MODEL 'DAKOTA'

DISTRIBUTED BY **H.W. CLARKE (N.Z.) LTD.**

TECHNICAL INFORMATION

COVERING

PACEMAKER DUAL WAVE RECEIVERS

MANUFACTURED BY COLLIER & BEALE Ltd.

TYPE SET — A.C. Superheterodyne.

TUBES (six) — ECH81 Converter, 6BA6 I.F. Amp., 6AV6 Det.-A.F., 6AQ5 Power Output, EM81 Tuning Indicator, 6X4 Rectifier.

POWER SUPPLY — 230 V. A.C. Rating: 30 watts.

TUNING RANGE — Broadcast, 535—1605 Kc/s; Short Wave, 6—16 Mc/s.

ALIGNMENT INSTRUCTIONS

To set pointer; fully mesh 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. Use insulated alignment tool for adjusting.

Dummy Antenna	Signal Generator Coupling	Sig. Gen. Frequency		Radio Dial Setting	Output Meter	Adjust	Remarks
0.1 μfd.	High Side to pin No.			High freq.	Across	A1, A2,	Adjust for maximum
	2 (grid) of ECH81	455 Kc.		end	voice coil	A3, A4.	output
R.M.A.	High side to ant	1400 Kc.		1400 Kc.	"	C17	" "
Standard	terminal	1400 Kc.		1400 Kc..	"	C18	" "
		15 Mc/s.		15 Mc/s.		C19	" "
		15 Mc/s.		15 Mc/s.		C20	" "

CAPACITORS

Ref. No.	Cap.	Volts
C1-A-B	50 μfd.	250
C1-C	10 "	250
C2	25 "	25
C3-4	0.05 "	350
C5	0.02 "	"
C6	0.01 "	"
C7-8	.005 "	"
C9	4550 pf.	Padder
C10	.003 μfd.	350
C11-12	500 pfd.	"
C13	50 "	"
C14	.01 μfd.	"
C15	600 μμfd.	Padder
C16	100 "	Sil. mica
C17-18	3–30 "	Trimmer
C19-20	3–30 "	
C21	0.25 μfd.	

MISCELLANEOUS

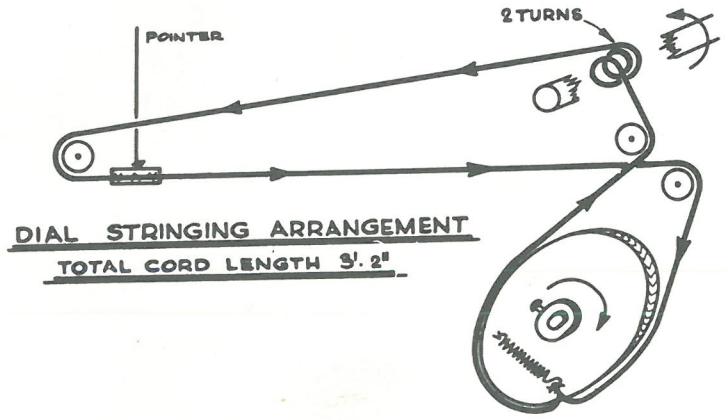
Ref. No.	Res., Pri.	Res., Sec.	
PE1014	14.5 ohm	13.5 ohm	I.F.
784	20 "	2.7 "	B.C. ant.
184	1.8 "	2.3 "	B.C. osc.
700	0.4 "	0.03 "	S.W. ant.
100	0.45 "	0.03 "	S.W. osc.

	Volts	Volts	Volts
TR5571-2	230	175/175	6.3

	Type	Transformer
SP1	10 x 3G PM	5000 ohm
S1	SPST attached to R3	
S2	3 P. 2 pos. 1 Bank Rotary Sw.	
CV	Polar C90-02/1 (swing 351 μμf.)	
P.L.	6.5 V. 0.3 amp. M.E.S. tub. lamp	

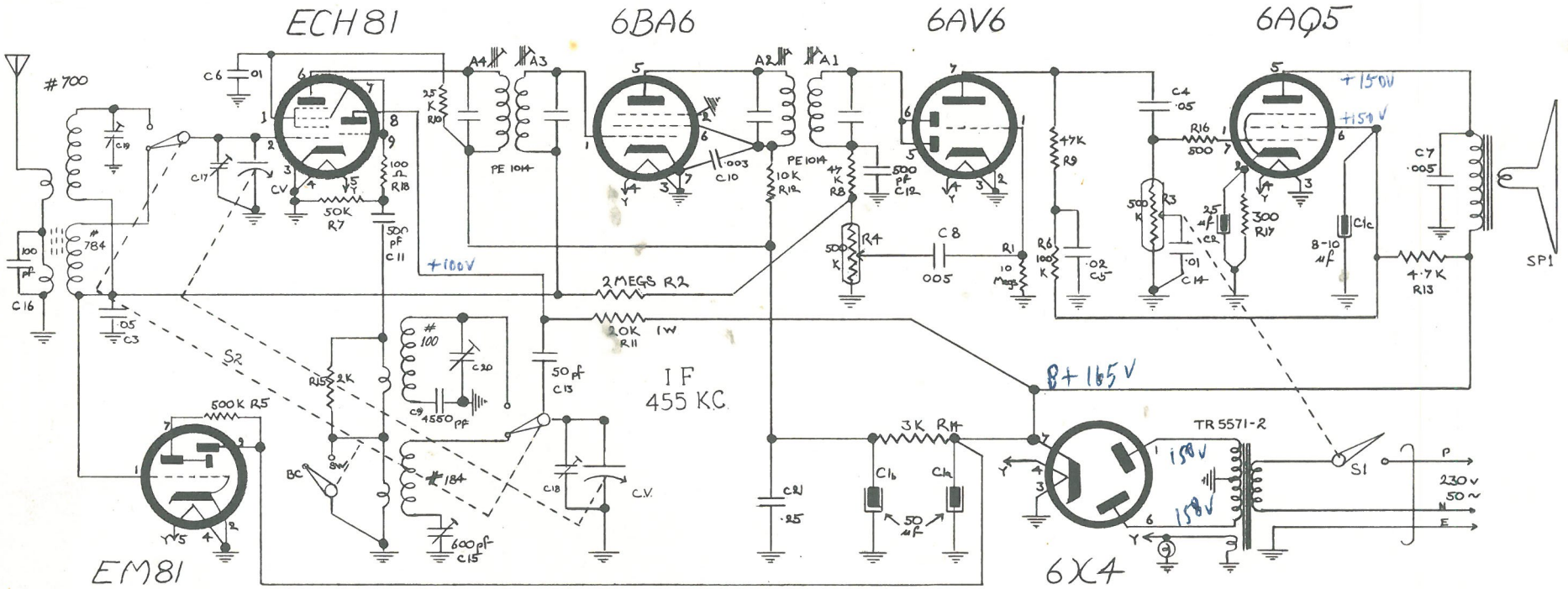
RESISTORS

Ref. No.	Res.	Watts
R1	10 meg.	½ watt
R2	2 meg.	½ watt
R3	500 K	Pot.
R4	500 K	Pot.
R5	500 K	½ watt
R6	100 K	½ watt
R7	50 K	½ watt
R8–9	47 K	½ watt
R10	25 K	1 watt
R11	20 K	½ watt
R12	10 K	½ watt
R13	4.7 K	½ watt
R14	3 K	1 watt
R15	2 K	½ watt
R16	500 ohm	½ watt
R17	300 ohm	1 watt
R18	100 ohm	1 watt



DIAL STRINGING ARRANGEMENT

TOTAL CORD LENGTH 3'. 2"



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VOLTAGE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
Conv.	ECH81	50	–	–	–	6.3	130	–	100
I.F.	6BA6	–	–	–	6.3	68	68	–	–
Det.-A.F.	6AV6	–	–	–	6.3	–	–	90	–
Output	6AQ5	–	7.5	–	6.3	150	150	–	Pin 9
Tuning In.	EM81	–	–	–	–	6.3	–	–	150
Rectifier	6X4	158 a.c.	–	–	6.3	–	158 a.c.	165	–

1. D.C. voltage measurements are at 20,000 ohms per volt—A.C. voltage measurements at 5,000 ohms per volt.
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to chassis. Band Switch in Broadcast position.

RESISTANCE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
Conv.	ECH81	500 K	2.2 M	–	–	–	500 K	150 K	500 K	150 K
I.F.	6BA6	2.2 M	–	–	–	500 K	500 K	–	–	–
Det.-A.F.	6AV6	10 M	–	–	–	500 K	500 K	500 K	–	–
Output	6AQ5	500 K	300 Ω	–	–	500 K	500 K	500 K	–	–
Tuning In.	EM81	2.2 M	–	–	–	–	–	1 M	–	500 K
Rectifier	6X4	–	–	–	–	–	–	500 K	–	–

4. Nominal tolerances on component values make possible a variation of ± 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.

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