

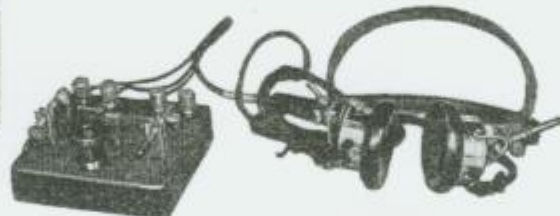
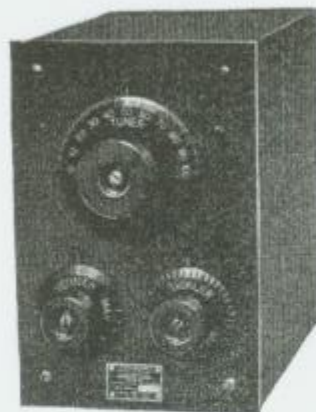
SHORT WAVE REGENERATIVE RECEIVER, MODEL RA

THIS short-wave tuner, a product of the Westinghouse Company, has been designed to meet the needs of those who require the best form of receiving set available for broadcast reception. Particular attention has been paid to the fact that some Radio enthusiasts desire to carry on experiments of their own, and to incorporate various parts of their receiving equipment. For this reason the terminals are so arranged that either a crystal detector or a vacuum tube detector may be employed. For the former, type DB crystal detector, described on page 52, is recommended, for the latter, type DA Vacuum tube detector and two stage amplifier unit described on page 21.

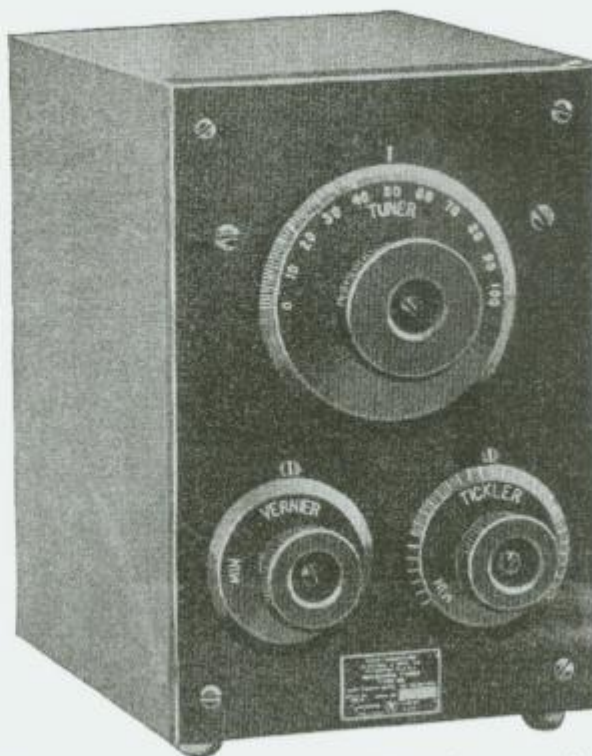
Wide Variety of Uses

It has been customary for the novice in Radio to begin with a crystal detector, later adopting vacuum tube detection. As the type RA Receiver will give satisfaction with either method, it forms an ideal unit. The type RA tuner, as used in connection with the average antenna, has a wavelength range of 180 to 700 meters. This range therefore includes practically all that the average person cares to hear—in a word everything from amateur messages and broadcasted music to ship signals.

This receiver requires but one major adjustment in order to bring in desired stations and cut out undesired stations. Tuning, as this operation is called, is effected by turning the tuner knob. A minute adjustment of this circuit is obtained by what is known as a "vernier" condenser, which is connected in parallel with the antenna condenser. When a vacuum tube detector is used with this tuner advantage is taken of the amplifying qualities of the Armstrong regenerative circuit. In this case the degree of amplification is controlled by a small knob marked "ticker."



Tuner RA, with Crystal Detector DB and Head Telephones UD-790 complete the Receiver.



Model RA Tuner is a high grade Westinghouse product.

SPECIFICATIONS

Panel—Micarta, finished in black matte.

Cabinet—Natural polished mahogany.

Dials—Polished black micarta with beveled edges. Markings filled in white.

Knobs—Moulded black composition.

Condensers—Rotary plate type, air dielectric. Stationary plates are soldered to three supports, thus making excellent electrical contact and insuring permanent alignment.

Coils—Single layer wound on micarta tubes. Movable part of variometer connected to stationary coil through wire "pigtail."

Tickler Coil—Wound on same tube as stationary coil of variometer, and suitable taps are insulated with varnished cambric tubing and brought out to a dial switch.

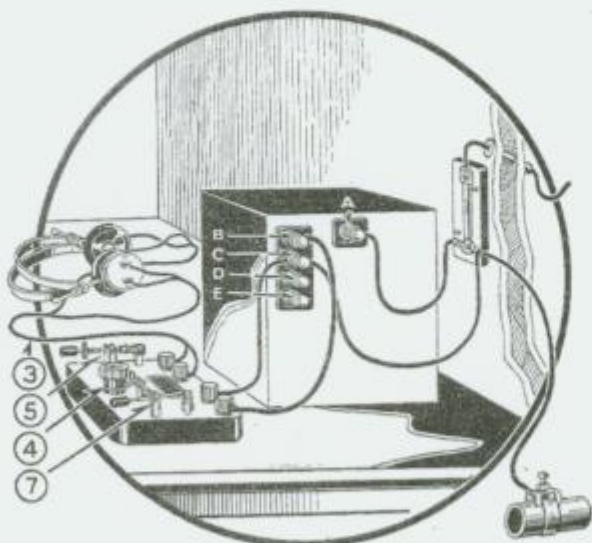
Binding Posts—Moulded insulated posts, brought out at rear.

Fittings—Exposed metal parts on front of panel are brass, nickel-plated. All other screws are black finished.

Wiring Diagram—A wiring diagram showing all connections is furnished, together with complete instructions.

OPERATING INSTRUCTIONS FOR MODEL RA TUNER

When Used With Westinghouse Crystal
Receiver Combination No. 5



Text numbers correspond to above diagram.

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

No. 2. Make connections as shown above, taking care that the two wires leading to the protective device do not lie close together. These wires should be as short as possible. All wiring may be made with No. 18 rubber-covered copper wire. Carefully remove the cover from both ends of each wire used, scraping clean with a knife, placing the end thus cleaned under the terminal caps shown and tighten cap.

No. 3. Connect head set as shown.

No. 4. Place dial switch in position shown.

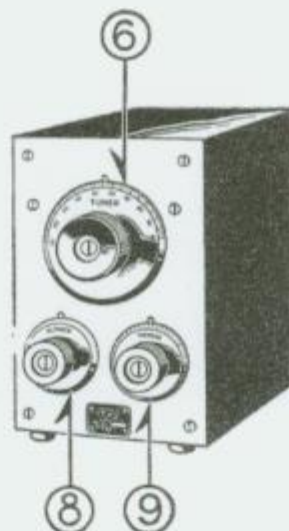
No. 5. Adjust pressure type crystal by clasp- ing black handle and pulling the movable crystal away from the stationary one and let it come in contact with it at various points. Crystals should come together with firm pressure. While trying various points,

turn the tuner knob (6) slowly over the scale, listening at the same time for sounds in the telephone receivers.

No. 7. By changing the dial switch (4) to the other position this detector may be used. The flexible wire with special tip should be brought into contact with the various points on the stationary crystal, at the same time manipulating the tuner handle (6) as explained under (5) until the sound is loud- est.

No. 8. Vernier knob may be used as a fine adjustment on tuner knob (6).

No. 9. This knob is not used in this set and should be placed at minimum.



Text numbers correspond to above numbers.

Note—Terminals A, B, C, in upper diagram correspond to antenna, detector, detector-ground. D and E to tickler and plate when the unit is used with amplifier Model DA.

Complete Short Wave Regenerative RA, with Crystal Detector, Model DB, Head Tele-
phone Receivers, Antenna Equipment and Full Instructions\$90.00

Short Wave Regenerative Tuner Only (Model RA), with Instructions.....\$68.00

Dimensions of Tuner: $9\frac{1}{2} \times 8\frac{1}{2} \times 6$ in.

Weights: Net, 6 lbs.; Shipping, 10 lbs.; with Complete antenna equipment as above, 25 lbs.

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