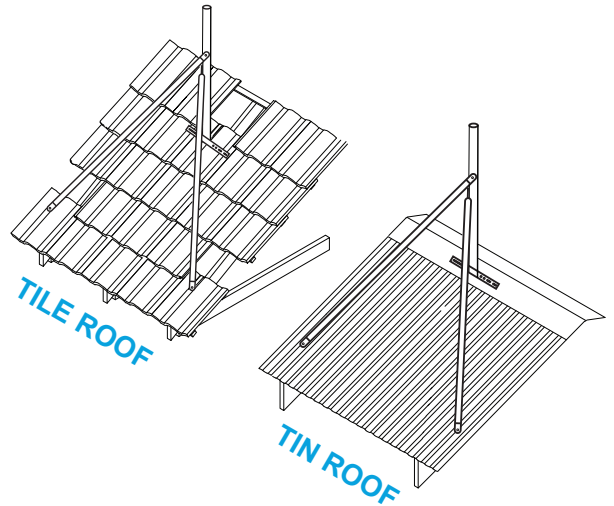




Hills Antenna Universal Mount

INSTALLATION INSTRUCTIONS

1. SITE SELECTION

Carefully inspect the section of roof chosen for the mount to verify that it is in good condition and structurally sound. Consult the customer to ensure the mount location is satisfactory.

Advise the customer of the roofing manufacturer's recommendations regarding roof maintenance to ensure a long service life, particularly the regular cleaning of salty deposits, industrial dirt, vegetation, and other debris.

TILE ROOF (see page 2) / **TIN ROOF** (see page 3)

2. WIND LOADS

This mount has been tested for use with a Starlink GEN3 VERSION 4 Dish. It is suitable for mounting the ODU only in wind classifications up to N5/C3 (W60) areas.

3. WARNING

The Mount for Metal Clad Roofs relies on the strength of the purlin-rafter joint to transfer wind loads into the building structure. Joints near the mount must be inspected to ensure they are structurally sound.

4. SAFETY

Beware of the danger posed by live electrical cables in the roof cavity. The use of an earth leakage protection safety device when drilling is recommended.

5. LIMITATIONS

- Maximum Roof Slope: 30°
- Maximum Roof Height: 8.5m above ground level
- Cladding Rib Heights: 16mm to 30mm
- Rafter & Batten Spacings: 900mm to 1200mm (see Figure 7)
- Suitable for corrugated cladding profiles and deep-rib profiles such as TrimDEK
- Not suitable for light-gauge metal-framed roofs
- All roof fixings must be through the crest of the cladding flutes

6. MOUNT ARRANGEMENT

- The mount has been designed for roofs with the stays running down the slope (see Figure 8).
- Maximum Allowable Overall Stay Length: 1500mm
- Minimum Allowable Overlap Between Inner & Outer Stay Tubes: 150mm

7. Tile Roof Installation

Step 1

Choose a suitable area on the tile roof for installing the mounting brackets, noting the minimum and maximum spacing distances shown in Figure 1.

The tile selected for the mast fixing location must be at least three rows down from the roof ridge line. Take care when sliding back this tile to avoid disturbing, loosening, or cracking the mortar joints of the ridge capping tiles. Slide two other tiles upward, as shown in Figures 1 and 2, to provide access to the mounting points. If you move any tiles secured with clips, screws, or nails, ensure these are replaced when the tiles are repositioned.

Step 2

Locate the roof trusses to which the Z Brackets will be secured. Select a point on the first tile that allows the bracket to sit flat and ensures the tile is in contact with the batten underneath.

Step 3

Apply a bed of neutral-cure silicone sealant to the area where the bracket will sit, acting as a cushion between the bracket and the tile. Ensure the tile is clean and dry for maximum bonding of the sealant (see Figure 3). Position the bracket on the silicone bed so that the Z Bracket aligns with the roof truss (see Figure 4).

Using the screws provided, affix two screws to each Z Bracket, securing it to the roof truss. Repeat this process for the other two tiles. Once all three brackets are attached, reposition the tiles. You may need to slightly grind down the ribs underneath the tile where the bracket is located to allow the top tile to sit flat.

Step 4

Bolt the base to the top Z Bracket using the carriage bolt and nut provided. Attach the mast to the base using the 65mm x M8 bolt & nut provided, and tighten until snug. Do not overtighten, as the mast will need to be adjusted to an upright position before securing all fittings.

Note: The angle of the tabs on the ends of the stays can be adjusted for individual applications by bending them with a shifter, as shown.

Using a shifter, slightly bend the end tabs of the stays to match the angles required for the lower Z Bracket locations.

Bolt the two outer stays to the mast using the 65mm x M8 bolts and nuts, and attach the opposite ends of the inner stays to their bracket locations using the carriage bolts and nuts provided (see Figure 5).

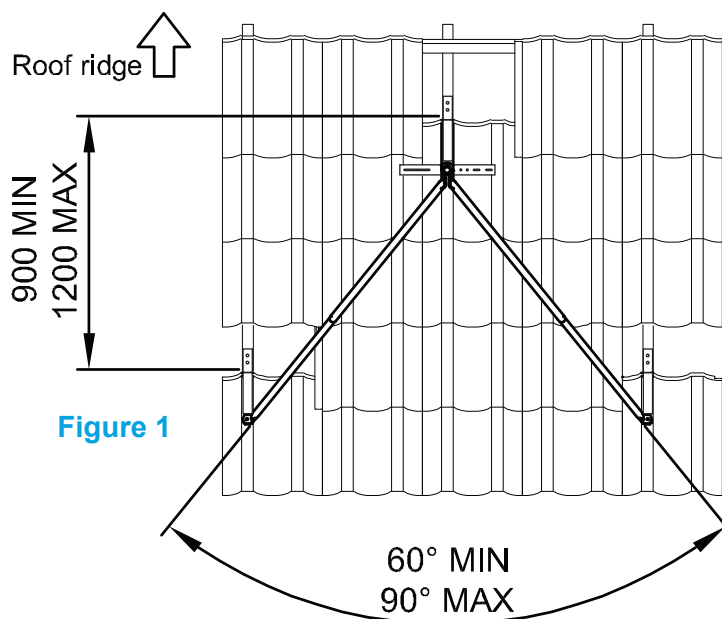


Figure 1

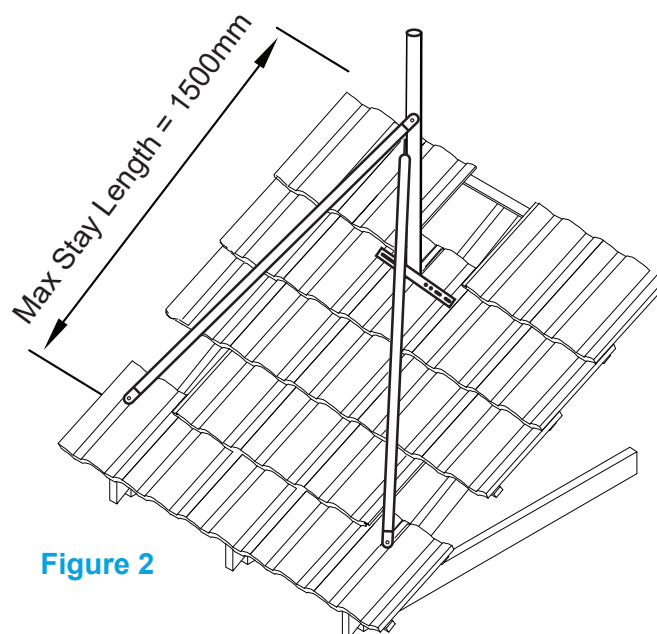


Figure 2

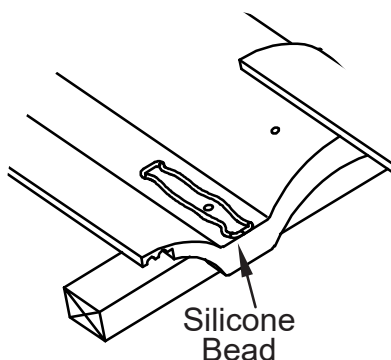


Figure 3

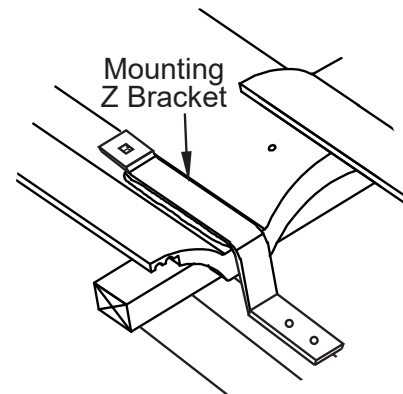
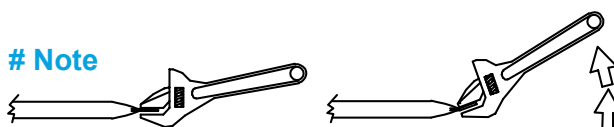


Figure 4

Note



7. Tile Roof Installation (continued)

Step 5

Use a level to plumb the mast and secure it in place with the two hex-head Tek screws provided, fastening them into the two stays as shown in Figure 6.

Step 6

Tighten all nuts and bolts to secure the mount in place. Assemble the dish and pole adaptor (supplied separately) according to their installation instructions.

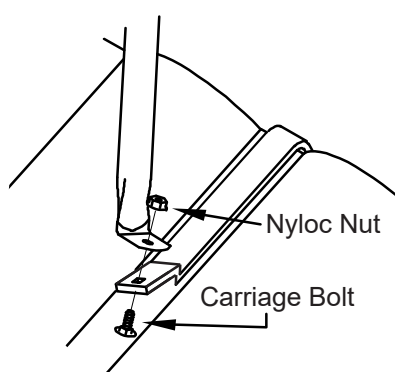


Figure 5

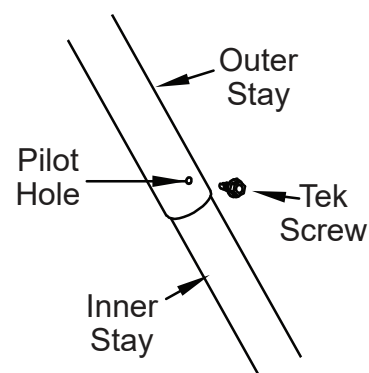


Figure 6

8. Tin Roof Installation

Step 1

Place the base onto the ridge cap or roof. Use two Cyclone Washers and two Rubber Seal Washers between the base and the roof.

Apply a small amount of silicone sealant underneath the bottom face where the two screws affix. Attach the base to the roof with two T17 x 65mm screws (see Figure 7 & 8).

Please Note: For fixing to metal batten roofs (0.42 to 1.5 mm thick), use either FB607226 (for corrugated roofing profiles) or FB607150A (for square or broadsheet roofing profiles) at the brace anchors.

All T17 x 65 screws must be replaced with M6.5-12 x 55 roof zip screw fasteners supplied with each kit.

Step 2

Attach the mast to the base using the 65mm x M8 bolt and nut provided. Tighten until snug, but do not overtighten, as the mast will need to be adjusted to an upright position before securing all fittings (see Figure 9).

Note: The angle of the tabs on the ends of the stays can be adjusted for individual applications by bending them with a shifter, (as shown on page 2).

Using a shifter, slightly bend the end tabs of the stays to match the required angles for the mounting locations.

Bolt the two outer stays to the mast using the 65mm x M8 bolts and nuts, (see Figure 10) and attach the opposite ends of the inner stays to their lower locations.

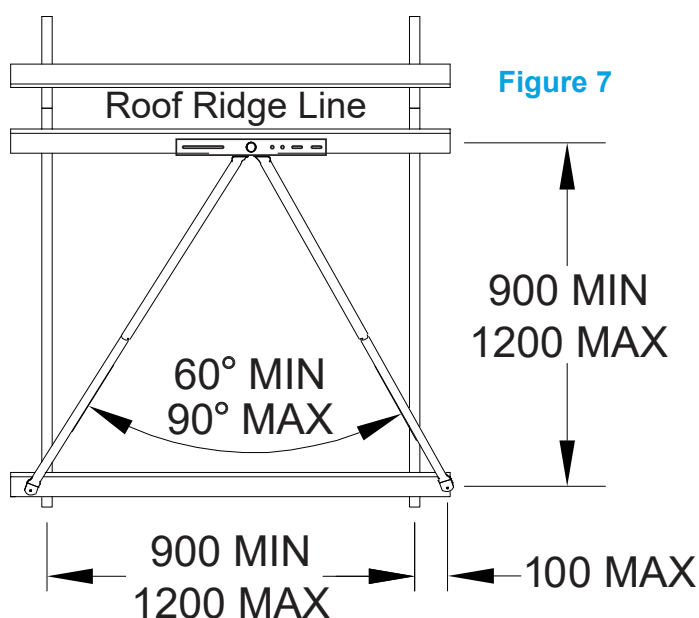


Figure 7

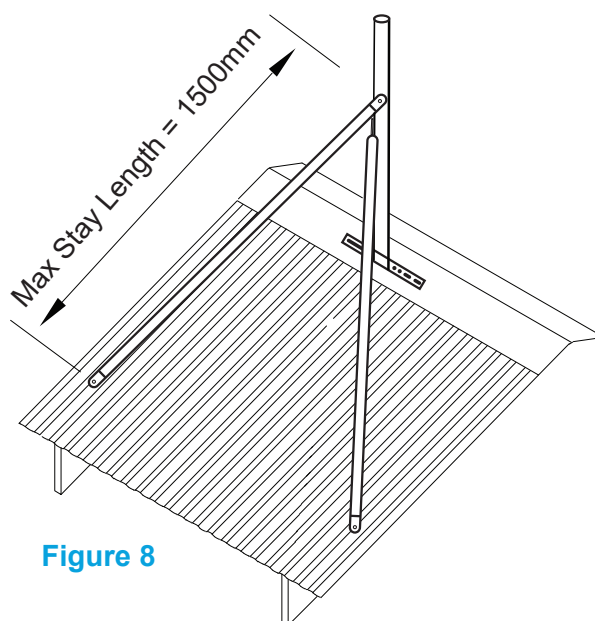


Figure 8

8. Tin Roof Installation (continued)

Use the remaining two Cyclone Washers and Rubber Seals under the flat section of the lower stay.

Apply a small amount of silicone sealant underneath the bottom face where the two screws affix, and attach to the roof with two T17 x 65mm screws provided (see Figure 11).

Step 3

Using a level, push the mast up the roof to set it plumb and secure it in place with two 10g x 16 Tek screws into the two telescopic stays, as shown in Figure 6.

Step 4

Tighten all nuts and bolts to secure the mount in place. Assemble the dish and pole adaptor (supplied separately) according to their installation instructions.

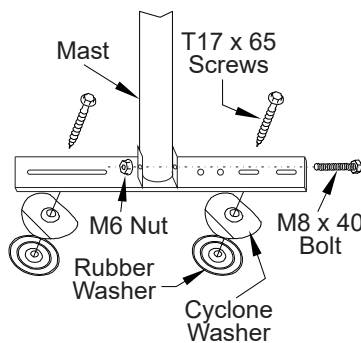


Figure 9

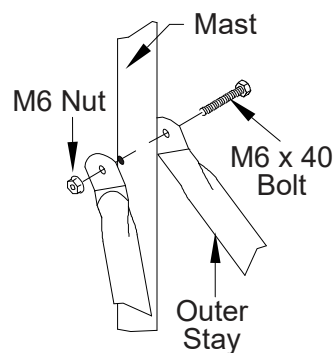


Figure 10

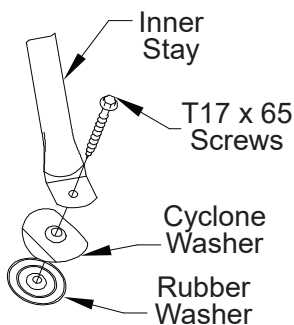


Figure 11

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