

TECHNICAL INFORMATION

COVERING

BROADCAST RECEIVER TYPE 519P.

COLLIER & BEALE Ltd. WELLINGTON.

TYPE SET—A.C. Superhetrodyne. Moulded Bakelite Cabinet.

TUBES (Five)—7S7 Converter, 7B7 I.F. Amp. 7C6 Det.-A.F., 7C5 Power Output, 7Y4 Rectifier.

POWER SUPPLY—230 v. A.C. Rating 25 watts.

TUNING RANGE—Broadcast 535-1540 K.C.

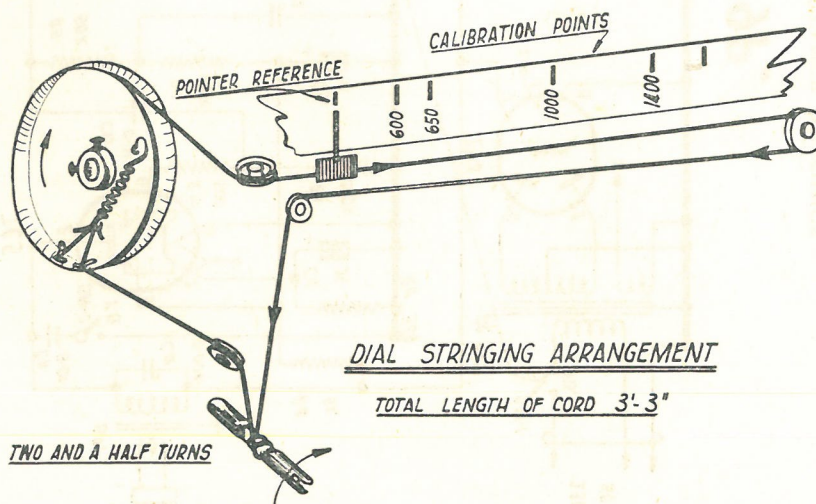
ALIGNMENT INSTRUCTIONS

To set pointer, fully mesh 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 then necessary to obtain output reading.

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 grid of 7S7	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.	"	C18	" "
"	" "	1400 Kc.	_____	1400 Kc.	"	C17	" "
"	" "	600 Kc.	_____	Rock Variable	"	C13	" "

CAPACITORS			MISCELLANEOUS			RESISTORS		
Ref. No.	Cap.	Volts	Ref. No.	Res., Pri.	Res., Sec.	Ref. No.	Res.	Watts
C1	50 μ fd.	250	519P-1	7 ohm	7 ohm	R1	10 meg	$\frac{1}{2}$ watt
C2	50 μ fd.	250	519P-2	7 ohm	7 ohm	R2	2 meg	$\frac{1}{2}$ watt
C3	8 μ fd.	250	*794	16.5 ohm	2.7 ohm	R3	470K ohm	$\frac{1}{2}$ watt
C4	25 μ fd.	25	*194 *	0.82 ohm	2.3 ohm	R4	100K ohm	$\frac{1}{2}$ watt
C5	0.25 μ fd.	400		Volts	Volts	R5	50K ohm	$\frac{1}{2}$ watt
C6	0.1 μ fd.	400	TR5571	230	175 aside	R6	50K ohm	$\frac{1}{2}$ watt
C7	0.05 μ fd.	400		Type	Transformer	R7	50K ohm	$\frac{1}{2}$ watt
C8	0.02 μ fd.	400	SP1	5" P.M.	5000 ohm	R8	5K ohm	$\frac{1}{2}$ watt
C9-11	0.01 μ fd.	400	SW1	S.P.S.T.	Switch attached to R13	R9	3K ohm	1 watt
C12	0.004 μ fd.	mica	SW2	S.P.S.T.	Tone Switch	R10	500 ohm	$\frac{1}{2}$ watt
C13	600 μ fd.	padder		*Receivers after Serial No. 81001 use		R11	330 ohm	$\frac{1}{2}$ watt
C14-16	100 μ fd.	mica	784	20 ohm	2.7 ohm	R12	100 ohm	$\frac{1}{2}$ watt
C17-18	3-30 μ fd.	trimmer	189	0.82 ohm	2.7 ohm	R13	500K ohm	Pot
C19	5 μ fd.	ceramic						

* Check Serial Number when Ordering Part.



BASS COMPENSATION

Bass compensation has been achieved by the combination of values chosen for the plate-feed circuit (R4, R5, C8) of the 7C6 stage.

The change of reactance of C8, with frequency, modifies the effective plate-load impedance presented to the tube.

This results in a greater gain as the frequency is reduced.



RESISTANCE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
Conv.	7S7	—	0.5 meg	0.5 meg	50K ohm	0.5 meg	2.5 meg	100 ohm	—
I.F.	7B7	—	0.5 meg	0.5 meg	100 ohm	—	2.5 meg	100 ohm	—
Det-AF.	7C6	—	0.5 meg	10 meg	—	0.5 meg	0.5 meg	—	—
Output	7C5	—	0.5 meg	0.5 meg	—	0.5 meg	0.5 meg	330 ohm	—
Rect.	7Y4	—	0.5 meg	240 ohm	—	—	240 ohm	0.5 meg	—

4. Nominal tolerance on component value makes 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.

Bass brooding circuitry
R4, R5, C8