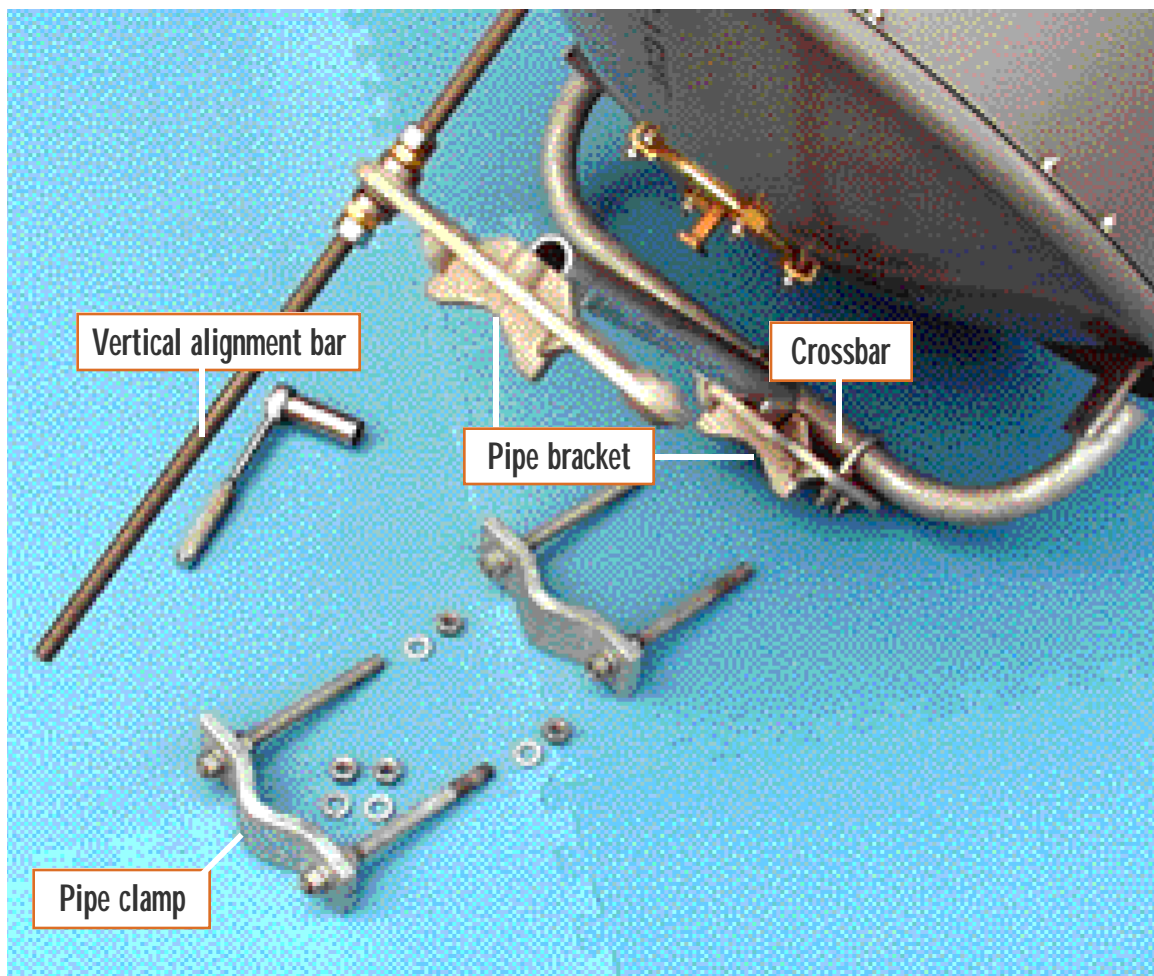


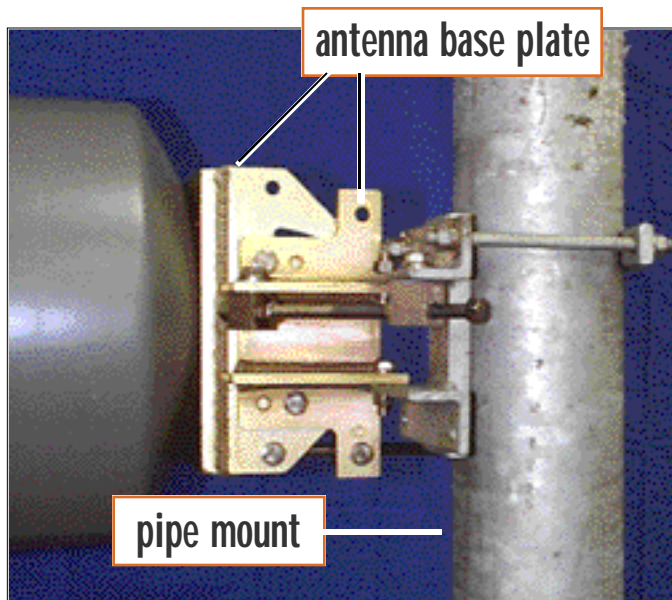
IN THIS CHAPTER...

- 1-(Antenna Mounting Hardware
- 2-(Antenna Mounting Instructions
- 3-(Radio Head Attachment Hardware
- 4-(Installing your Radio Heads
- 5-(Waveguide Connection to Antenna
- 6-(Waveguide Connection to Radio Head
- 7-(Radio Head Conduit Assembly

ANTENNA MOUNTING HARDWARE

This is the typical hardware (provided) used to attach each antenna to a pipe mount. The antenna shown is 24" in diameter. The crossbar, pipe bracket and vertical alignment bar come pre-assembled. When installing a 24" or larger diameter antenna, orient it on the pipe so that the crossbar is directly above the vertical alignment bar.





Note

These instructions are for quick reference and should be sufficient for most cases.

More detailed instructions are shipped with your antennas. Refer to those instructions for any antenna sizes outside of 12"-48", or if your antennas are shipped with different hardware from what is shown.

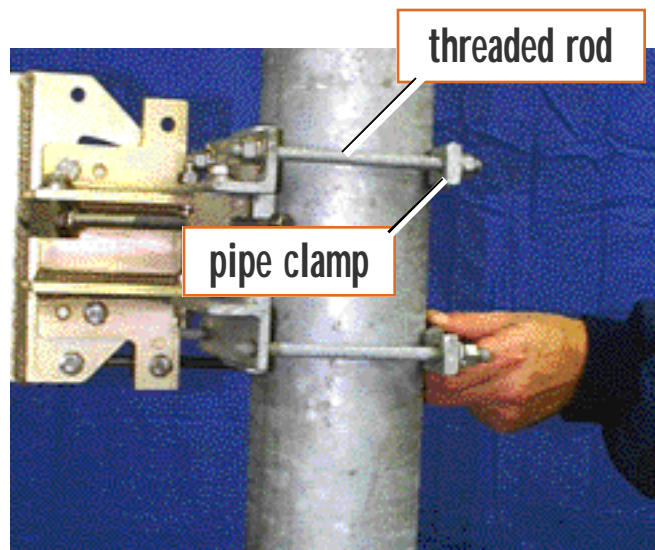
For 12" to 18" diameter antennas with pre-assembled base plate*

*shown above and to the right.

(Use 9/16" Box or Socket Wrench
and 12" Crescent Wrench)

For 24" to 48" diameter antennas with pre-assembled pipe bracket

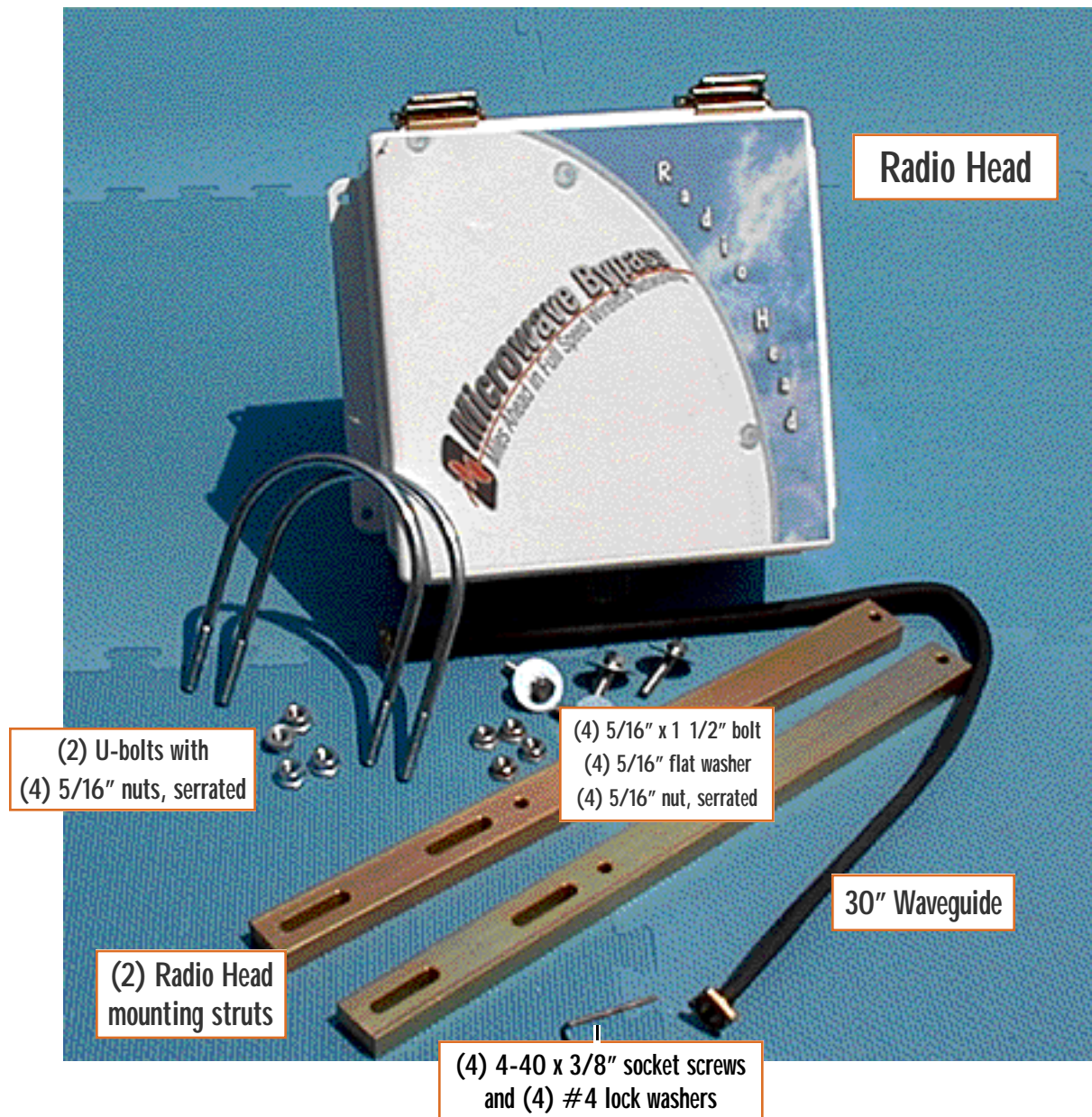
(Use 3/4" Box or Socket Wrench
and 12" Crescent Wrench)



Make sure you have the right sized wrench as referenced above. Next locate the antenna base plate at the rear of the antenna and the two pipe clamps. The base plate and clamps are attached to the pipe mount via four threaded rods with associated nuts and lock washers (provided).

RADIO HEAD ATTACHMENT HARDWARE

The below photograph shows all the materials provided to attach each Radio Head to a pipe mount. The 30" Waveguide connects the Radio Head to the rear of the Antenna.





W A R N I N G !

Before Attaching your Radio Heads

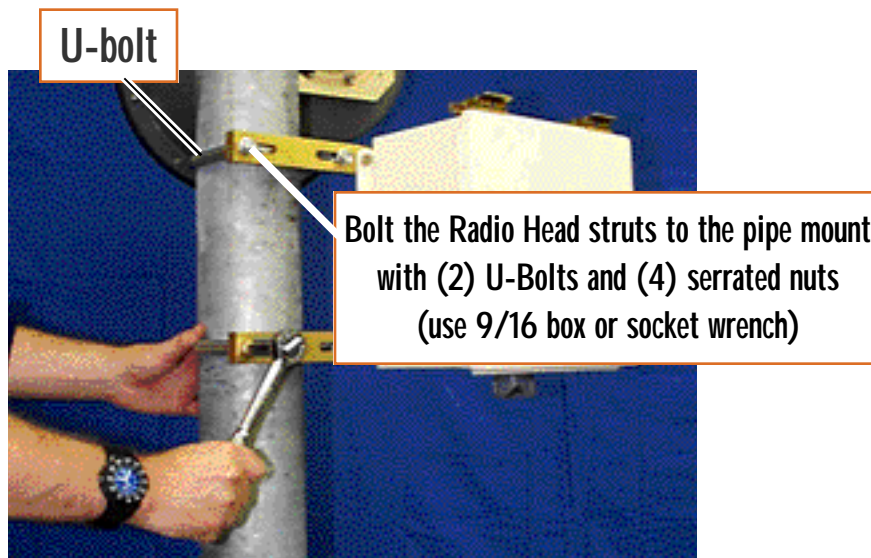
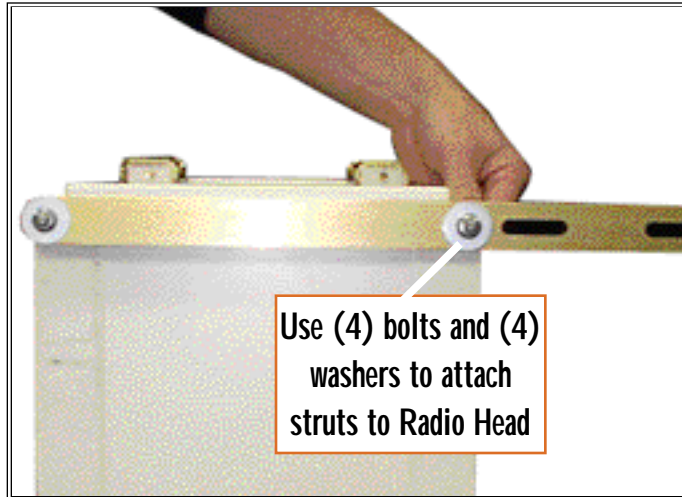
1. Mate each Radio Head to its Multimedia Hub

Check the serial numbers on each unit and keep the “A’s” together at one site and the “B’s on the other.

2. Avoid Interference! Follow your frequency plan.

Take a look at your frequencies as approved by Comsearch. You can find them on the Comsearch report itself, or on the “Final Test Data Sheet” taped to the inside cover of your Radio Head.

Each Radio Head is tuned to a different frequency and must be installed in accordance with the Comsearch report, being careful to have the right frequency Heads at the right locations.



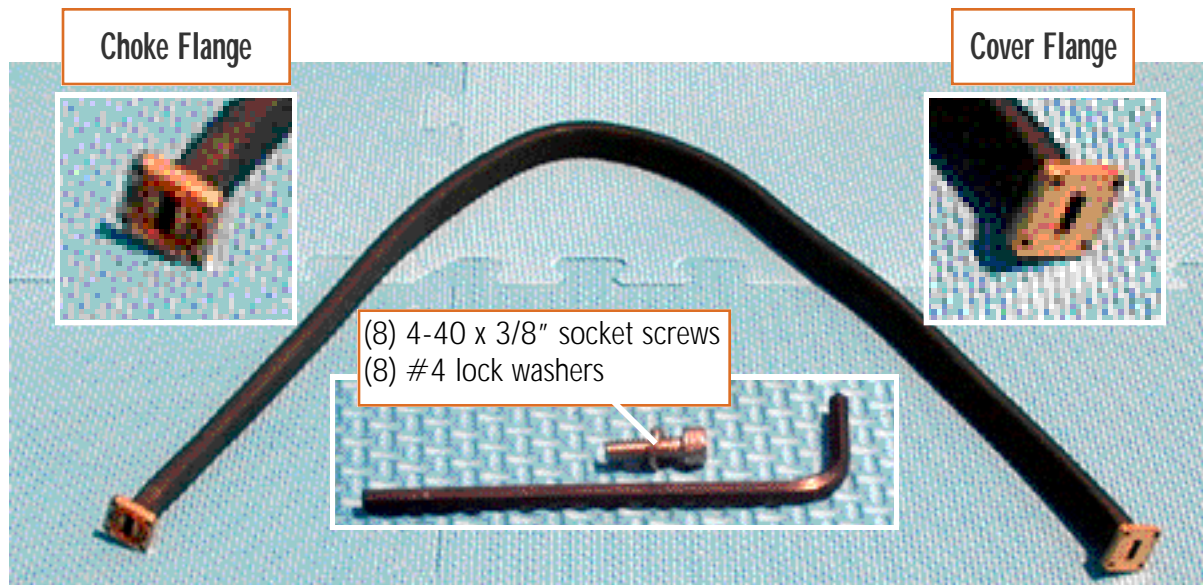
Pipe Mount Diameters Vary

Pipe mounts are typically 2 3/8" or 4 1/2" O.D. (outside diameter). The full-circle U-bolts that attach the Radio Head to the pipe mount must match the diameter of the pipe and come in three standard sizes: 2 3/8", 2 7/8" or 4 1/2" O.D.

Connecting the Radio Head and Antenna with Waveguide

KNOW YOUR WAVEGUIDE

The waveguide is a short, rectangular coaxial cable (30" typical) that sends the radio signal between the Antenna and Radio Head. It has a different flange at each end; cover or choke. The cover flange connects to the antenna feed and the choke flange attaches to the waveguide slot on the side of the Radio Head.





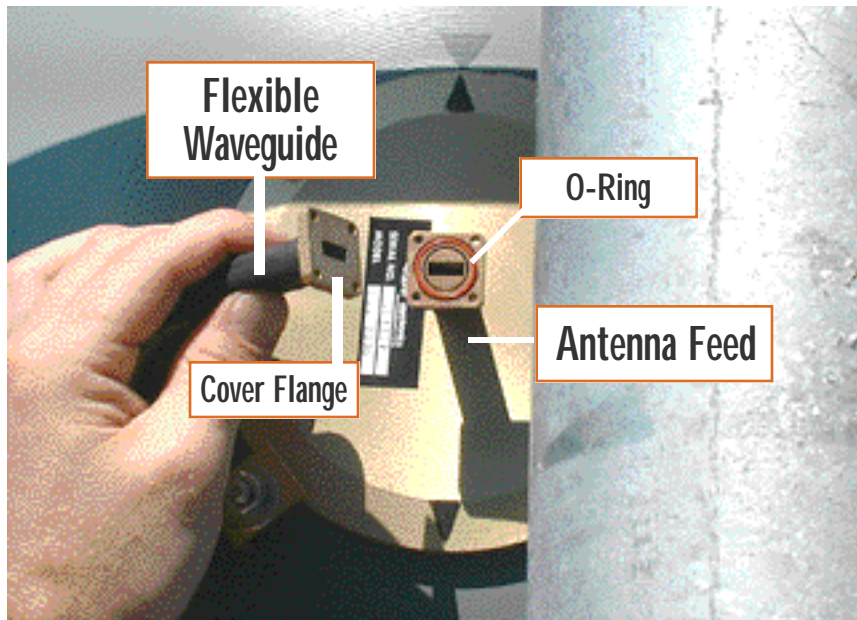
W A R N I N G !

Before Attaching your Waveguide

**Waveguide can cause intermittent outages if
1) moisture gets inside, or 2) if it fractures.**

1. To prevent moisture from getting into the waveguide, insert O-Rings into the recessed circles on the choke flange ends on the waveguide and the Antenna feed. **DO NOT REMOVE OR INSTALL WAVEGUIDE IN WET WEATHER.**
2. Waveguide is fragile and may fracture internally if wind causes it to beat repeatedly against a wall or Pipe Mount. To prevent this from happening, secure the center of the waveguide by strapping it to the Pipe Mount using a black (UV resistant) cable tie wrap.

Attach One End of Waveguide to the Antenna Feed



READ ME!

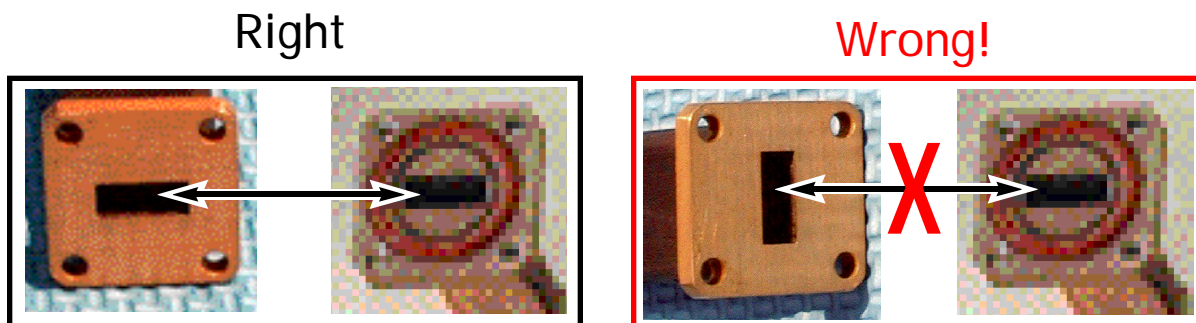
The waveguide slot at the Antenna Feed must be oriented exactly the same at BOTH ends of the microwave link..

If one antenna is mounted so that the feed is horizontally aligned, the antenna at the remote site must be similarly positioned.

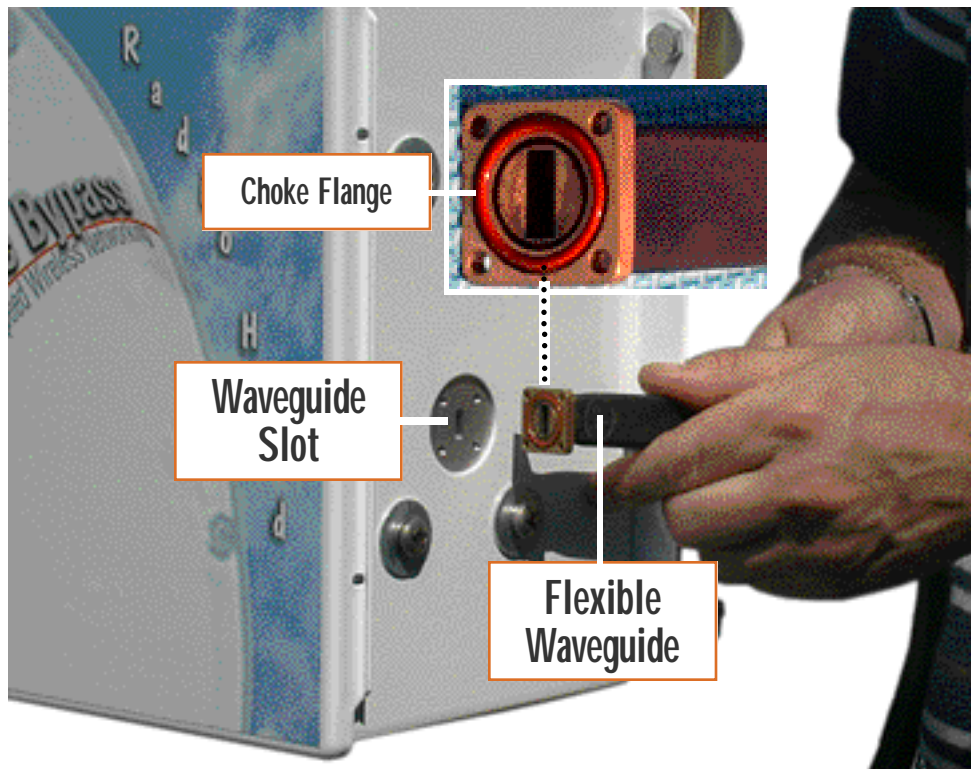
- 1- Insert an O-Ring into the recessed circle of the antenna feed at the rear of the antenna.
- 2- Line up the slots of the flexible waveguide and the waveguide at the end of the antenna feed and screw them together with (4) 4-40 x 3/8" socket screws and (4) #4 lock washers (provided).

READ ME!

The connections at each end of the waveguide must match, being oriented either horizontally or vertically, but never crossed so that one is vertical and the other horizontal. Cross connecting the waveguide will reduce signal strength and make antenna alignment more difficult.



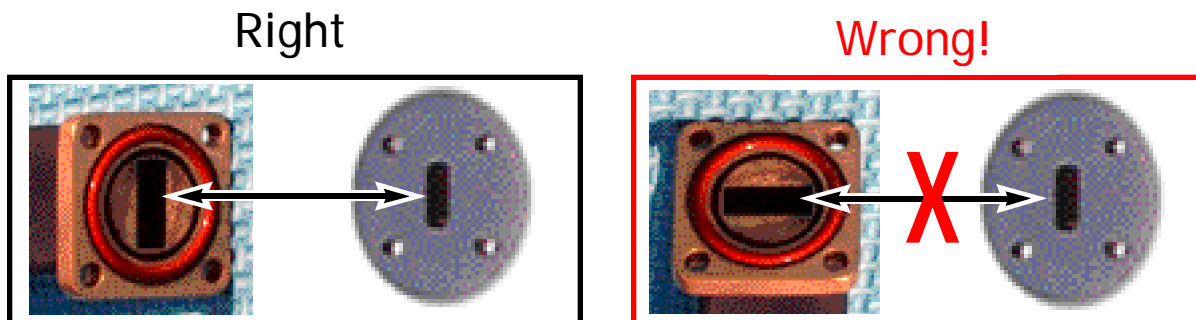
Attach Opposite End of the Waveguide to the Radio Head

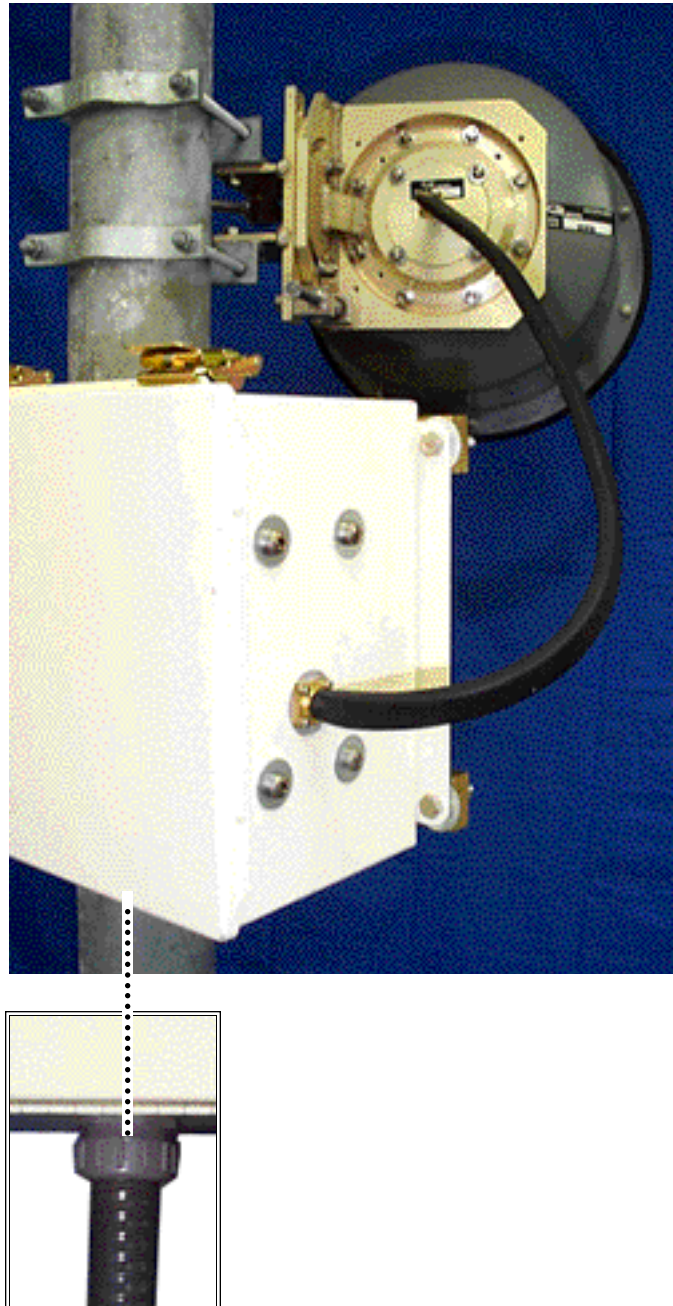


- 3- Insert an O-Ring into the recessed circle of the choke feed on the flexible waveguide.
- 4- Line the slot on the flexible waveguide to the waveguide slot on the Radio Head and screw them together using (4) 4-40 x 3/8" socket screws and (4) #4 lock washers (provided).

READ ME!

The slots between the flexible waveguide and the waveguide slot in the Radio Head must match up (vertical to vertical). Slots on waveguide connections cannot be crossed, horizontal to vertical or vice-versa as this will reduce signal strength and make antenna alignment more difficult.

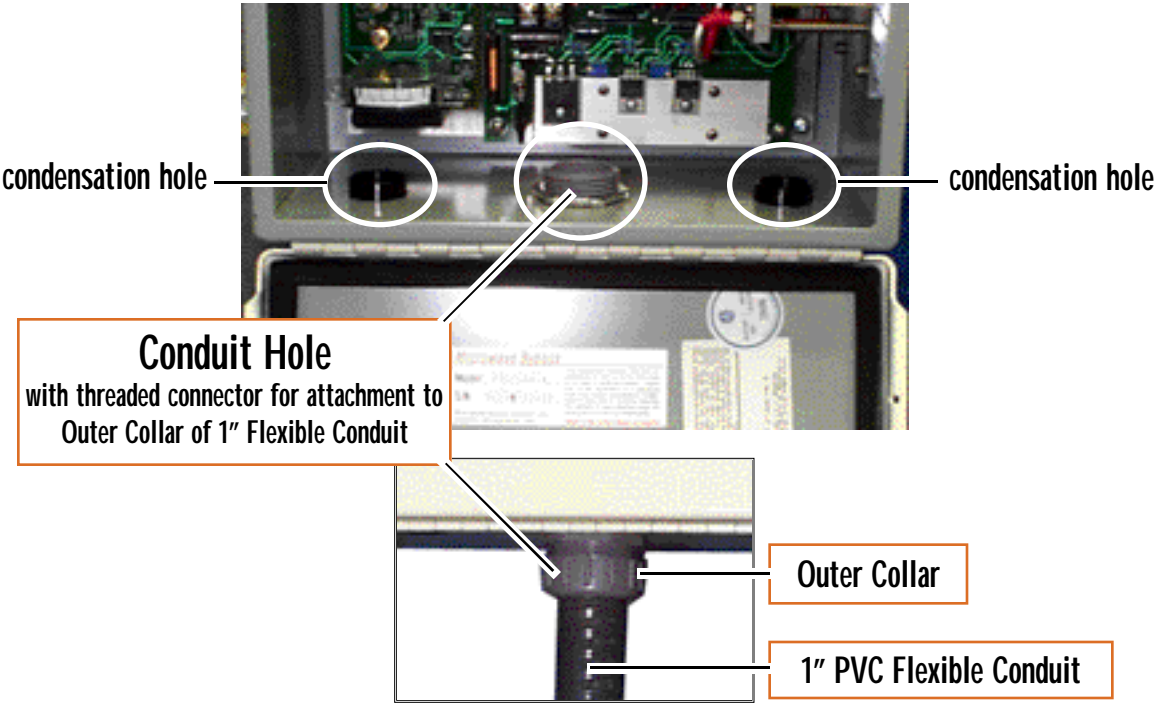




Radio Head Orientation

The Radio Head should be oriented with the conduit connector at the bottom. That will allow any moisture that forms in the Radio Head to escape through the condensation holes on either side of the conduit connector.

Detail of Bottom of RF Unit



At the bottom of the Radio Head is a conduit hole with a threaded connector which comes attached from the factory.

Assemble a 1" PVC Flexible Conduit with inner collar, washer and outer collar as shown to the right. This will form a weather tight seal that screws into the threaded connector on the Radio Head.

