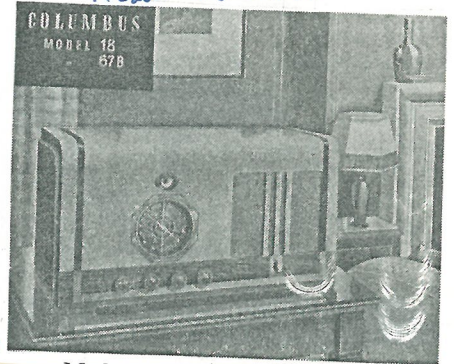


show

SERVICE BULLETIN

Models 18 & 67B

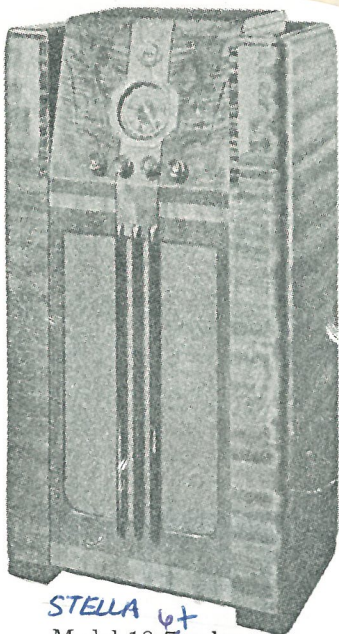


For Model
SERVICE BULLETIN No. 18

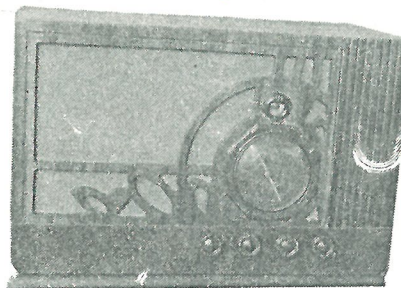
"SEMPER FIDELIS"
(Crown acousticon)

MODEL 18: 6-VALVE DUAL-WAVE RECEIVER,

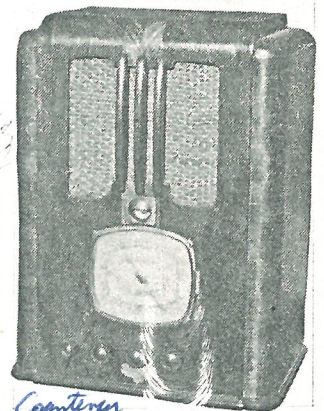
September, 1936.



STELLA 6+
Model 18 ~~7~~-valve
DW "Aldebaran" 1936



STELLA
Model 18 ~~7~~-valve 1936



Countess
Model 18 6-valve DW 1936



PACIFIC
Model 18
~~6~~-valve DW 1936

*Note: all brands of model 18 are shown
as being fitted with major eyes*

Model 18

SERVICE BULLETIN No. 18

MODEL 18 : 6-VALVE DUAL-WAVE RECEIVER.

September, 1936.

1. **GENERAL:** This is a standard dual-wave receiver using glass valves and incorporating iron-cored intermediate-frequency transformers. On the broadcast band a sensitivity control is mechanically coupled to the volume control, thus assuring minimum noise when tuning between stations. This control is automatically switched out of circuit in the short-wave position, enabling the receiver to operate at its maximum efficiency as regards automatic volume control on this band. The sensitivities of this receiver on both bands are of a high order.

2. ELECTRICAL SPECIFICATIONS :

Power supply	225-250 volts A.C., 50 cycles
Power consumption	Approx. 60 watts
Valves used	Radio-frequency amplifier 6D6
	Frequency changer 6A7
	Intermediate frequency amplifier 6D6
	Detector-amplifier 6B7
	Output pentode 42
	Rectifier 80
Intermediate frequency	456 kc/sec.
Broadcast band	550-1500 kc/sec.
High-frequency band	6-16 mc/sec.
Line-up frequencies	Intermediate frequency 456 kc/sec.
	Broadcast band 600 and 1400 kc/sec.
	High frequency band 6 and 15 mc/sec.

3. VOLTAGE TESTS : A.C.—

High-tension secondary of power transformer, from each rectifier plate to ground	350 volts
Heater of rectifier	5 volts
All other heaters	6 volts

D.C.—

Unfiltered voltage, rectifier heater to ground	340 volts
Filtered voltage, speaker field to ground	220 volts

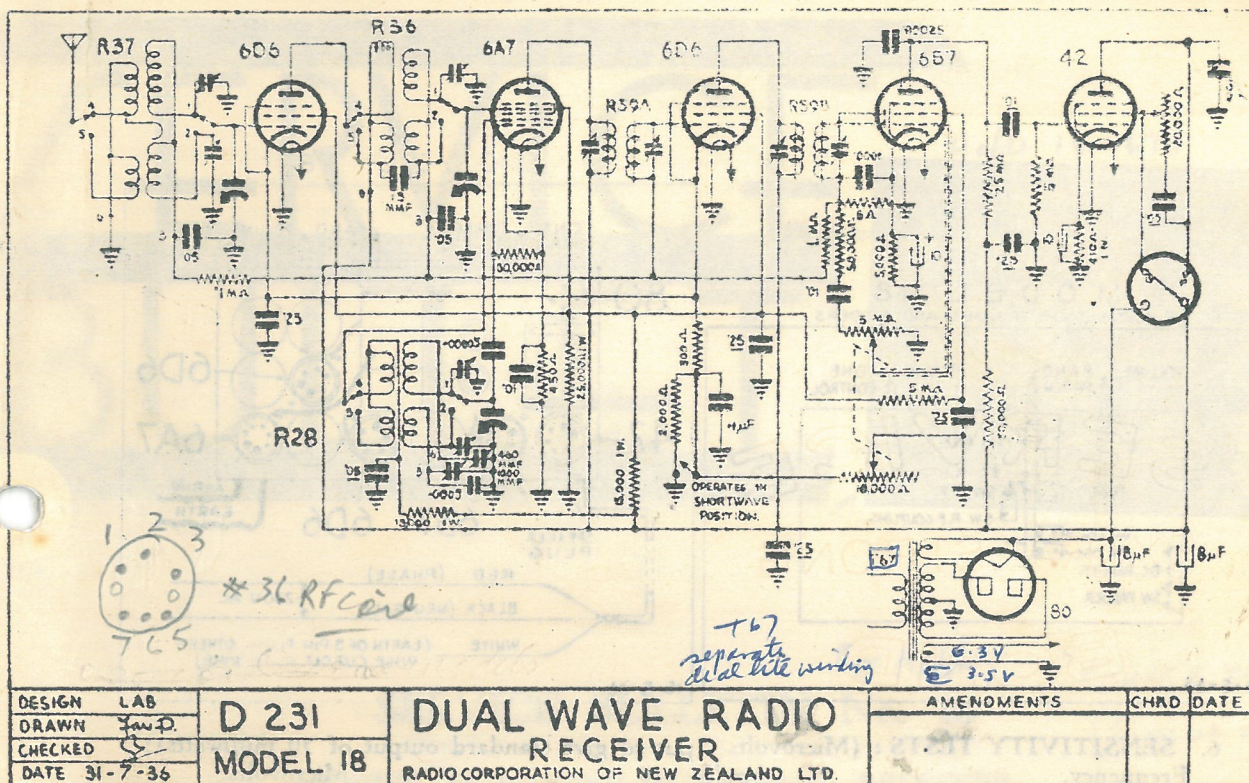
Other voltages to ground, using 1000 ohm per volt meter on 500 volt range except where otherwise stated:—

Valve.	Function.	Plate.	Osc. Plate.	Screen.	Cathode.
6D6	R.F. Amplifier	220	—	80	4.5*
6A7	Freq'y changer	220	150	80	4*
6D6	I.F. Amplifier	220	—	80	4.5*
6B7	Detector-amp.	60	—	12†	2*
42	Output pentode	210	—	210	13.5†

† 100 volt range.

* 10 volt range.

(Note.—All voltage measurements taken on broadcast band with volume control at maximum.)

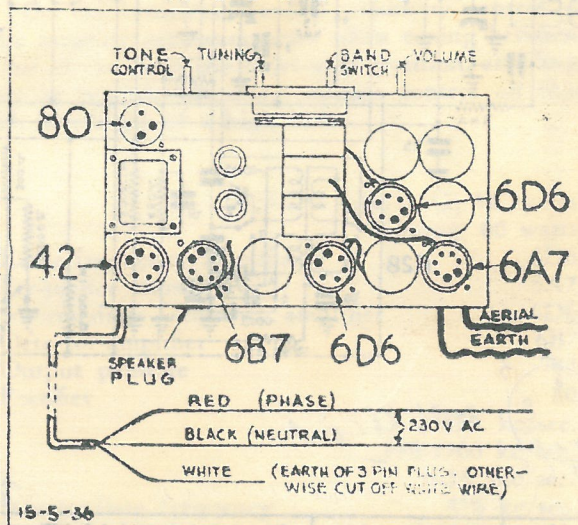
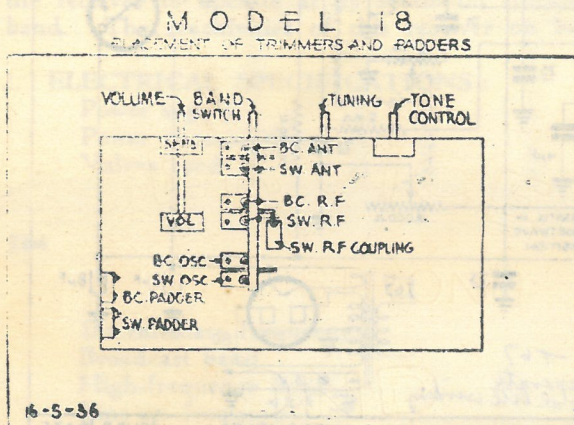


4. RESISTANCE TESTS:

Coil.	Where measured.	Resistance in Ohms.
Power tran. primary	Across power cord.	Approx. 41
H.T. secondary	Each rectifier plate to ground.	Approx. 350
Speaker field	"Fil." of speaker socket.	1500
1st I.F. primary	(See Circuit)	Approx. 10
1st I.F. secondary	(See Circuit)	Approx. 10
2nd I.F. primary	(See Circuit)	Approx. 10
2nd I.F. secondary	(See Circuit)	Approx. 10
Broadcast ant. primary	5 to 7 of Coil R 37	Approx. 28
Broadcast ant. secondary	1 to 3 of Coil R 37	Approx. 6.5
Broadcast R.F. primary	5 to 7 of Coil R 36	Approx. 43
Broadcast R.F. secondary	1 to 3 of Coil R 36	Approx. 7
Broadcast osc. primary	4 to 5 of Coil R 28	Approx. 3
High-freq'y ant. primary	6 to 7 of Coil R 37	Approx. 3.5
High-freq'y ant. secondary	2 to 3 of Coil R 37	(Short Circuit)
High-freq'y R.F. primary	6 to 7 of Coil R 36	Approx. 5
High-freq'y R.F. secondary	2 to 3 of Coil R 36	(Short Circuit)
High-freq'y osc. primary	4 to 6 of Coil R 28	Approx. 5
High-freq'y osc. secondary	2 to 3 of Coil R 28	(Short Circuit)
Broadcast osc. secondary	1 to 7 of Coil R 28	Approx. 4
Speaker input transformer	"P" to "G" of spkr. socket	Approx. 500

5. **LINE-UP PROCEDURE:** This is fully explained in Service Bulletin No. 12, "Standard Line-up Procedure for Multi-wave Receivers," a copy of which is obtainable on application to the Engineering Department if desired.

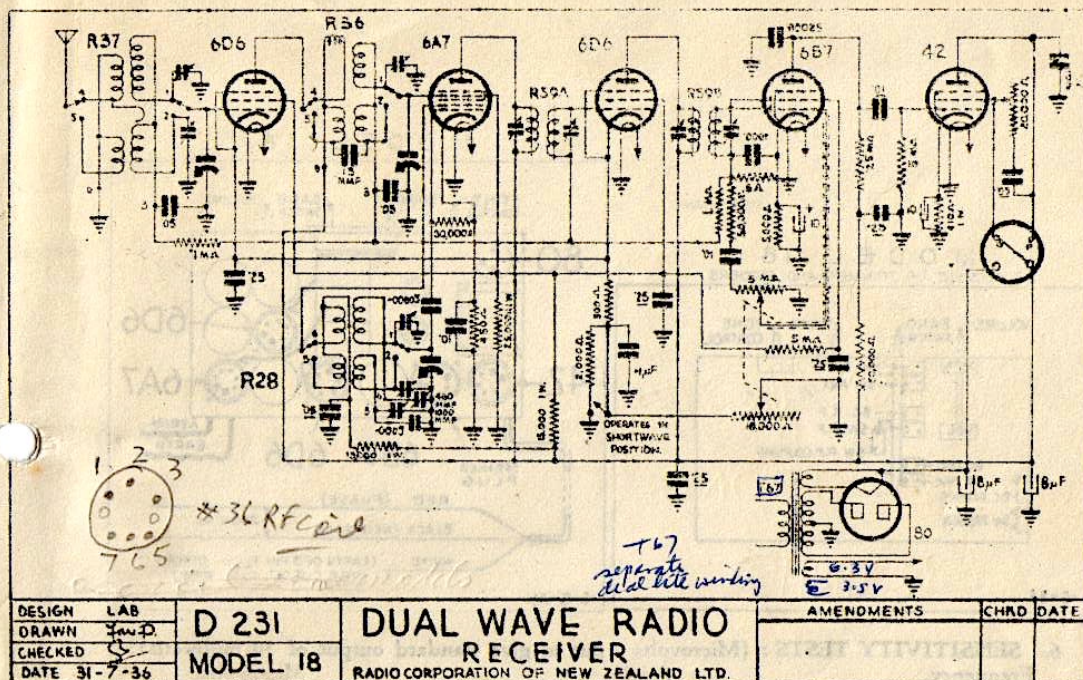
Note ganged R.F. and audio volume controls



6. SENSITIVITY TESTS : (Microvolts put to give standard output of 50 milliwatts):

Frequency.	Applied to	Microvolts.
456 kc/sec.	Grid of 6D6 I.F. amplifier.	2000
456 kc/sec.	Grid of 6A7 frequency changer.	80
1400 kc/sec.	Antenna through standard "dummy"	1
1000 kc/sec.	Antenna through standard "dummy"	1
600 kc/sec.	Antenna through standard "dummy"	1
15 mc/sec.	Antenna through standard "dummy"	1
12 mc/sec.	Antenna through standard "dummy"	1
9 mc/sec.	Antenna through standard "dummy"	2
6 mc/sec.	Antenna through standard "dummy"	2

7. GRAMOPHONE CONNECTION : Owing to the very limited demand for gramophone connections, it is not standard practice to include such arrangements in ordinary models, but to supply details for the necessary modifications to be made. The circuit is shown and described in Service Bulletin No. 13, "Gramophone Attachment to Standard Model Receivers." The only parts required are one D.P.D.T. switch, one pick-up jack (or two terminals), and the requisite length of twin shielded wire. This bulletin is obtainable on application to the factory, who can, if necessary, supply the above parts already wired for connection to the receiver, at a nominal charge.

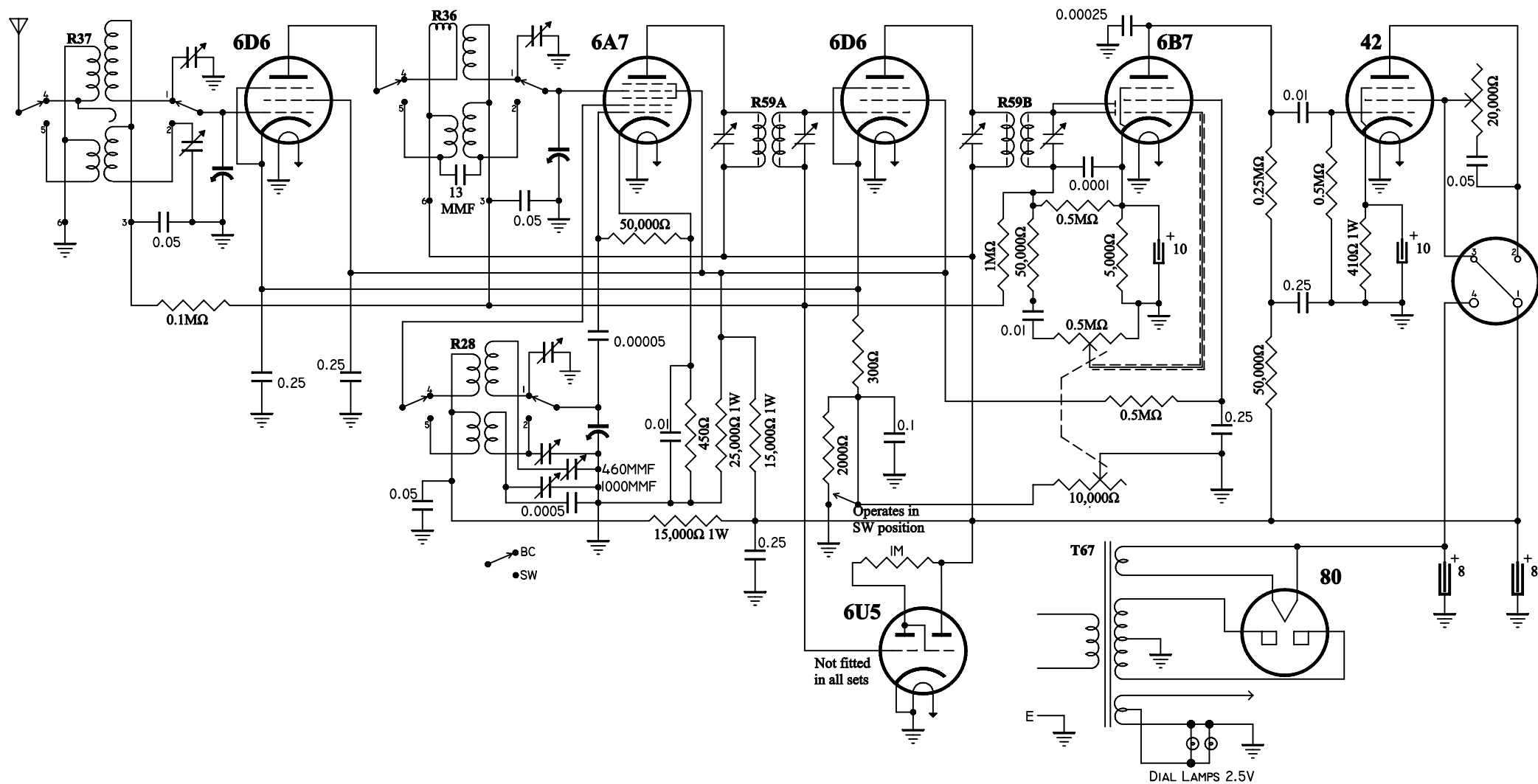


4. RESISTANCE TESTS:

Coil.
Power tran. primary
H.T. secondary
Speaker field
1st I.F. primary
1st I.F. secondary

Where measured.
Across power cord.
Each rectifier plate to ground.
"Fil." of speaker socket.
(See Circuit)
(See Circuit)

Resistance in Ohms.
Approx. 41
Approx. 350
1500
Approx. 10
Approx. 10



DESIGN	LAB
DRAWN	
CHECKED	
DATE	31-7-36

D 231
MODEL 18

DUAL WAVE RADIO RECEIVER
RADIO CORPORATION OF NEW ZEALAND LTD.

AMENDMENTS	CHKD	DATE
Redrawn JCD		2-8-21