



"CANTERBURY"
MODEL 498 A.W.

HIS MASTER'S VOICE (N.Z.) LTD.
WELLINGTON

(CdB)

ALL WAVE RECEIVER MODEL 498 A.W. SERVICE DATA SHEET

TYPE SET.—A.C. Superhetrodyne Five-position Tone Control.

TUBES (eight)—7B7 R.F. Amp., 7S7 Converter, 7B7 I.F. Amp., 7C6 Det.-A.F., 7B7 A.F. Equalizer, 7C5 Power Output, 7Y4 Rectifier, 6U5 Tuning Indicator.

POWER SUPPLY—230 v. A.C. Rating, 62 watts.

TUNING RANGE—Broadcast, 535-1630 K.C., Medium Wave, 3.2-8.2 Mc., Shortwave, 7.5-22.3 Mc.

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 readings.

Dummy Antenna	Signal Generator Coupling	Sig. Gen. Frequency	Band Switch Position	Radio Dial Setting	Output Meter	Adjust	Remarks
0.1 μ d.	High side to pin No. 6 (grid) of 7S7	455 Kc.	B.C.	High freq. end	Across voice coil	A1, A2, A3, A4, C41	Adjust for maximum output
R.M.A. Standard	High side to ant. Terminal	1400 Kc.	"	1400 Kc.	"	C38 & C35	" "
"	"	1400 Kc.	"	1400 Kc.	"	C29	" "
"	"	600 Kc.	"	Rock Variable	"	C42	" "
"	"	7.5 Mc.	M.W.	7.5 Mc.	"	C39 & C36	" "
"	"	7.5 Mc.	"	7.5 Mc.	"	C43	" "
"	"	20 Mc.	S.W.	20 Mc.	"	C40 & C37	" "
"	"	20 Mc.	"	20 Mc.	"	"	" "

CAPACITORS			MISCELLANEOUS				RESISTORS		
Ref. No.	Cap.	Volts	Ref. No.	Res., Pri.	Res., Sec.		Ref. No.	Res.	Watts
C1	40 μ d.	450	785	17.5 ohm	2.57 ohm	Broadcast	R 1	10 meg.	$\frac{1}{2}$
C2	40 "	"	485	69 ohm	2.4 ohm	"	R 2	5 "	"
C3	25 "	35	185-1	2.1 ohm	2.5 ohm	"	*R 3	2 "	"
C4	25 "	"	716	0.23 ohm	0.028 ohm	Short Wave	R 4	1 "	"
C5	10 "	450	416	0.44 ohm	0.028 ohm	"	R 5	0.5 "	Pot.
C6	10 "	"	116	0.47 ohm	0.025 ohm	"	R6-7	0.5 "	$\frac{1}{2}$
C7	8 "	"	715	0.63 ohm	0.14 ohm	Med. Wave	R8-10	250K ohm	"
C8-13	0.1 "	600	415	1 ohm	0.14 ohm	"	*R11	100K	"
C14-18	0.05 "	"	115	0.58 ohm	0.14 ohm	"	R12-13	75K	"
C19	0.03 "	"	839-1	7 ohm	7 ohm	I.F.T.	R14	50K	"
C20-21	0.01 "	"	839-2	7 ohm	7 ohm	"	R15	50K	"
C22	0.0057 "	Mica		Volts	Volts	Volts	R16	30K	"
C23-24	0.005 "	"	TR5566	230	350 a side	2 x 6.3	R17	27K	"
C25	0.0035 "	"					R18	15K	"
C26	0.002 "	"	T2	5000 ohm output trans.			*R19	10K	"
C27-28	0.001 "	"	CV	Plessey gang type			R20	2K	"
C29	600 μ d.	Padder		9393/L22 (437 μ d. max.)			R21	1.5K	"
C30	500 "	Mica					R22	1.0K	"
*C31-32	250 "	"	SW1A-H	3 pos. 8-pole band switch			R23	750	"
C33A	100 "	"					*R24	600	"
*C33-34	100 "	"	SW2A-B	2 pos. 2-pole radiogram switch			R25-26	500	"
C35-43	3-30 "	Trimmer					R27	300	"
C44-47	25 "	Ceramic	SW3A-D	5 pos. 4-pole tone switch			R28	300	"
C48-49	5 "	"					R29	200	"
C50	1 "	Gimmick	SW4	S.P.S.T. switch attached to R5			R30	100	"
			PL	6.3 v., 0.3 amp. M.E.S. lamp			R31	75	"
							*R32	47	"

* Current value shown.

Incorporated in this receiver are features which result in a special standard of performance:

NEGATIVE FEEDBACK, includes in its loop the output transformer, the output stage and the preceding amplifier. Feedback is approximately 10 db, and is obtained across the whole secondary winding.

TONE CONTROL is achieved with a 5-position switch which selects fixed equalizers forming the coupling unit between the demodulator-amplifier and the 7B7 "equalizer"-amplifier. The response of the audio section may be varied from the normal (uniform response) to treble-cut, bass-boost, bass- and treble-boost and bass- and treble-cut.

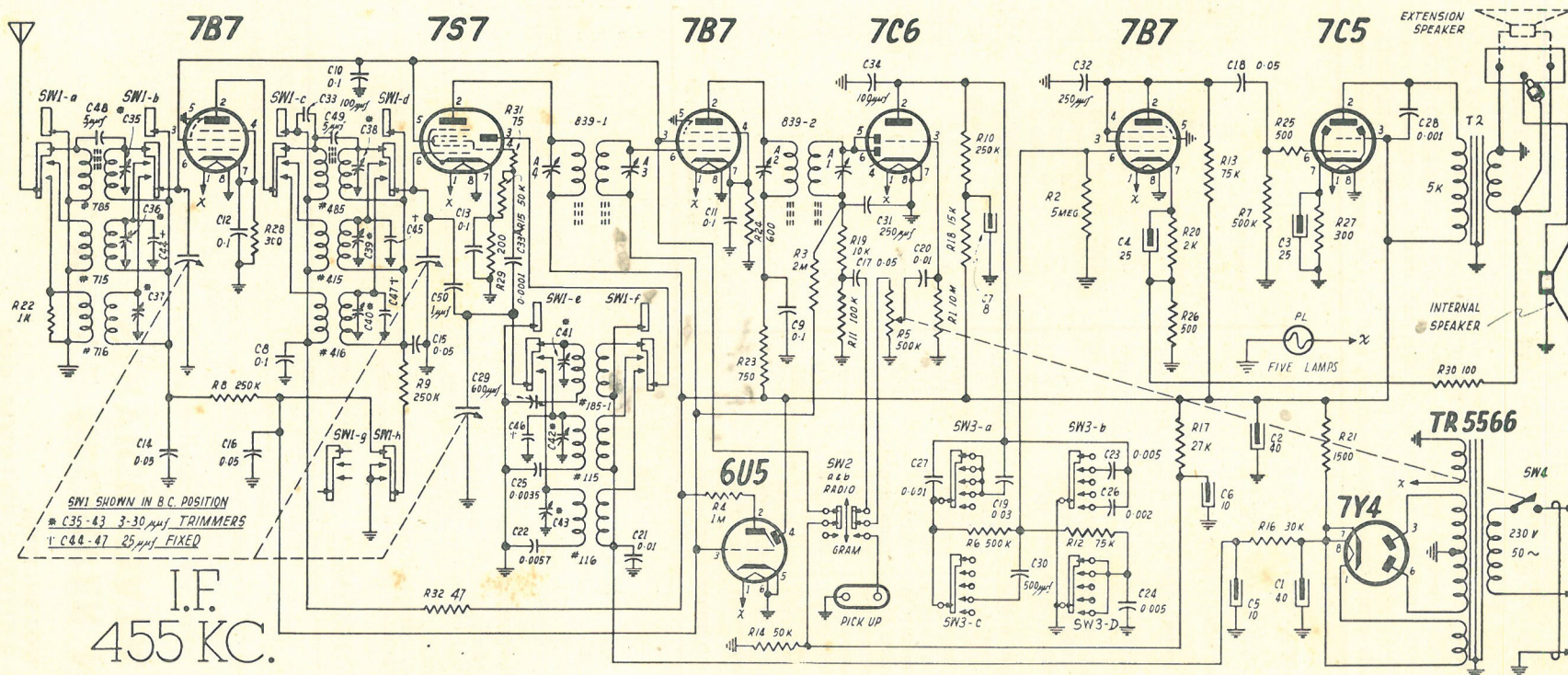
DEMODULATOR components have been chosen to ensure the minimum distortion on signals having a high modulation factor.

A.V.C. characteristic is arranged for handling of strong BC carriers without rectification in the early amplifiers. Proportioning of stage gains by choice of optimum bias, together with C33 on the BC interstage coil primary, as a gain reduction means, ensures proper operation.

mf'd by C & B.

498

Note C33 should be R.F. pre
to adjust gain



SCHEMATIC DIAGRAM MODEL 498 A.W.

VOLTAGE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
R.F.	7B7	6.3A.C.	240	85	3	—	0	3	—
Conv.	7S7	6.3A.C.	240	153	-8	85	0	2.3	—
I.F.	7B7	6.3A.C.	240	85	7.3	—	0	7.3	—
Det-AF.	7C6	6.3A.C.	118	0	—	0	0	—	—
Eq'izer	7B7	6.3A.C.	72	72	72	—	0	5.5	—
Output	7C5	6.3A.C.	230	240	0	—	0	12	—
Rect.	7Y4	317	—	340A.C.	153	—	340A.C.	317	317
Eye	6U5	6.3A.C.	20	0	240	—	—	—	—

RESISTANCE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
R.F.	7B7	—	100K	50K	300	—	2.4meg.	300	—
Conv.	7S7	—	100K	140K	50K	50K	2.4meg.	200	—
I.F.	7B7	—	100K	50K	600	—	2.1meg.	600	—
Det-AF.	7C6	—	350K	10meg.	—	110K	110K	—	—
Eq'izer	7B7	—	200K	200K	200K	—	5meg.	2.1K	—
Output	7C5	—	100K	100K	500K	—	500K	300	—
Rect.	7Y4	100K	—	300	140K	—	300	—	—
Eye	6U5	—	1.1meg.	2.1meg.	100K	—	—	—	—

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. Bandswitch in B.C. position.

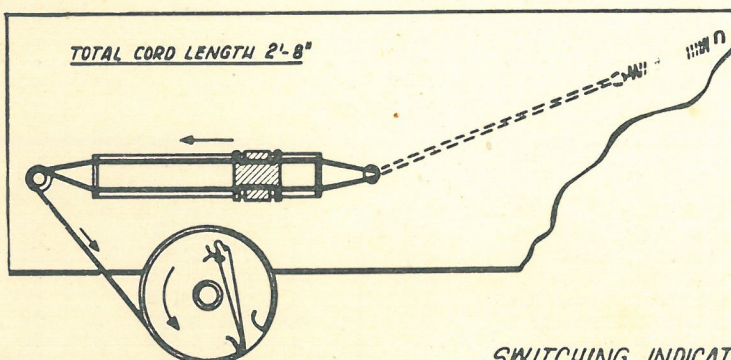
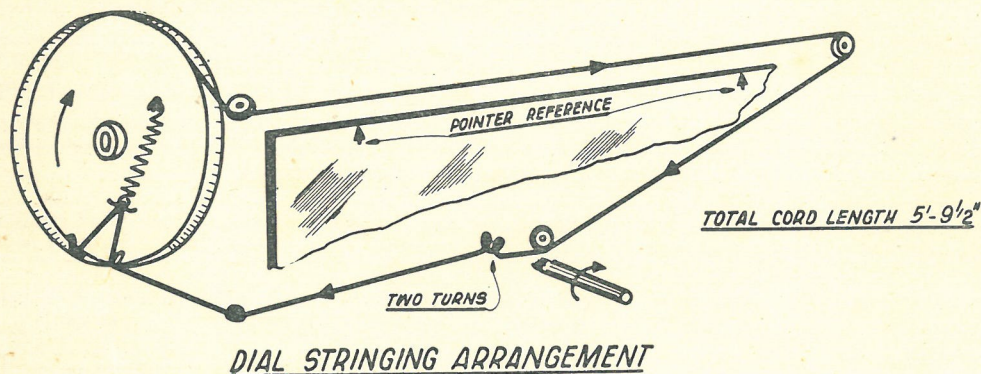
4. Nominal tolerance on component values make possible a variation of $\pm 10\%$ in voltage and resistance readings.
5. Volume control at maximum, no signal applied for voltage measurements.
6. Resistance readings in B+ circuits may vary widely according to the condition of filter capacitors.



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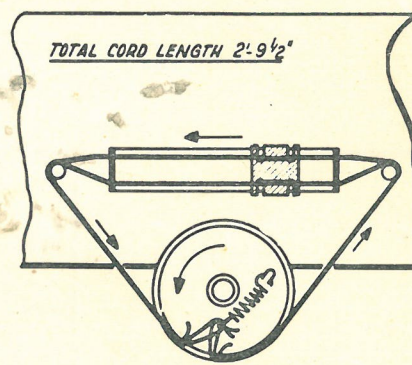
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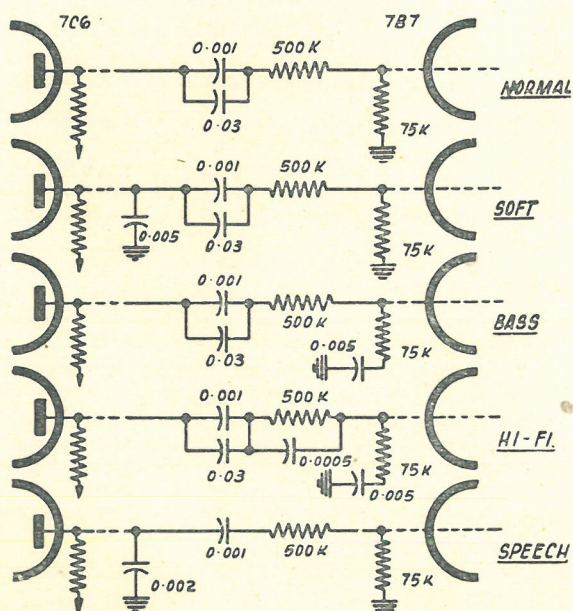
SYSTEM INITIALLY EMPLOYED IN RECEIVERS

**SWITCHING INDICATORS
STRINGING DIAGRAMS**



LATER CONSTRUCTION

TONE SELECTOR SWITCHING CIRCUIT CONDITION IN EACH SETTING



498 AW

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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TO HER MAJESTY QUEEN MARY



old model

"CANTERBURY" 8 VALVE TABLE RADIO

model 498 AW

7v type

1949

ad R & E May 1950

"CANTERBURY"

8 VALVE ALL-WAVE RADIO

We present for the listening public this stylish mantel model 8-valve all-wave Radio which is truly a leader in the "big model" Radio range. Housed in a cabinet of figured walnut veneer that is designed in the true H.M.V. fashion, the "Canterbury" model has a general appeal and colour tonings that will enhance any surroundings that it is placed in. A full vision cursor type dial makes station finding extremely easy to even the novice and the incorporated tonal range indicator aids the user to select any tone that may be required. A special feature of the "Canterbury" is the covering of the Amateur Bands which will prove of interest to listeners as the popularity of DXing is gaining daily in New Zealand.

Model 498 AW.

Cabinet

21" wide

16½" high

11" deep

Valve Complement

(1)	7B7	-	-	R.F. Amplifier
(2)	7S7	-	-	Mixer - Oscillator
(3)	7B7	-	-	I.F. Amplifier
(4)	7C6	-	-	Det. First Audio Amp.
(5)	7B7	-	-	Equaliser Amplifier
(6)	7C5	-	-	Audio Output
(7)	7Y4	-	-	Rectifier
(8)	6U5G	-	-	Tuning Indicator

Frequency Range

Broadcast	-	-	-	535 - 1630 Kcs.
Medium Wave	-	-	-	3.2 - 8.2 Mcs.
Short Wave	-	-	-	7.5 - 22.3 Mcs.

I.F. Frequency

455 Kcs.

Power Supply

230 volts 50 cycles