

J3



Models
T55DM
J35DM

Hotpoint

BAND-MASTER

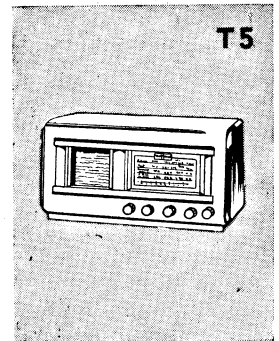
Radio Receivers

SERVICE DATA & TECHNICAL INFORMATION

Five Valves
Two Band

AUSTRALIAN
GENERAL ELECTRIC
PROPRIETARY LIMITED

Battery / Vibrator
Operated
Superheterodynes



T5

ELECTRICAL SPECIFICATIONS.

FREQUENCY RANGES:

Medium Wave: 540-1600 Kc/s (555-187.5 M)
Short Wave: 6-18 Mc/s (50-16 M)

INTERMEDIATE FREQUENCY: 455 Kc/s

BATTERY COMPLEMENT:

- | | | | | | | |
|-----------------------------|--------------|-------|-------|------------|-------|-------|
| (1) 1 4-volt Accumulator | } Cable with | Tips | 19183 | Cable with | Plugs | 19803 |
| 2 45-volt "B" Batteries | | | | | | |
| (2) 1 1.5 volt Dry Cell "A" | } Cable with | 19182 | - | Cable with | Plugs | 19801 |
| Battery: | | | | | | |
| 2 45-volt "B" Batteries: | | | | | | |

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 cable from the terminals on top of the chassis and to connect the cable to the outer terminals of a 4.5-volt "C" battery—see diagram "BATTERY CONNECTIONS".

VIBRATOR POWER UNIT OPERATION:

Unit No. 19190: 1—4-volt accumulator
Unit No. 22770: 1—6-volt accumulator

BATTERY CONSUMPTION:

4-volt "A" battery, 0.2 amp.
1.5-volt "A" battery, 0.3 amp.
"B" battery, 16 mA
4-volt vibrator operation, 0.8 amp.
6-volt vibrator operation, 0.7 amp.

DIAL LAMPS: 6.3 volt, 0.25 amp. M.E.S.

FUSES:

Battery Operation: $\frac{1}{4}$ - $\frac{3}{8}$ amp
Vibrator Operation: 3 amp.

VALVE COMPLEMENT:

1. 1T4 R.F. Amplifier
2. 1R5 Converter
3. 1T4 I.F. Amplifier
4. 1S5 Detector, A.F. Amplifier, A.V.C.
5. 3V4 Output

VIBRATOR CARTRIDGE:

4-volt operation: V6804
6-volt operation: V5211

LOUDSPEAKER (Permanent Magnet):

Model T55DM

7-inch — code number AY40
Transformer: XA8
V.C. Impedance 3 ohms at 400 C.P.S.

Model J35DM

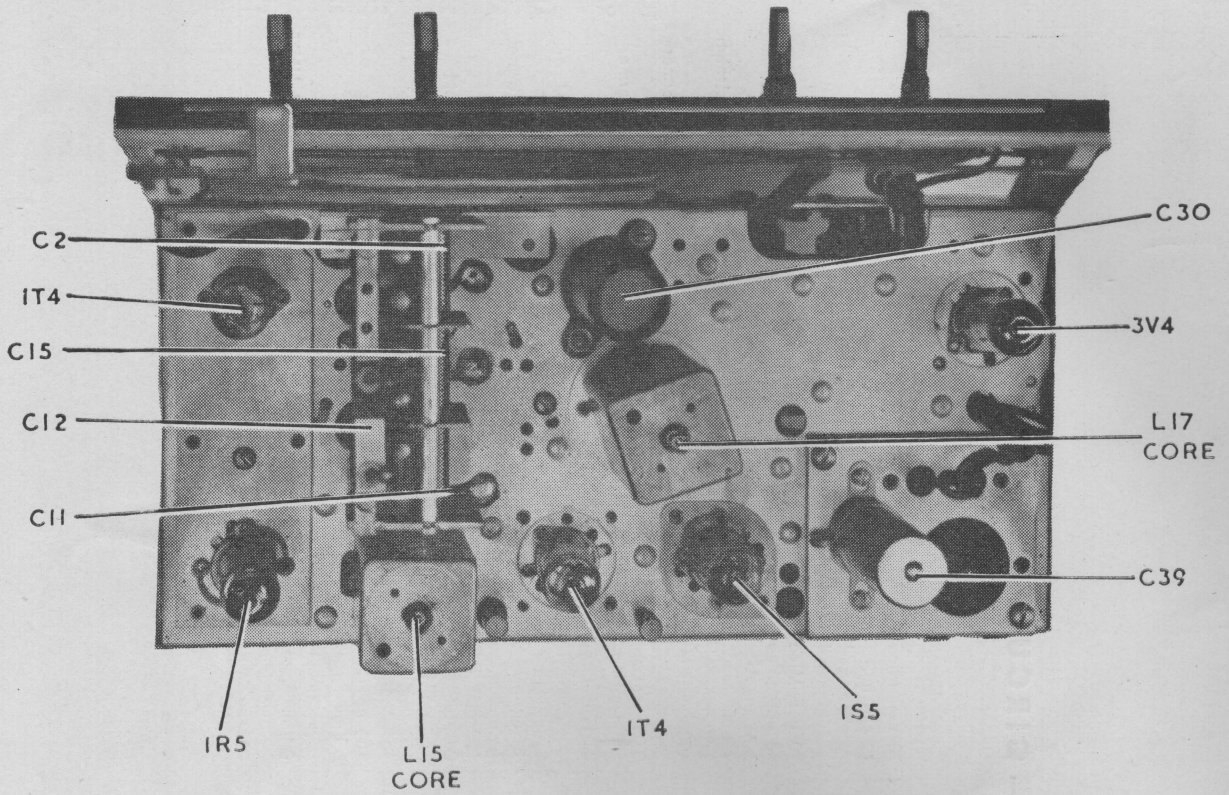
12-inch — code number AU53
Transformer: TU213
V.C. Impedance 6.5 ohms at 400 C.P.S.

UNDISTORTED POWER OUTPUT: 200 milliwatts

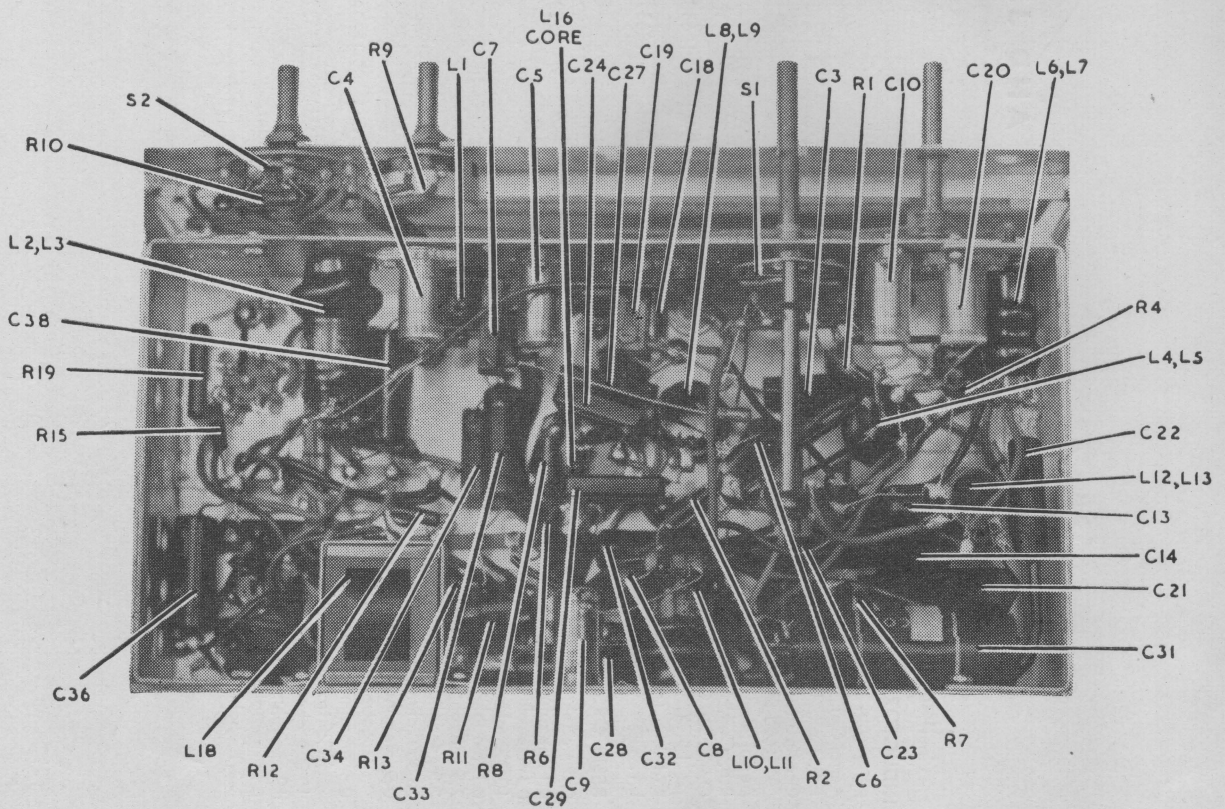
MECHANICAL SPECIFICATIONS.

	Height	Width	Depth
Cabinet Dimensions (inches):			
Model T55DM	10½	20½	8½
Model J35DM	31½	33½	12½
Chassis Base Dimensions (inches)	2½	11	5½
Carton Dimensions (inches):			
Model T55DM	11	20½	11

	Height	Width	Depth
Model J35DM	32	35	13½
Weight (nett lbs.):			
Model T55DM	26 lbs.		
Model J35DM	56 lbs.		
Cabinet Finish	Walnut Veneer		

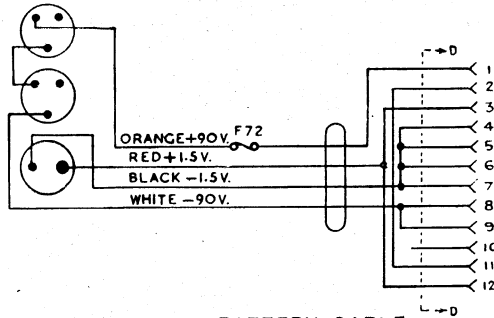


CHASSIS [Top View] — T55DM J35DM



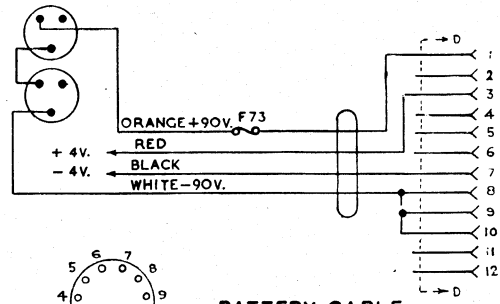
CHASSIS [Underneath View] — T55DM J35DM

PLUGS VIEWED FROM WIRING SIDE.

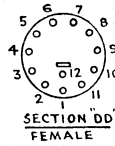


BATTERY CABLE
No. 1980I

PLUGS VIEWED FROM WIRING SIDE



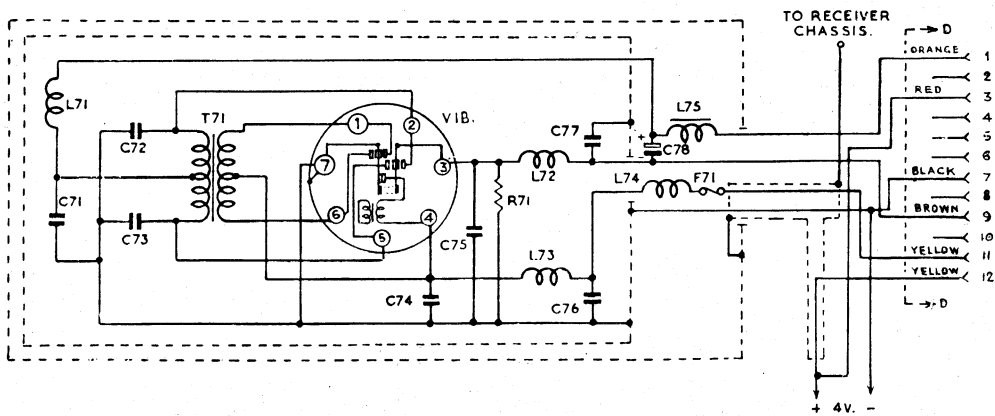
BATTERY CABLE
No. 1980J



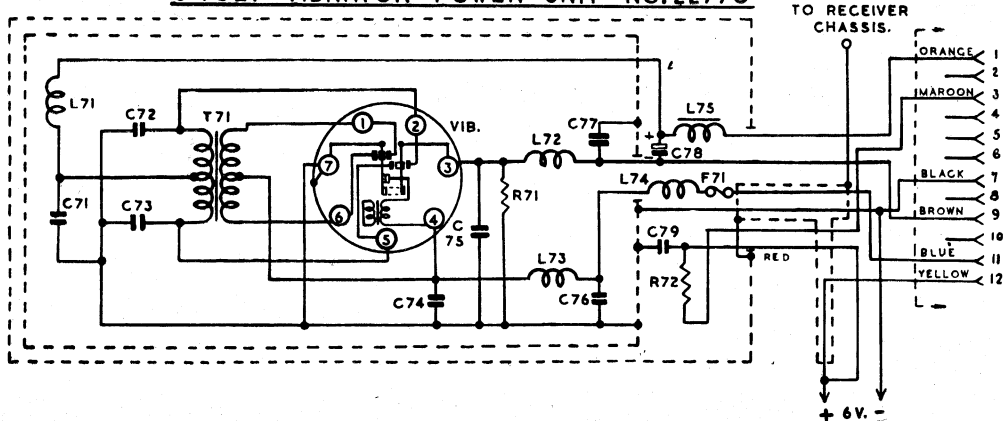
VIBRATOR POWER UNITS 19190, 22770 — CIRCUIT CODE.

Code No.	Description	Part No.	Code No.	Description	Part No.	Code No.	Description	Part No.
INDUCTORS			CAPACITORS			C78	20 uF 200, P.V. Electrolytic	
L71	R.F. Choke	13809	C72	0.02 uF Paper, 600v. working		C79	0.1 uF Paper, 250v. working (22770 only)	
L72	R.F. Choke	13809	C73	0.02 uF Paper, 600v. working		TRANSFORMERS		
L73	R.F. Choke	3149	C74	0.1 uF Paper, 400v. working		T71	Vibrator Transformer (19190)	175'8
L74	R.F. Choke	3149	C75	0.01 uF Paper, 600v. working			Vibrator Cartridge (22770)	17892
L75	L.F. Choke	8321	C76	0.1 uF Paper, 400v. working			Vibrator Cartridge (19190)	V6804
RESISTORS			C77	0.01 uF Paper, 600v. working			Vibrator Cartridge (22770)	V5211
R71	150 ohms, 1 watt (wire-wound)							
R72	12 ohms, ± 5%, 1 watt (22770 only)							
C71	0.01 uF Paper, 600v. working							

VIBRATOR POWER UNIT No. 19190



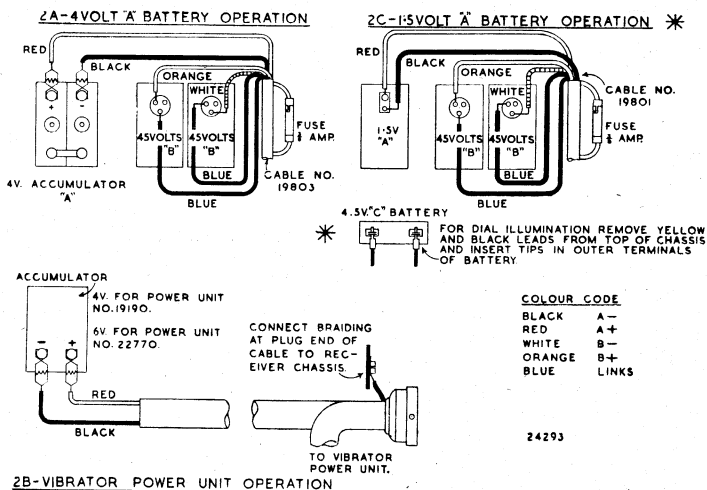
6 VOLT VIBRATOR POWER UNIT NO. 22770



GENERAL DESCRIPTION.

The Models T55DM and J35DM are table and console models respectively, designed for either battery or vibrator operation. Battery and vibrator connections are shown in the accompanying diagram.

Features of design include: Tropic-proof construction, automatic volume control, magnetite cores in I.F. transformers and broadcast oscillator coils, air-dielectric trimming capacitors, straight-line edge-lighted dial scales.



Chassis Removal.

Model T55DM—

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

Model J35DM—

- (1) Remove the control knobs. Each knob is held by a set-screw.
- (2) Disconnect the cable from the loudspeaker.
- (3) Disconnect the battery and vibrator cables.

- (4) 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.

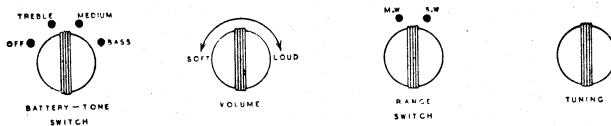
Dial Pointer Adjustment.

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.

CONTROLS T55DM & J35DM



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 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.

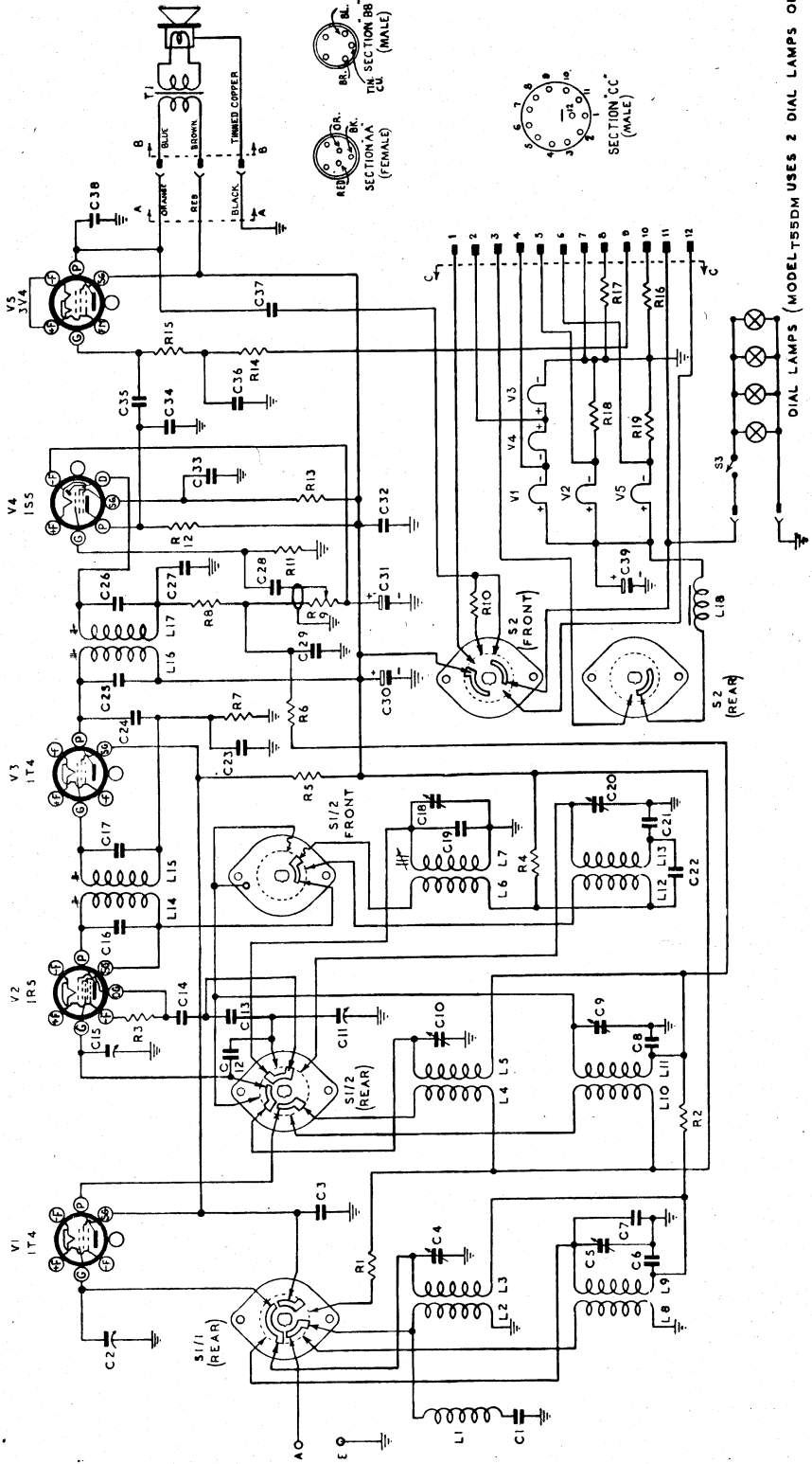
TESTING INSTRUMENTS

- (1) A.W.A. Junior Signal Generator, type 2R3911, 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, 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.

MODELS T55DM AND J35DM — CIRCUIT



D.C. RESISTANCE OF WINDINGS

Windings	D.C. Resistance in Ohms
Aerial Coil (M.W.):	
Primary (L2)	18
Secondary (L3)	6
Aerial Coil (S.W.):	
Primary (L8)	3
Secondary (L9)	*
R.F. Coil (M.W.):	
Primary (L4)	80
Secondary (L5)	4
R.F. Coil (S.W.):	
Primary (L10)	10
Secondary (L11)	*
Oscillator Coil (M.W.):	
Primary (L6)	*
Secondary (L7)	2
Oscillator Coil (S.W.):	
Primary (L12)	*
Secondary (L13)	*
I.F. Transformer Windings	10
I.F. Filter (L1)	17.5†
L.T. Choke (L18)	*
Smoothing Choke (L75)	200
R.F. Filter Choke (L73, L74)	*
R.F. Filter Choke (L71, L72)	9
Loudspeaker Input Transformer (T1):	
XA8 Primary	425 or 510
XA8 Secondary	*
TU213 Primary	400
TU213 Secondary	*
Vibrator Transformer (T71):	
17568 Primary	*
17568 Secondary	300
17892 Primary	*
17892 Secondary	150

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.

SOCKET VOLTAGES.

Valves	Bias Volts		Screen to Chassis Volts		Anode to Chassis Volts		Anode Current mA		Filament Volts
	B	V	B	V	B	V	B	V	
1T4 R.F. Amp., M.W. S.W.	0	0	25†	30†	84	90	0.7	0.7	1.3 - 1.4
1R5 Converter	0	0	35†	40†	50†	60†	1.2	1.2	1.3 - 1.4
1T4 I.F. Amp., M.W. S.W.	0	0	25†	30†	84	90	0.7	0.7	1.3 - 1.4
1S5 Det., A.V.C., A.F. Amp.	0	-1.4	15*	15*	20*	20*	0.06	0.06	1.3 - 1.4
3V4 Output	-5.5	-5.5	84	90	80	85	7.0	8.0	1.3 - 1.4

*Calculated from measured current. An ordinary voltmeter will register a lower value.

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

Measured with no signal input. Volume control maximum clockwise.