

TECHNICAL INFORMATION

COVERING

DUAL WAVE RECEIVER TYPE 727

COLLIER & BEALE Ltd., WELLINGTON

TYPE SET—A.C. Suphetrodyne.

TUBES (Seven)—6BA6 R.F. Amp., 6BE6 Converter, 6BA6 I.F. Amp., 6AT6 Det.-A.F., 6AQ5 Power Output, 6U5 Tuning Indicator, 6X4 Rectifier.

POWER SUPPLY—230 v. A.C. Rating, 60 watts.

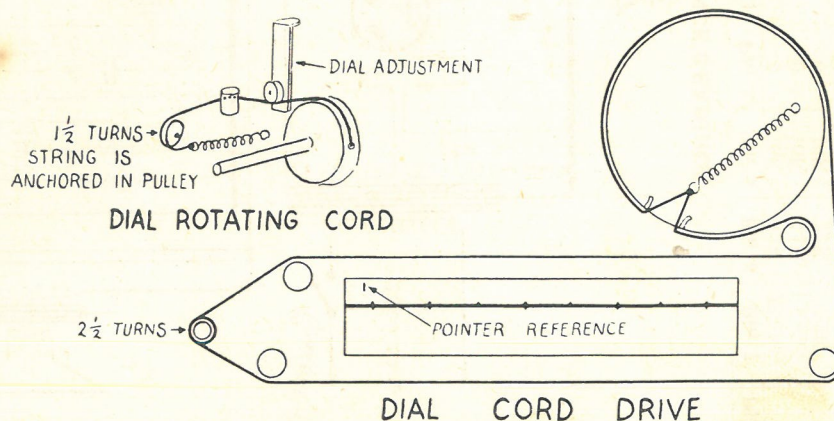
TUNING RANGE—Broadcast, 535-1625 K.C., Shortwave, 5.9 m.c.-19 m.c.

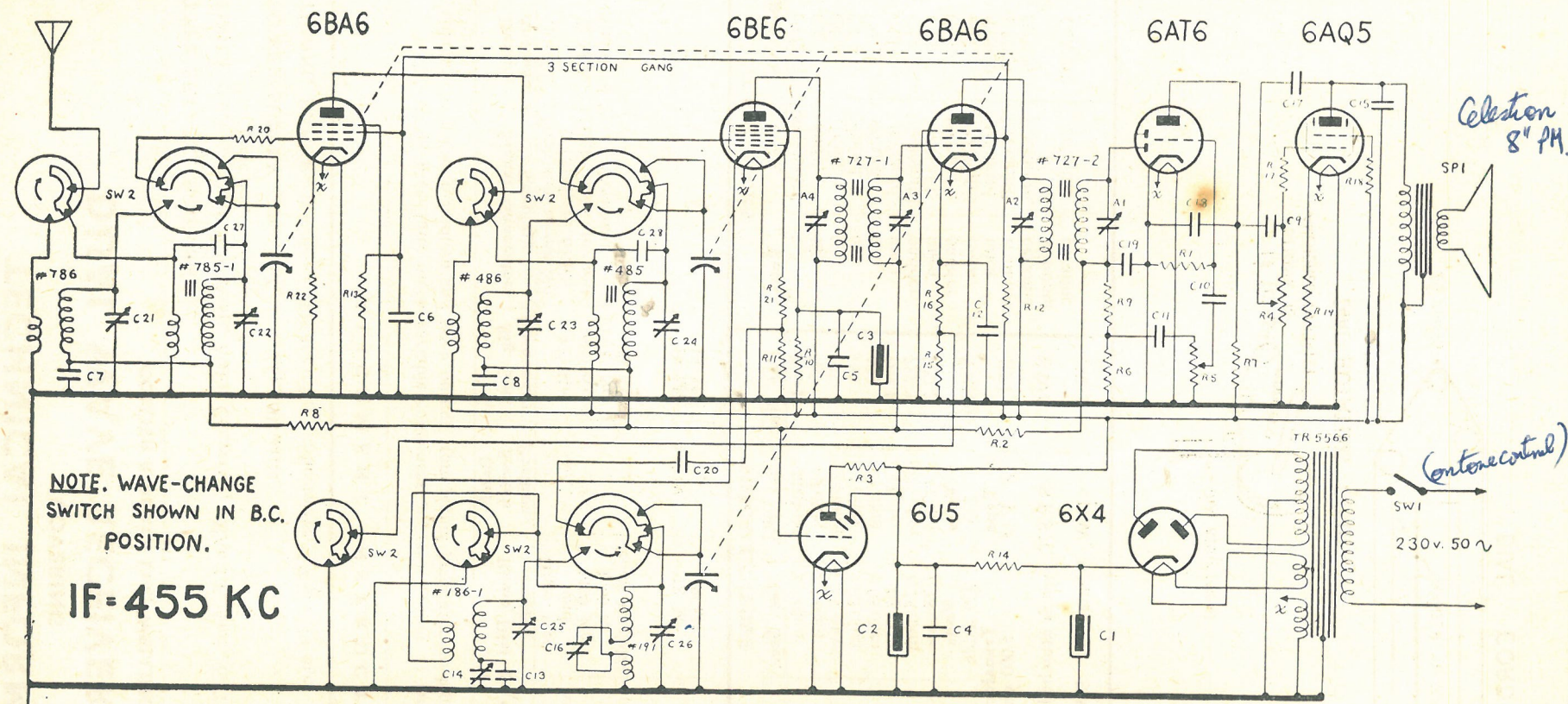
ALIGNMENT INSTRUCTIONS

To set pointer, fully mesh variable condenser and set pointer at last reference mark at left end of dial. Set volume control as maximum and keep output from signal generator no higher than necessary to obtain output reading.

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. 7 (grid) of 6BE6	455 Kc.	B.C.	High freq. end	Across voice coil	A1, A2, A3, A4, C26	Adjust for maximum output
R.M.A. Standard	High side to ant. Terminal	1400 Kc.	"	1400 Kc.	"	C24 & 22	"
"	"	1400 Kc.	"	1400 Kc.	"	C16	Recheck C26 at 1400 Kc. If C26 is changed recheck C16
"	"	600 Kc.	"	Rock Variable	"	"	Adjust for maximum output
"	"	18 Mc.	S.W.	18 Mc.	"	C25	
"	"	18 Mc.	"	18 Mc.	"	C23 & 21	

CAPACITORS			MISCELLANEOUS				RESISTORS		
Ref. No.	Cap.	Volts	Ref. No.	Res., Pri.	Res., Sec.		Ref. No.	Res.	Watts
C1-2	40+40mfd.	450	785-1	20 ohm	2.4 ohm		R1	10 meg.	½ watt
C3	8mfd.	450	485	69 ohm	2.4 ohm		R2-3	1 meg.	½ watt
C4-6	.1mfd.	600	191	.24 ohm	2.25 ohm		R4-5	.5 meg.	pot.
C7-8	.05mfd.	600	786	.4 ohm	.03 ohm		R6	.5 meg.	½ watt
C9-12	.01mfd.	600	486	1 ohm	.03 ohm		R7-8	.25 meg.	½ watt
C13	.0035mfd.	mica	186-1	.42 ohm	.03 ohm		R9	50,000 ohm	½ watt
C14	1,000mmfd.	padder	727-1	6.75 ohm	6.75 ohm		R10	25,000 ohm	1 watt
C15	.001mfd.	mica	727-2	6.75 ohm	6.75 ohm		R11	20,000 ohm	½ watt
C16	600mmfd.	padder		Volts	Volts	Volts	R12	15,000 ohm	2 watt
C17	.0005mfd.	mica	TR5566	230	350 aside	2 x 6.3	R13	15,000 ohm	1 watt
C18-20	.0001mfd.	mica		Type	Transformer		R14	1,500 ohm	5 watt
C21-24	3-30mmfd.	trimmer	SP1	8" P.M.	5,000 ohm		R15	1,500 ohm	½ watt
C25-26	3-30mmfd.	ceramic trimmer	SW1	S.P.S.T. switch attached to R4			R16-18	500 ohm	½ watt
C27-28	5mmfd.	ceramic	SW2	D.W. bandswitch SW5282			R19	270 ohm	1 watt
							R20	150 ohm	½ watt
							R21	100 ohm	½ watt
							R22	75 ohm	½ watt





NOTE. WAVE-CHANGE
SWITCH SHOWN IN B.C.
POSITION.

IF=455 KC

SCHEMATIC DIAGRAM MODEL 727

VOLTAGE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
R.F.	6BA6	0	0	0	6.3 A.C.	215 v.	85 v.	.8 v.	
Conv.	6BE6	-4 v.	0	0	6.3 A.C.	215 v.	90 v.	0	
I.F.	6BA6	0	0	0	6.3 A.C.	215 v.	85 v.	5.6 v.	
Det-AF.	6AT6	.4 v.	0	0	6.3 A.C.	0	0	72 v.	
Output	6AQ5	0	12 v.	0	6.3 A.C.	208 v.	215 v.	0	
Rect.	6X4	3 35 A.C.	0	325 v.	325 v.	0	335 A.C.	325 v.	
Eye	6U5	0	20 v.	0	215 v.	0	6.3 A.C.		

RESISTANCE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
R.F.	6BA6	1.8 meg.	0	0	0	16K	12K	75 ohm	
Conv.	6BE6	20K	0	0	0	16K	15K	1.5 meg.	
I.F.	6BA6	1.5 meg.	0	0	0	16K	12K	3.2K	
Det-AF.	6AT6	10 meg.	0	0	0	500K	Inf.	400K	
Output	6AQ5	Inf.	270 ohm	0	0	16K	16K	500K	
Rect.	6X4	315 ohm	Inf.	17K	17K	Inf.	320 ohm	17K	
Eye	6U5	0	1.17 meg	1.5 meg.	16K	0	0		

1. D.C. voltage measurements are at 2,000 ohm. per volt—A.C. voltage measured at 1,000 ohm per volt.
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to common negative. Bandswitch in B.C. position.

4. Nominal Tolerance on component value 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 readings in B+ circuits may vary widely according to the condition of filter capacitors.

first 102 parts to use AC min. values (of any make)