

TECHNICAL INFORMATION COVERING **BROADCAST RECEIVER TYPE 617R. & 617R.G.**

COLLIER & BEALE Ltd., WELLINGTON.

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.

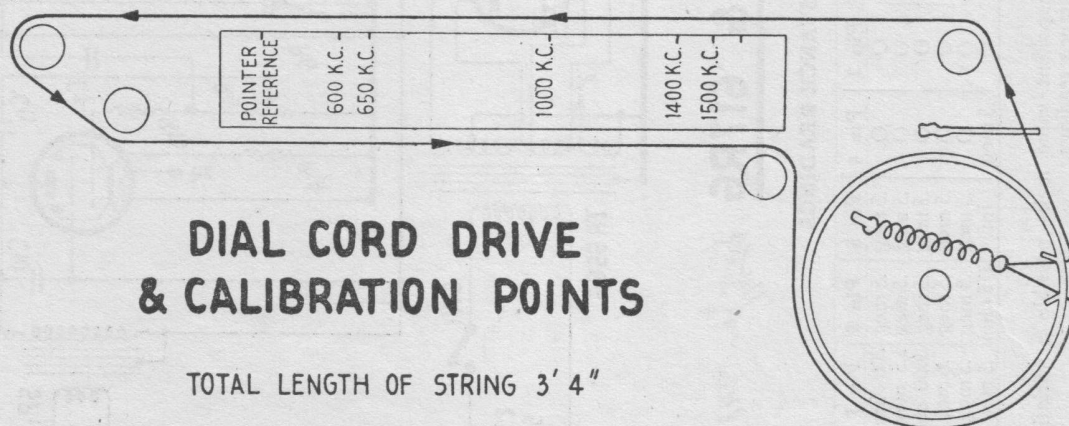
TUNING RANGE—Broadcast, 535-1500 K.C.

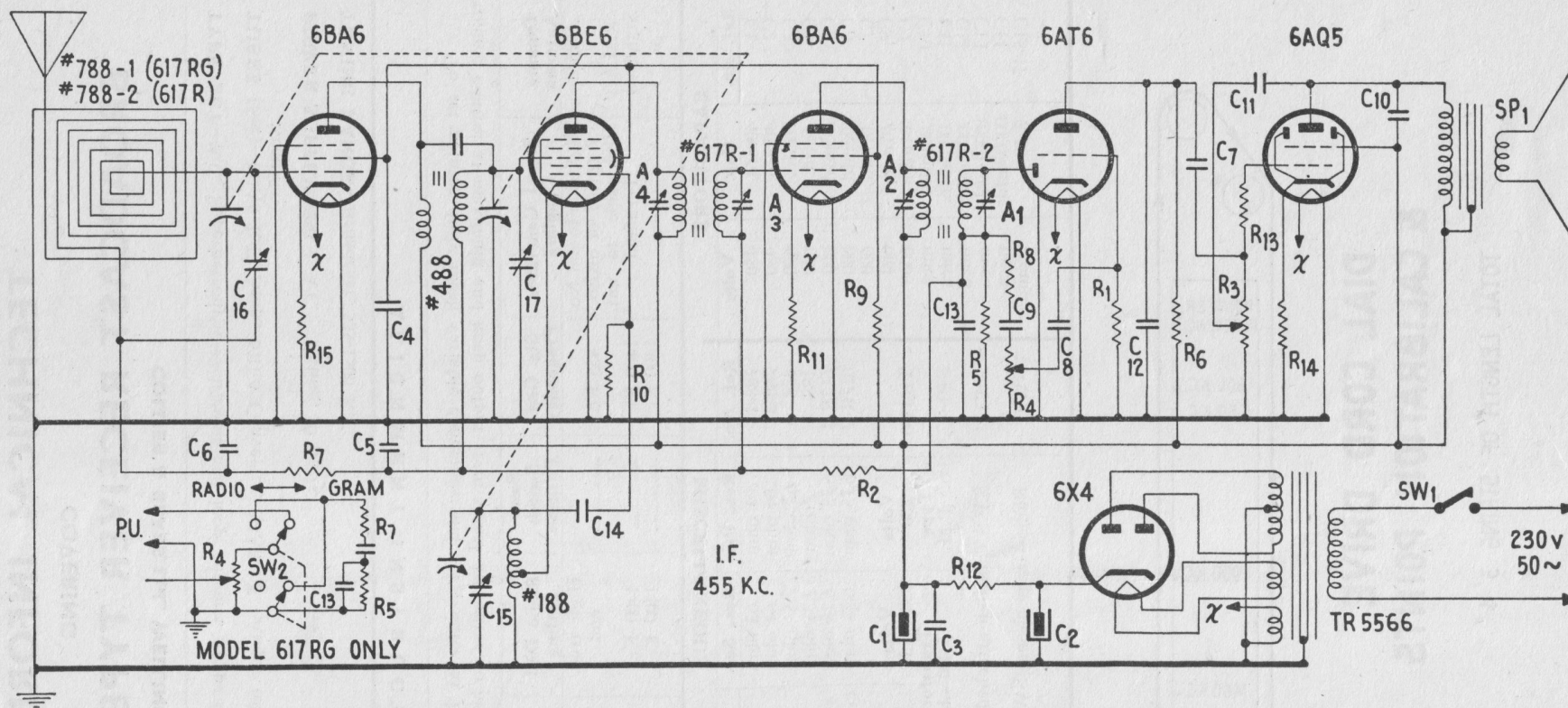
ALIGNMENT INSTRUCTIONS

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			MISCELLANEOUS				RESISTORS		
Ref. No.	Cap.	Volts	Ref. No.	Res., Pri.	Res., Sec.		Ref. No.	Res.	Watts
C1	40mfd.	450	788-1	.04 ohm	.63 ohm		R1	10 meg.	½ watt
C2	40mfd.	450	788-2	.04 ohm	.64 ohm		R2	1 meg.	½ watt
C3	.1mfd.	600	488	.65 ohm	2.5 ohm		R3	.5 meg.	Pot.
C4	.1mfd.	600	188	.2 ohm	2.35 ohm		R4	.5 meg.	Pot.
C5	.05mfd	600	617R-1	6.75 ohm	6.75 ohm	1st IFT	R5	.5 meg.	½ watt
C6	.05mfd	600	617R-2	6.75 ohm	6.75 ohm	2nd IFT	R6	.25 meg.	½ watt
C7	.01mfd.	600					R7	.25 meg.	½ watt
C8	.01mfd.	600					R8	.05 meg.	½ watt
C9	.01mfd.	600	TR5566	Volts 230	Volts 350 aside	Volts 2 x 6.3	R9	.02 meg.	2 watt
C10	.001mfd.	mica		Type	Transformer		R10	.02 meg.	½ watt
C11	.0005mfd.	mica	SP1	6" P.M.	5,000 ohm		R11	3,000 ohm.	½ watt
C12	.0001mfd.	mica					R12	1,500 ohm.	5 watt
C13	.0001mfd.	mica	SW1	S.P.S.T. switch attached to R3			R13	500 ohm.	½ watt
C14	.00005mfd.	mica					R14	270 ohm.	½ watt
C15-17	3-30	trimmer	SW2	Radio-Gramophone, SW5283-1			R15	200 ohm.	½ watt





SCHEMATIC DIAGRAM - MODELS 617R & 617RG *diag 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.	

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	

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.

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 use min values?
No. Model 727 was*