

IMPORTANT!

**INSTALLATION
INSTRUCTIONS**

**READ THIS
MANUAL FULLY
BEFORE UNPACKING
AND ASSEMBLING
THE ANTENNA**

Sentinel™ 3ft Antenna

3ft (0.9m)

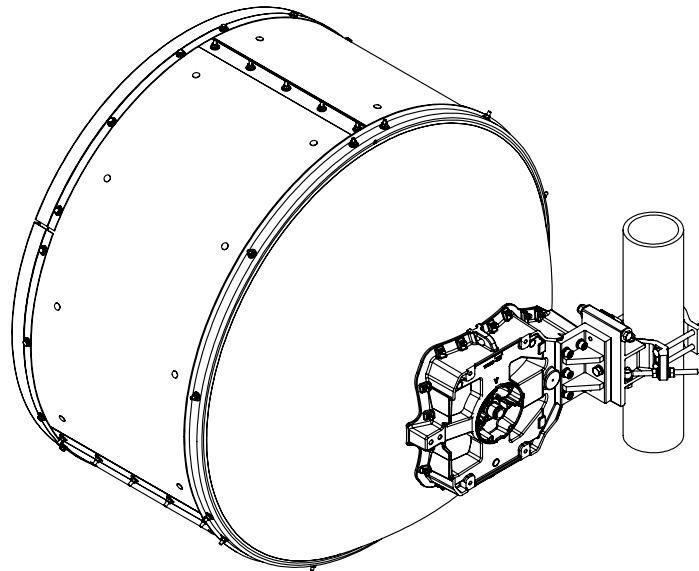


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Version 00 Status IW Rev A

Model Version Status Rev

This document is for the following: SHP(X)3-*** 0.9m (3ft) ANTENNA



SAFETY

ANTENNA INSTALLATION, MAINTENANCE OR REMOVAL MUST BE PERFORMED BY QUALIFIED EXPERIENCED INSTALLER.

It is essential that all appropriate national and local safety regulations be strictly observed to ensure the safety of personnel and to prevent damage to the equipment. CommScope cannot accept responsibility for accidents resulting from non-compliance with such regulations.

The Antenna is designed to attach to a vertical tower pipe of diameter 90 to 120mm
The mount provides adjustment ranges of $\pm 15^\circ$ fine elevation and $\pm 180^\circ$
($\pm 15^\circ$ Fine) azimuth.

Always read the entire manual before commencing installation.

WARNING

Do not use any installation components (screws, nuts, etc) other than with the equipment or recommended by the supplier

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6	FEED ATTACHMENT Including attaching the feed.
7	RADOME ATTACHMENT AND ALIGNMENT Including how to assemble the radome to the shield in the correct orientation.
8	MOUNT ATTACHMENT AND ALIGNMENT Including Basic alignment, Attaching the antenna to the pole, Fitting the mount, Elevation alignment, Azimuth alignment and tightening fasteners instruction.
9	GENERAL INFORMATION Including maintenance and cleaning instructions.


INTRODUCTION

This instruction describes how to assemble a SHP(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.

SAFETY INSTRUCTIONS**INTRODUCTION**

This section describes the system used for presenting safety information.

NOTE:  Reduce the risk of accidents by studying all the instructions carefully before you start working.

The safety information in the relevant manuals presupposes that any person performing work on CommScope products or systems has the education, training and competence required to perform the task correctly.

SAFETY REQUIREMENTS

The safety requirements in the following sections must be followed to avoid personal injury and damage to tangible property.

It is the responsibility of the installer to ensure that local regulations and the safety instructions in this manual are known and followed.

SERVICE PERSONNEL

Installation and service must be carried out by authorized personnel having the appropriate technical training 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

Use local safety regulations where these are mandatory. The safety 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 the local safety regulations, the local safety regulations shall prevail if these are mandatory. If the local regulations are not mandatory the safety instructions in this manual shall prevail.

INSTALLATION HARDWARE

Do not use any installation 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.

INSTALLATION PROCEDURES & TOOLS

The installation procedures in this manual must be followed. Make sure that:

- Working instructions are followed.
- Recommended tools are used.
- Adequate safety devices are used.
- The risk of falling and falling objects is known.
- All hardware is tightened to the torques specified $\pm 5\%$. The integrity of the antenna depends on all fasteners being tightened correctly.

ANNUAL INSPECTION

Antenna systems should be inspected once a year by qualified personnel to verify proper installation, maintenance, and condition of equipment.

SAFETY SYMBOLS & DEFINITIONS

HOISTING



WARNING!

Falling objects can cause accidents.

-
-
- Use only tested and approved hoisting equipment in accordance with the instructions supplied with the equipment. Appropriately trained personnel must operate the hoisting device.
 - Always hoist the equipment in the specified hoisting points.
 - Never walk under hoisted loads.
 - Follow local regulations for safety clothing and safety equipment for hoisting or moving goods.

WORKING AT HEIGHTS



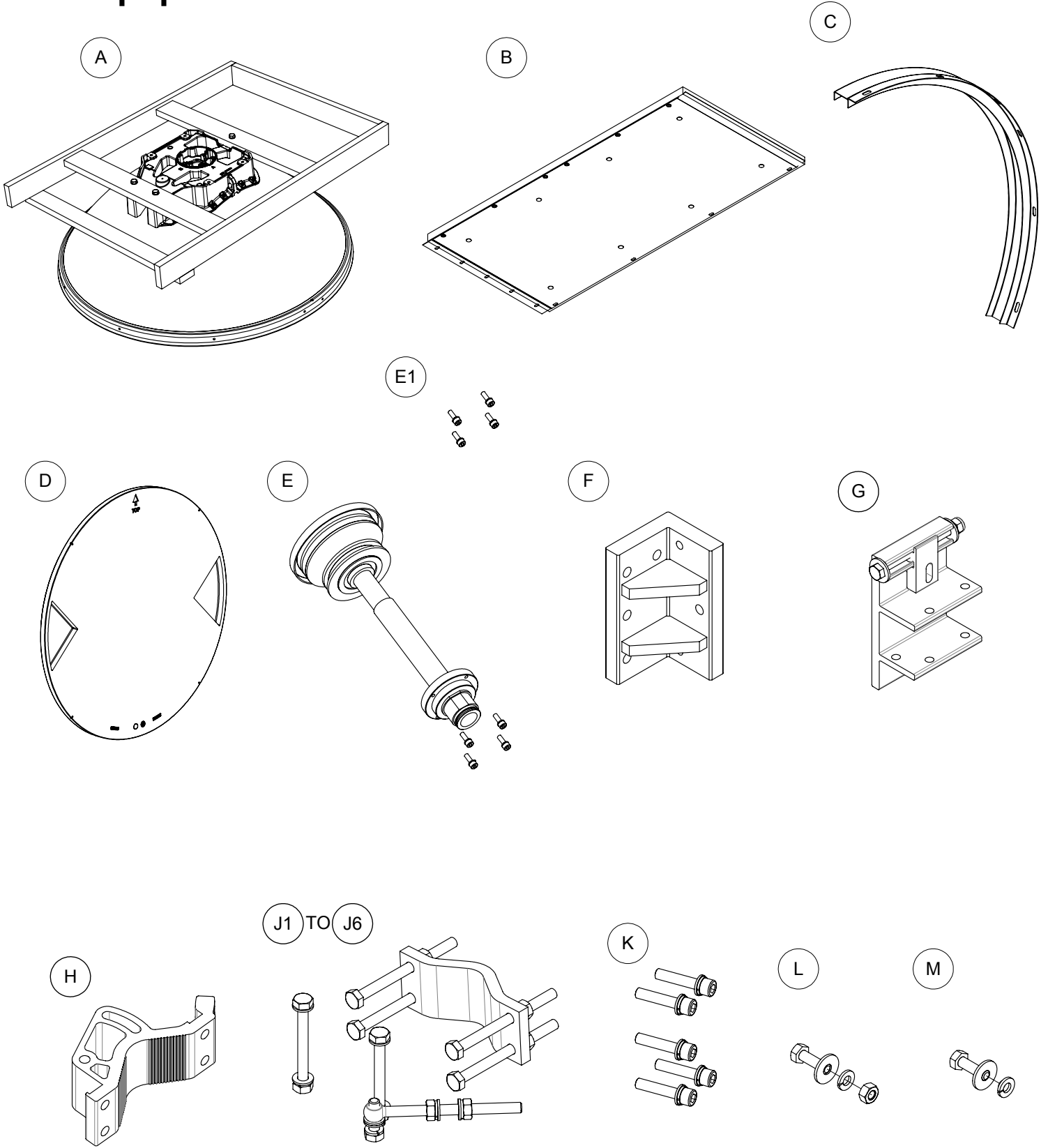
WARNING!

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

Table 1 Supplied Equipment and Tools

Item	Qty	Description	Contained in Kit Part No
A	1	Reflector Assembly	SREF-3-18-WH
B	3	Shield Set	7825439-WH-25
C	3	Rim For Broadband Radome	7827863-L
D	1	Broadband Radome	VRAD-3-14
E	1	Feed	
E1	1	Feed Installation Kit	7831229
	4	Scr, shcs, hexsock, M4X12, sst, pass	
	4	Wshr, lk, splt, M4, sst, pass	
	1	Conductive Grease (Tube)	
	2	Gloves	
F	1	Adaptor bracket with gussets	7824534
G	1	Mount: Elevation Adjustment Assembly	7679156
H	1	Mount: Azimuth Adjustment Clamp	7671897
J		Mount Hardware Kit	7700025
	1	Conductive Grease (Tube)	
	2	Gloves	
J1			7700025
	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	
J2			7700025
	1	M10 x 35lg Hex Hd Screw, stl, galv	
	1	M10 Lock Washer, stl, galv	
	2	M10 Flat Washer, stl, galv	
J3			7700025
	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	
J4			7700025
	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	
J5			7700025
	2	M10 x 35lg Hex Hd Screw, sst, pass	
	2	M10 Lock Washer, sst, pass	
	2	M10 FlatWasher, sst, pass	
J6			7700025
	1	M10 x 50lg Hex Hd Bolt, sst, pass	
	1	M10 Lock Washer, sst, pass	
	1	M10 FlatWasher, sst, pass	
K		Adaptor bracket assembly hardware	7824537
	5	Wshr, flat, M10, 10.5X20X2, sst, pass	
	5	Wshr, lk, splt, M10, sst, pass	
	5	Scr, shcs, hexsock, M10X50, sst, pass	

Equipment

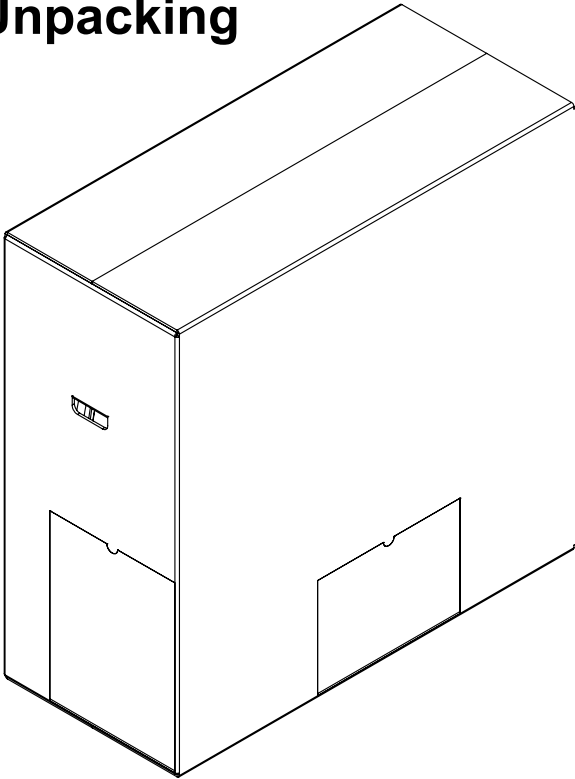


Tools

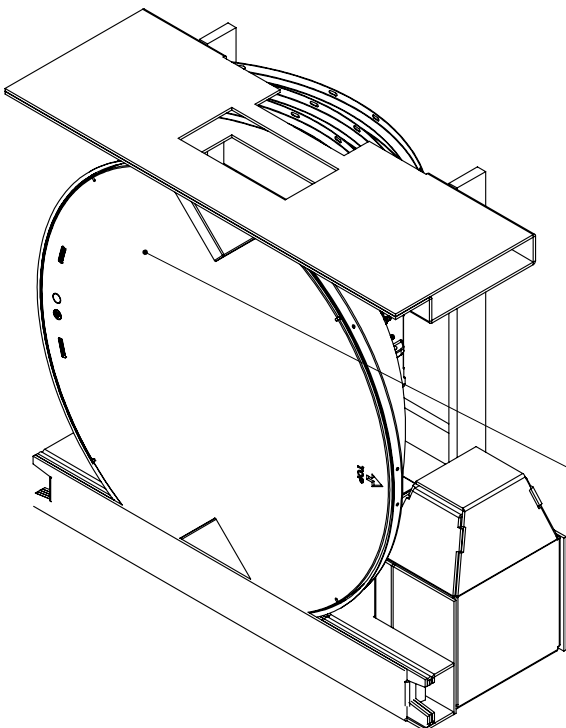
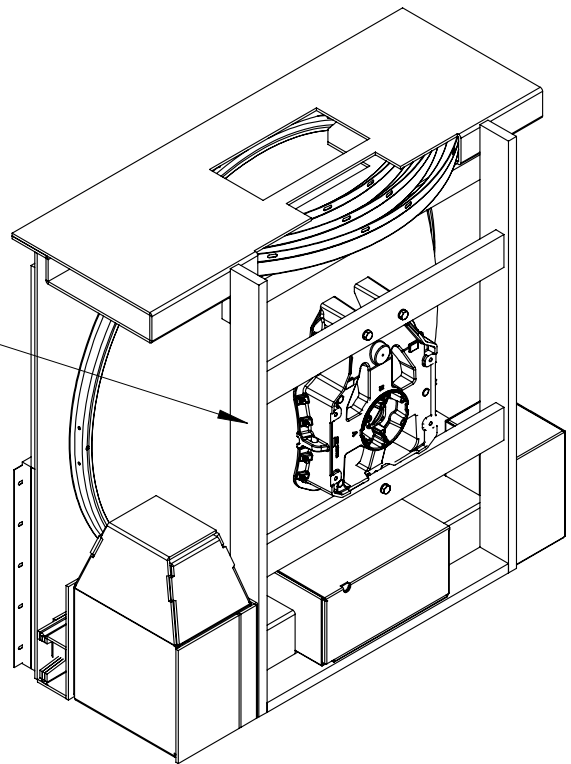
TOOL REQUIRMENTS

Tools Required	Thread Diameter in MM			
	M4	M6	M8	M10
Ring and Open Spanner (A/F)		10mm		17mm
Torque Wrench				
Sockets (A/F)		10mm		17mm
Allen Key (A/F)	3mm		6mm	8mm

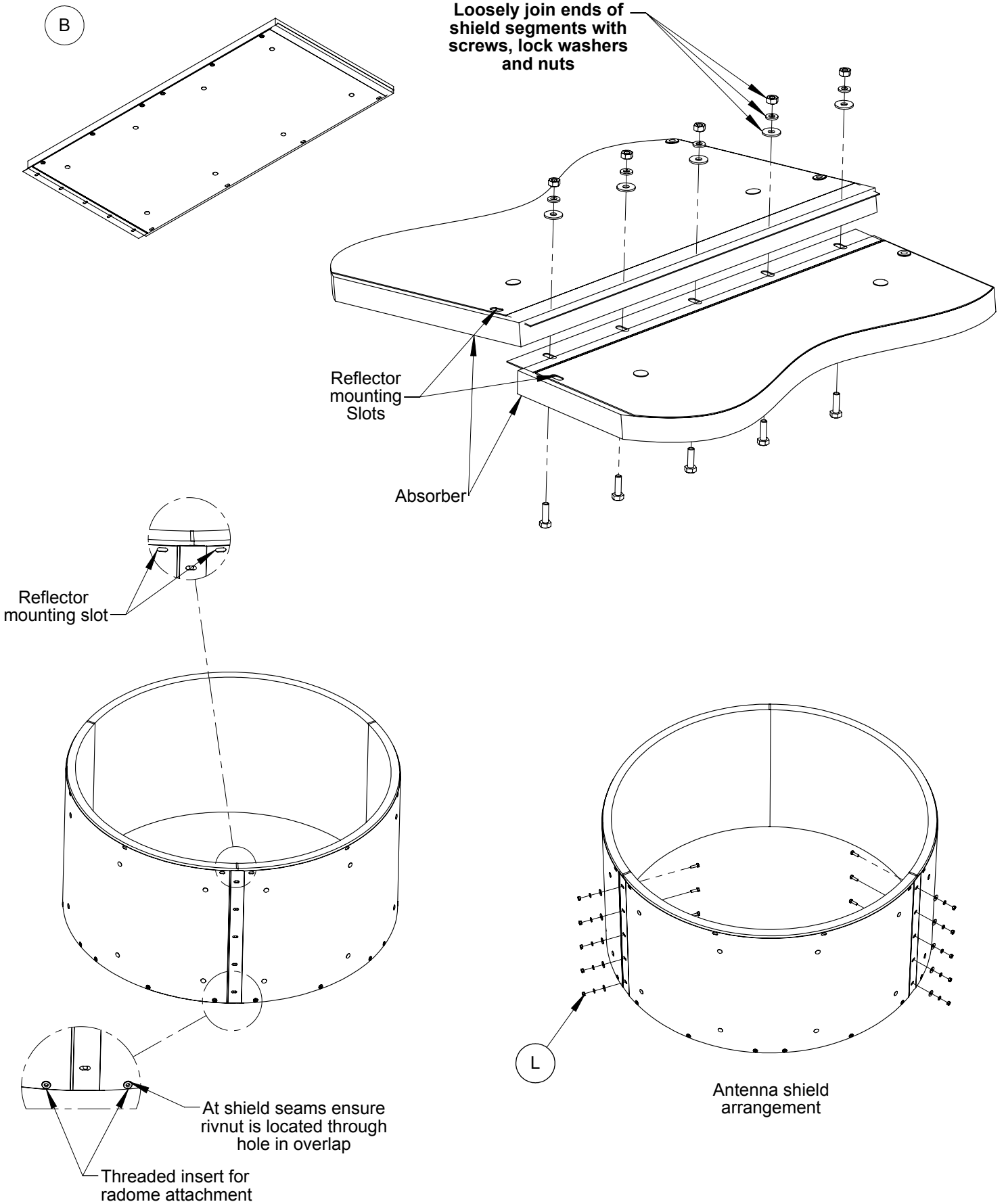
Unpacking

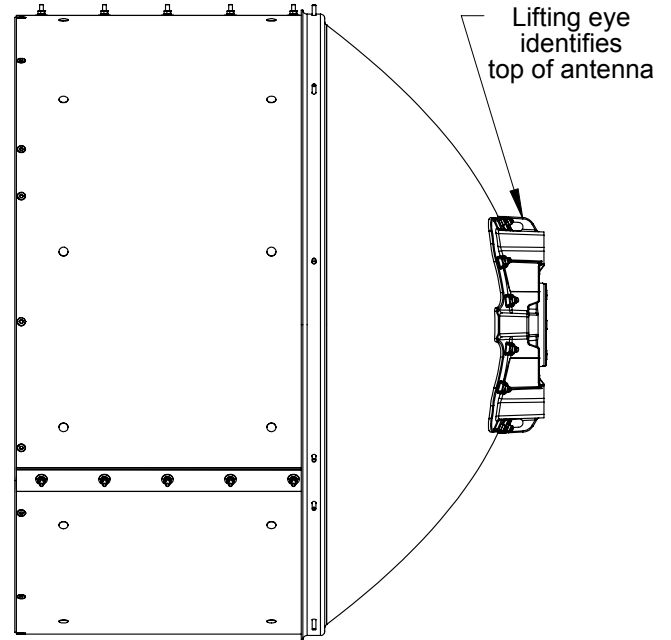
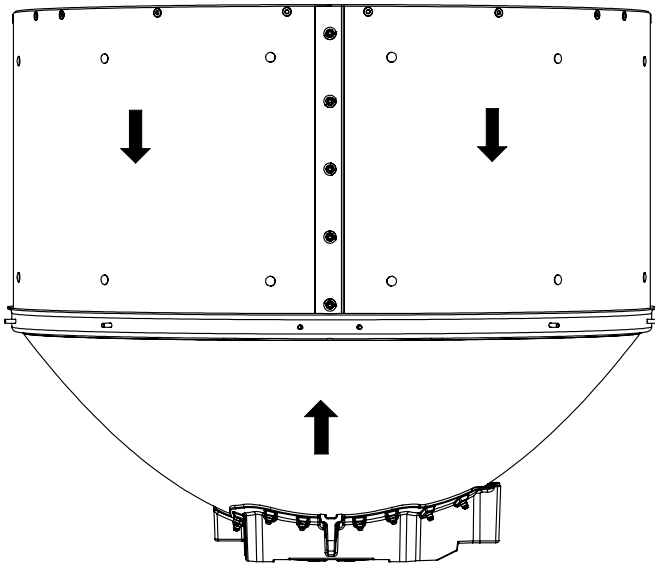


Leave brace frame attached
to assist assembly of
feed and radome.
(not shown in bulletin views)

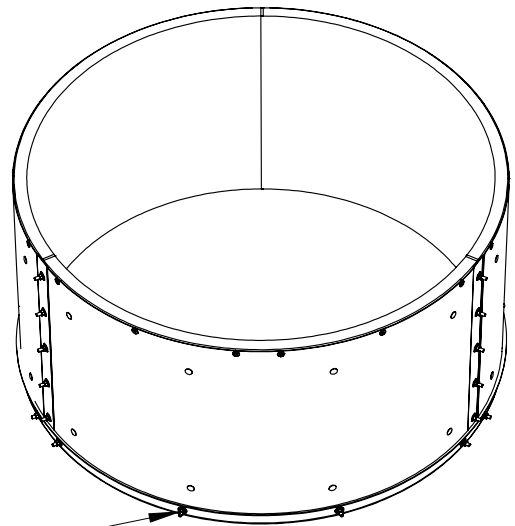
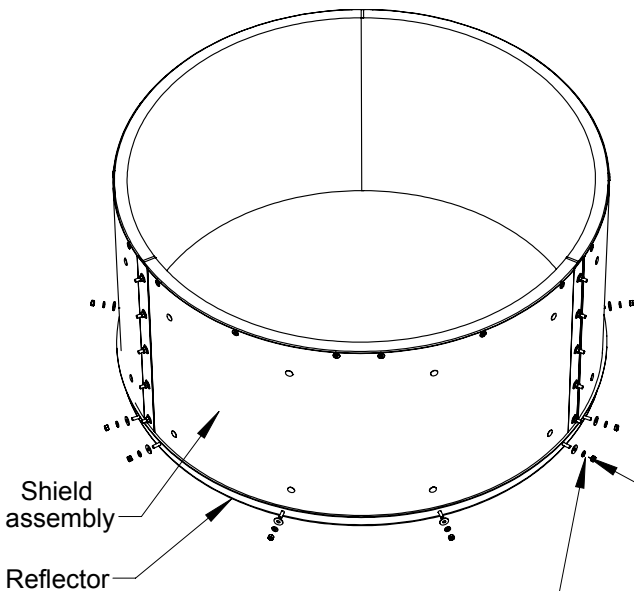


Handle reflector and radome with
care at all times.
Do not apply excessive weight on reflector
or radome.
Take care to place reflector and radome on clear
flat ground or use trestles during assembly.





Insert shield set in to reflector so that mounting slots align with rim holes in reflector



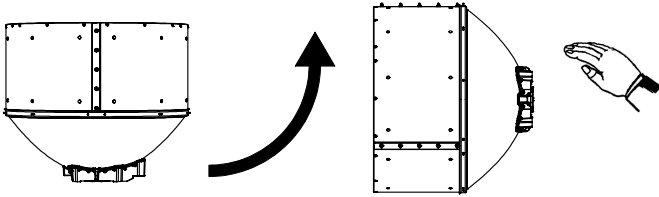
Shield assembly
Reflector

Fit loosely with washers and nut in 12 places as shown.

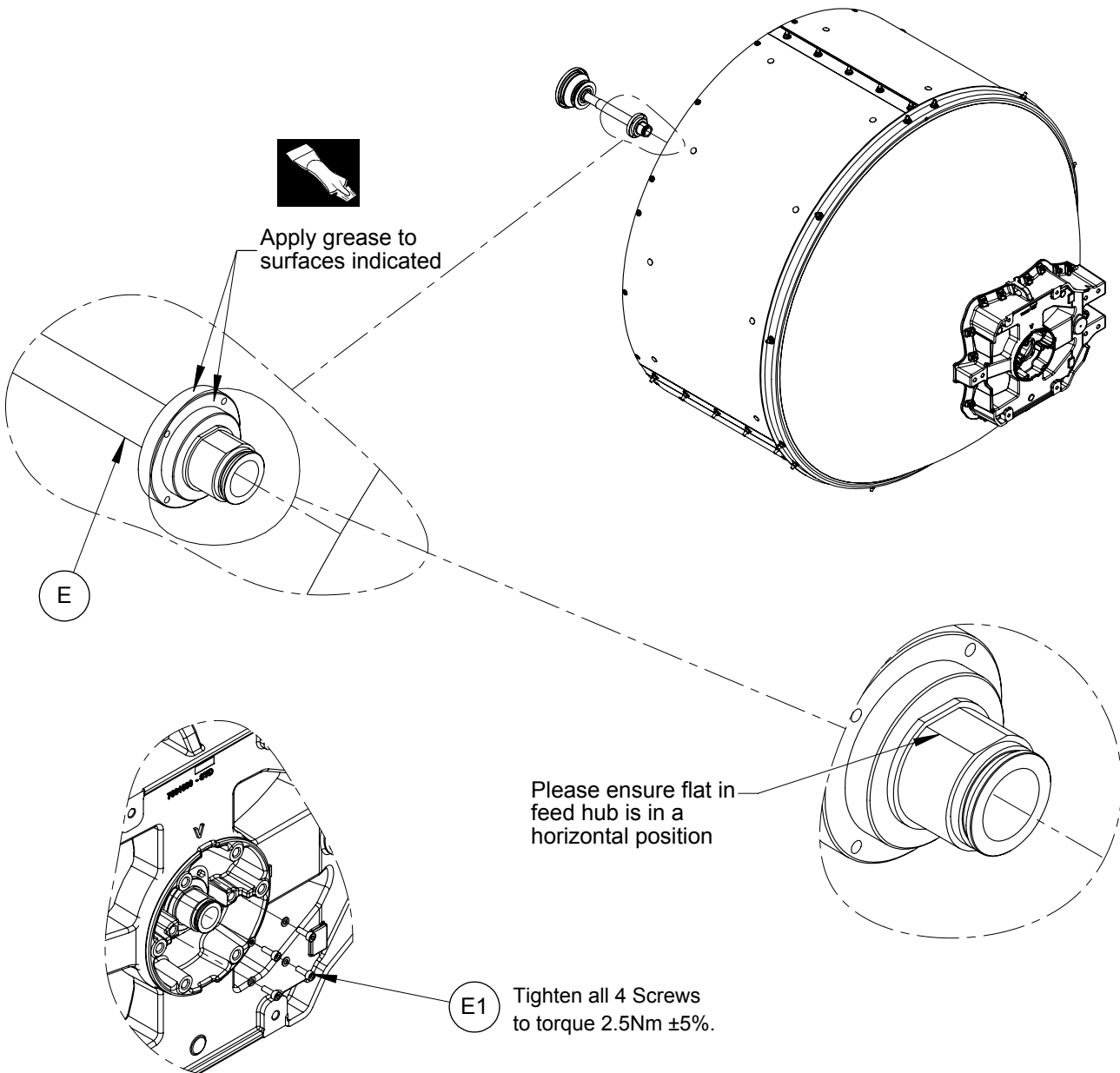
Adjust the shield slightly to align shield and reflector holes to receive a bolt.

Tighten all 12 bolts to torque $4.5\text{Nm} \pm 5\%$ start from the center of the shield and continue clockwise

 REFER TO SAFETY NOTE ON PAGE 5

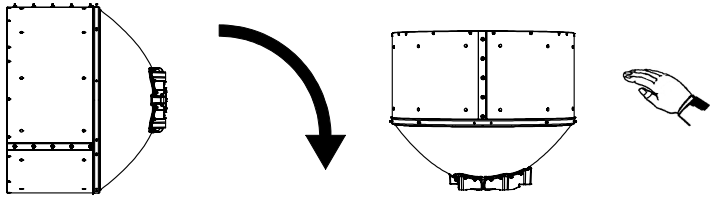


Prior to feed attachment, carefully tilt antenna upright and hold in position.

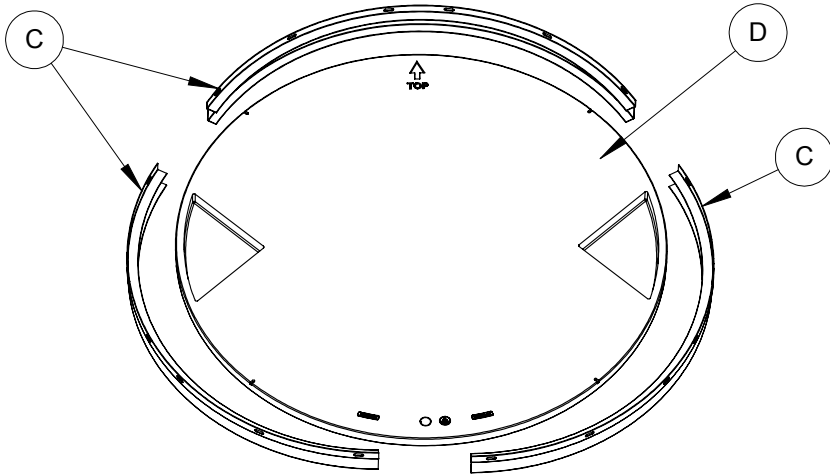


 After assembly, remove excess grease from internal reflector surface

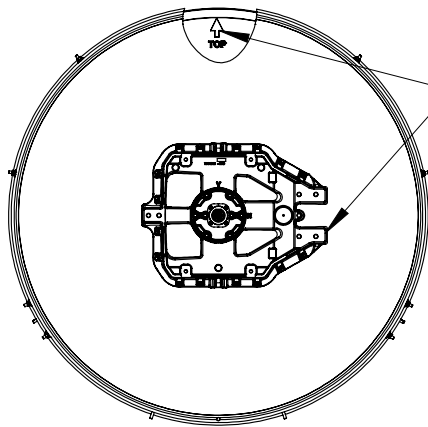
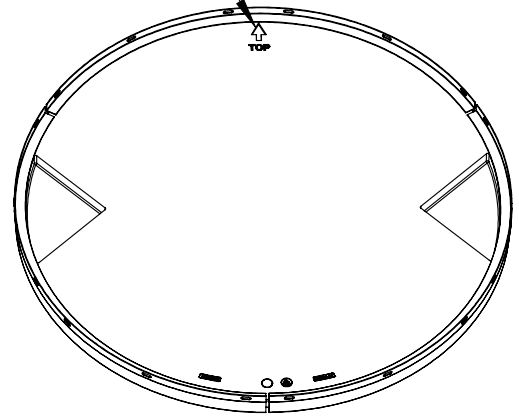
 *For transition, OMT & customer interface information see separate installation instructions*



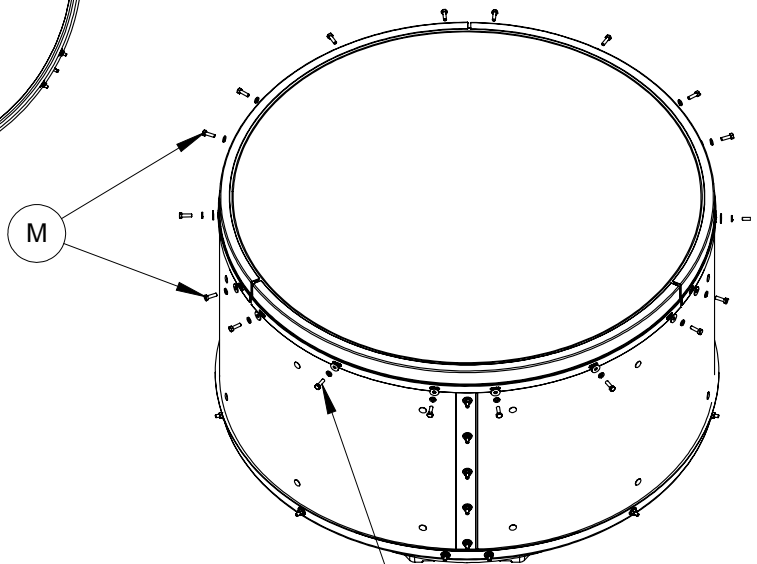
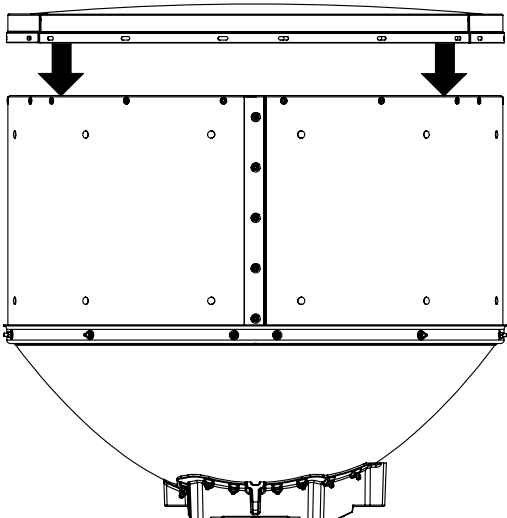
⚠ After feed attachment, carefully tilt antenna flat.



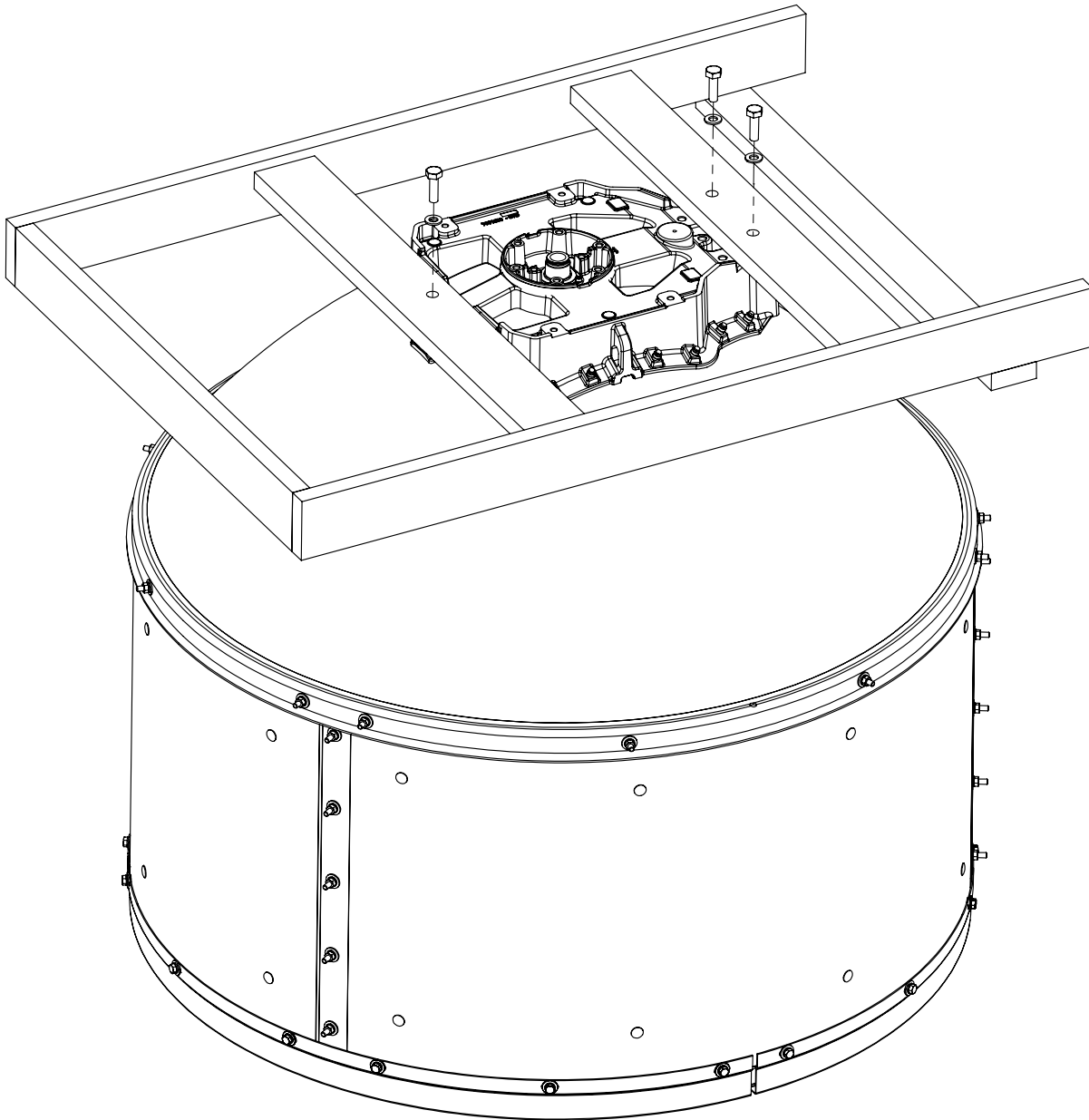
Note position of alignment arrow.



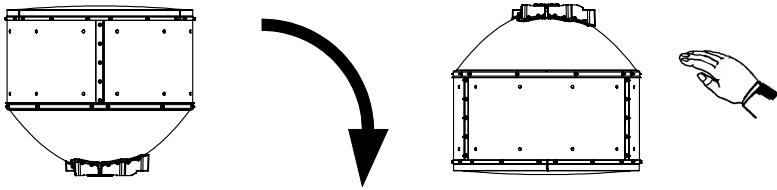
Note: position of radome alignment arrow to reflector



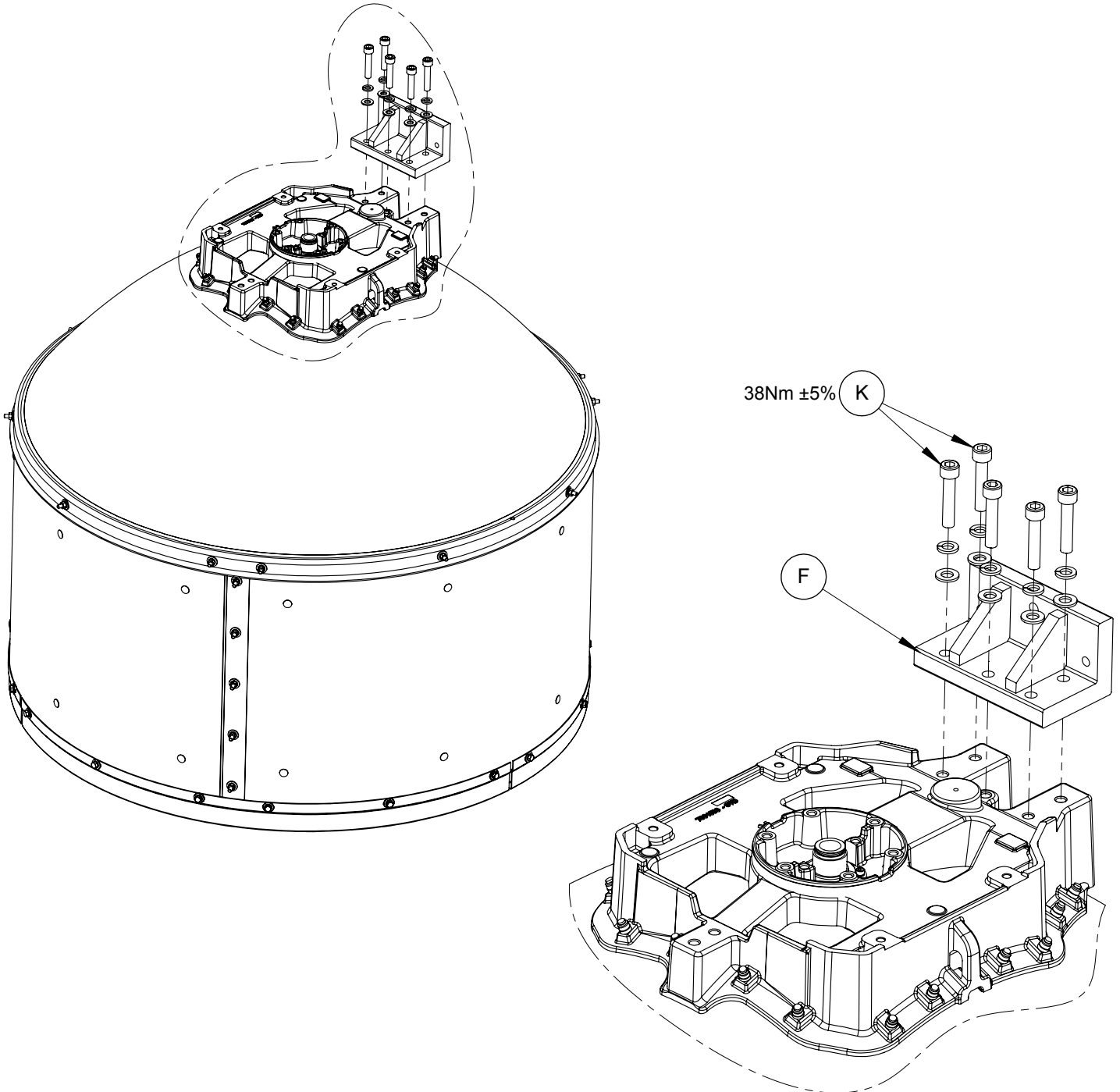
Assemble 18x Bolts, lock washers and Tighten screws to a torque of 5.5Nm \pm 5%

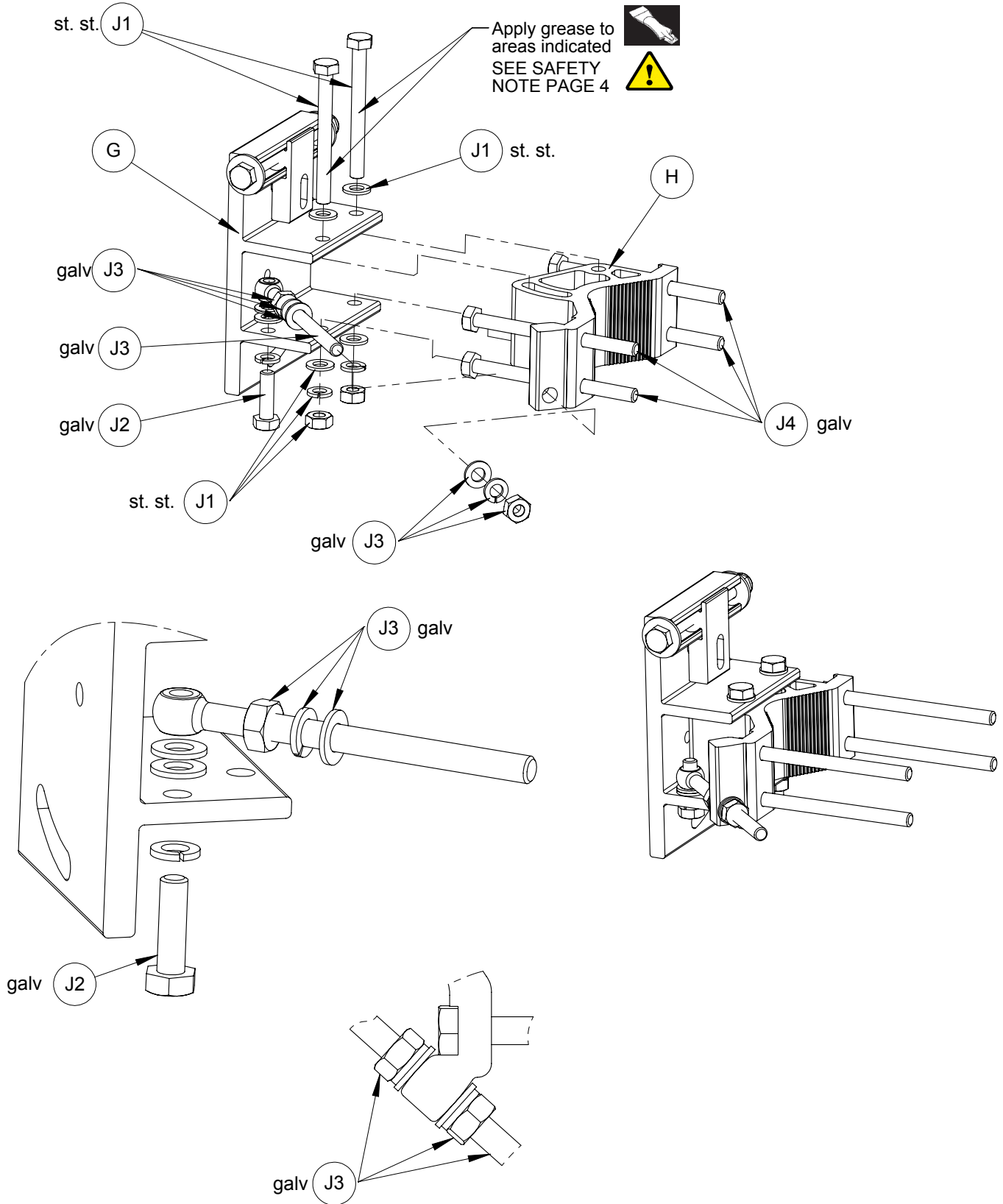


Carefully lay antenna on clear, flat ground.
Then remove brace and discard fixings.
Do not apply excessive weight to antenna assembly.



Remove braces and discard fixings.
Carefully lay antenna on clear, flat ground.
Do not apply excessive weight to antenna assembly.

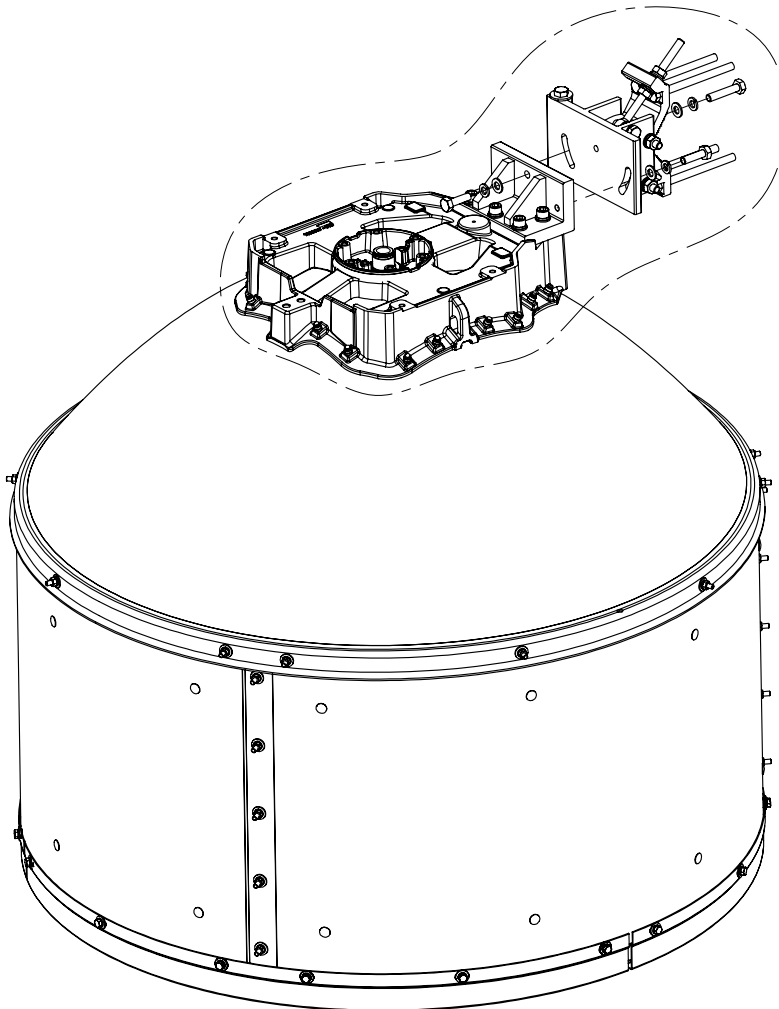
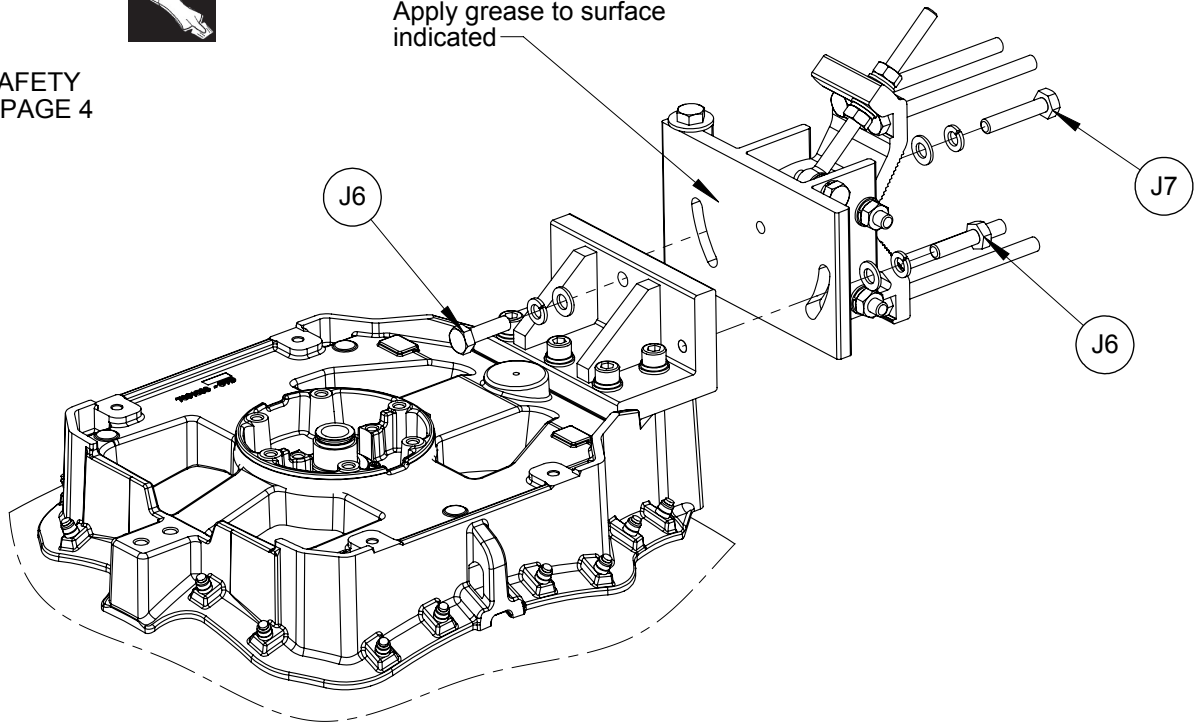


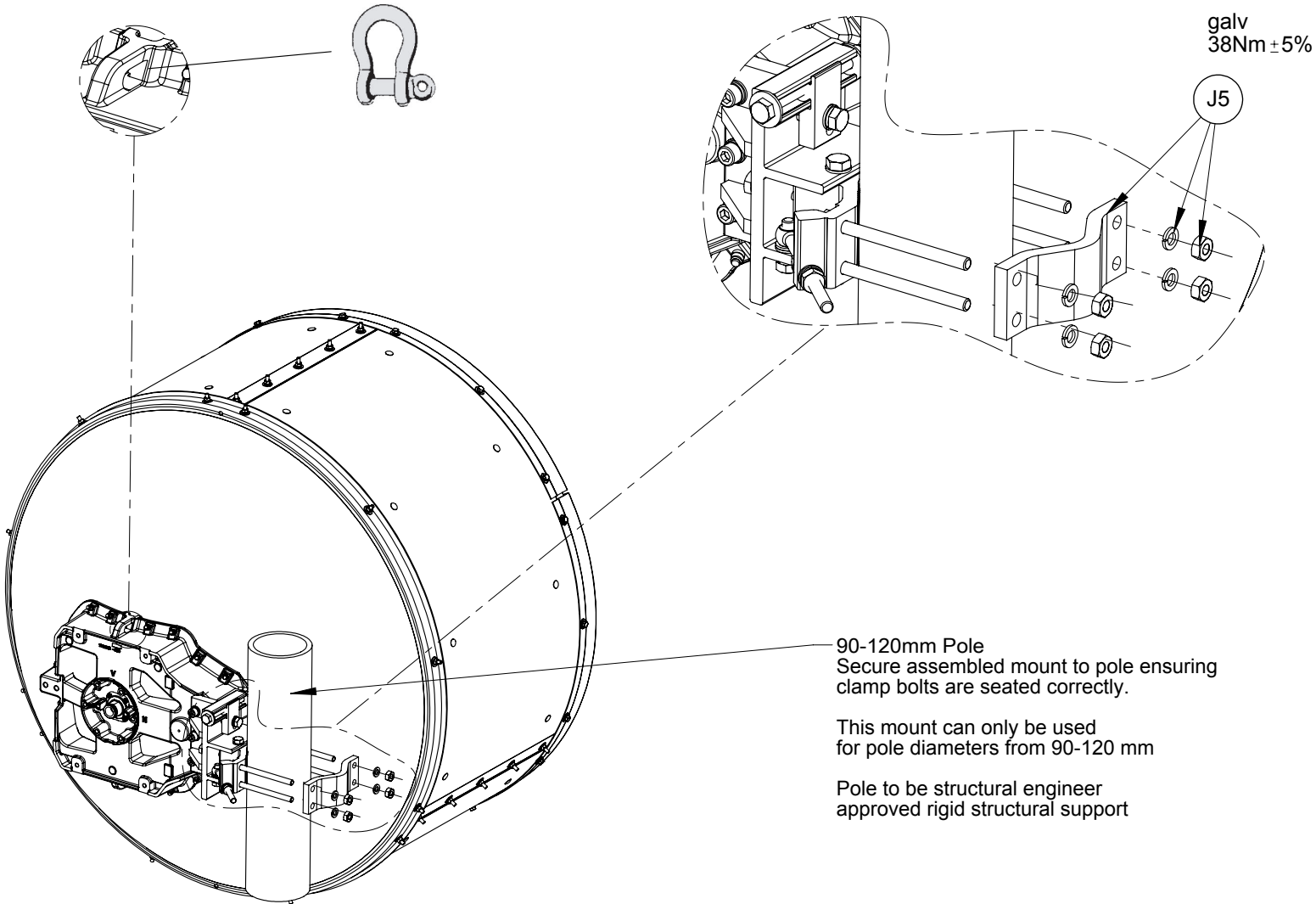




SEE SAFETY
NOTE PAGE 4

Apply grease to surface
indicated

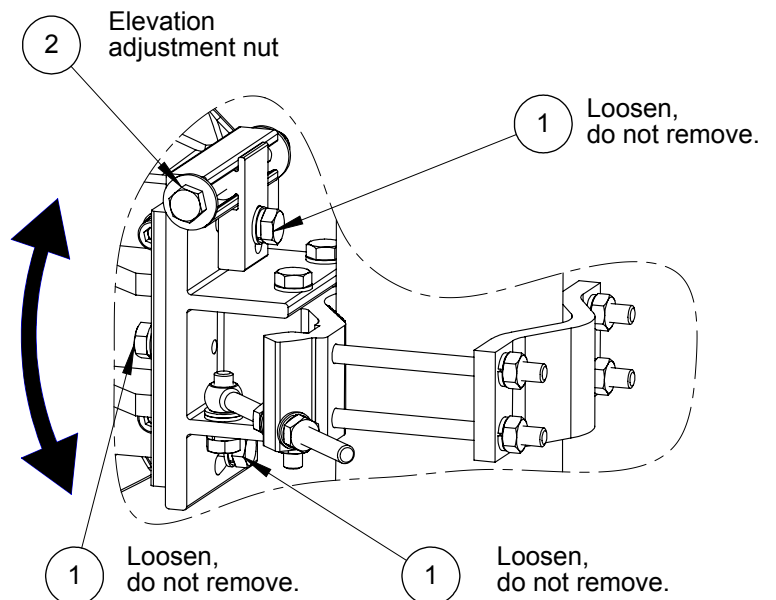


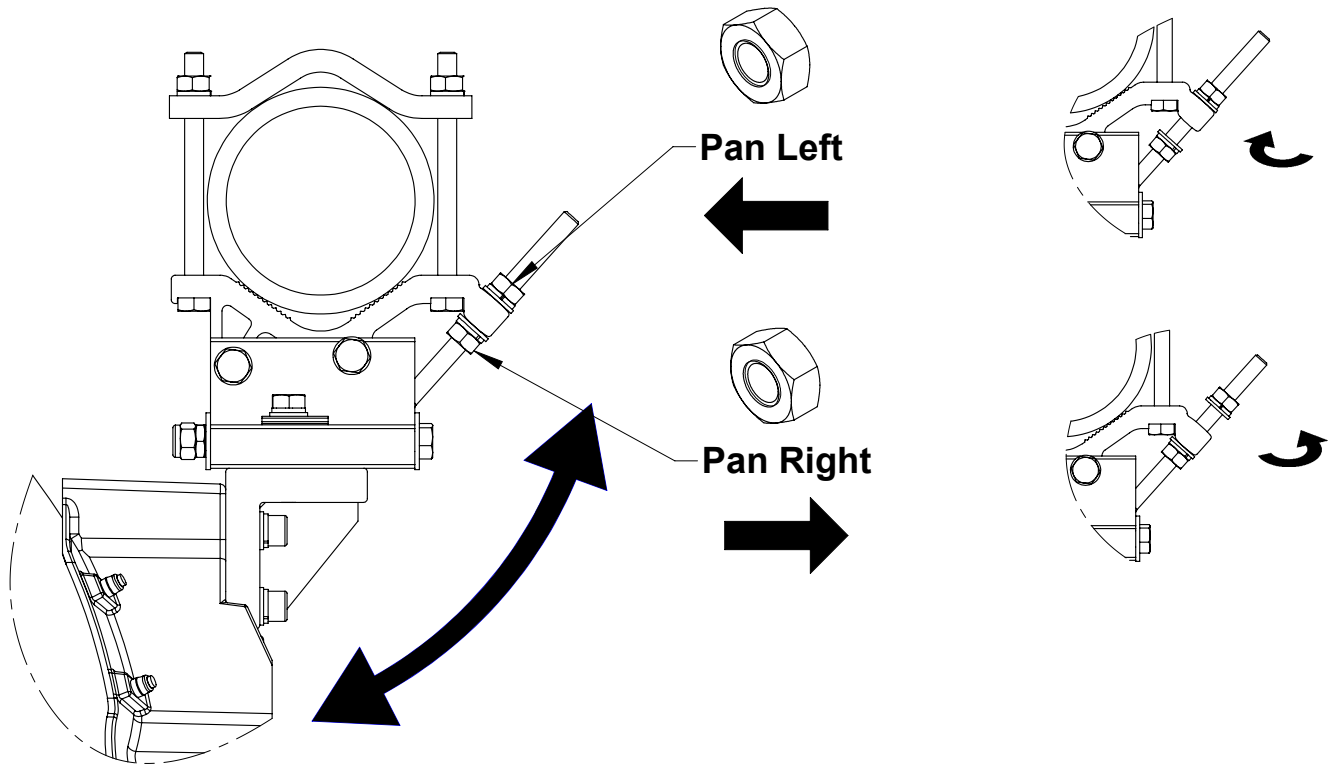


**⚠ NEVER WALK
UNDER HOISTED
LOADS**



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



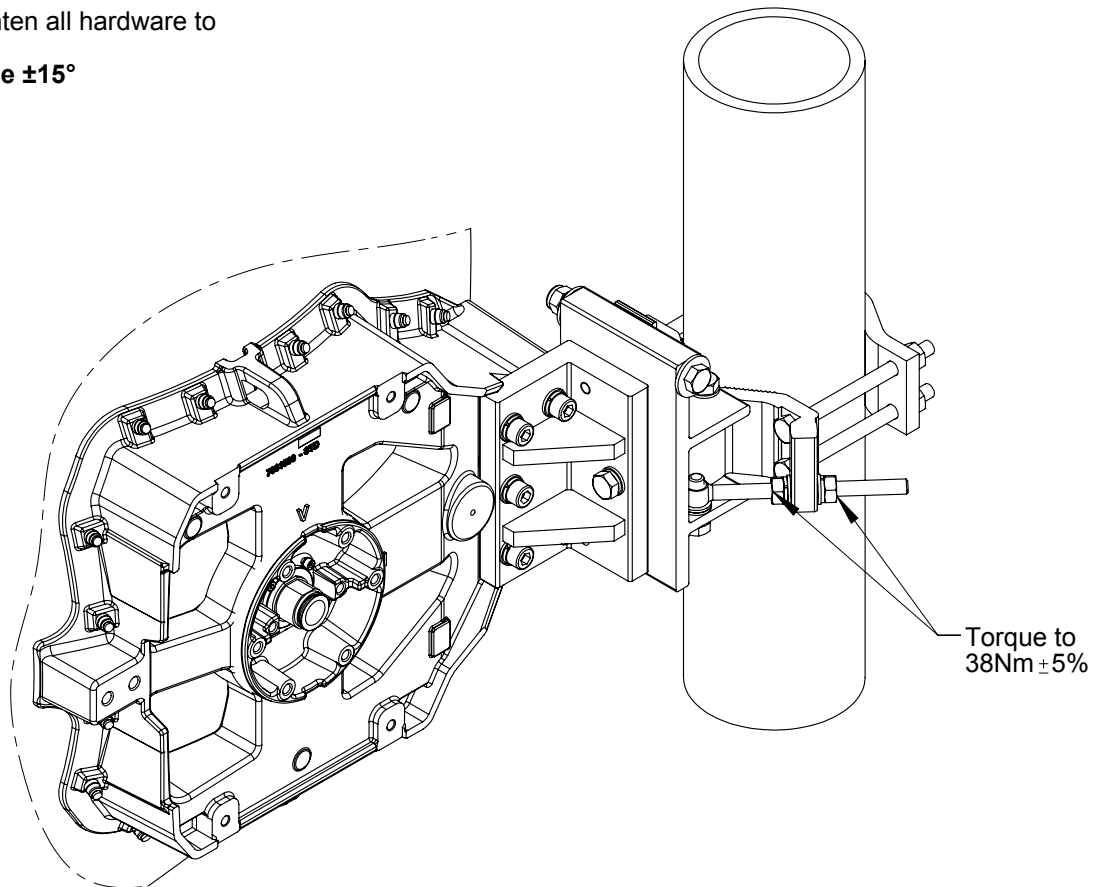


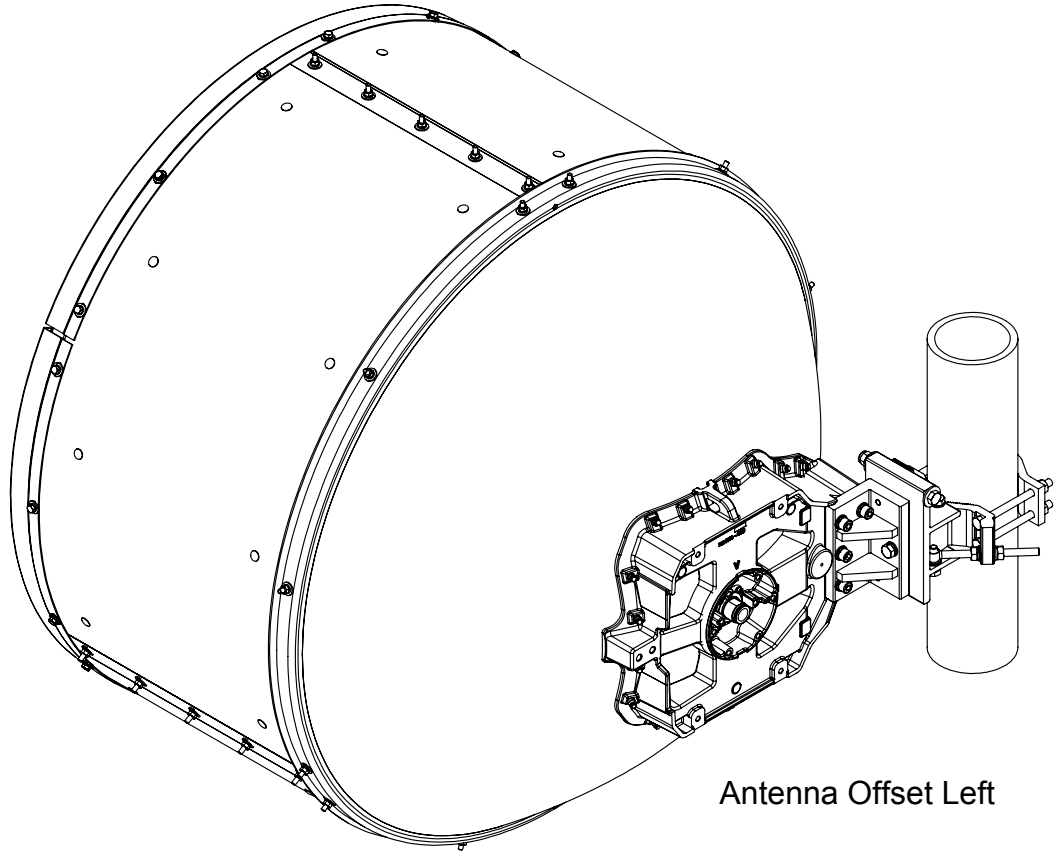
Azimuth adjustment

Adjust eyebolt.

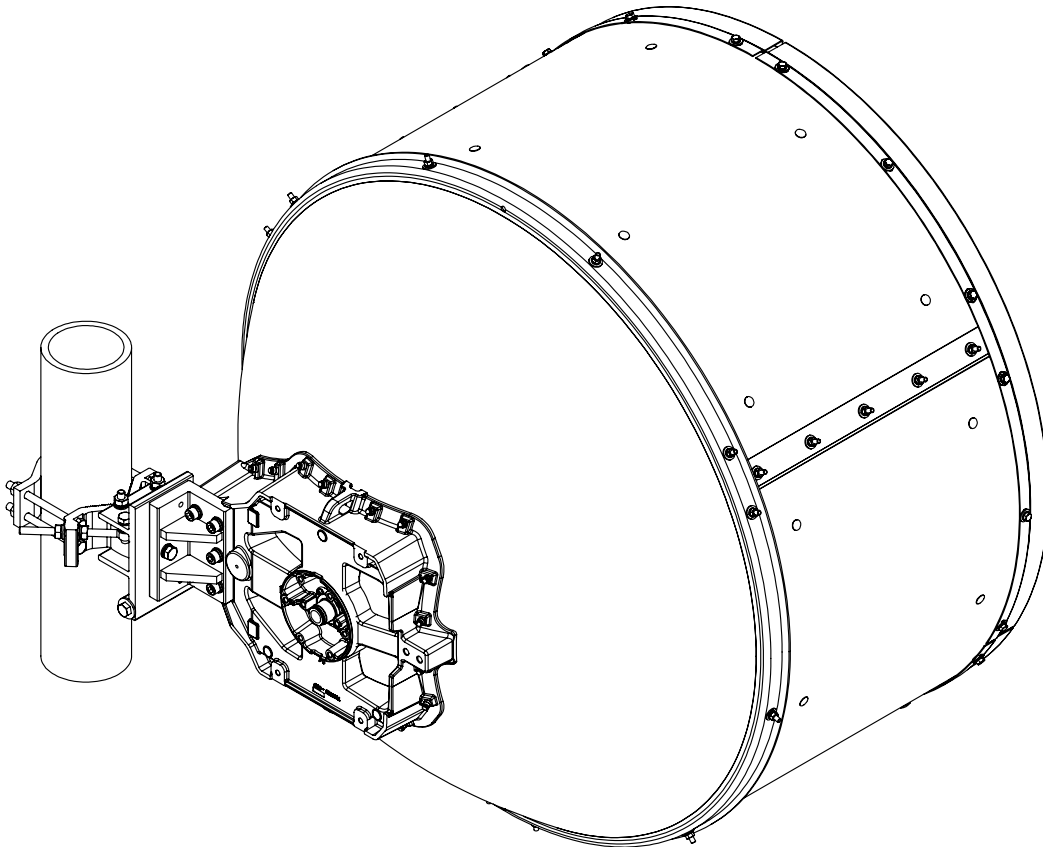
On completion tighten all hardware to
 $38\text{Nm} \pm 5\%$

Adjustment Range $\pm 15^\circ$





Antenna Offset Left



Antenna Offset Right

9 General Information

9.1 General maintenance

The antenna is designed such that minimal maintenance is required. Other than strong wind conditions the unit is not subject to abnormal forces and regular inspection and maintenance should ensure trouble free operation.

9.2 Cleaning of Antenna

If subsequent cleaning of the antenna is required, water and mild detergent should be used, solvent should not be used.