

TECHNICAL INFORMATION

COVERING

BROADCAST RECEIVER TYPE 5152

COLLIER & BEALE Ltd. WELLINGTON.

TYPE SET.—A.C. Superhetrodyne. Moulded Bakelite Cabinet.

TUBES (Five).—6BE6 Converter, 6BA6 I.F. Amp., 6VA6 Det.-A.F., 6AQ5 Power Output, 6X4 Rectifier.

POWER SUPPLY.—230v. A.C. Rating 27 watts.

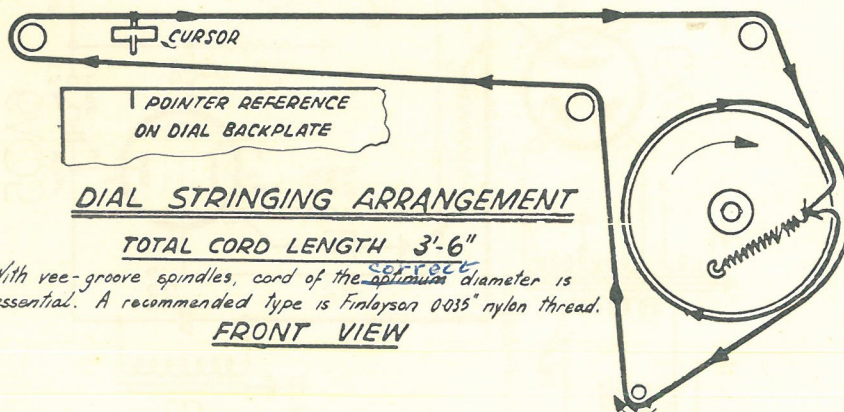
TUNING RANGE.—Broadcast 535-1530 K.C.

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 reading.

Dummy Antenna	Signal Generator Coupling	Sig. Gen. Frequency	Band Switch Position	Radio Dial Setting	Output Meter	Adjust	Remarks
0.1 μ fd.	High side to pin 7 (grid) 6BE6	455 Kc.	—	High freq. end	Across voice coil	A1, A2, A3, A4,	Adjust for maximum output
R.M.A. Standard	High side to ant. term.	1400 Kc.	—	1400 Kc.	"	C18	" "
"	"	1400 Kc.	—	1400 Kc.	"	C19	" "
"	"	600 Kc.	—	Rock Variable	"	C13	" "

CAPACITORS			MISCELLANEOUS			RESISTORS		
Ref. No.	Cap.	Volts	Ref. No.	Res., Pri.	Res., Sec.	Ref. No.	Res.	Watts
C1	50 μ fd.	250	784	20 ohm	2.7 ohm	R1	10 meg	$\frac{1}{2}$ watt
C2	50 "	"	187	0.24 "	2.44 "	R2	2 meg	$\frac{1}{2}$ watt
C3	10 "	"	P.E.52	6.5 "	6.5 "	R3	500K ohm	$\frac{1}{2}$ watt
C4	25 "	25	P.E.52	6.5 "	6.5 "	R4	500K ohm	Pot
C5	0.25 "	500				R5	100K ohm	$\frac{1}{2}$ watt
C6	0.1 "	150		Volts	Volts	R6	50K ohm	$\frac{1}{2}$ watt
C7	0.05 "	500	TR5571-3	230	177/177	R7	50K ohm	$\frac{1}{2}$ watt
C8	0.02 "	"				R8	20K ohm	$\frac{1}{2}$ watt
C9-11	0.01 "	"		Type	Transformer	R9	5K ohm	$\frac{1}{2}$ watt
C12	0.004 "	mica	SP1	5" PM	5000 ohm	R10	3K ohm	1 watt
C13	600 μ fd.	padder	SW1	SPST	Switch attached to R4	R11	750 ohm	$\frac{1}{2}$ watt
C14	250 "	mica	SW2	SPDT	Slide switch	R12	500 ohm	$\frac{1}{2}$ watt
C15	100 "	"	CV.	Polar	C9002/1 351 μ fd swing	R13	300 ohm	$\frac{1}{2}$ watt
C16-17	50 "	"	P.L.	6.3v. lamp	0.3 amp Tub. M.E.S.	R14	150 ohm	$\frac{1}{2}$ watt
C18-19	3-30 "	trimmer				R15	0.8 ohm	1 watt
C20-21	5 "	ceramic						

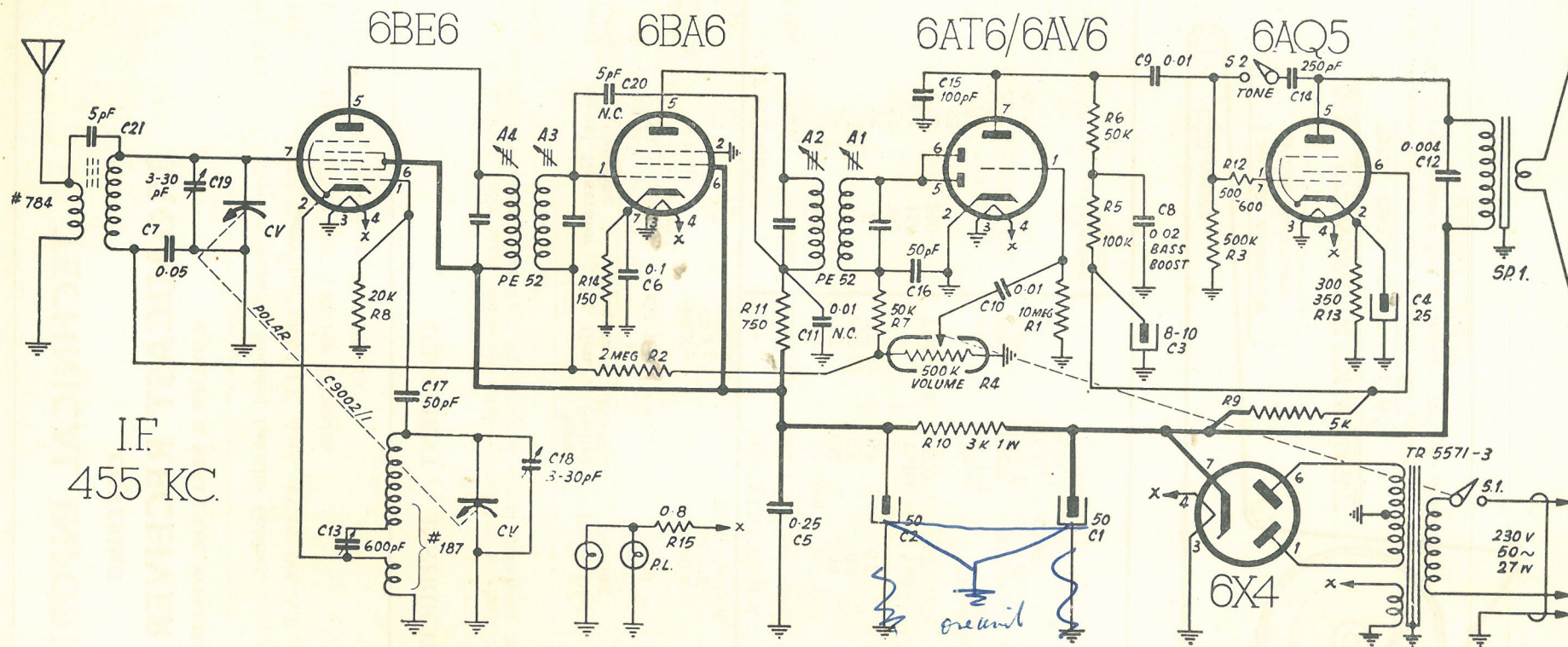


BASS COMPENSATION

Bass compensation has been achieved by the combination of values chosen for the plate-feed circuit (R5, R6, C8) of the 6AV6 stage.

The change of reactance of C8, 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 5152

VOLTAGE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
Conv.	6BE6	—2	0	—	6.25 ac	100	100	0	—
I.F.	6BA6	0	—	—	"	95	100	1.7	—
Det.-A.F.	6AV6	0	—	—	"	0	0	80V	—
Output	6AQ5	0	7.5	—	"	158	155	0	—
Rect.	6X4	150 ac	—	—	"	—	150 ac	168	—

1. D.C. voltage measurements are at 2,000 ohms per volt—A.C. voltage measured at 1,000 ohms per volt.
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to common negative (chassis).

RESISTANCE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
Conv.	6BE6	20K	0.25	—	—	500K	500K	2.5 meg	—
I.F.	6BA6	2.5 meg	—	—	—	500K	500K	150	—
Det.-A.F.	6AT6	10	—	—	—	550K	550K	650K	—
Output	6AQ5	500K	300	—	—	500K	500K	500K	—
Rect.	6X4	200	—	—	—	—	200	500K	—

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 the condition of filter capacitors.

