 mF 350V electrolytic	
C23	0.02 mF 600V paper	
C25	10 mF 40V electrolytic	

RESISTORS

No.	Description	Code No.
R1-22	150,000 ohms 1W carbon	
R2-7-11-18	50,000 ohms ½W carbon	
R3-21	30,000 ohms 1W carbon	
R4-5	2 megohms ½W carbon	
R6	0.5 megohm ½W carbon	
R8	5,000 ohms ½W carbon	
R9	100,000 ohms ½W carbon	
R10	0.5 megohm tapped carbon potentiometer	CZ.029.129
R12	10 megohms 1W carbon	
R13	1 megohm 1W carbon	
R14	250,000 ohms 1W carbon	
R15	1 megohm ½W carbon	
R16	100 ohms 1W W/W	
R17	35 ohms 1W W/W	
R19	25 ohms ½W carbon 10%	
R20	400 ohms ½W carbon 10%	
R23	250,000 ohms ½W carbon 10%	

COILS

No.	Description	Ohms	Code No.
L1	Aerial coil (2 red spots)	26.0	CZ.323.002
L2		1.7	
L3	Oscillator coil (red spot)	3.4	CZ.330.600
L4		1.2	
L5	1st I.F. transformer	12	CZ.320.421
L6		12	
L7	2nd I.F. transformer	12	CZ.320.420
L8		12	
L9	Filter choke	515	CZ.341.000
L10	Speaker and Transformer, 6,000 ohms	600	CZ.161.111
L11		<0.5	
L12		3.0	
L13	Power transformer	650	CZ.344.035
L14		0.8	
L15		<0.5	
L16		55.0	

**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.**