TECHNICAL INFORMATION MODEL RBB

10 VALVE BANDSPREAD A.C. 1951

DESIGNED AND MANUFACTURED

by

RADIO (1936) LTD.

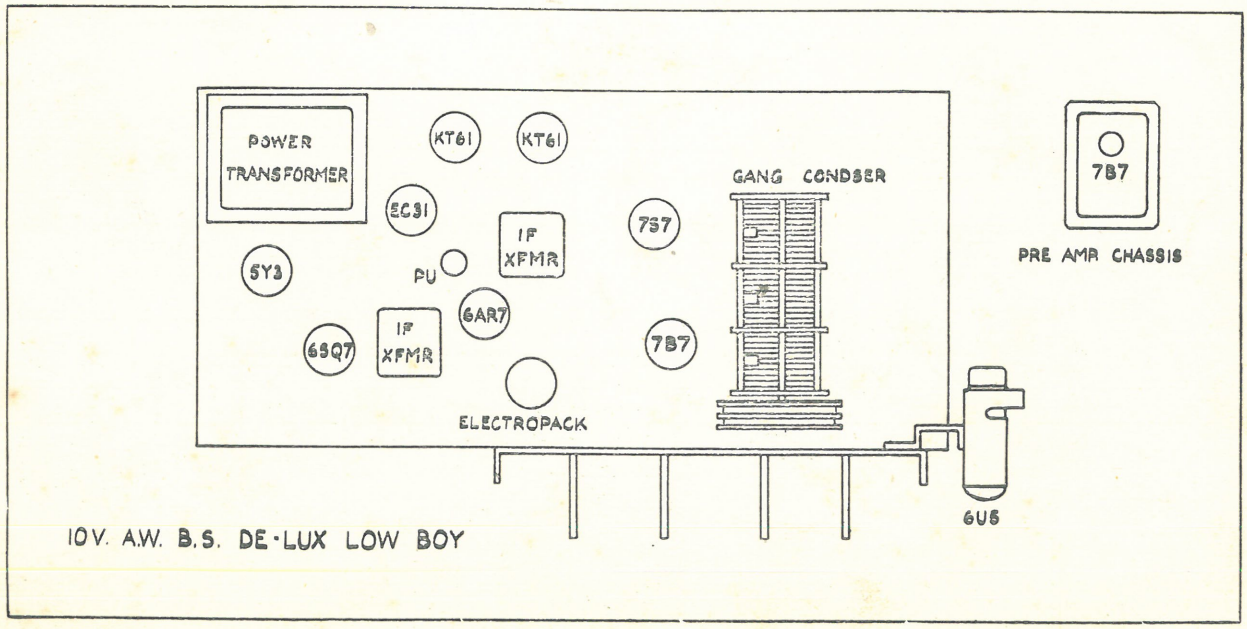
Power Supply	230 A.C. 50 C/S.	Rating	75 watts
Tuning Range	1600KC/S - 550KC/S	Speaker	Goodman 12in.
21.5MC/S - 17.8MC/S	15.2MC/S - 11.8MC/S	Power Output	Approx. 5 watts
9.6MC/S - 7.15MC/S	6.1MC/S - 3.75MC/S	I.F. Frequency	460 KC/S

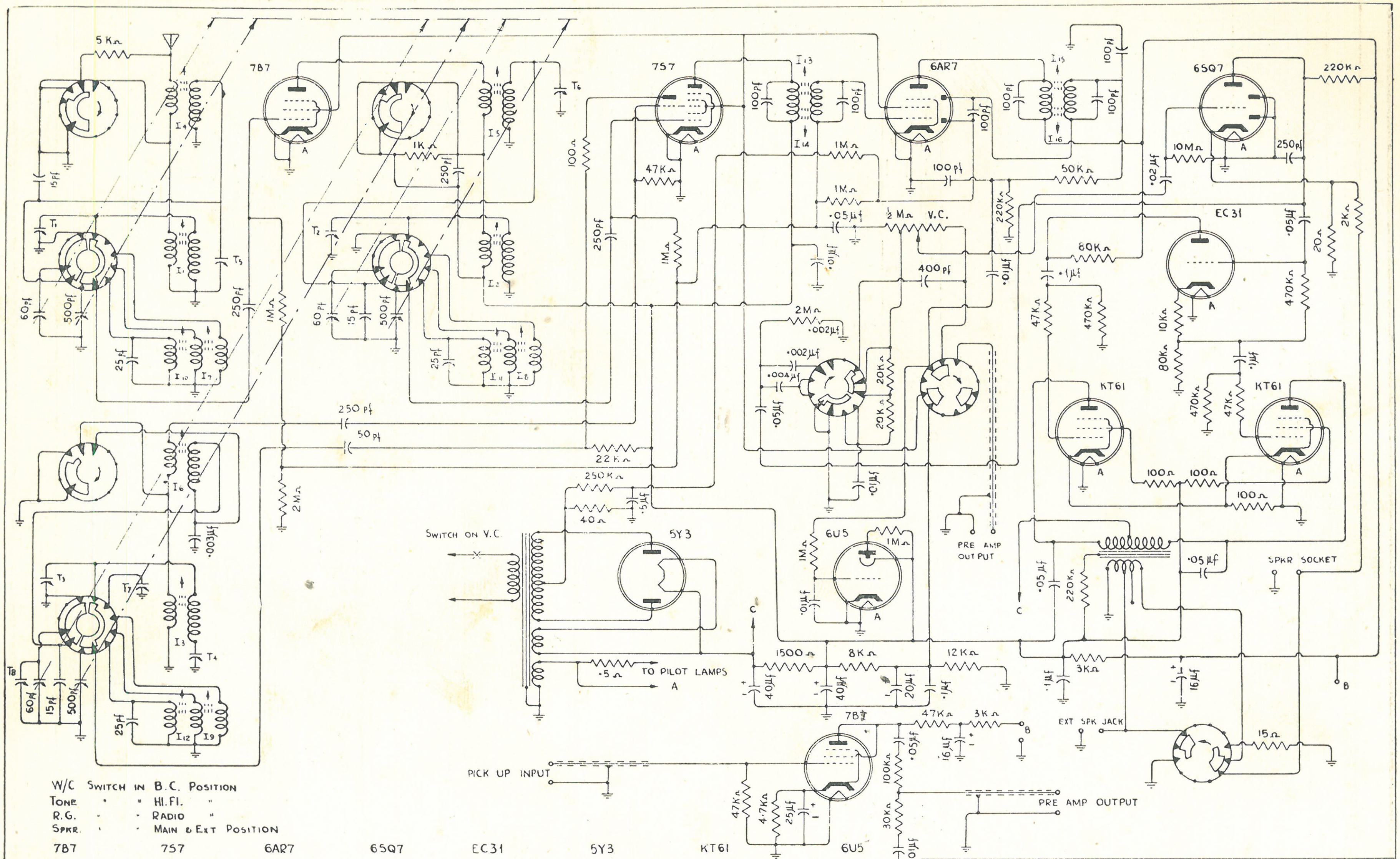
CIRCUIT DESCRIPTION:

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.B.James 6.7.51

CHECKED : A.J. Watkins

APPROVED : R.Hong

CIRCUIT DIAGRAM

10V. A.W. B.S. DE-LUX LOW BOY

MODEL RBB

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 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.	—4.2 D.C.	6.3v A.C.	310v D.C.	250v D.C.	—	—	—	6v D.C.
EL33 Power Amp.	—4.2 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.
6U5 Indicator								

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

D.C. RESISTANCES

AER. Coil Prim.	18 ohm.	I.F. Prim.	9.5 ohm.
AER. Coil Sec.	3.2 ohm.	I.F. Sec.	9.5 ohm.
DET. Coil Prim.	.5 ohm.	Power Xformer Prim.	16 ohm.
DET. Coil. Sec.	3.2 ohm.	Power Xformer Sec.	85 ohm. - 85 ohm.
OSC. Coil Prim.	.8 ohm.	Speaker Xformer Prim.	300 ohm.
OSC. Coil Sec.	2.5 ohm.	Speaker Xformer Sec.	1.5 ohm.

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	460 KC/S	550 KC/S	I^{15} I^{16} for Max.	1700 Micro Volts
.1 ufd.	Grid 7S7	460 KC/S	550 KC/S	I^{13} I^{14} for Max.	20 Micro Volts
R.M.A. Standard	ANT.	1400 KC/S	1400 KC/S	OSC. Trimmer T^3 for Max.	
"	"	1400 KC/S	1400 KC/S	ANT. & DET. Trimmers T^1 & T^2 for Max.	Better than 1 Micro Volt
"	"	600KC/S	Through 600 KC/S	Padder T^4 for Max.	Better than 1 Micro Volt

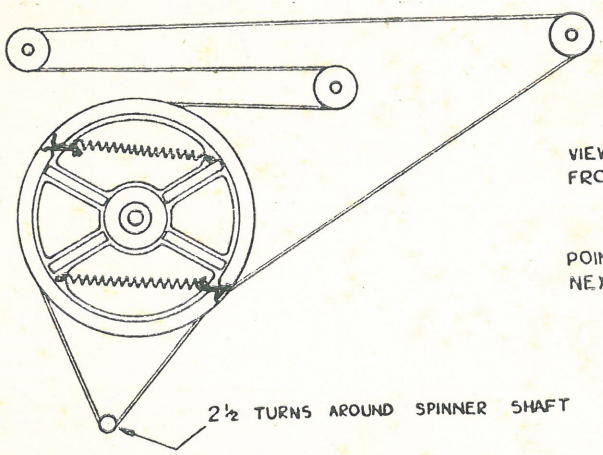
CALIBRATION AND ALIGNMENT OF S.W. BANDS—

Calibration :

Band 2—Seg Sig. Generator and Receiver Dial Freq to 7.15MC/S and adjust T8 for Max. Set Sig. Generator and Receiver Dial Freq. to 38MC/S and adjust Core for Max.
Band 3—Set Sig. Generator and Receiver Dial Freq. to 11.8MC/S and adjust T7 for Max. Set Sig. Generator and Receiver Dial Freq. to 9.6MC/S and adjust Core for Max.
Band 4—Set Sig. Generator and Receiver Dial Freq. to 17.8MC/S and adjust Core for Max.
Band 5—Set Sig. Generator and Receiver Dial Freq. to 21.5MC/S and adjust Core for Max.

Alignment :

Band 2—Set Sig. Generator and Receiver Dial Freq. to 7.15 MC/S and adjust Ant. and Det. Trimmers T5 + T6 for Max. Set Sig. Generator and Receiver Dial Freq. to 3.8MC/S and adjust Ant. and Det. Cores for Max.
Band 3—Set Sig. Generator and Receiver Dial Freq. to 11.8MC/S and adjust Ant. and Det. Cores for Max.
Band 4—Set Sig. Generator and Receiver Dial Freq. to 17.8MC/S and adjust Ant. and Det. Cores for Max.
Band 5—Set Sig. Generator and Receiver Dial Freq. to 21.5MC/S and adjust Ant. and Det. Cores for Max.



AMENDMENTS AND REMARKS :

The two KT61 valves as shown in circuit diagram and valve layout, have in later models been replaced by EL33's.