Radio Receiver

MODEL AR-1300

THE RECEIVER is complete in itself with the exception of the telephones and antenna. It will receive telephone and telegraph radio signals at a limited distance over the wavelength range of 180 to 700 meters when connected to a suitable antenna.

Telephones with plug and necessary antenna material can be obtained from dealers in radio supplies. ASK FOR G-E ANTENNA EQUIPMENT.

This receiver may be used with any vacuum tube detector, or detector amplifier set. It is especially arranged to operate with its companion set, the Model AA-1400 Detector-Amplifier.

ANTENNA SYSTEM

WIRE. Copper, copper weld, bronze or aluminum, 12 or 14 gauge, bare or insulated, solid or stranded.

INSULATORS. Two insulators are required, one at each end of the antenna. Tube insulators must be used in passing wires through walls.

PROTECTIVE DEVICE. An antenna protective device Model UQ-1310 or equivalent should be used.

ERECTION. String the antenna wire and make the connections as shown in the sketch. If possible, the lead-in wire should be a continuation of the antenna wire. The antenna wire should have a span of from 75 to 150 feet between the insulators; should be at least 15 feet away from any electric light, power or telephone wire, and should be at least 25 feet above the ground (reception improves with an increase in height of antenna). Neither the antenna nor the lead-in wire should touch any object other than the insulators. The ground wire should be connected to the house water pipes or to a pipe driven deeply into moist ground. The ground wire and pipe should be carefully scraped and cleaned at the point of connection.

In receiving from near-by stations, the antenna may sometimes be put inside the house. A bed spring or metal curtain rod has been known to serve as the antenna.

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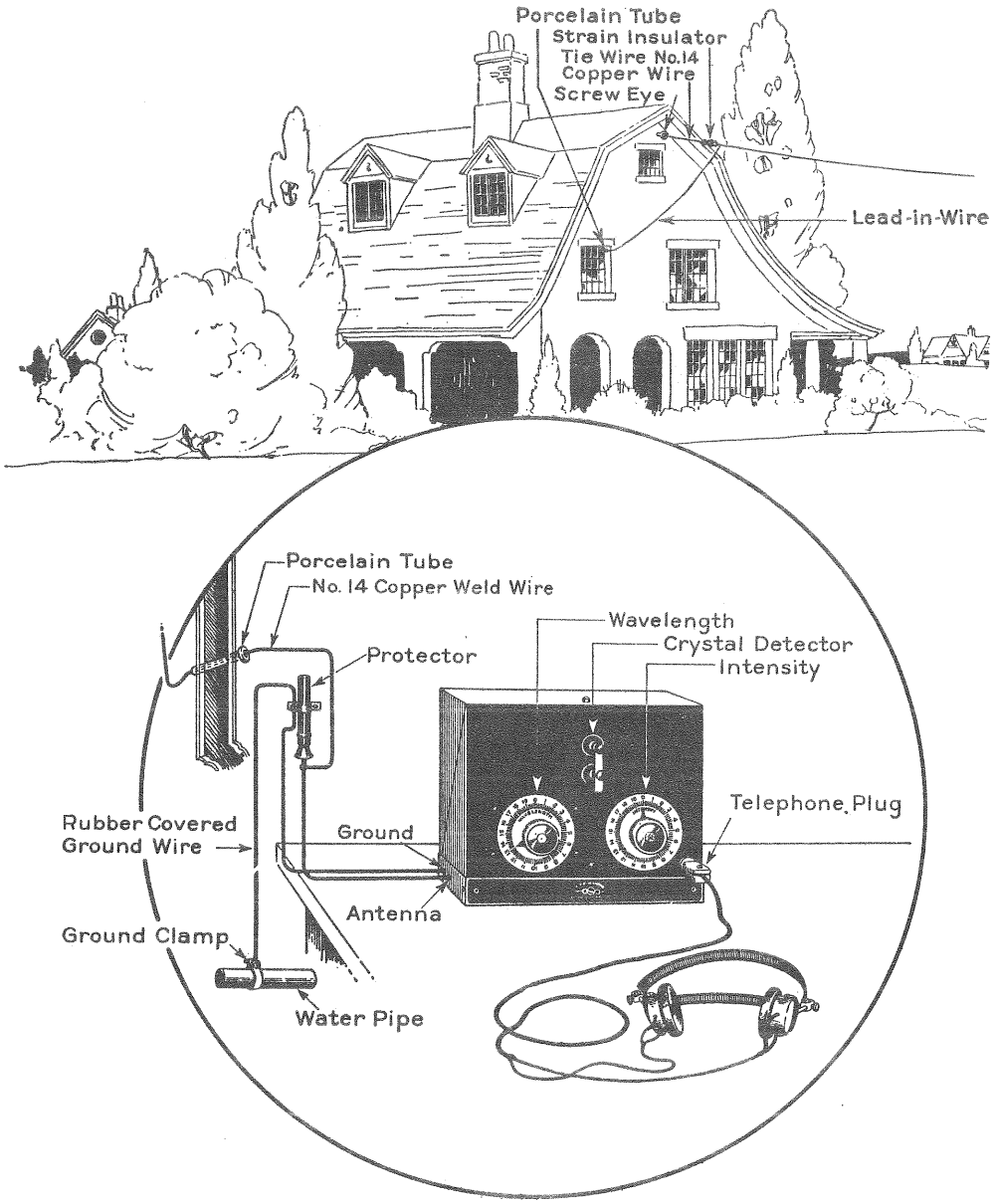
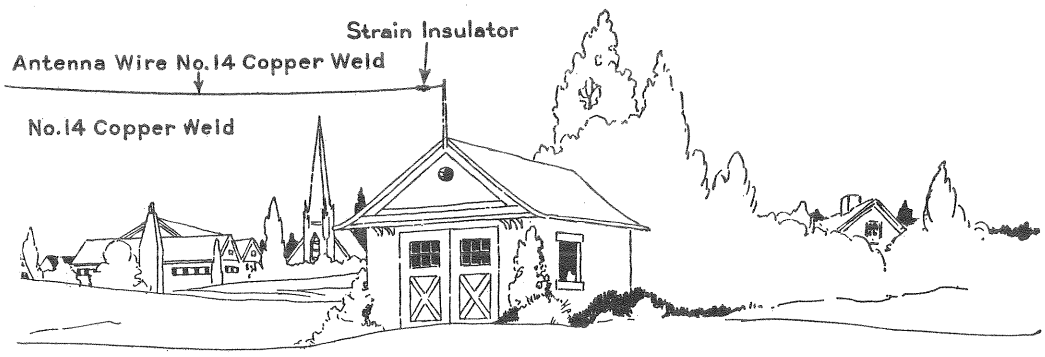
Second Edition


Porcelain Tube
Strain Insulator
Tie Wire No.14
Copper Wire
Screw Eye
Lead-in-Wire
Porcelain Tube
No. 14 Copper Weld Wire
Protector
Wavelength
Crystal Detector
Intensity
Telephone Plug
Rubber Covered
Ground Wire
Ground
Antenna
Ground Clamp
Water Pipe



INSTALLATION

Remove the cover of the Receiver by raising the catch and at the same time pushing back. The coil should be untied and the crank on the coil turned upward towards the wire. The notch in the driving disc on the inside of the front panel should also be turned upward. The coil should then be seated on its base, care being taken to register the notch in the coil form with the pin on the base.

Inside of the large coil is a small regenerative coil operated by the large right-hand knob marked "Intensity." This regenerative coil is not used unless the Receiver Model AR-1300 is used in conjunction with Detector-Amplifier, Model AA-1400 or a similar device.

Connect from the ground and antenna terminals of the protective device to the respectively marked terminals on the lower left-hand end of the Receiver. They may be left permanently connected to the Receiver.

The terminals on the rear and on the right-hand end are required only when the Receiver is used in conjunction with vacuum tube unit.

Plug the head telephones into the telephone jack on the front of the Receiver at the lower right-hand corner.

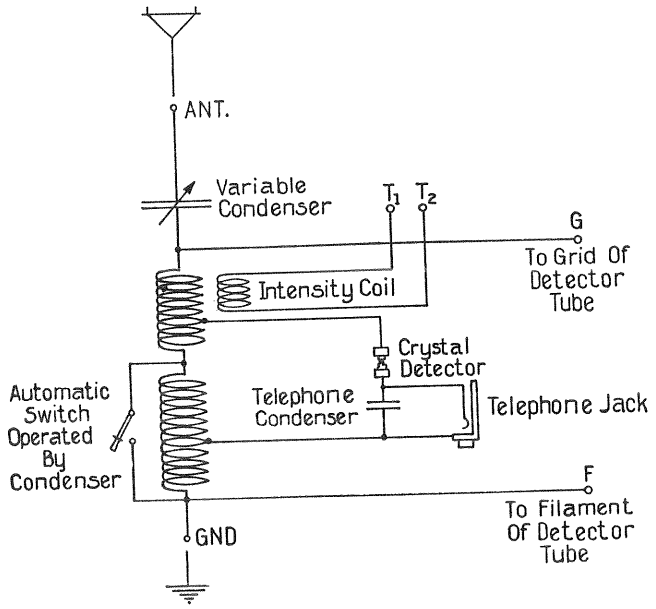
The set is now ready to operate.

OPERATION

Adjust the telephones snugly to your ears. Place the two detector minerals in contact with each other, using lower thumb screw to adjust the pressure and the upper knob to move the arm. Do not touch the metal parts.

The large left-hand knob whose dial is marked "WAVELENGTH" adjusts the set to the wavelength of the various transmitting stations. Move the knob slowly over the scale until signals are heard. Then find the exact point where these signals are loudest. The wavelength adjustment is then complete. The detector may now be re-adjusted, to see if a more sensitive point can be found.

Wavelengths from 180 to 400 meters will be picked up between 0 and 10 on the dial and wavelengths from 380 to 700 meters will be picked up between 11 and 20 on the dial. Broadcasting stations use 360 meter wavelengths and will be picked up at about 4. These figures will vary somewhat with the size of the antenna.



Connection Diagram

PRECAUTIONS

When the receiver is not in use, separate the crystals. Unsatisfactory operation may be caused by improper or loose connections in the antenna or ground wires. Deposits on the crystal may be removed by lightly scraping the surface of the movable crystal with a penknife. Do not operate during thunder storms.

MANUFACTURED BY

General Electric Company, U. S. A.

for

Radio Corporation of America

WORLD WIDE WIRELESS

WOOLWORTH BUILDING ~ NEW YORK CITY