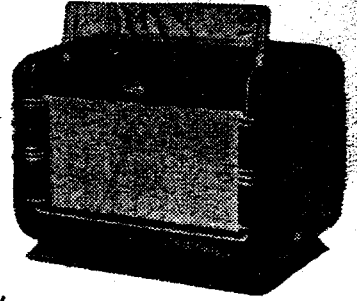




## SERVICE DATA

# MULLARD MASTER RADIO

## MODEL MAS1000



### SPECIFICATIONS

Subject to alteration without notice.

Power Supply .....	220-260V 40/60 c/s.
Tuning Range .....	530-1620 Kc/s.
Intermediate Frequency .....	455 Kc/s.
Cabinet .....	Moulded Bakelite mantel executed in several colours.

### VALVE EQUIPMENT AND VOLTAGE ANALYSIS

Valve Function	Valve No.	Valve Type	Plate Volts	Screen Volts	Osc. Plate Volts	Cathode Volts	Bias Volts
Frequency Converter	V1	ECH35	134	70	98	0.6	—
I.F. Amplifier	V2	EBF35	134	98	—	0	—
Demodulator and A.V.C.							
Power Amplifier	V3	6V6GT	178	134	—	-0	-9.0
Rectifier	V4	6X5GT	188V AC per plate				
Dial Lamp	V11	6.3V 0.32A tubular screw					
V4 cathode — L10 C.T. — 200V							

NOTE: The voltages are measured between the socket points quoted and chassis using an "1,000 ohms per volt" meter. Voltages may vary  $\pm 10\%$  from the quoted figures. The receiver should be in a "no signal" condition.

#### TO REMOVE CHASSIS FROM CABINET.

Remove plug from power supply socket. Withdraw dial glass from cabinet and fold the dial pointer down into the dial glass recess. Remove the chassis bottom cover, mounted by means of two trimount studs and one screw. Access is now obtained to the control knob grub screws and the knobs may be removed. Remove four screws holding the chassis to the cabinet, two at the rear of the chassis and two at the ends of the gantry top bracket. After removal of the speaker clamp, the chassis may be withdrawn.

Replacement of the chassis is carried out by a reversal of the above procedure.

NOTE: It is essential that the bottom cover be held in position by its central mounting screw whilst the receiver is in operation.

#### DIAL CALIBRATION.

If station calibrations are incorrect by an equal amount over the dial scale, the condition may be corrected by loosening the thumb screw which holds the pointer assembly to the dial cord, adjusting the pointer to correct calibration and retightening the screw.

#### DIAL LAMP REPLACEMENT.

The dial lamp holder is slotted, and by loosening the screw holding it to the gantry top bracket, it may be withdrawn to the rear of the chassis for the purpose of lamp replacement.

#### MAINS VOLTAGE ADJUSTMENT.

The power transformer is provided with two tapings, 220-240 volts and 250-260 volts, by means of which the receiver may be adjusted to the main voltage at the point of installation. The receiver is adjusted to the 220-240 volts tapping before despatch from the factory.

#### ALIGNMENT.

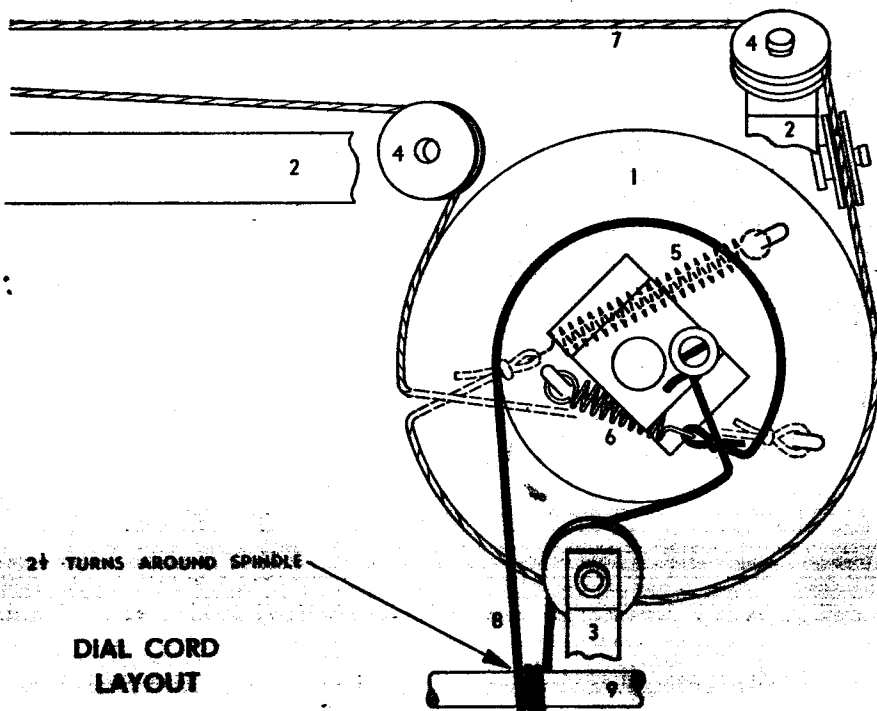
Removal of the cabinet bottom cover allows sufficient access to the under chassis components to carry out alignment operations.

Before commencing broadcast alignment fully close the tuning gang and set the pointer by means of its clamping thumb screw in line with the L.H. vertical stroke of "U" in the word "Mullard" at the R.H. end of the dial scale.

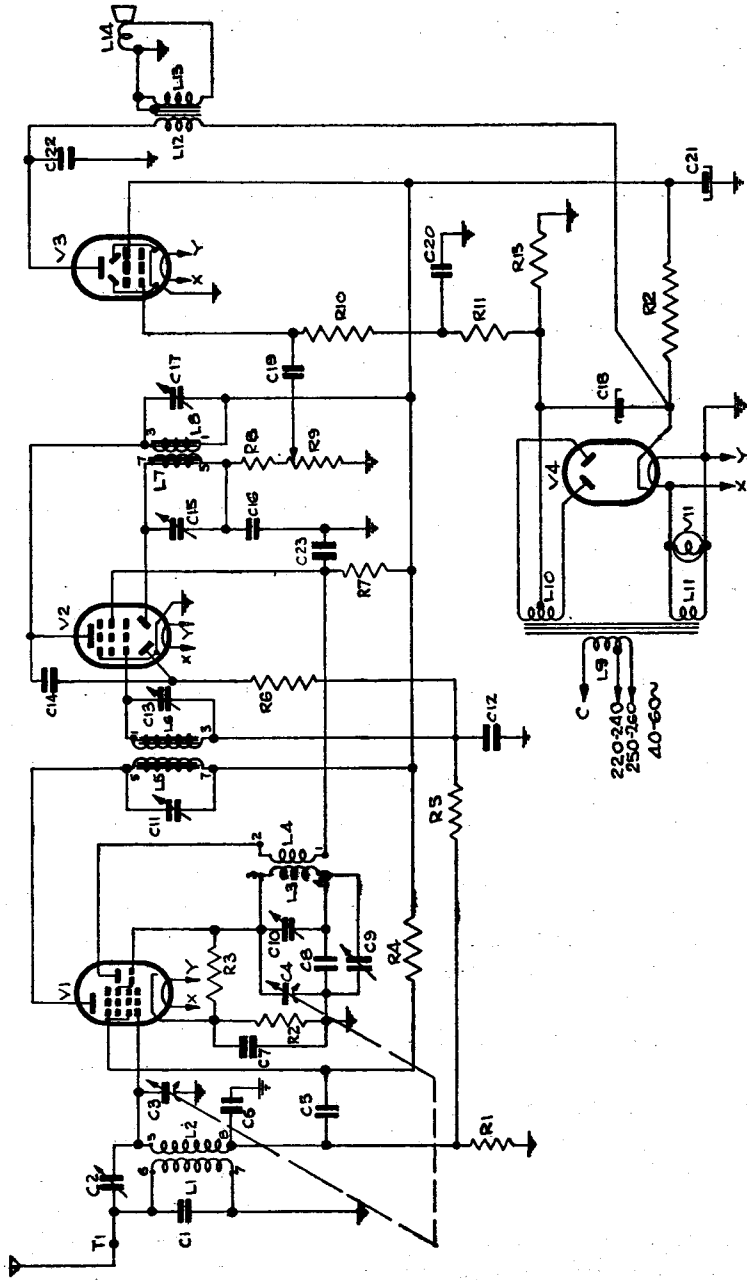


### COMPONENTS NOT SHOWN ON CIRCUIT DIAGRAM

No. on Dial Diagram	Description	Code No.	No. on Dial Diagram	Description	Code No.
—	Assembly, baffle	CR.005.004	8	Cord, drum	CS.361.809
—	Assembly, cursor	CR.480.611	—	Glass, dial, printed	CS.412.225
1	Assembly, dial drum	CR.382.200	—	Grommet, power cord	CS.422.414
2	Assembly, gantry	CR.304.603	—	Grommet, speaker leads	CS.422.411
—	Assembly, lampholder	CZ.367.903	—	Knob, mahogany	CR.523.645
3	Assembly, pulley spindle	CR.436.202	—	Knob, walnut	CR.523.643
—	Assembly, terminal	CZ.376.200	—	Knob, ebony	CR.523.644
—	Badge, Mullard	CR.531.409	4	Pulley, dial drive	CS.360.201
—	Bracket, slide rod L.H.	CS.228.431	—	Ring "C" (tuning and pulley spindles)	CS.281.801
—	Bracket, slide rod R.H.	CS.228.430	—	Ring, dial cord	CS.281.807
—	Cabinet, mahogany	CS.460.466	—	Rod, dial slide	CS.382.206
—	Cabinet, walnut	CS.460.459	—	Shield, chassis	CR.122.200
—	Cabinet, ebony	CS.460.467	—	Socket, octal wafer	CZ.369.507
—	Clamp, baffle	CS.235.814	9	Spindle, tuning	CS.351.219
—	Clamp, dial glass L.H.	CS.234.816	5	Spring, dial drum (long)	CS.210.008
—	Clamp, dial glass R.H.	CS.234.815	6	Spring, dial drum (short)	CS.210.011
—	Clamp, speaker	CS.235.812			
7	Cord, dial	CR.384.808			



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





# SERVICE DATA

# MAS1000

## PARTS LISTS

### CAPACITORS

No.	Description	Code No.
C1-16	100 pfd ceramic	
C2	30 pfd glass trimmer	
C3-4	2 gang tuning	CZ.109.709
C5-22-23	0.01 mfd paper 600V	
C6	0.05 mfd paper 200V	
C7-12-20	0.1 mfd paper 200V	
C8	380 pfd mica	
C9-11-13-15-17	125 pfd ceramic trimmer	
C10	30 pfd air trimmer	
C14	33 pfd ceramic	
C18	24 mfd electrolytic 350V	
C19	0.002 mfd paper 600V	
C21	8 mfd electrolytic 350V	

### RESISTORS

No.	Description	Code No.
R1-5	0.25 megohm 1/2W carbon	
R2	50 ohms 1/2W carbon	
R3	25,000 ohms 1/2W carbon	
R4	15,000 ohms 1W carbon	
R6	2 megohms 1W carbon	
R7	5,000 ohms 1W carbon	
R8	50,000 ohms 1W carbon	
R9	0.5 megohm switch potentiometer	CZ.032.000
R10	1 megohm 1/2W carbon	
R11	100,000 ohms 1/2W carbon	
R12	2,500 ohms 5W W/W	CZ.011.301
R13	250 ohms 1W W/W	

### COILS

No.	Ohms	Description	Code No.
L1	21	Aerial and Oscillator Coil	CZ.320.011
L2	4		
L3	5		
L4	2.5		
L5	4.8	1st I.F. Transformer	CZ.320.412
L6	4.8		
L7	4.6	2nd I.F. Transformer	CZ.320.416
L8	4.6		
L9	100	Power Transformer	CZ.344.018
L10	190		
L11	<0.5		
L12	75	Speaker and Transformer 10,000 ohms	CZ.161.106
L13	<0.5		
L14	3		

**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**.