

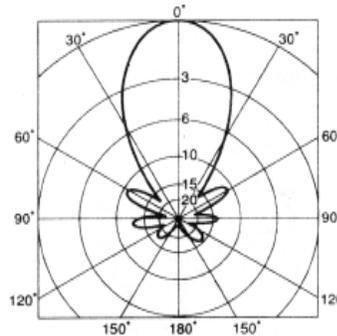
# DIAMOND ANTENNA

## A430S10 & A430S15

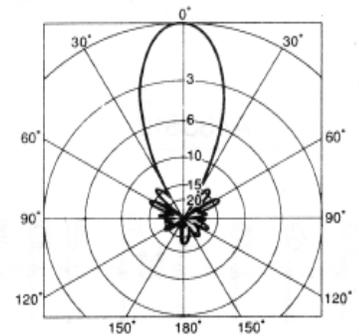
### 70cm Yagi Antennas

#### Specifications

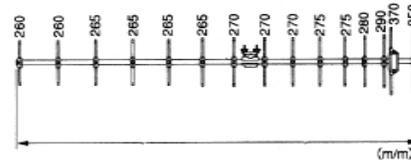
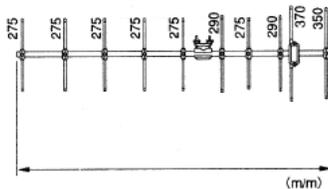
Model:	<b>A430S10</b>	<b>A430S15</b>
Frequency MHz:	430-440 MHz	430-440 MHz
Gain:	13.1 dBi	14.8 dBi
Power Rating (P.E.P.):	100 W	100 W
Impedance (nominal):	50 Ohms	50 Ohms
VSWR (nominal):	1.3:1	1.3:1
Front To Back Ratio:	15 dB	14 dB
Boom Length:	1190mm	2245mm
Longest Element:	14.6"	370mm
Driven Element diameter:	0.50"	12.7mm
Parasitic Elements diameter:	0.37"	9.4mm
Max. Mount diameter:	1.5"	
Weight:	0.65 kg	1 kg



A430S10



A430S15



#### Antenna Assembly

- (1) Remove antenna from package and adjust elements to proper position. You will find a small mark on the center of each element to aid in its positioning. Tighten each wingnut after verifying proper positioning.
- (2) Weatherproofing connections. As coaxial cables tend to absorb moisture through their connectors, it is recommended that the connector be sealed. There are several products available for this purpose, including a good grade of electrical type or a rubber compound tape.

The Diamond 70cm Beam Antennas are easy to assemble and install. Only a few cautions are necessary in their installation.

The A430S10 & A430S15 may be installed for either vertical or horizontal polarization.

(a) Vertical polarization (preferred for FM operation): If mounting to a vertical support or pole at the boom center, be sure this support is non-metallic. A fiberglass or waterproofed hardwood extension should work satisfactorily. End mounting is a good option with the A430S10, as the coax cable may be run along the boom and down the vertical support. The idea is to minimize the effects of metal in the vertical plain. It will be necessary to fabricate an extension capable of sliding inside the boom, being secured by the screw passing through the boom (at the reflector element). Another way of mounting vertical beams is on a bracket to position beam away from the vertical support in order to reduce its effects. Coax should be run away from the beam at right angles (or off the reflector end). See Figure 2.

(b) Horizontal mounting to the vertical support is easily accomplished with center boom mounting.

(c) Phasing of two beams may be accomplished with a special coax phasing section using 75 ohm coaxial cable and T-connector.

Note that the two antennas are mounted to the stacking boom in the same position. The cable connection must enter each from the same side as shown in Figure 4.

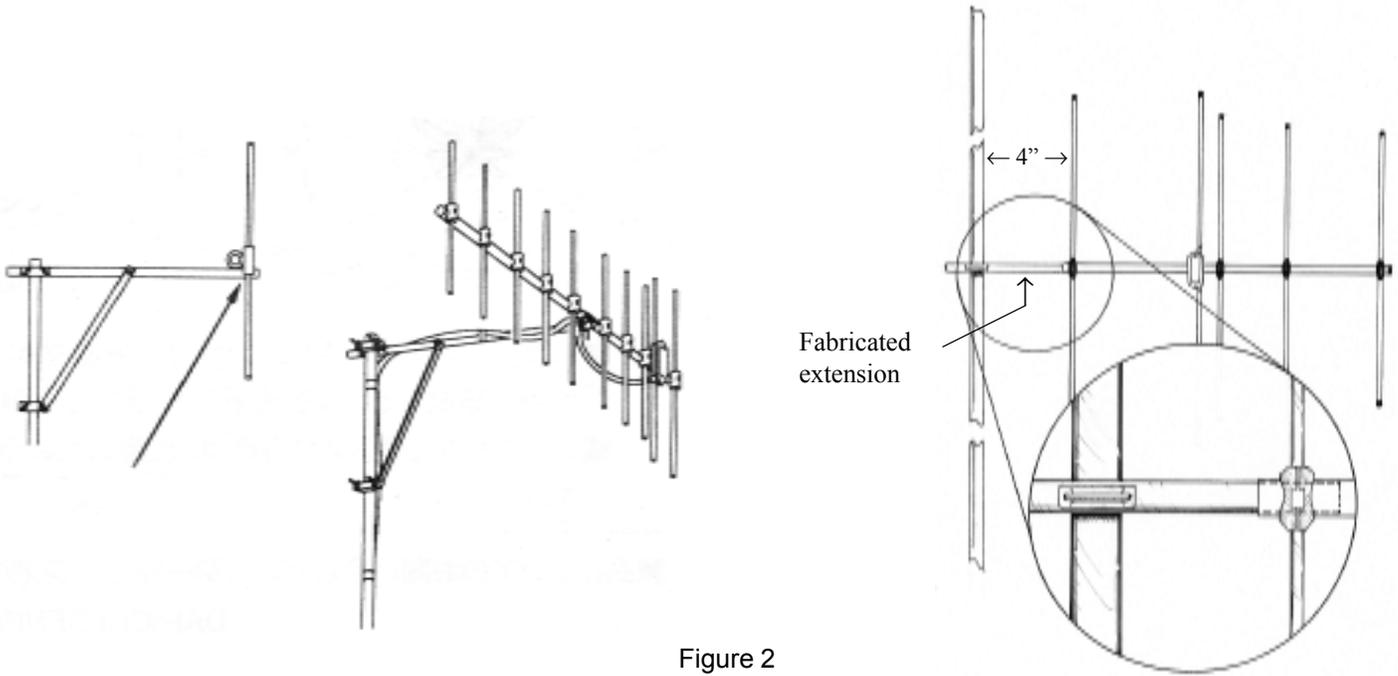


Figure 2

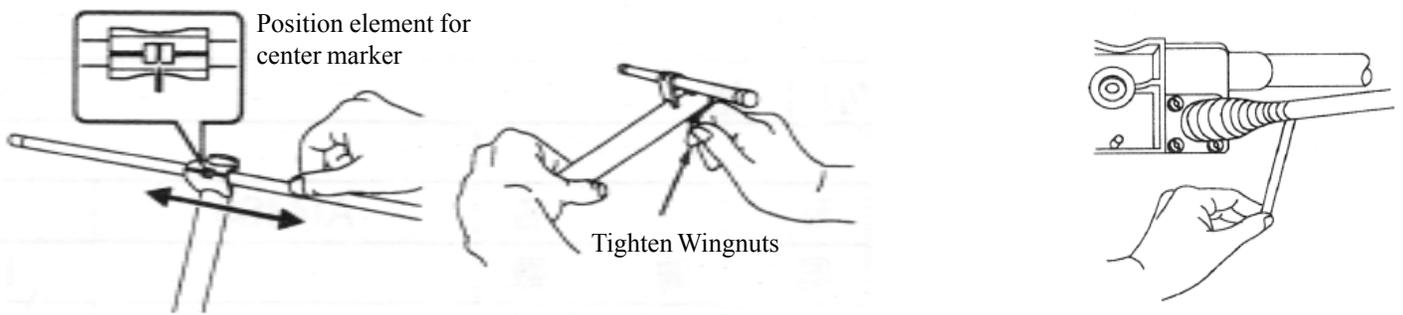


Figure 3

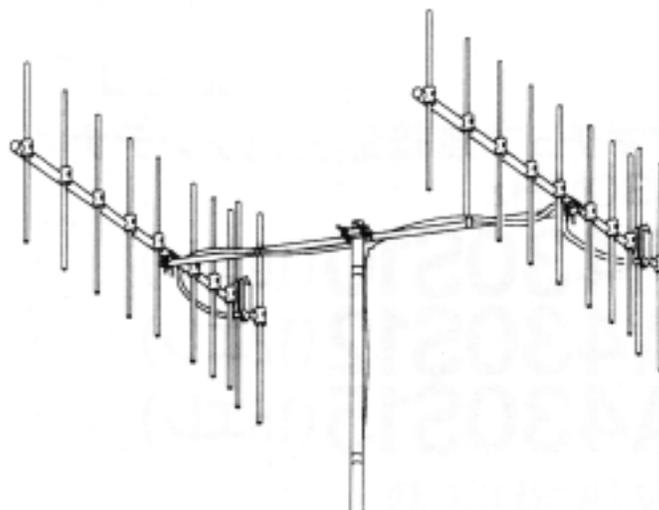


Figure 4