

AEA IsoPole™ 440

Assembly Instruction Sheet

The AEA IsoPole 440 represents a real breakthrough in a low cost UHF omni-directional base station antenna. Like the VHF IsoPoles, the IsoPole 440 offers superior decoupling and a predictable radiation pattern that yields the **MAXIMUM GAIN POSSIBLE FOR THE LENGTH OF THE ANTENNA**. The mechanical construction offers a rugged design at a very affordable price that will withstand the harshest weather. The IsoPole 440 is factory tuned to 445 MHz and requires only repositioning of the decoupling cones to change the resonant frequency of the antenna. The IsoPole 440 is D.C. grounded to minimize precipitation static noise (this means that a DC ohmmeter placed across the upper element and the mast support will read a short).

The IsoPole 440 is designed to mount on any mast with a large enough inner diameter to accept a type N coax fitting and an outer diameter up to 1.375 inches. The coax feedline will run inside the support mast and the coax connector will be shielded from effects of the weather.

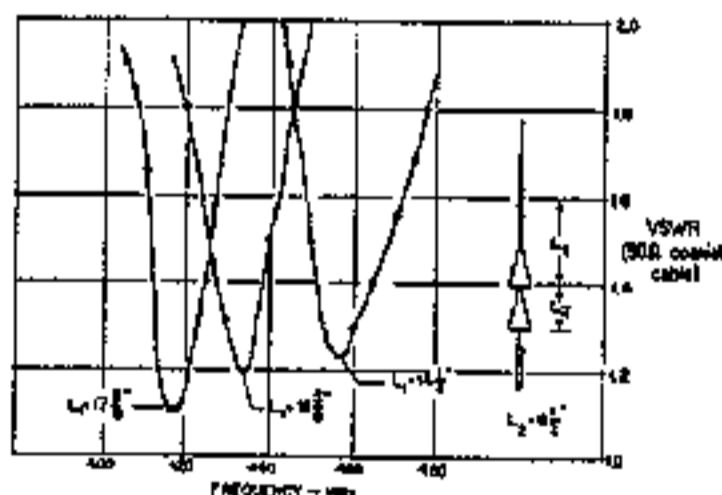
IsoPole 440 Assembly

To assemble the antenna, run the coax through the center of the mast and fasten the connector onto the base connector of the antenna. Note that the base collar can be loosened from the base of the antenna with three hex set screws to allow easier access for tightening the coax connector. Place the base of the antenna over the mast and tighten the three set screws for proper alignment of the antenna with the mast.

IsoPole 440 Tuning

To retune the IsoPole 440 to a different frequency range of interest, simply adjust the position of the upper and lower decoupling cones according to the dimensions shown in the chart below.

440 MHz SWR Plot



F ₀ (MHz)	L ₁ (Inches)
420	17-5/8
435	16-5/8
460	14-1/4

L₁ is measured to mid-point of the loading coil

L₂ = 8-1/2"

WARNING: The antenna should be mounted so as to clear surrounding objects as much as possible. A high location is most desirable, but be sure to mount the antenna so it will neither touch or be able to fall into nearby power wiring.

Advanced Electronic Applications
A Division of Tempo Research Corp.

1221 Liberty Way
Vista, CA 92083
(760) 598-9677

