

Installation – 0.9m antenna

1 Contents

2	Introduction	1
3	Tools & Torque	1
4	Equipment	2
5	Unpacking	3
6	Assembly of reflector	3
7	Feed assembly	4
8	Final assembly	4
9	Installation	5
10	General Information	6

2 Introduction

This instruction describes how to assemble a 0.9m Arkivator antenna (3ft).

In general, a left-side installation is described, though it is possible to choose a right-sided installation as well.

3 Tools & Torque

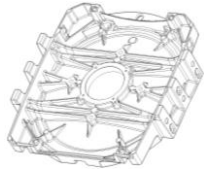
3.1 Tools needed

- Screwdriver for Torx TX20
- Combination wrench (ring/open jaw) for Hex 16 & 18mm
- Socket wrench, extender and sockets for Hex 16 & 18mm

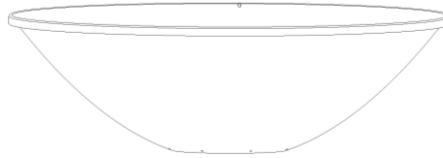
3.2 Torque levels

- Torx TX20 tightened with 2.6Nm \pm 5%
- Hex 16mm tightened with 49Nm \pm 5% for steel 8.8 (33Nm \pm 5% if A2-70)
- Hex 18mm tightened with 81Nm \pm 5% for steel 8.8 (57Nm \pm 5% if A2-70)

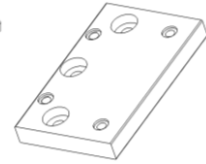
4 Equipment



Radio interface
 frame, 1pc



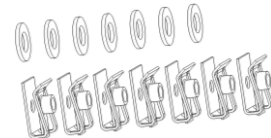
Reflector, 1pc



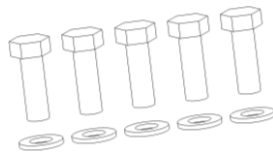
Bracket, 1pc



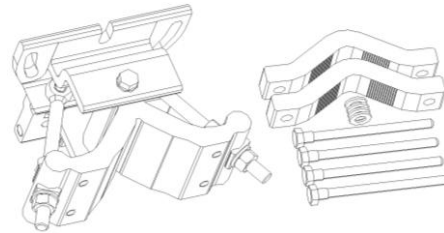
Radome, 1pc



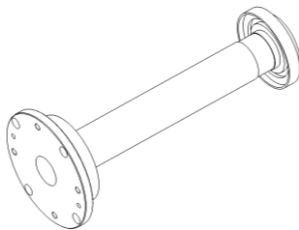
Clip M4 7pcs & washer
 7pcs



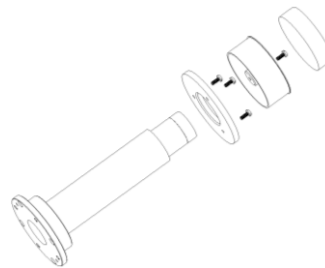
Screw Hex M10x30
 5pcs & washer 5pcs



Antenna support (support 1pc,
 clamp 2pcs, M10x120 4pcs &
 washer 4pcs)



Feed; 10/11, 13, 15, 18, 23,
 24/26, 28, 32 & 38GHz, 1pc



Feed; 6 & 7/8GHz (feed 1pc, vertex
 plate 1pc, hat 1pc, absorber 1pc &
 screw M4x10 4 extra pcs)

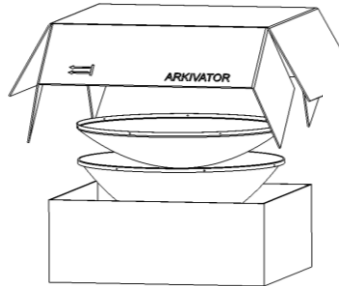


Screw Torx; 10/11, 13, 15, 18
 & 23GHz, M4x10 12pcs &
 M4x16 7pcs



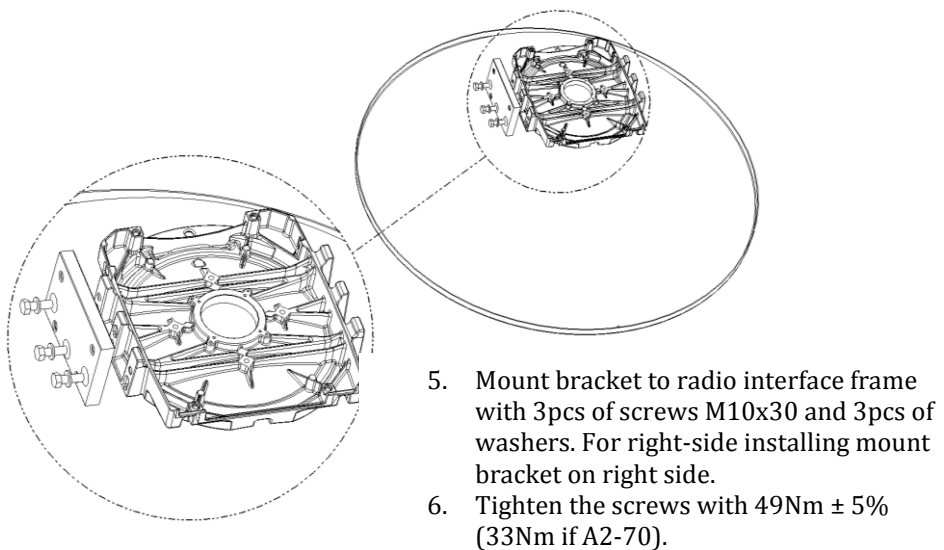
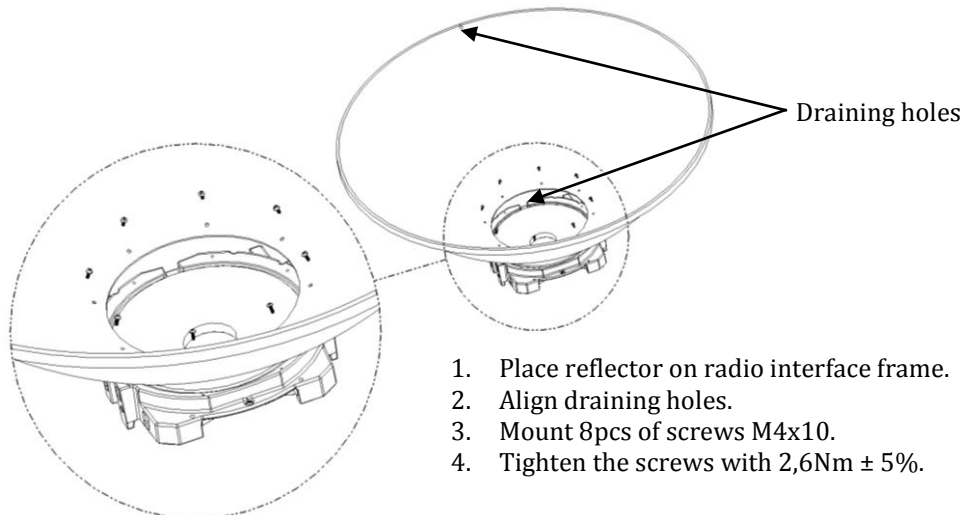
Screw Torx; 6, 7/8, 24/26, 28,
 32 & 38GHz, M4x10 19pcs

5 Unpacking

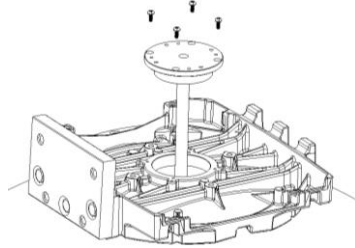


**Handle Reflector and Feed
CAREFULLY at all times!**

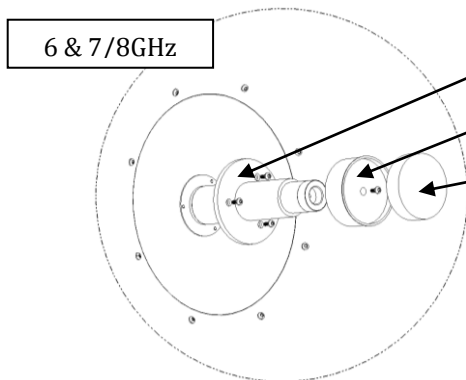
6 Assembly of reflector



7 Feed assembly



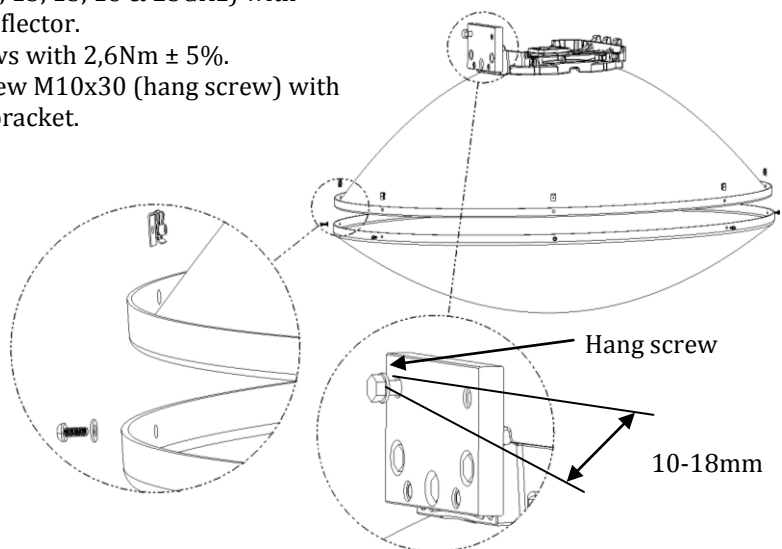
1. Place feed into radio interface frame.
2. Mount 4pcs of screws M4x10 and tighten them with $2,6\text{Nm} \pm 5\%$.
3. If feed 6GHz or 7/8GHz continue assembling feed, if other frequency go to step 8:1.



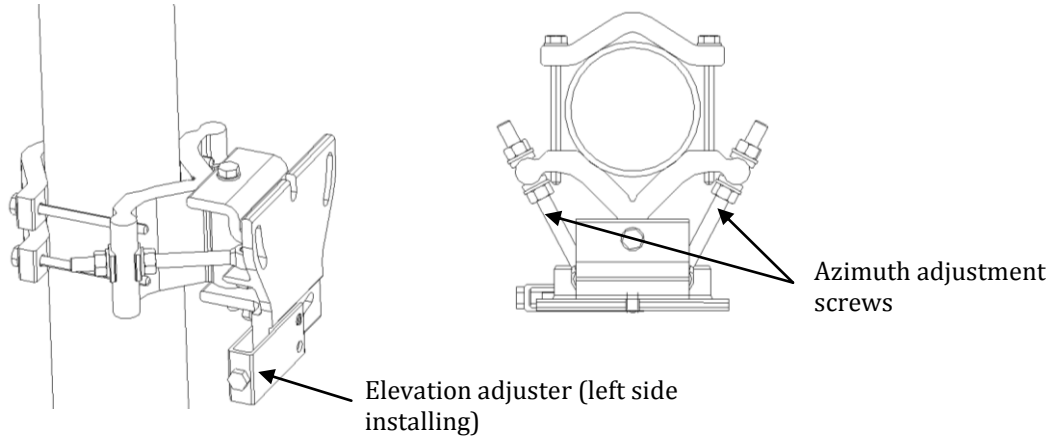
1. Mount vertex plate with 3pcs of screws M4x10, tighten them with $2,6\text{Nm} \pm 5\%$.
2. Mount hat with 1pc of screw M4x10, tighten it with $2,6\text{Nm} \pm 5\%$.
3. Remove protective tape on absorber adhesive side. Mount absorber on hat.

8 Final assembly

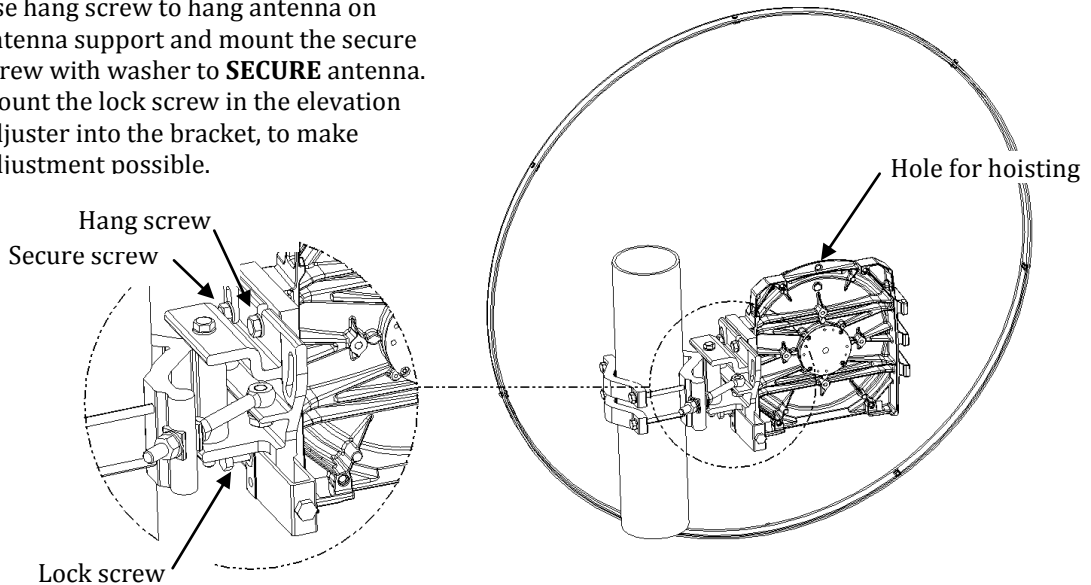
1. Mount 7pcs of Clip M4 to reflector.
2. Mount radome and 7pcs of screws M4x10 (or M4x16 for 10/11, 13, 15, 18 & 23GHz) with washers to the reflector.
3. Tighten the screws with $2,6\text{Nm} \pm 5\%$.
4. Mount 1pc of screw M10x30 (hang screw) with washer into the bracket.



9 Installation



1. If right side installing; move elevation adjuster to opposite side of antenna support.
2. Mount antenna support with 2pcs of clamps, 4pcs of screws M10x120 and 4pcs of washers to the pole (Ø110-120mm).
3. Position the antenna support so that the antenna will point along the radio link path.
4. Tighten the M10x120 screws with $49\text{Nm} \pm 5\%$ (33Nm if A2-70).
5. Hoist antenna using hole for hoisting on radio interface frame.
6. Use hang screw to hang antenna on antenna support and mount the secure screw with washer to **SECURE** antenna.
7. Mount the lock screw in the elevation adjuster into the bracket, to make adjustment possible.



8. Remove protection tape on feed and mount radio equipment
9. Adjust elevation $\pm 15^\circ$ and azimuth $\pm 15^\circ$.
10. Tighten all screws and nuts:
 - 3pcs of M10 screws with $49\text{Nm} \pm 5\%$ (33Nm if A2-70)
 - 1pcs of M10 nut with $49\text{Nm} \pm 5\%$ (33Nm if A2-70)
 - 2pcs of M12 screws with $81\text{Nm} \pm 5\%$ (57Nm if A2-70)
 - 2pcs of M12 nuts with $81\text{Nm} \pm 5\%$ (57Nm if A2-70).

10 General Information

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.

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