AUSTRALIAN SOUND SYSTEMS

TROPIC PROOFED RADIO RECEIVER MODEL V5 (BATTERY OPERATED)

This receiver has been manufactured by Australian Sound Systems, 197 Elizabeth Street, Melbourne, and conforms with Specification No. S.A.A. Int. 102 issued by the Standard Association of Australia in conjunction with the Directorate of Radio and Signal Supplies, Department of Munitions.

This receiver has been specially designed to give first class trouble-free performance and entertainment when used in tropical areas, and is expressly for the use of troops in forward areas.

We wish you many happy hours listening with this receiver.

AUSTRALIAN SOUND SYSTEMS.

IMPORTANT.

OPERATING INSTRUCTIONS.

The following instructions should be carefully observed before placing the receiver in operation.

POWER SUPPLY: 6 volt Wet Battery.
Positive red clip must connect to positive on battery otherwise damage may result to receiver. Should battery clips be broken off leads from set, they can traced from the red grommet (positive) on the front panel.

RIAL: To achieve best results from this hyper-sensitive receiver, in distant and remote areas, an aerial to 100 feet long is required and as high as possible.

EARTH: As this receiver will respond to such minute signals (approximately one millionth of one volt) on both short wave and broadcast bands, an efficient earth is necessary. Should an earth connection not be readily available, an effective one can be made by firmly clamping or soldering a connection to a water pipe driven deep into the ground or to a piece of galvanized iron buried in moist soil. The earth lead should be as short as possible.

OPERATION: Having withdrawn the set from the packing case (if necessary) and filled and charged the battery, proceed as follows:

(A) Connect aerial to insulated terminal on lower right-hand corner of set.

(B) Connect Earth to earth terminal which is located directly above aerial terminal making sure that the aerial and earth leads do not short together.

(C) Connect positive red clip to positive of 6 volt battery and negative plain clip to negative of battery.

(D) Select wave band required as per instructions on front of coil box unit.

(E) Switch set "on" by pushing down to "ON" position the toggle switch situated on the left-hand top corner of set. Dial light can be switched on while tuning if required by pushing in small rubber button just above "POWER-ON" switch.

(F) Turn Volume Control up about two-thirds (clockwise) by left-hand bakelite knob and tune by right-hand knob.

Tone can be adjusted by centre knob, but it is recommended that it always be left at maximum "treble" which is "full on" clockwise.

For maintenance refer to circuit diagram inside

Line up frequencies	[illegible] KC.
Broadcast Range	1500-550 KC.
Sensitivity	Average
Image Ratio at 600 KC.	100:1
Signal/Noise Ratio average at 20 db input	25 db

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For maintenance refer to circuit diagram in lid.

Line up frequencies	IF 450 KC.
Broadcast Range	1600-550 KC.
" Sensitivity	5 Average
" Image Ratio at 600 KC.	100-500 : 1
Signal/Noise Ratio average at 20 uv input	25 db
Short Wave Range	18-6 Megacycles
" Sensitivity at 18 Megacycles	1 Volt
" Image Ratio at 18 Megacycles	50 : 1
Signal/Noise Ratio at 20 uv 18 Megacycles	15 db
Short Wave Sensitivity at 6 Megacycles	1 Volt
" Image Ratio at 6 Megacycles	300 : 1
" Signal/Noise Ratio at 20 uv	20 db

Add this to the first page.

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V5 Amenities Receiver

Summary of Findings

I have been fortunate enough to have had access to three of these receivers. All have had a circuit diagram on the underside of the case. Although one circuit diagram was severely worn with large areas missing, I was able to fairly well establish that it was identical with one of the other sets. This is a summary of what I found:-

Set (A) Dated 11/1944 with Serial No. in the 270's. Supplied by the Red Cross Society of Australia according to transfers on the case. The case has a vertical metal strap spot welded to it at each end and a bracket with a square hole at the top right of the speaker louvred cover. Inside of the case is painted a yellow colour. There is an angle strip spot welded to the top inside and this has had a large section removed roughly as if by a hacksaw. The circuit diagram is as I have drawn on Sheet 1. Looking at the circuit diagram around the AVC connection to the coil-box, I find it hard to believe that the receiver would work. I suspect that this was a drawing error which was not found prior to the diagrams being attached to the case.

Set (B) Unknown Date, Serial No. or Supplier. Same case style as Set (A) including the roughly cut out angle strip and interior colour. Circuit diagram is worn but appears to be the same as in Set (A) i.e. Sheet 1.

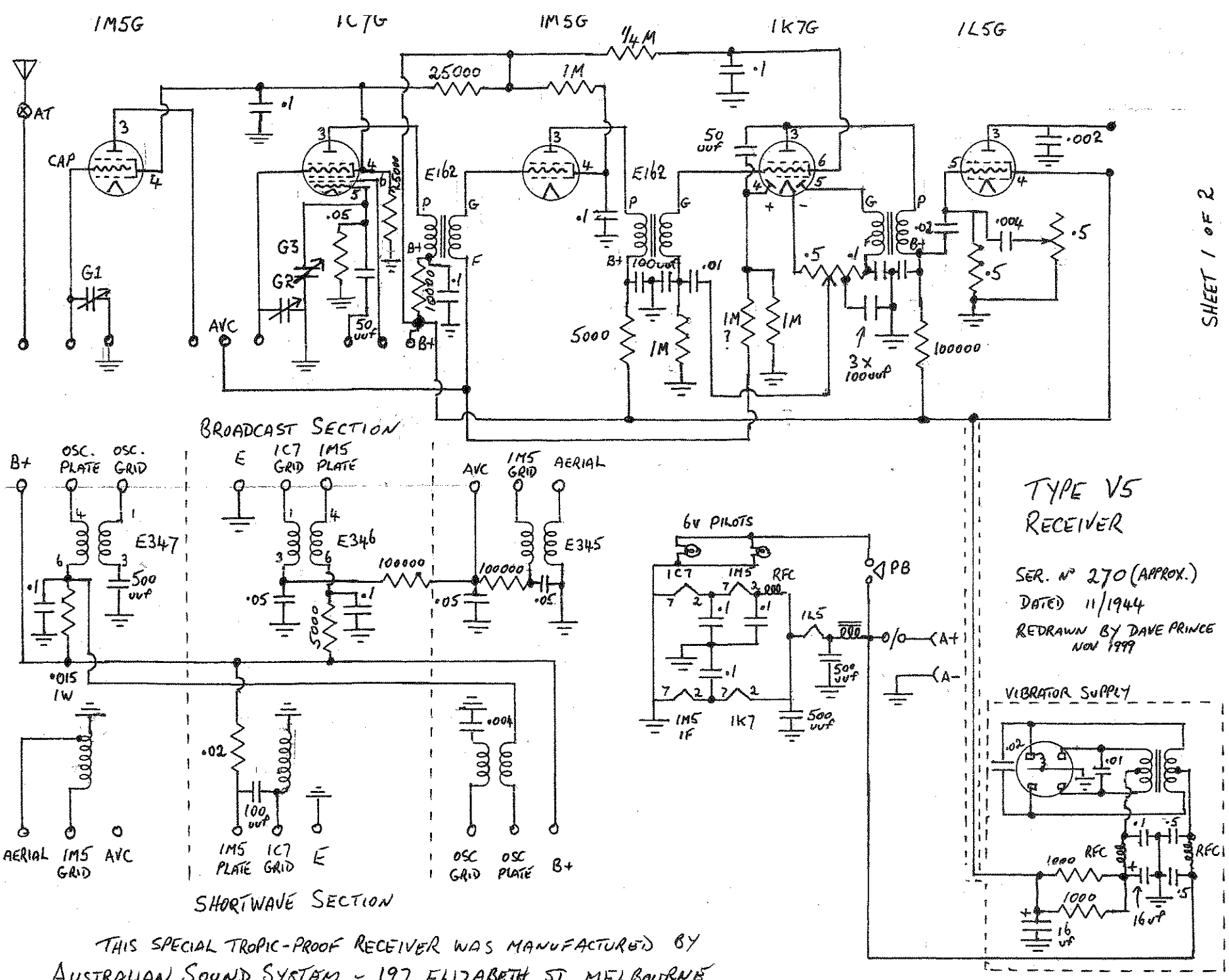
Set (C) Dated June 1945 with Serial No. in the 1580's. Supplied by the A.A.Amenities Service according to a brass plate attached to the speaker louvred cover. This case does not have the metal straps at each end nor the metal bracket with the square hole. The case interior is not painted and appears to have a cadmium or similar type finish. The angle strip along the top inside is of a lower profile and is not 'hacked' around. The circuit diagram is as I have drawn in Sheet 2. Note the changes in the AVC/coil-box areas and some component values have changed. In this set, the valve top-cap clips are coil-spring type as opposed to the cup type in Sets (A) & (B). All valve metal shields on this receiver have soldered connections to the chassis. Sets (A) & (B) had the valve shields but not the soldered connection.

In taking ohmmeter readings on all three coil-box units, it appears that they are **all** wired as per the Sheet 2 circuit. All sets have the capacitor to ground from the PB (Push Button) as also indicated in Sheet 2. I have not been able to look at the vibrator circuitry in each set to see if they vary as in the two diagrams.

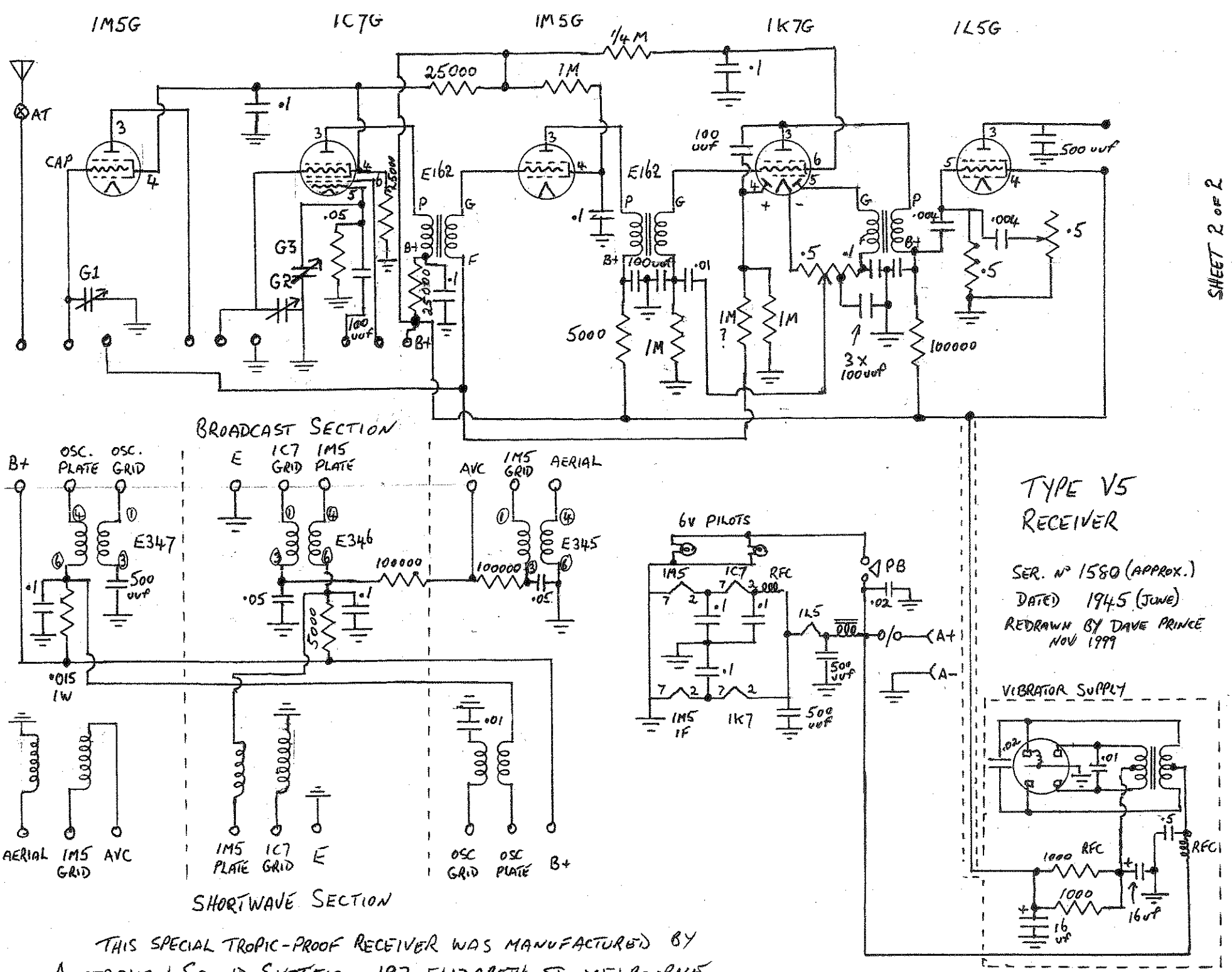
I suspect that all V5 sets may have been built as per the circuit on Sheet 2. Maybe Circuit 1 was in the pre-production stages and after 55 years, we'll probably never really know.

An oddity? Even though the importance of a good earth is stressed in the Operating Instruction Card, there is no earth terminal fitted. At least not to the three I have looked at.

Dave Prince VK4KDP
November 1999.



THIS SPECIAL TROPIC-PROOF RECEIVER WAS MANUFACTURED BY AUSTRALIAN SOUND SYSTEM - 197 ELIZABETH ST MELBOURNE



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AUSTRALIAN SOUND SYSTEM - 197 ELIZABETH ST MELBOURNE