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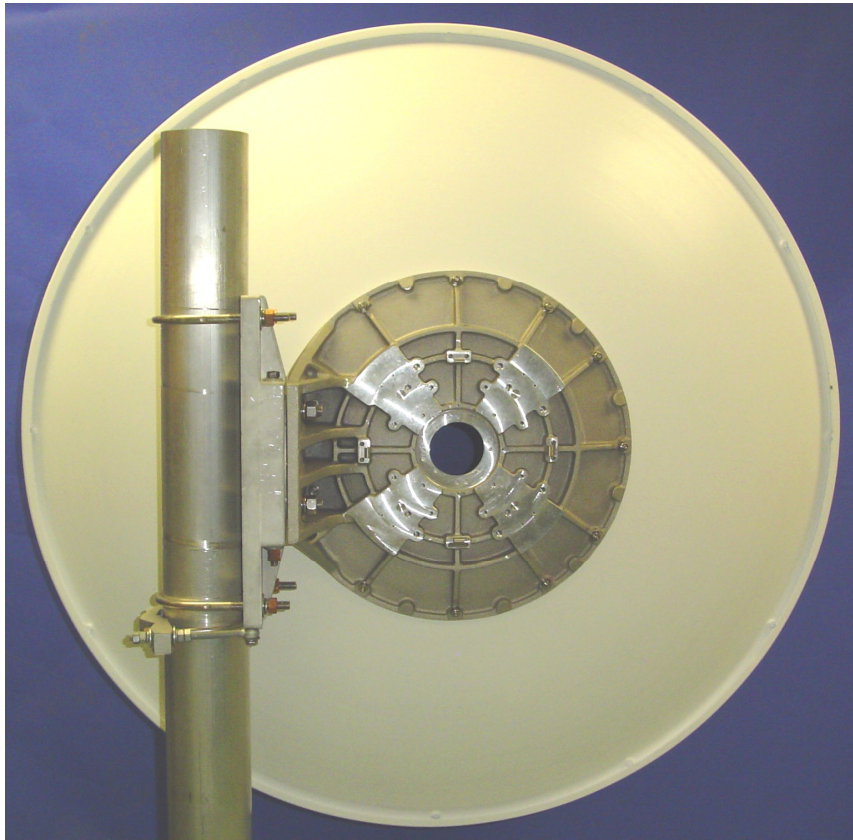
The Leader in Microwave Antenna Innovation®

Installation Guide

for

HP3 & HP4 ANTENNAS

with Cast Mount



HP3 & HP4 Antennas

Your HP3 or HP4 Antenna shipped to you in one crate containing the following components:

1. Antenna Assembly
2. Antenna Mounting Kit

Note: Options and accessories are shipped separately and include separate installation guides. Check the packing slip.

You will need the following tools to complete the assembly of the antenna at the site:

1. $\frac{3}{4}$ Open/box wrench or socket wrench
2. 15/16 Open/box wrench or socket wrench
3. 9/16 Open/box wrench or socket wrench
4. Adjustable Wrench
5. Torque Wrench with appropriate sockets

NOTE: The pictures provided in this document are for illustrative purposes only and may not be identical to your antenna system.

WARNINGS AND CAUTIONS:

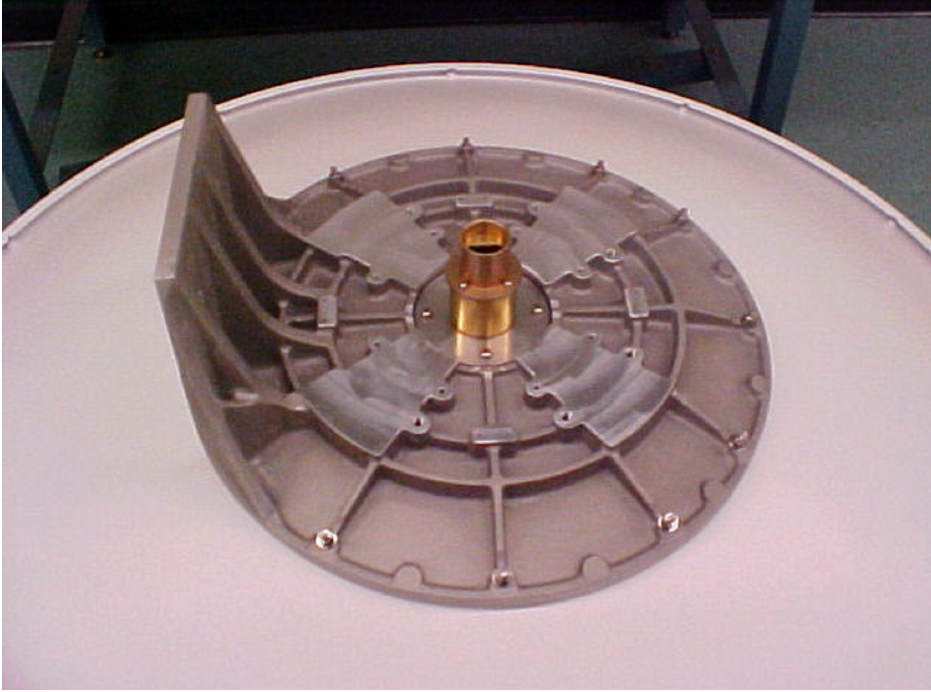
1. Read these instructions before beginning installation. Caution should be used. Qualified persons experienced with antenna assembly and installation are required for installation.
2. Radio Waves Inc. disclaims any responsibility or liability for damage or injury resulting from incorrect or unsafe installation practices.
3. The reflector has been formed to a very close tolerance parabolic shape. Careful handling and assembly is required to avoid denting the reflector, which would degrade antenna performance.

CAUTION:

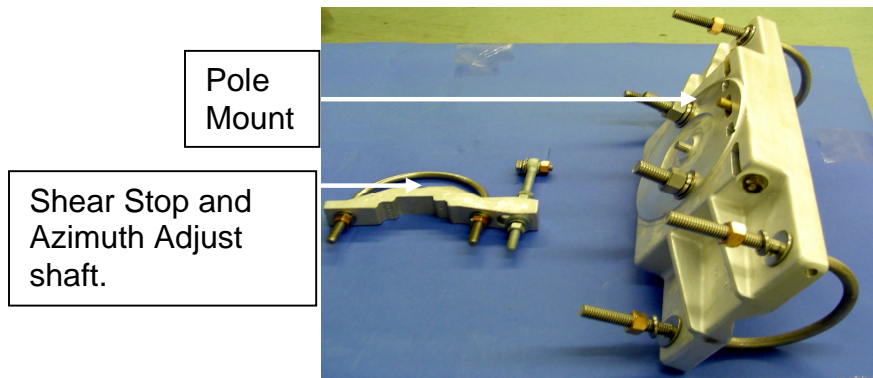


HP3 & HP4 Antennas

Three or Four foot reflector with Cast Mount



The Mounting Assembly:



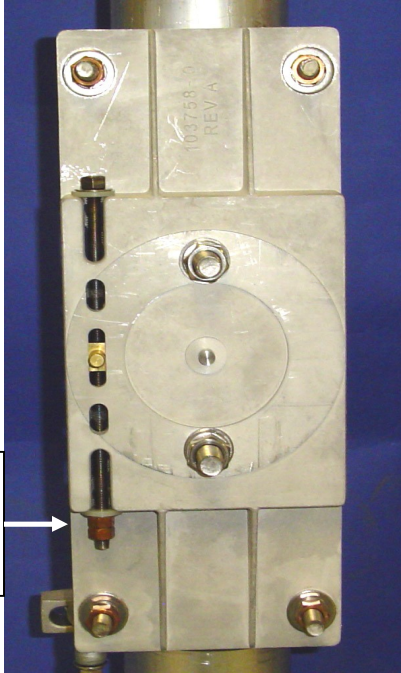
Pole
Mount

Shear Stop and
Azimuth Adjust
shaft.

HP3 & HP4 Antennas

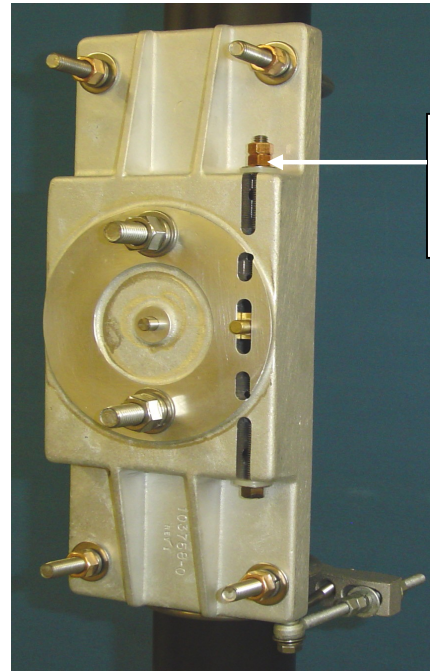
Offsets:

Right Hand



WARNING:
Use No
Wrench

Left Hand



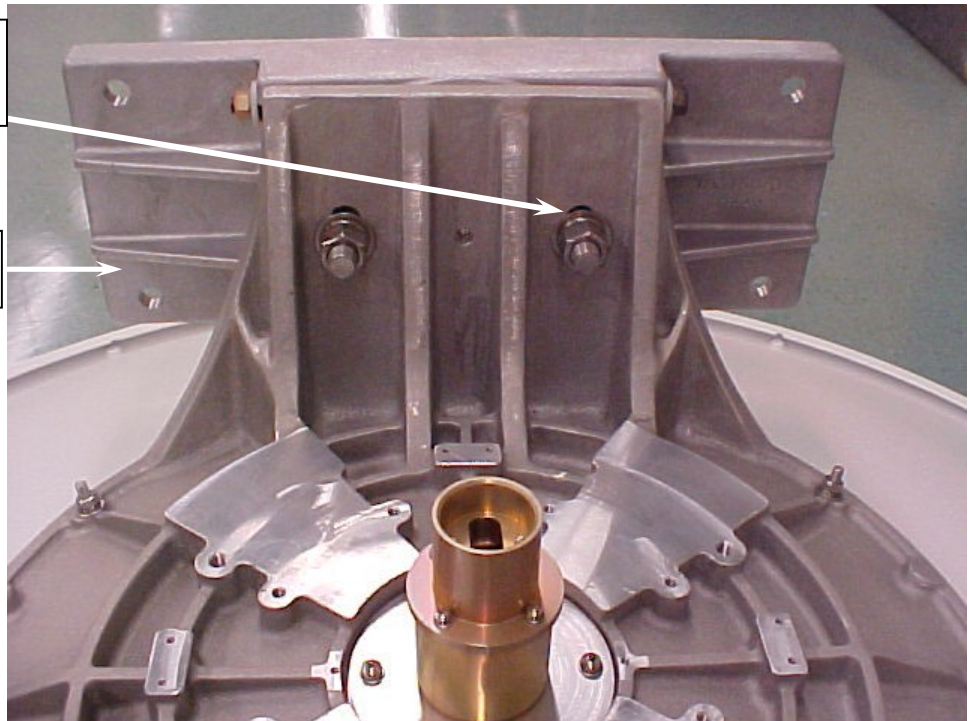
WARNING:
Use No
Wrench

1. Install Pole Mount

NOTE: From this point forward, Right Hand Offset is shown.

5/8 Nuts, Flat Washer,
Lock Washer, 2X

POLE MOUNT



FEED ORIENTATION: If Plane Feed has been ordered, the factory default is Vertical Polarization. Refer to supplemental instructions to adjust the feed to horizontal polarization.

HP3 & HP4 Antennas

2. Attach Shear Stop to 4.5" OD Pole

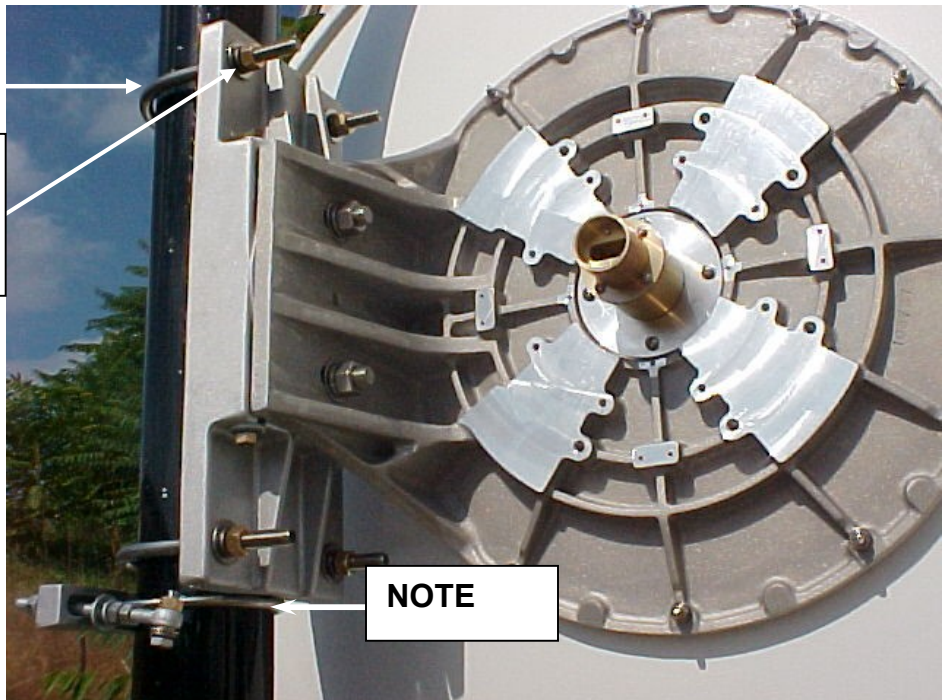
Tighten Securely,
3/8 Nut Lock
Washer, Flat
Washer, 4X SS



3. Fasten antenna and mount to the pole. Note that the pole mount rests on the shear stop U-bolt.

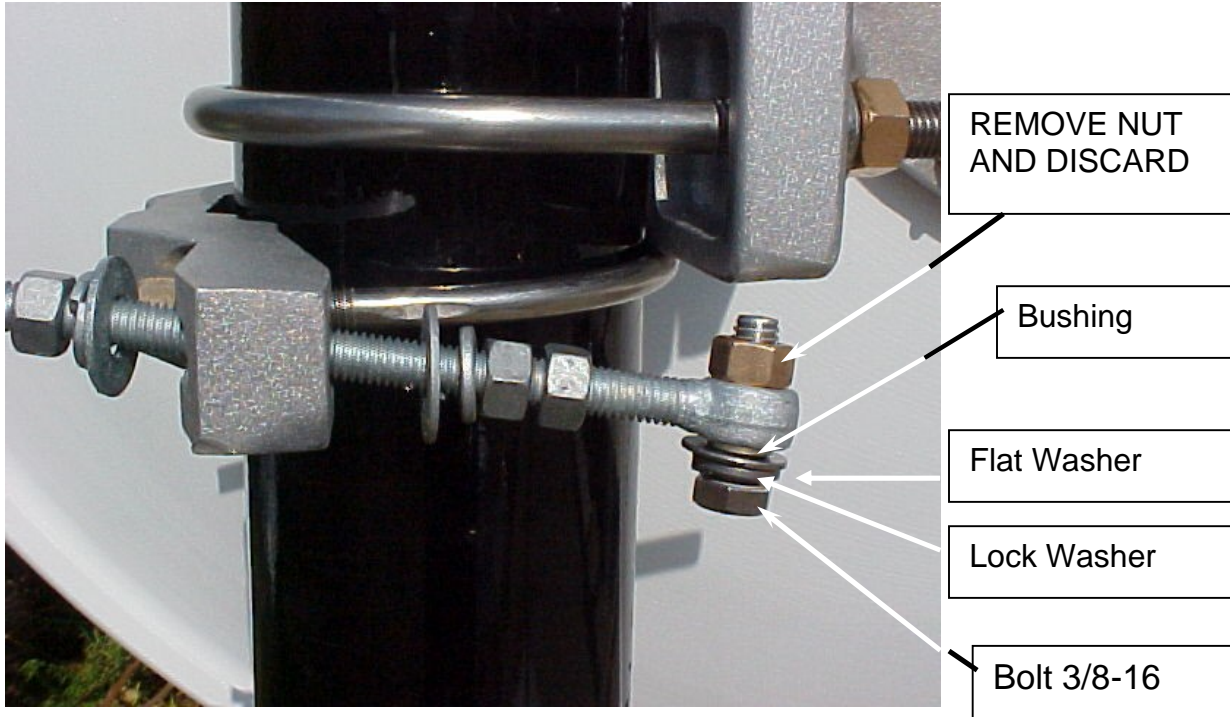
1/2 U- Bolt
1/2- 13 Threads

1/2" Nut, Lock
Washer, Flat
Washer, 4X

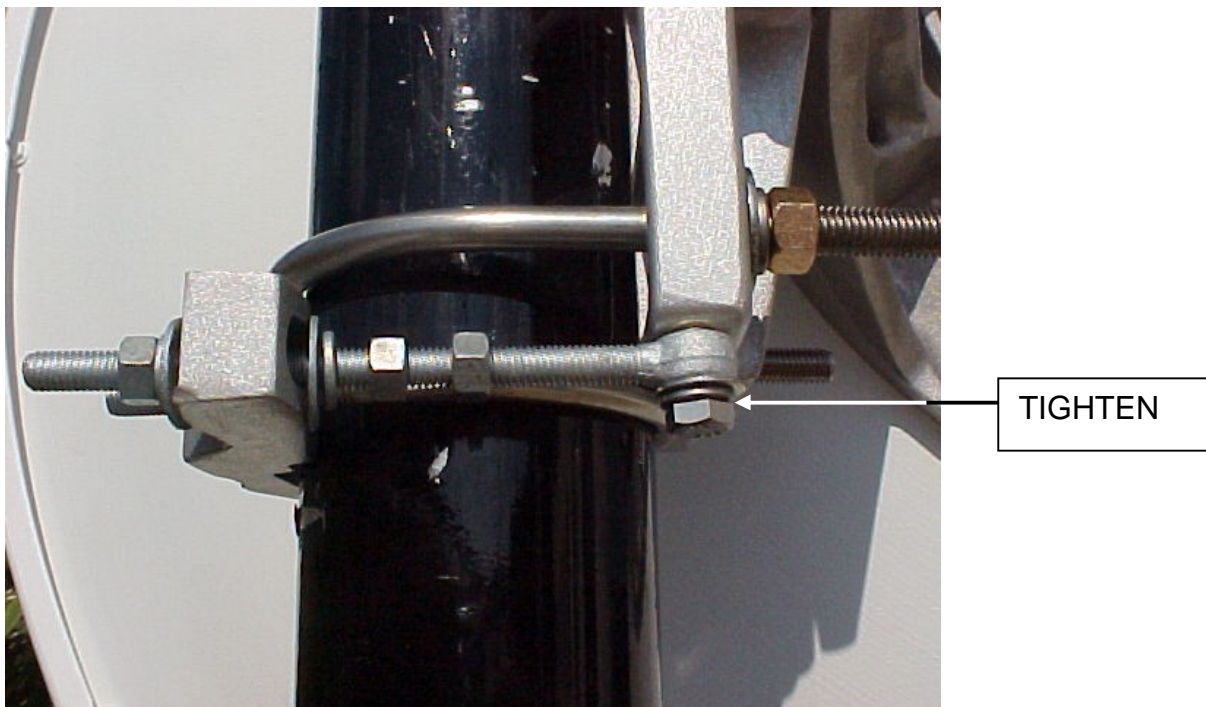


HP3 & HP4 Antennas

4. Remove nut. **Do not lose bolt and bushing!**

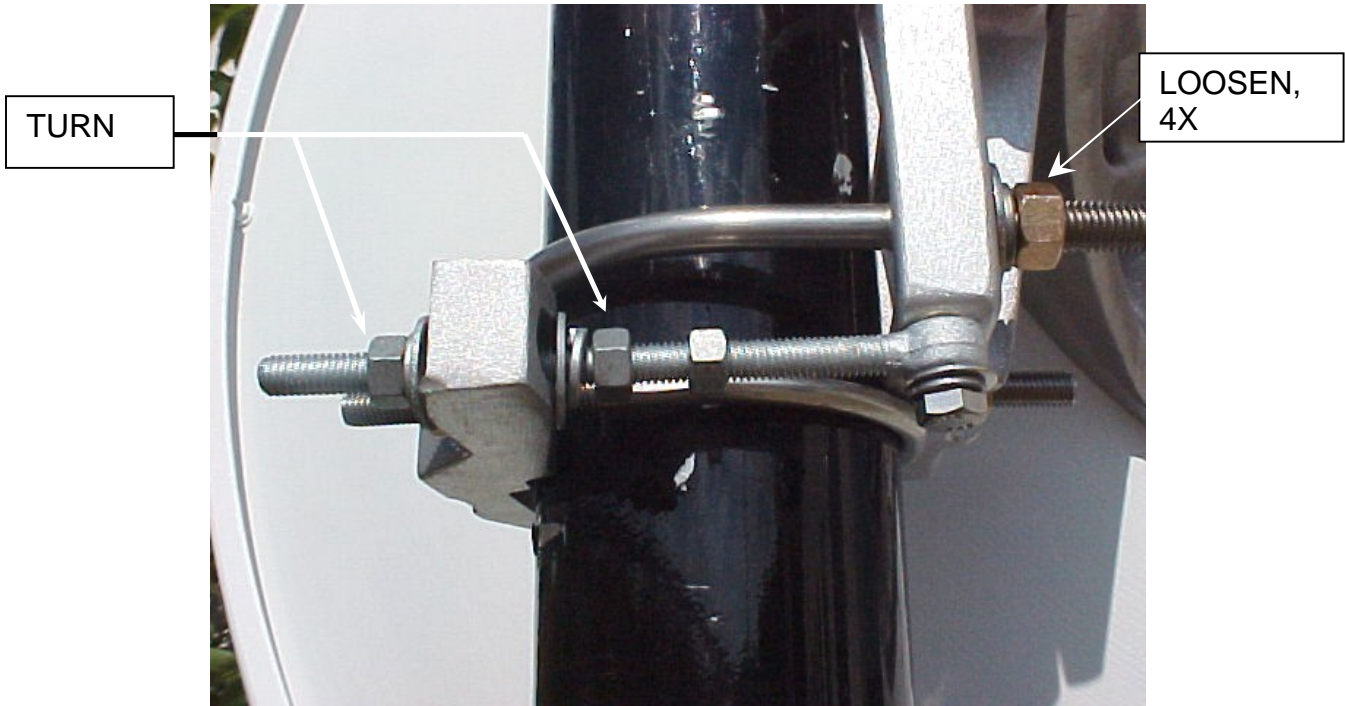


5. Install bolt and hardware

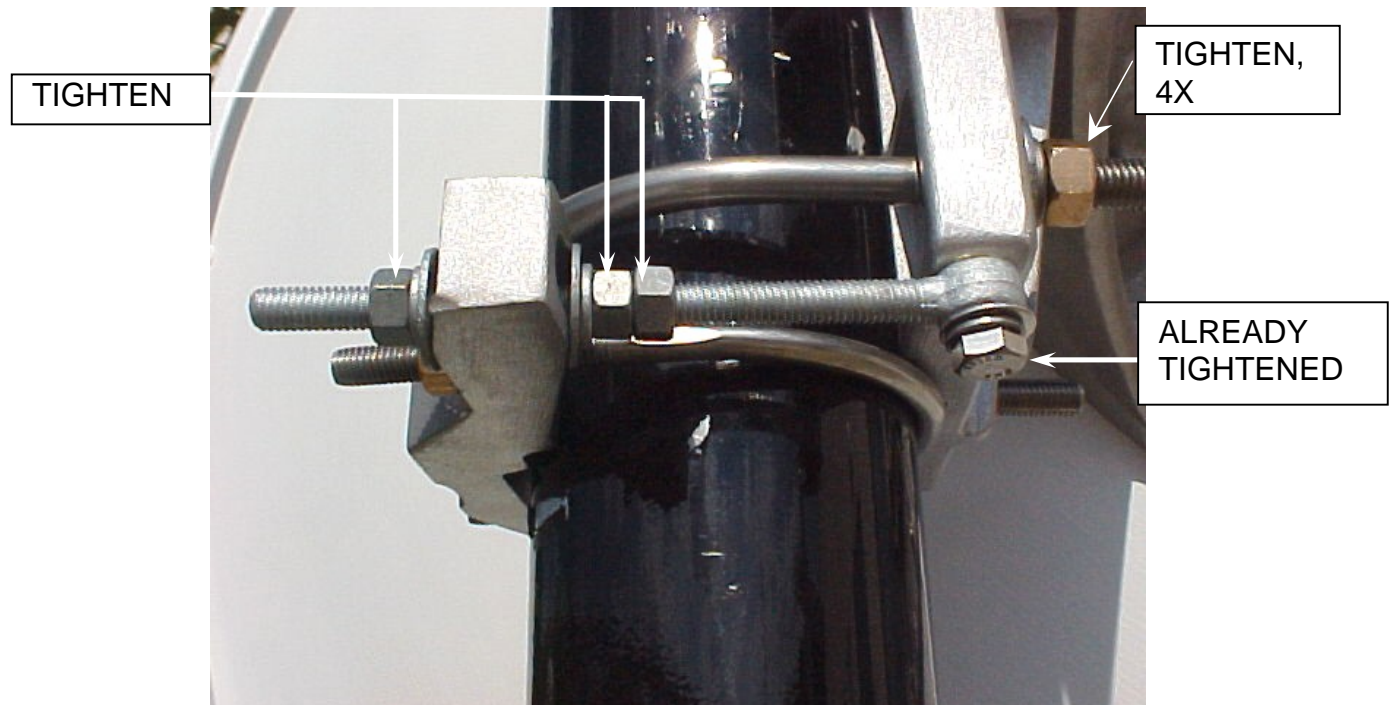


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6. Adjust for Azimuth.



7. Set azimuth adjustment.



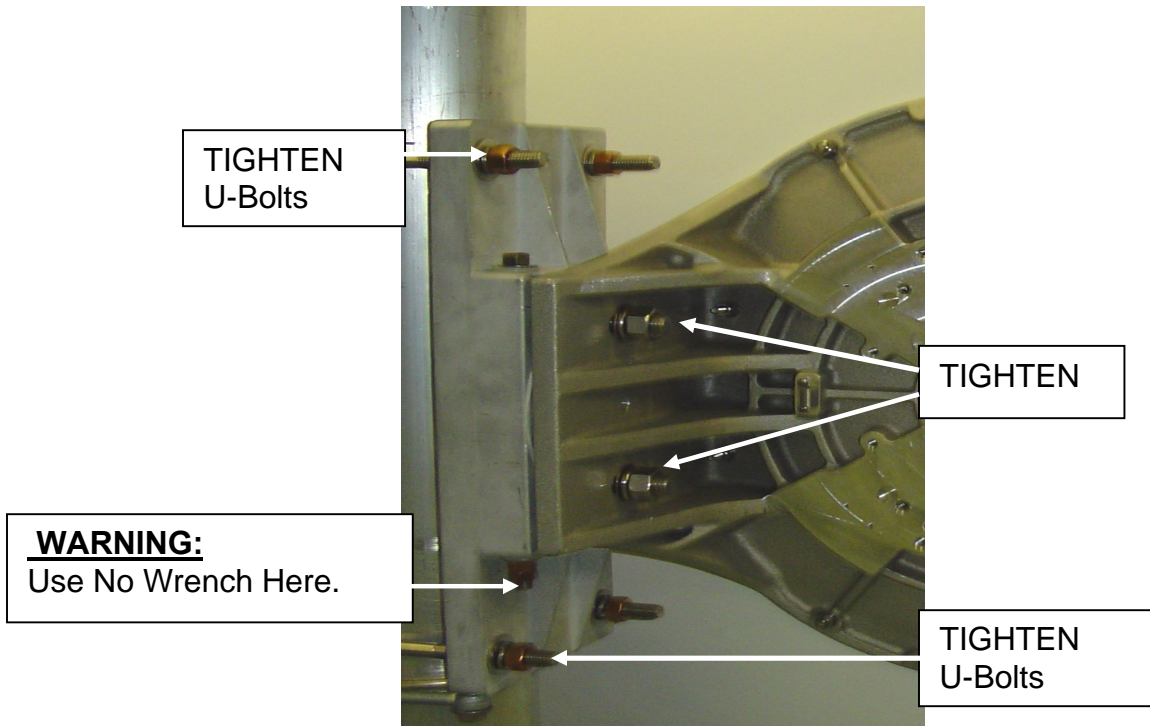
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8. Elevation Adjustment



HP3 & HP4 Antennas

9. Tighten all hardware using torque specifications below:



TORQUE SPECIFICATIONS

Nominal Bolt Size (Inches)	Nut Torque
1/4	50 in-lb
5/16	102 in-lb
3/8	15 ft-lb
7/16	24 ft-lb
1/2	37 ft-lb
5/8	60 ft-lb
3/4	75 ft-lb

Radio Waves Contact information:

Thank you for purchasing a Radio Waves product.

Radio Waves designs, manufactures and markets only the highest quality microwave antenna systems and we appreciate your business. We welcome your feedback and comments.

Contact us at the locations mentioned below:

For support with any product request, including technical support:

Telephone: 1-(978) 459-8800

FAX: 1-(978) 459-3310

E-mail: sales@radiowavesinc.com

Website: www.radiowavesinc.com

Global Headquarters:

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THE LEADER IN MICROWAVE ANTENNA INNOVATION®

RADIO WAVES BRINGS INNOVATION TO A COMPREHENSIVE LINE OF MICROWAVE AND BROADBAND WIRELESS ANTENNAS:

- SECTOR ANTENNAS
 - UNLICENSED 2.4,3.5 & 5 GHZ
 - DUAL-BANDS/DUAL-POL
 - PRO-VIDER™ SECTOR ANTENNAS FOR WISPs
 - LICENSED 26,28, &38 GHZ
- FLAT PANEL ANTENNAS
 - 2.4, 3.5, & 5 GHZ
 - XCELARATOR™ HIGH PERFORMANCE 5 GHZ FLAT PANELS
- GRID PARABOLIC ANTENNAS
 - 1.3 TO 2.7 GHZ
- STANDARD PARABOLIC ANTENNAS
 - 1.3 TO 13 GHZ
- HIGH PERFORMANCE PARABOLIC ANTENNAS
 - 5.8 TO 60 GHZ
 - DISCRIMMINATOR™ LOW-SIDE LOBE PARABOLIC
 - INTERFACES TO DIRECT MOUNT WOTH MAJOR OEM RADIOS
- TRANSMISSION LINE PRODUCTS
 - TIMES LMR™
 - ELLIPTICAL WAVEGUIDE
 - FLEXIBLE WAVEGUIDE
 - LIGHTNING PROTECTION
- MOUNTING ACCESSORIES
 - CLAMPS
 - DOWNTILT BRACKETS
- COUPLERS