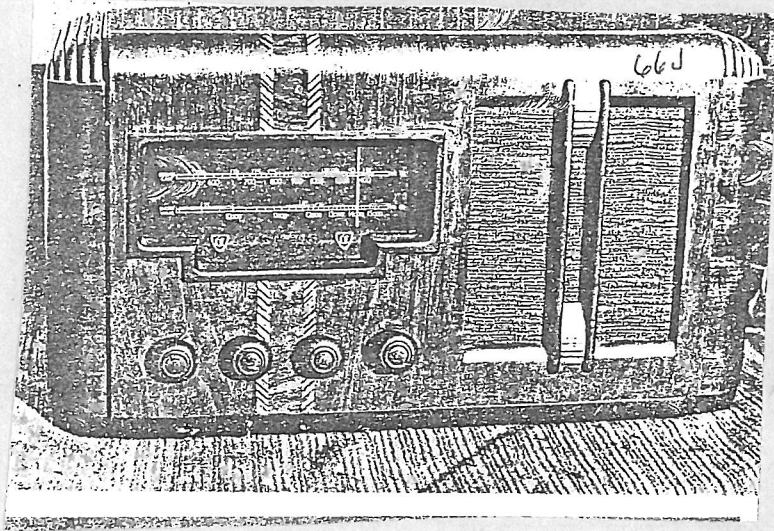


SERVICE BULLETIN
MODELS 66A and 66W
JUNE, 1946



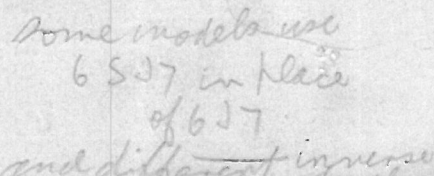
MODELS 66A and 66W
6 Valve Broadcast-Shortwave Receivers with
Band-spread 19-31 Metres

RADIO CORPORATION OF NEW ZEALAND LTD.
80 Courtenay Place, Wellington, C3., New Zealand.

66R wanted

66 3-36

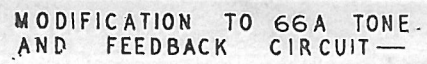
error in



Above Circuit applies to all Model 66A Serial Nos.: 50001 — 54800.
Tone Control Value: 0.5 meg.

Condenser Gang: 66A Plessey E 3 Gang
66W R.C. Co. 317 *large*
Padder: Plessey 1760/4 (600 mmf)
Coils: Standard Coil Box
Power Transformer: Type T57

Note:—Model 66W uses 6SJ7 as audio amplifier and modification to tone and feedback circuits as shown in diagram on right.



i Nos.: Model 66A, 67001—67324
Model 66W, All 66W's.

1. General Description.

This is a six valve two band receiver incorporating expanded short wave tuning. This model is notable for high sensitivity on both broadcast and short wave bands and, due to the use of a high-gain R.F. stage, signal-to-noise ratio is extremely good.

The short-wave band covers from 9,400 to 15,600 k.c. This range includes the three principal short wave bands at 19, 25, and 31 metres, which occupy three times the length of dial scale that would be taken up if the band spread principle were not incorporated. This results in greater ease of tuning and means that short wave stations that would normally be passed over, may be tuned in without difficulty.

A special oscillator circuit ensures that the oscillator frequency is unaffected by changes in A.V.C. voltage. This greatly reduces the effects of fading on short wave. To ensure constancy of calibration and alignment silvered-mica fixed condensers and high quality trimmers are used in all tuned circuits.

For Model 66A the valves used are as follows: (For Model 66W, see notes under circuit diagram.)

6K7G R.F. Amplifier
6J8G Converter
6B8G I.F. Amplifier, Detector and A.V.C.
6J7G Audio Amplifier
6V6G Output
6X5G Rectifier

2. Alignment Procedure.

This is fully covered in Service Bulletin No. 72. "Standard Line-up Procedure for Multiband Receivers," a copy of which is obtainable on application to the Engineering Department. The intermediate frequency is 455 k.c. and the line-up points are 1400 and 600 k.c. on broadcast and 15,000 k.c. on the short wave band.

3. Voltage Tests.

A.C.

High voltage secondary of power transformer, from each rectifier plate to centre tap	335V.
Heater of Rectifier	6V.
All other Heaters	6V.
Dial Lamps	5V.

Note
2 x 6.3V
winding

D.C. (Measured with a meter of 1000 ohms per volt sensitivity, between point indicated and chassis.)

First 15 mfd. electrolytic condenser	340V.
Second 15 mfd. electrolytic condenser	230V.
Screens of 6K7G, 6J8G and 6B8G	80V.
Plate of 6J7G	50V.
Cathode of 6J7G	0V.
Junction of 45 and 150 ohm resistors	3V.
Negative terminal of first 15 mfd. condenser	12.5V.

All measurements should be made with the receiver tuned to approximately 1000 k.c. and with no signal input.

MODEL 66A + 66W

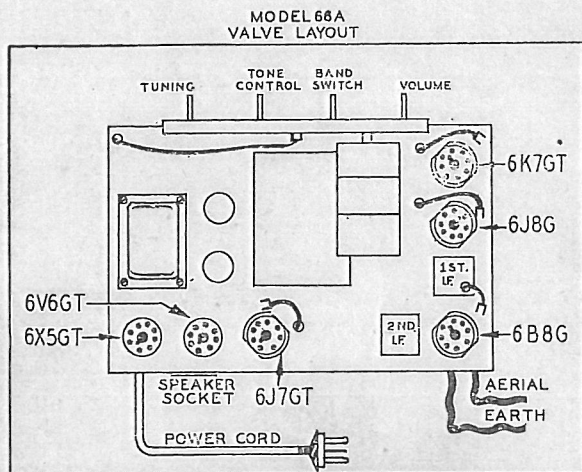
4. Resistance Tests.

Where measured.	Approx. D.C. resistance in ohms.
Across power trans. primary	45
Each rectifier plate to centre tap of power transformer secondary	300
Across speaker field	1500
Speaker transformer primary	500
I.F. transformer coils	7
B/C Aerial Primary	20
B/C Aerial Secondary	4
B/C R.F. Primary	70
B/C R.F. Secondary	4
B/C Osc. Primary	2
B/C Osc. Secondary	3
S/W Aerial, R.F. and Osc. Primary	0
S/W Aerial, R.F. and Osc. Secondary	0
Between positive terminal of first 15 mfd. electrolytic condenser and chassis	285
Between Cathode of 6J7 and chassis	0

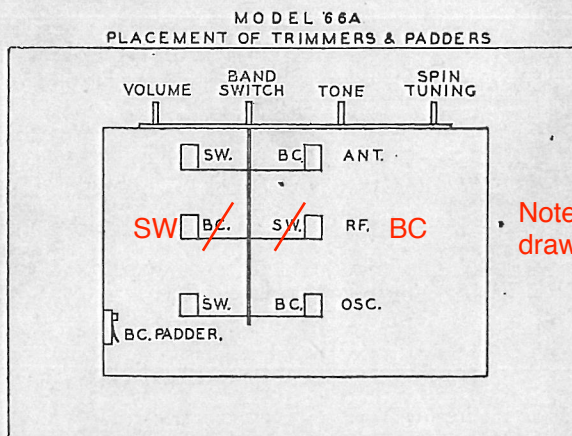
5. Sensitivity Tests.

(Microvolts input to give standard output of 50 milliwatts.)

Frequency	Input to	Microvolts:
455 k.c.	Grid of 6B8G	4000
455 k.c.	Grid of 6J8G	75
1,400 k.c.	Aerial lead through standard dummy antenna	Under 1
1,000 k.c.	Aerial lead through standard dummy antenna	Under 1
600 k.c.	Aerial lead through standard dummy antenna	Under 1
15,200 k.c.	Aerial lead through standard dummy antenna	4.5
11,800 k.c.	Aerial lead through standard dummy antenna	6
9,600 k.c.	Aerial lead through standard dummy antenna	12



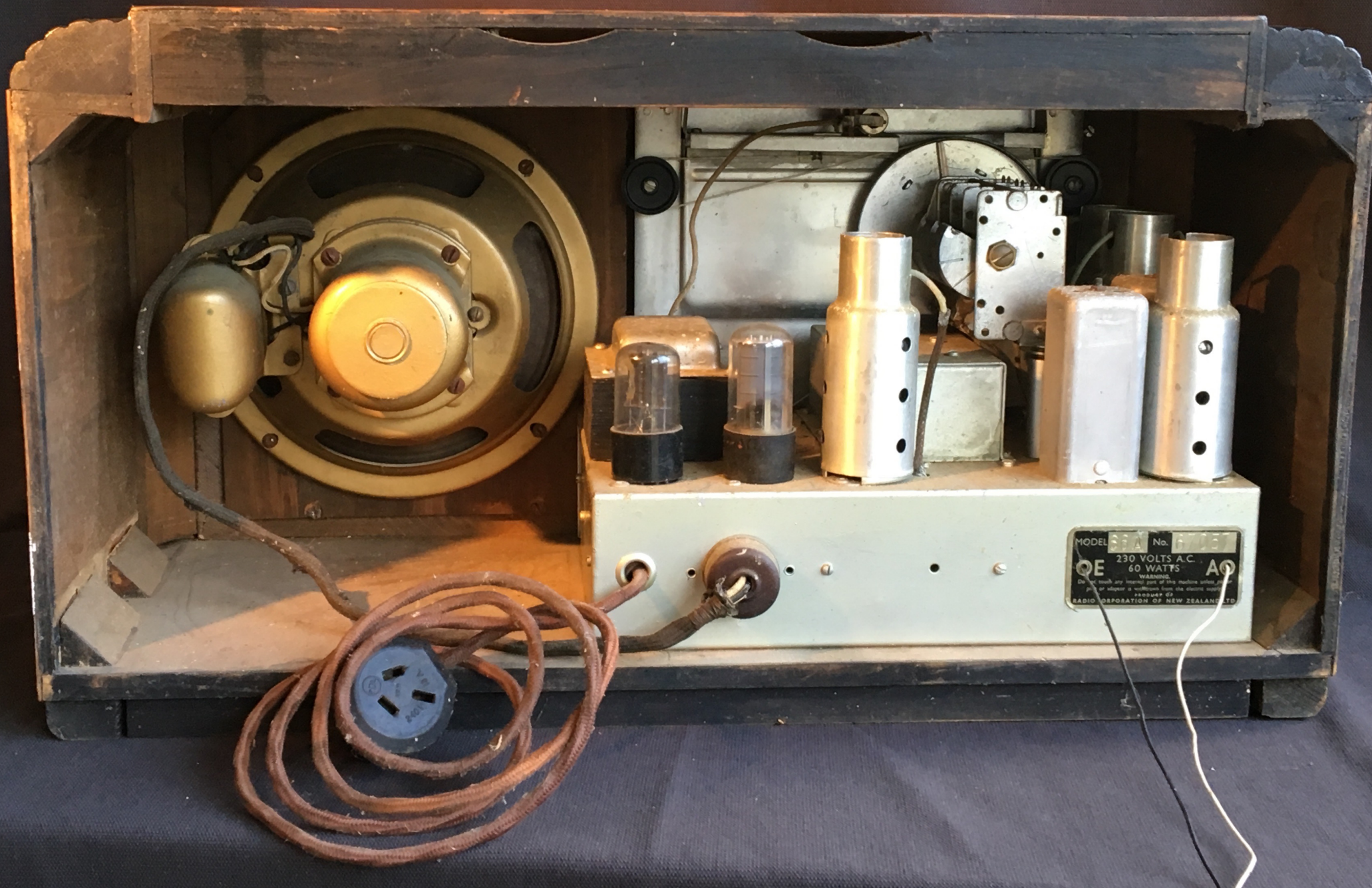
With 66W, 6SJ7 is used in place of 6J7GT



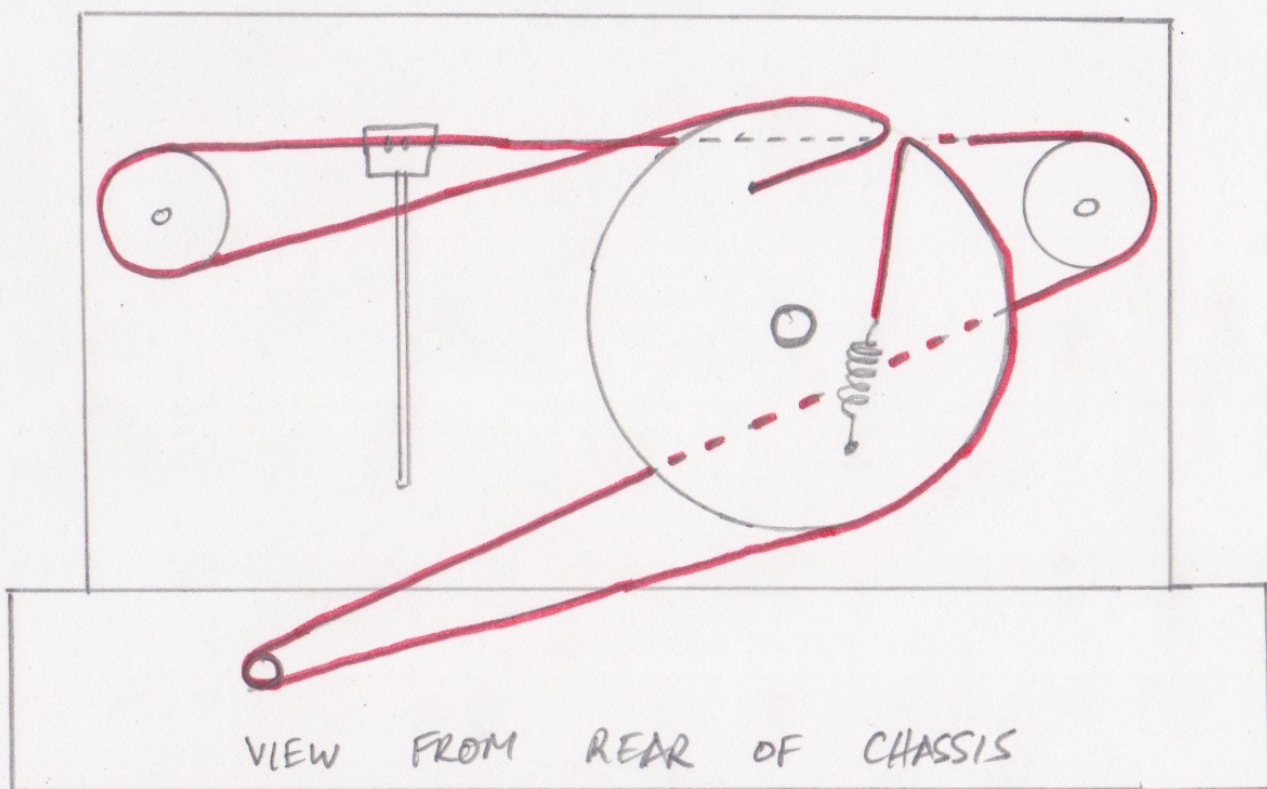
Post-war Model using coil box
on top of chassis



Photo: J. Davidson



MODEL 63A No. 67057
230 VOLTS A.C.
60 WATTS
WARNING:
Do not touch any internal part of this machine unless you are
properly grounded. Disconnect from the electric supply
before making any repairs.
RADIO CORPORATION OF NEW ZEALAND LTD



VIEW FROM REAR OF CHASSIS

COLUMBUS 66A and 66W

DRAWING: J. DAVIDSON