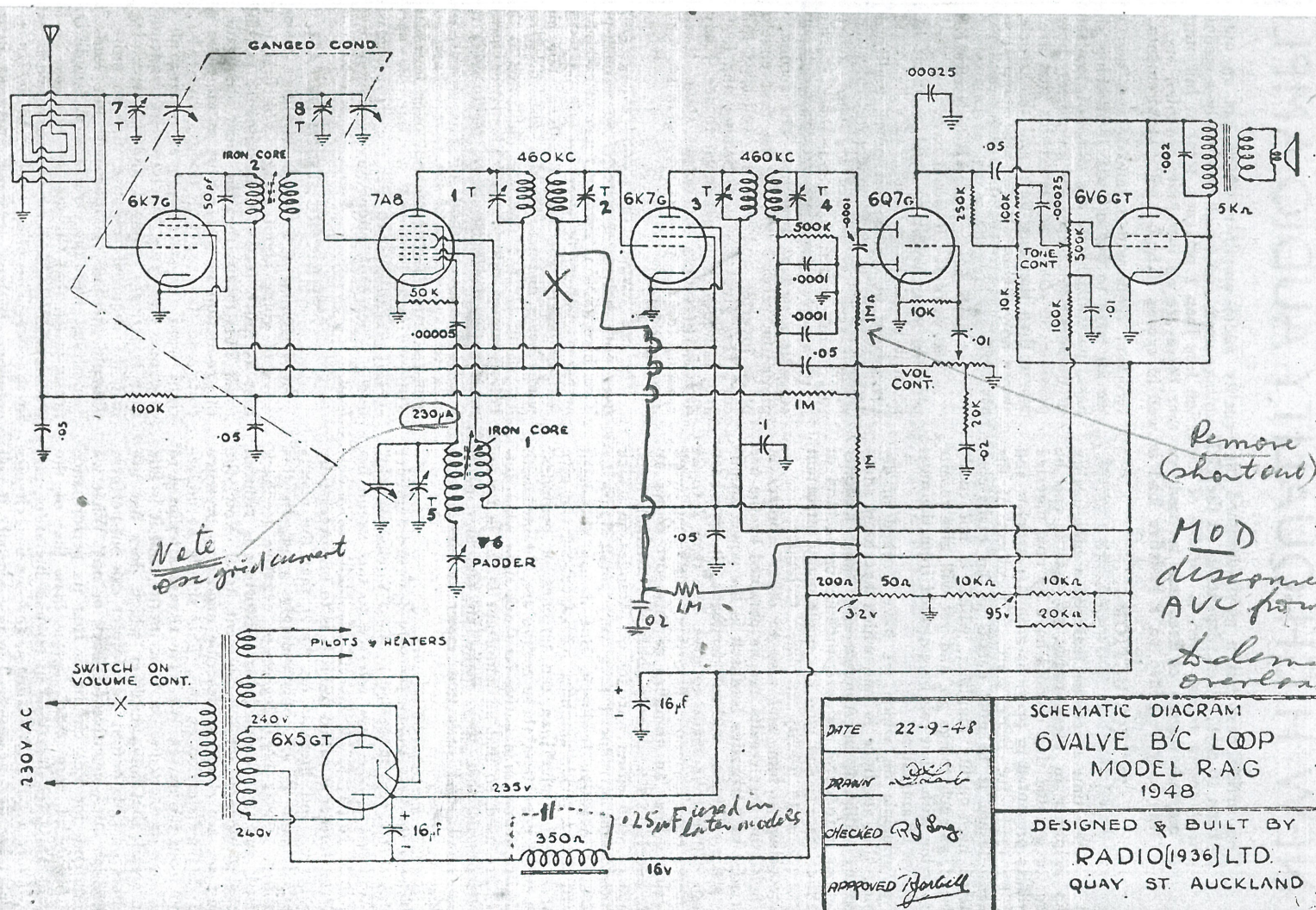


1949

RADIO AND ELECTRONICS

19



Remove (short out) MOD disconnect AVC from 6Q7G to eliminate overloading distortion

DATE 22-9-48	SCHEMATIC DIAGRAM
DRAWN <i>[Signature]</i>	6 VALVE B/C LOOP
CHECKED <i>[Signature]</i>	MODEL RAG
APPROVED <i>[Signature]</i>	1948
	DESIGNED & BUILT BY
	RADIO[1936] LTD.
	QUAY ST. AUCKLAND

RAG as a companion plastic loop model RAG s/n 11569 uses 6K7g, ECH21, 6K7g, 7C6, 7C5, 7Y4, 7B7, 7S7, 7B7, 7C6, 7C5, 7Y4
 Pat. 98153 (1944) later model uses 119067 → see next page

RAG

For The Serviceman

THE ULTIMATE 6-VALVE B/C LOOP MODEL, R.A.G.

ALIGNMENT AND CALIBRATION PROCEDURE

(6-valve B/C Loop Model R.A.G.)

I.F. Alignment:

A signal generator modulated 30 per cent. at 400 c.p.s. is coupled between the control grid of the 7S7 frequency changer and ground by means of a 0.1 μ f. condenser.

I.F. transformers should be adjusted in the following order: T₄, T₅, T₁, T₂ for maximum output at 460 kc/s.

An input of approximately 30 microvolts should produce an output of 50 milliwatts.

Calibration:

Adjust 1400 kc/s. point with trimmer T₅ and 600 kc/s. point with trimmer T₄. Adjust 1000 kc/s. point by means of iron core 1. Intermediate point should be checked and osc. sect. of gang fanned to correct frequency.

R.F. Alignment:

Adjust 1400 kc/s. by means of trimmers T₇ and T₈ and 600 kc/s. by means of iron core 2. Loop should not need adjusting, as it is unlikely that inductance should vary.

If calibration has been accurate, 1000 kc/s. should be in alignment. Check intermediate points and correct by fanning det. and antenna sections of gang:

BEACON TECHNICAL TOPICS

No.14.—Vibrator Transformer Data



For the convenience of servicemen and others, average figures in connection with BEACON vibrator transformers are reproduced below.

Catalogue Number:	48 R 18	48 R 19	48 R 20	48 R 21	48 R 22	48 R 23
D.C. output voltage on load	115	135	150	250	250	275
Output current m.a.	30	30	30	50	50	75
Input voltage	6	6	6	6	12	6
Mean input amps.	1	1.1	1.15	3.3	1.8	5.5
Buffer cond. mf.009	.012	.01	.003	.003	.007
Rectifier	sync	sync	sync	sync	sync	sync
Pri. res. ohms	0.9	0.61	0.6	0.3	1.12	.124
Sec. res. ohms	540	600	560	620	595	370
Turns ratio	25	28	31.2	60.4	30.2	66
Mounting	clamp	clamp	clamp	clamp	clamp	vert
Efficiency %	57	60	65	65	64	66
Termination	lugs	lugs	lugs	leads	leads	leads
Height	1 1/2"	1 1/2"	1 1/2"	2 1/2"	2 1/2"	3"
Breadth	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"
Depth approx.	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"
Mounting centres	2 1/2"	2 1/2"	2 1/2"	3 1/2"	3 1/2"	—

NOTE.—The use of a Cathode Ray Oscilloscope connected across the whole of the transformer primary winding for fault location in connection with vibrator power supplies is strongly recommended. It is necessary, of course, to see that half the primary winding is not shorted out by a common earth connection on the oscilloscope and vibrator supply being examined.

BEACON RADIO LIMITED

32 FANSHAW STREET, AUCKLAND, C.1

MANUFACTURERS OF DRIVER AND MODULATION TRANSFORMERS, Etc.

If you are not served by one of the Wholesale Distributors mentioned below, please get in touch with us direct.

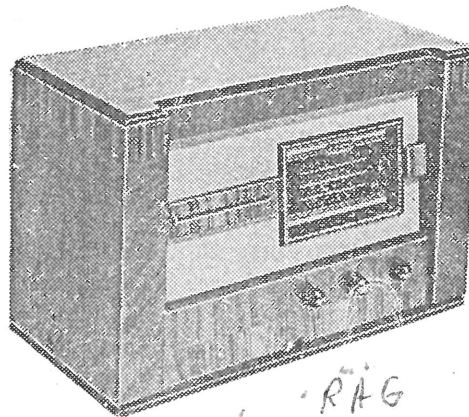
WELLINGTON
Green & Cooper Ltd.,
43 Lower Taranaki St.,
WELLINGTON

TARANAKI
J. B. MacEwan & Co., Ltd.,
King Street,
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OTAGO
R. H. Gardner,
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6V BROADCAST WITH BUILT-IN LOOP

A newly-styled, attractive, mantel cabinet with 8" speaker, housing a highly sensitive receiver with an R.F. Stage directly coupled to the loop aerial. Due to this loop, it is not necessary to have an outside aerial; therefore, it is possible to transfer the receiver from room to room, merely plugging into the A.C. mains, by arranging the position of the set, maximum "pick-up" from the station fancied enables extraneous noise and other station interference to be minimised.



RAG
Oct 10 1948