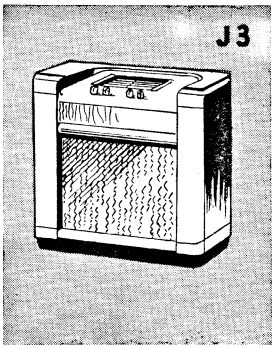
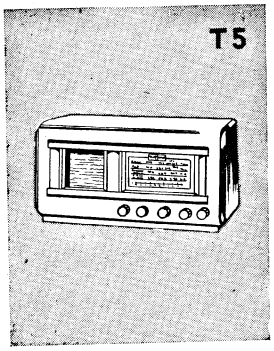


Hotpoint
BAND-MASTER
Radio Receivers

Models
T55DE
J35DE



SERVICE DATA & TECHNICAL INFORMATION

A.C.
OPERATED

AUSTRALIAN GENERAL ELECTRIC PROPRIETARY LIMITED

Five Valves
Two Band

ELECTRICAL SPECIFICATIONS.

FREQUENCY RANGES: Medium Wave ..... 540-1600 Kc/s (555-187.5M)

Short Wave ..... 6-18 Mc/s (50-16M)

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 ..... 60 watts

DIAL LAMPS ..... 6.3 volts, 0.25 amp. M.E.S.

VALVE COMPLEMENT:

(1)	6J8GA	Converter
(2)	6SK7GT	I.F. Amplifier
(3)	6SQ7GT	Detector, A.F. Amplifier, A.V.C.
(4)	6V6GT	Output
(5)	6X5GT	Rectifier

LOUDSPEAKER:

Model T55DE — 7 inch—Code No. AY38
Transformer—XA2
V.C. Impedance 3 ohms at 400 C.P.S.
Permanent Magnet

Model J35DE — 12 inch—Code No. AU44 or AU45
Transformer—TU202
V.C. Impedance 2.2 ohms at 400 C.P.S.
Permanent Magnet

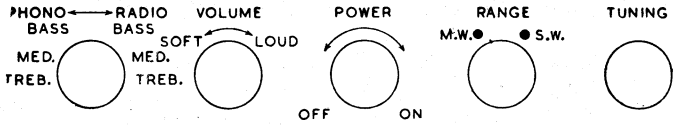
UNDISTORTED POWER OUTPUT: 3 watts

MECHANICAL SPECIFICATIONS.

	Height	Width	Depth
Cabinet Dimensions (inches):			
Model T55DE	10½	20¼	8⅞
Model J35DE	31½	33½	12½
Chassis Base Dimensions (inches)	2½	11	5½
Carton Dimensions (inches)			
Model T55DE	11	20⅝	11
Model J35DE	32	35	13¾

Weight (nett lbs.):
Model T55DE 26
Model J35DE 56

Cabinet Finish ..... Walnut Veneer



CONTROLS MODELS T55DE & J35DE

GENERAL DESCRIPTION.

SOCKET VOLTAGES.

Valve	Cathode to Chassis Volts	Screen Grid to Chassis Volts	Anode to Chassis Volts	Anode Current mA	Heater Volts
6J8GA Converter: M.W.	1.5	80	240	1.0	6.3
S.W.	2.0	80	240	1.3	6.3
Oscillator: M.W.	—	—	115	5.0	—
S.W.	—	—	115	5.0	—
6SK7GT I.F. Amplifier	0	80	240	5.0	6.3
6SQ7GT 2nd Det., A.V.C. A.F. Amp.	0	—	90*	0.6	6.3
6V6GT Output	13	240	225	40.0	6.3
6X5GT Rectifier	300	—	280 (A.C.)	—	6.3

Volts across back-bias resistor R18—3.0.
Total H.T. Current—60 mA.
Measured at 240 volts A.C. supply. No signal input. Volume control maximum clockwise. Voltmeter 1000 ohms per volt; measurements taken on highest scale giving accurate readable deflection.
*This reading may vary depending on the resistance of the voltmeter used.

D.C. RESISTANCE OF WINDINGS.

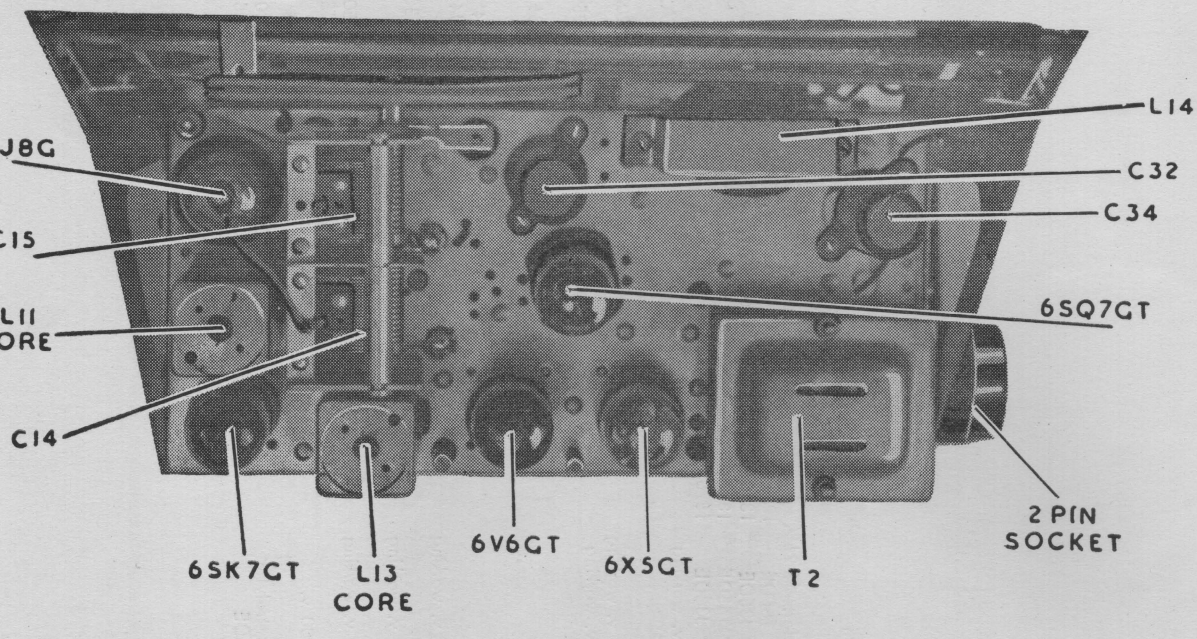
Winding	D.C. Resistance in ohms
Aerial Coil (M.W.):	
Primary (L2)	30
Secondary (L3)	4
Aerial Coil (S.W.):	
Primary (L4)	4
Secondary (L5)	*
Oscillator Coil (M.W.):	
Primary (L6)	2
Secondary (L7)	6
Oscillator Coil (S.W.):	
Primary (L8)	*
Secondary (L9)	*
I.F. Transformer Windings	10
I.F. Filter (L1)	17.5†
Power Transformer (T2):	
Primary	50
Secondary	400
Loudspeaker Input Transformer (T1):	
XA2 Primary	450
XA2 Secondary	*
TU202 Primary	400
TU202 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.

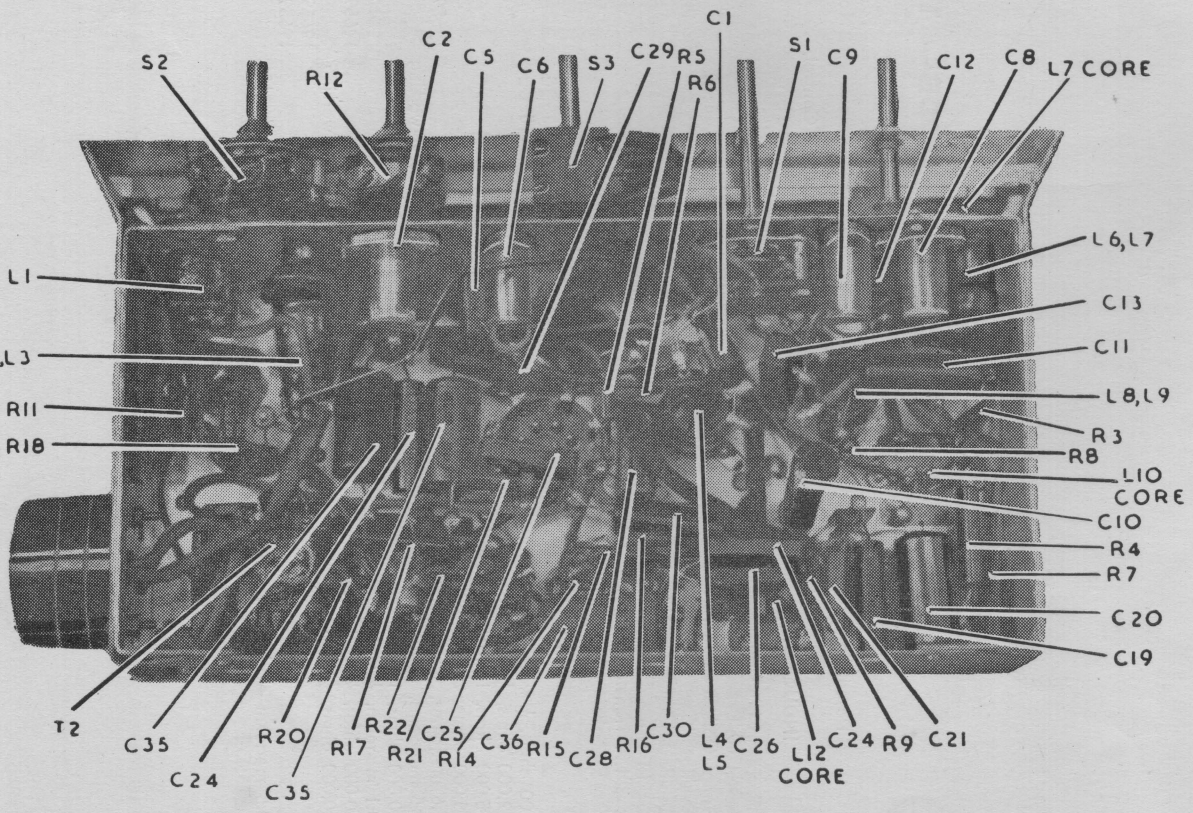
*Less than 1 ohm.
†In some receivers this reading may be as high as 60 ohms.

MECHANICAL REPLACEMENT PARTS

Item	Part No.
Cabinet: Model T55DE	T5
Model J35DE	J3
Cable, aerial	15452
Cable, power: Model T55DE	23926
Model J35DE	24605
Cable, speaker	19188
Cable, volume: Model T55DE	20425
Model J35DE	20416
Chassis, end:	
Model T55DE—Left hand	24240
Right hand	22417
Model J35DE—Left hand	24241
Right hand	20316
Clip, grid	7459
Dial, frame assembly: Model T55DE	20514
Model J35DE	20343H
Dial, pointer assembly: Model T55DE	20522
Model J35DE	20331
Dial, scale: Model T55DE	23341
Model J35DE	23343
Drum, drive: Model T55DE	20130
Model J35DE	15684
Knob	4589
Socket, valve	4704
Socket, valve cushion	20142
Spindle, assembly, drive:	
Model T55DE	20505
Model J35DE	20339
Strip, tag: 1 way	7628
2 way	8863
3 way	8821
Terminal, spring	5458



CHASSIS TOP VIEW MODELS T55DE/J35DE



CHASSIS UNDERNEATH VIEW MODELS T55DE/J35DE

CIRCUIT CODE— T55DE & J35DE

Code No.	Description	Part No.
	INDUCTORS	
L1	I.F. Filter (including C4)	9382
L2, L3	Aerial Coil, 540-1600 Kc/s	15454
L4, L5	Aerial Coil, 6-18 Mc/s	15456
L6, L7	Oscillator Coil, 540-1600 Kc/s	9206A
L8, L9	Oscillator Coil, 6-18 Mc/s	15458
L10, L11	1st I.F. Transformer	22700
L12, L13	2nd I.F. Transformer	22703
L14	Filter Choke	TU17
	RESISTORS	
R1	200 ohms, ½ watt	
R2	32,000 ohms, ½ watt	
R3	25,000 ohms, 1 watt	
R4	25,000 ohms, 2 watt	
R5	1.6 megohms, ½ watt	
R6	2.5 megohms, ½ watt	
R7	20,000 ohms, 1 watt	
R8	0.1 megohm, ½ watt	
R9	50,000 ohms, ½ watt	
R10	20,000 ohms, ½ watt	
R11	0.2 megohm, ½ watt	T55DE
R11	50,000 ohms, ½ watt	J35DE
R12	0.5 megohm—Volume Control, T55DE	6490
R12	0.5 megohm—Volume Control, J35DE	7690
R13	10 megohms, 1 watt	
R14	325 ohms, 3 watt	
R15	50,000 ohms, ½ watt	
R16	0.5 megohm, ½ watt	
R17	50,000 ohms, 1 watt	
R18	50 ohms, 3 watt	
R19	100 ohms, ½ watt	
R20	100 ohms, ½ watt	
R21	0.25 megohm, 1 watt	
R22	1.0 megohm, 1 watt	
R23	0.2 megohm, ½ watt J35DE only—not used in T55DE	
	CAPACITORS	
C1	4 uuF Mica	
C2	3-25 uuF Air Trimmer	19659
C3	0.05 uF Paper, 200 v. working	
C4	50 uuF Silvered Mica	
C5	9 uuF Mica	
C6	3-25 uuF Air Trimmer	19659
C7	0.1 uF Paper, 200 v. working	
C8	3-25 uuF Air Trimmer	19659
C9	3-25 uuF Air Trimmer	19659
C10	4000 uuF Mica Padder, ± 2½%	
C11	0.05 uF Paper, 400 v. working	
C12	70 uuF Mica	
C13	470 uuF Mica Padder, ± 2½%	
C14	12-430 uuF Tuning T55DE	18211
C14	12-430 uuF Tuning J35DE	18201
C15	12-430 uuF Tuning T55DE	18211
C15	12-430 uuF Tuning J35DE	18201
C16	0.1 uF Paper, 400 v. working	
C17	70 uuF Mica	
C18	70 uuF Mica	
C19	0.05 uF Paper, 200 v. working	
C20	0.1 uF Paper, 400 v. working	
C21	9 uuF Mica	
C22	70 uuF Mica	
C23	70 uuF Mica	
C24	100 uuF Mica	
C25	200 uuF Mica	
C26	100 uuF Mica	
C27	0.01 uF Paper, 600 v. working	
C28	50 uuF Mica	
C29	0.01 uF Paper, 600 v. working	
C30	0.02 uF Paper, 600 v. working	
C31	0.01 uF Paper, 600 v. working T55DE	
C31	0.0025 uF Paper, 600 v. working J35DE	
C32	16 uF 525 P.V. Electrolytic	
C33	200 uuF Mica T55DE	
C33	500 uuF Mica J35DE	
C34	8 uF 525 P.V. Electrolytic	
C35	0.1 uF Paper, 400 v. working	
C36	25 uF 40 P.V. Electrolytic	
	TRANSFORMERS	
T1	Loudspeaker Transformer T55DE	XA2
T1	Loudspeaker Transformer J35DE	TU202
T2	Power Transformer 50-60 C.P.S.	17859A
T2	Power Transformer 40 C.P.S.	17861A
	LOUDSPEAKERS	
	12 inch Permanent Magnet J35DE	AU44 or AU45
	7 inch Permanent Magnet T55DE	AY38
	SWITCHES	
S1	Range Switch T55DE	20507
S1	Range Switch J35DE	20354
S2	PU/Tone Switch T55DE	24261
S2	PU/Tone Switch J35DE	21938
S3	Power Switch T55DE	20007
S3	Power Switch J35DE	20052

ALIGNMENT PROCEDURE.

Manufacturer's Setting of Adjustments.

The receiver is tested by the manufacturer with precision instruments and all adjusting screws are sealed. Realignment 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 readjusted 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. Moduloted Oscillator, type J6726.
If the modulated oscillator is used, connect a 0.25 megohm non-inductive resistor across the output terminals, and, for short wave alignment, an additional 400 ohms non-inductive resistor in series with the "high" output lead of the instrument.
(3) A.W.A. Output Meter, type 2M8832.

ALIGNMENT TABLE.

Order	Connect "high" side of Generator to:	Tune Generator to:	Tune Receiver Dial to:	Adjust for maximum peak output
1	6J8GA*	455 Kc/s	540 Kc/s	L13 Core
2	6J8GA*	455 Kc/s	540 Kc/s	L12 Core
3	6J8GA*	455 Kc/s	540 Kc/s	L11 Core
4	6J8GA*	455 Kc/s	540 Kc/s	L10 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. (L7)†
6	Aerial Terminal	1500 Kc/s	1500 Kc/s	H.F. Osc. Adj. (C8)
7	Aerial Terminal	1500 Kc/s	1500 Kc/s	H.F. Aer. Adj. (C2)
	Repeat adjustments 5, 6 and 7.			
8	Aerial Terminal	16 Mc/s	16 Mc/s	H.F. Osc. Adj. (C9)‡
9	Aerial Terminal	16 Mc/s	16 Mc/s	H.F. Aer. Adj. (C6)§

*With grid clip connected. A 0.001 uF capacitor should be connected in series with the "high" side of the test instrument.
†Rock the tuning control back and forth through the signal.
‡Use minimum capacity peak if two can be obtained. Check to determine that the trimmer has been adjusted to correct peak by tuning the receiver to approximately 15.09 Mc/s. where a weaker signal should be received.
§Use maximum capacity peak if two can be obtained.

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.

CHASSIS REMOVAL.

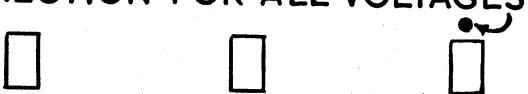
Model T55DE.

(1) Remove the control knobs—each is held by a set-screw.
(2) Disconnect the cable from the loudspeaker.
(3) The chassis is held in the cabinet by two screws. Remove these and withdraw the chassis.

Model J35DE.

(1) Remove the control knobs—each knob is held by a set-screw.
(2) Disconnect the cable from the loudspeaker.
(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.

RED DOT INDICATES COMMON CONNECTION FOR ALL VOLTAGES



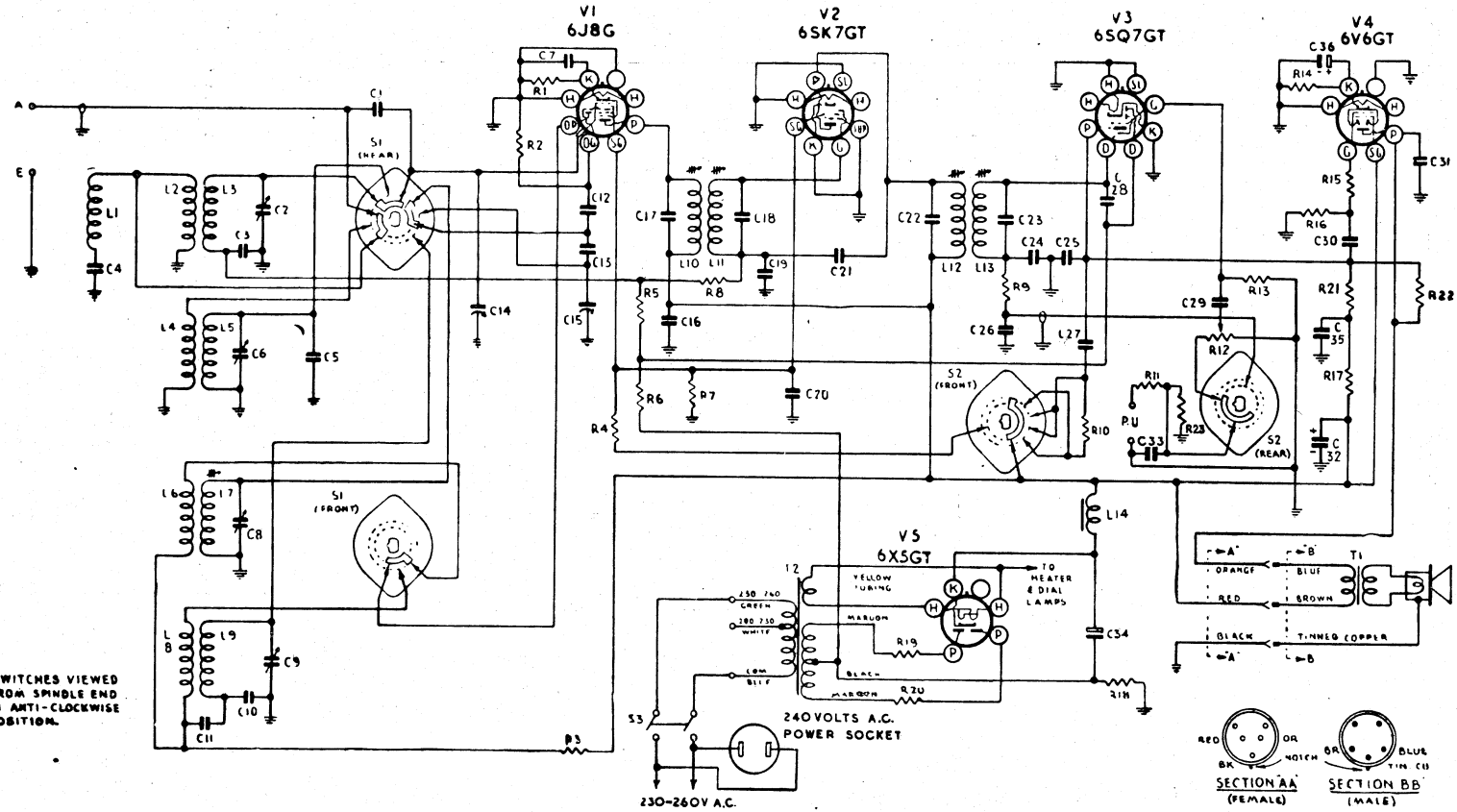
230-260 VOLTS 200-230 VOLTS

DIAL POINTER ADJUSTMENT.

The dial pointer is held in position by two rubber-lined clips. To alter the position of the pointer, loosen the two holding clips slightly and move the pointer in the required direction. It is important to reclamp the clips after any adjustment of the dial pointer.

DRIVE CORD REPLACEMENT.

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.



(1) SWITCHES VIEWED FROM SPINDLE END IN ANTI-CLOCKWISE POSITION.