

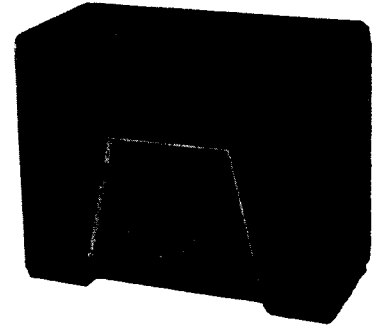
**MULLARD MASTER RADIO****MODELS MAS1156A-C-F**

NOTE: The different versions vary in the type of record changer used. Refer to "Specifications" and "Capacitors" and "Resistors" sections of "Parts Lists" and circuit diagram for details.

SPECIFICATIONS

(Subject to alteration without notice)

Power Supply	220-260V 40-60 c/s
Tuning Ranges	530-1620 kc/s 5.9-18.4 Mc/s
Intermediate Frequency	455 kc/s
Cabinet	Radiogram
Gramo. Unit MAS1156A	Type 2508
Gramo. Unit MAS1156C	Type 2978
Gramo. Unit MAS1156F	Collaro type 3RC511

**VALVE EQUIPMENT AND VOLTAGE ANALYSIS**

Valve Function	Valve No.	Valve Type	Plate Volts	Screen Volts	Osc. P. Volts
Frequency Converter	V1	6AN7	225	40	80
I.F. Amplifier, A.V.C. and Demodulator	V2	6N8	225	72	—
Audio Amplifier	V3	6N8	83	—	—
Power Amplifier	V4	6M5	210	225	—
Rectifier	V5	EZ82	V5 Cathode — L17 C.T. — 261V		
Dial Lamps	V11 & V12	6.3V 0.32A tubular screw			

*Voltage across R23, -2.0V; across R23 and R24, -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. Secure the pick-up arm to its rest and remove any gramophone records from the storage compartment. Lay the receiver face downwards on some protective material. Remove the gramophone unit supply plug, the pick-up plug and speaker plug from their respective sockets. Remove the four chassis mounting screws and the two dial back plate securing screws. The chassis may now be withdrawn from the cabinet. It will be found to be of assistance when withdrawing the chassis to tilt it and bring out the tuning capacitor end first.

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. The receiver is adjusted at the factory to the 220/240 volts tapping.

DIAL CALIBRATION.

If it is required to correct dial calibration for an equal error on all stations, provision is made for moving the cursor assembly with respect to the dial cord. Loosen the clamping screw, make the necessary adjustment to the cursor position and securely re-tighten 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 (oscillator and aerial trimmers) and 600 kc/s (slug padding); short wave alignment frequencies are 18.4 Mc/s (tuning gang fully open, oscillator trimmer) 17.8 Mc/s (aerial trimmer) and 6 Mc/s (slug padding). **Do not attempt to adjust the iron cores of the aerial coils.**

Before commencing alignment, set the dial cursor with the tuning capacitor fully closed, to the letter "S" mark at the extreme right-hand end of the scale at the top of the dial glass.

REMOVAL OF GRAMO. UNIT.

Remove the power plug from the supply outlet socket. Remove the cabinet back. Secure the pick-up arm to its rest and remove any gramophone records from the storage compartment. Lay the receiver face downwards on some protective material. Remove the gramophone unit supply plug and pick-up plug from their respective sockets. Remove the bottom cover of the gramophone compartment—this is necessary to clear the power plug. Restore the cabinet to its normal position. In the case of those receivers equipped with changer units, the unit may be removed by working from the top of the mounting board. In the case of the "C" version, it is necessary to remove the two nuts from the screws in each mounting plate from the under-side of the mounting board to release the gramophone unit.

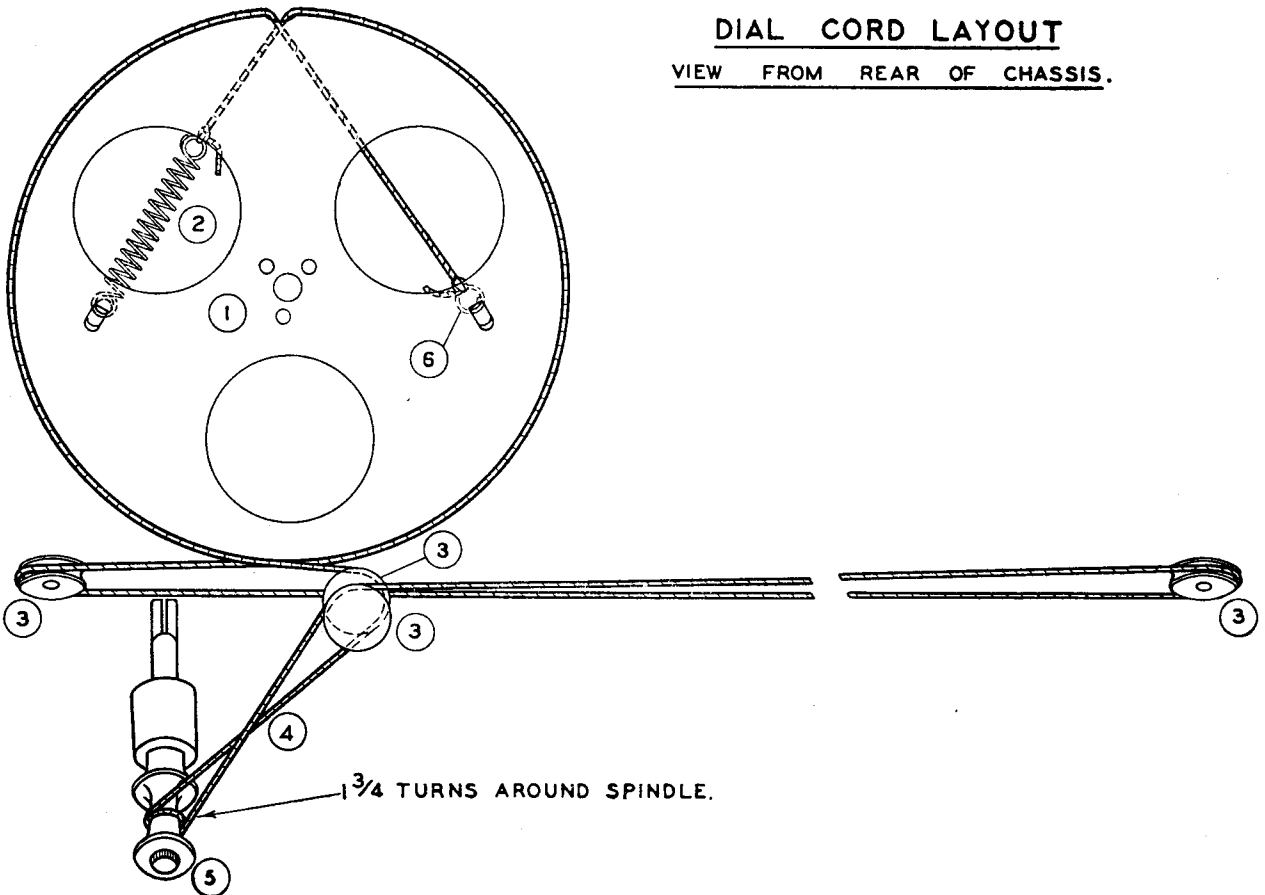


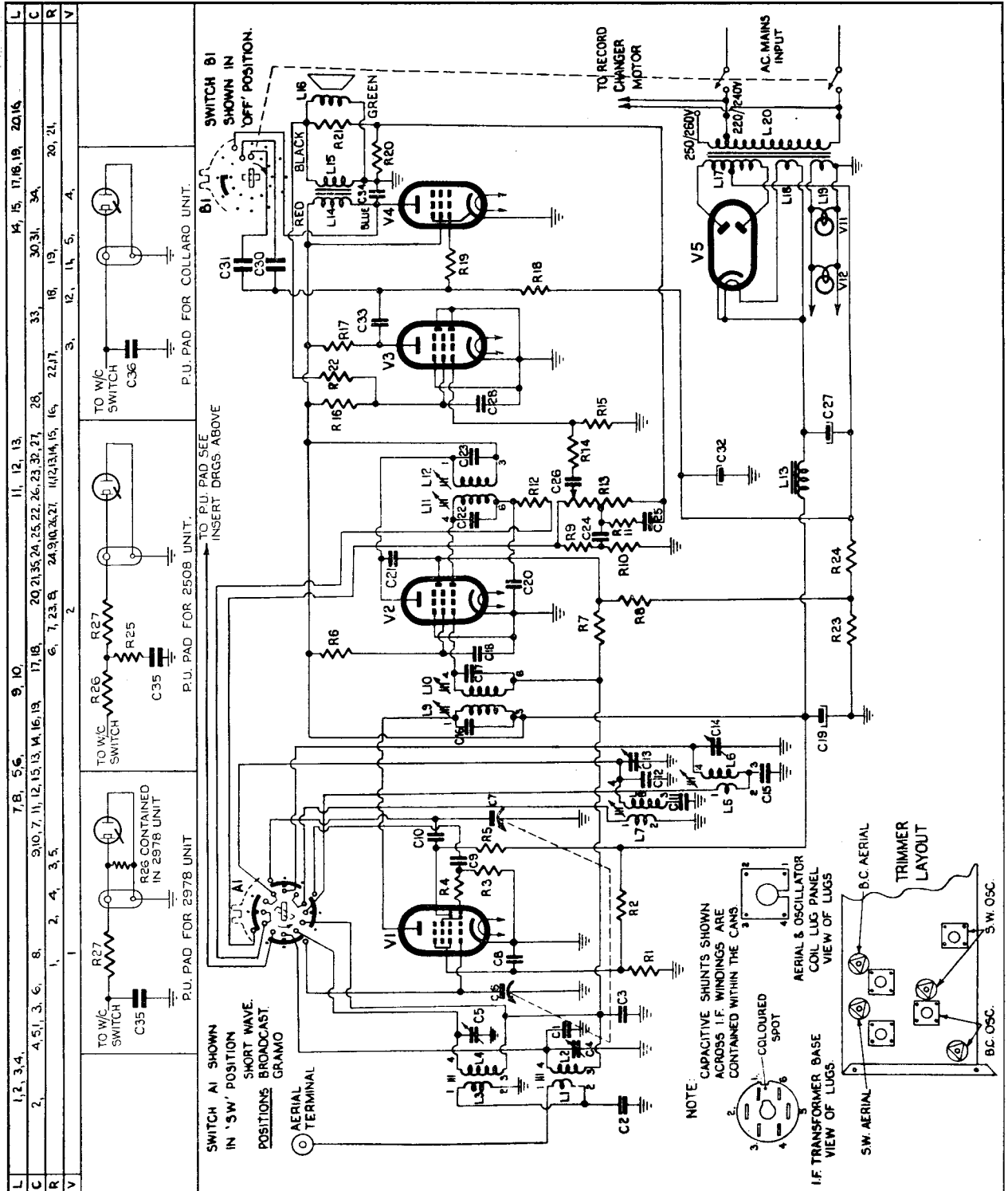
MISCELLANEOUS COMPONENTS

No. on Dial Cord			No. on Dial Cord		
Layout Drawing	Description	Code No.	Layout Drawing	Description	Code No.
—	Assembly, cursor	CR.480.642	4	Cord, dial drive	CS.361.831
—	Assembly, dial back plate	CR.022.211	1	Drum, dial	CS.360.007
—	Assembly, lamp socket	CZ.367.900	—	Grommet, baffle mounting	CS.422.444
—	Assembly, pulley spindle	CR.436.206	—	Grommet, chassis mounting	CS.422.421
—	Assembly, pulley spindle	CR.436.210	—	Knob, control	CS.432.630
—	Assembly, terminal	CR.436.200	—	Knob, record comp't door	CR.523.687
5	Assembly, tuning spindle	CR.371.323	—	Nipple, slide rod adj.	CS.274.603
—	Assembly, T/C—on/off switch	CZ.200.420	—	Nut, tee (chassis mtg.)	CH.603.214
—	Assembly, T/C clicker	CR.450.039	—	Plug, 2-pin polarised	CZ.365.108
—	Assembly, W/C switch	CZ.200.227	3	Pulley, dial	CS.359.602
—	Assembly, W/C clicker	CR.450.040	—	Ring, C (tuning spindle)	CS.281.802
—	Badge, Mullard	CS.436.415	6	Ring, dial cord	CS.281.807
—	Band, rubber (dial scale)	CS.433.406	—	Rod, dial slide	CS.382.213
—	Bank, T/C switch	CZ.200.204	—	Scale, dial	CS.412.342
—	Bank, W/C switch	CZ.200.231	—	Socket, valve	CZ.369.702
—	Bracket, gang mounting	CS.224.609	—	Socket, 2-pin polarised	CZ.370.107
—	Bracket, switch mounting	CS.224.607	2	Spring, dial drum	CS.210.021
—	Clamp, dial	CS.228.569	—	Switch, mains on/off	28.650.25
—	Clip, coil can mounting	CS.235.833	—	Washer, felt (knobs-thick)	CS.467.052
—	Cloth, speaker baffle	CE.081.83	—	Washer, felt (knobs-thin)	CS.467.053

DIAL CORD LAYOUT

VIEW FROM REAR OF CHASSIS.







PARTS LISTS

CAPACITORS

No.	Description	Code No.
C1	10 pF mica	
C2, 20	100 pF mica	
C3	0.05 mF 200V paper	
C4, 5, 13, 14	30 pF air trimmer	CZ.113.700
C6, 7	2 gang tuning	CZ.107.746
C8, 18	0.01 mF 600V paper	
C9, 10	50 pF mica 10%	
C11	475 pF mica 2%	CZ.066.119
C12	20 pF mica	
C15	0.008 mF mica 10%	
C16, 17	Part of 1st I.F. transformer	
C19, 27	24 mF 350V electrolytic	
C21	30 pF mica	
C22, 23	Part of 2nd I.F. transformer	
C24	0.002 mF 600V paper	
C25, 26, 28, 33	0.02 mF 400V paper	
C30	50 pF mica	
C31	150 pF mica	
C32	10 mF 40V electrolytic	
C34	0.02 mF 600V paper	
C35 (MAS1156A)	500 pF mica	
C35 (MAS1156C)	0.001 mF mica	
C36 (MAS1156F)	0.002 mF 600V paper	

RESISTORS

No.	Description	Code No.
R1, 5	30,000 ohms 1W carbon	
R2	75,000 ohms 1W carbon	
R3, 10, 14, 19	50,000 ohms ½W carbon	
R4	100 ohms ½W carbon	
R6	100,000 ohms 1W carbon	
R7, 8	2 megohms ½W carbon	
R9	0.5 megohm ½W carbon	
R11	15,000 ohms ½W carbon	
R12, 22	100,000 ohms ½W carbon	
R13	0.5 megohm tapped carbon potentiometer	CZ.029.137
R15	10 megohms 1W carbon	
R16	1 megohm 1W carbon	
R17	250,000 ohms 1W carbon	
R18	1 megohm ½W carbon	
R20	25 ohms ½W carbon 10%	
R21	450 ohms ½W carbon	
R23	35 ohms ½W carbon 10%	
R24	75 ohms 1W W/W 10%	
R25 (MAS1156A-F)	100,000 ohms ½W carbon	
R26 (MAS1156A)	100,000 ohms ½W carbon	
R27 (MAS1156A)	20,000 ohms ½W carbon	
R27 (MAS1156C)	100,000 ohms ½W carbon	

COILS

No.	Ohms	Description	Code No.
L1	1.5	S/W aerial coil (1 white spot)	CZ.323.006
L2	<0.5		
L3	30.0	B/C aerial coil (2 blue spots)	CZ.323.007
L4	2.0		
L5	<0.5	S/W oscillator coil (yellow spot)	CZ.330.601
L6	<0.5		
L7	1.2	B/C oscillator coil (red spot)	CZ.330.600
L8	3.4		
L9	12.0	1st I.F. transformer	CZ.320.421
L10	12.0		
L11	12.0	2nd I.F. transformer	CZ.320.420
L12	12.0		
L13	550.0	Filter choke	CZ.341.003
L14	400.0	Speaker transformer	CZ.345.009
L15	<0.5		
L16	2.0	Speaker	CZ.161.217
L17	650.0	Power transformer	CZ.344.035
L18	0.8		
L19	<0.5		
L20	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.**