



"CAMBRIDGE"
MODEL 495 P.

HIS MASTER'S VOICE (N.Z.) LTD.
WELLINGTON

BROADCAST RECEIVER MODEL 495 P. SERVICE DATA SHEET

TYPE SET—A.C.-Battery Superhetrodyne Portable—self contained Loop Antenna.

TUBES (Five)—1T4 R.F. Amp., 1R5 Converter, 1T4 I.F. Amp., 1S5 Det.-A.F., 3V4 Power Output.

POWER SUPPLY—230 v. A.C., or self-contained 9 v. and 90 v. Batteries.

CONSUMPTION—A.C.—15 watts, Battery—"A," 50 m.a.; "B," 12.5 m.a.

TUNING RANGE—Broadcast, 535-1540 k.c.

ALIGNMENT INSTRUCTIONS

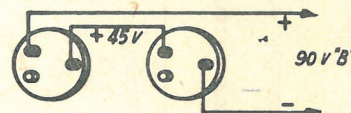
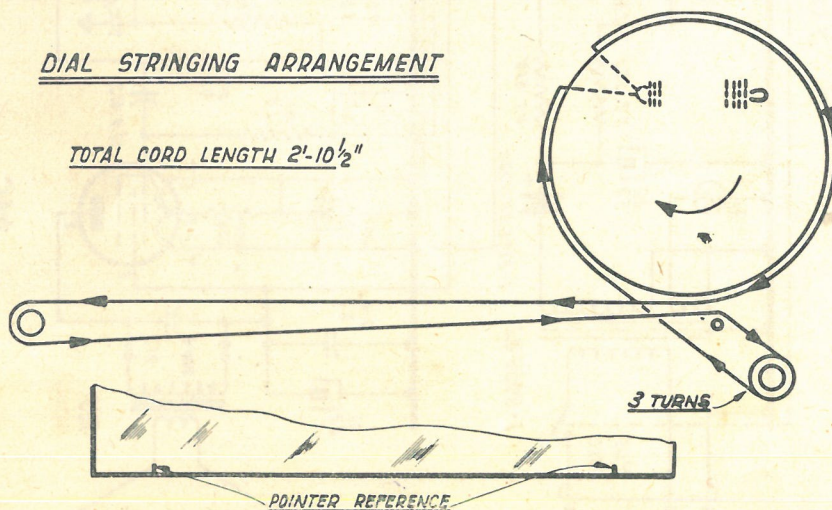
To set pointer, fully mesh variable condenser and set pointer at last reference mark at left end of dial. Set volume control at maximum and keep output from signal generator no higher than necessary to obtain output readings.

Dummy Antenna	Signal Generator Coupling	Sig. Gen. Frequency	Band Switch Position	Radio Dial Setting	Output Meter	Adjust	Remarks
0.1 μ fd.	High Side to pin No. 6 of 1R5	455 Kc.		High freq. end	Across voice coil	A1, A2, A3, A4, C22	Adjust for maximum output
R.M.A.	High side to ant. Terminal	1400 Kc.		1400 Kc.	"	"	" "
Standard	"	1400 Kc.		1400 Kc.	"	C20 & C21	" "
"	"	600 Kc.		Rock Variable	"	C15	" "

CAPACITORS			MISCELLANEOUS			RESISTORS		
Ref. No.	Cap.	Volts	Ref. No.	Res., Pri.	Res., Sec.	Ref. No.	Res.	Watts
C1	250 μ fd.	15	789	0.72 ohm	1.68 ohm	R1	10 meg.	$\frac{1}{2}$
C2-3	50 + 50 μ fd.	150	489	64 ohm	2.7 ohm	R2	5 meg.	$\frac{1}{2}$
C4	0.1 μ fd.	350	189	0.82 ohm	2.7 ohm	R3	5 meg.	$\frac{1}{2}$
C5	0.1 μ fd.	350	519AB-1	7 ohm	7 ohm	R4	3 meg.	$\frac{1}{2}$
C6	0.1 μ fd.	350	519AB-2	7 ohm	7 ohm	R5	1 meg.	$\frac{1}{2}$
C7	0.1 μ fd.	350	L1	0.7 ohm		R6	1 meg.	$\frac{1}{2}$
C8	0.1 μ fd.	350	952	1.64 ohm		R7	1 meg.	$\frac{1}{2}$
C9	0.05 μ fd.	350		volts	volts	R8	500K ohm	Pot.
C10	0.05 μ fd.	350	TR5568-1	230	110 6.3	R9	250K ohm	$\frac{1}{2}$
C11	0.01 μ fd.	350		Type	Transformer	R11	100K ohm	$\frac{1}{2}$
C12	0.01 μ fd.	350	SP1	5in. P.M.	10,000 ohm	R12	50K ohm	$\frac{1}{2}$
C13	0.01 μ fd.	350				R13	10K ohm	$\frac{1}{2}$
C14	0.002 μ fd.	Mica	SW1	D.P.D.T.		R14	2K ohm	$\frac{1}{2}$
C15	600 μ fd.	Padder	SW2	3 P.S.T. switch attached to R8		R15	1K ohm	$\frac{1}{2}$
C16-18	100 μ fd.	Mica	"A" Batt.	9v. E.R. No. 739		R16	1K ohm	$\frac{1}{2}$
C19	50 μ fd.	Mica	"B" Batt.	2x 45v. E.R. No. 482.		R17	500 ohm	$\frac{1}{2}$
C20-22	3-30 μ fd.	Trimmer	PL	6.3v. 0.3A Tub. M.E.S.		R18-19	400 ohm	$\frac{1}{2}$
C23-24	5 μ fd.	Ceramic	CV	Polar C90-03/1 (swing 351mmf.)		R20	380 ohm	$\frac{1}{2}$

DIAL STRINGING ARRANGEMENT

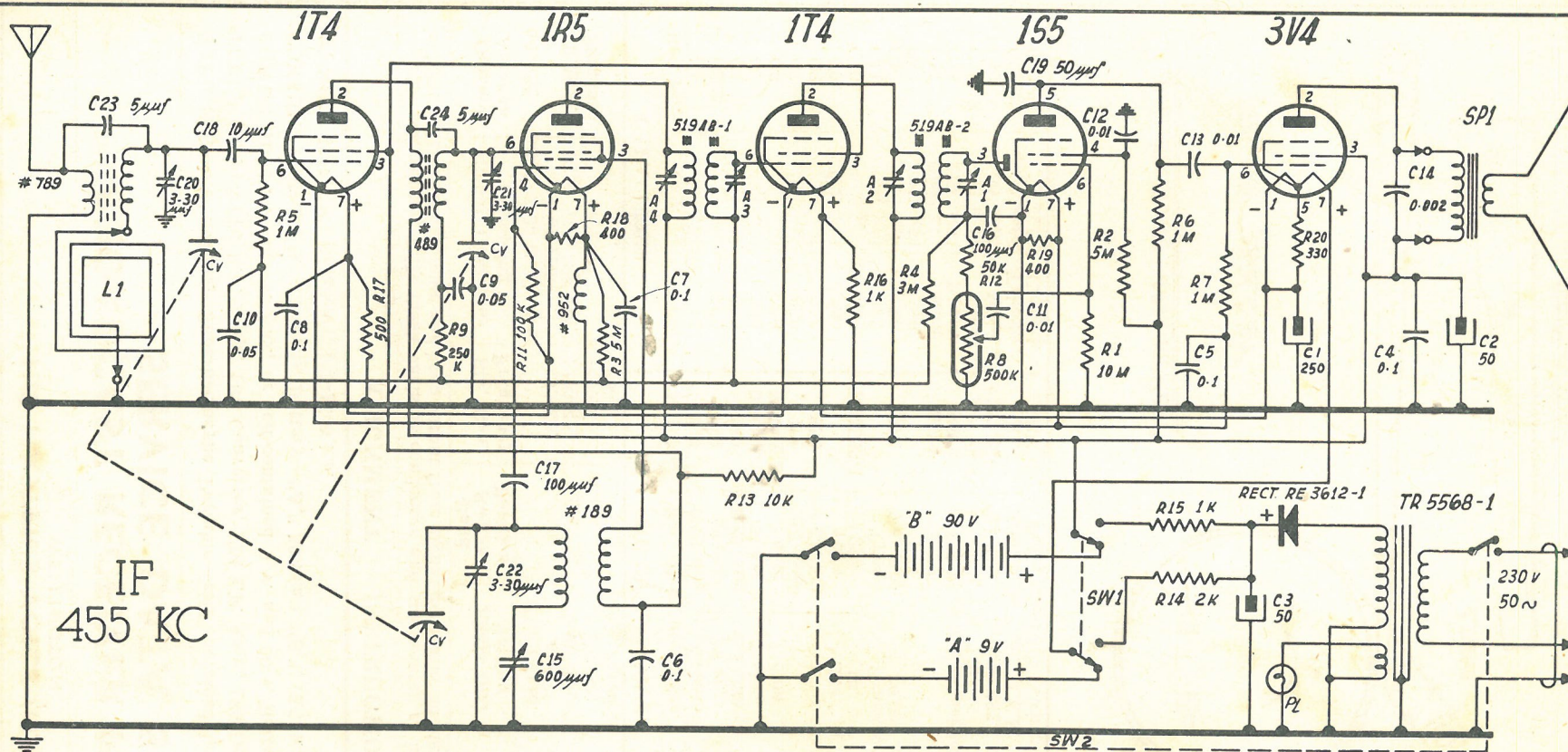
TOTAL CORD LENGTH 2'-10 $\frac{1}{2}$ "



NOTE: PLUGS VIEWED FROM PIN SIDE

BATTERY PLUG

WIRING CONNECTIONS



SCHEMATIC DIAGRAM MODEL 495 P.

VOLTAGE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
R.F.	1T4	1.4	90	50	—	1.4	0	2.7	
Conv.	1R5	2.7	90	50	-8	2.7	0	4.2	
I.F.	1T4	4.2	90	50	—	4.2	0	5.6	
Det-AF.	1S5	0	—	0	12	10	0	1.4	
Output	3V4	5.6	86	90	90	6.8	0	8.1	

RESISTANCE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
R.F.	1T4	*	3K	13K	—	*	4.5meg.	*	
Conv.	1R5	*	3K	13K	100K	*	3.5meg.	*	
I.F.	1T4	*	3K	13K	—	*	3.5meg.	*	
Det-AF.	1S5	0	—	.55meg.	5meg.	1meg.	10meg.	*	
Output	3V4	*	3K	3K	3K	*	1meg.	*	

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.
7. Voltage and resistance readings taken in A.C. position.
* Do not use ohmmeter to measure filament resistance.

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Adapt