TECHNICAL INFORMATION MODEL RBG

4 VALVE BROADCAST A.C. 1951

DESIGNED AND MANUFACTURED
BY

RADIO 1936 LTD.

POWER SUPPLY	230v AC 50CPS	RATING	50 Watts
TUNING RANGE	1600 KC/S — 550 KC/S	SPEAKER	ROLA 5"
I.F. FREQUENCY	460 KC/S	POWER OUTPUT	3 Watts

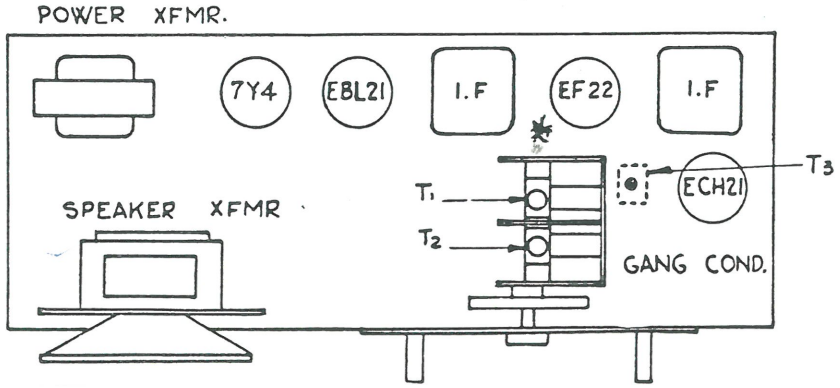
CIRCUIT DESCRIPTION:

A TYPE ECH21 IS UTILISED AS A FREQUENCY CHANGER AND IS COUPLED TO A TYPE EF22 BY MEANS OF A HIGH GAIN DOUBLE TUNED INTERMEDIATE FREQUENCY TRANSFORMER. A SIMILAR TRANSFORMER COUPLES THE EF22 TO A TYPE EBL21, COMBINING THE FUNCTIONS OF DETECTION, A.G.C. SOURCE AND VOLTAGE AMPLIFICATION.

A TYPE 7Y4 IS EMPLOYED IN CONJUNCTION WITH A CAPACITIVE RESISTIVE FILTER TO SUPPLY DC POWER.

ANTENNA:

THE RADIO FREQUENCY INPUT CIRCUIT IS DESIGNED FOR MAXIMUM GAIN WHEN COUPLED TO AN ANTENNA HAVING A FLAT TOP OF 40 FEET.



TECHNICAL INFORMATION MODEL RBG

4 VALVE BROADCAST A.C. 1951

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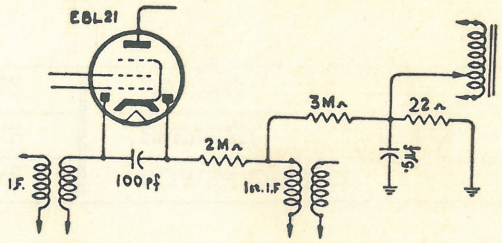
MODEL RBG.—These amendments effective from Ser. No. 135448 on.
Circuit of the Output Stage is changed, using the additional Diode.



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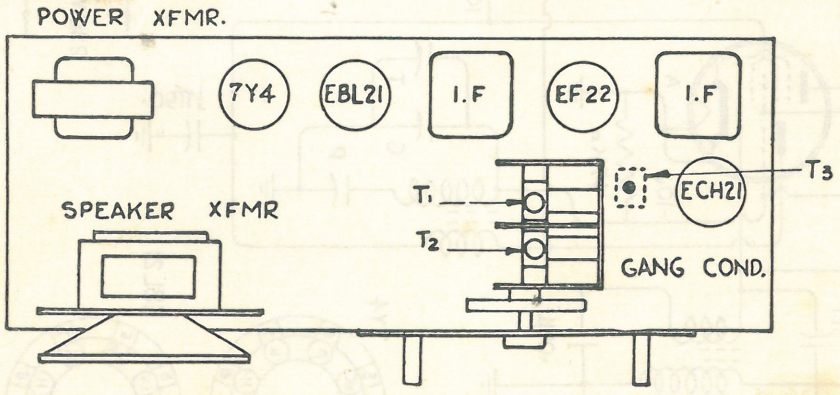
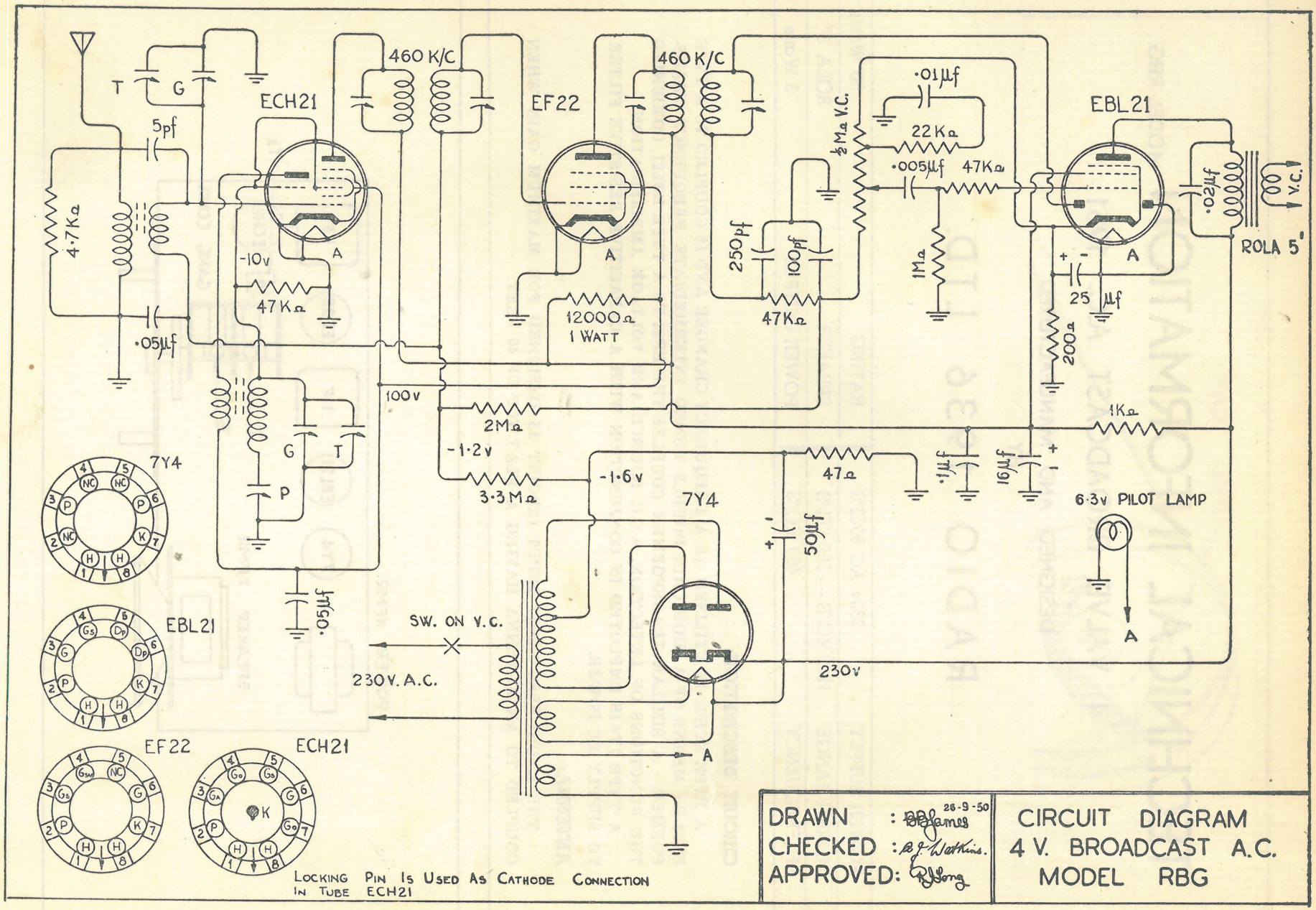



T
G
5pf
ECH21
460 K/C
EF22
460 K/C
·01µf
22 KΩ
·005µf
47KΩ
½MΩ V.C.
EBL21
4·7KΩ
-10v
47 KΩ
·05µf
A
250pf
100pf
47KΩ
1MΩ
12000Ω
1 WATT
·02µf
V.C.1
ROLA 5"
25 µf
200Ω
100v
2MΩ
1KΩ
-1·2v
3·3MΩ
-1·6v
47Ω
·1µf
16µf
7Y4
6·3v PILOT LAMP
50µf
SW. ON V.C.
230V. A.C.
230v
·05µf
EBL21
EF22
ECH21
LOCKING PIN IS USED AS CATHODE CONNECTION IN TUBE ECH21
DRAWN : B.B.James 26-9-50
CHECKED : A.J. Watkins.
APPROVED: R.J.Long
CIRCUIT DIAGRAM
4 V. BROADCAST A.C.
MODEL RBG

VOLTAGE APPEARING BETWEEN VALVE PINS AND CHASSIS FRAME

Valve Pin No.	1	2	3	4	5	6	7	8
ECH21	6.3vAC	220vDC	80vDC	–6vDC	80vDC	–.6vDC	–6vDC	0
EF22	0	220vDC	80vDC	0	0	–.6vDC	0	6.3vAC
EBL21	0	220vDC	0	205vDC	–1.1vDC	0	–5.4vDC	6.3vAC
7Y4	0	220vDC	180vAC	230vAC	180vAC	0	220vDC	220vDC

NOTE:' DC READINGS TAKEN WITH VACUUM TUBE VOLTMETER.

D.C. RESISTANCES

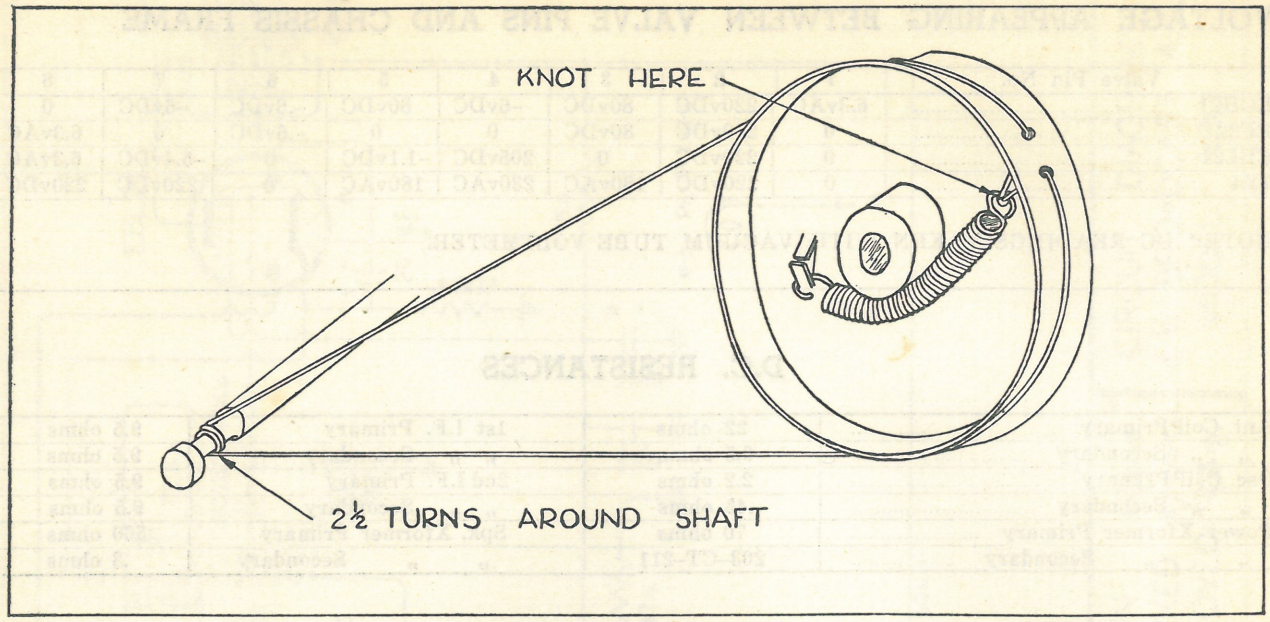
Ant. Coil Primary	22 ohms	1st I.F. Primary	9.5 ohms
„ „ Secondary	3.5 ohms	„ „ Secondary	9.5 ohms
Osc. Coil Primary	2.2 ohms	2nd I.F. Primary	9.5 ohms
„ „ Secondary	.45 ohms	„ „ Secondary	9.5 ohms
Power Xformer Primary	70 ohms	Spk. Xformer Primary	560 ohms
„ „ Secondary	203–CT–211	„ „ Secondary	.8 ohms

ALIGNMENT INFORMATION

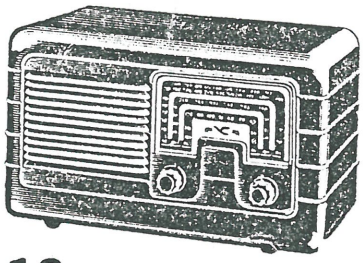
ADJUST RECEIVER VOLUME CONTROL FOR MAXIMUM

ADJUST SIGNAL GENERATOR OUTPUT TO MINIMUM REQUIRED FOR REASONABLE OUTPUT METER READING.

Dummy Antenna	Generator Coupled to	Generator Frequency	Receiver Dial Setting	Adjust	Approx. Sensitivity for 50MW Output
.1 MFD	Grid of EF22	460 KC/S	550 KC/S	2nd I.F. Trimmers for Maximum	9000 μv
.1 MFD	Grid of ECH21	460 KC/S	550 KC/S	All I.F. Trimmers for Maximum	70 μv
RMA Standard	Ant. Lead	1400 KC/S	1400 KC/S	OSC. Trimmer T.1 for Maximum	
„	„	1400 KC/S	1400 KC/S	DET. Trimmer T.2 for Maximum	17 μv
„	„	600 KC/S	600 KC/S	Padder T.3 for Maximum	20 μv



Amendments and Remarks :---



(LT)

18 **SKYSCRAPER "TINY" 4-Valve Broadcast.** The perfect second radio for the kitchen, bedroom, etc. Available in white or brown coloured plastic cabinets. Like "Minor"

RBG