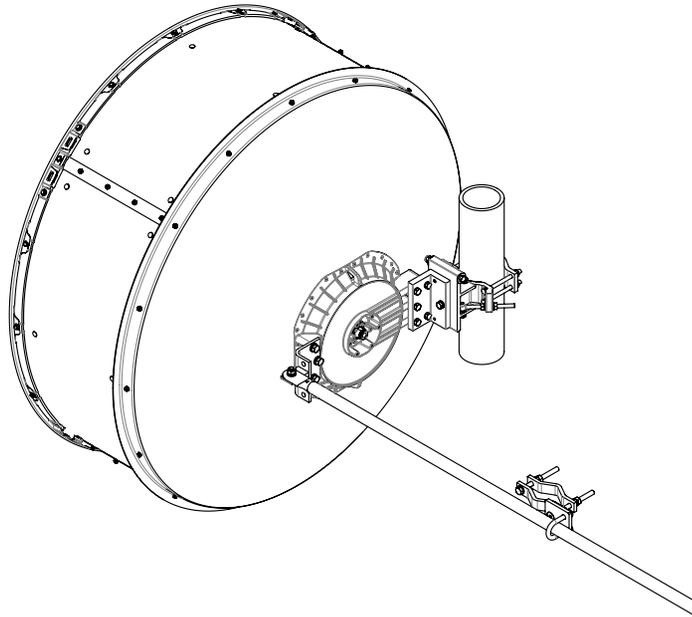


IMPORTANT!
INSTALLATION
INSTRUCTIONS
READ THIS
MANUAL FULLY
BEFORE UNPACKING
AND ASSEMBLING
THE ANTENNA



This document is for the following: VHLP(X)4-*** 1.2m 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 115mm
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

Andrew Solutions

Customer Service 24 hours

U.S.A., Canada, Mexico: 1-800-255-1479
or 1-888-235-5732
U.K.: 0800 250055
Other Europe: +44 592 782 612

www.commscope.com/andrew

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2	SAFETY INSTRUCTIONS Including Introduction, Standards, Safety Requirements, Safety Symbols, Definitions and Hazards.
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4	UNPACKING Including Unpacking of antenna parts.
5	MOUNT ATTACHMENT AND ALIGNMENT Including Basic alignment, Attaching the antenna to the pole, Fitting the mount, Elevation alignment, Azimuth alignment and tightening fasteners instruction.
6	TRANSITION POLARISATION ADJUSTMENT
7	GENERAL INFORMATION Including maintenance and cleaning instructions.

INTRODUCTION

This instruction describes how to unpack and adjust a factory assembled VHLP(X)4 antenna.

Mount to the left of the supporting structure. It can also be configured to mount to right - refer to full antenna assembly instructions on CommScope.com

SAFETY INSTRUCTIONS**INTRODUCTION**

This section describes the system used for presenting safety information.



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
A	1	Assembled antenna
B	1	Strut Kit
C	1	Integration Unit *
D	1 or 2	Flange Hardware Kit *

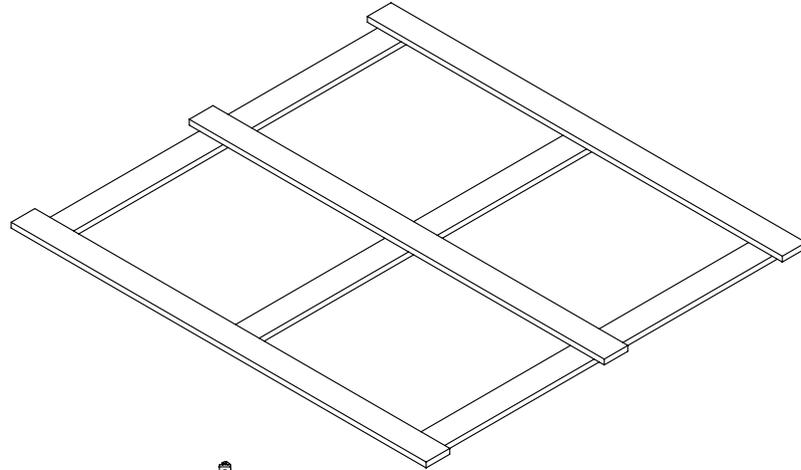
*Either Item C (Integration Unit) or Item D (Flange Hardware Kit) are supplied.

Tools

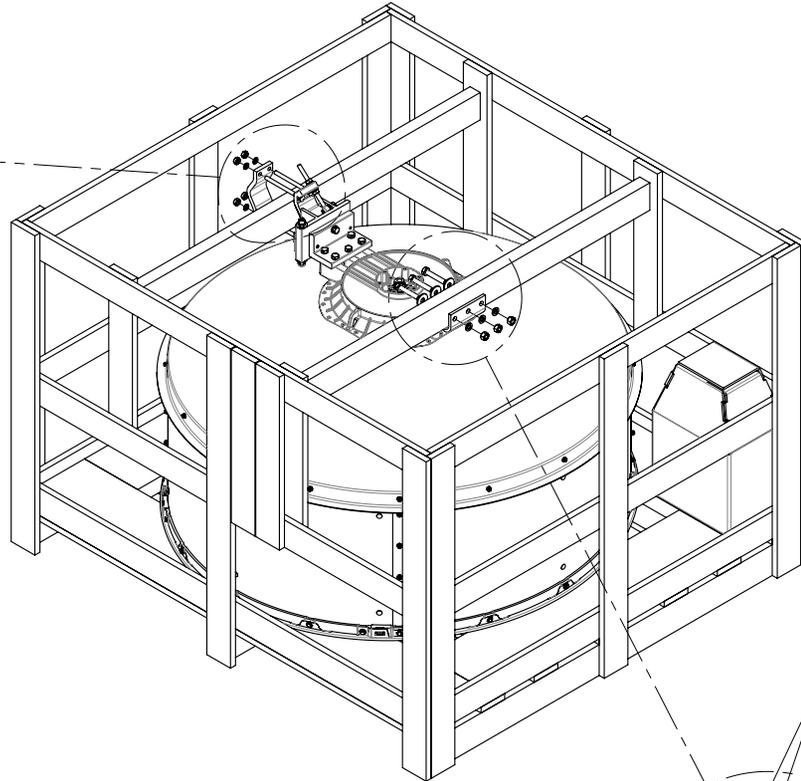
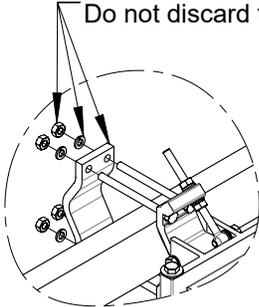
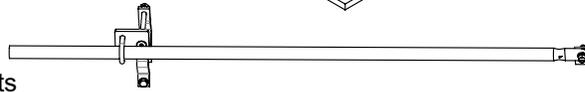
TOOL REQUIREMENTS

Tools Required	Bolt Diameter in MM			
	M4	M6	M10	M12
Ring and Open spanner (A/F)		10mm	17mm	19mm
Torque Wrench	2.5 - 95Nm			
Sockets (A/F)		10mm	17mm	19mm
Allen Key (A/F)	3mm		8mm	

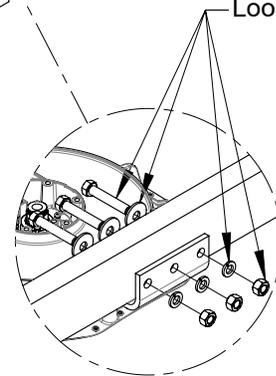
Unpacking



Loose hardware
Do not discard these parts

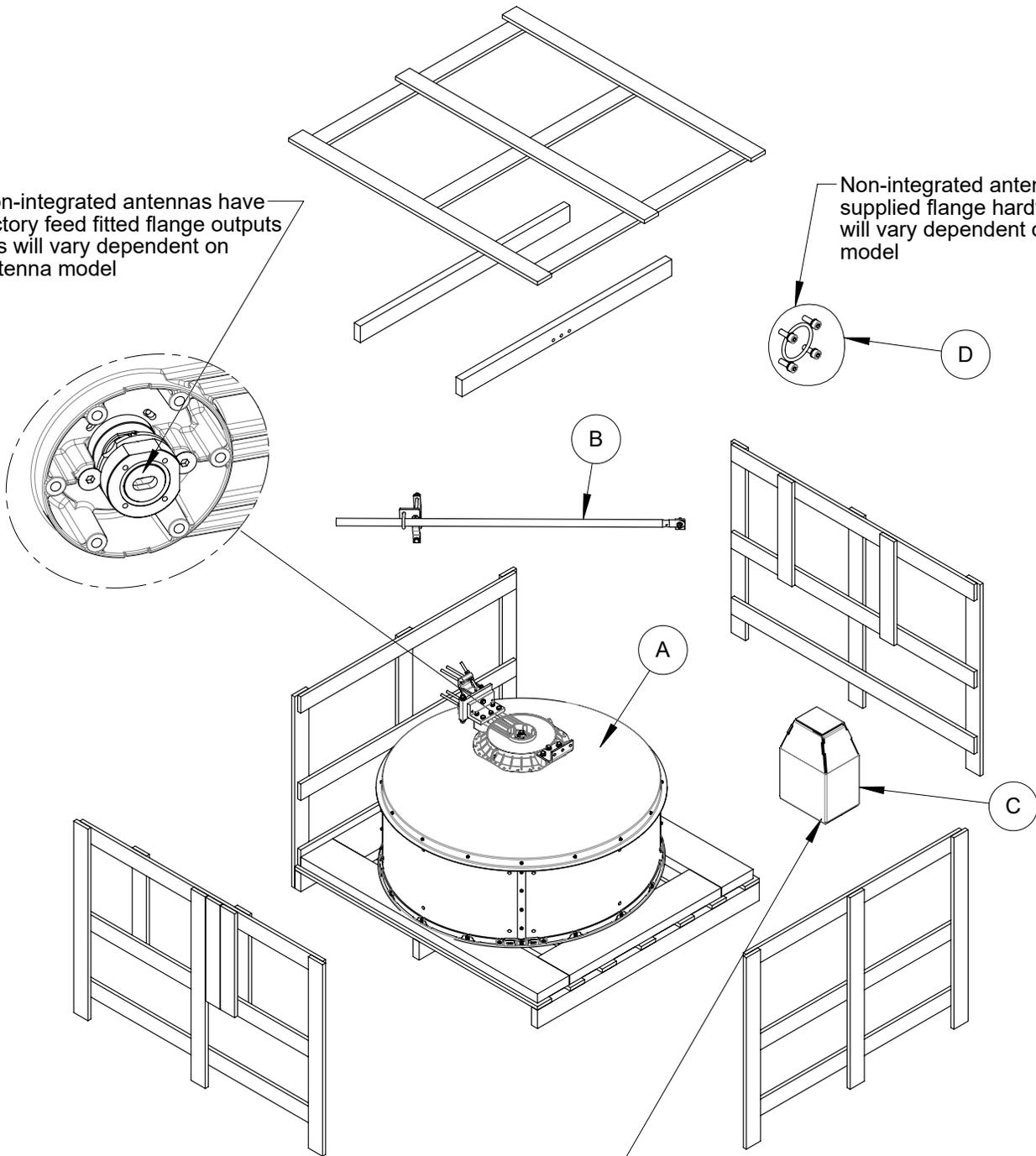


Loose hardware



Non-integrated antennas have factory feed fitted flange outputs this will vary dependent on antenna model

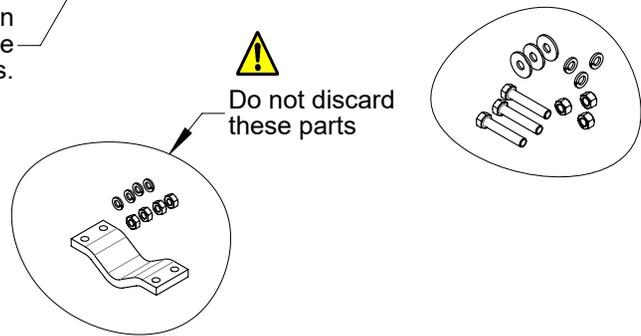
Non-integrated antennas supplied flange hardware kit this will vary dependent on antenna model



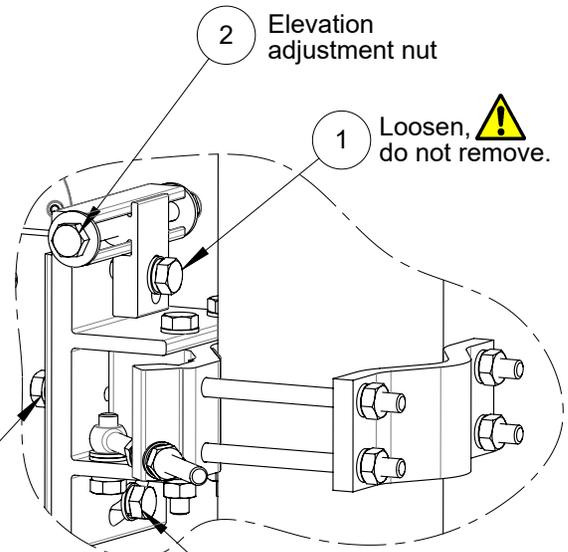
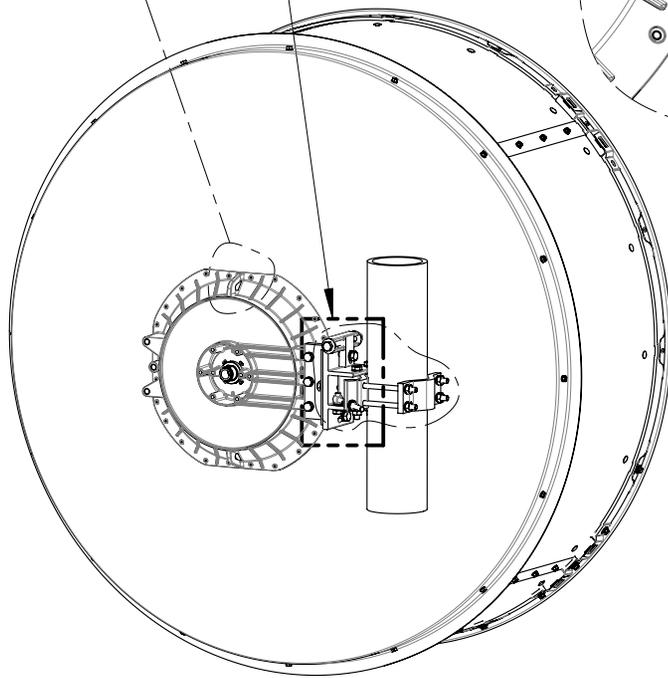
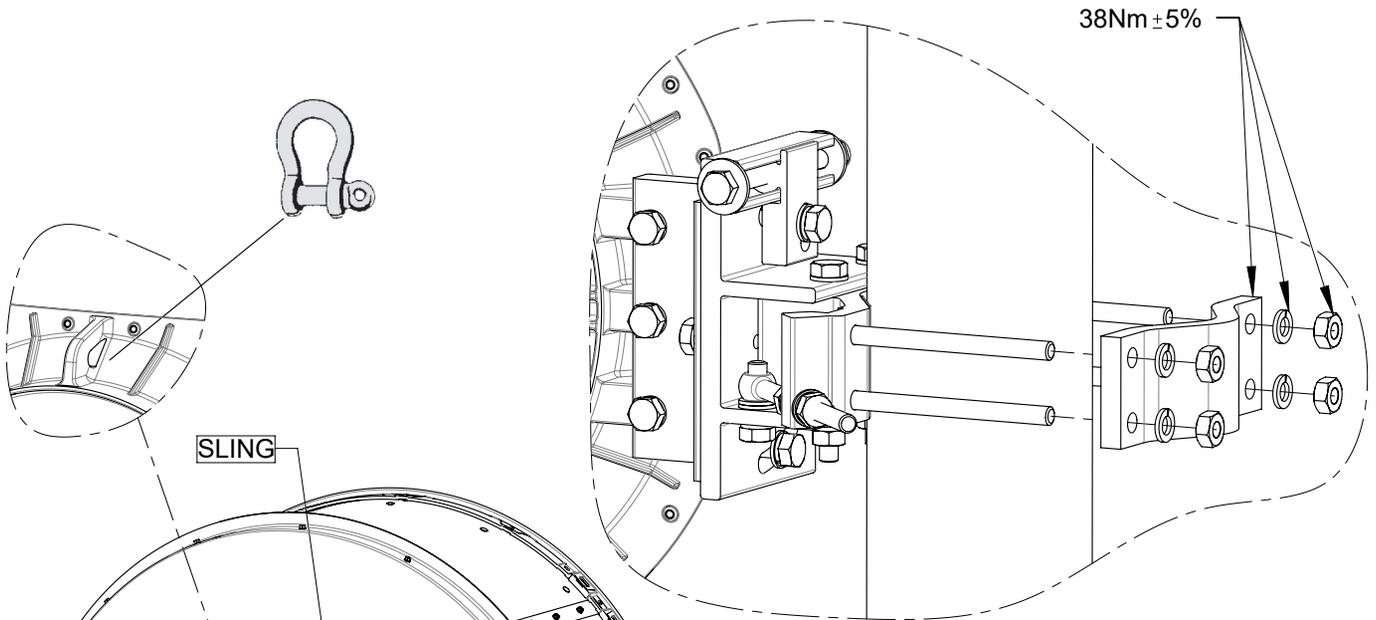
OEM direct mount radio integration (certain models only). Non-integrated antennas have factory feed fitted flange outputs.

 Do not discard these parts

 Handle antenna CAREFULLY at all times



⚠ Where required, fit radio integration unit at this stage - refer to instructions supplied with integration unit.



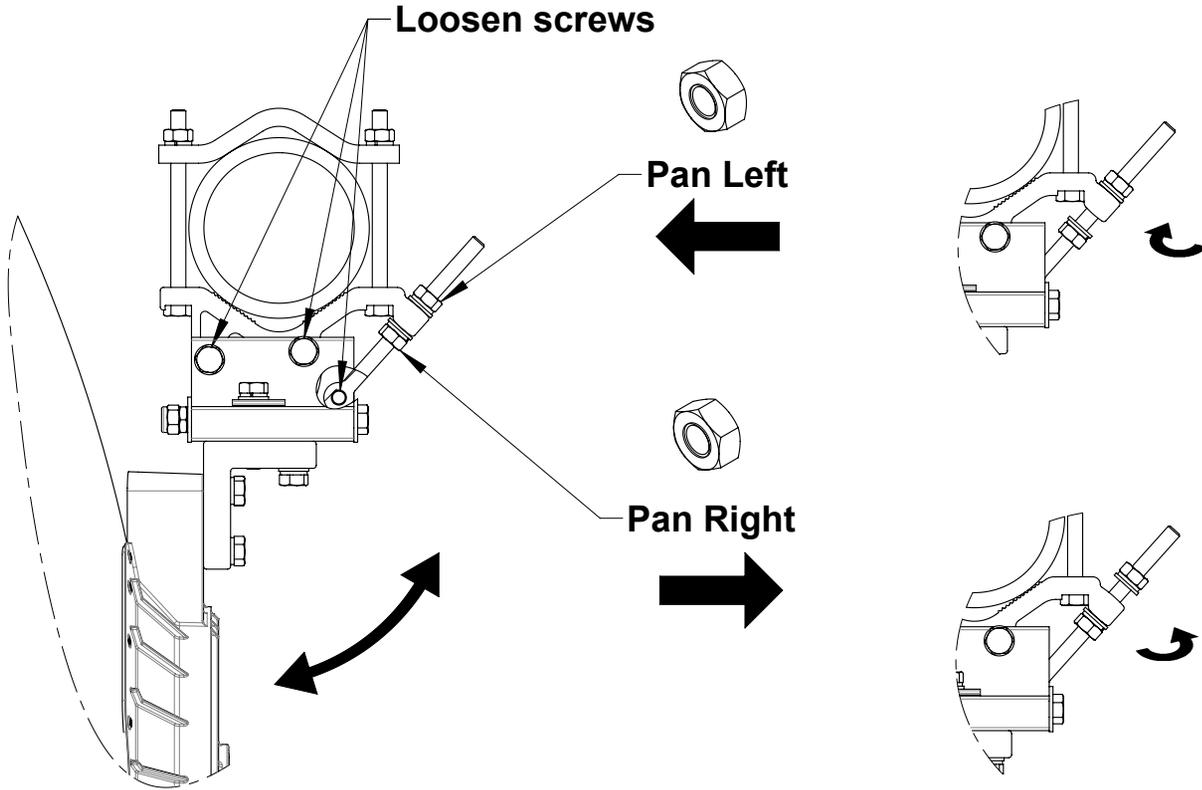
⚠
**NEVER WALK
UNDER HOISTED
LOADS**



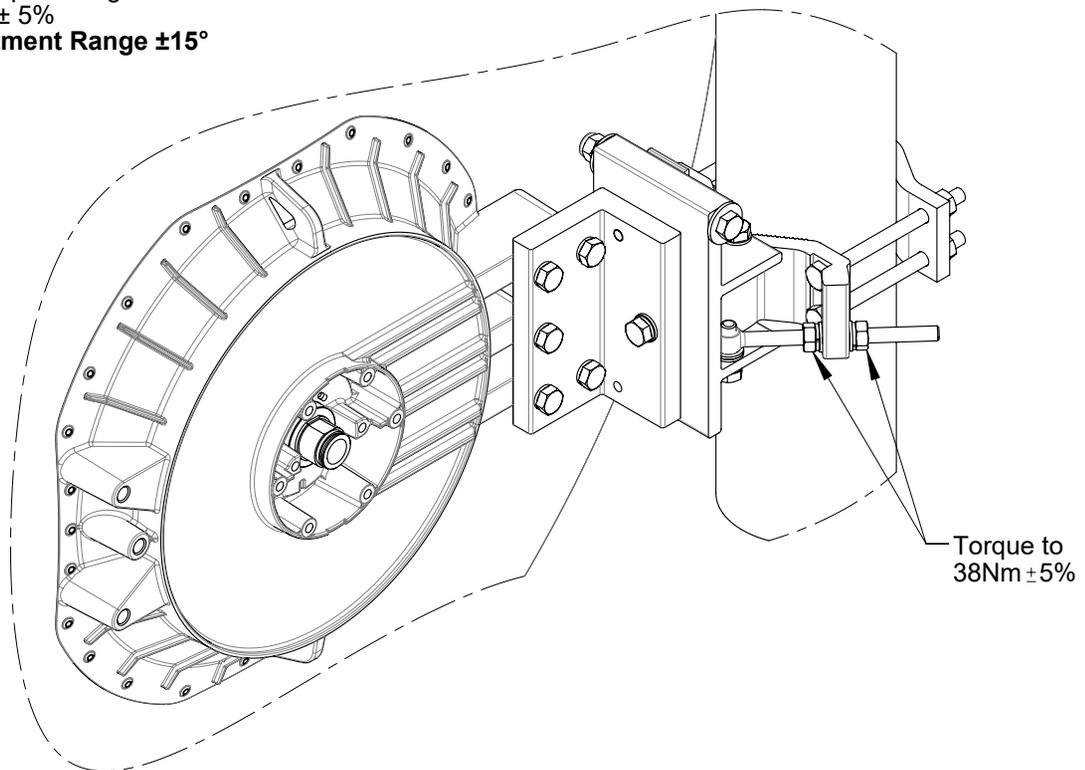
⚠ 1 Loosen, do not remove.

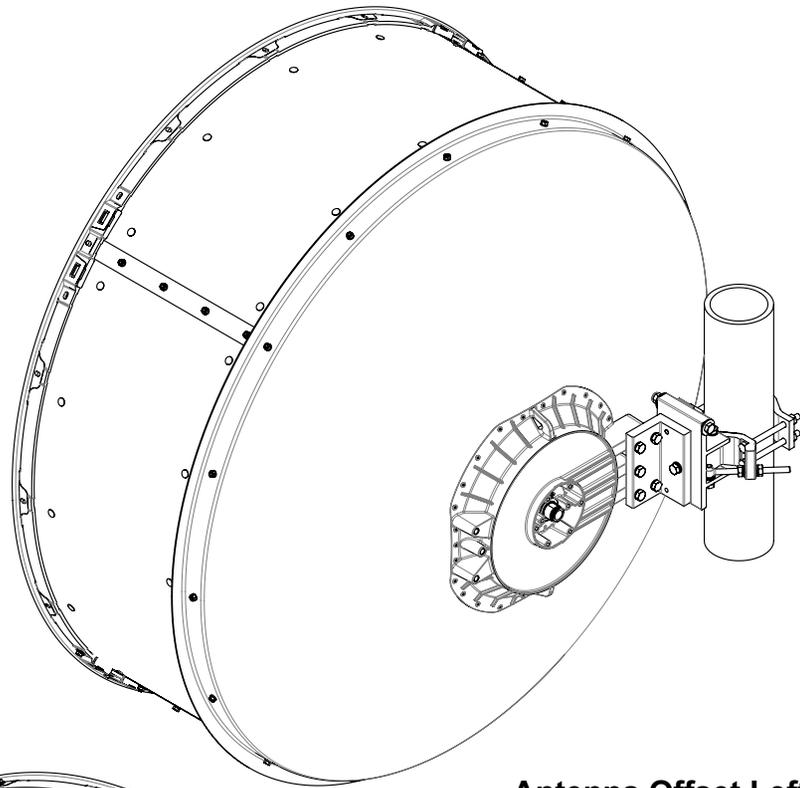
1 Loosen, **⚠** do not remove.

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

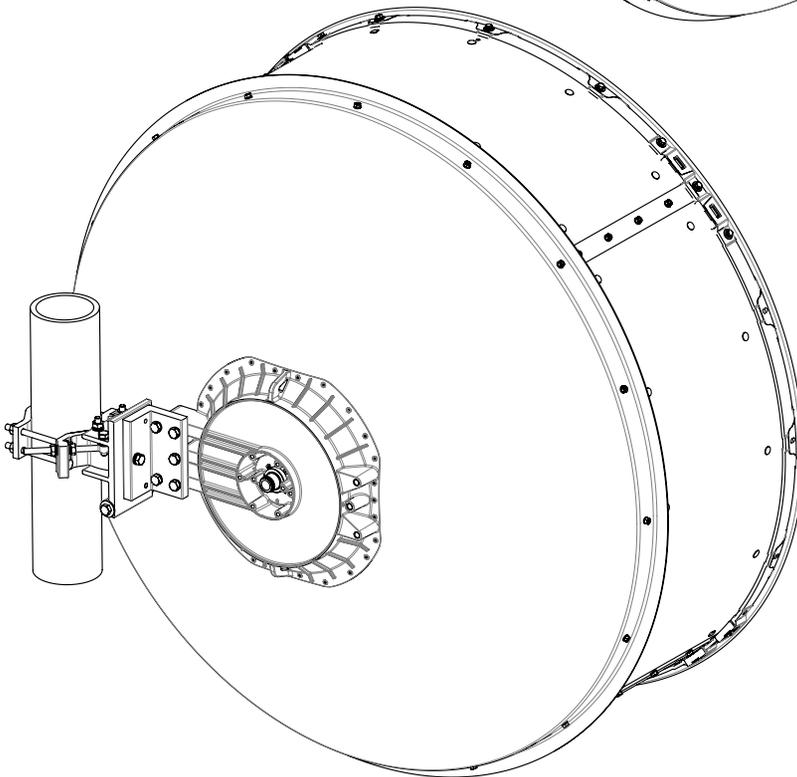


Azimuth adjustment
Adjust eyebolt.
On completion tighten all hardware to
 $38\text{Nm} \pm 5\%$
Adjustment Range $\pm 15^\circ$



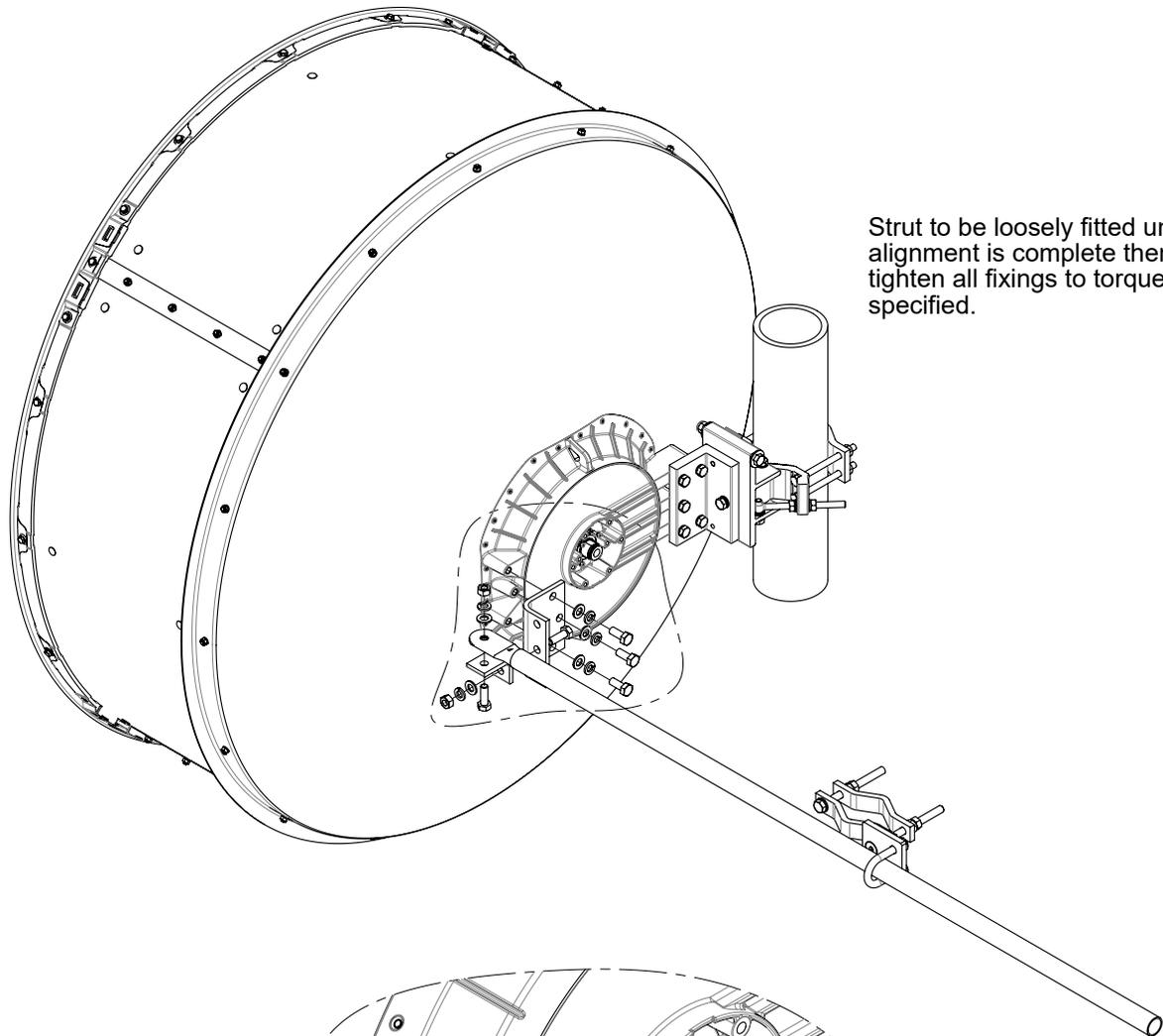


Antenna Offset Left

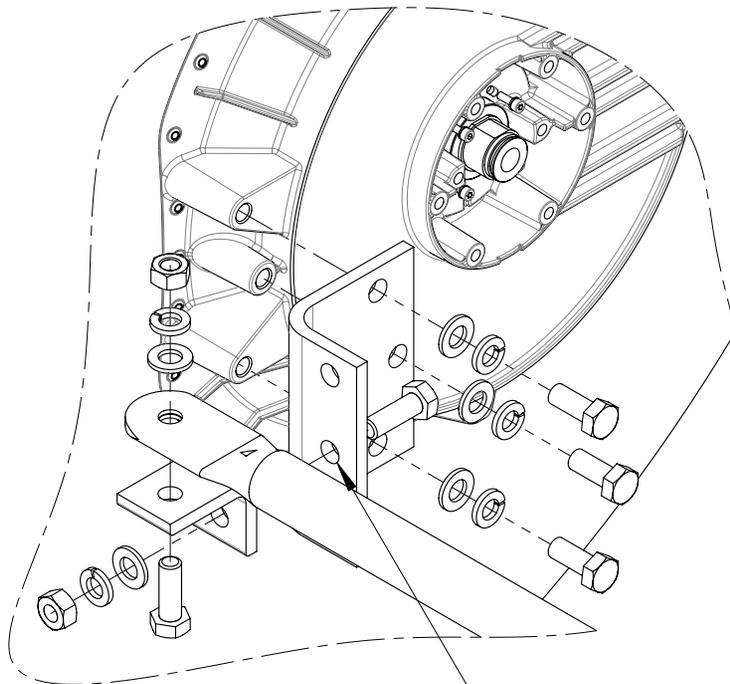


Antenna Offset Right

Refer to full antenna assembly instructions on www.commscope.com for details on how to switch mount offset

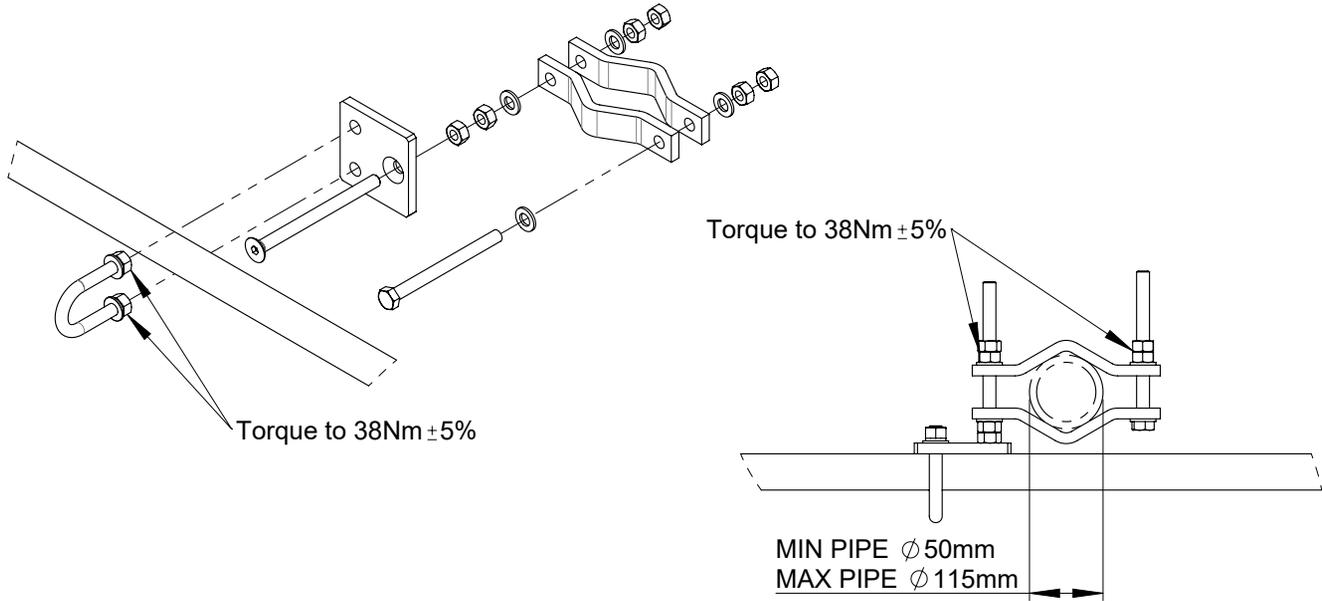


Strut to be loosely fitted until alignment is complete then tighten all fixings to torque specified.

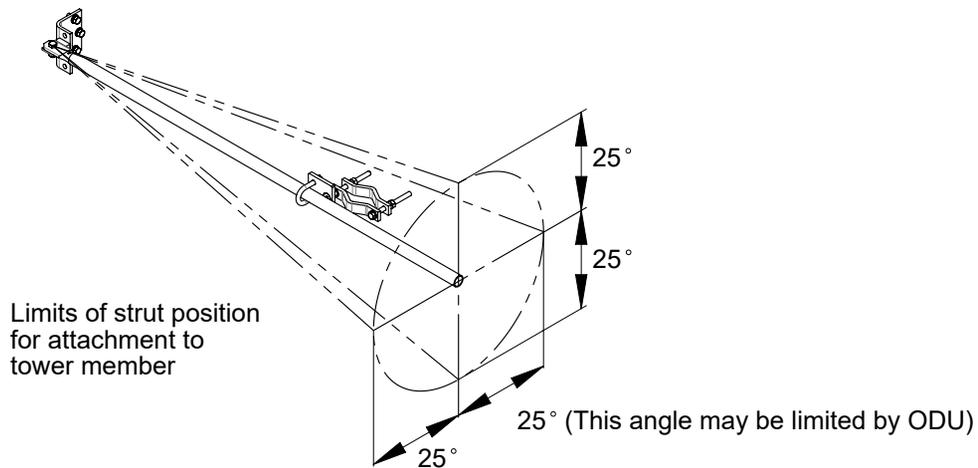


Strut to be attached to center hole.
Tighten all hardware to a torque of $38\text{Nm} \pm 5\%$

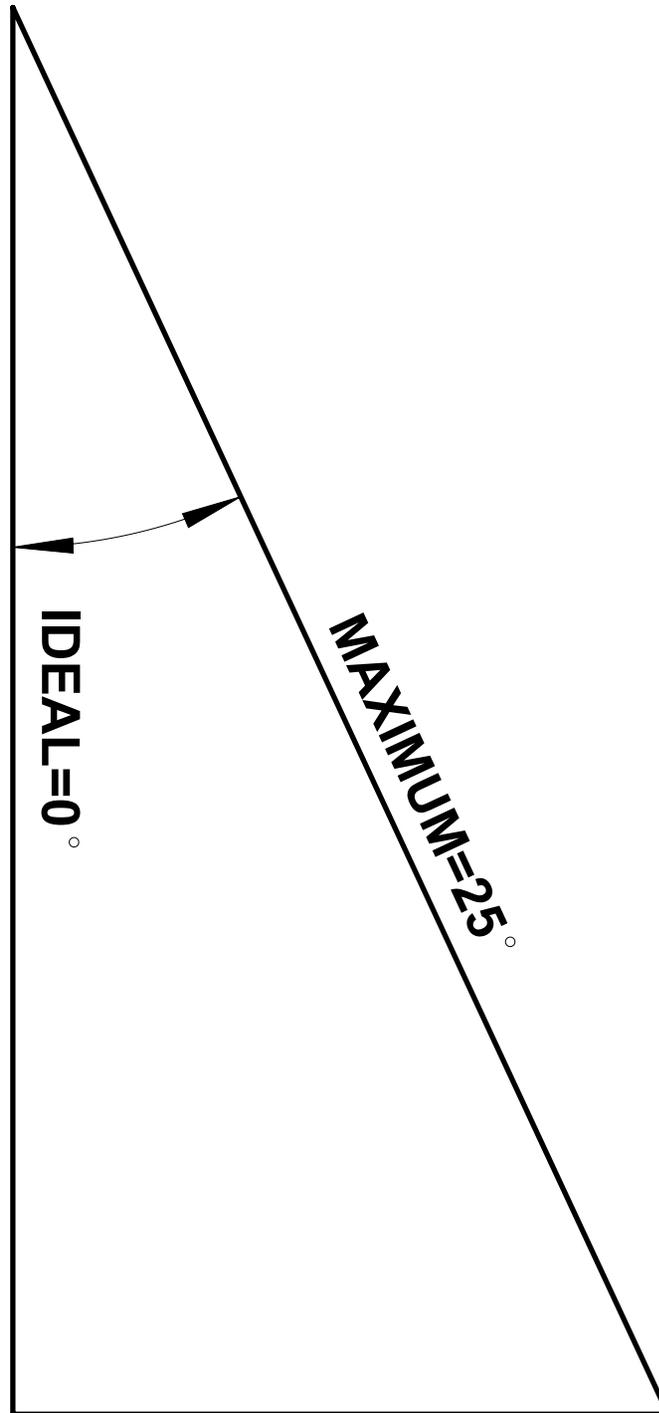
For attachment to circular structural members only



Struts must be attached to a circular structural member capable of supporting 2704N in line with TIA-222. The maximum allowable relative deflection between the antenna mounting pipe and the strut attachment point must be less than 2mm at the survival wind speed of the antenna.

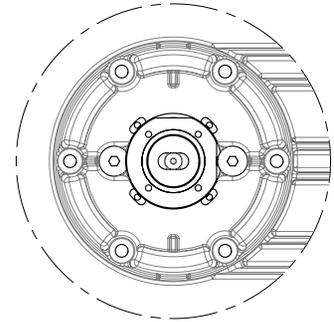
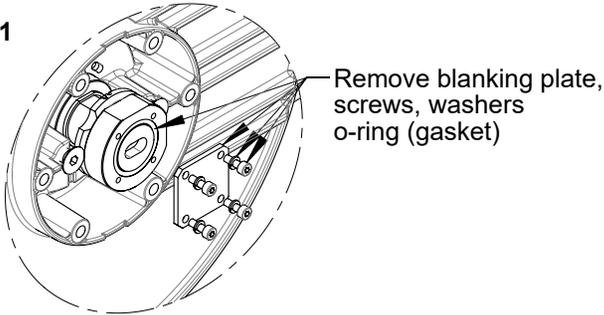


- Image shown is intended as a guide for strut alignment
- Strut must be attached to an appropriate, structural mounting point
- Strut angle must not exceed maximum specified
- Failure to install the strut as instructed may result in mechanical failure of the antenna



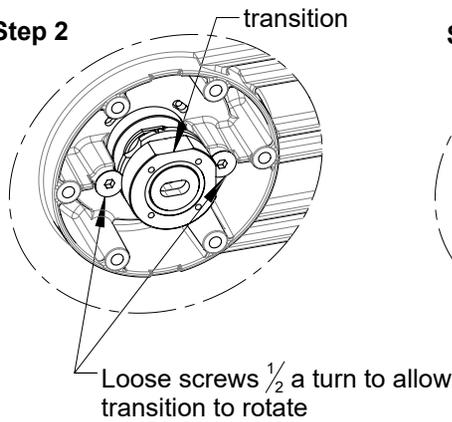
Single polarisation

Step 1

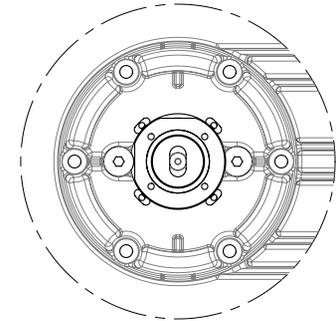
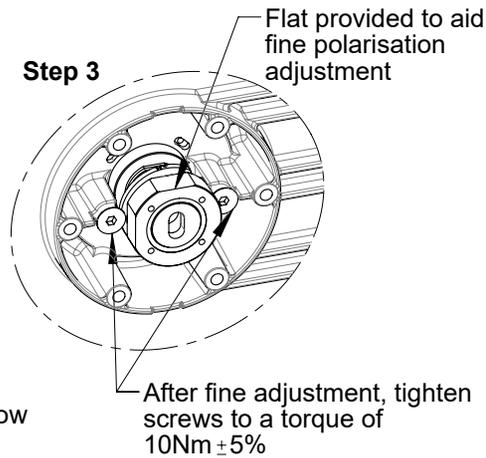


Vertical polarisation

Step 2

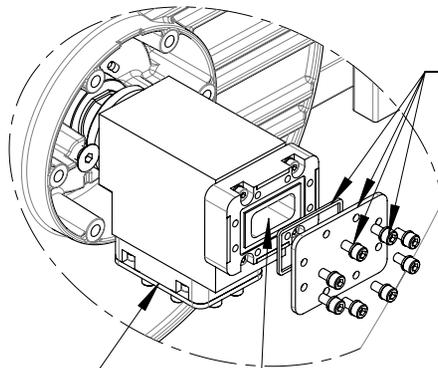


Step 3



Horizontal polarisation

Dual polarisation



Remove blanking plate, screws, washers o-ring (gasket) before using this polarisation.

Horizontal polarisation

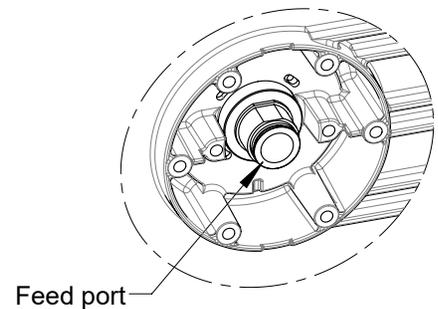
Remove blanking plate, screws, washers o-ring (gasket) before using this polarisation.

Vertical polarisation

For OEM direct mount radio integration installation of integration unit see separated INSTALLATION INSTRUCTIONS



Prior to assembly of integration unit, remove any tape or protective cap from feed port



7 General Information

7.1 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.

7.2 Cleaning of Antenna

If subsequent cleaning of the antenna is required solvent based solutions must not be used.