AERIOLA SR. RECEIVER, MODEL RF

Aeriola Sr. has become famous as a highly satisfactory and easily operated vacuum tube receiver.

LIKE the Aeriola Jr., the Aeriola Sr. is a Westinghouse product designed to fill the popular demand for an inexpensive set for broadcasting reception with a greater range than that of Aeriola Jr. Aeriola Sr. makes use of the Regenerative Circuit. This circuit in conjunction with a vacuum tube detector amplifies radiophone signals many times beyond the strength obtainable with a simple circuit. The outstanding feature of Aeriola Sr. is the fact that the filament of the vacuum tube may be operated from a single dry cell, the telephones being energized by what is termed a "B" or plate battery of 20 volts or more.

Aeriola Sr. for the Farmer

Aeriola Sr. will be found especially useful to the farmer for the daily reception of market and weather reports. These messages are sent out by the U. S. Government stations on a wavelength of 485 meters and are received like regular telephone conversations. It is not necessary for the farmer to know the telegraph codes. Thus this instrument proves of great value to the great farming centers of the United States which are served by local radiophone broadcasting stations.

In addition to its longer receiving range, Aeriola Sr. possesses the added feature of a more delicate tuning adjustment. This reduces the possibility of interference from undesired stations. Aeriola Sr. is portable. The upkeep expense is very small. Like Aeriola Jr. its wavelength range is from 190 to 500 meters.

Aeriola Sr. includes the receiver or tuner, an Aeriotron detector tube and a pair of head telephone receivers.

Aeriola Sr. for the Boy Scouts

Aeriola Sr. receives over comparatively long distances from low-powered transmitting stations and lends itself particularly for communicating between Scout troops and headquarters or sections of the same troop located in different places.

The set may be carried by one Scout without overburdening him, whether he is on a long hike or not. The Aeriola Sr. with the necessary batteries for its operation, the insulators and wire for making the antenna as well as the wire used for the ground connection may all be placed in a haversack. The total weight is less than 15 pounds.

In addition to being very sensitive, this outfit is easy to operate and is not subject to irregularities sometimes found in fragile receivers.

A well-trained troop can set up the antenna, make the ground connection and have a receiving station in operation in a few moments.

Erecting the Antenna

The simplest way to erect an antenna when afield is the following: Attach an insulator to a long piece of string. This insulator and string is then used as a sling and hurled by a Scout over a branch of a tree or any other convenient object. When the insulator reaches the ground on the opposite side of the tree, it

It is easy for the Boy Scout Signal Officer to erect a temporary aerial over a tree branch.

is merely necessary to attach the antenna wire and pull on the string. When the antenna is high enough simply fasten the string to the trunk of the tree or other convenient support.

For communicating over short distances, the ground connection may be made by merely laying a piece of rubber-insulated copper wire along the ground for a distance of about 40 or 50 feet. This arrangement does away with the necessity of driving rods into the earth.

However, where the station is to be set up near salt water or in a salt marsh, it is more effective to connect the ground wire with a piece of metal of large surface and to place the metal either in the water or the damp earth. The length of the aerial for such a receiving set may be from 50 to 150 feet.

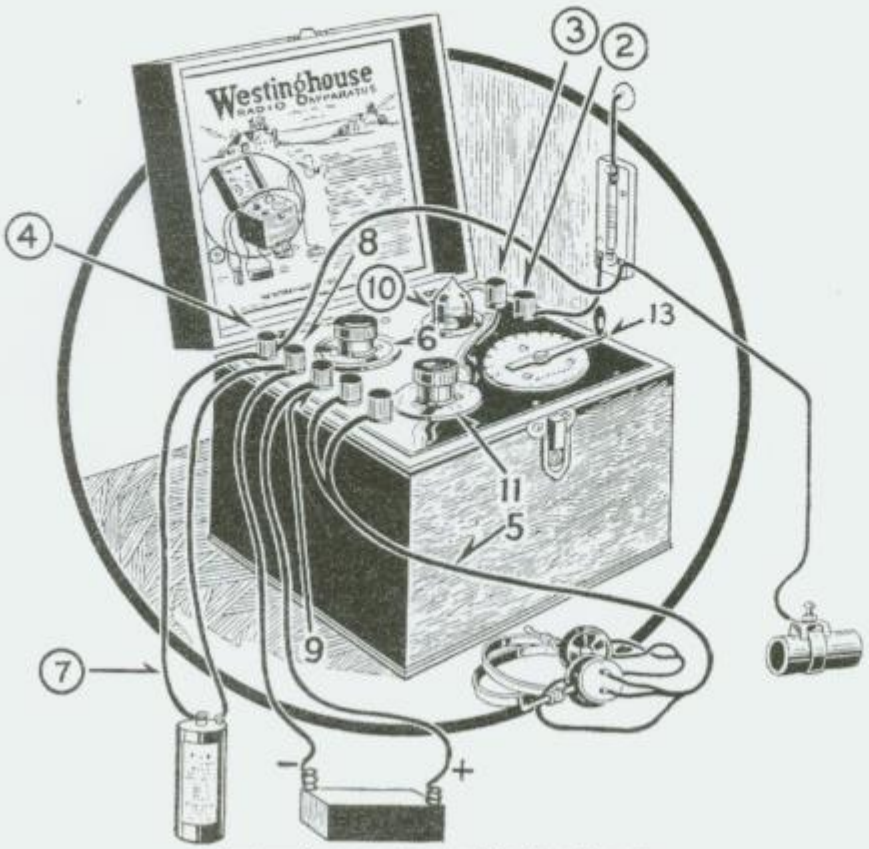
Easy to Install Antenna

In one of the accompanying illustrations a Scout is shown casting an insulator attached to a string over the branch of a tree. In another illustration a group of Scouts are gathered about a receiving station using the antenna suspended from the tree.

The Aeriola Sr. has been used by Scout Troops with entire satisfaction. Because it is sensitive, compact and inexpensive, it is the ideal receiving outfit for use in connection with their outdoor manoeuvres.

A typical Boy Scout Troop about to depart for a Saturday morning's winter march. The central Scout carries the complete Aeriola Sr. Receiver outfit in his knapsack.

OPERATING INSTRUCTIONS FOR AERIOLA SR.



Text numbers correspond with above diagram.

Numbers Corresponding to Diagram

No. 1. First, refer to accompanying sketch, then erect antenna and place protective device in position as described on page 56.

No. 2. Connect a wire leading from terminal marked R on protective device to binding post indicated by arrow for stations below 350 meters.

No. 3. For stations between 350 and 500 meters, connect the above wire to this post.

No. 4. Connect this post with terminal G of protective device.

No. 5. Connect telephone receivers to these two posts.

No. 6. Turn rheostat as far as it will go toward tail of arrow.

No. 7. Connect to positive (center) terminal of the single 1.5 volt dry cell.

No. 8. Connect to negative (outside) terminal of the single 1.5 volt dry cell and negative terminal (—) of 22.5 volt plate battery.

No. 9. Connect to positive terminal marked (+) of 22.5 volt plate battery.

No. 10. Insert Aeriotron Vacuum tube in receptacle provided. Note that the four holes in base which receive prongs of tube are not all alike, one being larger than the rest, thus permitting insertion of tube in but one way. Be sure prongs register with holes and then press in firmly.

No. 11. Place "Tickler" pointer at zero point of scale.

No. 12. Turn rheostat (6) toward point of arrow until vacuum tube shows dull red. Do not try to burn too brightly as this materially reduces the life of the filament.

No. 13. Rotate tuning handle slowly over the scale, meanwhile listening until sound is heard in the telephone receivers. Adjust to best position, then increase "Tickler" (11) until maximum strength of signal is obtained. If tickler is turned too far toward maximum position, signals will lose their natural tone and reception of telephone signals may become difficult.

Note: This terminal is also connected to terminal G of the protective device.

Complete Aeriola Sr. Broadcasting Receiver, Model RF, 190-500 Meters, with One Aeriotron WD-11-D Vacuum Tube, One Filament Dry Cell, One Plate Dry Battery, Head Telephone Receivers, Antenna Equipment and Full Instructions $75.90

Aeriola Sr. Broadcasting Receiver, Model RF, As Above, Less Batteries and Antenna Equipment $65.00

Dimensions: 7 in. x 8½ in. x 7¼ in.

Weights: Net, 6 lbs.; Shipping, 12 lbs.; with Antenna Equipment and Batteries, 25 lbs.

NOTE: For Prices of other Complete Receiver Combinations, see page 35.