

third model with tone control

TECHNICAL INFORMATION

COVERING

BROADCAST RECEIVER TYPE 5155 A.B.

COLLIER & BEALE Ltd. WELLINGTON.

Nov 1955

TYPE SET—A.C.—Battery Superheterodyne 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 Single Dry Battery 9 and 90 v.

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

TUNING RANGE—Broadcast, 535-1600 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, C20	Adjust for maximum output
R.M.A.	High side to ant. Terminal	1400 Kc.		1400 Kc	"	C21 & C22	" "
Standard	"	1400 Kc.		1400 Kc	"	C14	" "
"	"	600 Kc.		Rock Gang	"	"	" "

CAPACITORS

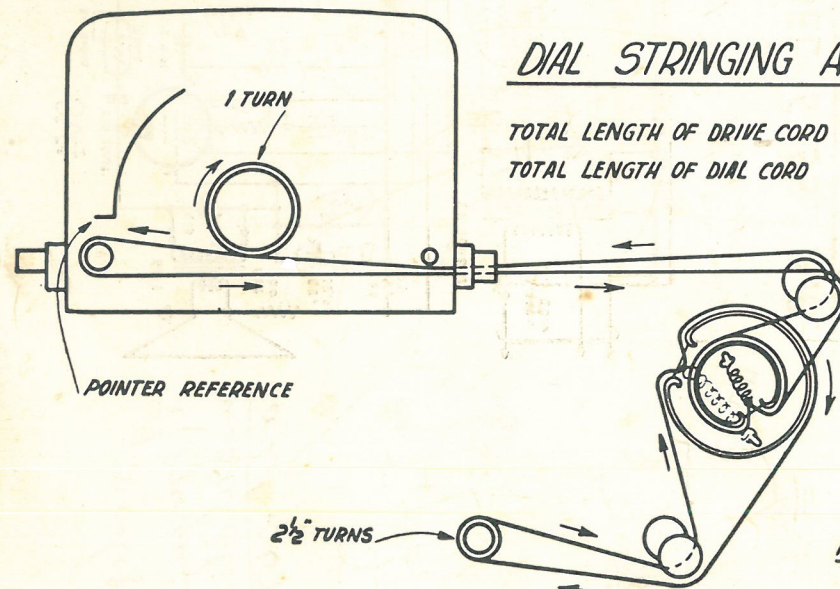
Ref. No.	Cap.	Volts
C1	250 μ fd.	15
C2 a-b	50 "	150
C3	0.1 "	100
C4	0.1 "	"
C5	0.1 "	"
C6	0.1 "	"
C7	0.1 "	"
C8	0.05 "	350
C9	0.05 "	"
C10	0.01 "	"
C11	0.01 "	"
C12	0.01 "	"
C13	0.002 "	Mica
C14	600 μ fd.	Padder
C15	250 "	Mica
C16-18	100 "	"
C19	50 "	"
C20-22	3-30 "	Trimmer

MISCELLANEOUS

Ref. No.	Res., Pri.	Res., Sec.
722	0.94 ohm	—
722-1	0.83 "	1.2 ohm
485	69 "	2.4 "
118	0.83 "	2.54 "
PE1001	8 " Volts	4.5 " Volts
TR5568-2	230 Type	110 Transformer
SP.1.	5" P.M.	10,000 ohm.
Rect.	RE 3613-3	
SW.1.	D.P.D.T. Toggle.	
SW.2.	3.P.S.T. switch attached to dial.	
"B" Batt.	{ Combined A and B	
"A" Batt.	{ Battery E.R. Type 753.	
CV	Polar C90-03/(Swing 446 μ fd.)	

RESISTORS

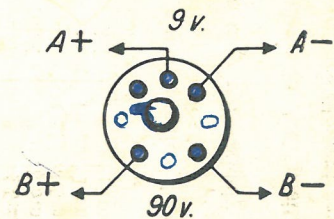
Ref. No.	Res.	Watts
R1	10 meg.	$\frac{1}{2}$
R2-3	5 "	"
R4	5 "	"
R5	3 "	$\frac{1}{2}$
R6-8	1 "	"
R9	500K ohm	"
R10	250K "	$\frac{1}{2}$
R11	100K "	"
R12	50K "	"
R13	15K "	1
R14	10K "	$\frac{1}{2}$
R15	2K "	5
R16-17	1K "	$\frac{1}{2}$
R18	500 "	"
R19-20	400 "	"
R21	330 "	"
R22	100 "	"
R23	25 "	"



DIAL STRINGING ARRANGEMENT

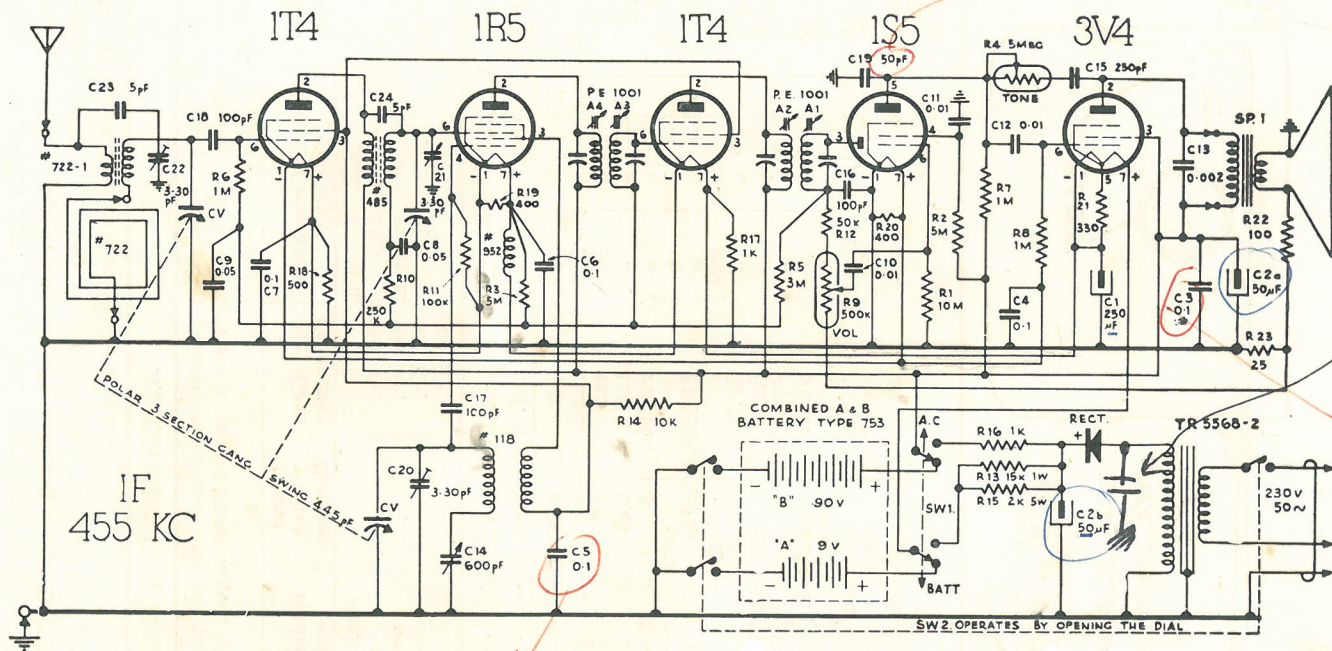
TOTAL LENGTH OF DRIVE CORD 1'2"

TOTAL LENGTH OF DIAL CORD 2'6"



BATTERY PLUG WIRING CONNECTIONS

NOTE PLUG VIEWED FROM PIN SIDE.



SCHEMATIC DIAGRAM PACEMAKER MODEL 5155. A.B.

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	85	45	—	1.4	0	2.7	
Conv.	1R5	2.7	85	45	-8	2.7	0	4.2	
I.F.	1T4	4.2	85	45	—	4.2	0	5.6	
Det.-A.F.	1S5	0	0	0	12	10	0	1.4	
Output	3V4	5.6	81	85	85	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.-A.F.	1S5	0	—	.55meg.	5meg.	1meg.	10meg.	*	
Output	3V4	*	3K	3K	3K	*	1meg.	*	

1. D.C. voltage measurements are at 20,000 ohms per volt—A.C. voltage measurements at 1,000 ohms per volt.
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to chassis.
4. Nominal tolerances 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 reading 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.

5155 AB

as long as no more than 50mA passes it's OK.



5155 3rd model
has tone control