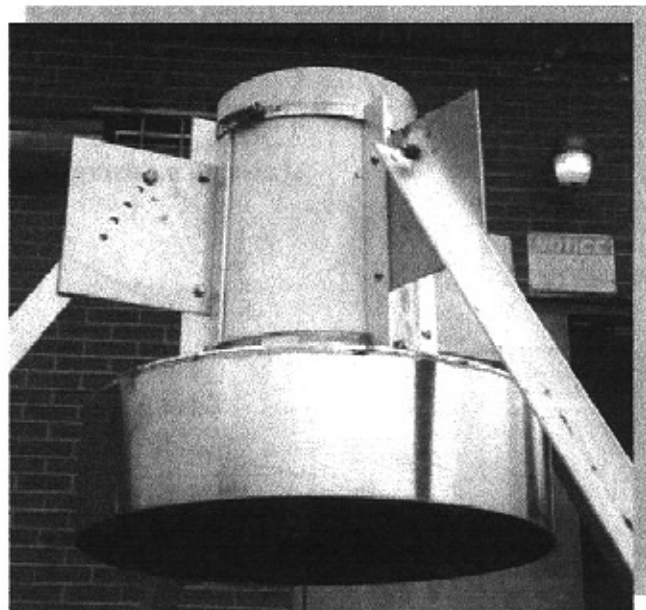


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APPLICATION NOTE 1  
MOUNTING OF FEEDHORN and CHOKE ASSEMBLY

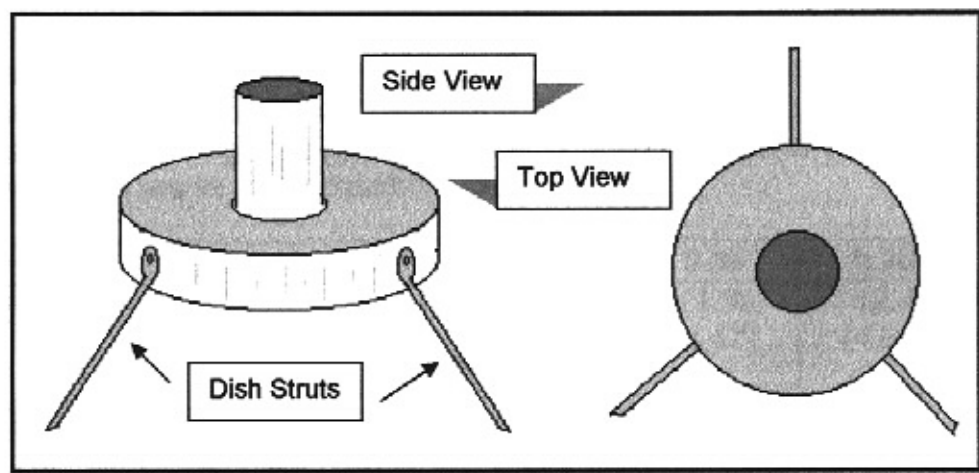
Mounting Scenario 1



Feedhorn secured within a split, six inch PVC pipe. Fabricated aluminum brackets have been attached to the PVC pipe by adjustable ring clamps. Feedhorn supports are connected via 1/4 inch bolts. Notice the additional holes for fine adjustment.

(Courtesy of the Pisgah Astronomical Research Center)

Mounting Scenario 2



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**APPLICATION NOTE 1**  
**MOUNTING OF FEEDHORN and CHOKE ASSEMBLY**

Mounting Scenario 3

Mounting Procedures

Insert feed horn to the desired point (referring to the chart).

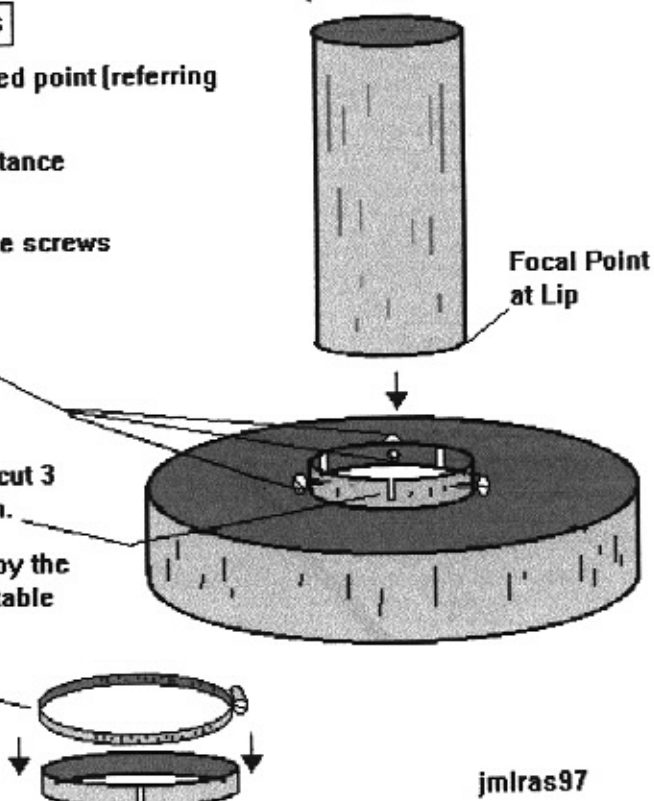
Drill 3 small holes equal distance around the collar.

Insert 3 self tapping machine screws and tighten.

OR

With metal cutting shears, cut 3 or 4 slits in collar as shown.

Secure choke to feed horn by the use of a screwdriver adjustable clamp.



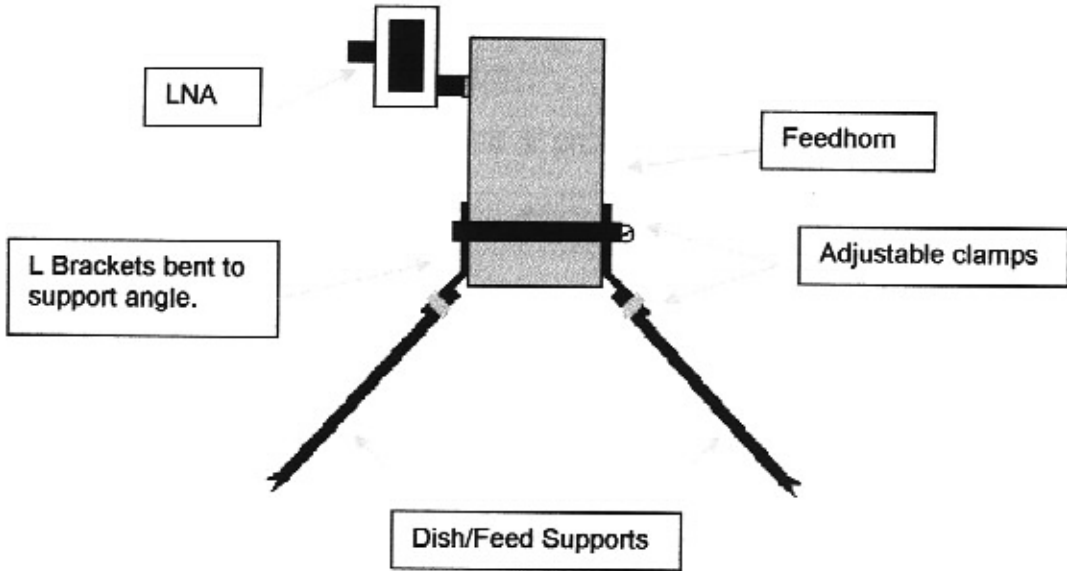
The chief deterrent of illumination taper for scalar-ring feedhorns is the placement of the choke ring along the waveguide feedhorn. The choke ring must be designed so as to slide back and forth on the waveguide horn, in order to optimize the illumination pattern of the feed for noise vs. gain, as well as the particular focal length to diameter ratio (F/D) of the dish being used. Here are the critical dimensions for the distance between the front of the horn and the back of the choke ring. They are shown for dishes of various F/D ratios, for both lowest antenna noise temperature (the preferred condition for SETI) and greatest antenna gain (which you would choose for a transmit antenna). All dimensions are in cm (inches):

F/D =	0.50	0.45	0.40	0.35	0.30	0.25
LoNoise	8.52 (3.35)	9.08 (3.57)	10.6 (4.17)	11.36 (4.47)	12.4 (4.88)	12.8 (5.04)
HiGain	10.08 (3.97)	10.6 (4.17)	11.6 (4.57)	12.4 (4.88)	13.2 (5.20)	n/a

Courtesy of SETI League for text and chart. Artwork by Radio Astronomy Supplies

**Radio Astronomy Supplies**  
**APPLICATION NOTE 1**  
**MOUNTING OF FEEDHORN and CHOKE ASSEMBLY**

Mounting Scenario 4



## Radio Astronomy Supplies LNA Setup and Mounting Instructions

CAPTION: Internal devices are Static Sensitive.

**Note:** Opening the LNA will void the warranty.

Your LNA (Low Noise Amplifier) has been designed (WD5AGO Design) to operate at its designed frequency (specified on the label). The voltage for operation is:

- +12 Vdc @ 100ma

NOTE: Use a regulated power supply

It is suggested that the LNA be housed or protected from the following:

- Heating from direct or reflected sunlight
- Direct water or water runoff

In either of the above cases, heating of any module such as the LNA, will deteriorate gain and, overall function. In addition, the LNA case is semi-waterproof. It is suggested to deflect or house the LNA in a waterproof container. Punch two 1/8 inch holes in the container, to allow for dissipation of any heat buildup.

Please refer to the following figure for installation instructions:

