

**The A.W.A.
RADIOLA
INSTRUCTION
BOOK**

**MODEL
509 • M**



AMALGAMATED WIRELESS (A/SIA) LTD

47 York Street,
Sydney

167 Queen Street,
Melbourne

Guarantee

TO PURCHASER

This A.W.A. Radiola Receiver is guaranteed by Amalgamated Wireless (A/sia) Ltd. to be free from manufacturing defect and faulty material for a period of 90 days from date of supply.

Should any fault in manufacture or material be found the purchaser should immediately communicate with the Radiola Distributor from whom the instrument was purchased.

GUARANTEE—In the event of any defect being disclosed in any part manufactured or supplied by the Company, the Company will repair free of charge such defective part subject only to the following conditions:—

- (1) The defective part must be returned carriage paid to the Company's Depot within seven days after the alleged defect is observed and within 90 days after delivery of the goods accompanied by a written intimation from the sender that he desires to have it repaired free of charge under this guarantee.
- (2) The defect must be found when examined by the Company to be due exclusively to faulty material or bad workmanship and not to wear and tear, dirt, misuse, neglect, accident or other similar causes.
- (3) The Company is not to be liable for labour or for any loss or expense arising from a breakdown of any parts or for any consequential damages direct or indirect or for any repairs made or attempted to be made without the written sanction of the Company.
- (4) This guarantee does not apply to accessories such as valves, vibrators or batteries.

Distributors or employees are not authorised to give any warranty or make any representations whatsoever, verbal or otherwise, on the Company's behalf other than those contained in the above guarantee.

To ensure protection under guarantee, purchasers should note that marks or numbers on Radiolas should not be removed or defaced.

**AMALGAMATED WIRELESS
(AUSTRALASIA) LIMITED**



Instructions for Installing and Operating the A.W.A. Radiolette

MODEL 509-M

Read the instructions carefully before proceeding with the installation.

This instrument operates from the electric power supply; therefore, it is not safe to interfere with any of the internal wiring or apparatus unless the current is switched off and the plug removed from the power point.

1. INTRODUCTION

The Radiolette is a five valve, A.C. operated superheterodyne receiver designed for the reception of medium wave broadcasting. The tuning range is 550-1600 kilocycles.

The power rating of the receiver is marked on the label adhered to the inside of the case. Before installing the receiver, make sure that the voltage and frequency ratings indicated on the label correspond with the power furnished to your home. Should any doubt exist regarding the power supply, consult the Electric Supply Department or Company before proceeding with the installation. See Para. 2.4 "Connection to Power Supply."

2. INSTALLATION

2.1. Inspection.

Each receiver is equipped and tested with the valves which are shipped with the instrument. Upon taking the receiver from its carton, remove the corrugated cardboard

packing pieces which are fitted to protect the valves during transit. Having removed the packing, see that the valves are inserted in their correct sockets, and pressed firmly down, and that the grid lead clips are firmly attached to the top-caps of the proper valves. Refer to Fig. 1 or the label adhered to the inside of the cabinet.

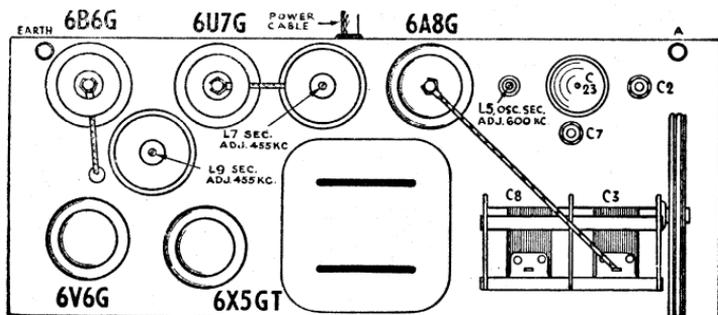


Fig. 1.

2.2. Valve Complement.

- 1 — A.W.A. or Radiotron 6A8G
- 1 — A.W.A. or Radiotron 6U7G
- 1 — A.W.A. or Radiotron 6B6G
- 1 — A.W.A. or Radiotron 6V6G
- 1 — A.W.A. or Radiotron 6X5GT

When it becomes necessary to replace valves, to ensure consistent good results and to safeguard the receiver against damage, valves other than those specified should not be used.

2.3. Aerial and Earth Connections.

The aerial wire supplied with the receiver is intended for use as a temporary convenience only. For a satisfactory permanent installation, a larger aerial is required. Best results will be obtained in the general case with an outdoor aerial about 50 feet in length, including the lead-in. The aerial should be well insulated from all objects and should run neither close to nor parallel with electric or telephone wiring, inside or outside the building.

The earth wire should be of not less than 7/.029 insulated cable, as short and direct as possible, and should be connected, preferably, to a cold water pipe. An approved ground clamp should be used to ensure a tight and permanent connection. Gas pipes and electric conduits should not be used as earth connections.

Connect the aerial and earth wires to the terminals marked "A" and "EARTH" respectively.

2.4. Connection to Power Supply.

The receiver should not be connected to any circuit supplying other than alternating current from 200-260 volts and at the frequency stated on the label within the case.

The receiver is supplied ready for operation on voltages of 230 or above. Should the supply voltage be consistently below 230, it will be necessary to remove the chassis from the case as described in Para. 5.4. and rewire the power cable to the power transformer.

With the receiver disconnected from the power point, remove the chassis from the cabinet and connect the cable as shown in Fig. 2.

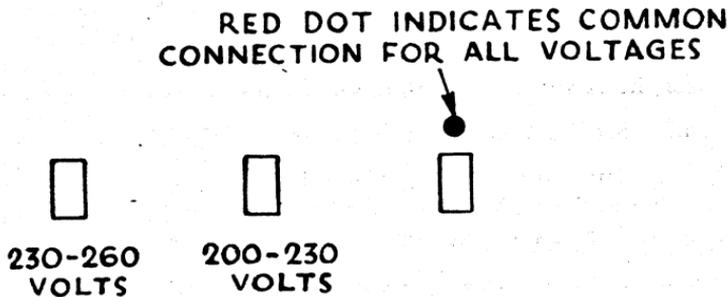


Fig. 2.

3. CONTROLS

There are three controls (see Fig. 3), two on the front, and one at the right-hand side of the receiver as follows:

3.1. Volume Control.

Left-hand front knob. Turning the knob clockwise increases the volume.

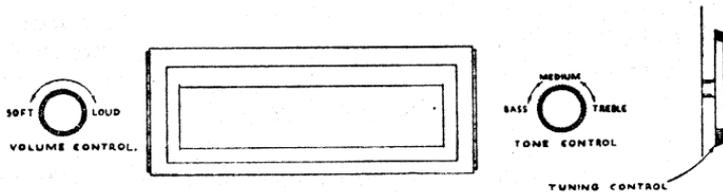


Fig. 3.

3.2. Tone Control.

Right-hand front knob. This control has three settings—Bass, Medium, and Treble—from left to right. After a station

has been tuned, this control may be adjusted to suit the programme being received or to reduce static interference, if excessive.

3.3. Tuning Control.

The large knob at the right-hand side of the cabinet. As the knob is turned, the pointer will be seen to move along the dial indicating the tuning of the receiver.

4. OPERATION

To operate the receiver, proceed as follows:

- 4.1. Connect the receiver to the power point and turn on the switch controlling the circuit. The dial should now be illuminated. An interval of about half a minute is necessary for the valves to heat before satisfactory operation is obtained.
- 4.2. Set the Volume Control near the middle of its range.
- 4.3. Turn the Tuning Control knob until the pointer indicates the station it is desired to receive and rotate the knob through a few degrees on either side of this setting.
- 4.4. Turn the Volume Control until the station is heard at low volume.
- 4.5. Adjust the Tuning Control to a position midway between the points where the quality of reproduction becomes poor, or the signal disappears. This adjustment ensures the best quality of reproduction and should not be changed to reduce volume.
- 4.6. Adjust the Volume Control until the desired volume is obtained.
- 4.7. Select the desired tonal quality by adjusting the Tone Control. For "brilliant" reproduction, turn to the extreme clockwise position; for "deep" tone, turn to the extreme anti-clockwise position. The middle position provides a tone balance between the two extremes.
- 4.8. When discontinuing operating the receiver, switch it OFF at the power point.

If your receiver will not operate after installation in accordance with the instructions given in this booklet, and you have no immediate success in locating the trouble, enlist the services of the authorised dealer from whom the instrument was purchased.

5. SERVICE DATA

5.1. General.

Voltage Rating	200-260 volts A.C.
Frequency Rating	50-60 C.P.S.
(Instruments available for other voltage and frequency ratings)	
Power Consumption	42 watts
Tuning Range	550-1600 kc.
Intermediate Frequency	455 kc.

5.2. Valves and Circuits.

6A8G	Frequency Converter.
6U7G	I.F. Amplifier.
6B6G	Detector, A.V.C., & A.F. Amp.
6V6G	Output.
6X5GT	Rectifier.

A schematic circuit diagram of the receiver is given in Fig. 4.

5.3. Dial Lamp Replacement.

Before replacing a dial lamp, switch off the power at, and remove the plug from, the power point. Slide the lamp socket from its bracket and replace the faulty lamp. Two 6.3 volt, 0.25 Amp. miniature screw base dial lamps are used.

5.4. Chassis Removal.

First remove the control knobs and felt washers; the knobs on the front are each held by a set screw, the knob at the side pulls straight off. The chassis mounting screws (2) are situated at the rear and at each end of the chassis. Remove these, and withdraw the chassis.

5.5. Socket Voltages.

Valve	Bias Volts	Screen Grid to Chassis Volts	Plate to Chassis Volts	Plate Current mA	Heater Volts
6A8G Detector	-3*	90	230	2.5	6.3
Oscillator	—	—	150	4	—
6U7G I.F. Amp.	-3*	90	230	7	6.3
6B6G 2nd Det.	0	—	120*	0.4	6.3
6V6G Output	12.5	230	215	34	6.3
6X5GT Rectifier					

600/300 volts, 60 mA Total Current.
Voltage across loudspeaker field—60 volts.

* Cannot be measured with ordinary voltmeter.

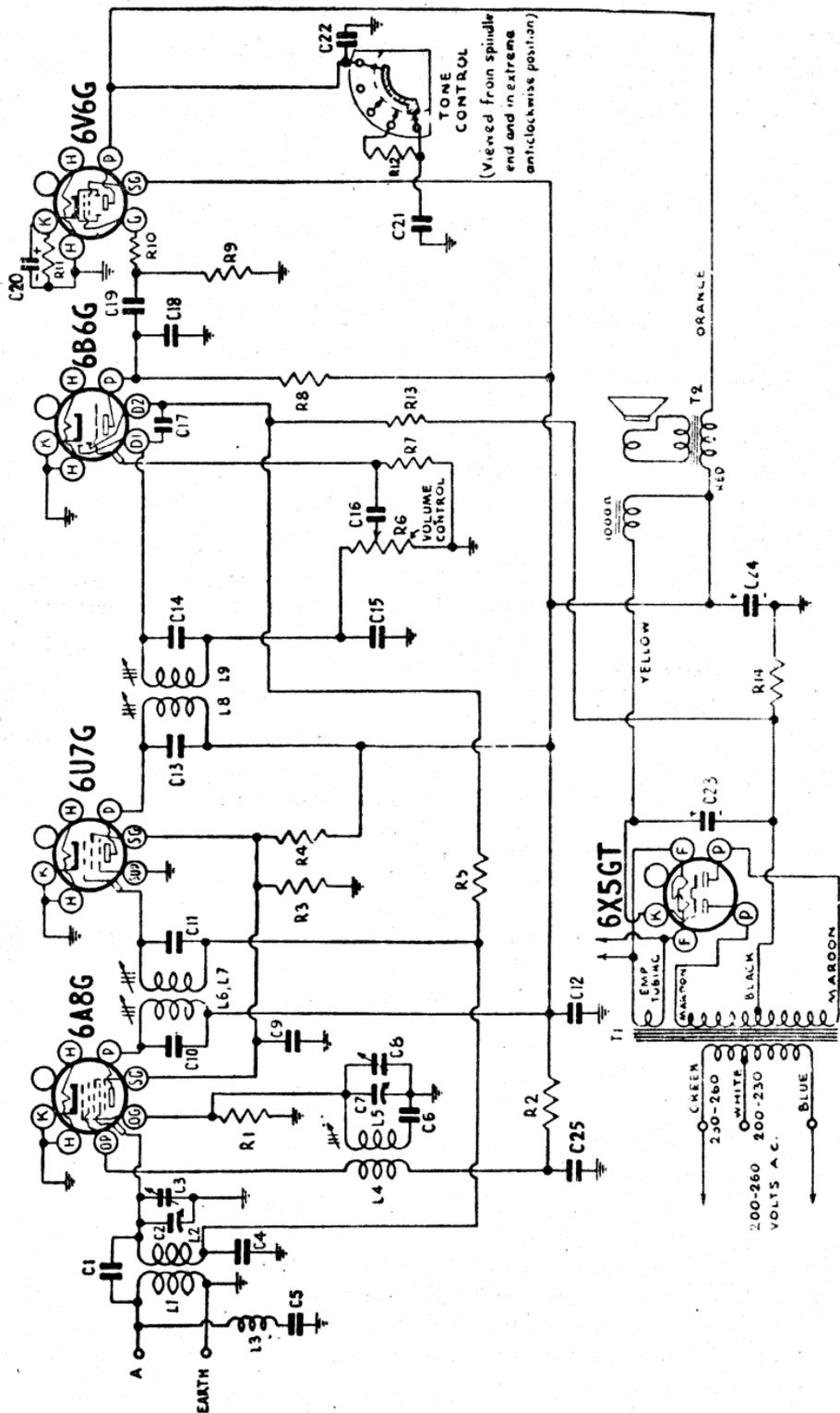


Fig. 4.