

TECHNICAL INFORMATION

COVERING

BROADCAST RECEIVER TYPE 619P

COLLIER & BEALE Ltd., WELLINGTON

TYPE SET—A.C. Superhetrodyne.

TUBES (six)—6SG7 R.F. Amp., 6SA7 Converter, 6SK7GT I.F. Amp., 6Q7GT Det.-A.F., 6V6GT Power Output, 6X5GT Rectifier.

POWER SUPPLY—230 v. A.C. Rating, 40 watts.

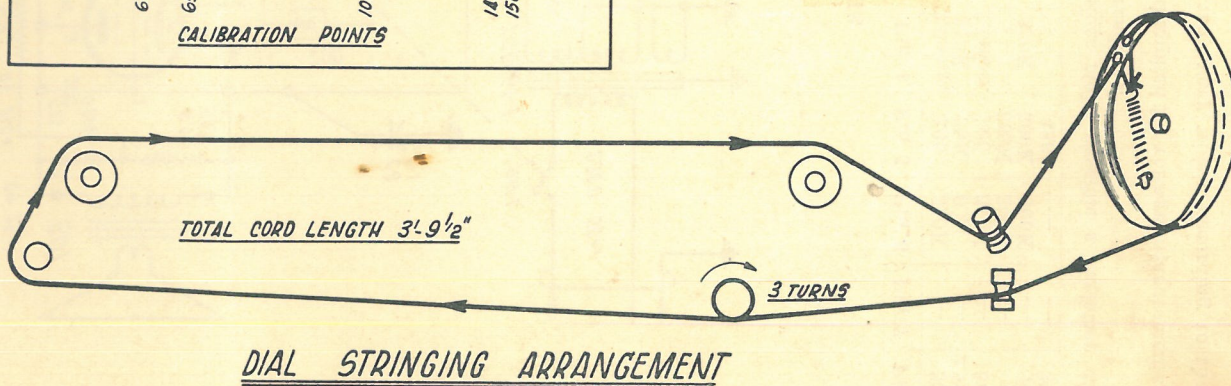
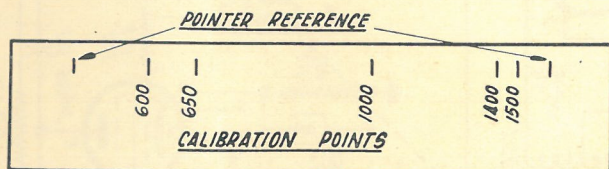
TUNING RANGE—Broadcast, 540-1550 k.c.

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 reading. Use insulated alignment tool for adjusting.

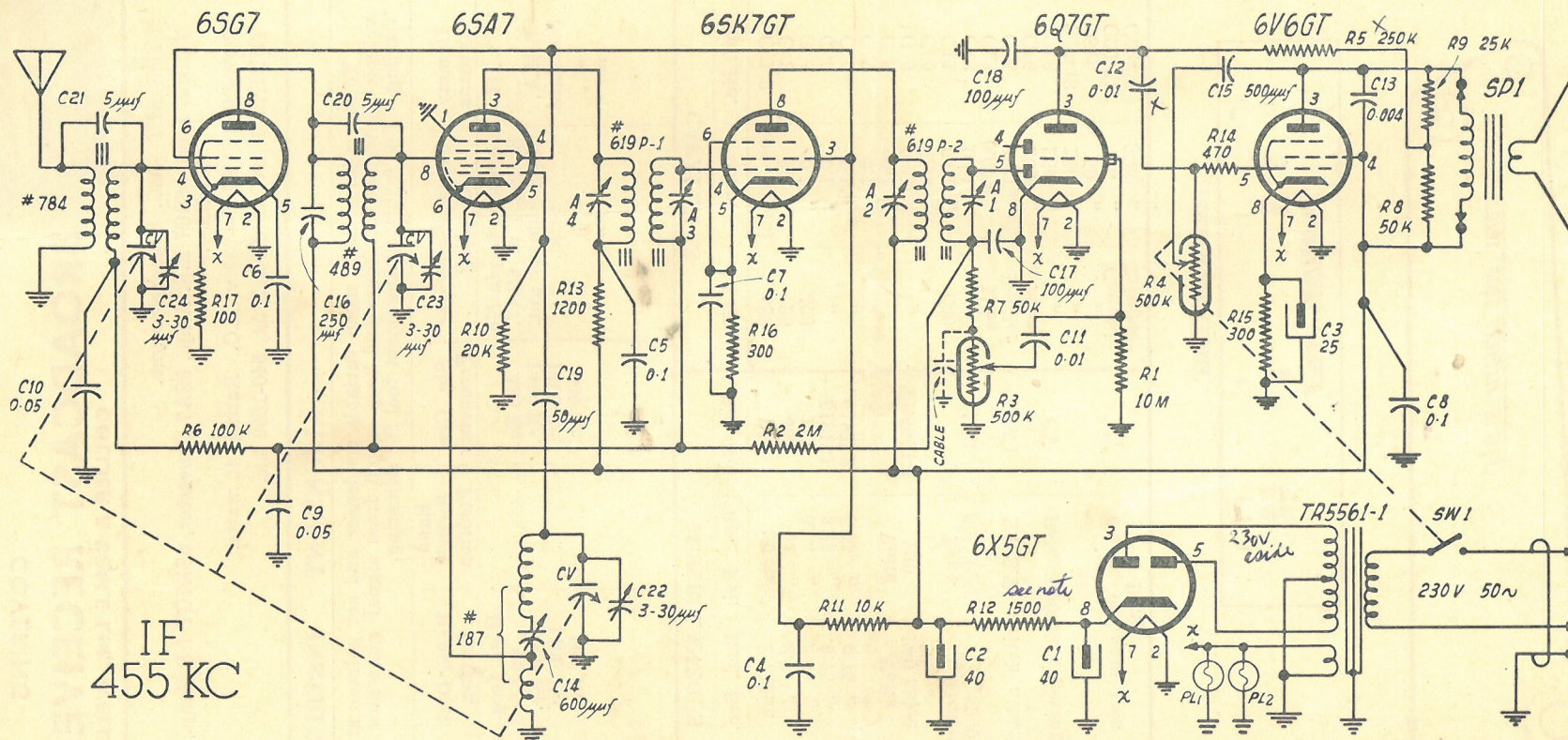
Dummy Antenna	Signal Generator Coupling	Sig. Gen Frequency	Band Switch Position	Radio Dial Setting	Output Meter	Adjust	Remarks
0.1 μ fd.	High side to pin No. 8 (grid) of 6SA7.	455 Kc.		High freq. end	Across voice coil	A1, A2, A3, A4.	Adjust for maximum output
R.M.A. Standard	High side to ant. term.	1400 Kc.		1400 Kc.	"	C22	" "
"	"	1400 Kc.		1400 Kc.	"	C23 & C24	" "
"	"	600 Kc.		600 Kc.	"	C14	Rock variable and adjust for max. output. Recheck C22 at 1400 Kc. If C22 is changed recheck C23 and 24.

CAPACITORS			MISCELLANEOUS			RESISTORS		
Ref. No.	Cap.	Volts	Ref. No.	Res., Pri.	Res., Sec.	Ref. No.	Res.	Watts
C 1-2	40+ 40 μ fd.	450	784	20 ohm	2.7 ohm	R 1	10 meg.	$\frac{1}{2}$
C 3	25 "	25	489	64 "	2.7 "	R 2	2 meg.	"
C 4	0.1 "	400	187	0.24 "	2.44 "	R 3	500K ohm	Pot.
C 5	0.1 "	"	619P-1	6.75 "	6.75 "	R 4	500K "	"
C 6	0.1 "	"	619P-2	6.75 "	6.75 "	R 5	250K "	$\frac{1}{2}$
C 7	0.1 "	"				R 6	100K "	"
C 8	0.1 "	"				R 7	50K "	"
C 9	0.05 "	"	TR5561-1	Volts 230	Volts 250 aside	R 8	50K "	"
C10	0.05 "	"				R 9	25K "	"
C11	0.01 "	600				R10	20K "	"
C12	0.01 "	"				R11	10K "	$\frac{1}{2}$
C13	0.004 "	Mica	SP1	Type 8in. P.M.	Transformer 5000 ohm	R12	1500 "	5 w.w.
C14	600 μ fd.	Padder	SW1	S.P.S.T. switch attached to R4		R13	1200 "	$\frac{1}{2}$
C15	500 "	Mica	CV	Polar C90-03/1 (swing 351 μ fd)		R14	470 "	"
C16	250 "	"				R15	300 "	$\frac{1}{2}$
C17-18	100 "	"				R16	300 "	$\frac{1}{2}$
C19	50 "	"				R17	100 "	"
C20-21	5 "	Ceramic	PL	6.3 v., 0.3 amp tub. M.E.S. lamp				
C22-24	3-30 "	Trimmer						



DIAL STRINGING ARRANGEMENT

July 1950



SCHEMATIC DIAGRAM MODEL 619 P.

VOLTAGE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
RF.	6SG7	—	—	0.8	0	0.8	75	6.3A.C.	160
Conv.	6SA7	—	—	160	75	-2.5	0	6.3A.C.	0
I.F.	6SK7GT	—	—	2.4	0	2.4	75	6.3A.C.	160
Det.-A.F.	6Q7GT	—	—	52	0	0	160	6.3A.C.	—
Output	6V6GT	—	—	153	160	0	0	6.3A.C.	8
Rect.	6X5GT	—	—	230A.C.	—	230A.C.	—	6.3A.C.	225

1. D.C. Voltage measurements are at 2,000 ohms per volt—A.C. Voltage measured at 1,000 ohms per volt.
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to common negative (chassis).

RESISTANCE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
RF.	6SG7	—	—	100	2.6meg.	100	310K	—	300K
Conv.	6SA7	—	—	300K	310K	20K	0.24	—	2.5meg.
I.F.	6SK7GT	—	—	300	2.5meg.	300	310K	—	300K
Det.-A.F.	6Q7GT	—	—	600K	—	500K	300K	—	—
Output	6V6GT	—	—	300K	300K	500K	500K	—	330
Rect.	6X5GT	—	—	480	—	480	—	—	300K

4. Nominal tolerance on component values 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 the condition of filter capacitors.

619P

July 1950

model change R12 to 750 Ω to increase low B+ or 470 Ω