

High Performance Antennas 1 & 2 ft. (0.3 & 0.6 m)

Antenna Installation Manual

Please read the manual completely and carefully before installation.
Instructions are intended for qualified and experienced personnel.

August 2011 — Revision B

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Information

Regulatory Information

Antennas are designed to meet the following standards.

- EN 302 217-4-1
- EN 302 217-4-2 Class 3 RPE
- FCC Part 101



Warranty Information

Antennas purchased from Trango Systems, Inc. are warranted for two years from date of purchase. Visit the Trango Systems Web site for a complete description of warranty coverage and limitations. Extended warranty protection can be purchased through the Sales or Customer Service departments.

Contact Information

Trango Systems, Inc.
14118 Stowe Drive, Suite B
Poway, California 92064
USA

Telephone: +1 (858) 391-0010
Fax: +1 (858) 391-0020

Web: www.trangosys.com

1.0 Overview

Thank you for purchasing a Trango high performance dish antenna. This antenna has been designed and manufactured to the highest standards and will provide years of trouble free service if installed correctly. Please review and follow this installation manual.

Below is a list of the parts that are included in the packing box. Please check to ensure that all the parts are present. If anything is missing please contact your Trango sales representative immediately.

Models Covered:

ADXX-X-S1 (Antennas designed for SP ODUs and Apex)

ADXX-X-S2 (Antennas designed for HP ODUs and ApexPlus)

Packing List

Item	Description	Quan
1	Assembled Dish antenna with radome	1 set
2	Mounting Bracket (including anti slide bracket)	1 set
3	Instruction manual	1 pcs
4	M10x40mm Bolt	3 pcs
5	Flat Washer 10mm	3 pcs
6	Split Washer 10mm	3 pcs
7	Silicone O-ring for antenna circular waveguide	1 pcs
8	Silicone grease	1 bottle
9	Antenna Waveguide Transition (-S1 Only)	1 pcs
10	O-ring for Waveguide Transition to ODU (44mm diam x 1.8mm thick for 11GHz and lower) (-S1 only)	1 pcs
11	#4-40x8mm Philips head screw for Waveguide transition to ODU (-S1 Only)	4 pcs
12	#4 lock washer for Waveguide transition to ODU (-S1 Only)	4 pcs

2.0 Mounting

Step 1: Assemble Mounting Bracket.

From the mounting kit, first attach the mounting bracket to the antenna using 3 each of the M10x40mm bolts and washers as shown in Figure 1.

NOTE: It is recommended to apply a small amount of lubricant such as anti-seize grease to the threads of the bolts to prevent binding as the nuts are tightened. The nuts should be turned slowly and not over-torqued. This will ease the installation and alignment significantly.

Maximum torque for all mounting bolts is 22 N-m or 15 lb ft. Turn the nuts slowly as they are tightened down. This will ease the installation and alignment significantly.

IMPORTANT: Choose the side to attach mounting bracket based on the location of the pole relative to the antenna (See Figure 2 and 3)

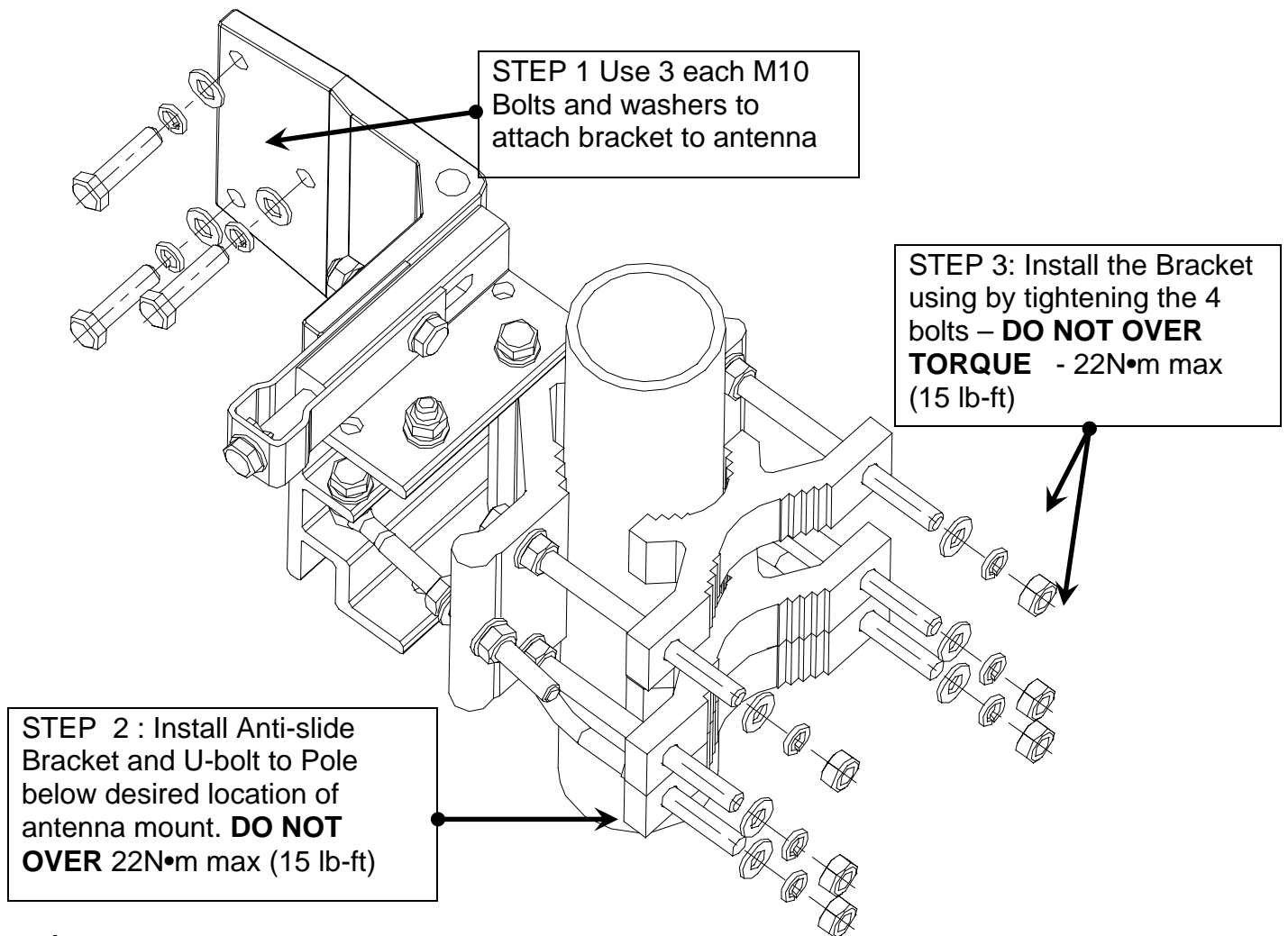


Figure 1 – Bracket attachment to Dish and pole

Pole Mount (Right / Left)

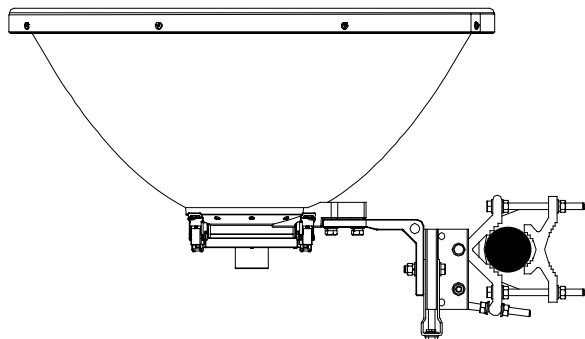


Figure 2 -Antenna offset left

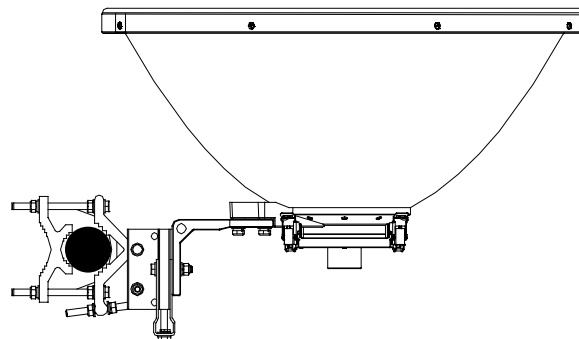


Figure 3 - Antenna offset right

Step 2: Install anti-slide bracket below the intended location of the mounting bracket as shown in Figure 1. The anti slide bracket prevents the mounting bracket from sliding down the pole during installation.

Step 3: Mount the entire antenna assembly on the Pole. **Pole Brackets are reversible** to allow for different pole diameters as shown in Figures 4 and 5. Ensure that the mounting bracket is installed above the anti-slide bracket as shown for safety.

Step 4: Mount the ODU to the antenna per Section 4.0 “Installing the ODU” at the end of this manual.

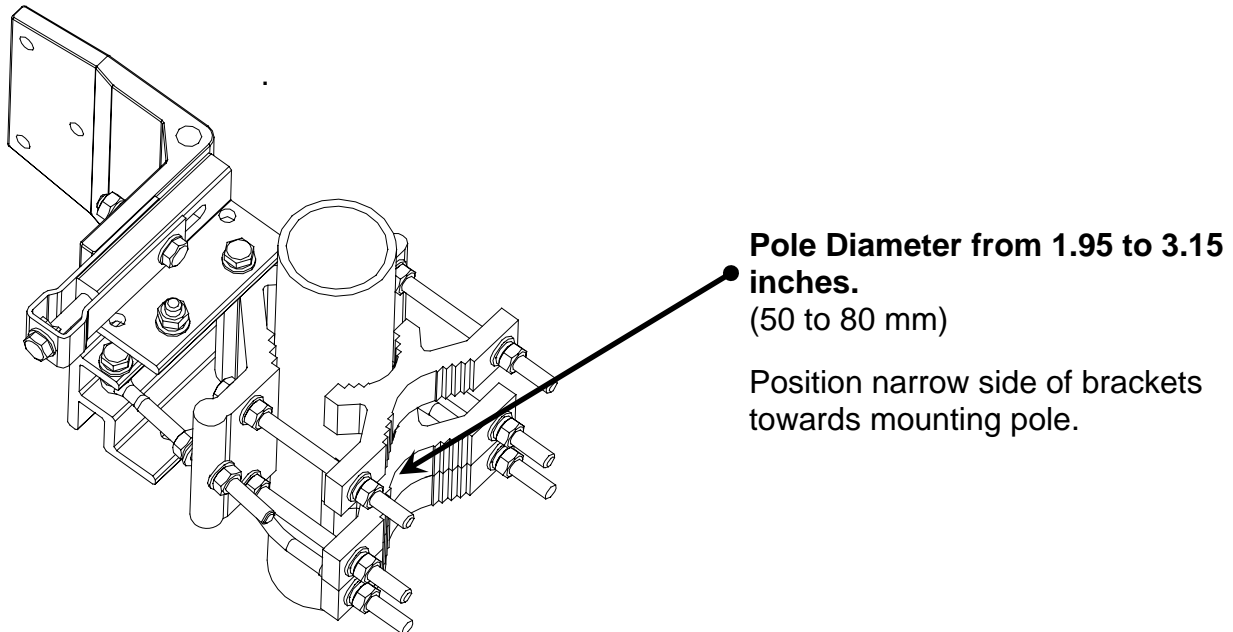


Figure 4 – Bracket Arrangement for small diameter poles

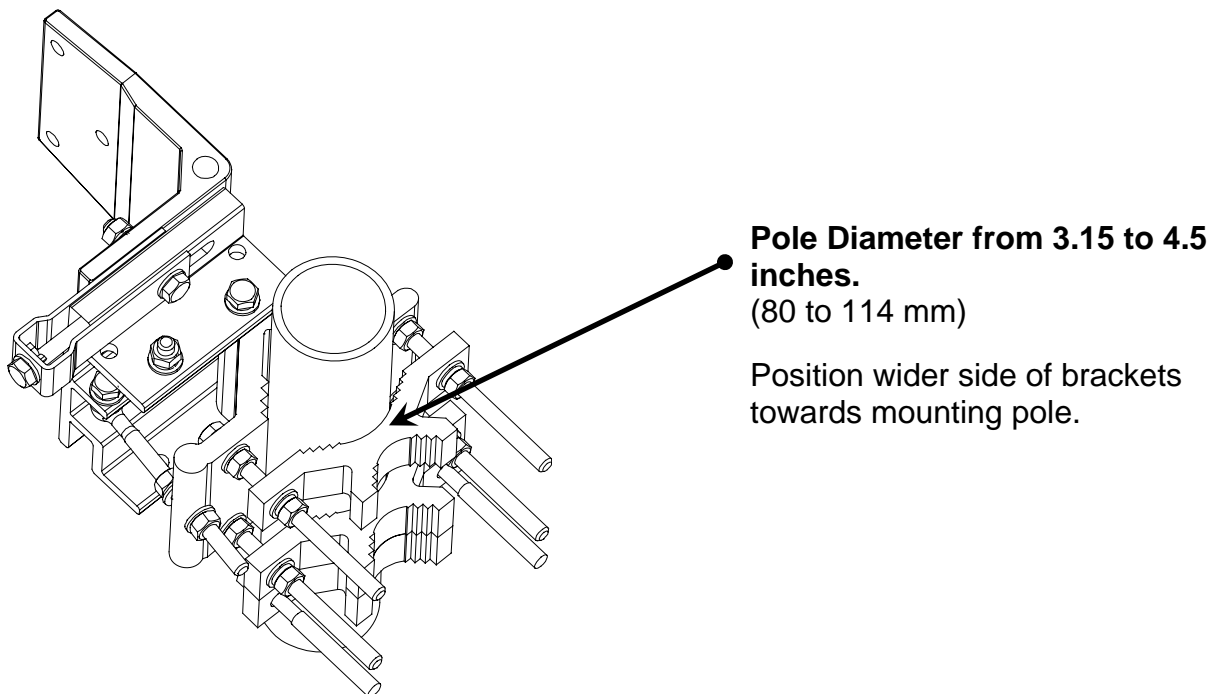


Figure 5 – Bracket Arrangement for larger diameter poles

Step 5: Align the Antenna per Section 3.0 “Antenna Alignment” and tighten all the bolts and nuts to the max recommended torque of 15 lb-ft or 22 N-m.

Your antenna is now properly installed and aligned!

Figure 6 shows a picture of the antenna correctly installed on a mounting pole.

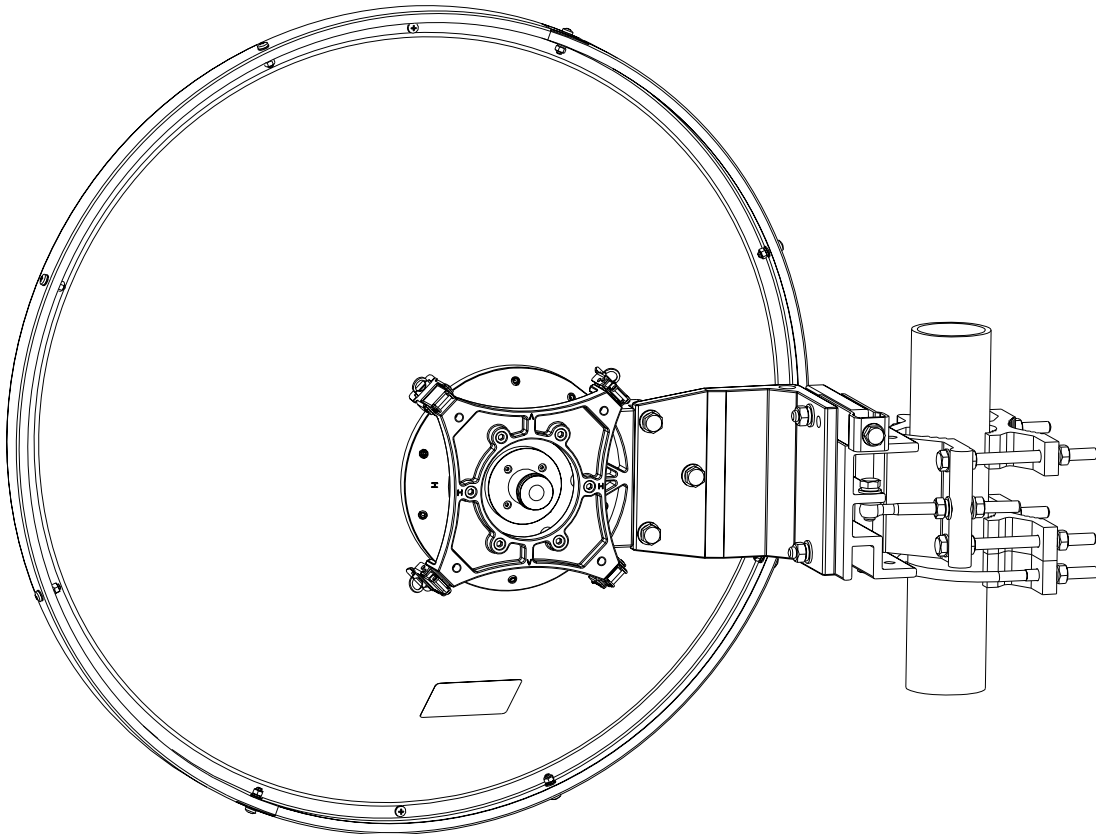


Figure 6 – Properly Mounted Antenna (without ODU)

3.0 Antenna Alignment

Adjust alignment of azimuth and elevation by tightening and loosening the bolts and nuts as shown in Figure 7. **DO NOT OVER TORQUE THE BOLTS.**

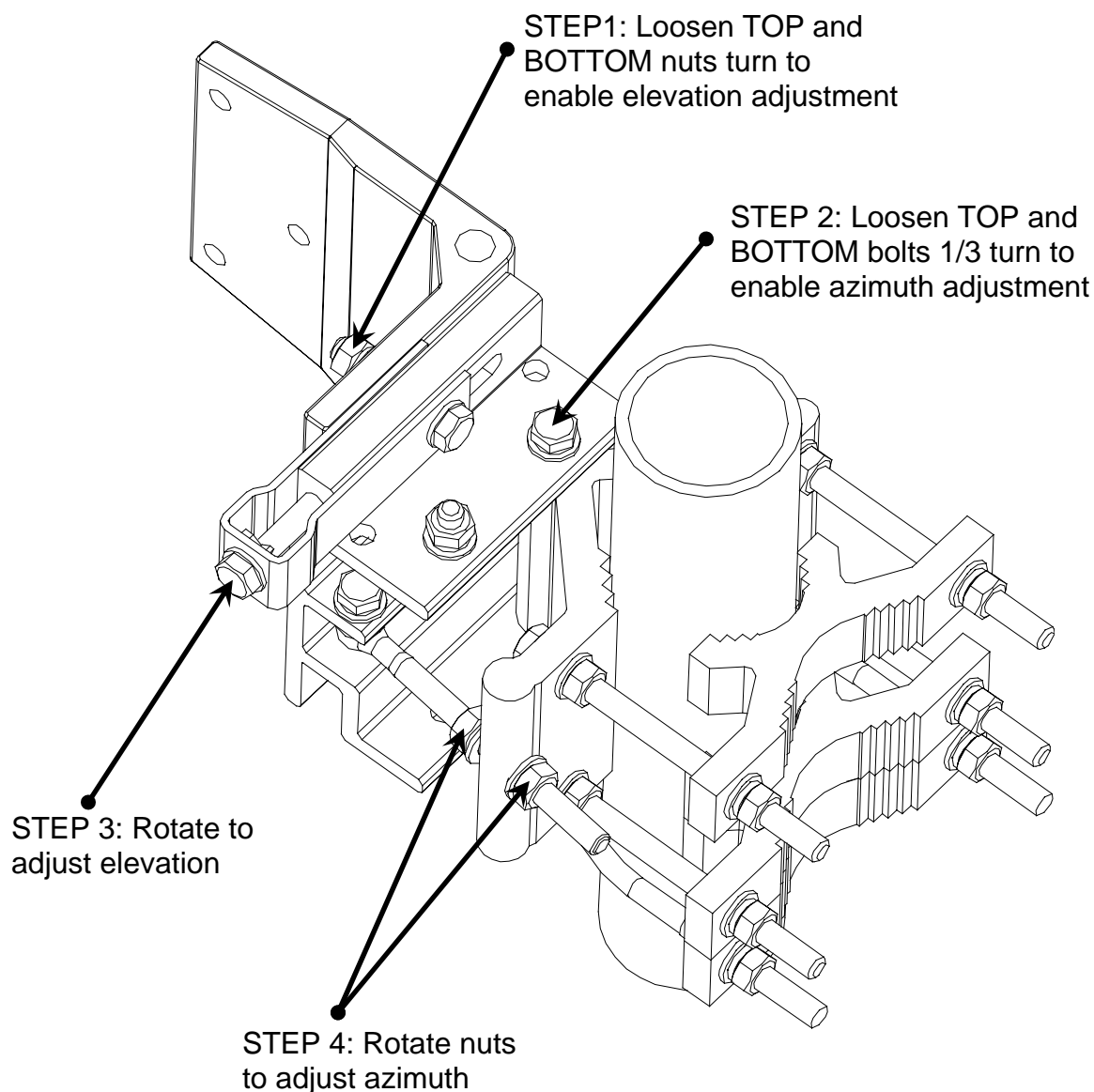


Figure 7– Antenna Alignment Adjustment points

4.0 Installing the ODU

For HP family ODUs and ApexPlus All-outdoor units using ADxx-x-S2 antennas, no preparation of the ODU is required. The ODU may simply be slip fitted onto the antenna and latched in place. Please proceed to the **ODU POLARIZATION** section below.

For SP ODUs (GigaXX-ODU models) using ADXX-X-S1 antennas, a waveguide transition (supplied) that converts the rectangular waveguide interface on the ODU to a circular waveguide interface used by the antenna must be installed onto the ODU. Figure 8 shows a picture of the parts supplied.



Figure 8 – SP ODU Waveguide Transition and hardware

Installation instructions:

Install the O-ring into the ODU O-ring slot.

Align the transition such that the rectangular slot is aligned with the ODU rectangular slot.

Fasten the transition to the ODU using the 4 screws and washers. Torque to 12 lb-in.

ODU Polarization

The antennas are all capable of supporting Horizontal or Vertical polarization by simply rotating the ODU 90 degrees on the back of the antenna. Figure 9 shows the circular waveguide interface on the antenna with the “V” and “H” markings.

Before attaching the ODU, ensure that the O-ring is installed as shown below and is free of dirt or other foreign debris. Smear the silicone grease around the antenna cylinder and over the O-ring to prevent tearing of the O-ring when the ODU is attached. Be careful not to get any silicone inside the waveguide opening.

“V” mark on the antenna. Alignment mark/arrow on the ODU must line up with the “V” for vertical polarization

“H” mark on the antenna. Alignment mark/arrow on ODU must line up with the “H” for horizontal polarization.

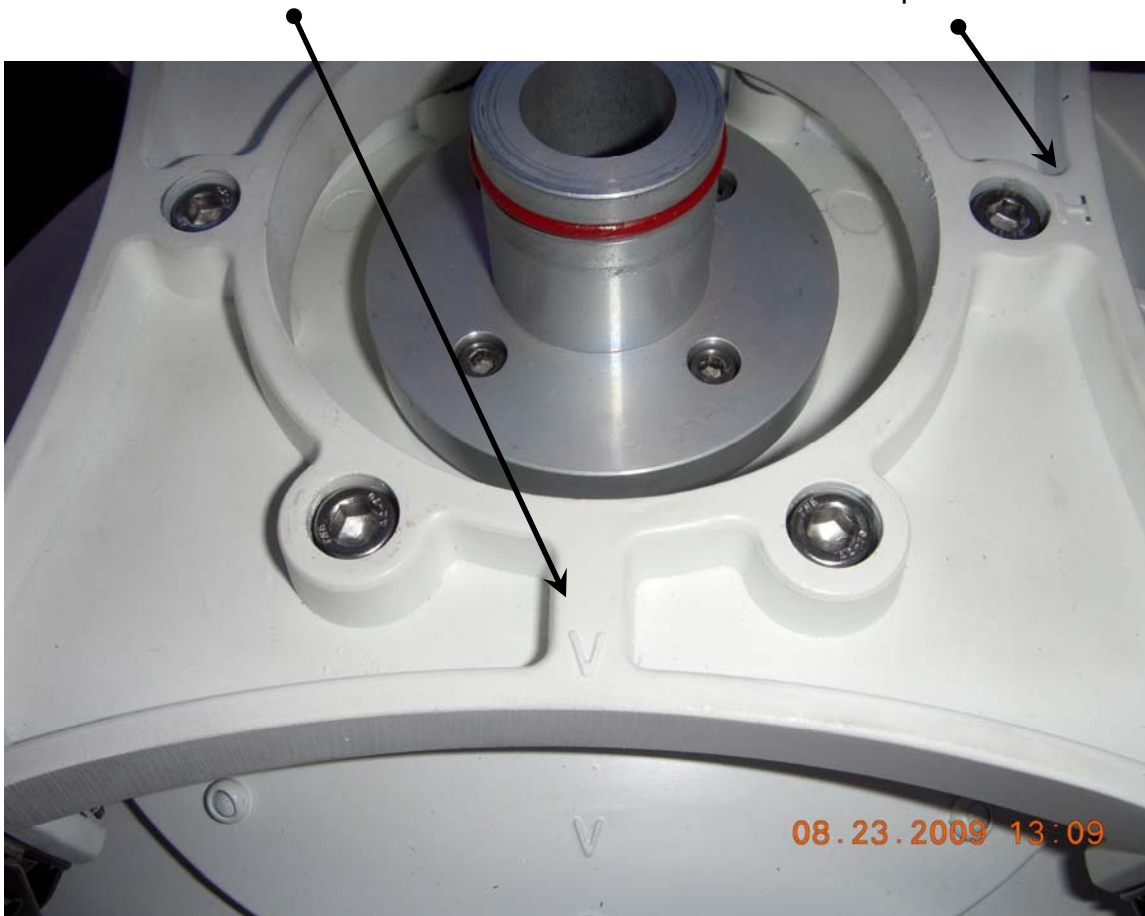


Figure 9 – Polarization mark on antenna

For HP ODUs and ApexPlus, there is an alignment arrow on the back of the ODU. The Arrow should be pointing to the desired antenna polarization mark on the antenna.

For vertical polarization the “V” should be at the top of the unit as shown in the Figure 10 below, and for horizontal polarization the “V” should be at the right side of the unit. The IF connector should be positioned towards the lower right for vertical and lower left for horizontal polarization.



Figure 10 HP ODU Vertical Polarization

For SP ODUs, Figure 11 shows the Antenna transition mounted on the ODU. Note the alignment mark position. It should be lined up with either the “V” or “H” marking on the antenna depending on the polarization desired.



Alignment mark on the ODU

Figure 11 – SP ODU Alignment Mark