



### Installation Safety & Equipment



**IMPORTANT!**  
**READ MANUALS FULLY BEFORE UNPACKING,  
ASSEMBLING & INSTALLING ANTENNA**

#### SERVICE PERSONNEL

Installation, maintenance or removal of equipment must be carried out by authorized personnel having the appropriate technical training, education and experience necessary to be cognizant of hazards during installation and service, and of measures to minimize any danger to themselves or any other person.

#### SAFETY REGULATIONS

Always use mandatory local safety regulations, instructions in this manual shall be used as a supplement to the local regulations. In case of conflict between the safety instructions in this manual and local safety regulations, the local mandatory safety regulations shall prevail. CommScope will not accept responsibility for accidents resulting from non-compliance to regulations

#### INSTALLATION HARDWARE

Do not use any components (for example screws and nuts) other than those enclosed with the equipment or recommended by CommScope.

Use protective wear to avoid skin contact with conductive grease. Keep away from mouth. Wash thoroughly after use with liberal amounts of liquid soap and rinse with water. Do not store open near food or food substances.



Contents: Oil, clay & zinc dust.

#### HOISTING & WORKING AT HEIGHTS

Some working areas involve the risk of accidents caused by falling or by falling objects



- Use only tested and approved hoisting equipment in accordance with the instructions supplied with the equipment.
- Appropriately trained personnel must operate the hoisting device.
- Never walk under hoisted loads.

#### GENERAL MAINTENANCE

- The antenna is designed such that minimal maintenance is required. Equipment should be inspected once a year by qualified personnel to verify proper installation, maintenance, and condition of equipment to ensure trouble free operation.

#### CLEANING OF ANTENNA

- If subsequent cleaning of the antenna is required use water and mild detergent.

#### HARDWARE AND TOOLS

| Fastener Torques & Tool Sizes   |     |     |     |     |    |     |     |     |     |
|---|-----|-----|-----|-----|----|-----|-----|-----|-----|
| Thread  | M3  | M4  | M5  | M6  | M8 | M10 | M12 | M16 | M20 |
| <b>Stainless Steel Hardware<br/>Torque (Nm <math>\pm 5\%</math>)</b>  | 1.0 | 2.2 | 4.5 | 7.7 | 19 | 38  | -   | -   | -   |
| <b>Galvanised Steel Hardware<br/>Torque (Nm <math>\pm 5\%</math>)</b> | -   | -   | -   | -   | -  | 38  | 60  | 95  | 185 |
| <b>Brass Hardware<br/>Torque (Nm <math>\pm 5\%</math>)</b>            | -   | -   | -   | -   | -  | -   | -   | -   | 95  |
| <b>Spanner and Sockets<br/>(mm A/F)</b>                               | 5.5 | 7   | 8   | 10  | 13 | 17  | 19  | 24  | 30  |

**UNLESS STATED OTHERWISE**

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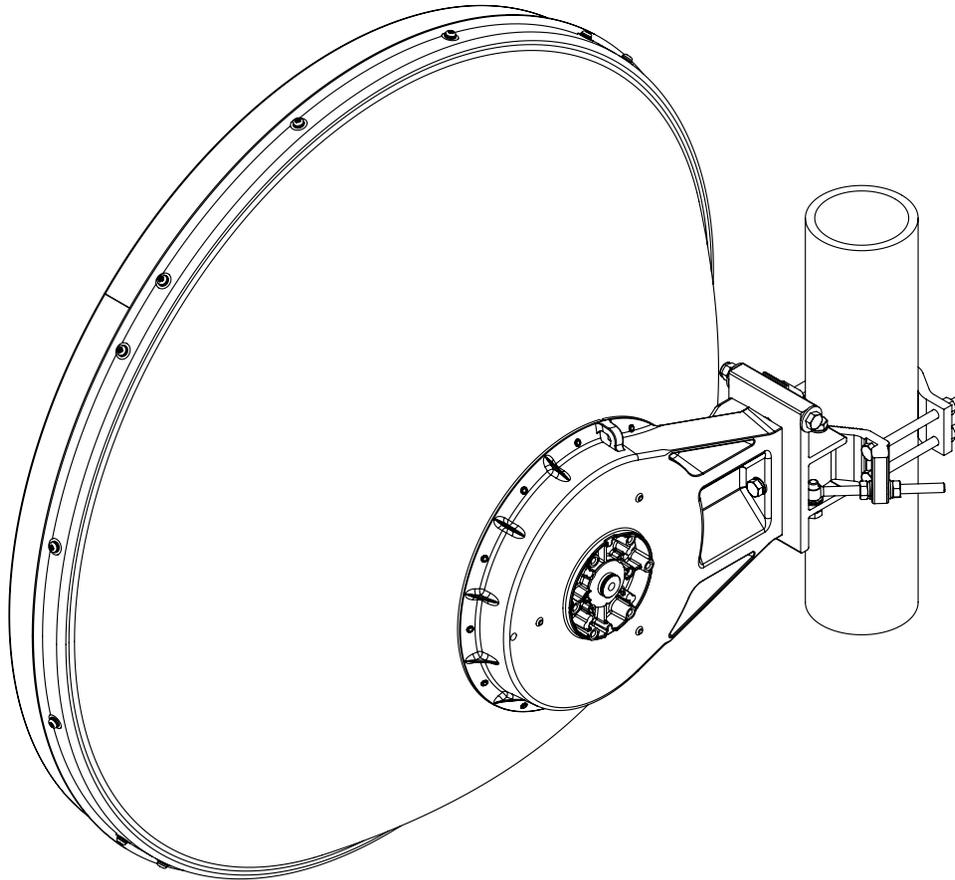
Visit our website or contact your local CommScope representative for more information.

For technical assistance, customer service, or to report any missing/damaged parts, visit us at: [www.commscope.com/SupportCenter](http://www.commscope.com/SupportCenter)

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## OVERVIEW



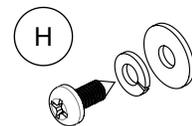
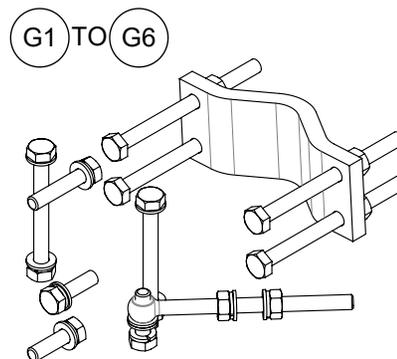
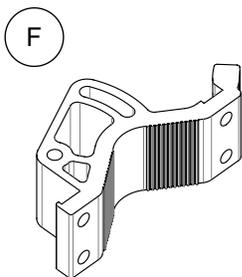
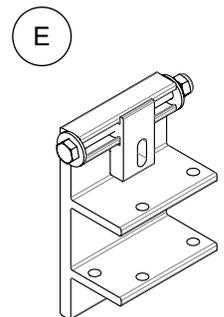
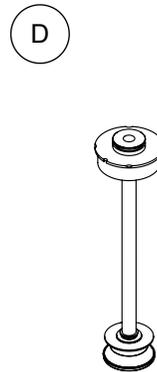
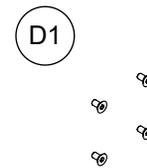
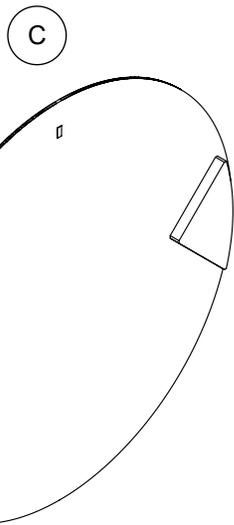
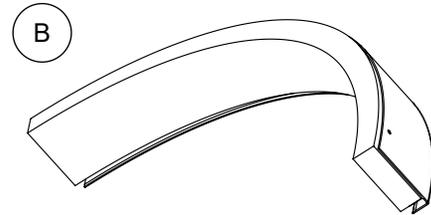
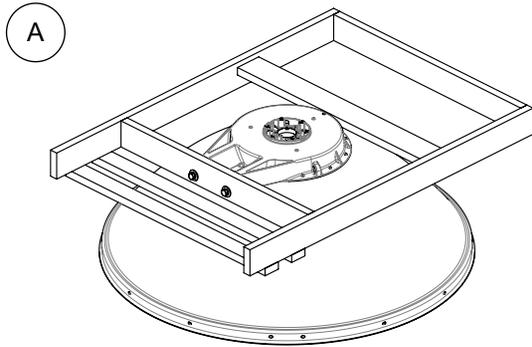
This instruction describes how to assemble a VHLP(X)3 antenna.

The antenna can be mounted with the mount offset to the left or to the right. Offset left is described in this bulletin, however the images showing offset right installation are shown at the end of this document.

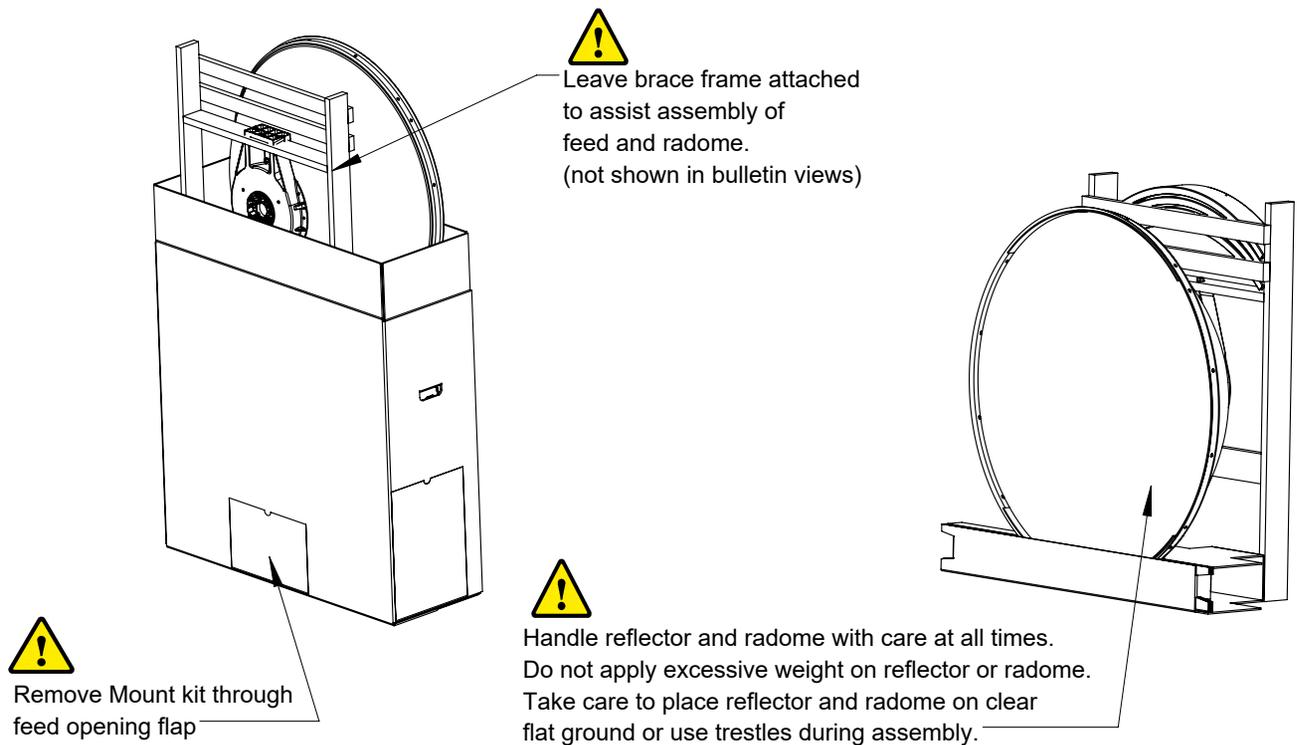
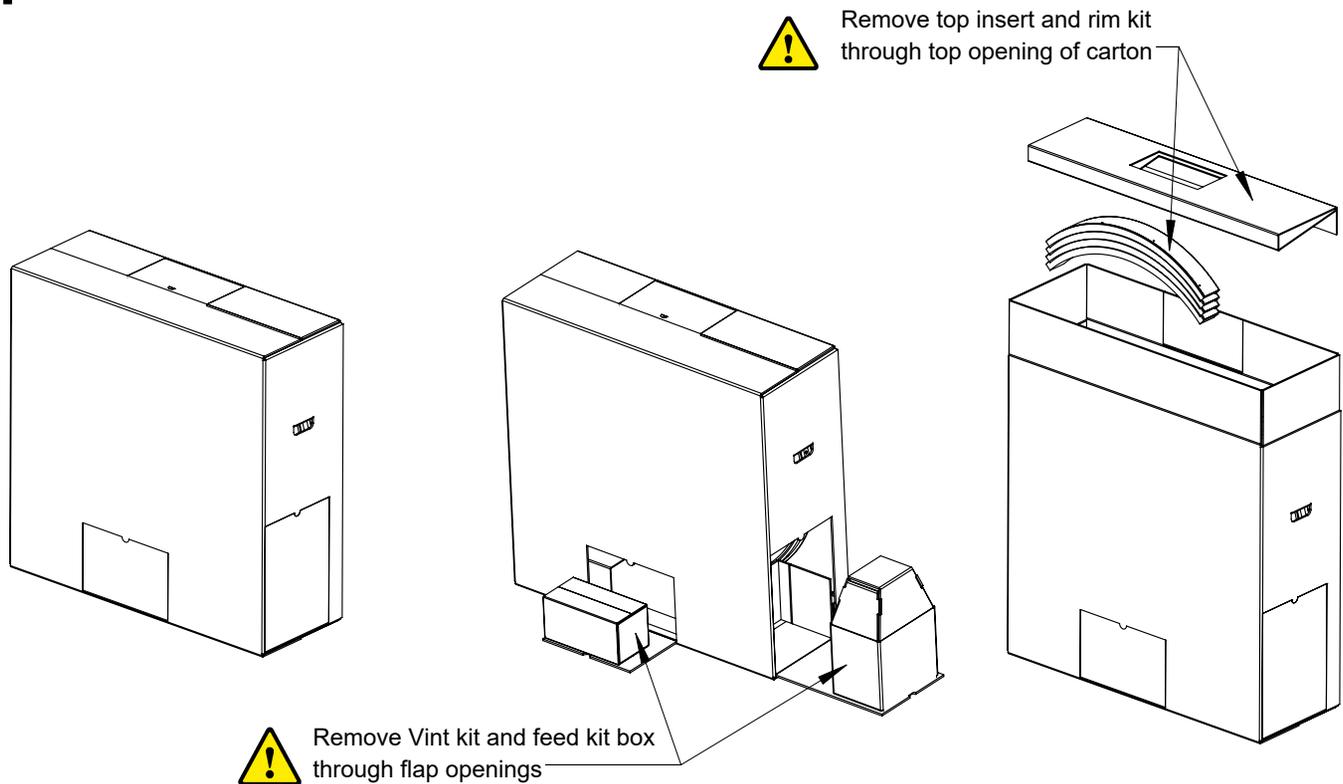
## EQUIPMENT

| Item      | Qty | Description                                 | Contained in Kit Part No |
|-----------|-----|---|--------------------------|
| <b>A</b>  | 1   | <b>Reflector</b>                            |                          |
| <b>B</b>  | 4   | <b>Radome Rim</b>                           |                          |
| <b>C</b>  | 1   | <b>Radome</b>                               |                          |
| <b>D</b>  | 1   | <b>Feed</b>                                 | VF-3-FR-14               |
| <b>D1</b> | 1   | <b>Feed Installation Kit</b>                |                          |
| <b>E</b>  | 1   | <b>Mount: Elevation Adjustment Assembly</b> | 7679156                  |
| <b>F</b>  | 1   | <b>Mount: Azimuth Adjustment Clamp</b>      | 7671897                  |
| <b>G</b>  |     | <b>Mount Hardware Kit</b>                   | 7700025                  |
|           | 1   | Conductive Grease (Tube)                    |                          |
|           | 2   | Gloves                                      |                          |
| <b>G1</b> |     |   |                          |
|           | 2   | M10 x 100lg Hex Hd Screw, sst, pass         |                          |
|           | 4   | M10 Flat Washer, stl, sst, pass             |                          |
|           | 2   | M10 Lock Washer, sst, pass                  |                          |
|           | 2   | M10 Hex Nut, stl, sst, pass                 |                          |
| <b>G2</b> |     |   |                          |
|           | 1   | M10 x 35lg Hex Hd Screw, stl, galv          |                          |
|           | 1   | M10 Lock Washer, stl, galv                  |                          |
|           | 2   | M10 Flat Washer, stl, galv                  |                          |
| <b>G3</b> |     |   |                          |
|           | 1   | M10 x 140lg Eyebolt, stl, galv              |                          |
|           | 2   | M10 Lock Washer, stl, galv                  |                          |
|           | 2   | M10 Flat washer, stl, galv                  |                          |
|           | 2   | M10 Hex Nut, stl, galv                      |                          |
| <b>G4</b> |     |   |                          |
|           | 1   | Pipe Clamp, stl, galv                       |                          |
|           | 4   | M10 x 130lg Hex Hd Screw, stl, galv         |                          |
|           | 4   | M10 Lock Washer, stl, galv                  |                          |
|           | 4   | M10 Hex Nut, stl, galv                      |                          |
| <b>G5</b> |     |   |                          |
|           | 2   | M10 x 35lg Hex Hd Screw, sst, pass          |                          |
|           | 2   | M10 Lock Washer, sst, pass                  |                          |
|           | 2   | M10 FlatWasher, sst, pass                   |                          |
| <b>G6</b> |     |   |                          |
|           | 1   | M10 x 50lg Hex Hd Bolt, sst, pass           |                          |
|           | 1   | M10 Lock Washer, sst, pass                  |                          |
|           | 1   | M10 FlatWasher, sst, pass                   |                          |
| <b>H</b>  |     | <b>Radome Rim Assembly Hardware</b>         | 7700748                  |
|           | 16  | #12 x 16lg Self Tapping Screw, sst, pass    |                          |
|           | 16  | M6 Lock Washer, sst, pass                   |                          |
|           | 16  | M6 FlatWasher, sst, pass                    |                          |

## EQUIPMENT

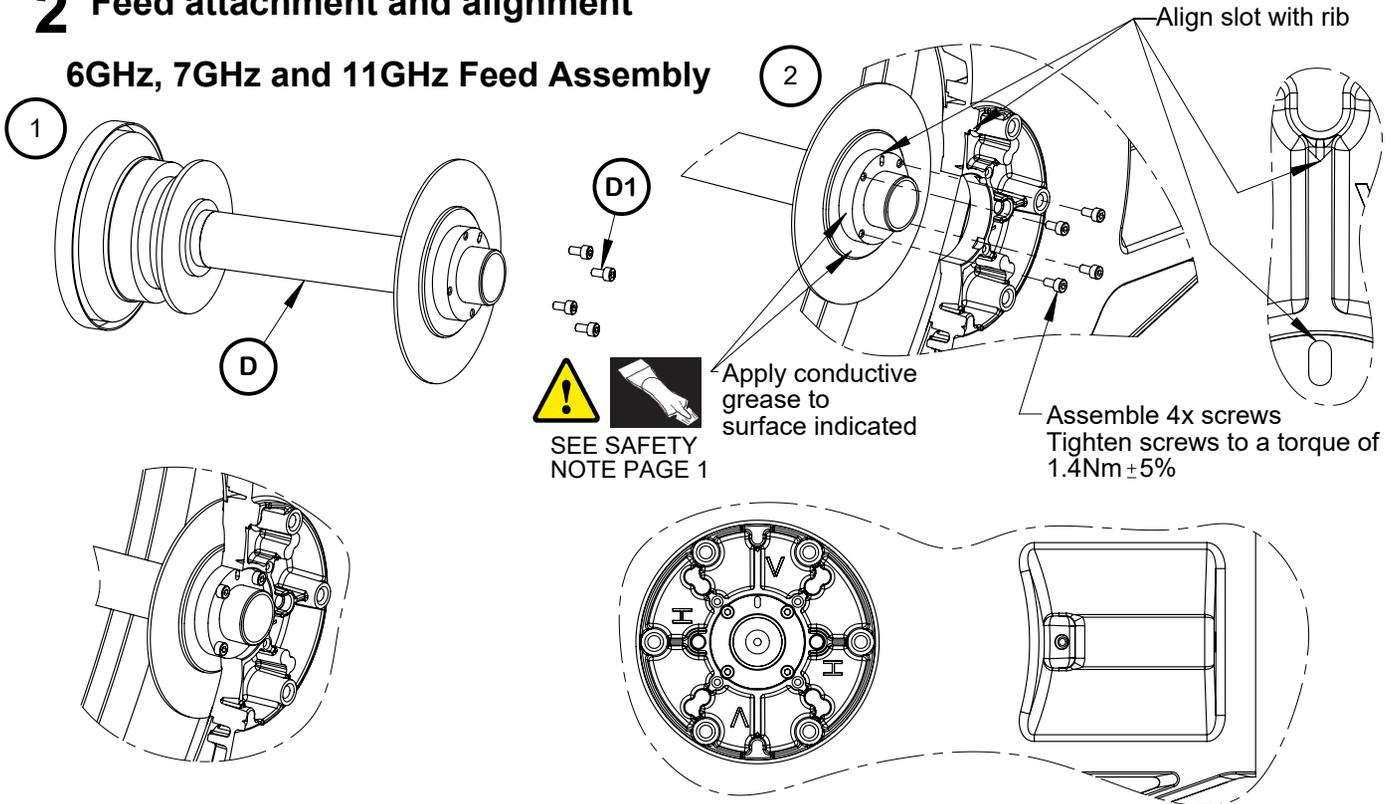


## 1 Unpacking

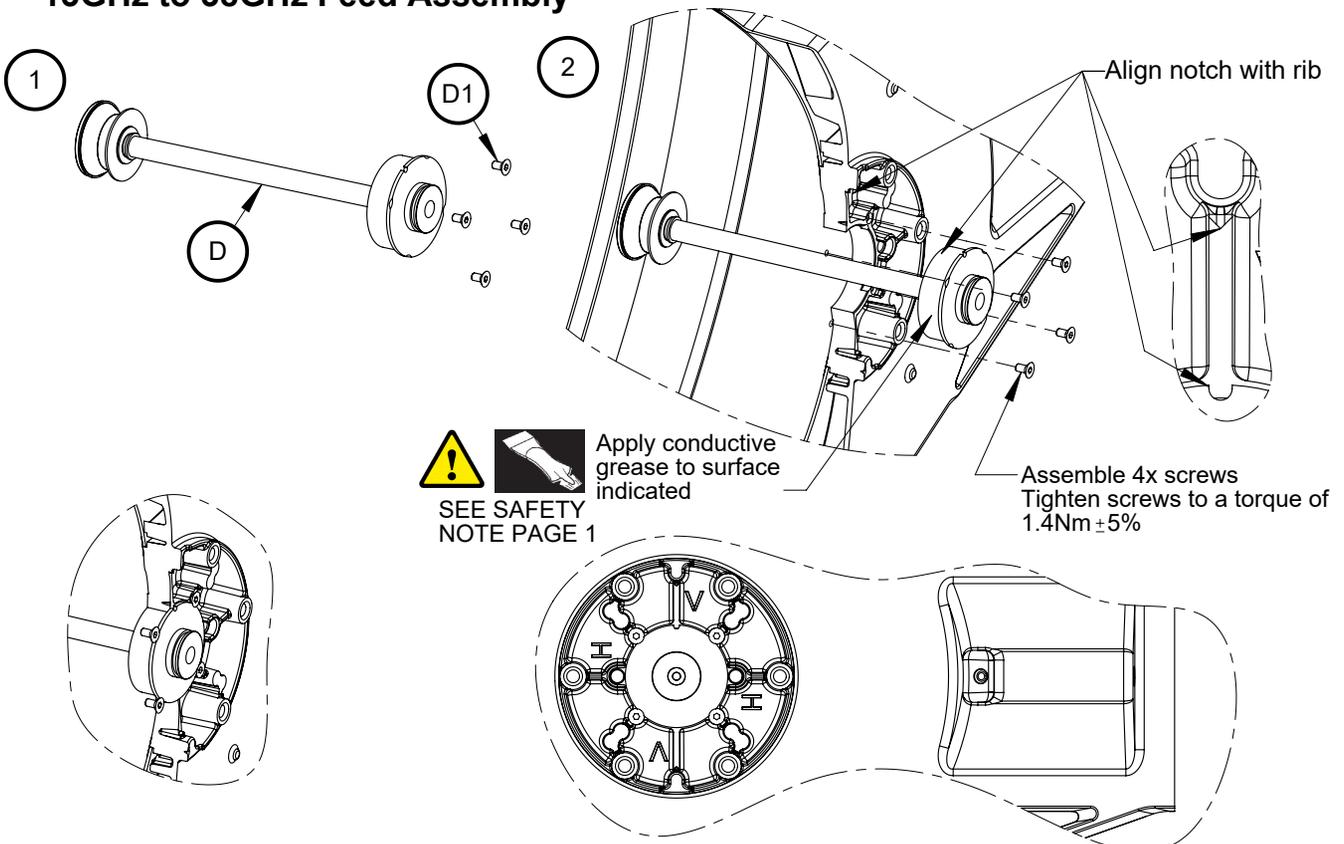


## 2 Feed attachment and alignment

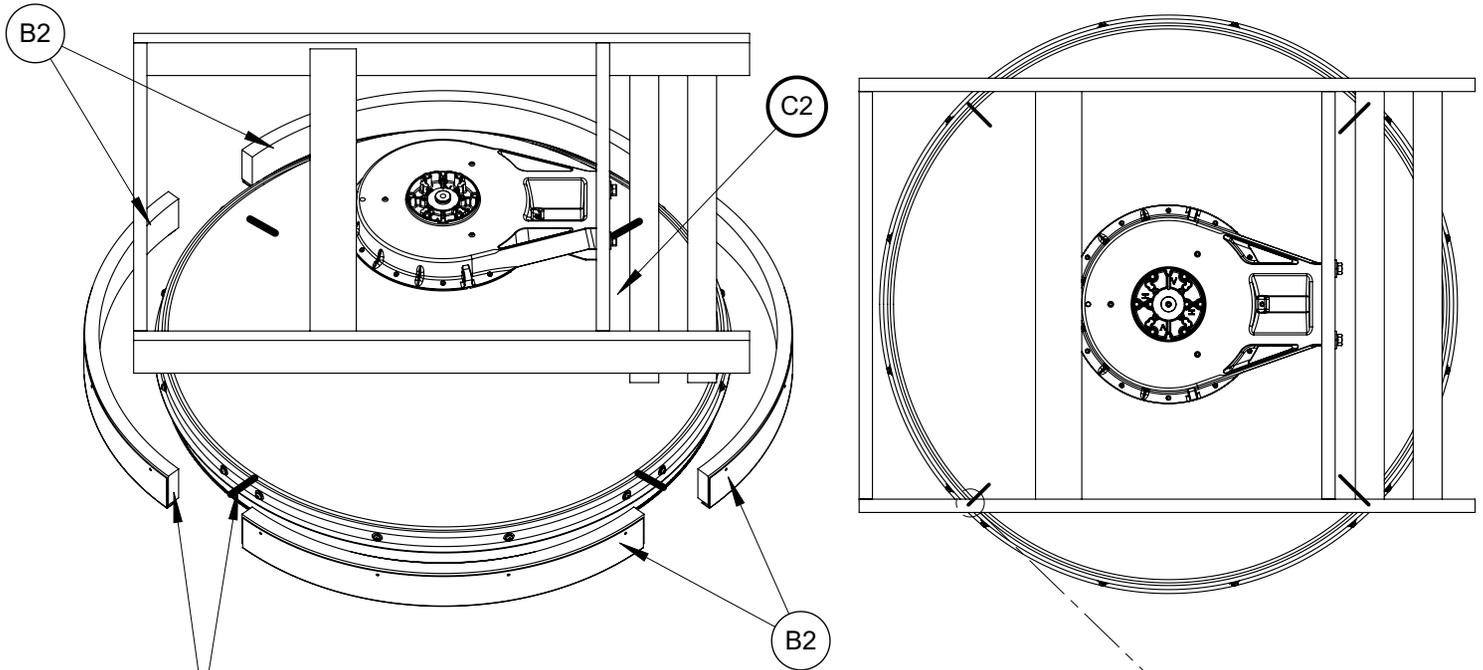
### 6GHz, 7GHz and 11GHz Feed Assembly



### 13GHz to 38GHz Feed Assembly



## 3 Radome attachment and alignment

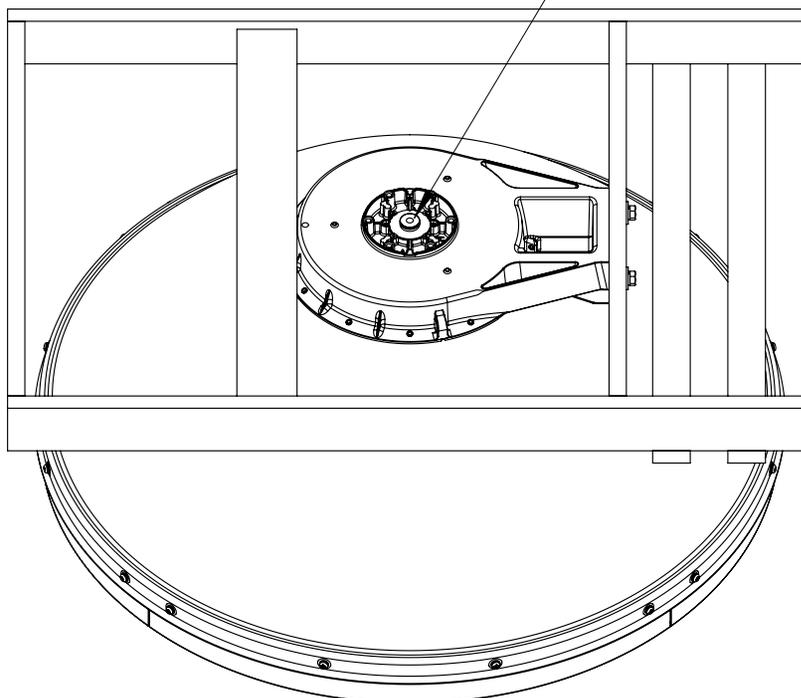
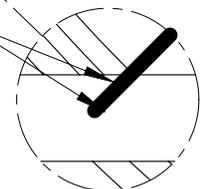


Align rim edges with marked indicators on radome.

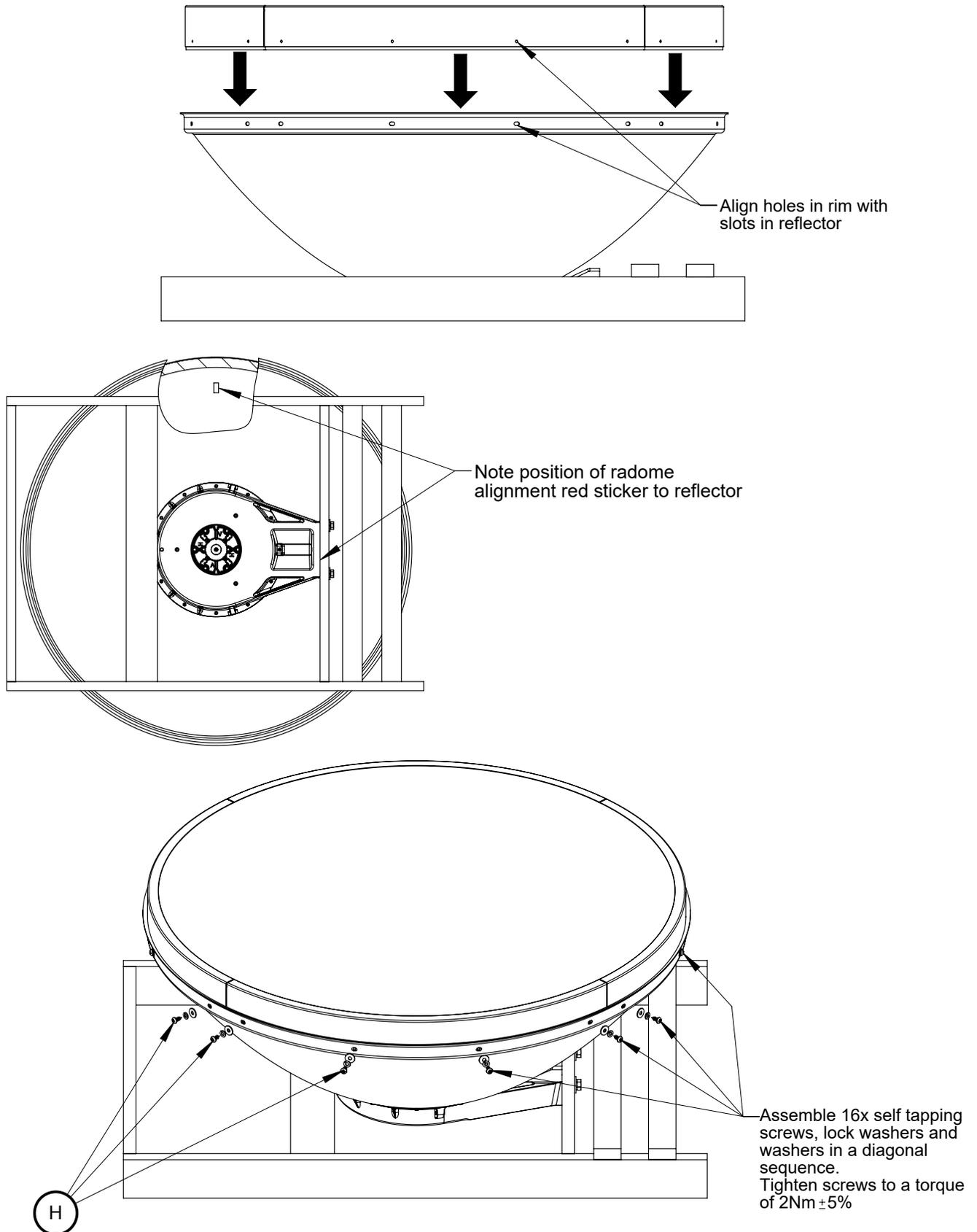
Rim edges aligned with indicators on radome.

 **Note:** The radome is not packing material.

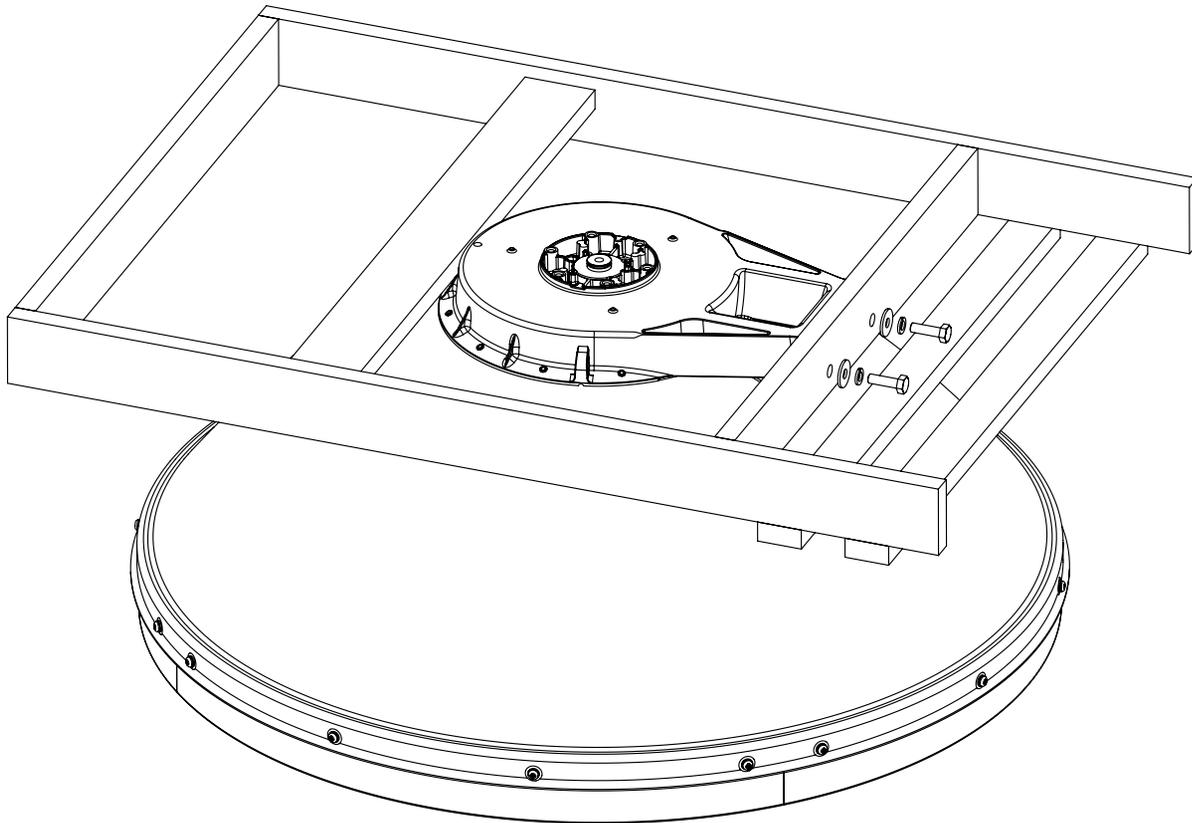
Note position of alignment red sticker.



### 3 Radome attachment and alignment

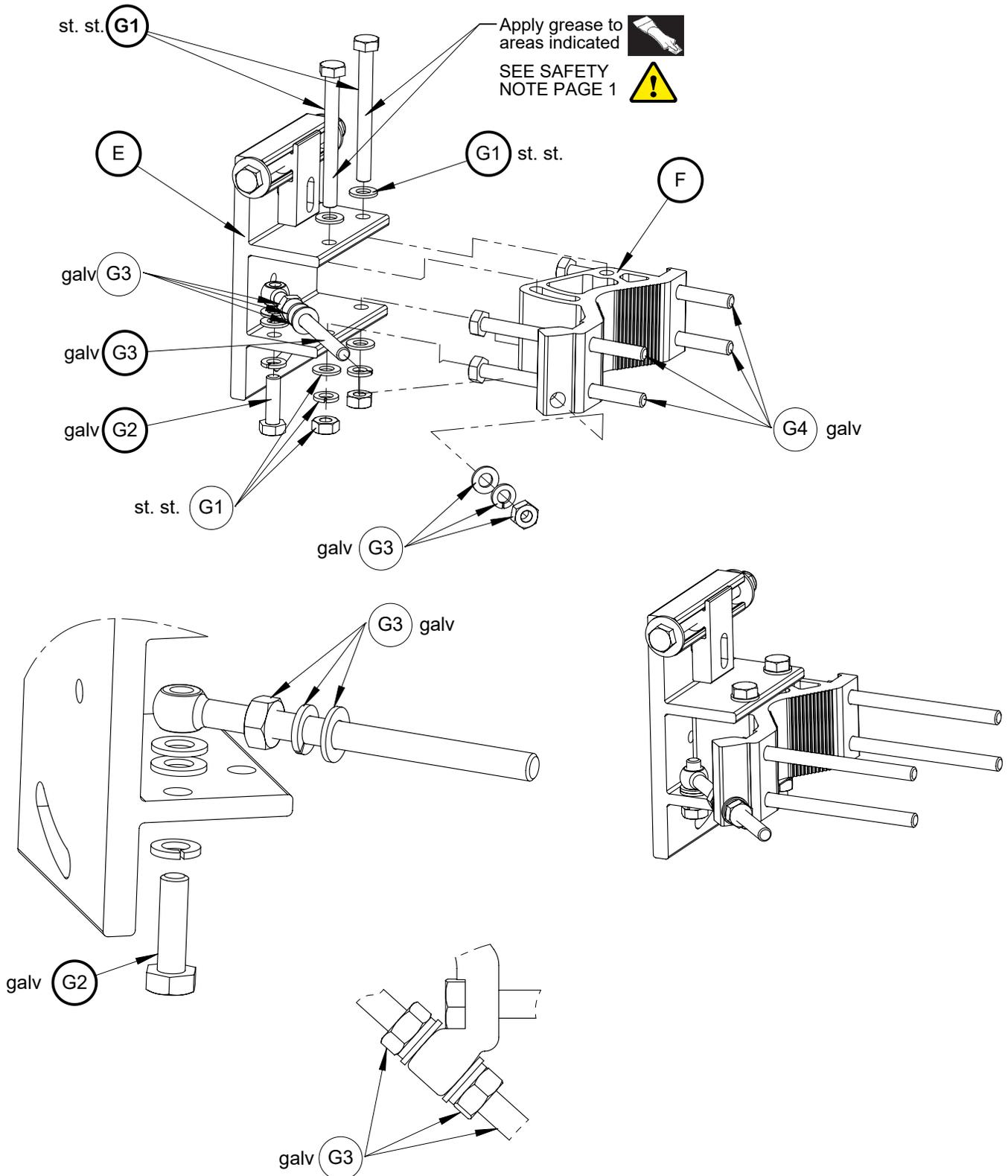


## 4 Mount Attachment and Alignment

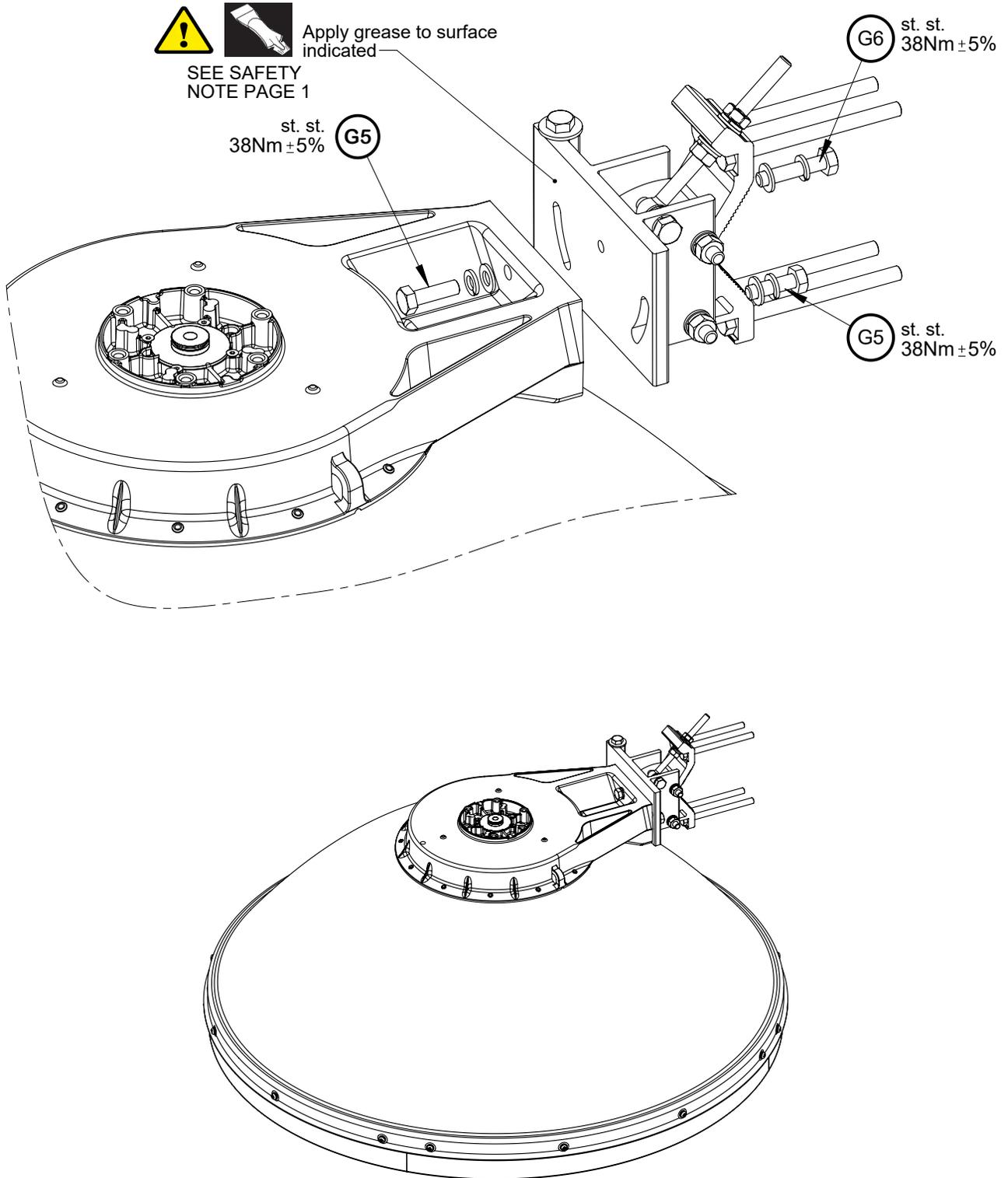


Carefully lay antenna on clear, flat ground.  
Then remove brace and discard fixings.  
Do not apply excessive weight to antenna assembly.

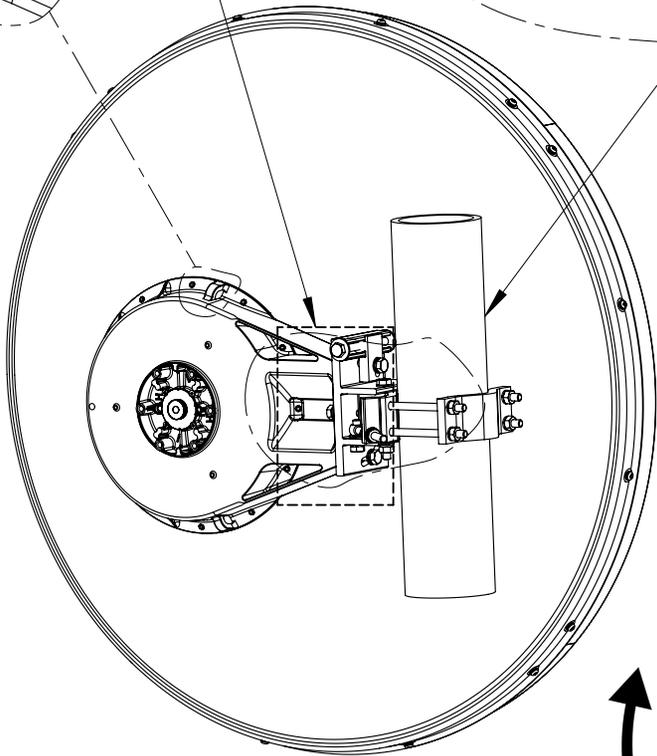
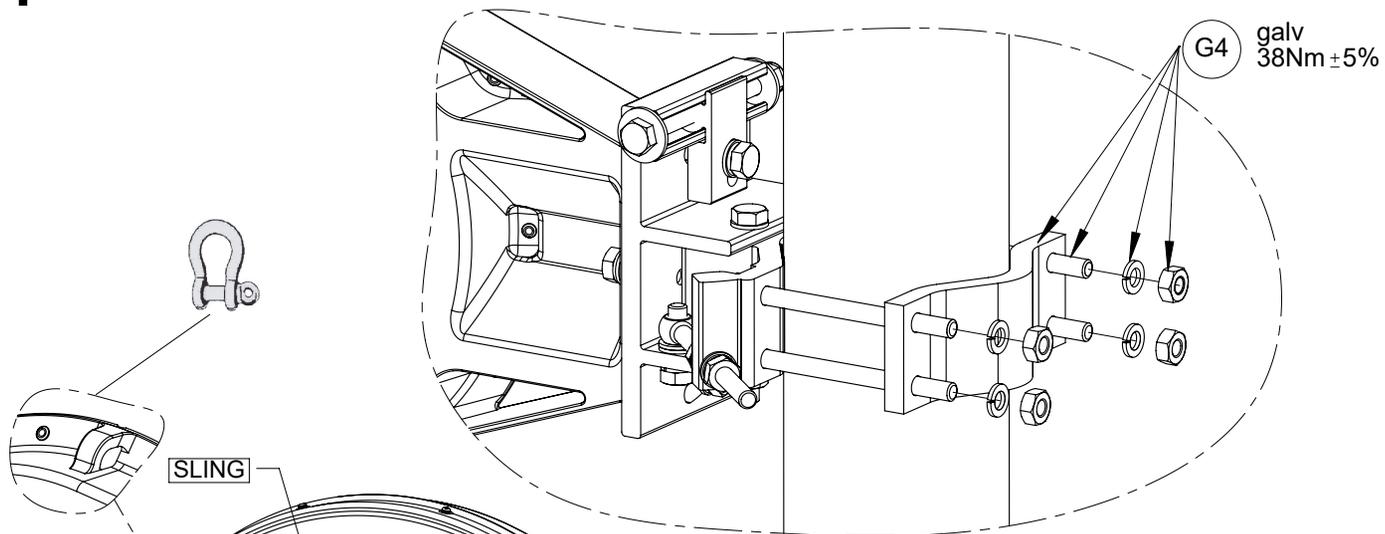
# 4 Mount Attachment and Alignment



## 4 Mount Attachment and Alignment



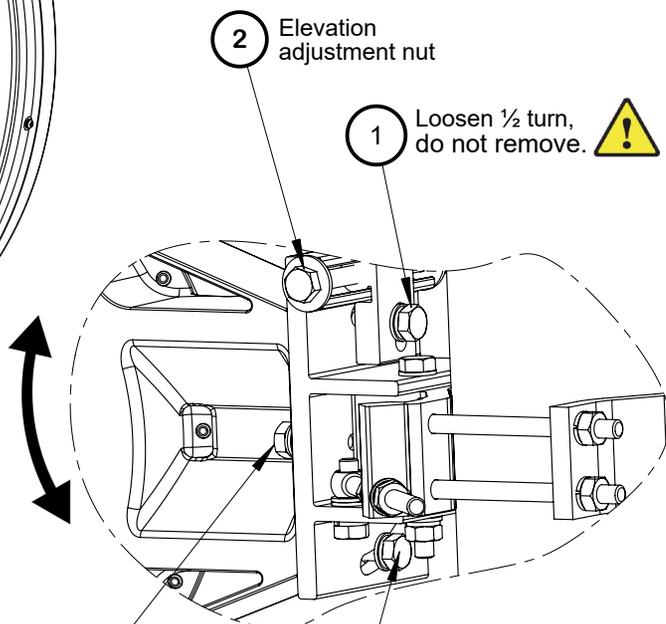
## 4 Mount Attachment and Alignment



90-120mm Pole  
Secure assembled mount to pole ensuring clamp bolts are seated correctly.

This mount can only be used for pole diameters from 90-120 mm

Pole to be structural engineer approved rigid structural support



! NEVER WALK UNDER HOISTED LOADS

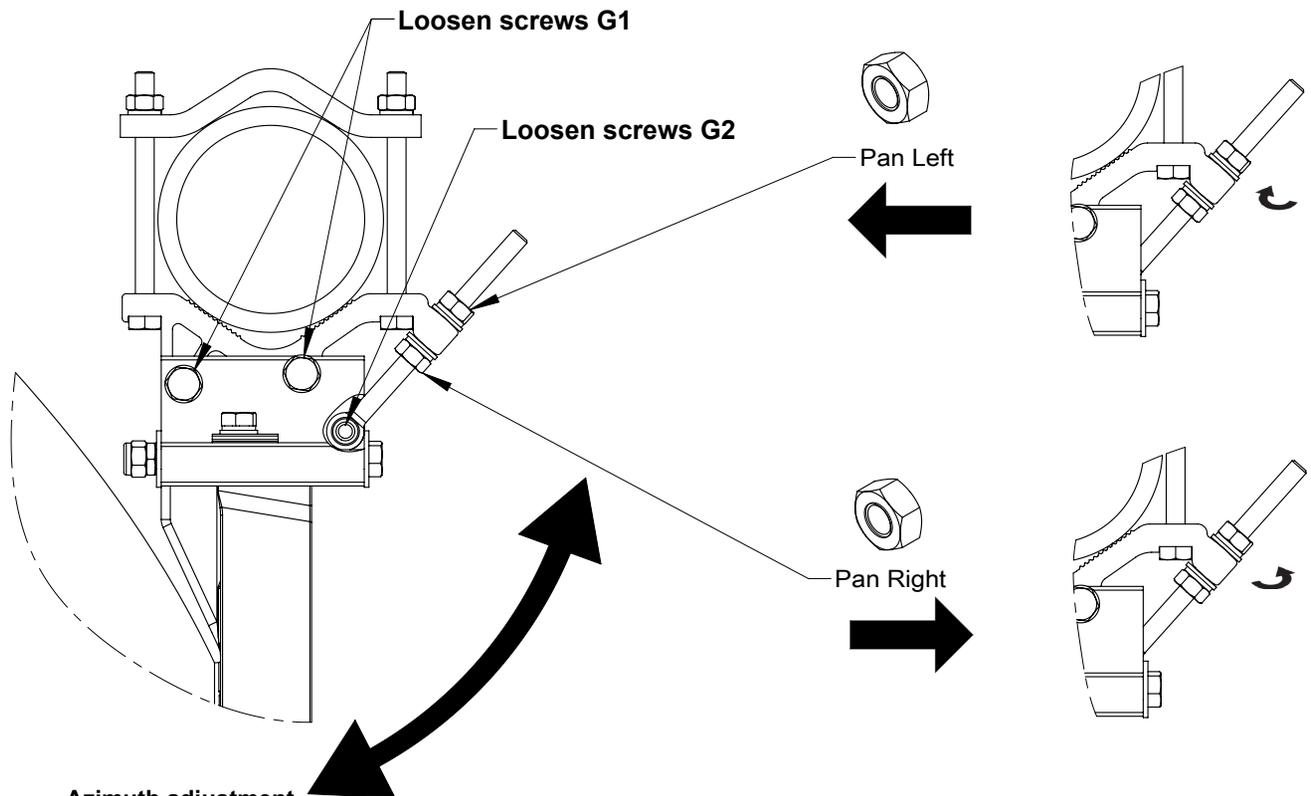


! Loosen ½ turn, do not remove. 1

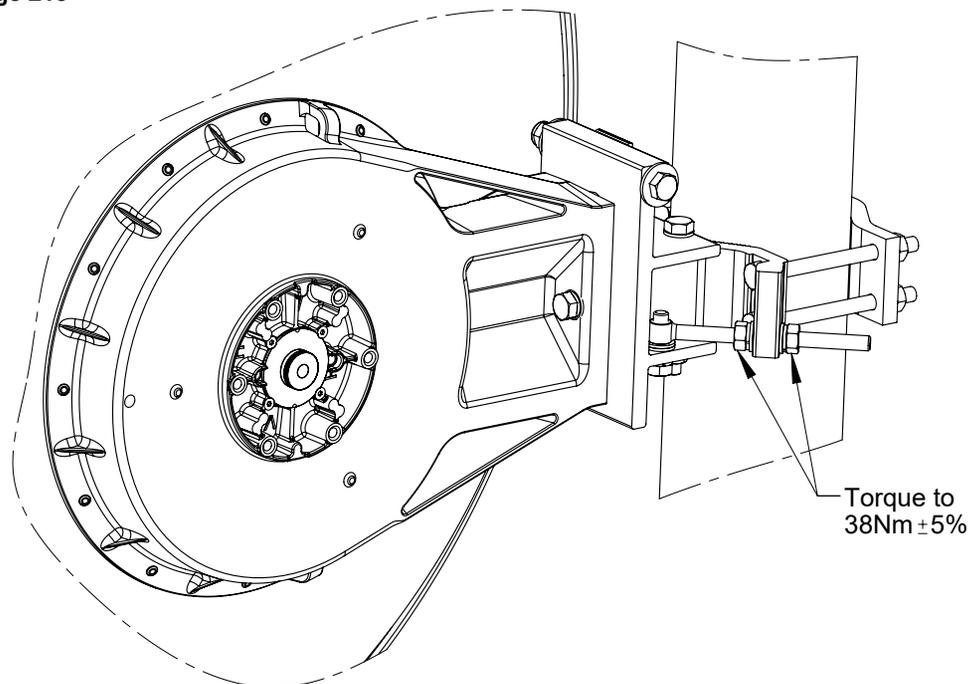
1 Loosen ½ turn, do not remove. !

Elevation adjustment  
Loosen 3 screws (1).  
Adjust elevation by bolt head (2).  
On completion tighten screws (1) to 38Nm ± 5%  
Adjustment Range ±15°

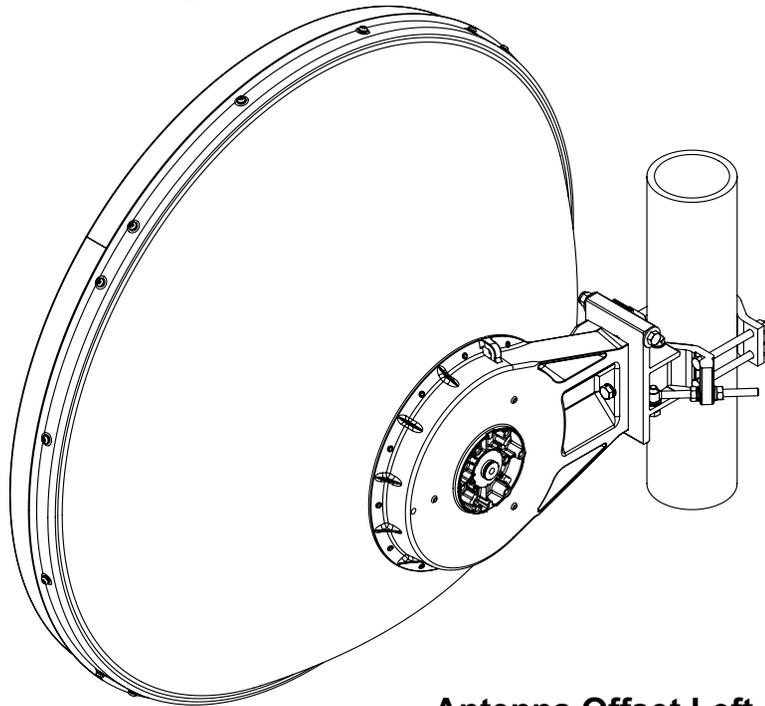
## 4 Mount Attachment and Alignment



**Azimuth adjustment**  
Adjust eyebolt.  
On completion tighten  
screws **G1** to  $50\text{Nm} \pm 5\%$  and  
screw **G2** to  $38\text{Nm} \pm 5\%$   
**Adjustment Range  $\pm 15^\circ$**

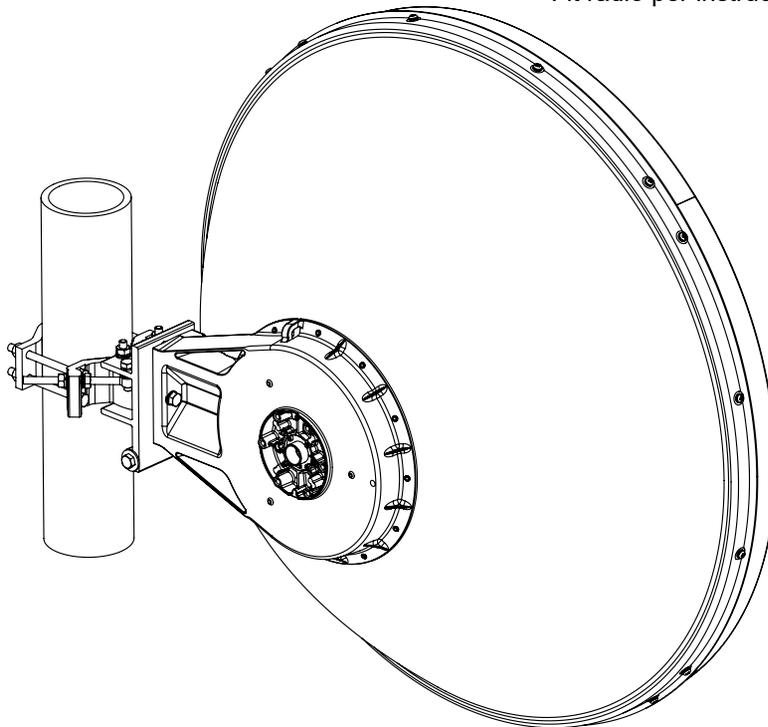


## 4 Mount Attachment and Alignment



### Antenna Offset Left

**For installation of Transition unit see manual:**  
Installing an transition Unit to a 0.3m, 0.6m, 0.9m,  
1.2m and 1.8m antenna.  
Fit radio per instructions



**For installation of Intregation unit see manual:**  
Installing an integrated Dual Polarization Unit to a  
0.3m, 0.6m, 0.9m, 1.2m and 1.8m antenna.  
Fit radio per instructions