

WELLINGTON

'Playtime' Portable

MODEL 5401

DESCRIPTION

A.C. BATTERY RADIO

Five valve broadcast portable radio
operating from either mains or dry batteries.

VALVES

1T4 R.F. Amplifier
1R5 Converter
1T4 I.F. Amplifier
1B5 Det. & Audio Amplifier
3V4 Output valve

SPEAKER:

Celestion K4600

POWER SUPPLY:

230 volts 50 cycles or Eveready battery
block type 753

POWER CONSUMPTION:

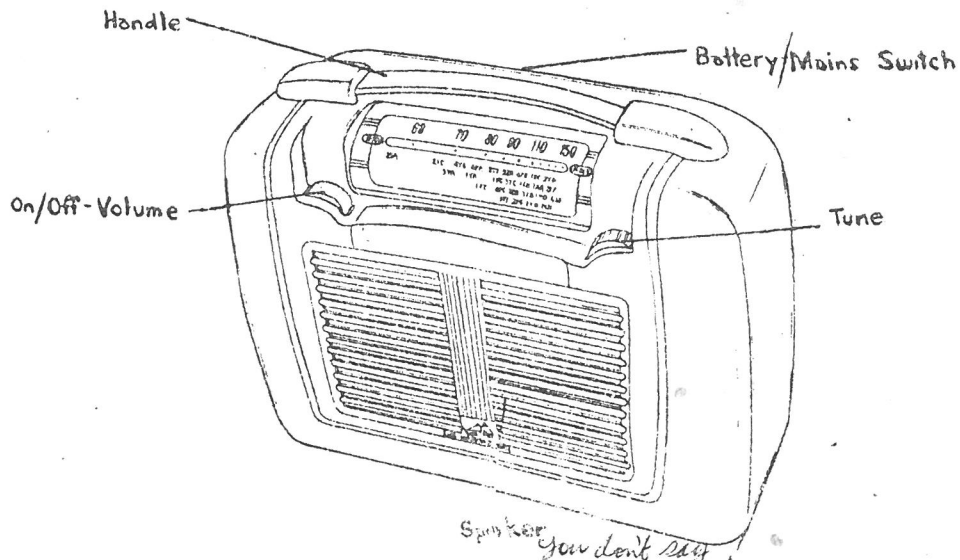
Mains 18 watts
Battery H.T. 20 m.a. L.T. 52 ma

FREQUENCY RANGE:

Broadcast 535 Kc/s - 1700 Kc/s
I.F. 455 Kc/s

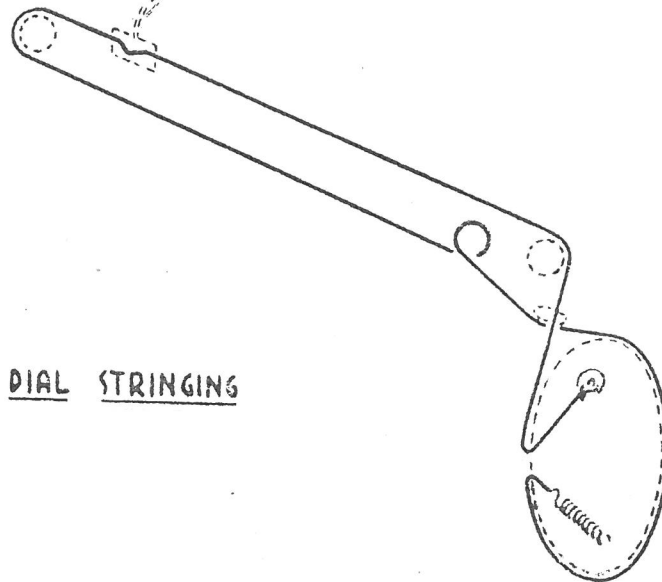
CABINET:

Moulded plastic in a multi-colour range.



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DIAL STRINGING

ALIGNMENT

I.F. ALIGNMENT:

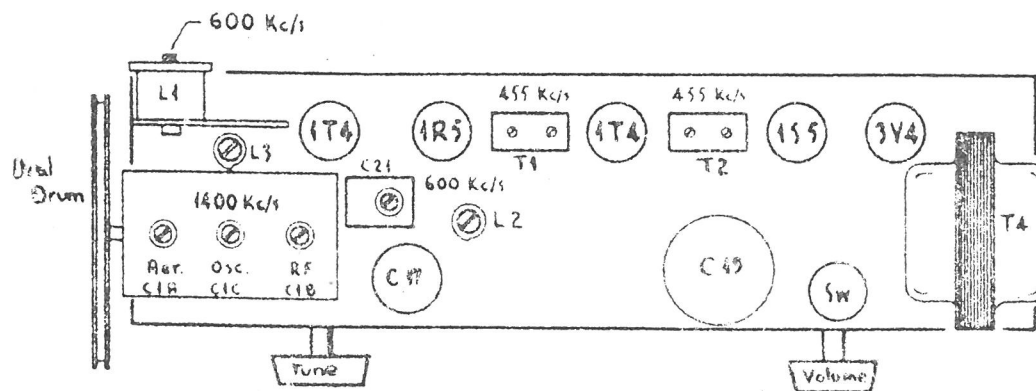
Tune the receiver to the extreme low frequency end of the band. Set output meter to 50 milliwatts and connect across the voice coil of the speaker, then turn the volume control fully clockwise. Connect signal generator to receiver via 0.1 condenser. Set signal generator to I.F. frequency, then proceed as shown in operation 1 of alignment chart shown below.

R.F. ALIGNMENT:

Set pointer to reference mark at left hand end of dial, then connect signal generator via a standard dummy aerial, and proceed as in operations 2 and 3 of alignment chart below.

<u>Feed Sig.Gen to</u>	<u>Sig.Gen Setting</u>	<u>Radio Dial Setting</u>	<u>Adjust</u>	<u>Adjust for</u>
1.C1 front gang stator	455 Kc/s	535 Kc/s	T1 & T2	Max output
2.Aerial lead	600 Kc/s	600 Kc/s	C21	Max output
3.Aerial lead	1400 Kc/s	1400 Kc/s	C1c first then C1b, C1a	Max output

NOTE: The slugs in the Aerial and Oscillator Coils should only be adjusted when calibration in centre portion of dial scale is out.



VALVE & TRIMMER LAYOUT

CIRCUIT ANALYSIS Voltage Readings

<u>Valve</u>	<u>No.</u>	<u>Pin 1</u>	<u>Pin 2</u>	<u>Pin 3</u>	<u>Pin 4</u>	<u>Pin 5</u>	<u>Pin 6</u>	<u>Pin 7</u>
1T4	1	1.4v	84v	60v	-	-	.2	2.7v
1R5	2	2.7v	60v	60v	9v	-	1v	4.3v
1T4	3	4.3v	85v	60v	-	-	1v	6v
1S5	4	0	-	0	24v	30v	0	1.4v
3V4	5	6v	85v	88v	-3½	25v	1.2v	9v

RESISTANCE READINGS

<u>Valve</u>	<u>No.</u>	<u>Pin 1</u>	<u>Pin 2</u>	<u>Pin 3</u>	<u>Pin 4</u>	<u>Pin 5</u>	<u>Pin 6</u>	<u>Pin 7</u>
1T4	1	300ohm	50k	50k	-	-	Inf	500
1R5	2	500ohm	50k	50k	50k	-	0	1000ohm
1T4	3	1000ohm	50k	50k	-	-	Inf	1000ohm
1S5	4	0	-	Inf	Inf	Inf	Inf	350ohm
3V4	5	1000ohm	50k	50k	20ohm	1300	Inf	50k

PARTS LIST

model 5401

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<u>Item No:</u>	<u>Part No:</u>	<u>Description:</u>
C1 C1 A,B,C C2-11-22 C3-6-10 C4-5-9-13-16-18 C7 C8 C12-15 C14-23 C17 C20 C21	1500-H4 1500-R 1500-A7 1500-J1 1500-C3 1500-H 1500-B5 1500-E 1500-I6 1500-A3 1500-O9	Plessey 3R Gang Trimmers on gang 100 Pfd Silver Mica .05 350wv (PE 315/1) .1 350wv 5 Pfd Ceramicon 10 Pfd Ceramicon (PE 311) .01 350wv 50 Pfd Mica 250 Mfd 15wv 20 VP 002 Mica Padder TP 11D
R1 R2 R3 R4-23 R5-12 R6-14 R7 R8-20 R9 R10 R11 R13 R15-17 R16 R18 R19 R21 R22	1300-I3 1300-B3 1300-H7 1300-G5 1300-A8 1300-J9 1300-P2 1300-C4 1300-I8 1300-G2 P0 284 1300-K1 1300-I8 1300-E8 1300-A2 TH 303 1300-C8 1300-D8	500K $\frac{1}{2}$ W 500 ohm $\frac{1}{2}$ W 270K $\frac{1}{2}$ W 100K $\frac{1}{2}$ W 400 ohm $\frac{1}{2}$ W 5 Meg $\frac{1}{2}$ W 6.8K $\frac{1}{2}$ W 1K $\frac{1}{2}$ W 3.3 Meg $\frac{1}{2}$ W 50K $\frac{1}{2}$ W $\frac{1}{2}$ Meg pot d.p. with switch 10 Meg $\frac{1}{2}$ W 1 Meg $\frac{1}{2}$ W 47K $\frac{1}{2}$ W 300 ohm $\frac{1}{2}$ W Brimistor CZ 3 2K 10w WW 10K 1w
V1 V2 V3 V4 V5	1400-L8 1400-L5 1400-L8 1400-C7 1400-M4	1T4 1R5 1T4 155 3V4
Loop L1 L2 L3	AE 1538 CO 1360 CO 1359 CO 1361	Loop Aerial Aerial Coil R.F. Coil Osc. Coil
T1 T2 T3 T4	TR 1162 TR 1162 TR 1163 TR 1356	I.F. Transformer I.F. Transformer Output Transformer Power Transformer
	DR 93 SC 1362 SP 663	Dial Drum Dial Scale K46Q0 Speaker

