



"DERBY"

MODEL 496D.

HIS MASTER'S VOICE (N.Z.) LTD.
WELLINGTONDUAL WAVE RECEIVER MODEL 496D.
SERVICE DATA SHEET

TYPE SET—A.C. Superhetrodyne.

TUBES (Six)—EF41 R.F. Amp., ECH41 Converter, EF41 I.F. Amp., EBC41 Det.-A.F., EL41 Power Output, 6X4 Rectifier.

POWER SUPPLY—230 v. A.C. Rating, 50 watts.

TUNING RANGE—Broadcast, 535-1500 K.C., Shortwave, 6-20 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 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 Couplin~	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 ECH41	455 Kc.	B.C.	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.	"	C26	" "
"	"	1400 Kc.	"	1400 Kc.	"	C27 & 28	" "
"	"	600 Kc.	"	Rock Variable	"	C22	" "
"	"	18 Mc	S.W.	18 Mc.	"	C29	" "
"	"	18 Mc	"	18 Mc.	"	C30 & 31	" "
"	"	1400 Kc.	B.C.	1400 Kc.	"	C27 & 28	" "

CAPACITORS

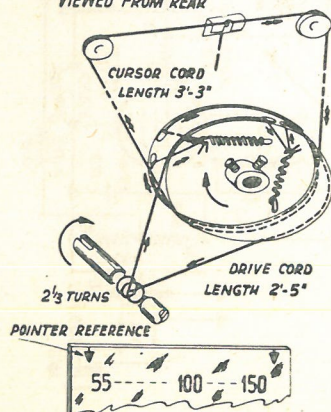
Ref. No.	Cap.	Volts
C1-2	40+40 μ fd.	450
C3	25 μ fd.	35
C4	8 μ fd.	450
C5	8 μ fd.	450
C6-11	0.1 μ fd.	400
C12-15	0.05 μ fd.	400
C16	0.01 μ fd.	400
C17	0.01 μ fd.	400
C18	0.01 μ fd.	400
C19	0.002 μ fd.	mica
C20	2000 μ fd.	padder
C21	0.001 μ fd.	mica
C22	600 μ fd.	padder
C22A	500 μ fd.	mica
C23-23A	100 μ fd.	mica
C24-24A	100 μ fd.	mica
C25	50 μ fd.	mica
C26-31	3-30 μ fd.	trimmer
C32	5 μ fd.	ceramic
C33	1 μ fd.	gimmick

MISCELLANEOUS

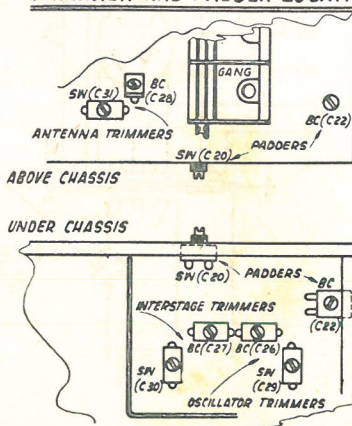
Ref. No.	Res., Pri.	Res., Sec.	Volts	Volts	Volts
786	0.4 ohm	0.03 ohm			
785	17.5 ohm	2.57 ohm			
486-1	—	0.03 ohm			
485-1	—	2.4 ohm			
186	0.45 ohm	0.03 ohm			
185-1	2.1 ohm	2.5 ohm			
729-1	6.75 ohm	6.75 ohm			
729-2	6.75 ohm	6.75 ohm			
CH957	52 ohm				
TR5566	230	350 aside	230	350	2 x 6.3
SP1	6 $\frac{1}{2}$ in. P.M. speaker				
TR5509	Output trans. 7,000 ohm—3 ohm				
SW1-SW4	4 Pole 2-position SW5283 S.P.				
SW5	S.P.S.T. switch attached to R4				

RESISTORS

Ref. No.	Res.	Watts
R1	10 meg	$\frac{1}{2}$ watt
R2	5 meg	$\frac{1}{2}$ watt
R3	1 meg	$\frac{1}{2}$ watt
R4-5	500K ohm	pot.
R6-7	500K ohm	$\frac{1}{2}$ watt
R8-10	240K ohm	$\frac{1}{2}$ watt
R11	50K ohm	$\frac{1}{2}$ watt
R12	50K ohm	1 watt
R13	47K ohm	2 watt
R14	27K ohm	2 watt
R15	25K ohm	$\frac{1}{2}$ watt
R16	20K ohm	$\frac{1}{2}$ watt
R17-17A	5K ohm	$\frac{1}{2}$ watt
R18	1.5K ohm	5 watt
R19	1K ohm	$\frac{1}{2}$ watt
R20	750 ohm	$\frac{1}{2}$ watt
R21	500 ohm	$\frac{1}{2}$ watt
R22	300 ohm	$\frac{1}{2}$ watt
R23-24	200 ohm	$\frac{1}{2}$ watt
R25	150 ohm	1 watt

DIAL STRINGING ARRANGEMENT
VIEWED FROM REAR

TRIMMER AND PADDER LOCATIONS



ALIGNMENT

Simplification of the wave-switching has been achieved in this receiver by special series arrangements of broadcast and short-wave coils.

Attention is directed to the need of re-peaking the BC interstage and antenna trimmers after finishing the normal SW alignment, as resonant circuits of the two bands are partly interdependent.

Should it prove necessary to alter the SW oscillator trimmer, this change will effect the BC oscillator frequency, necessitating realignment.

C. & B. LTD.

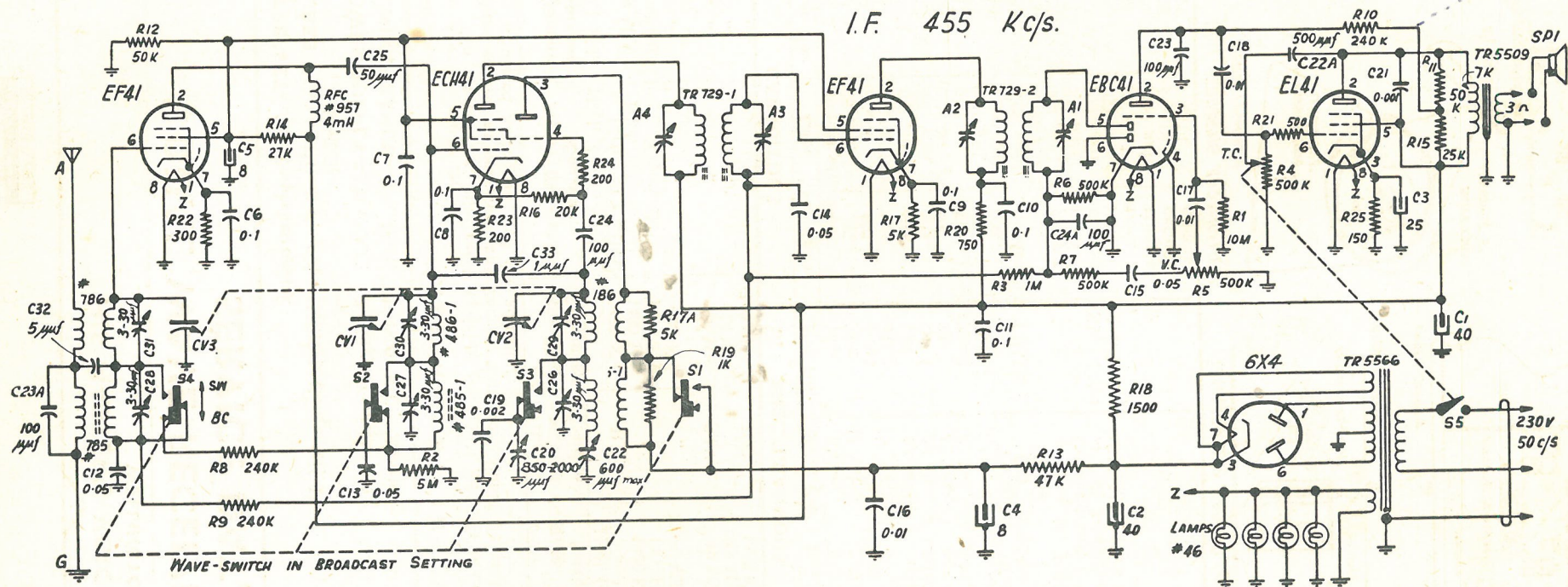
500/3/50/502

1950 496

Note high value
of IF transformer = 5K

me. 2K 002
11-14

496D



SCHEMATIC DIAGRAM MODEL 496D.

VOLTAGE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
R.F.	EF41	6.3 AC	265	2.2	2.2	92	0	2.2	—
Conv.	ECH41	6.3 AC	265	105	—2	92	0	2.2	—
I.F.	EF41	—	265	5.4	5.4	92	0	5.4	6.3 AC
Det.-AF.	EBC41	—	70	0	—	0	—	—	6.3 AC
Output Rect.	EL41	—	245	7	0	265	0	7	6.3 AC
	6X4	330 AC	—	325	325	—	330 AC	325	—

RESISTANCE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
R.F.	EF41	—	250K	300 ohm	300 ohm	50K	1.3 meg	300 ohm	—
Conv.	ECH41	—	250K	24K	24K	50K	1.4 meg	200 ohm	—
I.F.	EF41	—	250K	5K	5K	50K	1.2 meg	5K	—
Det.-AF.	EBC41	—	250K	10 meg	—	0.5 meg	—	—	—
Output Rect.	EL41	—	250K	150 ohm	0.5 meg	250K	0.5 meg	150 ohm	—
	6X4	230 ohm	—	250K	250K	—	230 ohm	250K	—

- D.C. voltage measurements are at 2,000 ohm. per volt—A.C. voltage measured at 1,000 ohm per volt.
- Socket connections are shown as bottom views.
- Measured values are from socket pin to common negative. Bandswitch in B.C. position.
- Nominal Tolerance on component value make possible a variation of $\pm 10\%$ in voltage and resistance readings.
- Volume control at maximum, no signal applied for voltage measurements.
- Resistance readings in B+ circuits may vary widely according to the condition of filter capacitors.



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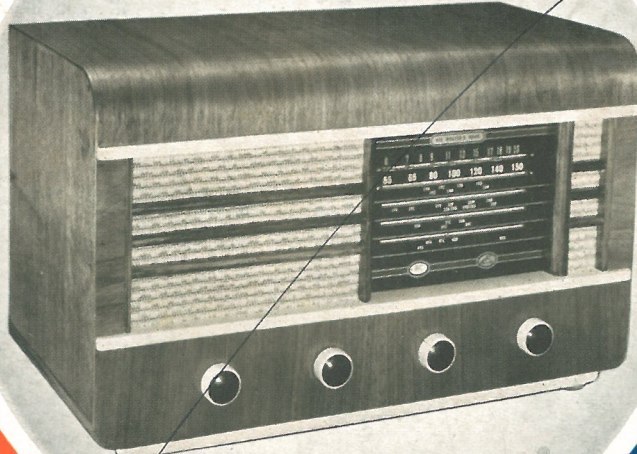
H.M.V.



THE GRAMOPHONE COMPANY LTD.
HAYES, MIDDLESEX, ENGLAND
BY APPOINTMENT
SUPPLIERS OF GRAMOPHONES, RECORDS,
RADIO & TELEVISION APPARATUS
TO HIS MAJESTY THE KING



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HAYES, MIDDLESEX, ENGLAND
BY APPOINTMENT
SUPPLIERS OF GRAMOPHONES, RECORDS,
RADIO & TELEVISION APPARATUS
TO HER MAJESTY QUEEN MARY



old model

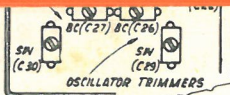
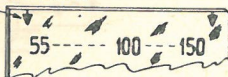
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"DOVER" 6 VALVE DUAL WAVE (MODEL 506DW) 1950

DERBY 6
BOURNEMOUTH 6VBC 496

496D 1949

POINTER REFERENCE



496D.

F., EL41 Power Output, 6X4

mark at left end of dial. Set
necessary to obtain output reading.

Adjust	Remarks
A2, A4.	Adjust for maximum output
C26 & 28	" "
C22	" "
C29	" "
30 & 31	" "
7 & 28	" "

RESISTORS

Ref. No.	Res.	Watts
	10 meg	½ watt
	5 meg	½ watt
	1 meg	½ watt
-5	500K ohm	pot.
-7	500K ohm	½ watt
-10	240K ohm	½ watt
1	50K ohm	½ watt
2	50K ohm	1 watt
3	47K ohm	2 watt
4	27K ohm	2 watt
5	25K ohm	½ watt
6	20K ohm	½ watt
7-17A	5K ohm	½ watt
8	1.5K ohm	5 watt
9	1K ohm	½ watt
10	750 ohm	½ watt
11	500 ohm	½ watt
12	300 ohm	½ watt
13-24	200 ohm	½ watt
25	150 ohm	1 watt

ALIGNMENT

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1950 4