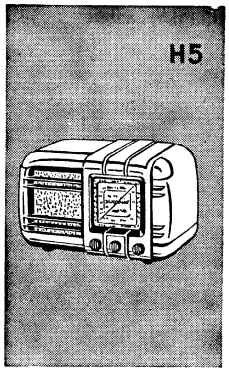


Model H54ME

Hotpoint BAND-MASTER Radio Receivers

SERVICE DATA AND TECHNICAL INFORMATION

4 Valves
One Band

AUSTRALIAN GENERAL ELECTRIC PROPRIETARY LIMITED

A.C.
Operated

ELECTRICAL SPECIFICATIONS.

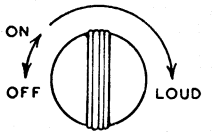
FREQUENCY RANGE ..... 540-1600 Kc/s (555-187.5 M)
INTERMEDIATE FREQUENCY: 455 Kc/s.
POWER SUPPLY RATING: 200-260 volts, 50-60 C.P.S.
(Instruments available for other voltage and frequency ratings.)
POWER CONSUMPTION: 45 watts
DIAL LAMP: 6.3 volt, 0.25 amp. M.E.S.

VALVE COMPLEMENT:
1. 6A8G Converter
2. 6G8G I.F. Amp. A.F. Amp., Det., A.V.C.
3. 6V6GT Output
4. 6X5GT Rectifier

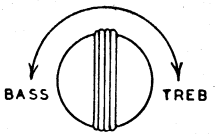
LOUDSPEAKER:
5-inch—code number AA16
Transformer, XA2
V.C. Impedance, 3 ohms at 400 C.P.S.
UNDISTORTED POWER OUTPUT: 3 watts

MECHANICAL SPECIFICATIONS.

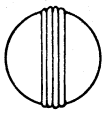
	Height	Width	Depth
Cabinet Dimensions (inches)	$8\frac{1}{2}$	$12\frac{3}{4}$	$6\frac{3}{4}$
Chassis Base Dimensions (inches)	$2\frac{1}{2}$	$10\frac{7}{8}$	$5\frac{3}{8}$
Carton Dimensions (inches)	10	16	10
Weight (nett lbs.)	16 lbs		
Cabinet Finish	Moulded Plastic		



VOLUME & ON/OFF SWITCH



TONE


TUNING

GENERAL DESCRIPTION.

The Model H54ME is a mantel model housed in an attractively designed moulded plastic cabinet. Features of design include: Tropic-proof construction, automatic volume control, magnetite cores in I.F. Transformers and oscillator coil air-dielectric trimming capacitors.

ALIGNMENT PROCEDURE.

Manufacturer's Setting of Adjustments.

The receiver is tested by the manufacturer with precision instruments 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 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.

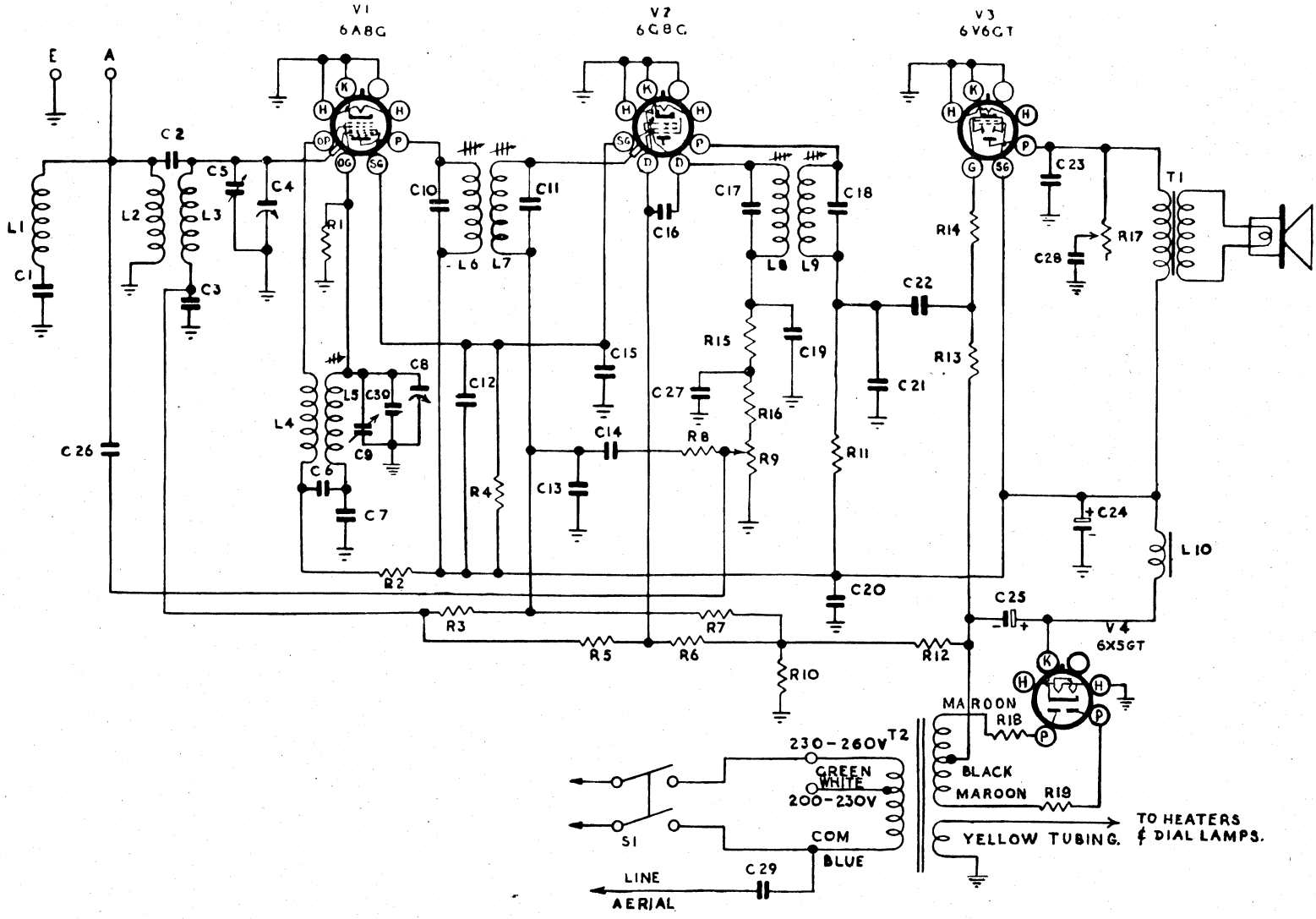
For all alignment operations, connect the "low" side of the signal generator to the receiver chassis, and keep the generator output as low as possible to avoid A.V.C. action. Also, keep the volume control in the maximum clockwise position.

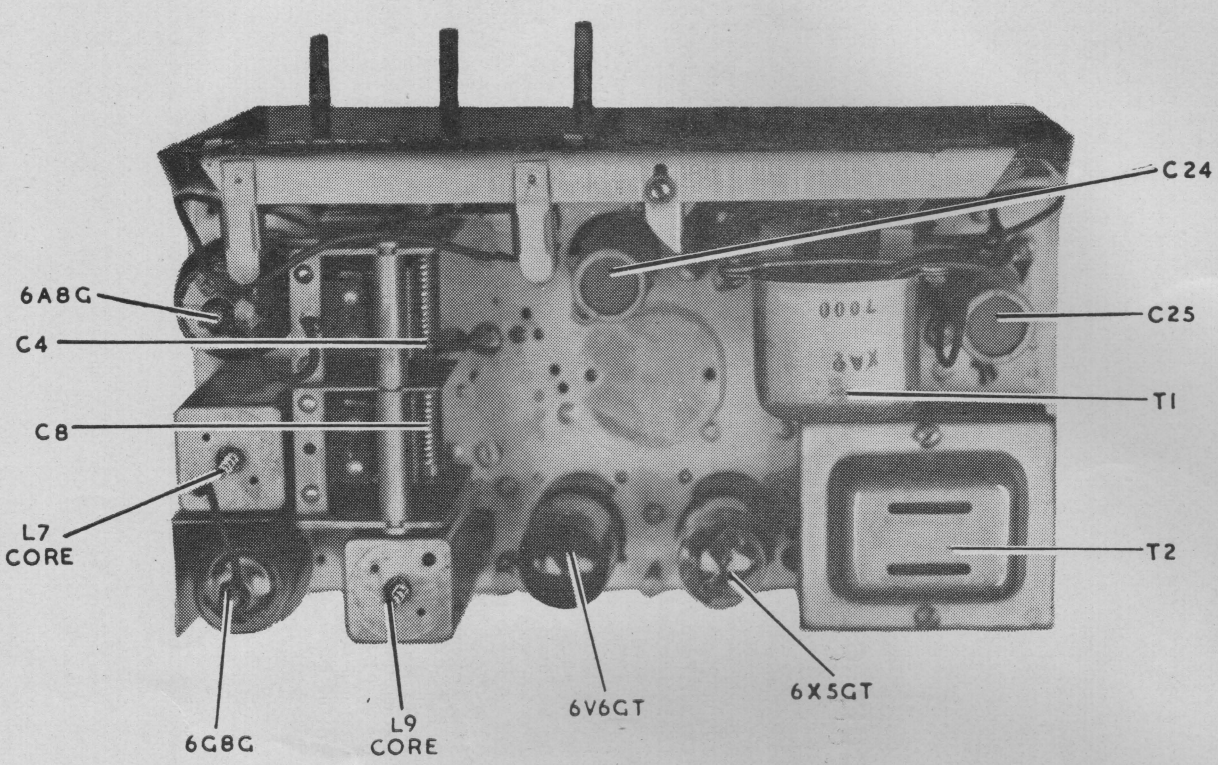
TESTING INSTRUMENTS

1. A.W.A. Junior Signal Generator, type 2R3911, or
2. A.W.A. Modulated Oscillator, type J6726.

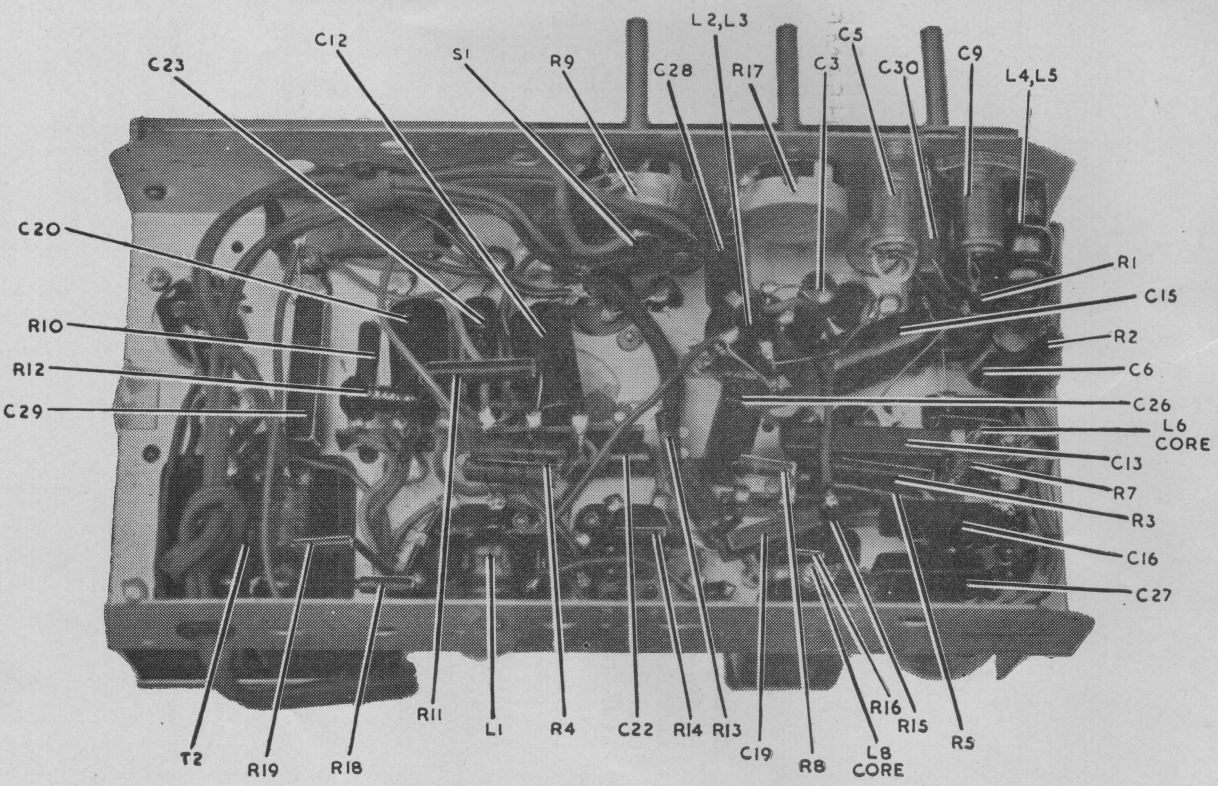
If the modulated oscillator is used, connect an 0.25 megohm non-inductive resistor across the output terminals.

3. A.W.A. Output Meter, type 2M8832.


V1
6A8G
V2
6C8C
V3
6V6GT
V4
6X5GT
E
A
L1
C1
L2
L3
C2
C3
C4
C5
R1
C10
L6
L7
C11
C16
C17
L8
L9
C18
C15
C8
L5
C30
C9
L4
C6
C7
C12
R4
C14
C13
R15
C19
C27
R16
R8
R9
R11
C21
C22
R14
R13
C23
C28
R17
T1
C24
L10
C20
C25
C26
R2
R3
R5
R6
R7
R10
R12
MAROON
R18
230-260V
T2
GREEN
WHITE
200-230V
BLACK
MAROON
R19
S1
COM
BLUE
YELLOW TUBING.
TO HEATERS
& DIAL LAMPS.
LINE
AERIAL
C29



CHASSIS [Top View] — Model H54ME



CHASSIS [Bottom View] — Model H54ME

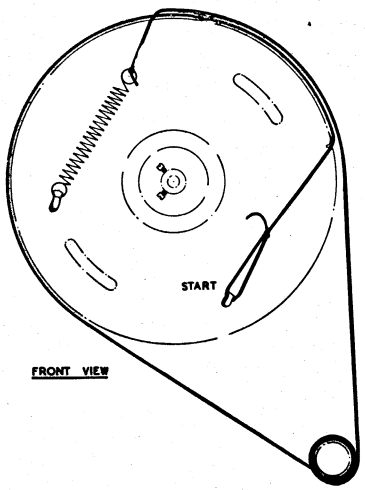
ALIGNMENT TABLE.

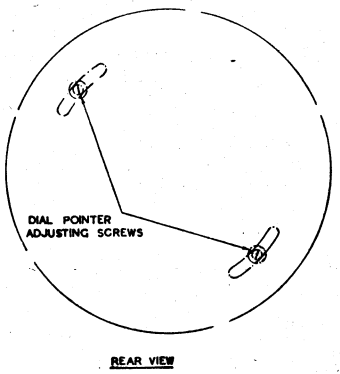
Order	Connect "High" Side of Generator to:	Tune Generator to:	Tune Receiver Dial to:	Peak Output. Adjust for Maximum
1	6A8G*	455 Kc/s	540 Kc/s	L9 Core
2	6A8G*	455 Kc/s	540 Kc/s	L8 Core
3	6A8G*	455 Kc/s	540 Kc/s	L7 Core
4	6A8G*	455 Kc/s	540 Kc/s	L6 Core
	Repeat the above adjustments until the maximum 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. (C9)
7	Aerial Terminal	1500 Kc/s	1500 Kc/s	H.F. Aer. Adj. (C5)
	Repeat adjustments 5, 6 and 7.			

*With grid clip connected. An 0.001uF capacitor should be connected in series with the high side of the test instrument.
†Rock the tuning control back and forth through the signal.

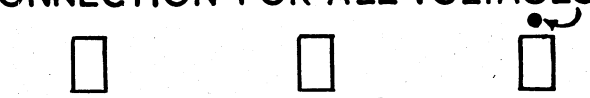
Chassis Removal.

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





RED DOT INDICATES COMMON CONNECTION FOR ALL VOLTAGES



230–260 VOLTS

200–230 VOLTS

Connection to Power Supply.

The receiver should not be connected to any circuit supplying other than alternating current from 200-260 volts and at the frequency stated on the label within the cabinet. The power supply connections are shown in the accompanying diagram.

Dial Pointer Adjustment and Drive. Cord Replacement.

To shift the position of the dial pointer, loosen two set-screws in the rear of the drive drum—see accompanying diagram—move the pointer disc to the required position and tighten the screws.

To replace the drive cord, follow the accompanying diagram which shows the route of the cord and the method of attachment.

SOCKET VOLTAGES.

Valve	Cathode to Chassis Volts	Screen Grid to Chassis Volts	Anode to Chassis Volts	Anode Current mA	Heater Volts
6A8G Converter	—	90	240	2.0	6.3
Oscillator	—	—	150	4.0	—
6G8G I.F. Amp., A.F. Amp., Det., A.V.C.	—	90	130	5.0	6.3
6V6GT Output	—	240	230	30.0	6.3
6X5GT Rectifier	—	—	280 R.M.S. A.C.	—	6.3

Volts across resistors R10 and R12 — 15.
Volts across resistor R10 — 3.
Total H.T. current — 54mA.
Measured at 240 volts A.C. Supply. No signal input. Volume control maximum clockwise.
Voltmeter 1000 ohms per volt; measurement taken on highest scale giving accurate readable deflection.

MODEL H54ME — CIRCUIT CODE

Code No.	Description	Part No.
	INDUCTORS	
L1	I.F. Filter Choke (incl. C1)	9382
L2, L3	Aerial Coil, 1600-540 Kc/s	7647A
L4, L5	Oscillator Coil, 1600-540 Kc/s	7638A
L6, L7	1st I.F. Transformer	22709
L8, L9	2nd I.F. Transformer	22703
L10	Loudspeaker Field Coil, 1,000 ohms	
	RESISTORS	
R1	50,000 ohms, ½ watt	
R2	20,000 ohms, 1 watt	
R3	3.2 megohms, 1 watt	
R4	25,000 ohms, 2 watt	
R5	1.6 megohm, ½ watt	
R6	1.6 megohm, ½ watt	
R7	2.5 megohms, ½ watt	
R8	0.1 megohm, ½ watt	
R9	0.5 megohm Volume Control (with switch)	20293
R10	56 ohms, 1 watt (wire-wound)	
R11	16,000 ohms, 1 watt	
R12	250 ohms, 3 watt (wire-wound)	
R13	0.25 megohm, ½ watt	
R14	50,000 ohms, ½ watt	
R15	20,000 ohms, ½ watt	
R16	20,000 ohms, ½ watt	
R17	0.1 megohm Tone Control	21917
R18	100 ohms, ½ watt	
R19	100 ohms, ½ watt	
	CAPACITORS	
C1	50 uuF Mica	
C2	4 uuF Mica	
C3	0.05 uF Paper, 200v. working	
C4	12-430 uuF Tuning (ganged)	18201
C5	3-25 uuF Trimmer	19659
C6	0.05 uF Paper, 400v. working	
C7	420 uuF Padder, ± 2½%	
C8	12-430 uuF Tuning (ganged)	18201
C9	3-25 uuF Trimmer	19659
C10	70 uuF Mica	
C11	70 uuF Mica	
C12	0.1 uF Paper, 400v. working	
C13	1000 uuF Mica	
C14	0.01 uF Paper, 600v. working	
C15	0.1 uF Paper, 400v. working	
C16	50 uuF Mica	
C17	70 uuF Mica	
C18	70 uuF Mica	
C19	100 uuF Mica	
C20	0.1 uF Paper, 400v. working	
C21	1000 uuF Mica	
C22	0.01 uF Paper, 600v. working	
C23	0.0025 uF Paper, 600v. working	
C24	8 uF 525, P.V. Electrolytic	
C25	16 uF 525, P.V. Electrolytic	
C26	1500 uuF Mica	
C27	200 uuF Mica	
C28	0.05 uF Paper, 400v. working	
C29	500X uuF (2000v. Test)	
C30	9 uuF Mica	
	TRANSFORMERS	
T1	Loudspeaker Transformer	XA2
T2	Power Transformer, 50-60 c.p.s.	17859B
	Power Transformer, 40 cp.s.	17861B
	LOUDSPEAKER	
	5-inch Electro Magnet	AA16
	SWITCHES	
S1	Power Switch (inc. in R9)	

MECHANICAL REPLACEMENT PARTS.

Item	Part No.
Cabinet	20090
Cable, Power	15916
Cable, Volume	23940
Chassis, End:	
Left-hand	20124
Right-hand	22417
Clip, Grid	7459
Dial, Scale	23301
Dial, Pointer Assembly	20132

Item	Part N
Drive, Cord	20154
Drive, Drum	20130
Front Plate Assembly	15448
Knob	17603
Socket, Valve	4704
Spindle, Drive	20140
Strip, Tag:	
3-way	8821
7-way	19920
Terminal, Spring	5458

D.C. RESISTANCE OF WINDINGS.

Winding	D.C. Resistance in Ohms
Aerial Coil:	
Primary (L2)	30
Secondary (L3)	4
Oscillator Coil:	
Primary (L4)	1.5
Secondary (L5)	6.0
I.F. Transformer Windings	10
I.F. Filter (L1)	17.5*
Power Transformer (T2):	
Primary	50
Secondary	400
Loudspeaker Input Transformer (T1):	
Primary	525 or 430
Secondary	†

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.

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

†Less than 1 ohm.