

TECHNICAL INFORMATION

COVERING
PACEMAKER TRANSISTOR BROADCAST RECEIVER
Manufactured by COLLIER & BEALE LTD., WELLINGTON

TYPE SET—Battery, Superhetrodyne, Portable Self-contained Ferrite Rod Antenna.

TRANSISTORS (Seven)—2N1637 R.F. Amp., 2N1637 Mixer, 2N412 I.F.Amp., OA95 Diode Detector, OC75 1st. A.F. Amp., OC75 Driver, 2 x OC72 Output.

POWER SUPPLY—Self-contained 6-volt Battery No. 744 or equiv.

BATTER DRAIN—Total Quiescent Battery Drain 9mA (approx.)

TUNING RANGE—Broadcast 535-1620 Kc.

CAPACITORS			MISCELLANEOUS				RESISTORS		
Ref. No.	Cap.	Volts	COIL WINDING RESISTANCES				Ref. No.	Res.	Watts
			Ref. No.	Tuned	Base	Collector			
C1-2	64 μ fd	25v	726.1	0.25 ohm	0.2 ohm		R1	2M ohm	1/2
C3	32 μ fd	3v	419	3.0 ohm	0.4 ohm		R2	150K ohm	1/2
C4-5	8 μ fd	12v			Emit		R3	100K ohm	1/2
C6	2.5 μ fd	3v	124	2.3 ohm	0.1 ohm	0.5 ohm	R4-5	68K ohm	1/2
C7-10	0.1 μ fd	100v	CB4	4.4 ohm	0.3 ohm	2.4 ohm	R6	47K ohm	1/2
C11-16	0.03 μ fd	100v	CB4A	4.4 ohm	1.4 ohm	2.4 ohm	R7	27K ohm	1/2
C17	5000pf	Ceramic					R8	25K ohm	pot.
C18	600pf	Padder					R9	15K ohm	1/2
C19	100pF	Ceramic	Aud. Trans. Res. Pri. Res. Sec.				R10	15K ohm	pre-set
C20	50pF	Ceramic	TR5524-IE	290 ohms	56 ohms		R11-14	10K ohm	1/2
C21-25	3-30pF	Trimmer	TR5524-3B	15.5 ohms	0.5 ohms		R15	7.5K ohm	pot.
C26	0.01 μ fd	100v	SP1	4 x 6 Rola Speaker, F83 Cone Type H Magnet.			R16-17	4.7K ohm	1/2
			S1	On-Off Switch actuated by R15			R18-21	2K ohm	1/2
			CV	Polar Gang 351pF. Swing) Type C90-03/3A.			R22-23	1K ohm	1/2
			J1	Earphone Jack.			R24	470 ohm	1/2
			Battery: Eveready 744 or equivalent.				R25-28	270 ohm	1/2
							R29	150 ohm	1/2
							R30	CS-120	Thermistor
							R31	1.5 ohm	1/2

ALIGNMENT INSTRUCTIONS

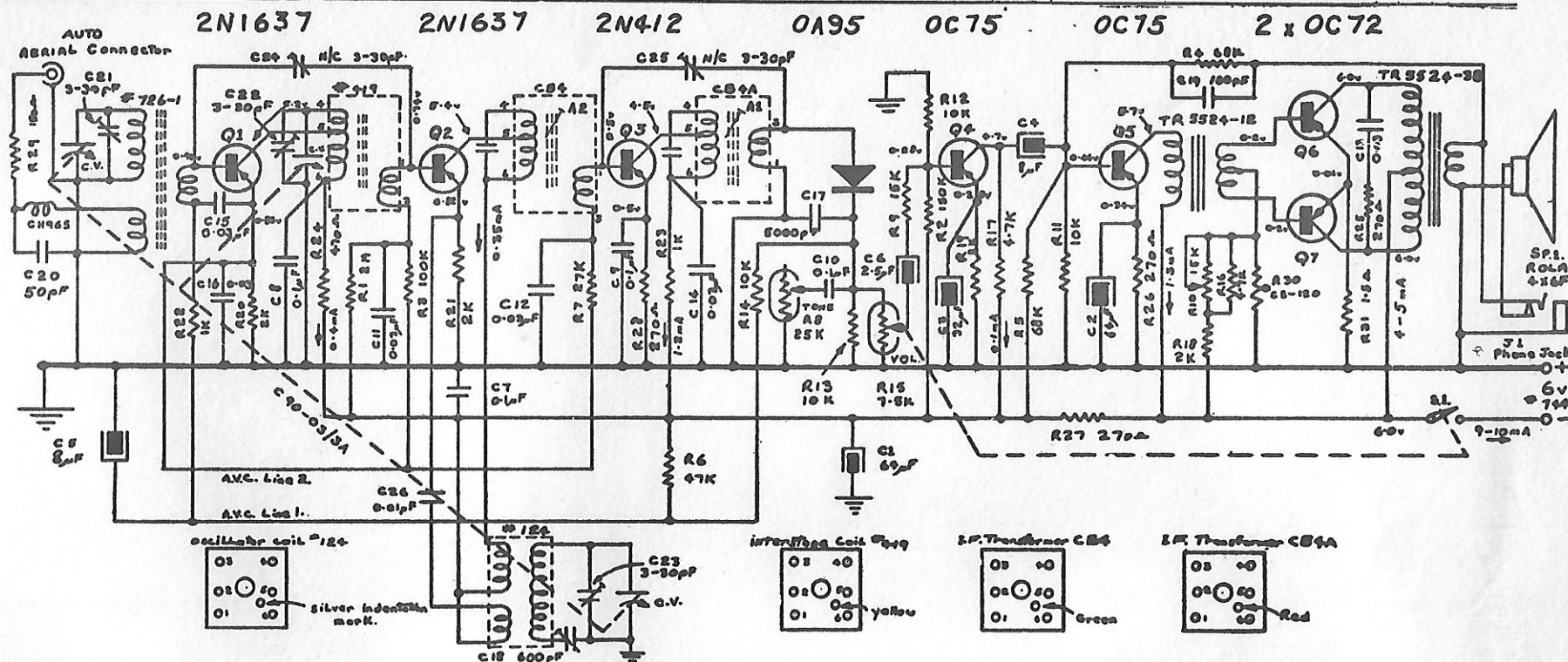
To align I.F. Amplifier:

Fully unmesh and feed 455Kc/s generator through .1 mfd. condenser to base of converter (Q2). Adjust A1, A2 and C25 for max. output. As the adjustment of C25 is critical, A1 and A2 may need re-adjustment with change of C25.

R.F. and Mixer:

Using a signal generator with its output connected to a one turn loop 12" diam. adjust osc. trimmer C23 for correct alignment at 1400 Kc/s and RF Trimmer C21 and Mixer Trimmer C22 for maximum output at 1400 Kc/s.

1. All voltage measurements shown are from point to chassis, with a battery terminal voltage 6 volts. No signal input. Volume control zero. All voltage checks should be made with a voltmeter of 10 V. full scale reading and having a total resistance of 250,000 ohms (25,000 ohm/V.). When making resistance checks, disconnect battery and observe the polarity of electrolytic condensers where such appear. Nominal tolerance on components makes possible a variation of $\pm 10\%$ in voltage and resistance readings.
2. Avoid operations on the receiver with battery connected. Always re-check total battery current before permanently re-connecting battery. Never reverse the battery polarity.
3. To remove transistors, disconnect battery and free projecting leads of transistor from terminations. A miniature soldering iron is essential to avoid overheating.



SCHEMATIC DIAGRAM MODEL " TRANSPORTABLE 64 "

STATIC VOLTAGES AND CURRENTS

Conditions: Battery Volts 6.0. Gang: Fully meshed. Input: No signal.

Stage	Transistor	Emitter Volts	Base Volts	Collector	
				Volts	M.A.
R.F.	2N1637	0.83	0.90	5.20	0.40
Mixer	2N1637	0.82	0.74	5.40	0.35
I.F.	2N412	0.50	0.50	4.50	1.20
Diode	0A95			0.14	
1st Aud.	0C75	0.25	0.28	4.7	0.1
Driver	0C75	0.34	0.44	5.7	1.3
	0C72	0.01		6.0	4.4

