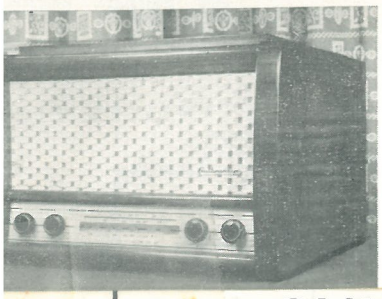


"BROADWAY" MODEL

Distributed by
H.W. CLARKE (N.Z.) LTD.

TECHNICAL INFORMATION

COVERING

GULBRANSEN BROADCAST RECEIVER

MANUFACTURED BY COLLIER & BEALE Ltd.

TYPE SET—A.C. Superheterodyne.
TUBES (Five)— 6BE6 Converter, 6BA6 I.F. Amp., 6AV6 Det.-A.F., 6AQ5 Power Output, 6X4 Rectifier.

POWER SUPPLY—230 v. A.C. Rating 36 watts.
TUNING RANGE—Broadcast, 535-1530 kc.

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	Band Switch Position	Radio Dial Setting	Output Meter	Adjust	Remarks
0.1 μfd.	High Side to pin No 7 (grid) of 6BE6	455 Kc.	BC	High freq. end	Across voice coil	A1, A2, A3, A4,	Adjust for maximum output
R.M.A. Standard	High side to ant. terminal	1400 Kc.	,,	1400 Kc.	,,	C18	,, ,,
		1400 Kc.	,,	1400 Kc.	,,	C19	,, ,,

CAPACITORS

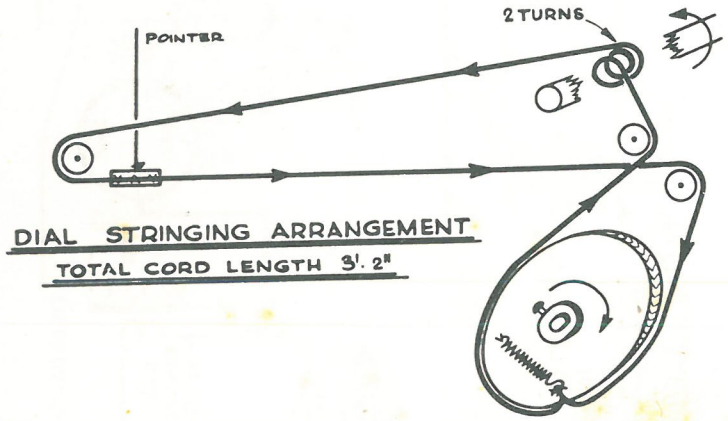
Ref. No.	Cap.	Volts
C1-A-B	40 μfd.	450
C1-C	20 ,,	,,
C2	0.1 ,,	350
C3-4	0.05 ,,	,,
C5	0.02 ,,	,,
C6	0.01 ,,	Ceramic
C7	0.01 ,,	,,
C8	0.005 ,,	350
C9-10	0.005 ,,	Ceramic
C11	0.003 ,,	Mica
C12	362 μμfd.	,,
C13	500 ,,	,,
C14	250 ,,	,,
C15-16	100 ,,	ceramic
C17	50 ,,	
C18-19	3-30 ,,	trimmer
C20	5 ,,	ceramic

MISCELLANEOUS

Ref. No.	Res., Pri.	Res., Sec.	
784	20 ohm	2.7 ,,	BC
187	0.25 ohm	2.44 ,,	BC
PE1001	8.8 ,,	4.8 ,,	IF
PE1001	8.8 ,,	4.8 ,,	IF
	Volts	**Volts**	**Volts**
TR5561	230	250 aside	6.3
	Type	**Transformer**	
SP1	5-7H	5000 ohm	
SW1	S.P.S.T. switch attached to R4		
CV	Polar C90-03/1 (swing 351 μμfd.)		
PL	6.5 v., 0.25 amp. tub. M.E.S. lamp		

RESISTORS

Ref. No.	Res.	Watts
R1	10 meg.	½
R2	2 ,,	,,
R3	500K ohm	Pot
R4	500K ,,	,,
R5	500K ,,	½
R6	100K ,,	,,
R7	100K ,,	,,
R8	100K ,,	,,
R9	50K ,,	,,
R10	20K ,,	,,
R11	10K ,,	,,
R12	10K ,,	,,
R13	10K ,,	1
R14	1500 ,,	5
R15	500 ,,	½
R16	300 ,,	1
R17	2·3 ,,	,,



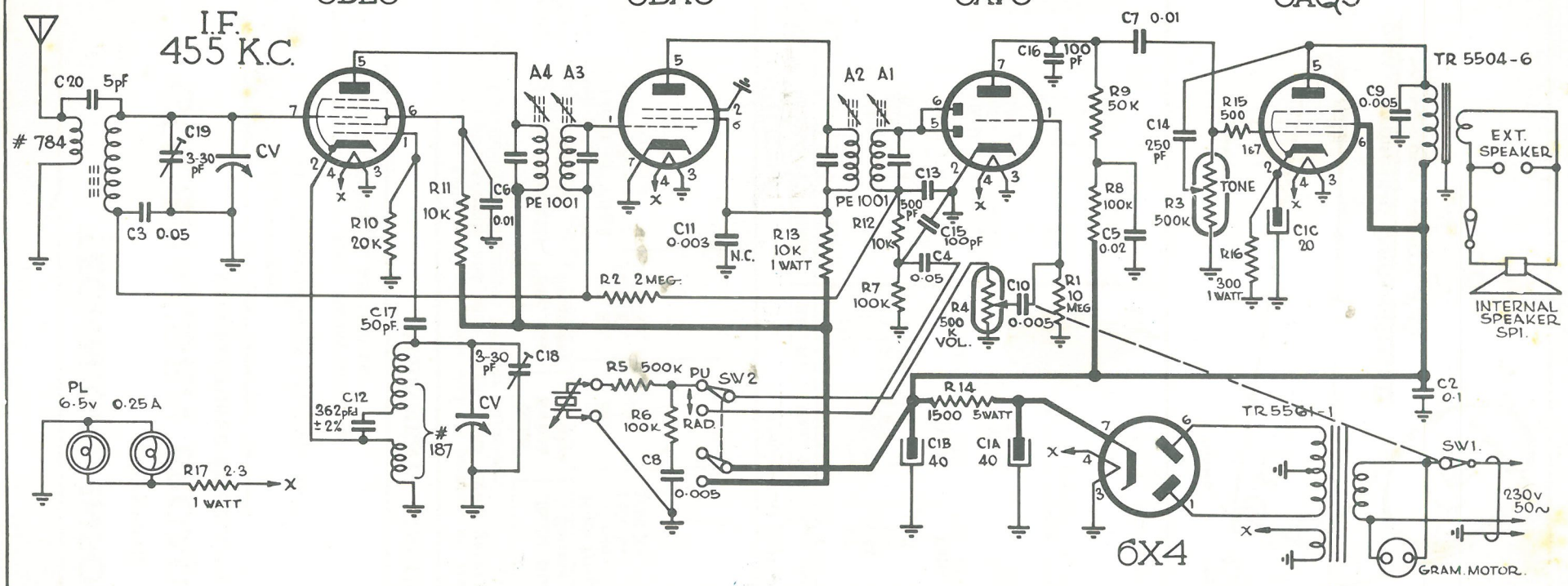
DIAL STRINGING ARRANGEMENT
TOTAL CORD LENGTH 3'. 2"

BASS COMPENSATION

Bass compensation has been achieved by the combination of values chosen for the plate-feed circuit (R8 R9 C5) of the 6AV6 stage.

The change of reactance of C5 with frequency, modifies the effective plate-load impedance presented to the tube.

This results in a greater gain as the frequency is reduced.



SCHEMATIC DIAGRAM MODEL "BROADWAY"

VOLTAGE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
Conv.	6BE6	—	—	—	6	162	90	—	—
I.F.	6BA6	—	—	—	6	65	65	—	—
Det-A.F.	6AV6	—	—	—	6	—	—	90	—
Output	6AQ5	—	8	—	6	150	165	—	—
Rect.	6X4	230 A.C.	—	—	6	—	230 A.C.	245	—

RESISTANCE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
Conv.	6BE6	10K.		—	—	500K	510K	2.1 meg	
I.F.	6BA6	2.1 meg.	—			510K	510K		
Det-A.F	6AV6	10 ,,	—	—	—	110K	110K	650K	
Output	6AQ5	500 6K	300	—	—	500K	500K	500.6K	
Rect.	6X4	295	—	—	—		295	500K	

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 tolerance 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.

BROADWAY

June 1957

uses special gang having SLF characteristics see leaflet attached