

TECHNICAL INFORMATION **COVERING** **PACEMAKER TRANSISTOR BROADCAST RECEIVER**

Manufactured by COLLIER & BEALE Ltd. WELLINGTON.

TYPE SET - Battery, Superhetrodyne, Mantel Set.

TRANSISTORS (Seven) - 2N247 RF. Amp., 2N247 Mixer.

2N219 I.F. Amp., 0A85 Detector, OC71 1st A.F. Amplifier

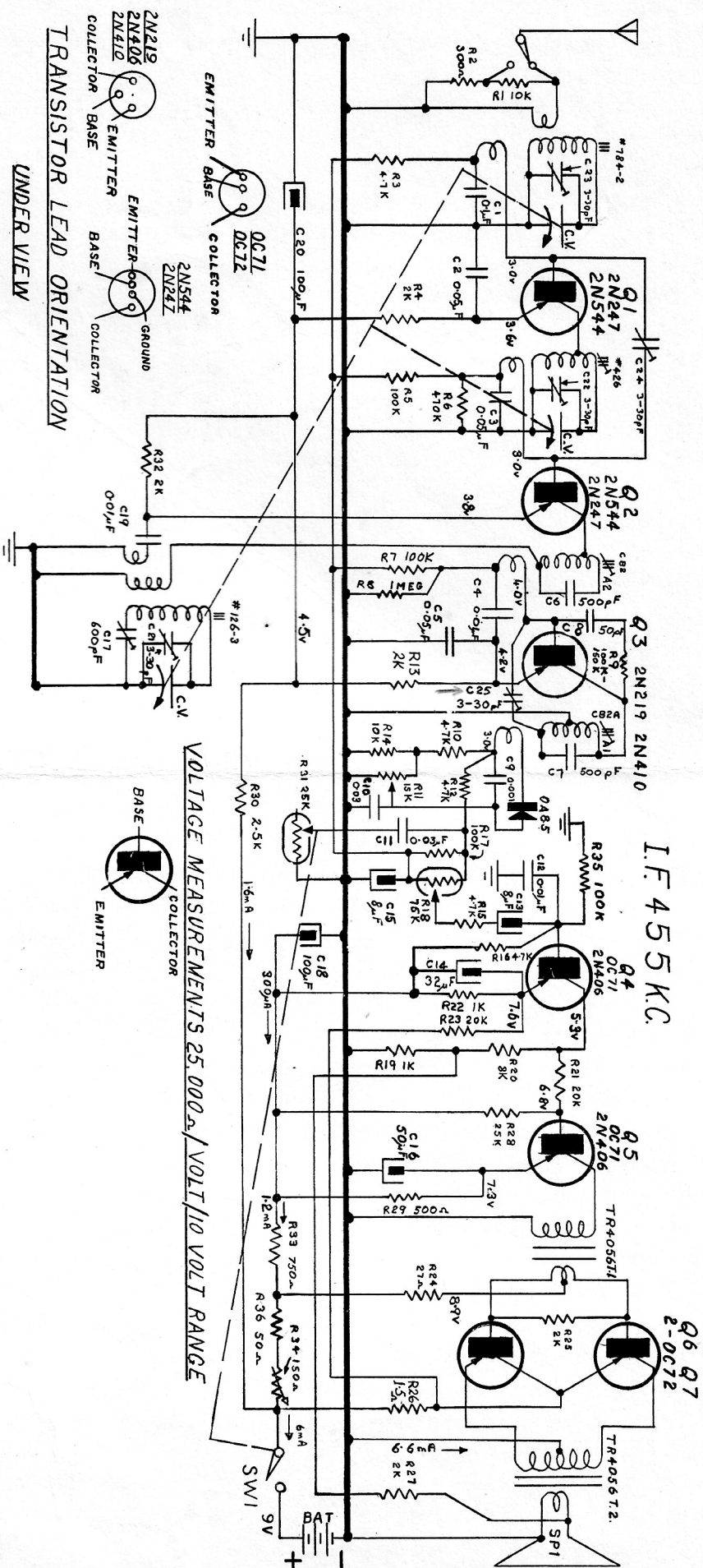
OC71 Driver, 2-OC72 Output.

POWER SUPPLY - Self Contained 9 volt Battery ER739.

BATTERY DRAIN - Total Quiescent Battery Drain 9mA, at 65° F.

TUNING RANGE - Broadcast 530-1600 Kc.

CAPACITORS			MISCELLANEOUS					RESISTORS		
Ref. No.	Cap.	Volts						Ref. No.	Res.	Watts
C1	0.1 μ fd.	100						R1-14	10K	$\frac{1}{2}$
C2	0.05 "	"	COIL WINDING RESISTANCES					R2	300 ohm	"
C3	0.05 "	"	Ref.No.	Tuned	Base	Primary		R3	4.7K	"
C4	0.01 "	"	784-2	2.8 ohm	0.2 ohm	17.5 ohm	B.C.	R4	2K	"
C5	0.05 "	"	426	1.4 ohm	0.25 "		"	R5	100K	"
C6	500 μ pf	Sil.Mica	126-3	4.1 ohm	Emitter 0.23 ohm	Collector 0.5 ohm	"	R6	470K	"
C7	500 "	"	CB2	1.35 "	0.25 "		I.F.	R7-35	100K	"
C8	50 "	Ceramic	CB2A	1.3 "	1.1 "		I.F.	R8	1 Meg	"
C9	0.001 μ f	"		Res. Pri.	Res. Sec.			R9	150K	"
C10	0.03 "	150	TR4056 T1	290 ohm	63.5 ohm			R10	4.7K	"
C11	0.03 "	"	TR4056 T2	14.3 ohm	0.3 ohm			R11	15K	Pre-Set
C12	0.01 "	100						R12	4.7K	$\frac{1}{2}$
C13	8 "	25						R13	2K	"
C14	32 "	3.5	SP1	9 x 6 Rola Speaker, F83 Cone				R15-16	100K	"
C15	8 "	25		Type H Magnet				R17	100K	"
C16	50 "	12.5	SW1	on/off Switch actuated by R31				R18	75K	Pot
C17	500 μ pf	Padder	CV	Polar Gang (351 uufd.swing)				R19-22	1K	$\frac{1}{2}$
C18	100 μ f	12.5						R20	8K	"
C19	0.01 "	100	Battery	9 volt BATTERY				R21-23	20K	"
C20	100 "	12.5	ER739	or EQUIVALENT				R24	27 ohm	"
C21	3-30 μ pf	Trimmer						R25-27	2K	"
C22	3-30 "	"						R26	1.5 ohm	"
C23	3-30 "	"						R28	25K	"
C24	3-30 "	"						R29	500 ohm	"
								R30	2.5K	"
								R31	2.5K	Pot
								R32	2K	$\frac{1}{2}$
								R33	750 ohm	"
								R34	150 ohm	"
								R36	50 ohm	"



SCHEMATIC DIAGRAM MODEL "BONDI"

ALIGNMENT INSTRUCTIONS

1. All voltage measurements shown are from points to chassis, with a battery terminal voltage of 9 volts.
2. All voltage checks should be made with a voltmeter of 10 V. full scale reading and having a total resistance of 250,000 ohm (25,000 ohm/V)

3. When making resistance checks, disconnect battery and observe the polarity of electrolytic condenser, where such appear.
4. Nominal tolerance on components makes possible a variation + 10% in voltage and resistance readings.
5. Avoid operations on the receiver with battery connected. Always re-check total battery current before permanently re-connecting battery. Never reverse the battery polarity.
6. To remove transistors, disconnect battery and free projecting leads of the transistor. A miniature soldering iron is essential to avoid overheating.

To Adjust Diode Bias

Clip D.C. Voltmeter (1-3 volts full scale and 10-20,000 ohms per volt) across OA85 and adjust R11 for zero volts.

To align I.F. Amplifier

Fully unmesh variable condenser 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. (I.F. *variable*)

Adjust RF Trimmers C22 and C23 for max. output at 1400Kc/s and adjust padding condenser (C17) for max. output at 600 Kc/s.