

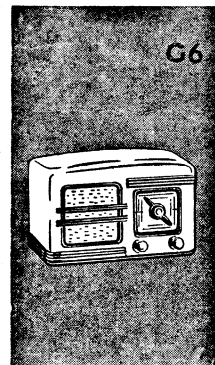


Hotpoint

BAND-MASTER

Radio Receivers

Models
G64MV
G64MVZ
D44MM



SERVICE DATA & TECHNICAL INFORMATION

4 Valves
One Band

AUSTRALIAN
GENERAL ELECTRIC
PROPRIETARY LIMITED

Battery
Operated

ELECTRICAL SPECIFICATIONS.

FREQUENCY RANGE.....540-1600 Kc/s (555-187.5 M)

INTERMEDIATE FREQUENCY 455 Kc/s

BATTERY COMPLEMENT:

Model G64-MV, G64-MVZ—1.4 volt accumulator

Model D44-MM—Battery operation

	Cable with tips	Cable with plugs
(1) 1—4 volt accumulator 2—45 volt "B" batteries	19183	19803
(2) 1—1.5 volt dry cell "A" battery 2—45 volt "B" batteries	19182	19801

NOTE: If a 1.5 volt dry cell "A" battery is used, it is necessary, if dial illumination is required, to remove the dial lamp cables from the terminals on top of the chassis and to connect the cable to the outer terminals of a 4.5 volt battery—see diagram "Battery Connections."

Vibrator Power Unit Operation: 1 4 volt accumulator.

Vibrator Power Unit:

Models G64-MV, G64-MVZ 20420

Model D44-MM 19190

Battery Consumption.

Models G64-MV,

G64-MVZ 4 volt accumulator 0.8 amp.

Model D44-MM 4 volt "A" battery 0.15 amp.

1.5 volt "A" battery 0.25 amp.

"B" battery 14 mA

Vibrator operation 0.9 amp.

Dial Lamps.

Models G64-MV,

G64-MVZ 6.0 volt, 0.15 amp. M.E.S.

Model D44-MM 6.3 volt, 0.25 amp. M.E.S.

Fuse.

Battery operation (D44-MM only) $\frac{1}{4}$ amp.

Vibrator operation 3 amp.

Valve Complement.

(1) 1R5 Converter

(2) 1T4 I.F. Amplifier

(3) 1S5 Detector, A.F. Amplifier, A.V.C.

(4) 3V4 Output

Vibrator Cartridge.

Models G64-MV, G64MVZ: A.W.A. Oak type V 5278

Model D44-MM: A.W.A. Oak type V 6804

Loudspeaker (Permanent Magnet).

Model G64-MV

5 inch—code number AC32

Transformer—XA8

V.C. Impedance—3 ohms at 400 C.P.S.

Model G64-MVZ

5 inch—code number AC39

Transformer—XA8

V.C. Impedance—3 ohms at 400 C.P.S.

Model D44-MM

7 inch—code number AY40

Transformer—XA8

V.C. Impedance—3 ohms at 400 C.P.S.

Undistorted Power Output, 200 milliwatts.

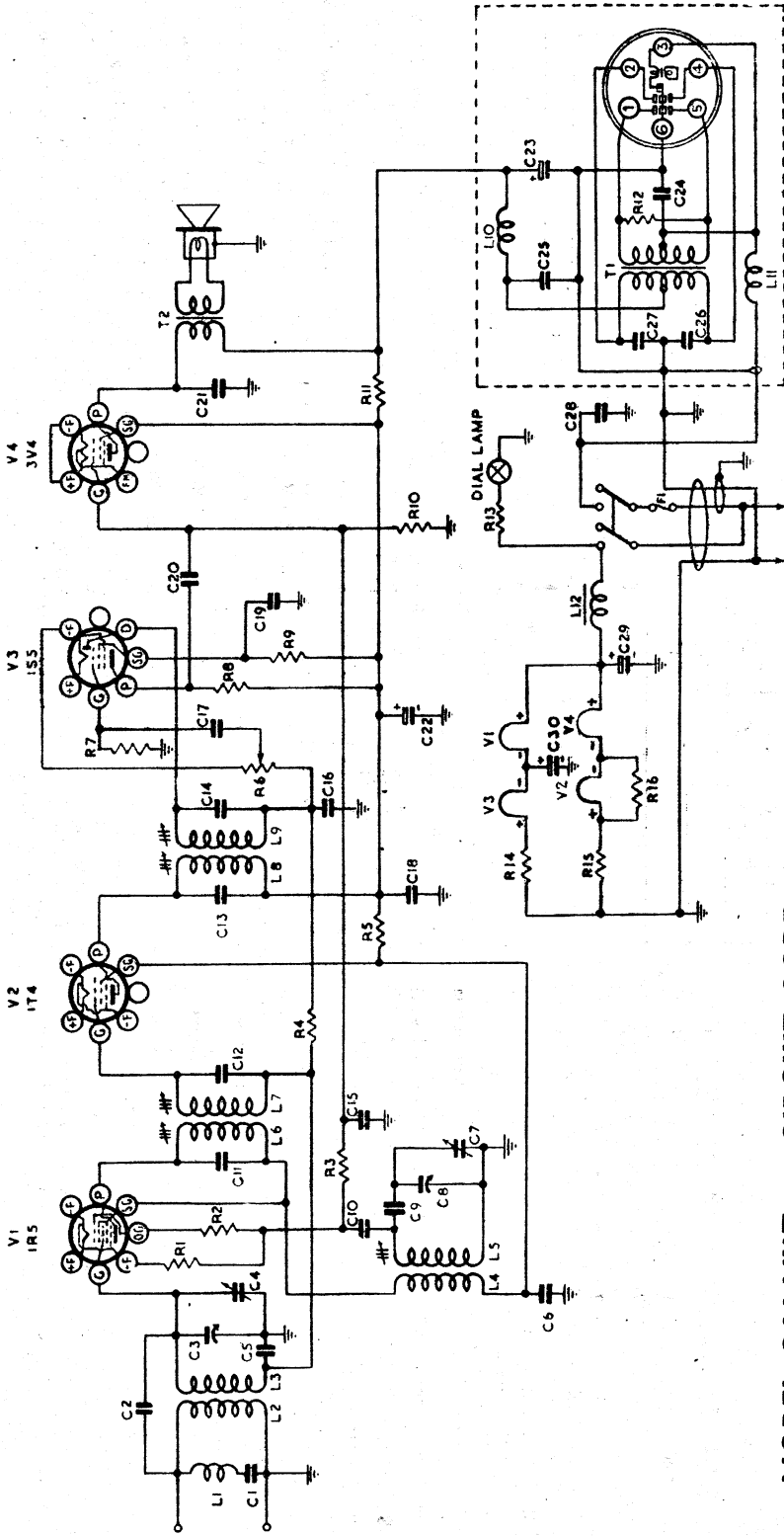
Controls.

Models G64-MV, G64-MVZ—Combined On/Off switch and Volume—Left hand control. Tuning—Right-hand control.

Model D44-MM. Combined On/Off switch and Tone—Left-hand control.

Volume—Centre control.

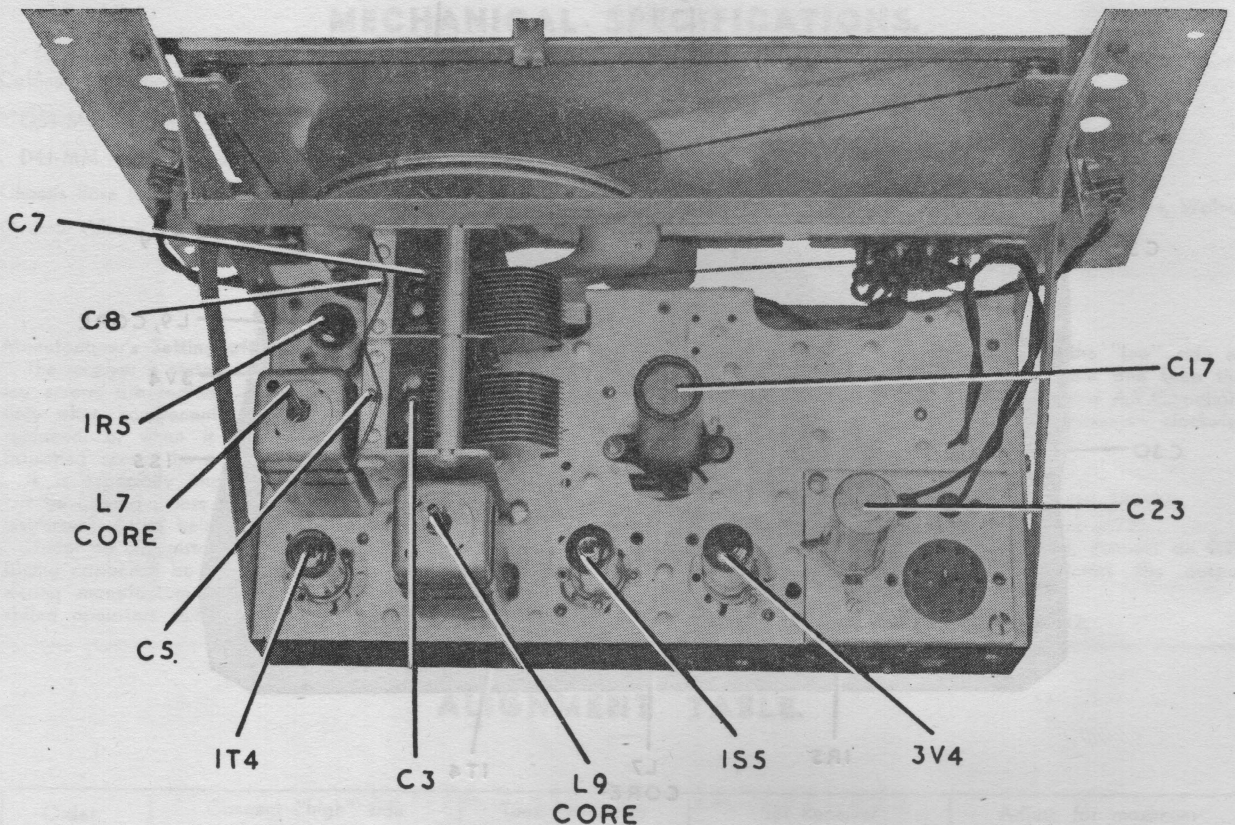
Tuning—Right-hand control.



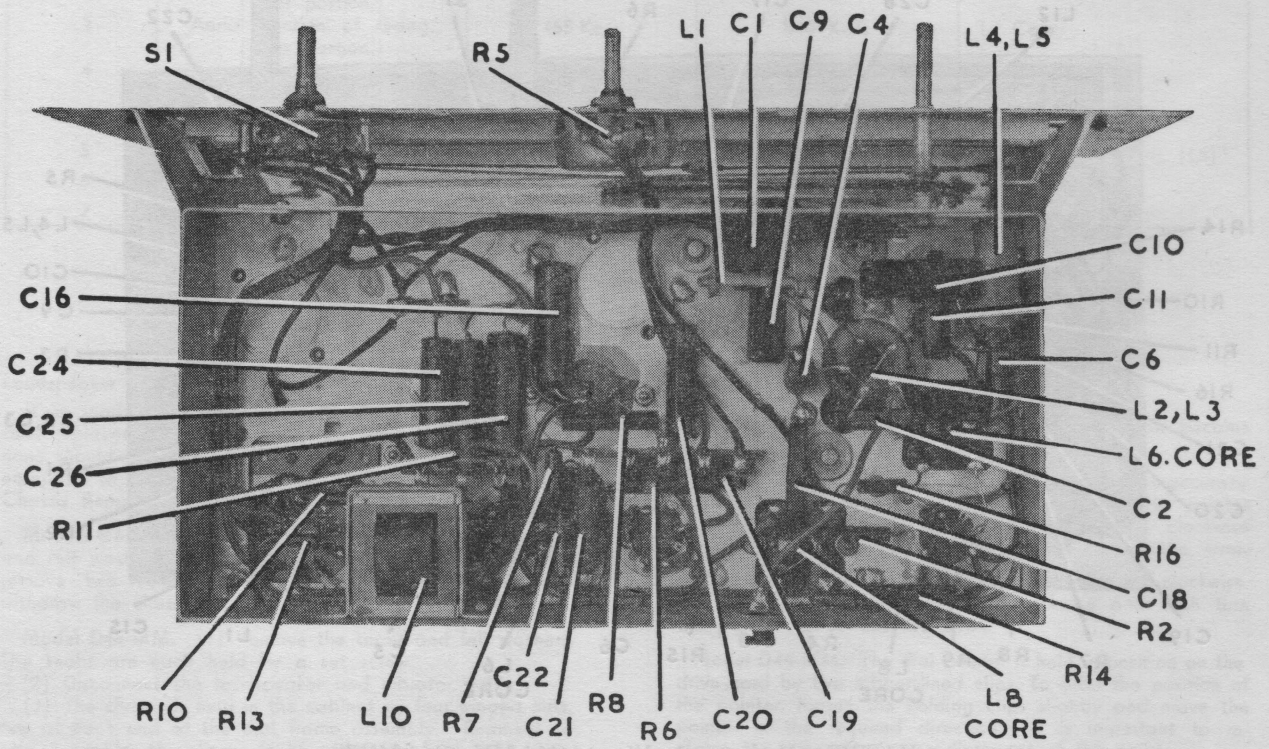
MODEL G64-MVZ — CIRCUIT CODE.

Code No.	Description	Part No.	Code No.	Description	Part No.	Code No.	Description	Part No.
INDUCTORS								
L1	Filter Unit	9382	C8	12-430 μ F tuning		C24	0.4 μ F paper 200 V working	
L2, L3	Aerial Coil	7647A	C9	470- μ F $\pm 2\frac{1}{2}\%$ paddler		C25	0.1 μ F paper 200 V working	
L4, L5	Oscillator Coil		C10	70 μ F mica		C26	0.02 μ F paper 600 V working	
L6, L7	1600-540 Kc/s	7638	C11	70 μ F mica		C27	0.02 μ F paper 600 V working	
L8, L9	1st I.F. Transformer	22700	C12	70 μ F mica		C28	0.4 μ F paper 200 V working	
L10	2nd I.F. Transformer	22703	C13	70 μ F mica		C29	400 μ F 12 P.V. Electrolytic	
L11	R.F. Choke	13809	C14	70 μ F mica		C30	400 μ F 12 P.V. Electrolytic	
L12	R.F. Choke	3149	C15	50 μ F mica		TRANSFORMERS.		
	Low Tension Filter Choke	19155	C16	200 μ F mica		T1	Vibrator Transformer	17568
			C17	0.025 μ F paper 400 V working		T2	Loudspeaker Transformer	XA8
RESISTORS.								
R1	0.1 megohm $\frac{1}{2}$ watt		C18	0.1 μ F paper 200 V working		LOUDSPEAKER.		
R2	2000 ohms $\frac{1}{2}$ watt		C19	0.05 μ F paper 200 V working		5 inch permanent magnet		
R3	3.2 megohms $\frac{1}{2}$ watt		C20	0.025 μ F paper 400 V working		FUSES.		
R4	1.0 megohms $\frac{1}{2}$ watt		C21	0.0025 μ F paper 600 V working		3 amp. cartridge		
*R5	10,000 ohms $\frac{1}{2}$ watt		C22	20 μ F 200 P.V. Electrolytic				
R6	0.5 megohm Volume Control (with switch)		C23	20 μ F 200 P.V. Electrolytic				
R7	10 megohms 1 watt							

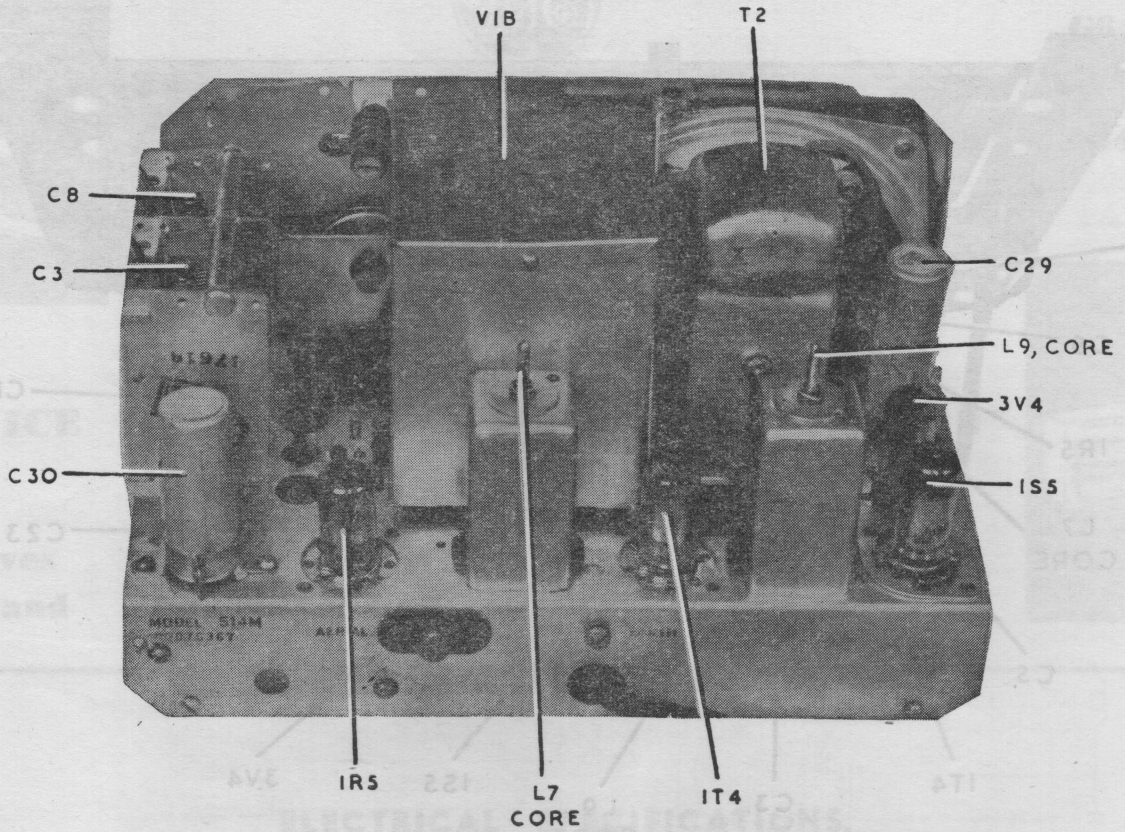
*In some receivers R5 may be 15,000 ohms $\frac{1}{2}$ watt



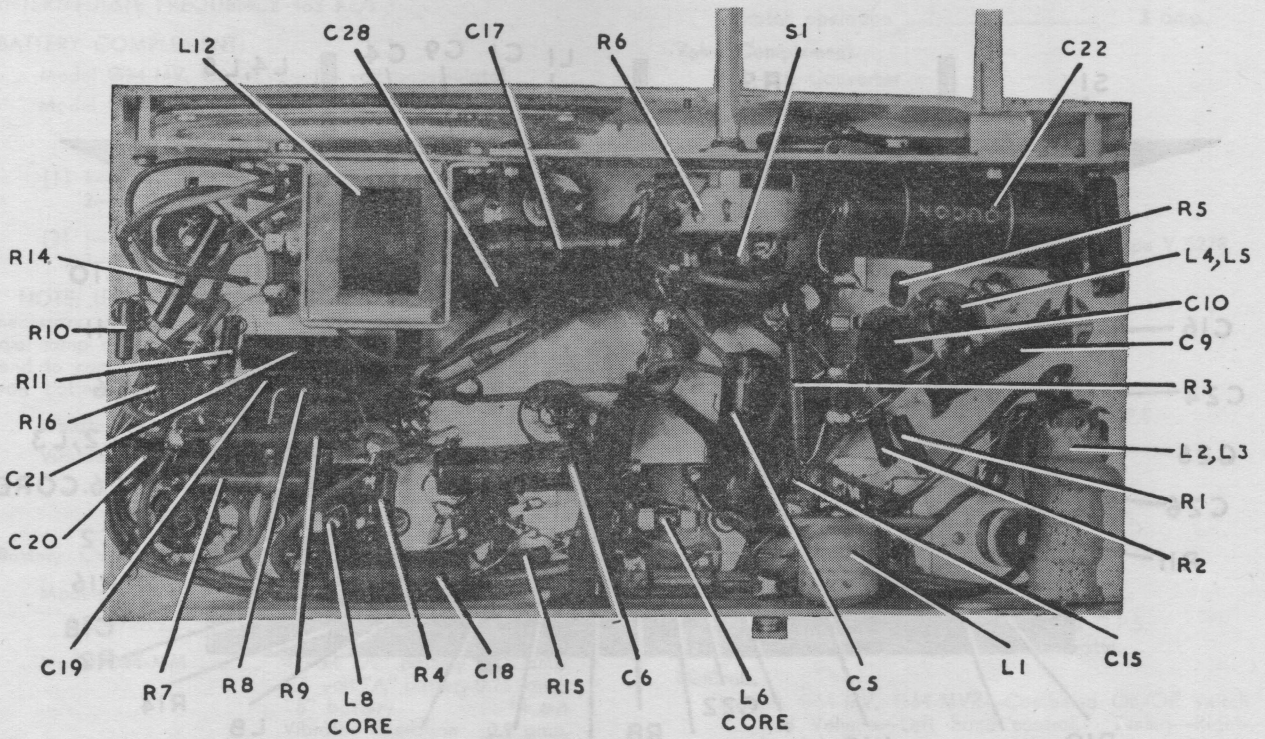
CHASSIS (Top View) D44-MM



CHASSIS (Underneath View) D44-MM



CHASSIS (Top View) G64-MV, G64-MVZ



CHASSIS (Underneath View) G64-MV, G64-MVZ

MECHANICAL SPECIFICATIONS.

Cabinet Dimensions (inches)	Height	Width	Depth	Weight (nett lbs.)	
G64-MV, G64-MVZ	6 $\frac{3}{4}$	11 $\frac{1}{4}$	5 $\frac{3}{4}$	G64-MV, G64-MVZ	13 lbs.
D44-MM	31	28	12	D44-MM	48 lbs.
Chassis Base Dimensions (ins.)	2	10 $\frac{1}{2}$	5 $\frac{1}{2}$	Cabinet Finish	
Overall Chassis Height (ins.)	6 $\frac{1}{4}$			G64-MV, G64-MVZ	Moulded Ivory, Jade, Walnut
				D44-MM	Walnut veneer

ALIGNMENT PROCEDURE.

Manufacturer's Setting of Adjustments.

The receiver is tested by the manufacturer and all adjusting screws are sealed. Re-alignment should be necessary only when components in tuned circuits are repaired or replaced, or when it is found that the seals over the adjusting screws have been broken.

It is especially important that the adjustments should not be altered unless in association with the correct testing instruments listed below.

Under no circumstances should the plates of the ganged tuning capacitor be bent, as the unit is accurately aligned during manufacture and cannot be re-adjusted unless by skilled operators using specialised equipment.

For all alignment operations connect the "low" side of the signal generator to the receiver chassis, and keep the generator output as low as possible to avoid A.V.C. action. Also, keep the volume control in the maximum clockwise position.

Testing Instruments.

- (1) A.W.A. Junior Signal Generator, type 2R3911.
- (2) A.W.A. Modulated Oscillator, type J6726.
If the modulated oscillator is used, connect an 0.25 megohm non-inductive resistor across the output terminals.
- (3) A.W.A. Output Meter, type 2M8832.

ALIGNMENT TABLE.

Order	Connect "high" side of generator to:	Tune Generator to:	Set Receiver Dial to:	Adjust for maximum peak output
1	Aerial Section of Gang. (Rear portion.)	455 Kc/s	540 Kc/s	L9 Core
2	Aerial Section of Gang. (Rear portion.)	455 Kc/s	540 Kc/s	L8 Core
3	Aerial Section of Gang. (Rear portion.)	455 Kc/s	540 Kc/s	L7 Core
4	Aerial Section of Gang. (Rear portion.)	455 Kc/s	540 Kc/s	L6 Core
Repeat the above adjustments until the maximum output is obtained.				
5	Aerial Terminal	600 Kc/s	600 Kc/s	L.F. Osc. Core Adj. (L5)*
6	Aerial Terminal	1500 Kc/s	1500 Kc/s	H.F. Osc. Adj. †
7	Aerial Terminal	1500 Kc/s	1500 Kc/s	H.F. Aer. Adj. ‡

*Rock the tuning control back and forth through the signal.

†C4 in models G64-MV, G64-MVZ; C5 in model D44-MM.

‡C7 in models G64-MV, G64-MVZ; C8 in model D44-MM.

Loudspeaker Service.

It is inadvisable to attempt loudspeaker repairs other than replacement of the transformer. The fitting of a new cone should be done only by Service Departments suitably equipped to do the work.

Chassis Removal.

Models G64-MV, G64-MVZ. First remove the control knobs and felt washers—each knob is held by a set screw. Then remove two screws from underneath the cabinet and withdraw the chassis.

Model D44-MM. (1) Remove the knobs and felt washers. The knobs are each held by a set screw.

(2) Disconnect the loudspeaker and vibrator cables.

(3) The chassis is held in the cabinet by four winged nuts, two at each end of the dial frame assembly. Removal of these enables the chassis to be withdrawn from the cabinet.

Dial Pointer Adjustment.

Models G64-MV, G64-MVZ. Should the pointer become displaced it can be reset as follows:—

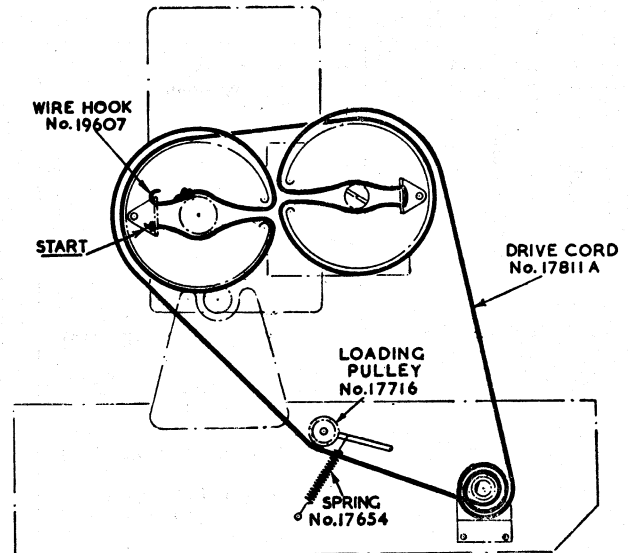
Tune a known station by ear and note any inaccuracy of the pointer. If it is necessary to turn the pointer slightly clockwise, turn the tuning control fully clockwise and then turn the pointer sufficiently to correct the error.

If it is necessary to turn the pointer slightly anti-clockwise, turn the tuning control fully anti-clockwise and then turn the pointer to correct the error.

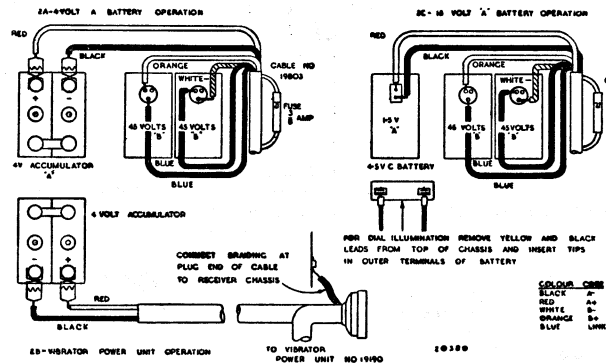
Model D44-MM. The dial pointer is held in position on the drive cord by two rubber-lined clips. To alter the position of the pointer, loosen the holding clips slightly and move the pointer in the required direction. It is important to re-clip the clips after any adjustment of the pointer.

Tuning Drive Cord Replacement.

Models G64-MV, G64-MVZ. Disconnect the spring from the loading pulley. The accompanying diagram shows the route of the cord and the method of attachment. The cord is made from a 27½ inch cut length, which allows for the knot at each end. When fitting, apply tension to the cord during the operation and use a pair of round-nose pliers to bend the hook round the anchor plate to take up any slack. Place the loading pulley on the drive cord and replace the spring.



Model D44-MM. Follow the diagram which is affixed to the back of the dial frame assembly. This shows the route of the cord and the method of attachment.



BATTERY CONNECTIONS. MODEL D44-MM.

SOCKET VOLTAGES. MODELS G64-MV, G64-MVZ.

Valve	Bias Volts	Screen Grid to Chassis Volts	Anode to Chassis Volts	Anode Current mA	Filament Volts
1R5 Converter	0	45*	45*	0.5	1.3-1.4
1T4 I.F. Amplifier	0	45*	85	2.7	1.3-1.4
1S5 Det., A.V.C., A.F. Amp.	0	25†	20†	0.07	1.3-1.4
3V4 Output	-6.5†	85	90	8.5	1.3-1.4

Total Battery Current—0.8 amp.

Measured with no signal input. Volume Control maximum clockwise.

*These readings may vary depending on the resistance of the voltmeter used.

†Cannot be measured with an ordinary voltmeter.

SOCKET VOLTAGES. MODEL D44-MM.

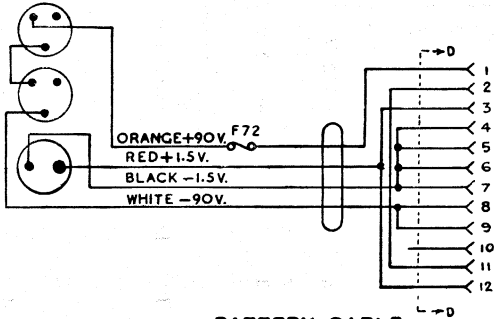
Valve	Bias Volts		Screen Grid to Chassis Volts		Anode to Chassis Volts		Anode Current mA		Filament Volts
	B	V	B	V	B	V	B	V	
1R5 Converter	0	0	45*	45*	45*	45*	0.75	0.75	1.3-1.4
1T4 I.F. Amp.	0	0	45*	45*	84	85	2.5	2.7	1.3-1.4
1S5 Det., A.V.C., A.F. Amp.	0	0	25+	25+	20+	20+	0.07	0.07	1.3-1.4
3V4 Output	-5.5	-5	84	85	80	80	8.5	9.5	1.3-1.4

Measured with no signal input. Volume Control maximum clockwise.

*These readings may vary, depending on the resistance of the voltmeter used.

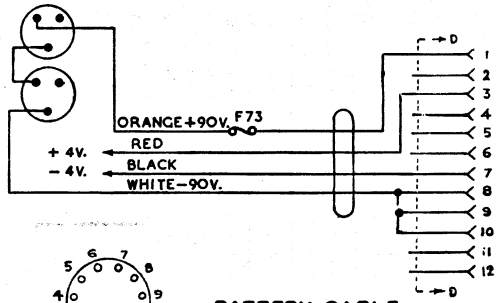
+Cannot be measured with an ordinary voltmeter.

PLUGS VIEWED FROM WIRING SIDE.

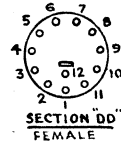


BATTERY CABLE
No. 1980I

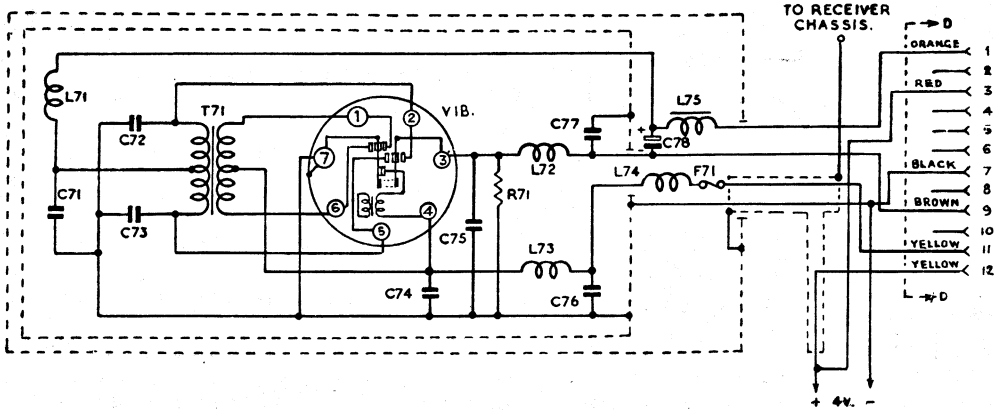
PLUGS VIEWED FROM WIRING SIDE



BATTERY CABLE
No. 19803



VIBRATOR POWER UNIT No. 19190



L71	R.F. choke	13809
L72	R.F. choke	13809
L73	R.F. choke	3149
L74	R.F. choke	3149
L75	R.F. choke	8321
R71	150 ohms, 1 watt, W.W.	
C71	0.01 uF paper, 600 V. working	
C72	0.02 uF paper, 600 V. working	
C73	0.02 uF paper, 600 V. working	
C74	0.1 uF paper, 400 V. working	
C75	0.01 uF paper, 600 V. working	
C76	0.1 uF paper, 400 V. working	
C77	0.01 uF paper, 600 V. working	
C78	20 uF, 200 P.V. electrolytic	
T71	Vibrator transformer	17568

D.C. RESISTANCE OF WINDINGS.

Winding	D.C. Resistance in Ohms
Aerial Coil	
Primary (L2)	9.5
Secondary (L3)	3.5
Oscillator Coil	
Primary (L4)	2
Secondary (L5)	6.5
I.F. Transformer Windings	8
I.F. Filter (L1)	17+
LT Choke	
G64-MV, G64-MVZ (L12)	*
D44-MM (L10)	*
Smoothing Choke	
D44-MM only (L75)	200
R.F. Filter Choke	
G64-MV, G64-MVZ (L10)	9
(L11)	*
D44-MM (L71, L72)	9
(L73, L74)	*
Loudspeaker Input Transformer.	
XA8 Primary	425 or 510
Secondary	*
Vibrator Transformer	
G64-MV, G64-MVZ Pmry.	*
Secondary	500
D44-MM Primary	*
Secondary	300

The above readings were taken on a standard chassis, but substitution of materials during manufacture may cause variations, and it should not be assumed that a component is faulty if a slightly different reading is obtained.

*Less than 1 ohm.

+In some receivers this reading may be as high as 60 ohms.

MECHANICAL REPLACEMENT PARTS.

Item	Part No.	Item	Part No.
Cabinet G64-MV, G64-MVZ	19680	Drive Drum Assembly	
D44-MM	D4	(D44-MM only)	22542
Cable, Battery G64-MV, G64-MVZ	17644	Dial Pointer (G64-MV,	
With	With	G64-MVZ only)	19514
Tips	Plugs	Knob G64-MV, G64-MVZ	17603
D44-MM 4 volt	19183	D44-MM	4859
1.5 volt	19182	Socket Valve	19965
Cable, L'speaker (D44-MM only)	22897	Spindle, tuning drive assembly	
Cable, volume control		G64-MV, G64-MVZ	17647
(G64-MV, G64-MVZ only)	15932	D44-MM	22388
Chassis end		Strip tag	
G64-MV, G64-MVZ (Strap)	17634	G64-MV, G64-MVZ	
D44-MM Left Hand	22648	1 way	7628
Right Hand	22647	4 way	8022
Dial Scale		5 way	15926
G64-MV	20288	D44-MM	
G64-MVZ	22518 or 23305	2 way	8863
D44-MM	22629 or 23316	3 way	8821
Dial Frame Assembly		5 way	15926
G64-MVZ	22669	Vibrator Power Unit	
D44-MM	20343C	G64-MV, G64-MVZ	20420
		D44-MM	19190
		Terminal Aerial	17717

