TECHNICAL INFORMATION

(First) AC/BATTERY PORTABLE

COVERING

BROADCAST RECEIVER TYPE 517 A.B.

COLLIER & BEALE Ltd., WELLINGTON.

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., 3Q4 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
.1 mfd.	High side to pin No. 6 of 1R5.	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.	"	C21	" "
"	"	1400 Kc.	.....	1400 Kc.	"	C20	" "

CAPACITORS

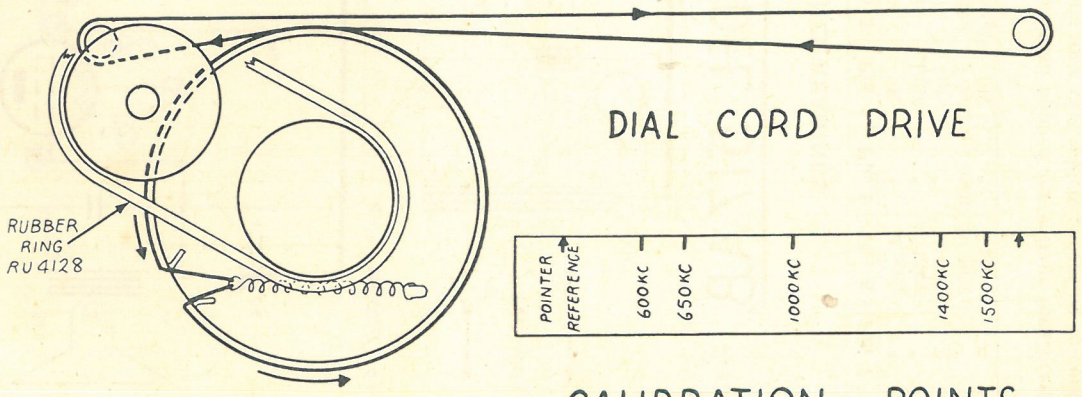
Ref. No.	Cap.	Volts
C1	250mfd.	25
C2-3	50mfd.	150
C4-8	.1mfd.	350
C9-11	.05mfd.	350
C12-14	.01mfd.	600
C15	.005mfd.	mica
C16-19	.001mfd.	mica
C20-21	3-30mfd.	trimmer

MISCELLANEOUS

Ref. No.	Res., Pri.	Res., Sec.	
788-3	.05 ohm.	.95 ohm.	
192	.8 ohm	2.65 ohm.	
	Volts	**Volts**	**Volts**
TR5563	230	110	6.3
	Type	**Transformer**	
SP1	5" P.M.	10,000 ohm.	
SW1	D.P.D.T. switch		
SW2	3 P.S.T. switch attached to R7		
'A' Battery	9 v. E.R. No. C12		
'B' Battery	2 x 45 v. E.R. No. 482		

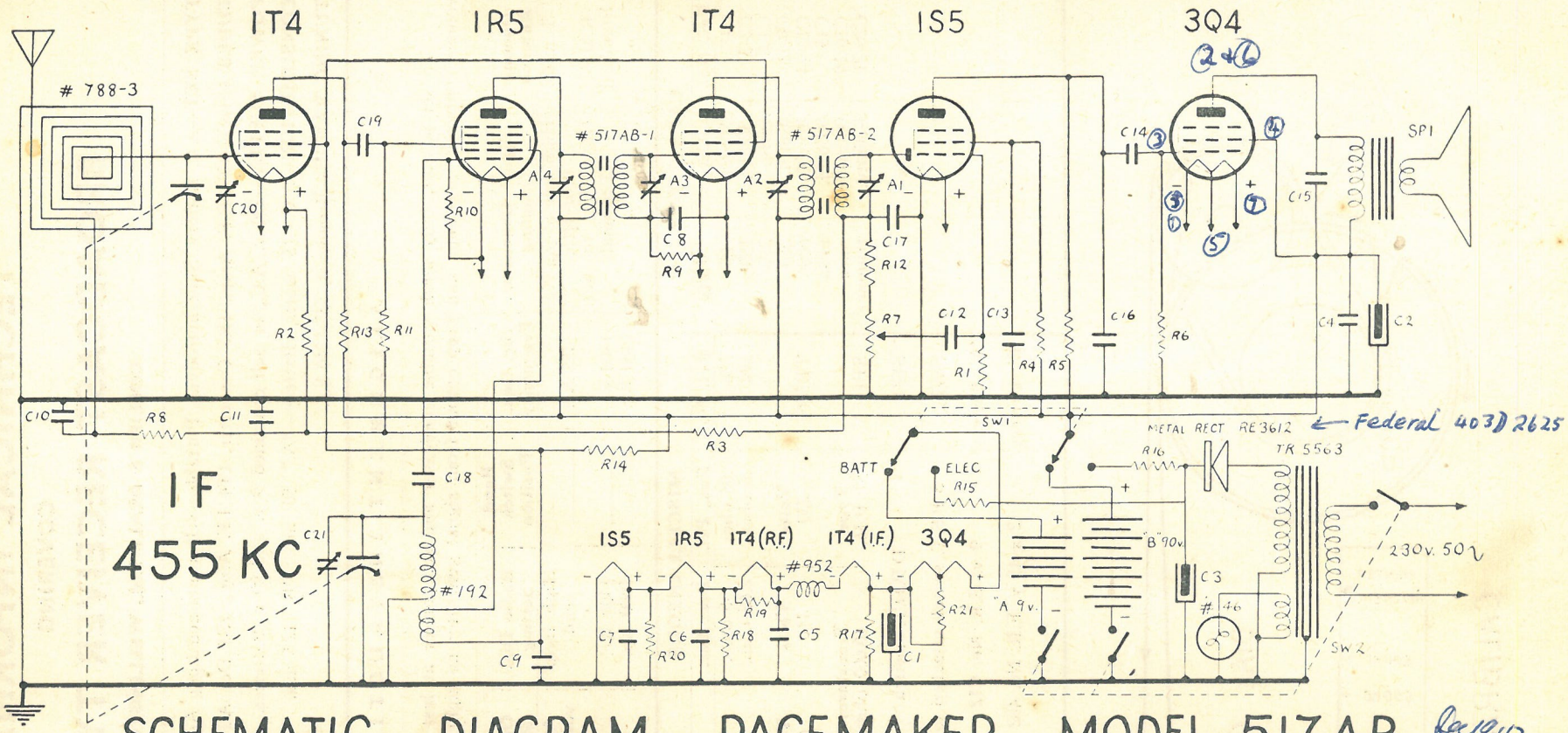
RESISTORS

Ref. No.	Res.	Watts
R1	10 meg.	½ watt
R2	4.7 meg.	½ watt
R3	3.3 meg.	½ watt
R4	2.2 meg.	½ watt
R5-6	1 meg.	½ watt
R7	.5 meg.	Pot.
R8	.5 meg.	½ watt
R9	.22 meg.	½ watt
R10	.1 meg.	½ watt
R11-12	47,000 ohm.	½ watt
R13	15,000 ohm.	½ watt
R14	10,000 ohm.	½ watt
R15	2,000 ohm.	5 watt
R16	1,000 ohm.	½ watt
R17	680 ohm.	½ watt
R18	560 ohm.	½ watt
R19-20	400 ohm.	½ watt
R21	330 ohm.	½ watt



DIAL CORD DRIVE

CALIBRATION POINTS



← Federal 4031 2625

SCHEMATIC DIAGRAM PACEMAKER MODEL 517 A.B.

Rev 1947

VOLTAGE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
R.F.	1T4	2.6	70	50	90	2.6	0	3.9	
Conv.	1R5	1.3	90	50	—8	1.3	0	2.6	
I.F.	1T4	3.9	90	50	0	3.9	2	5.1	
Det-AF.	1S5	0	0	0	10	12	0	1.3	
Output	3Q4	5	88	0	90	6.2	88	7.1	

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 ± 10% in voltage and resistance readings.

RESISTANCE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
R.F.	1T4	*	18K	13K	3K	*	4 meg.	*	
Conv.	1R5	*	3K	13K	.1 meg.	*	3.5 meg.	*	
I.F.	1T4	*	3K	13K	Inf.	*	.2 meg	*	
Det-AF.	1S5	0	Inf.	.54 meg.	3 meg.	1 meg.	10 meg.	*	
Output	3Q4	*	3.5K	1 meg.	3K	*	3.5K	*	

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.