SERVICE BULLETIN

No. 77

FEBRUARY, 1941

(Reprinted July 1945)

MODEL 12

5 Valve Broadcast Receiver.

●

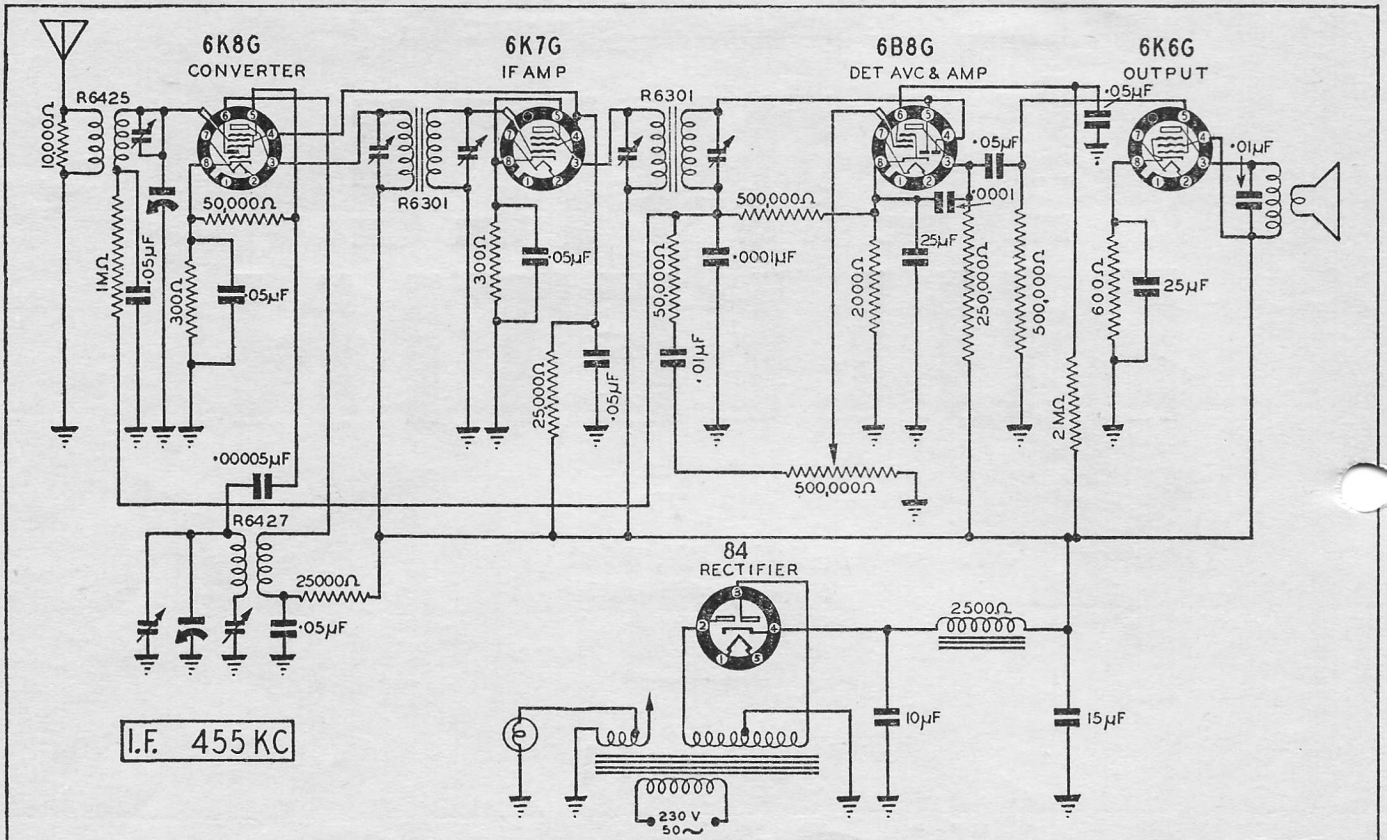
R.N.Z

RADIO CORPORATION OF NEW ZEALAND LTD.

80 Courtenay Place, Wellington, C3., New Zealand.

MODEL 12:

5 Valve Broadcast Receiver.



DESIGN LAB.	MODEL 12	5 VALVE BROADCAST RECEIVER	AMENDMENTS	DATE	CHKD.
DRAWN GW.					
CHECKED WS	D. NO. 336	RADIO CORPORATION OF NEW ZEALAND LTD.			
DATE 2-12-40					

1. General Description.

This is a five valve broadcast receiver built with maximum consideration to limit its physical size without affecting the normal requirements from a standard 5 valve receiver. This has been very successfully accomplished by the use of a small variable condenser, compact electrolytic condensers, small dial, and a 5 inch speaker and an 84 rectifier valve, thus permitting the use of a smaller power transformer.

The following valve types are used:

6K8G	Converter
6K7G	IF Amplifier
6B8G	Detector AVC and Audio Amplifier
6K6G	Output Pentode
84	Rectifier. [This is a five pin valve which can be replaced by its octal equivalent 6X5G. See following notes.]

Notes on Main Components.

Power Transformer ..... Type T89
Audio Output Transformer ..... Type A26
Dial Scale and Tuning Gang

Ser. Nos. 06323 to 09003 and 13989 to 20700 } Scale: Type 12 Gang: Plessey E

Ser. Nos. 11389 to 11888, Scale: Type OE6
Gang: Radio Condenser Co. 220-21

Rectifiers:
Ser. Nos. 11389 to 20700, Type 6X5G
All other Ser. Nos. Type 84/6Z4

2. Alignment Procedure.

This is fully covered in Service Bulletin No. 72 "Standard line up Procedure." The intermediate

frequency is 455 k.c. and line up points are 1400 and 600 k.c.

3. Voltage Tests.

A.C.

High voltage sec. of power transformer, from each rectifier plate to centre tap	270V.
Heater of Rectifier	6.3V.
All other heaters	6.3V.
Dial Lamp	5V.

D.C.

(Measured between point indicated and chassis)

15 mfd Electrolytic Condenser	180V.
10 mfd Electrolytic Condenser	275V.
Screen of 6G8G and 6K7G	75V.
Plate of 6B8G	45V.
Cathode of 6K6G	13V.
Cathode of 6B8G	1V.
Cathodes of 6K8G and 6K7G	2.5V.

All measurements should be made with the receiver tuned approx. to 1000 k.c. and with no signal input. D.C. Voltmeter should have a sensitivity of 1000 ohms per volt.

4. Resistance Tests.

	Approx. Res. in in ohms.
Across power cord	100
Each rectifier plate to centre tap of power transformer secondary	600
Across Speaker field	2500
Speaker Transf. primary	550
I.F. Trans. coils	7
Aerial coil primary	20
Aerial coil secondary	4
Oscill. coil primary	2
Oscill. coil secondary	3
Between Cathode of 6B8G and chassis	2000
Between Cathode of 6K6G and chassis	600

5. Sensitivity Tests.

(Microvolts input to give standard output of 50 milliwatts)

455 k.c.	Grid of 6K7G	2000
455 k.c.	Grid of 6K8G	70
1400 k.c.	Aerial lead through standard dummy antenna	20
1000 k.c.	„ „ „ „	20
600 k.c.	„ „ „ „	20

MODEL 12
VALVE LAYOUT