

TECHNICAL INFORMATION

COVERING

BROADCAST RECEIVER TYPE 617R. & 617R.G.

COLLIER & BEALE Ltd., WELLINGTON.

Jan 48

TYPE SET—A.C. Superhetrodyne—self-contained loop antenna. Type 617RG Table Radio Gramophone.

TUBES (Six)—6BA6 R.F. Amp., 6BE6 Converter, 6BA6 I.F. Amp., 6AT6 Det.-A.F., 6AQ5 Power Output, 6X4 Rectifier.

POWER SUPPLY—230 v. A.C. Rating, 50 watts.

TUNING RANGE—Broadcast, 535-1500 K.C.

ALIGNMENT INSTRUCTIONS

To set pointer, fully mesh variable condenser and set pointer at last reference mark at left end of dial. Set volume control at maximum and keep output from signal generator no higher than necessary to obtain output readings.

Dummy Antenna	Signal Generator Coupling	Sig. Gen. Frequency	Band Switch Position	Radio Dial Setting	Output Meter	Adjust	Remarks
.1 mfd.	High side to pin No. 7 (grid) of 6BE6	455 Kc.		High freq. end	Across voice coil	A1, A2, A3, A4.	Adjust for maximum output
R.M.A. Standard	High side to ant. Terminal	1400 Kc.		1400 Kc.	"	C15	" "
"	"	1400 Kc.		1400 Kc.	"	C16 & 17	" "

CAPACITORS

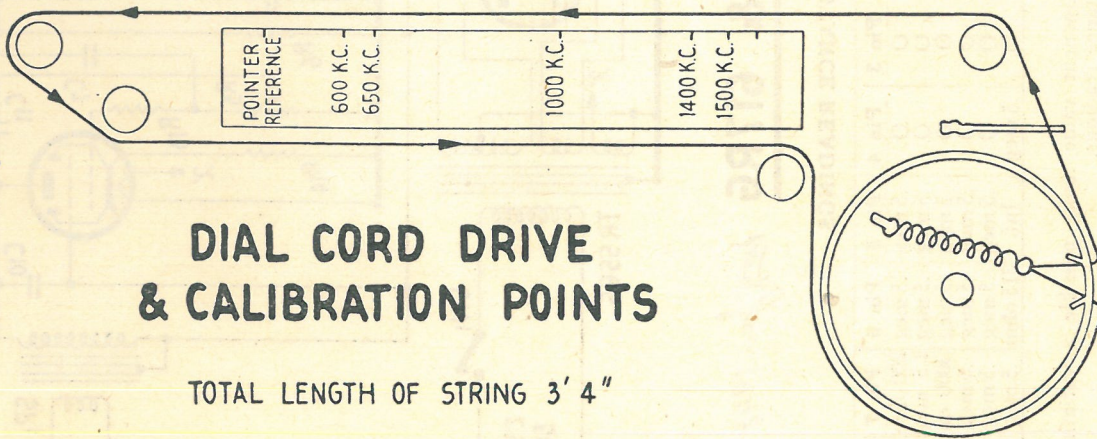
Ref. No.	Cap.	Volts
C1	40mfd.	450
C2	40mfd.	450
C3	.1mfd.	600
C4	.1mfd.	600
C5	.05mfd.	600
C6	.05mfd.	600
C7	.01mfd.	600
C8	.01mfd.	600
C9	.01mfd.	600
C10	.001mfd.	mica
C11	.0005mfd.	mica
C12	.0001mfd.	mica
C13	.0001mfd.	mica
C14	.00005mfd.	mica
C15-17	3-30	trimmer

MISCELLANEOUS

Ref. No.	Res., Pri.	Res., Sec.	
788-1	.04 ohm	.63 ohm	
788-2	.04 ohm	.64 ohm	
488	.65 ohm	2.5 ohm	
188	.2 ohm	2.35 ohm	
617R-1	6.75 ohm	6.75 ohm	1st IFT
617R-2	6.75 ohm	6.75 ohm	2nd IFT
	Volts	Volts	Volts
	230	350 aside	2 x 6.3
TR5566	Type	Transformer	
SP1	6" P.M.	5,000 ohm	
SW1	S.P.S.T. switch attached to R3		
SW2	Radio-Gramophone, SW5283-1		

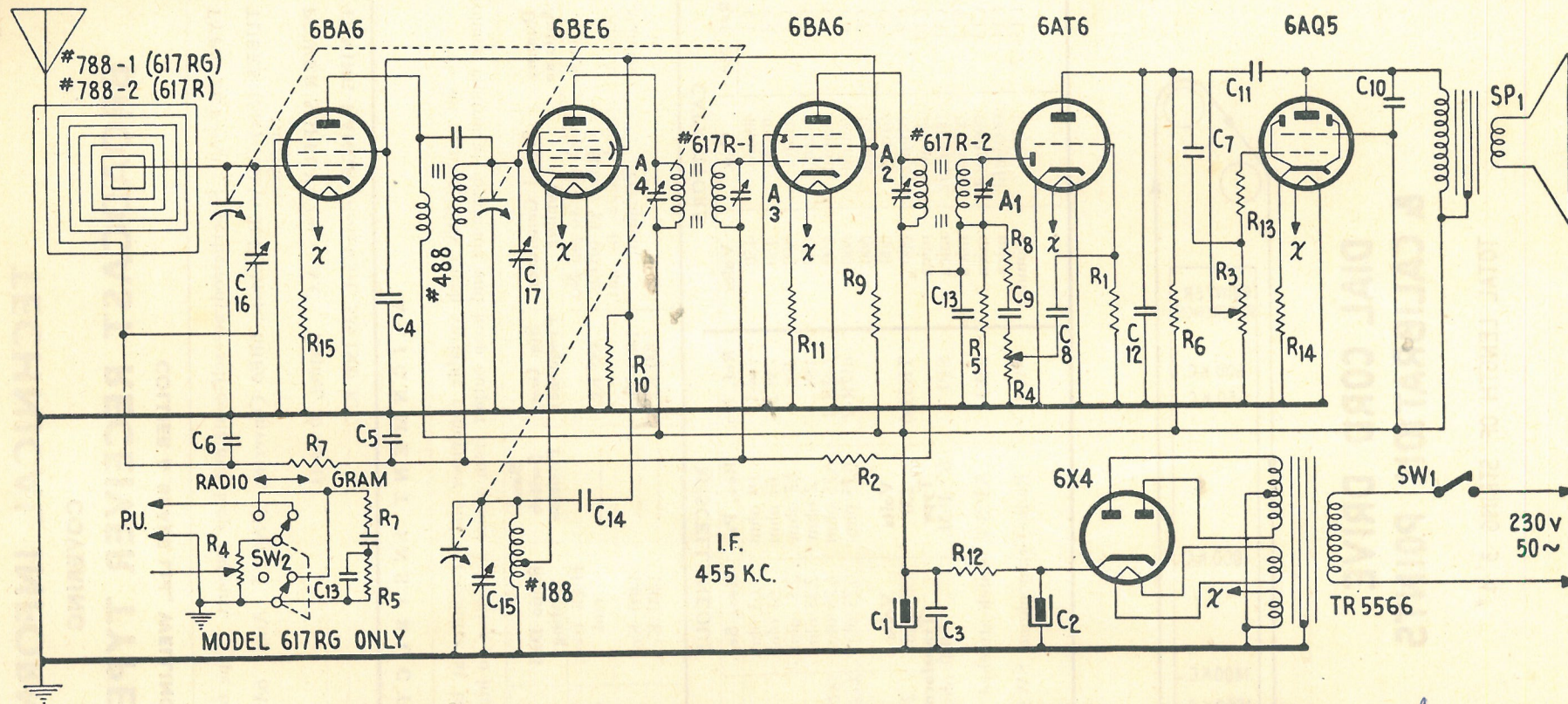
RESISTORS

Ref. No.	Res.	Watts
R1	10 meg.	½ watt
R2	1 meg.	½ watt
R3	.5 meg.	Pot.
R4	.5 meg.	Pot.
R5	.5 meg.	½ watt
R6	.25 meg.	½ watt
R7	.25 meg.	½ watt
R8	.05 meg.	½ watt
R9	.02 meg.	2 watt
R10	.02 meg.	½ watt
R11	3,000 ohm.	½ watt
R12	1,500 ohm.	5 watt
R13	500 ohm.	½ watt
R14	270 ohm.	½ watt
R15	200 ohm.	½ watt



**DIAL CORD DRIVE
& CALIBRATION POINTS**

TOTAL LENGTH OF STRING 3' 4"



SCHEMATIC DIAGRAM - MODELS 617R & 617RG *dwg = Jan 1948*

VOLTAGE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
R.F.	6BA6	O	O	O	6.3 a.c.	225 v.	120 v.	2.7 v.	
Conv.	6BE6	-10 v.	O	O	6.3 a.c.	225 v.	120 v.	O	
I.F.	6BA6	O	O	O	6.3 a.c.	225 v.	120 v.	8 v.	
Det-AF.	6AT6	O	O	O	6.3 a.c.	O	O	75 v.	
Output	6AQ5	O	12 v.	O	6.3 a.c.	210	225	O	
Rect.	6X4	335 a.c.	O	330 v.	330 v.	O	335 a.c.	330 v.	

1. D.C. voltage measurements are at 2,000 ohm per volt—A.C. voltage measurements at 1,000 ohm per volt.
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to common negative.

RESISTANCE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
R.F.	6BA6	1.8 meg	O	O	O	.5 meg	.5 meg	200 ohm	
Conv.	6BE6	20 k.	O	O	O	.5 meg	.5 meg	1.5 meg	
I.F.	6BA6	1.5 meg	O	O	O	.5 meg	.5 meg	3000 oh	
Det-AF.	6AT6	10 meg	O	O	O	.5 meg	.5 meg	.6 meg	
Output	6AQ5	.5 meg.	270 ohm	O	O	.5 meg	.5 meg	.5 meg	
Rect.	6X4	315 ohm	Inf.	O	.5 meg	Inf.	315 ohm	.5 meg	

4. Nominal Tolerance on component value make possible a variation of $\pm 10\%$ in voltage and resistance readings.
5. Volume control at maximum, no signal applied for voltage measurements.
6. Resistance readings in B+ circuits may vary widely according to condition of filter capacitors.

*first set on N2 to see new values?
No, Model 727 was*