

TECHNICAL INFORMATION

COVERING

BROADCAST RECEIVER TYPE 5151

COLLIER & BEALE Ltd. WELLINGTON.

'DANDY'
Oct 1952

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

TUBES (Five)—*ECH42 Converter, 6BA6 I.F. Amp., 6AT6 Det.-A.F., 6AQ5 Power Output, 6X4 Rectifier.

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

TUNING RANGE.—Broadcast 535-1530 Kc/s.

ALIGNMENT INSTRUCTIONS

To set pointer, fully mesh variable 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. 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 μ fd.	High side to pin No. 6 (grid) of ECH42.	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. term.	1400 Kc.	"	1400 Kc.	"	C20	" "
"	"	1400 Kc.	"	1400 Kc.	"	C21	" "
"	"	600 Kc.	"	Rock Gang	"	C15	" "

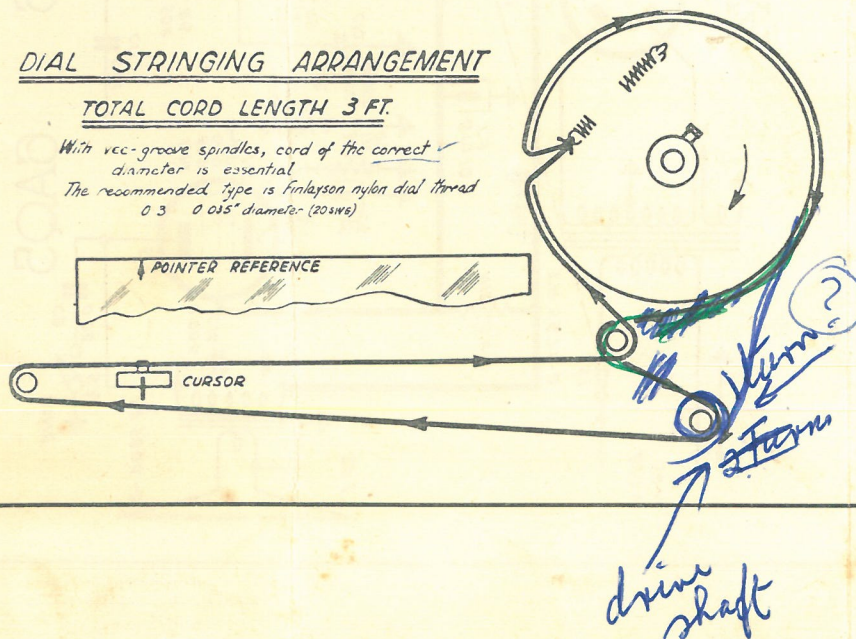
CAPACITORS			MISCELLANEOUS				RESISTORS		
Ref. No.	Cap.	Volts	Ref. No.	Res., Pri.	Res., Sec.		Ref. No.	Res.	Watts
C1-2	50+50 μ fd.	250	PE52	6.5 ohm	6.5 ohm	IF	R1	10 meg.	$\frac{1}{2}$
C3	8 "	"	PE52	6.5 "	6.5 "	"	R2	2 "	"
C4	25 "	25	784	20 "	2.7 "	BC	R3	500K "	"
C5	0.25 "	400	189	0.82 "	2.7 "	"	R4	500K "	Pot.
C6-7	0.1 "	150					R5	100K "	$\frac{1}{2}$
C8	0.05 "	400					R6-8	50K "	"
C9	0.03 "	"	TR5571-2	Volts 230	Volts 175/175	Volts 6.3	R9	20K "	"
C10	0.02 "	"					R10	15K "	"
C11-14	0.01 "	"					R11-12	3K "	"
C15	0.004 "	"					R13	3K "	$\frac{1}{2}$
C16	600 μ fd.	Padder	SP1	4X6 PM	5000 ohm	Transformer	R14	500 "	$\frac{1}{2}$
C17	500 "	Mica	S1	SPST attached to R4			R15	300 "	$\frac{1}{2}$
C18	100 "	"	S2	SPST slide switch			R16	150 "	$\frac{1}{2}$
C19-20	50 "	"	CV	Polar C90-02/1 (swing 351 μ fd.)			R17	150 "	"
C21-22	3-30 "	Trimmer	P.L.	6.5, 0.3 amp. M.E.S. tub. lamp			R18	50 "	"
C23-24	5 "	Ceramic							

*Some sets use ECH21.

DIAL STRINGING ARRANGEMENT

TOTAL CORD LENGTH 3 FT.

With vcc-groove spindles, cord of the correct diameter is essential. The recommended type is Finlayson nylon dial thread 0.3 0.035" diameter (2031WS)



BASS COMPENSATION

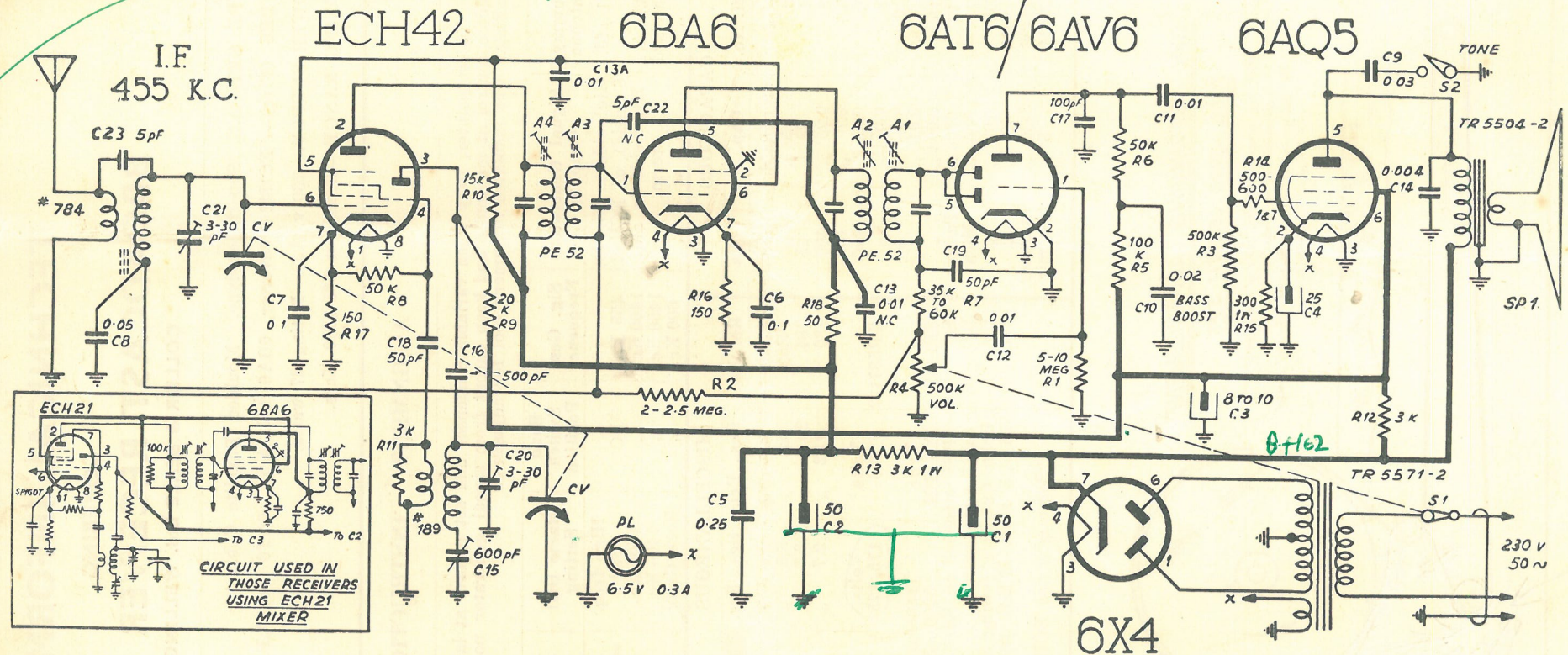
Bass compensation has been achieved by the combination of values chosen for the plate feed circuit (R5, R6, C10) of the 6AV6 stage.

The change of reactance of C10, with frequency, modifies the effective plate load impedance presented to the tube.

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

yes but with increased distortion

use ECH21 ← S/N 13259



SCHEMATIC DIAGRAM MODEL 5151

VOLTAGE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
Conv.	ECH42	6.1 ac	128	55	—6	70	0	1.0	—
I.F.	6BA6	0	—	—	6.1 ac	126	70	0.8	—
Det.-A.F.	6AT6	0	—	—	6.1 „	0	0	88	—
Output	6AQ5	0	7.5	—	6.1 „	150	147	0	—
Rect.	6X4	150 ac	—	—	6.1 „	—	150 ac	162	—

RESISTANCE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
Conv.	ECH42	—	503K	525K	50K	515K	2.5 meg.	150	—
I.F.	6BA6	2.5 meg.	—	—	—	503K	515K	150	—
Det.-A.F.	6AT6	10 meg.	—	—	—	550K	550K	650K	—
Output	6AQ5	500K	300	—	—	500K	503K	500K	—
Rect.	6X4	240	—	—	—	—	240	500K	—

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 chassis.

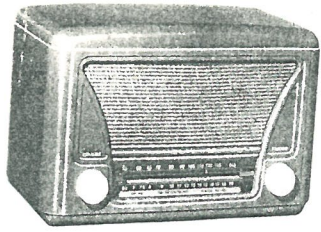
4. Nominal tolerance on component values make possible a variation of + 10% in voltage and resistance readings.
5. Volume control at maximum, no signal applied for voltage measurements.
6. Resistance readings in B+ circuits may vary widely according to the condition of filter capacitors.

Designed by R.J. Bligh
 according to letter **5151 "DANDY"**
 from Martin Knibbe & I.H.S.

L21-176

Also available as a tablegram, model 5151RG "GEN" e 44-10
 "ROYAL" e 49-10
 wphanga

175v side on previous page



MODEL 5151 IN BAKELITE CABINET £
also DAVIDY DEAL 5251
DW £24.15.

