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MODEL AC - 110 ANTENNA
MODEL ACS - 110N ANTENNA
MODEL ACI - 110N ANTENNA

The Barker & Willamson Broadband End-Fed Vee Antenna is designed for operation from 1.8 MHZ to 30 Mhz. The antenna comes fully assembled and pretuned so no measuring or cutting is required. It is all weather rated at 1KW PEP CW/SSB ICAS (Intermittent Commercial and Amateur Service), and permits use of the full capabilities of today's continuous coverage transceivers. An added feature is single feedline operation for all bands and provides excellent performance for military, emergency management, commercial, and amateur installations.

The AC antenna is fabricated with #14 stranded copperweld wire, the ACS with #14 stranded stainless steel wire, and the ACI utilizes PVC insulated copper. All feature a high impact plastic balun and matching network. The feedline impedance is 50 ohms and comes equipped with an SO-239 (Female) connector for the AC, and N connector (female) for the ACS/ACI.

The antenna is generally mounted in an inverted vee configuration. With the center 25 - 30 feet off the ground, approximately 95 feet of space is required. This configuration provides best omni-directional radiation.

INSTALLATION INSTRUCTIONS

WARNING

Outdoor antennas and lead-in conductors from antenna to building shall not cross over electric light or power circuits and shall be kept well away from all such circuits so as to avoid the possibility of accidental contact. Where proximity to electric light or power service conductors of less than 250 volts cannot be avoided, the installation shall be such so as to provide a clearance of at least 2 feet. Where practical, antenna conductors shall be installed so as to not cross under electric light or power conductors.

(1) Determine how and where the antenna will be installed. Study all of the illustrations to determine which installation best fits your individual requirements. Trees, sides of a building, utility poles, etc. make good supports. Supports may be conductive such as a metal pole, but be certain to use insulators to keep the antenna wire from making contact.

The antenna may be set up in shapes other than those shown, or shortened, with minimal effect on the SWR. However, the radiation efficiency at the lower frequencies will be reduced somewhat. DO NOT INSTALL PARALLEL TO POWER LINES.

(2) When unpacking and installing the antenna, avoid twisting or kinking the wire.

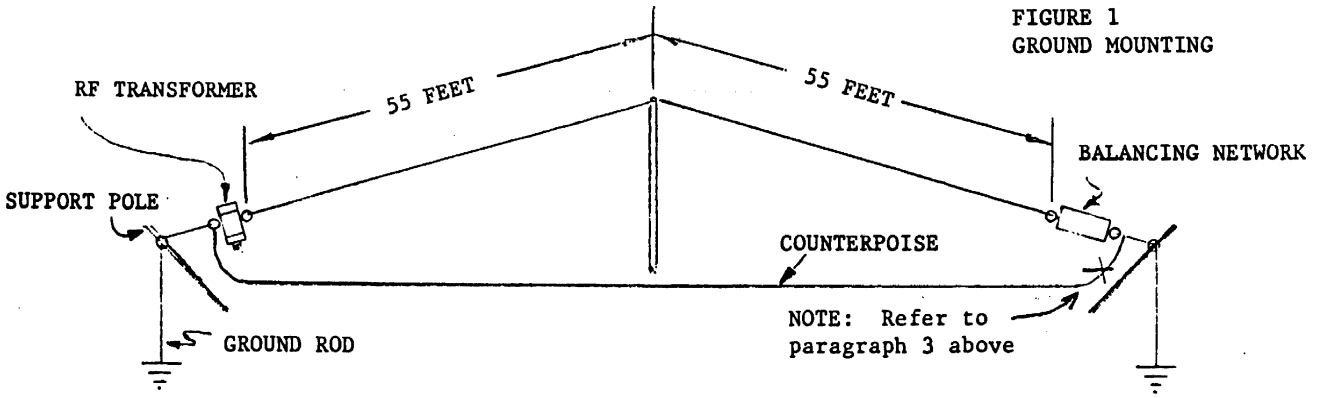
(3) The antenna ends may be attached various ways (refer to figures 1 - 3). When mounting off theground, Good ground rods are recommended at each end. The counterpoise wire should connect to the ground side of the balun and balancing network. The antenna may work best with the counterpoise *not* connected to the ground side of the balancing network. Try both to determine best results for your installation. The counterpoise is essential in poor ground, dry soil, or above ground installations. Its length is not critical, and it *does not* have to run directly under the antenna wire.

(4) When installing, ensure that the drain hole in the body of the balancing network is facing down. See figure 4.

(5) A good quality 50 ohm coaxial cable should be used for the feedline. Length is not critical, but best *longer* than 50 feet.

(6) The antenna is broadband and pretuned at the factory for an average SWR of 1.4:1 with a maximum of 2.0:1, depending upon the frequency used and surrounding objects, ground conditions, etc. If you wish to optimize performance, experiment with the counterpoise and the grounds, taking SWR readings as a guide.

FIGURE 1
GROUND MOUNTING



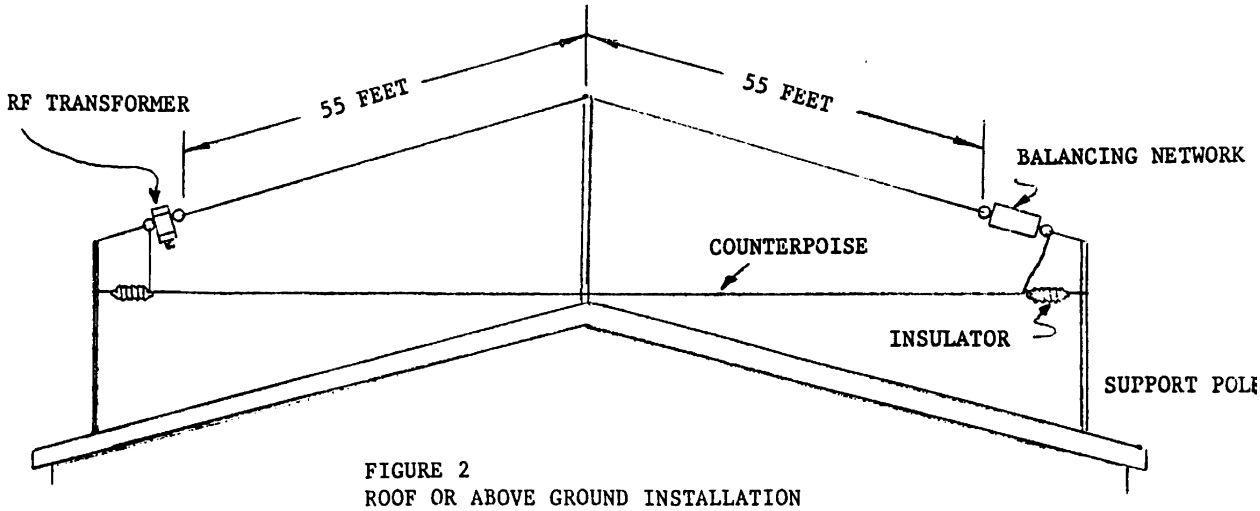


FIGURE 2
ROOF OR ABOVE GROUND INSTALLATION

FIGURE 3
SLOPER INSTALLATION

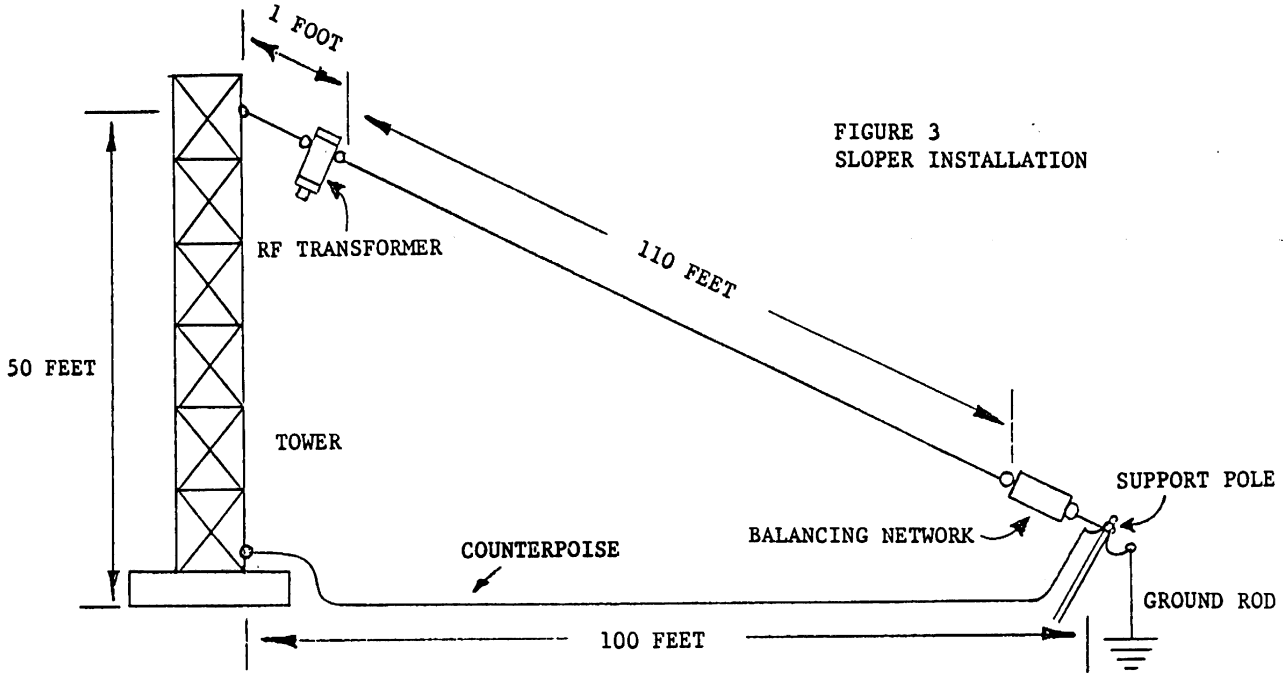
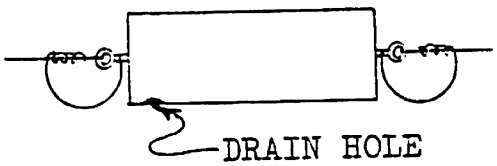
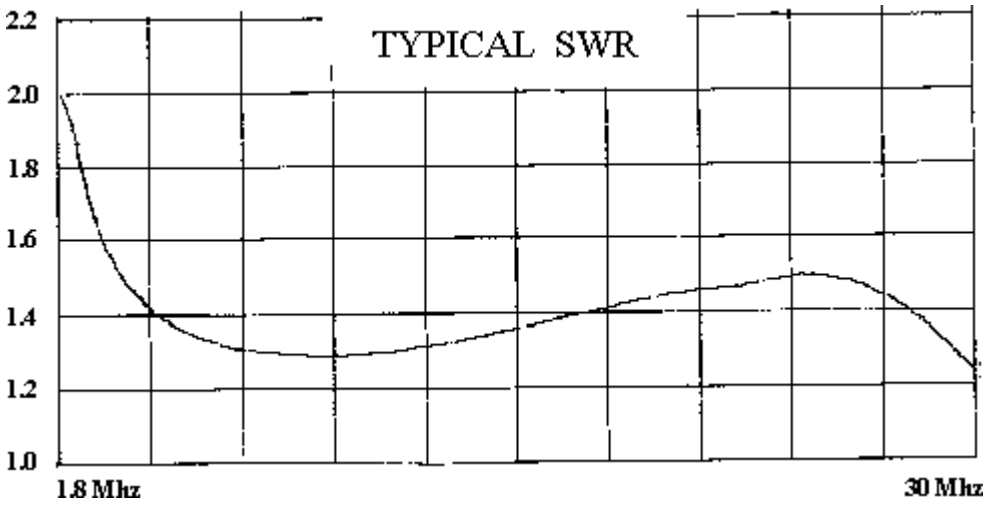


Figure 4

Make sure that the condensation drain hole is on the bottom of the balancing network when installing the antenna. When the drain hole is on the bottom, the strain relief loops will be per diagram:





WARRANTY STATEMENT

Barker & Williamson guarantees each product to be free from defects in material and workmanship for 90 days from date of purchase. The warranty applies to the original purchaser only, and we will repair or replace the product at our discretion. Under no circumstances will Barker & Williamson be liable for any damages or consequential damages arising from use or misuse of our products. Warranty is voided if product is subject to misuse, neglect, accident, improperly installed or used in violation of the instructions furnished by us. We reserve the right to make changes in design at any time without obligation to update previously manufactured models. This warranty is given in lieu of any other warranty, expressed or implied.