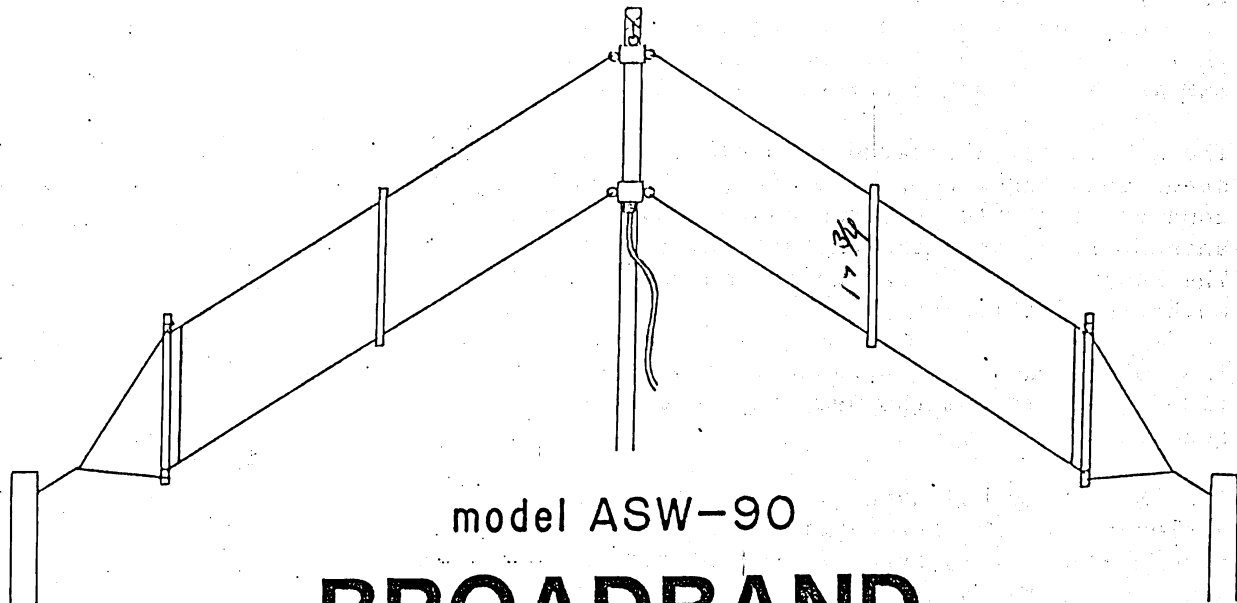


BARKER & WILLIAMSON

10 Canal Street
Bristol, Pa. 19007

215/788-5581



model ASW-90

BROADBAND SHORTWAVE DIPOLE ANTENNA

- 90 FT. LONG
- CONTINUOUS COVERAGE,
SWR BETTER THAN 2:1 FROM 3.5 TO 30 MHz
- RUGGED STEEL-COPPER WIRE
- GOOD MW, LW RECEPTION

MODEL ASW-90
BROADBAND SHORTWAVE ANTENNA

The Barker & Williamson Model ASW-90 Antenna covers the entire shortwave spectrum from 3.5 to 30 MHz. It is fully assembled and pretuned so that no measuring or cutting is required. The antenna uses a patented design that presents a uniform impedance to the coaxial cable feedline. The SWR is less than 2:1 across the entire operating range of the antenna.

The ASW-90 is fabricated from #14 stranded copperweld wire, having a steel core and a copper coating. This combines strength with excellent conductivity. It is stranded to provide greater flexibility and longer antenna life, and make the antenna easy to handle while installing it. The housing for the balancing, matching, and impedance transforming networks is high impact plastic.

The impedance of the antenna is low, and either 50 ohm coaxial cable (RG-58u) or 75 ohm (RG-59u) may be used to connect the antenna to the receiver.

The ASW-90 may be installed as an inverted V, a horizontal dipole, or as a sloper. For best reception from all directions, the inverted V is recommended. This type of installation also offers the greatest strength, and resistance to high winds and ice loading.

The ASW-90 may also be used for low power transmitting, 3 watts AM, FM, or RTTY and 10 watts CW or SSB. Although the antenna wire can handle much more power than this, the special circuits inside the center insulator cannot. Model AC 3.5-30 from Barker & Williamson has similar characteristics and is designed for transmitting service.

WARNING

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

INSTALLATION

Determine where the antenna will be installed. Trees, poles, and sides of buildings make good supports. Do not install the antenna close to power lines or where it could fall into power lines. The higher the antenna, the better will be the reception. A height greater than 15 feet is recommended, the ends may be lower than this if the inverted V configuration is used.

Unpack the antenna, but do not unroll it until you are ready to put it up. An assistant will be a help in keeping it stretched out and tangle-free. If the installation must be done by one person, have some weights handy to hold the ends in place after unrolling the antenna.

Uncoil one half of the antenna, keeping it somewhat tight while doing so. Hold down the end and tie nylon rope, 1/4 inch or larger, to the end insulator as shown in Fig 1, if the antenna will be a horizontal dipole or a sloper. For an inverted V, tie the guy rope knot closer to the bottom of the spreader, as in Fig 2, in order to keep tension on both wires of the antenna when it slopes downward.

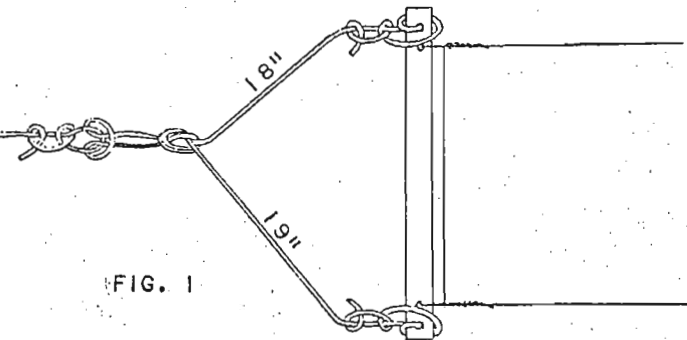


FIG. 1

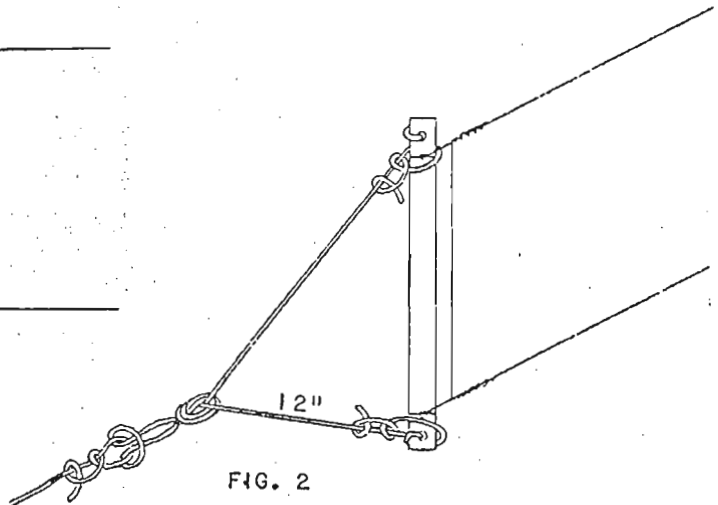


FIG. 2

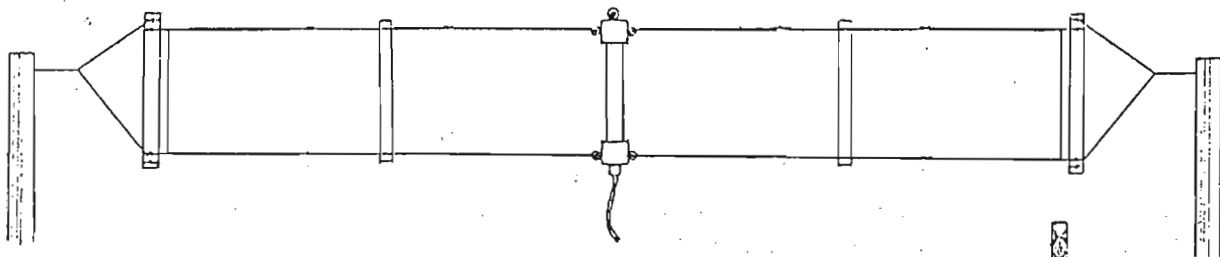


FIG. 3 TWO POLE "FLAT-TOP" INSTALLATION

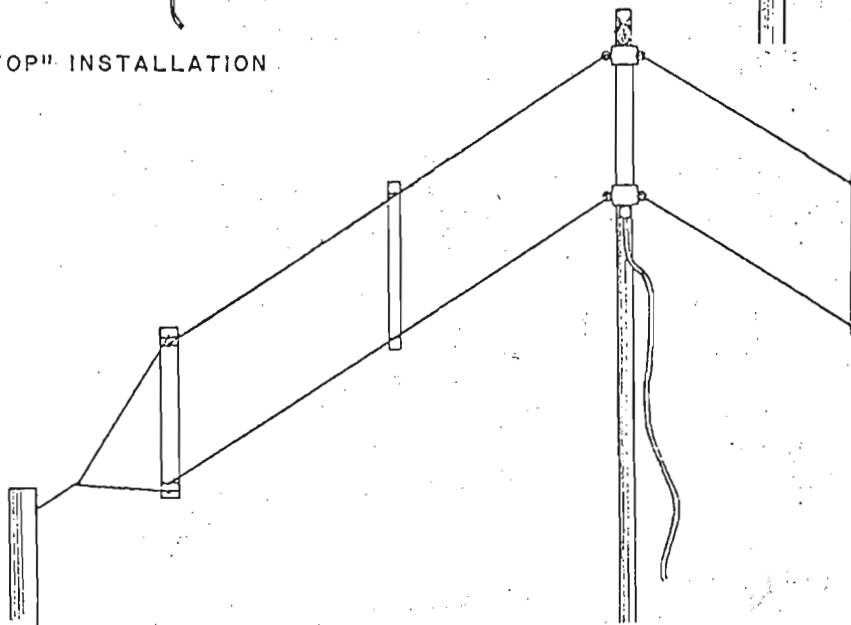


FIG. 5 INVERTED "V" INSTALLATION

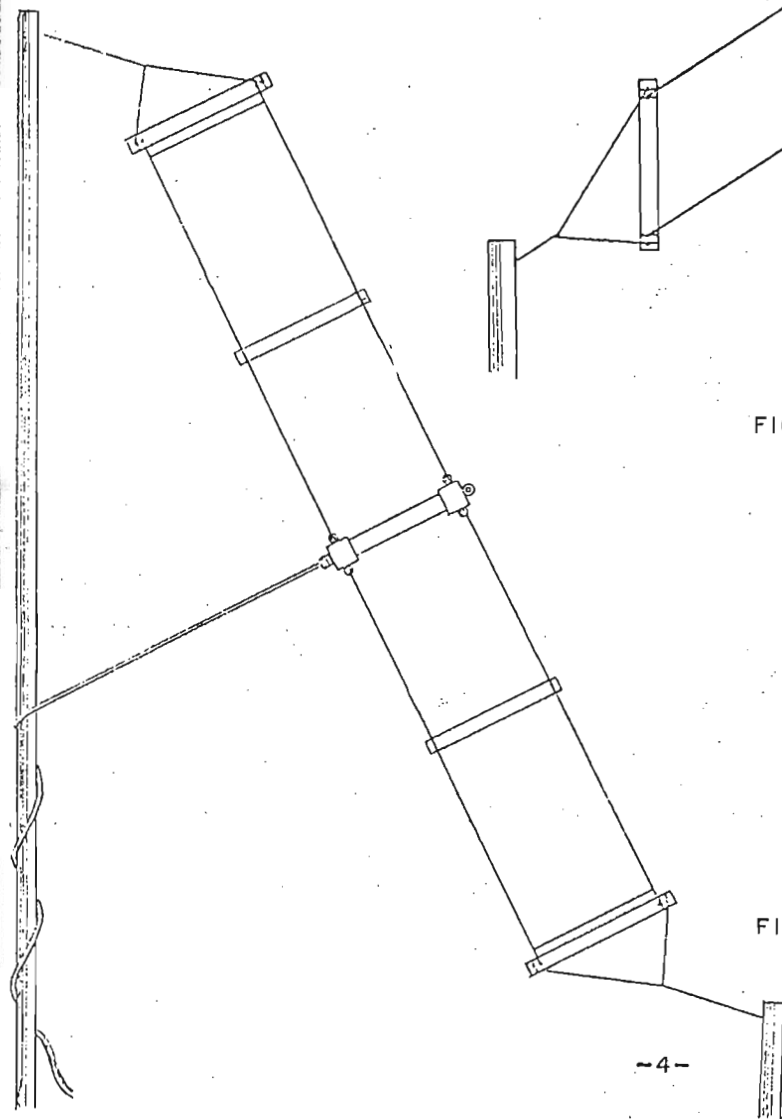


FIG. 4 "SLOPER" INSTALLATION

Uncoil the other half and attach guy rope to that end of the antenna.

Attach the coaxial cable to the antenna, using the SO-239 connector at the bottom of the center insulator.

Raise the antenna, keeping the wire stretched out so that it does not twist or roll up.

The coaxial cable should be perpendicular to the antenna as far as possible before making bends to go to the radio.

Connect the coaxial cable directly to the SO-239 coaxial connector low impedance antenna input of your receiver. The ASW-90 provides a constant low impedance signal to the receiver over the entire range from 3.5 to 30 MHz. It will also give good reception at frequencies below and above this range.

If your receiver does not have coaxial connector for the antenna input, connect the outer braid of the cable to the receiver ground terminal, (marked G or E) and the center conductor of the cable to the antenna terminal.

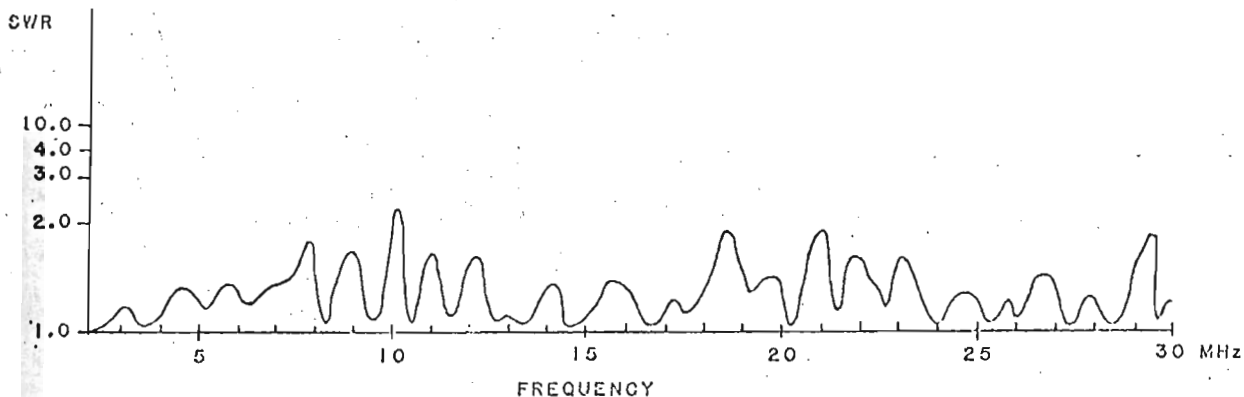
For best reception and also for safety, the antenna and the receiver should be well grounded. If the receiver power cord has a three prong plug, it will be grounded to the electrical system. If your receiver has only a two prong AC power plug, connect a wire from the receiver chassis to the small bolt holding the wall plate in place at the AC receptacle.

In addition, a better ground should be installed by running a heavy wire from the receiver chassis to a copper water pipe or rod driven into the ground. Ground rods, wire and clamps are available from most radio and electronic stores.

USING THE ANTENNA

The ASW-90 gives top performance without the need for antenna tuners, matching transformers, and preamplifiers. It provides operating convenience to match that of modern receivers, since no accessories or control need to be adjusted when changing bands. The operator merely

switches to the frequency desired, and the antenna is already there, delivering peak signal, matched to the receiver with no "tweaking" required.



WARRANTY

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. Warranty is voided if product is subjected to misuse, neglect, accident, improperly installed or used in violation of the instructions furnished by us.

Barker & Williamson reserves the right to make improvements and 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.

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