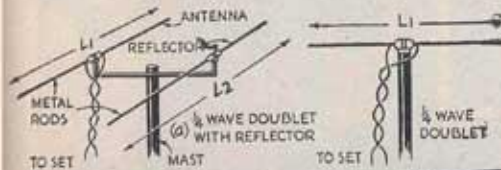


HOW TO Install

a Television Antenna

THE problem of setting up an efficient television antenna for yourself or one of your friends will be greatly simplified if you will follow a few simple rules. First of all, although television antennas may vary in appearance and size, they are basically all alike, consisting of a quarter-wave doublet antenna of predetermined length. A "reflector" antenna, similar in design but from eight to ten inches longer, is mounted beside the doublet when necessary to eliminate "ghosts," or unwanted, out-of-register duplications of the television image on the fluorescent screen. Such ghosts usually are caused by a reflection of the signals from near-by buildings, just as visible light waves—which television waves resemble in many characteristics—reflect from a wall or other surface.

It is advisable to have a helper when setting up the antenna, so that one person can adjust its position while the other tests the operation of the receiver. Locate the antenna in a clear space on the high-

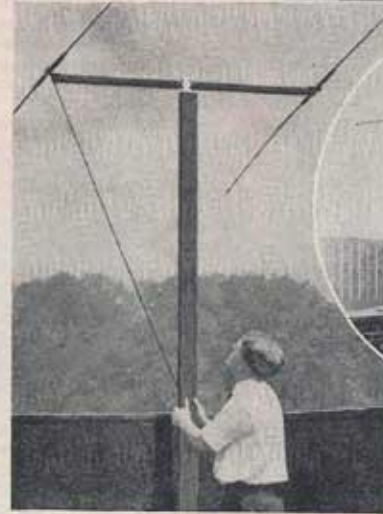


FREQUENCY	L ₁	L ₂
(a) 44-56 MC	122 INCHES	134 INCHES
(b) 66-72 MC	83 INCHES	93 INCHES
(c) 78-90 MC	70 INCHES	80 INCHES
(d) 96-109 MC	58 INCHES	66 INCHES

NOTE: REFLECTOR IS ALWAYS 8 TO 12 INCHES LONGER THAN RECEIVING ANTENNA.

est possible part of a building, and on the side toward the transmitter. If the antenna and receiving set are not within easy shouting distance much time can be saved with a two-way, portable telephone system strung up temporarily between the two points.

Television antennas should be mounted on a wooden or an iron mast of substantial design, securely anchored to the building. They are usually furnished properly matched for the 45 to 55-millicycle "vision" transmitters. If your local television station operates on a different frequency, the metal rods must be cut to the overall lengths shown in the accompanying table. Regardless of its design, the antenna will have to be rotated until the maximum signal strength is obtained, which is usually when the quarter-wave rods are at right angles to a line between the antenna and the transmitter. Several commercial antennas are fitted with flexible couplings which simplify this adjustment.



Several types of antennas. A two-way telephone between the set and antenna helps to make adjustments.

Courtesy of Chuck Azzaliina