

# TECHNICAL INFORMATION MODEL RBD

## 9 VALVE BROADCAST A.C. 1951

DESIGNED AND MANUFACTURED

by

RADIO (1936) LTD.

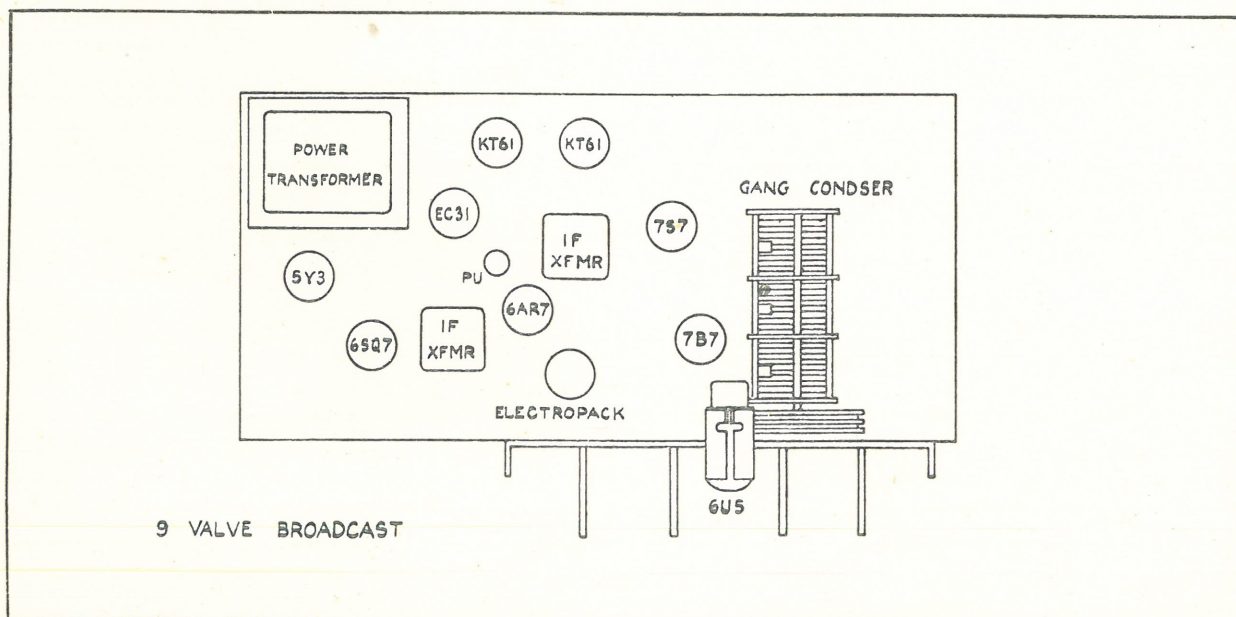
Power Supply	230 A.C. 50 C/S	I.F. Frequency	460KC/S
Tuning Range	1600KC/S - 550KC/S	Speaker	Rola 8H 12K C.T
Rating	75 Watts	Power Output	Approx. 5 Watts

### CIRCUIT DESCRIPTION:

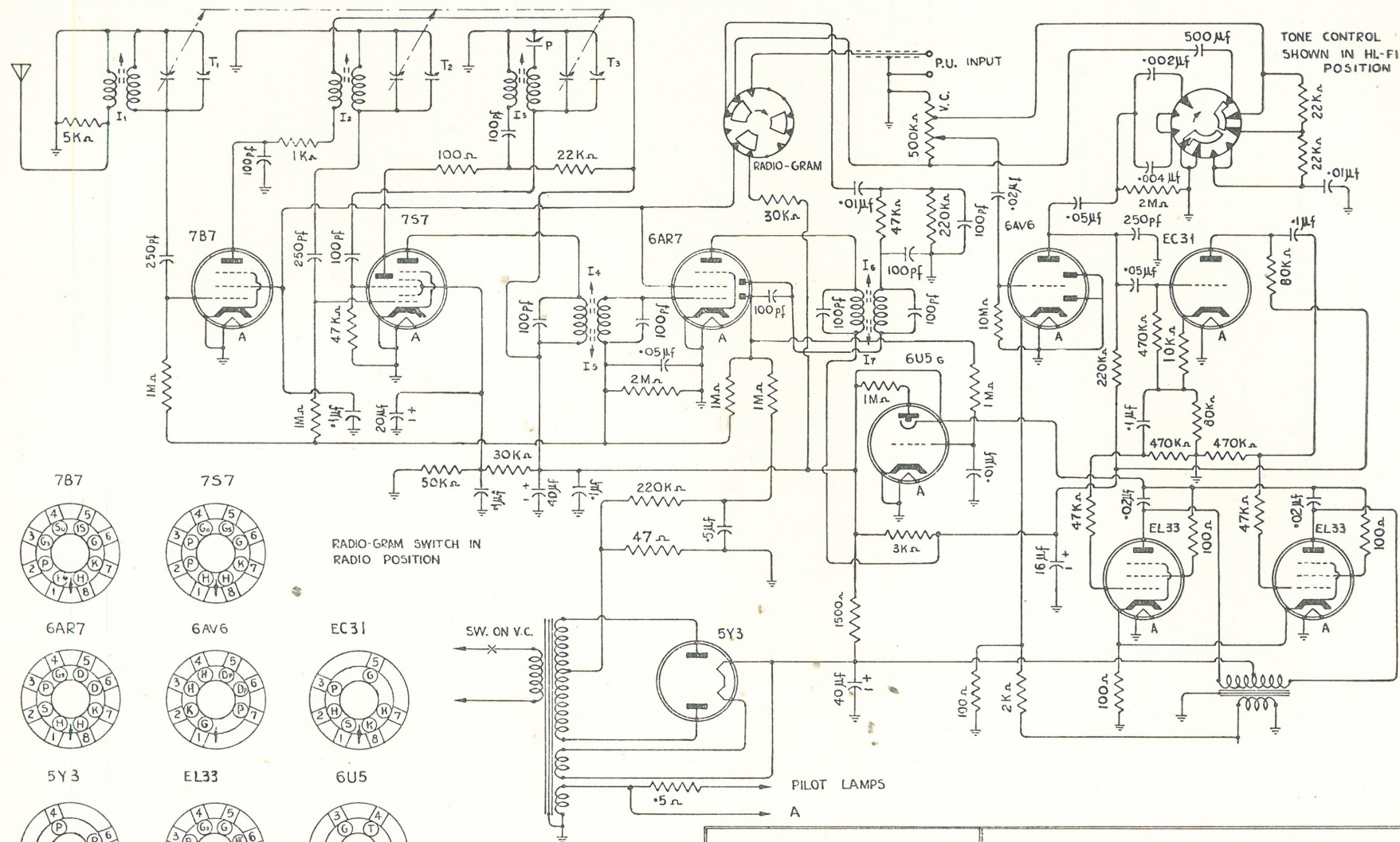
A type 7B7 Valve is employed as a radio frequency amplifier and is coupled to a type 7S7 frequency changer, which is in turn coupled by means of a double tuned high gain I.F. Transformer to a type 6AR7GT, which combines the function of intermediate frequency amplification, Detection and A.G.C. source. Voltage amplification is performed by a type 6AV6 valve, and this valve is capacitively coupled to a type EC31 operating as a phase inverter, which in turn is capacitively coupled to two type BL33 valves as push-pull amplifiers. A type 6U5G is utilized as a visual means of accurate tuning. The 230 A.C. mains source is converted to direct current by means of a 5Y3GT valve, double wound power transformer and filter system.

### ANTENNA:

A standard inverted "L" type Antenna with a flat top of approximately 30 feet is recommended.







DRAWN : *B. J. James* 28-6-51  
 CHECKED : *A. J. Watkins*  
 APPROVED: *R. J. Long*

CIRCUIT DIAGRAM  
 9 VALVE BROADCAST  
 MODEL RBD



## VOLTAGES APPEARING BETWEEN VALVE PINS AND CHASSIS FRAME

VALVE PIN No.	1	2	3	4	5	6	7	8
7B7 R.F. Amp. ....	6.3v A.C.	245v D.C.	84v D.C.	—	—	—1.6v D.C.	—	—
7S7 Freq. Changer ....	6.3v A.C.	245v D.C.	160v D.C.	—17v D.C.	80v D.C.	—1.3v D.C.	—	—
6AR7GT I.F. Amp., Det. + A.V.C. ....	—	—	220v D.C.	84v D.C.	—5v D.C.	—2.8v D.C.	—	6.3v A.C.
6AV6 Volt Amp. ....	—	—	6.3v A.C.	—	—	—	110v D.C.	—
EC31 Phase Inverter ....	—	6.3v A.C.	150v D.C.	220v D.C.	60v D.C.	60v D.C.	—	70v D.C.
EL33 Power Amp ....	—4.2v D.C.	6.3v A.C.	310v D.C.	250v D.C.	—	—	—	6v D.C.
EL33 " " ....	—4.2v D.C.	6.3v A.C.	310v D.C.	250v D.C.	—	—	—	6v D.C.
5Y3GT Rect. ....	—	310v D.C.	—	295v A.C.	—	295v A.C.	—	310v D.C.
6U5G Indicator ....	—	—	—	—	—	—	—	—

NOTE.—D.C. Readings taken with vacuum tube voltmeter.  
Receiver tuned off station.

## D.C. RESISTANCES

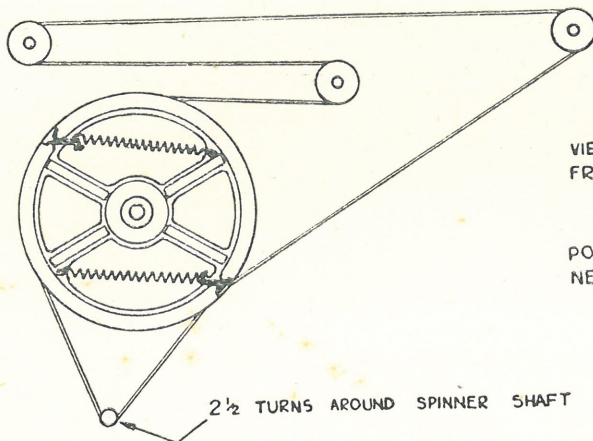
AER. Coil Prim. ....	18ohms.	I.F. Prim. ....	9.5ohms.
AER. Coil Sec. ....	3.2ohms.	I.F. Sec. ....	9.5ohms.
DET. Coil Prim. ....	.5ohms.	Power Xformer Prim ....	16ohms.
DET. Coil Sec. ....	3.2ohms.	Power Xformer Sec. ....	85ohms. - 85ohms.
OSC. Coil Prim. ....	.8ohms.	Speaker Xformer Prim. ....	285ohms. - 285ohms.
OSC. Coil Sec. ....	2.5ohms.	Speaker Xformer Sec. ....	1ohm.

## ALIGNMENT INFORMATION:

Adjust Vol. Control for Max. Gain.

Adjust Sig. Generator output to no higher than is necessary to obtain output meter reading.

DUMMY ANT.	Generator Coupled to	Generator Freq.	Receiver Dial Setting	ADJUST	Approx. Sens. for 50m.v. output
.1 ufd	Grid 6AR7	460KC/S	550KC/S	I <sup>6</sup> I <sup>7</sup> for Max.	1700 Micro Volts
.1 ufd	Grid 7S7	460KC/S	550KC/S	I <sup>4</sup> I <sup>5</sup> for Max.	20 Micro Volts
R.M.A. Standard	ANT.	1400KC/S	1400KC/S	OSC. Trimmer T <sup>3</sup> for Max.	
"	"	"	"	ANT. & DET. T <sup>1</sup> & T <sup>2</sup> Trim- mers for Max.	Better than 1 Micro Volt
"	"	600KC/S	Through 600 KC/S	Padder P for Max.	"



VIEW OF DIAL STRINGING LOOKING  
FROM BACK OF SET

POINTER STRING ON SIDE OF DRUM  
NEXT TO DIAL BACKPLATE

AMENDMENTS AND REMARKS: