

TECHNICAL INFORMATION

MODEL RBO
TROUBADOUR

7 VALVE PORTABLE

DESIGNED AND MANUFACTURED

by

RADIO (1936) LTD.

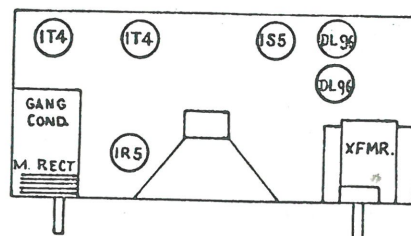
Power Supply	230v. AC — Batt		Rating	20 Watts
Tuning Range	1500Kc/s — 550 Kc/s		Speaker	Rola 6 L.
Current Drain, A Batt.	50MA.		Power Output	300MW
" " B "	16MA		I.F. Frequency	460 Kc/s

CIRCUIT DESCRIPTION:

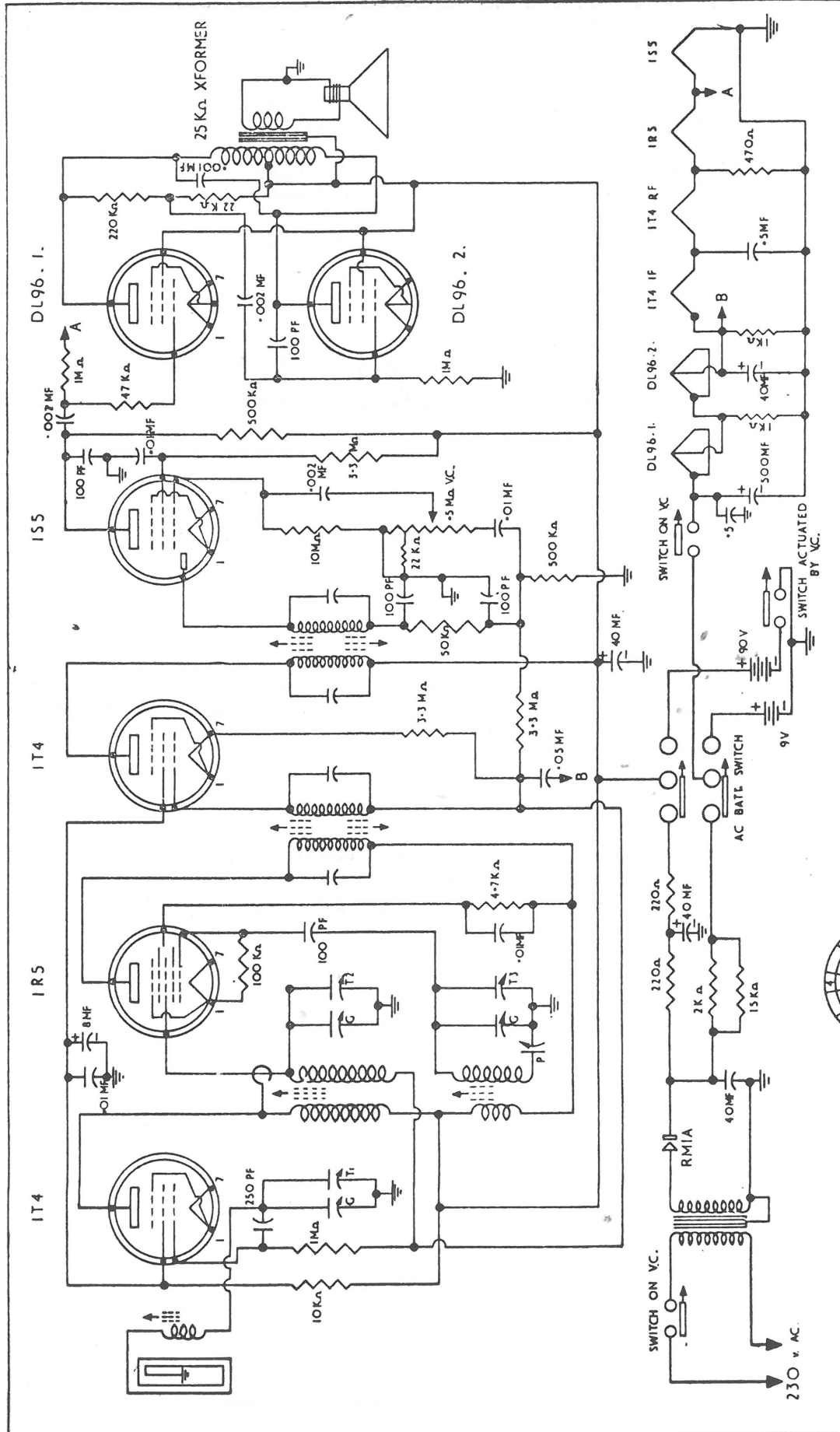
A type IT4 is employed as a radio frequency amp. and is coupled to a type IR5 frequency changer which is in turn coupled by means of a double wound I.F. transformer. A type IS5 performs the functions of detection, A.G.C. source and voltage amplification and is capacitively coupled to a Type DL96 output pentode. A portion of the output voltage is fed to the grid of another DL96 and the two DL96 valves operate as push pull amplifiers. On AC. the 230v. mains are converted to DC. By means of a RM1A selenium rectifier and filter system.

ANTENNA:

A high gain loop ant. is built into the receiver cabinet and it is important that the receiver be orientated until max. signal strength is received. Provision is made for the use of an external antenna and for max. results this should have a flat top of 40 feet.



VALVE LAYOUT - 7v. PORT. R.B.O



BASE CONNECTIONS DL96

DRAWN	<i>R. J. Long</i>
TRACED	<i>Chambers</i>
CHECKED	<i>W. B. G. Allen</i>
APPROVED	<i>R. J. Long</i>
DATE	20-5-54

7 VALVE AC. BATT.
MODEL "RBO" 1954
TROUBADOUR

R30

VOLTAGES APPEARING BETWEEN VALVE PINS AND CHASSIS FRAME.

VALVE PIN No.	1	2	3	4	5	6	7	8
IT4 RF	2.6	88	70	NC	2.6	2.6	3.9	
IR5	1.3	88	74	-21	1.3	2.6	2.6	
IT4 IR	3.9	88	70	NC	3.9	2.6	5.2	
IS5	0	88	0	24	30	0	1.3	
DL96 1	7.8	88	88	NC	6.5	1.3	7.8	
DL96 2	6.5	88	88	NC	5.2	—	6.5	

NOTE: Readings taken with vacuum tube voltmeter.

D.C. RESISTANCES.

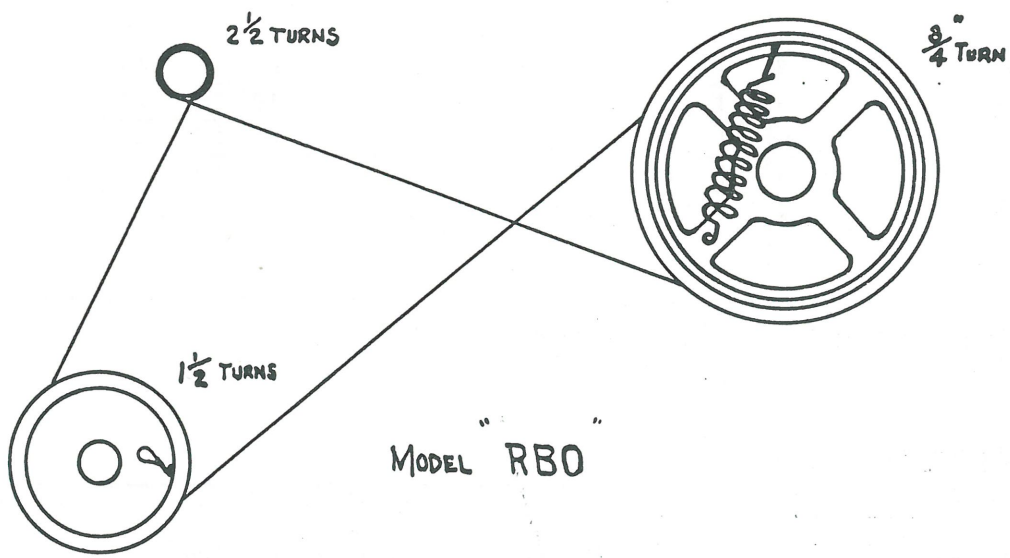
AER. Coil Prim.	I.F. Prim.	14ohms
" " Sec.	" Sec.	14 "
DET. " Prim.	Power Xformer Prim.	125 "
" " Sec.	" " Sec.	60 "
OSC. " Prim.	Speaker Xformer Prim.	800ohms Plate to Plate
" " Sec.	" " Sec.25ohms

ALIGNMENT INFORMATION:

Adjust volume control for max. gain.

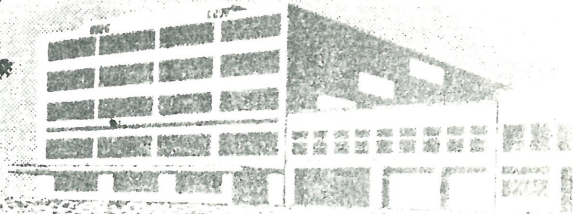
Adjust signal gen. output to no higher than is necessary to obtain output meter reading.

DUMMY ANT.	Generator Coupled to:	Generator Freq.	Receiver Dial Setting	ADJUST	Approx. Sens. for 50m.v. output
.1 mfd	Grid IT4 IF	460	550 Kc/s.	2nd IF Trimmers	4500 m.v.
.1 mfd	Grid IR5	460	"	1st and 2nd IF Trimmers	85 m.v.
RMA Standard	Grid IT4 R.F.	1400 Kc/s	1400 Kc/s	Osc. Trimmer for Max.	
"	"	1400 Kc/s	1400 Kc/s	Det. Trimmer for Max.	8.5 m.v.
"	"	600 Kc/s	Through 600 Kc/s	Padder for Max.	8.5 m.v.



AMENDMENT AND REMARKS:

~~Radio (1936) Limited~~
ULTIMATE - EKCO (N.Z.) CO. LTD.
D. T. CLIFTON - LEWIS - Managing Director



QUAY BUILDINGS 6-14 QUAY STREET, AUCKLAND C.I. N.
P.O. BOX 1166 PHONES 30-195 (3 LI)
CABLE & TELEGRAPHIC ADDRESS "BROADCAST" AUCKL.
CODES—BENTLEY'S COMPLETE PHRASE—BENTLEY'S SECOND PHRASE—PRI
ALL COMMUNICATIONS TO BE ADDRESSED TO THE COMP

AMENDMENT NOTICE

ITEM R.B.O. TROUBADOUR
(7 VALVE AC-BATT. PORTABLE)

- (1) A small circuit amendment (see attached leaf) has been made to the Troubadour 7 V AC. Batt portable in order to over-come a tendency in the field for the D.L.96 valves to become microphonic.

This tended at times to cause the set to emit a high pitched oscillation which was independent of the volume control setting.

The amendment introduces negative feed back which operates at low volume levels, the result being that this instability is suppressed.

- (2) The amendment also effects a noticeable improvement in frequency response, the tone being more mellow and pleasing than before.

This amendment is effective for all R.B.O. portables ex factory March 1st 1956.

Please ensure that your service department receives the attached sheet for future reference.

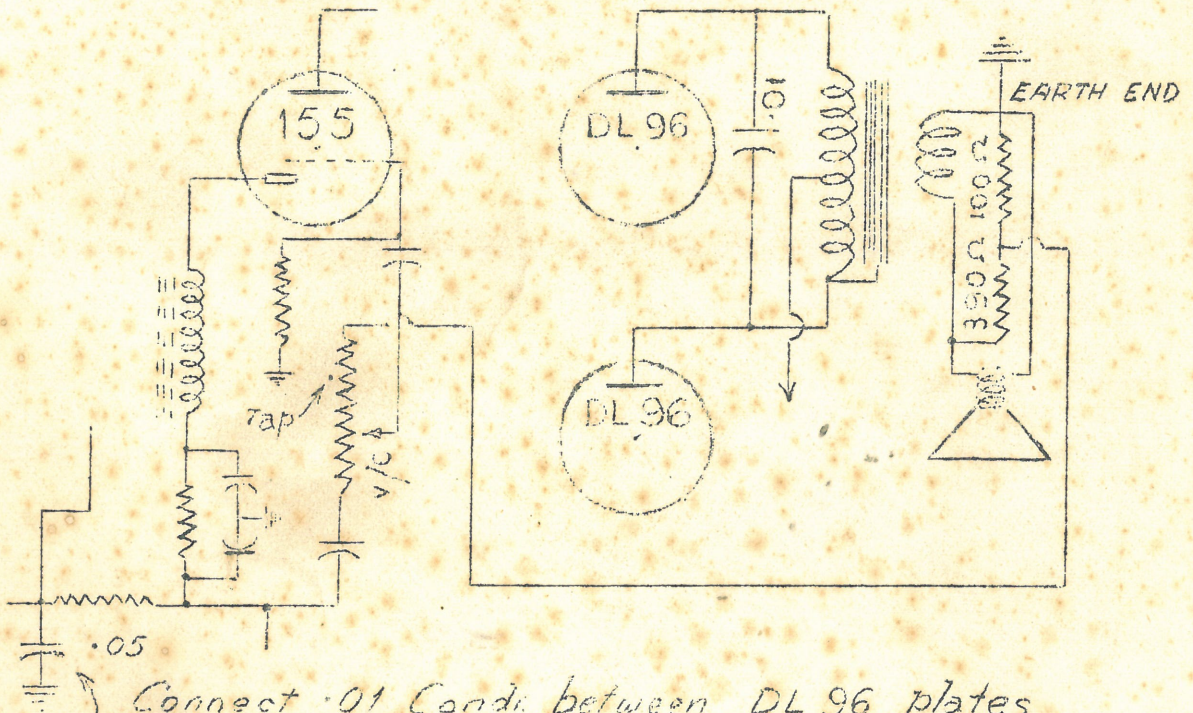
ULTIMATE-EKCO (N.Z.) CO. LTD
6-14, QUAY STREET,
AUCKLAND.

2nd March, 1956:

JE/76/56

ULTIMATE-EKCO (N.Z.) CO. LTD.

Amendment to circuit diagram RBO (7 VALVE PORTABLE TROUBADOUR)
 please file with RBO circuit diag.



Connect .01 Cond. between DL 96 plates

Remove 22K Resistor from V/C Tap

Remove Earth End of V/C from Earth
 & Connect to Network across Voice Coil
 as Shown.

Remove "Earthy" End of .05 A.C. Cond.
 from Filament [Point B in original
 Diagram] & Connect to Earth

MARCH '56

UE/76/56