

# TECHNICAL INFORMATION MODEL RAX

6 VALVE DUAL WAVE A.C. 1951

DESIGNED AND MANUFACTURED

RADIO (1936) LTD.

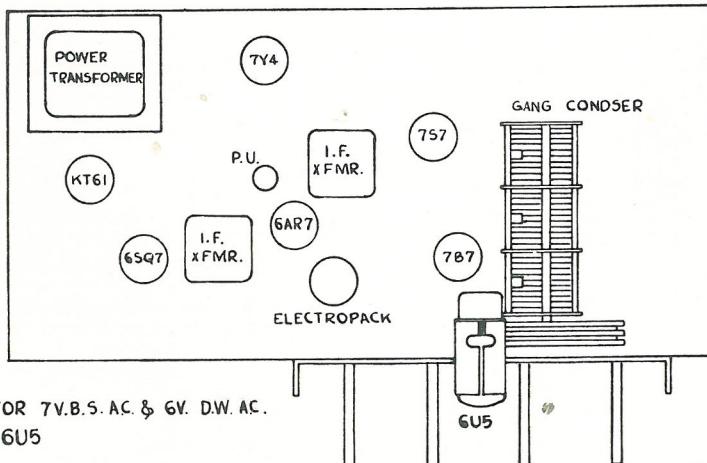
Power Supply	230v. AC 50 CP/S	Rating	60 watts
Tuning Range	1600 K/CS - 550 K/CS 18MC/S - 6MC/S	Speaker	Rola 8 H
I.F. Frequency	460KC/S	Power Output	3 watts

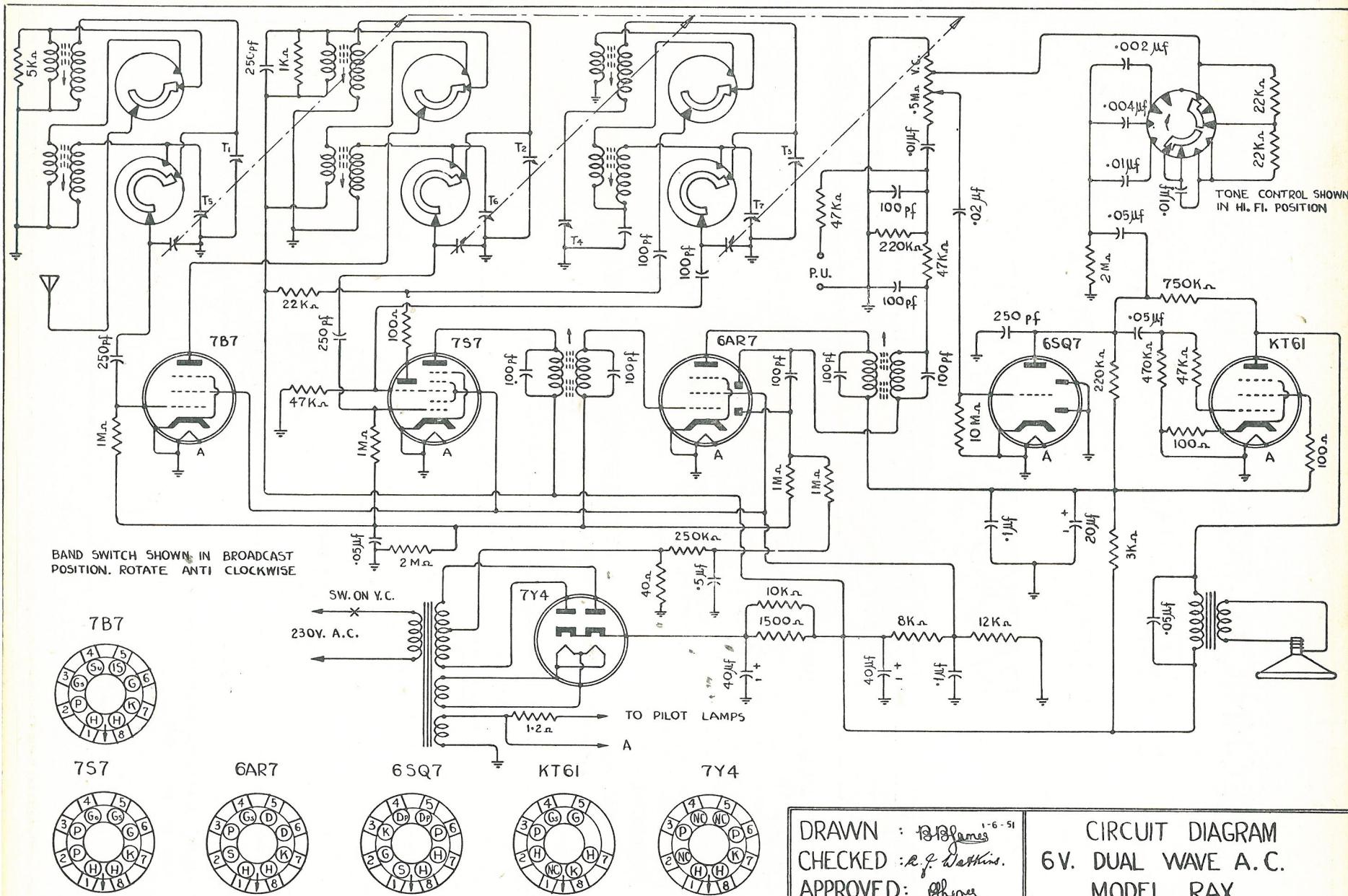
#### CIRCUIT DESCRIPTION :

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 I.F. Amplification, Detection and A.G.C. source. Voltage amplification is performed by a type 6SQ7G.T. and the output of this valve is capacitively coupled to a type KT61 power amplifier. The 230-volt AC Mains source is converted to DC by means of a type 7Y4 rectifier double wound power transformer and filter system.

#### ANTENNA :

A STANDARD INVERTED "L" TYPE ANTENNA WITH A FLAT TOP OF APPROXIMATELY 30 FEET IS RECOMMENDED.





## VOLTAGES APPEARING BETWEEN VALVE PINS AND CHASSIS FRAME

VALVE PIN No.	1	2	3	4	5	6	7	8
7B7 R.F. Amp.	6.3AC	210DC	90DC	-	-	-1.4DC	-	-
7S7 Freq. Changer	6.3AC	210DC	125DC	-20DC	90DC	-1.4DC	-	-
6AR7 I.F. Amp.	-	-	180DC	90DC	.4DC	-1.8DC	-	6.3AC
6SQ7 Volt. Amp.	-	-.9DC	-	-	-	90DC	6.3AC	-
KT61 Power Amp.	-	6.3AC	205DC	180DC	-	-	-	-3DC
7Y4 Rect.	300DC	-2.3DC	260AC	-	-	260AC	300DC	300DC

NOTE—D.C. Reading taken with Vacuum Tube Voltmeter.

NOTE—Receiver tubed off station.

## D.C. RESISTANCES

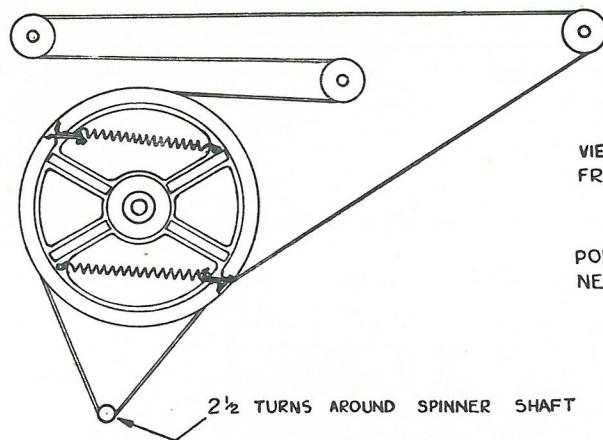
B.C. Ant. Coil Prim.	18 ohms	I.F. Prim.	11ohms
B.C. Ant. Coil Sec.	3.5ohms	I.F. Sec.	11ohms
B.C. Det. Coil Prim.	10.5ohms	PX Prim.	32ohms
B.C. Det. Coil Sec.	3.5ohms	PX Sec.	550ohms
B.C. Osc. Coil Prim.	.9ohms	OX Prim.	530ohms
B.C. Osc. Coil Sec.	2.75ohms	OX Sec.	1ohms

## ALIGNMENT INFORMATION :

Adjust Volume 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 Frequency	Receiver Dial Setting	ADJUST	Approx. Sens. for 50MW Output
.1 MFD	Grid 6AR7	460KC/S	550KC/S	2nd I.F. Trimmers for Max.	1800 Micro Volts
.1 MFD	Grid 7S7	460KC/S	550KC/S	All I.F. Trimmers for Max.	20 Micro Volts
RMA STANDARD	ANT.	1400KC/S	1400KC/S	O S C Trimmer for Max.	
"	"	1400KC/S	1400KC/S	Ant. and Det. Trimmers for Max.	Better than 1 Micro Volts.
"	"	600KC/S	Through 600KC/S	Padder for Max.	Better than 1 Micro Volts.
"	"	17.8MC/S	17.8MC/S	O S C Trimmer for Max.	
"	"	17.8MC/S	17.8MC/S	Ant. and Det. Trimmers for Max.	
"	"	6MC/S	6MC/S	Ant. and Det. Cores for Max.	



VIEW OF DIAL STRINGING LOOKING  
FROM BACK OF SET

POINTER STRING ON SIDE OF DRUM  
NEXT TO DIAL BACKPLATE

2½ TURNS AROUND SPINNER SHAFT

AMENDMENTS AND REMARKS:

**RAX. MODIFICATIONS, commencing Ser. No. 144170.**

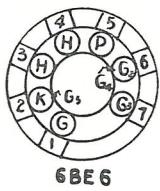
## I.—Valve Complement:

1 — 6BA6  
1 — 6BE6  
1 — 6AR7GT  
1 — 6AV6  
1 — 6AQ5  
1 — 6x4

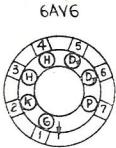
R.F. Amplifier.  
Frequency Changer.  
I.F. Amplifier, Detection and A.V.C.  
Voltage Amplifier.  
Power Amplifier.  
Rectifier.



6ВА6



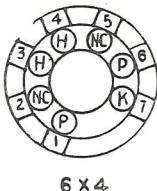
6 BE 6



6AVE

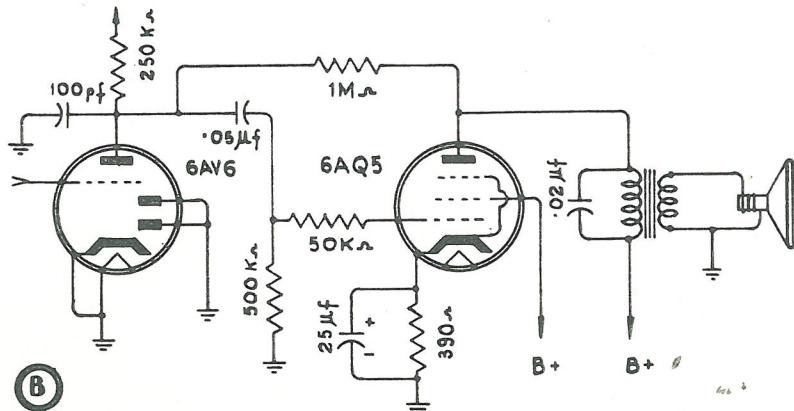


6AQ5



6 x 4

## II.—Circuit Modifications:

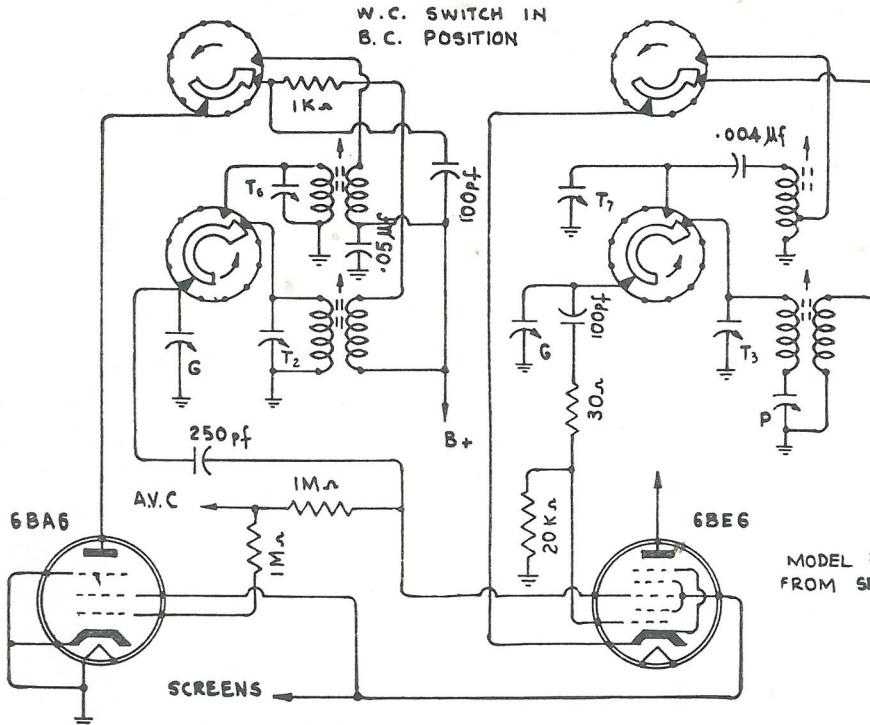


MODIFICATIONS FOR MODELS RBC, RBE, RAX, RBH  
FROM SERIAL N° 143868

Tube Pin numbers mod. to No. 1 Valve Complement.

**DET. SECTION**

OSC. SECTION



MODEL RAX MODIFICATIONS  
FROM SERIAL N° 144170

S.W. Switch in B/C position.  
B/C and S.W., OSC. coils data changed — osc. is cathode coupled.

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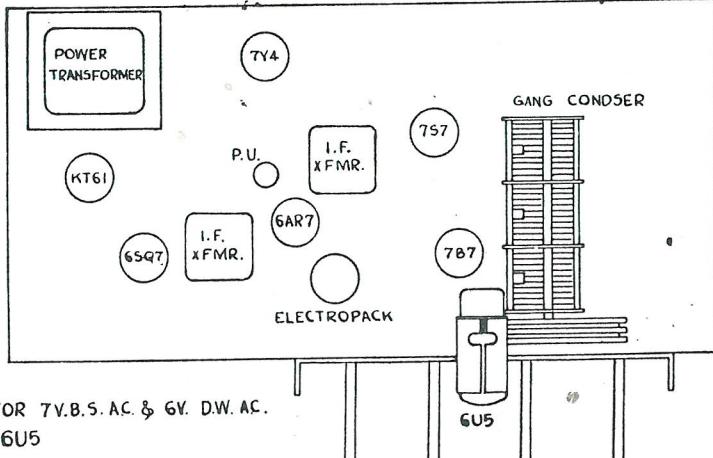
*Note after serial no 136854*

*use EBL 21 in place of KT61*

*pass poor idea*

*should use 6V6 GL*

*also use 6AV6 in place of 6SQ7.*



RAX

*Broadcast Dec 1952*

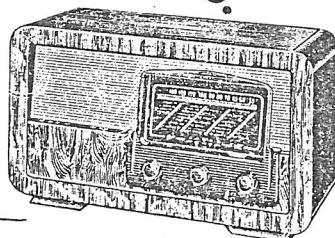


**RADIO (1936) LIMITED  
NEW & EXCLUSIVE FEATURE**

The most important contribution to radio in recent times. Pentonic Tone Control is a scientifically balanced network which will accentuate the desired choice of tone with practically no suppression of other natural tones.

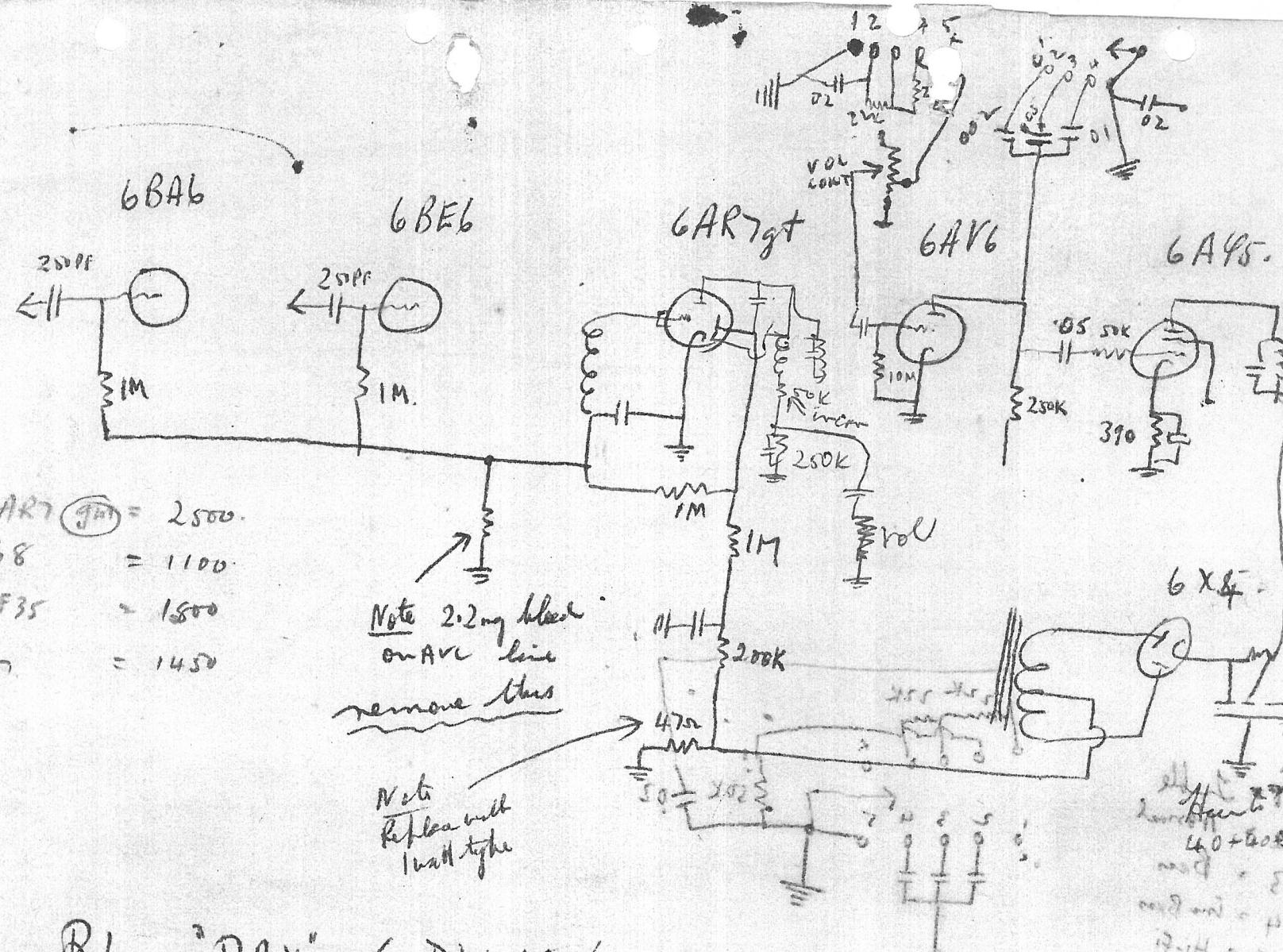
For musical perfection be sure your new radio features PENTONIC TONE CONTROL.

**TREBLE  
NORMAL  
BASS  
INC. BASS  
HI-FID.**



**ULTIMATE**  
*The last word in Radio*

*model RAX*



RL "RAX" - 6v DW 1952

RBC = 6v B/C similar but EBL21 without 5V40

change bias res from 1000 to 1500

