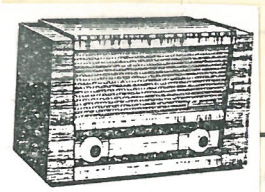

Gulbransen 'DENVER'

MODELS 'DENVER' AND 'DRAYTON'

also Dresden & Drummond

DISTRIBUTED BY
H.W. CLARKE (N.Z.) LTD.

TECHNICAL INFORMATION

COVERING

GULBRANSEN DUAL WAVE RECEIVERS

MANUFACTURED BY COLLIER & BEALE LTD.

TYPE SET—A.C. Superheterodyne. Dualwave

TUBES (six/seven)—6BA6 R.F. Amp.. ECH42 Converter, 6BA6 I.F. Amp., 6AV6 Det.-A.F., 6AQ5 Power Output, 6X4 Rectifier 6AU6 Model Drayton Pre Amp.

POWER SUPPLY—230 v. A.C. Rating 55 watts.

TUNING RANGE—Broadcast, 530-1530 k.c. S.W., 6.45-19.4 m/cs.

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 readings. 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 μfd.	High Side to pin No. 6 (grid) of ECH21.	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. terminal	1400 Kc.	,,	1400 Kc.	,,	C26	,, ,,
,,	,,	1400 Kc.	,,	1400 Kc.	,,	C29 & C31	,, ,,
,,	,,	600 Kc.	,,	Rock Variable	,,	C19	,, ,,
,,	,,	18 Mc.	SW	18 Mc.	,,	C27	,, ,,
,,	,,	18 Mc.	SW	18 Mc.	,,	C28 & C30	,, ,,

CAPACITORS

Ref. No.	Cap.	Volts
C1a-b	40 ufd	450
C1c	20 ,,	,,
C2	25 ,,	25
C3	10 ,,	450
C4-5	0.1 ,,	350
C6-8	0.05"	,,
C9	0.02"	,,
C10-13	0.01"	Styroseal
C14	0.005"	350
C15	4550 uuf	Silver Mica
C16-17	0.001 uf	Mica
C18	0.001 "	Ceramic
C19	600 uuf	Padder
C20	500 "	Mica
C21	250 "	,,
C22-24	100 "	,,
C25	50 "	,,
C26-28	3-30 "	Trimmer
C29-31	3-30 "	,,
C32-33	5 "	Ceramic 450

MISCELLANEOUS

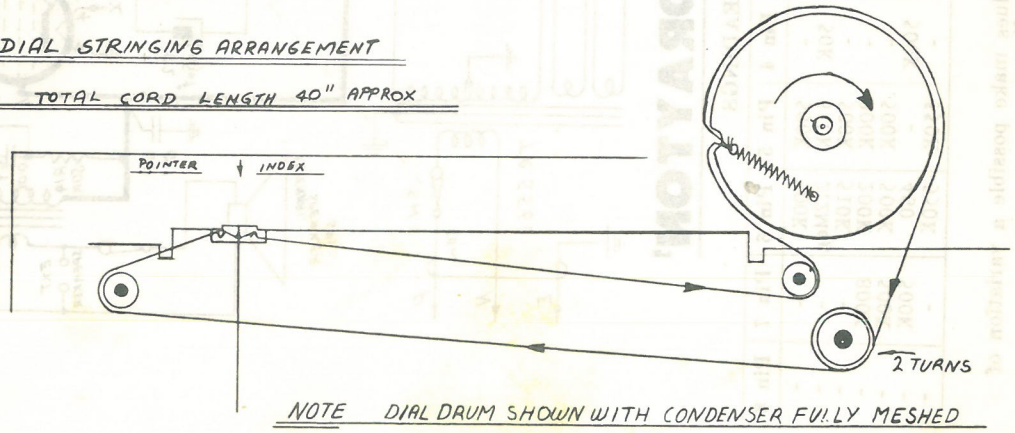
Ref. No.	Res., Pri.	Res., Sec.	
784	20 ohm	2.7 ohm	BC
786	0.4 ,,	0.03 ,,	SW
486	69 ,,	0.03 ,,	SW
489-1	64 ,,	2.7 ,,	BC
186	0.45 ,,	0.03 ,,	SW
189	0.85 ,,	2.44 ,,	BC
PE1014	14.5 "	13.5 "	IF
	Volts	Volts	Volts
TR5566	230	350 aside	2 x 6.3
	Type	Transformer	
SP1	6-9H	5000 ohm	
SW2	7P.3P 3 BANK ROTARY SWITCH		
CV	Polar C90-03/1 (swing 351 μμfd.)		
PL	6.5 v., 0.25 amp. tub. M.E.S. lamp		

RESISTORS

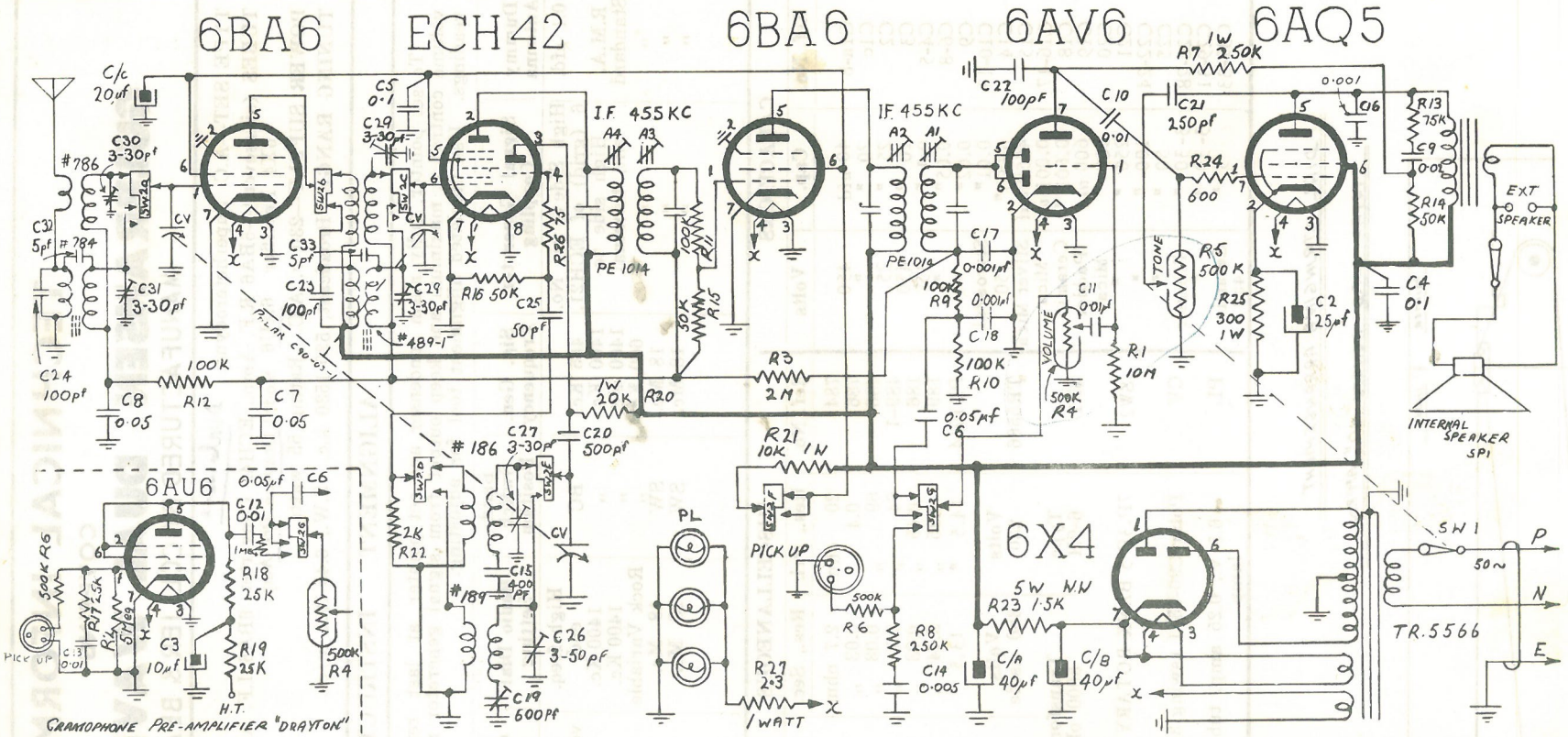
Ref. No.	Res.	Watts
R1	10 Meg.	½
R2	5 "	"
R3	2 "	"
R4	500K Ohm	Pot
R5	500K "	"
R6	500K "	½
R7	250K "	1
R8	250K "	½
R9-12	100K "	"
R13	75K "	"
R14-16	50K "	"
R17-19	25K "	"
R20	20K "	1
R21	10K "	"
R22	2K "	½
R23	1.5K "	5
R24	600 "	½
R25	300 "	1
R26	75 "	½
R27	2.3 "	1

DIAL STRINGING ARRANGEMENT

TOTAL CORD LENGTH 40" APPROX



NOTE DIAL DRUM SHOWN WITH CONDENSER FULLY MESHED



SCHEMATIC DIAGRAM MODELS 'DENVER' AND 'DRAYTON'

VOLTAGE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
R.F.	6BA6	0	-	-	6.1	230	85	-	-
Conv.	ECH42	6.1	230	120	5	85	-	-	-
I.F.	6BA6	0	-	-	6.1	230	85	-	-
Det-A.F.	6AV6	-	-	-	6.1	-	-	90	-
Output	6AQ5	-	8.6	-	6.1	215	230	-	-
Rect.	6X4	320 AC	-	-	6.1	-	320 AC	335	-
Pre Amp	6AU6	-	-	-	6.1	50	50	-	-

1. D.C. voltage measurements are at 2.000 ohms per volt—A.C. voltage measurements at 1,000 ohms per volt.
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to chassis. Band Switch in Broadcast position.

RESISTANCE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
R.F.	6BA6	2.3 Meg.	-	-	-	500K	500K	-	-
Conv.	ECH42	-	500K	520K	50K	510K	2.2Meg	-	-
I.F.	6BA6	2.2 Meg	-	-	-	500K	510K	-	-
Det-A.F	6AV6	10 Meg	-	-	-	200K	200K	800K	-
Output	6AQ5	500K	300	-	-	500K	500K	500K	-
Rect.	6X4	430	-	-	500K	-	480	500K	-
Pre Amp	6AU6	5 Meg	550K	-	-	550K	550K	-	-

4. Nominal tolerances 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 condition of filter capacitors.

DENVER & DRAYTON

Feb 1958

Note: no min bias on RF/IF