

AMALGAMATED WIRELESS (ASIA) LTD



INSTRUCTIONS
FOR
INSTALLING
AND
OPERATING

Radiolette

NP
621-38418
187

|| 29 & 71 ||

Alteration of Station Positions

SEPTEMBER 1st, 1935

ON SEPTEMBER 1st, 1935, the wavelengths of all Broadcast Stations are to be changed.

On the permanent "Rotovisor" scale of this A.W.A. Receiver the new station positions are marked.

In addition, a temporary "ring scale" marked with the old station positions is fitted immediately under the glass of the "Rotovisor" dial. After September 1st remove this scale.

BEFORE SEPTEMBER 1st, tune to the station names on the front scale.

AFTER SEPTEMBER 1st, tune to the station names on the rear scale.

HOW TO REMOVE TEMPORARY SCALE

ALL WAVE RADIOLAS (Models R241, R242, R243).

With a small screwdriver release the binding screws and remove the two knobs on bezel; also the four screws fixing the bezel to the cabinet. The temporary ring scale can then be removed from the bezel and the bezel and knobs replaced.

MEDIUM WAVE RADIOLAS (Models R146, R147, R148, R151, R152).

With a small screwdriver remove the four screws fixing the bezel to the cabinet. The temporary ring scale can then be removed from the bezel, and the bezel replaced.

RADIOLETTE CONSOLE (Models R70, R71, R72).

With small screwdriver loosen off the four screws fixing the plated bezel in position. The temporary scale can then be slipped out and the screws tightened up again.

RADIOLETTE TABLE (Model R29).

With small screwdriver release the binding screws and remove the two knobs from bezel. Next lay cabinet on its back and remove the four wood screws from the bottom of cabinet, enabling the chassis to be removed.

This will allow the small brass nuts inside the cabinet to be held while the four bezel retaining screws are loosened off and the temporary scale removed. The bezel chassis and knobs can now be replaced.

IMPORTANT: Do not interfere with Permanent Rotovisor Scale or Pointer.

Instructions for Installing and Operating RADIOLETTE

MODELS 29 AND 71

Read the instructions before proceeding with the installation of the Radiolette. This instrument operates from 240 volts supply; therefore, it is not safe to interfere with any of the internal wiring or apparatus unless the current is switched off at the power point switch controlling the circuit to which the attachment plug is connected, and the plug has been removed from the power point.

VALVES. Installation.

The Radiolette has been designed for the use of Radiotrons therefore, to ensure consistent good results and to safeguard the instrument against damage, valves other than those specified below should not be used.

1 Radiotron 6D6	1 Radiotron 6A7
1 Radiotron 42	1 Radiotron 6B7
1 Radiotron 80	

To replace or inspect valves remove the plug from the power point; also from the underside of the base two screws holding the chassis in the cabinet. Loosen the grub screws holding the knobs on the controls.

The chassis may now be removed from the cabinet by sliding back and lifting out.

When replacing valves be sure to see that they are inserted in the sockets in the order shown in the diagram.

To replace or inspect the screen grid valves, remove the valve screen cover, held on by the two screws. See that the grid lead of the 6B7 valve is suspended over and the grid lead of the 6A7 valve is taken around the side of the partitions in the valve screen (through the appropriate notches) as indicated in the diagram. Be sure that the grid clips are firmly connected to the top terminals of their proper valves.

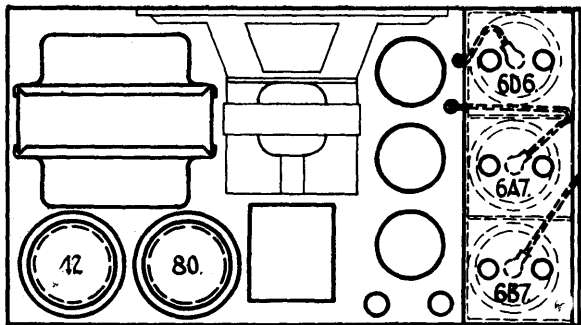


Fig. 1.—Showing position of Valves and location of Grid Leads.

LOCATION.

Locate the Radiolette in a convenient position within ten feet of the power point to which it is to be connected.

AERIAL AND EARTH.

The Radiolette will operate without an earth wire and with an indoor aerial of about 15 feet of wire connected to the aerial terminal marked "A" located on the back of the chassis. In certain localities where reception conditions are difficult it may be necessary to use an earth wire and an outdoor aerial.

If an earth wire is required it should be short and direct, of not less than 7/22 cable, and efficiently earthed. If an outdoor aerial is necessary it is recommended that it be 25 to 50 feet in length.

The aerial and earth wire should be installed and protected in accordance with the wiring rules of the Standards Association of Australia.

CONNECTION TO POWER SUPPLY.

The instrument should not be connected to any circuit supplying other than alternating current within the limits of 190 to 260 volts and 50 to 60 cycles.

This instrument is wired for the voltages of 230 or above. Should the supply be always less than 230 volts it will be necessary to rewire the power cord connection. Remove the chassis from the cabinet; turn it upside-down and unsolder the conductor

of the power cord connected to the tag on the power supply terminal board, marked 230-260, and connect it to the tag marked 200-230. If there is any doubt regarding the supply voltage consult the Electric Light Department or Company before connecting the Radiolette.

OPERATION.

The Radiolette has two operating controls located on the front of the instrument and one on the back of the chassis.

(1) **STATION SELECTOR** (right hand knob). By turning this knob the pointer is seen to move around the calibrated dial indicating the tuning of the instrument between 200 and 550 metres.

(2) **VOLUME CONTROL** (left hand knob). When the Radiolette is tuned to a station the volume will be increased as this knob is rotated clockwise.

(3) **SENSITIVITY SWITCH** (the switch on the back of the chassis). When listening to strong local stations set this switch to Local (L) to the right, otherwise use the Distant position (D) to the left.

To operate the Radiolette proceed as follows :

1. Connect the Radiolette to the power point and turn on the switch controlling the circuit. The station selector should now be illuminated. An interval of 30 seconds is required for the valves to heat up before satisfactory operation is obtained.
2. Set the sensitivity switch to Distant (D).
3. Turn the station selector knob with the right hand so that the pointer indicates the wavelength of the station it is desired to receive and rotate it through a few degrees on either side of this setting.
4. At the same time turn the volume control knob with the left hand so that the station is heard at low volume.
5. Now adjust the station selector to a position midway between the points where the quality becomes poor, or the signal disappears.

This adjustment ensures the best quality of reproduction.

6. Finally advance the volume control (clockwise) until the desired level is obtained. If the volume control does not allow a sufficiently low minimum volume from a strong local station, set the sensitivity switch to Local (L).
7. When ceasing listening-in, open the power switch controlling the circuit to which the Radiolette is connected.

If your Radiolette will not operate, and you have no immediate success in locating the trouble, enlist the services of the authorised dealer from whom the set was purchased.

Radiolette Service Data

MODELS 29 AND 71

ELECTRICAL SPECIFICATIONS.

Voltage Rating	190-260 Volts.
Frequency Rating	50-60 Cycles.
Power Consumption	50 watts.
Tuning Range	200-550 Metres.
Intermediate Frequency	175 K.C.

This receiver is a five-valve Superheterodyne designed to be of compact construction and give good performance.

The Table Model incorporates a Dynamic Speaker as part of the chassis, while the Console Model includes a larger speaker connected to the chassis by a plug and cord.

CIRCUITS.

The circuit consists of an R.F. stage using Radiotron 6D6, a combined oscillator and detector using Radiotron 6A7, a 6B7 operating as I.F. amplifier, detector, A.V.C. and audio frequency amplifier combined, and a Radiotron 42 pentode output.

The rectifier valve is a Radiotron 80 supplying loudspeaker field excitation and plate supply for all valves.

CONSTRUCTION.

LOUDSPEAKER MOUNTING.—To remove the loudspeaker from the chassis disconnect the loudspeaker leads—

Red Lead from Filament 80 Rectifier.

Yellow Lead from Screen Grid 42 Pentode.

Blue Lead from Plate 42 Pentode.

and remove the screws holding the loudspeaker mounting straps to the front of the chassis and loosen the two screws (accessible from the back of the chassis) holding the speaker on the mounting bracket.

VARIABLE CONDENSER AND VOLUME CONTROL UNIT.

The variable condenser and volume control unit is removed as follows :

1. Remove the strap across the front of the chassis by taking out the screws.
2. Disconnect all leads connected to the variable condenser and volume control.
3. Remove three nuts and washers on the top of the chassis holding the unit to the chassis.

NOTE.—It is important that the variable condenser unit be mounted by means of the rubber bushes and kept insulated from the chassis except for the decoupling resistor of about 2 megohms.

ACCESS TO CHASSIS PARTS.

All parts on the chassis may be made conveniently accessible by making use of the hinging feature of the chassis ends. To hinge, remove the two screws nearest the foot and loosen the other two screws. Unsolder the two or three connecting leads and hinge the chassis end back. Treat the other chassis end in a similar manner and all parts on the chassis will then be accessible.

VALVE SOCKET VOLTAGES.

240 Volts, 50 Cycles A.C. Supply.

VALVE.	Cath. to Chassis Volts.	Cathode to Screen Grid Volts.	Cathode to Plate Volts.	Plate Current M.A.	Heater Volts.
6D6 R.F.	6.0	45	245	1.0	6.25
6A7 1st Detector	6.0	45	245	0.5	6.25
Oscillator	—	—	170	3.0	—
6B7 2nd Detector	2.5	48	100	1.2	6.25
42 Pentode	14.0	230	215	30.0	6.25
80 Rectifier—600/300 volts, 45 m.a. total current					4.9

Voltage across Loudspeaker Field — 72 volts,

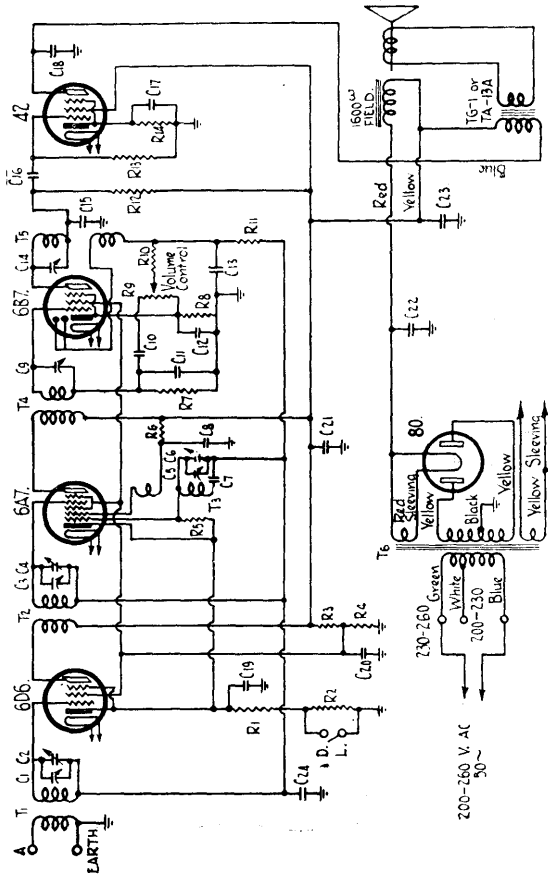


Fig. 2.—Circuit Diagram, Radiolette 29 and 71.