

## Micro AcCELLerator™ Antennas

POWERED BY



### 3X-V65A-3XR

Bulletin 627085 • Revision D • September 2014 Page 1 of 5

CommScope Infrastructure Academy offers installation training.

#### GENERAL INFORMATION

The 3X-V65A-3XR antenna (Figure 1) is a compact, tri-sector antenna solution equipped with removable lower covers. Since mounting locations and surfaces will vary, CommScope does not provide the mounting bolts or associated hardware required to properly install this antenna. It is the responsibility of qualified personnel to determine the best method for securely anchoring the base plate of the antenna to the mounting surface.

After removing the antenna from its shipping container carefully inspect it to ensure there is no shipping damage. If the antenna is to be hoisted into position, ensure the lifting eye bolt is correctly installed. Ensure the antenna is securely held during hoisting to avoid rotation on the lifting eye bolt.

DO NOT remove the EYE BOLT after installation, otherwise water ingress to antenna may occur. (See exception at step 7).

#### INSTALLATION INSTRUCTIONS

1. Loosen the screws on the lower covers (Figure 2), and remove the lower cover from the antenna.

**If the antenna will be mounted on a monopole, the lower cover can be reattached after installation. If the antenna will be mounted on a flat surface, the lower cover can be left off to allow an entrance for cable routing.**

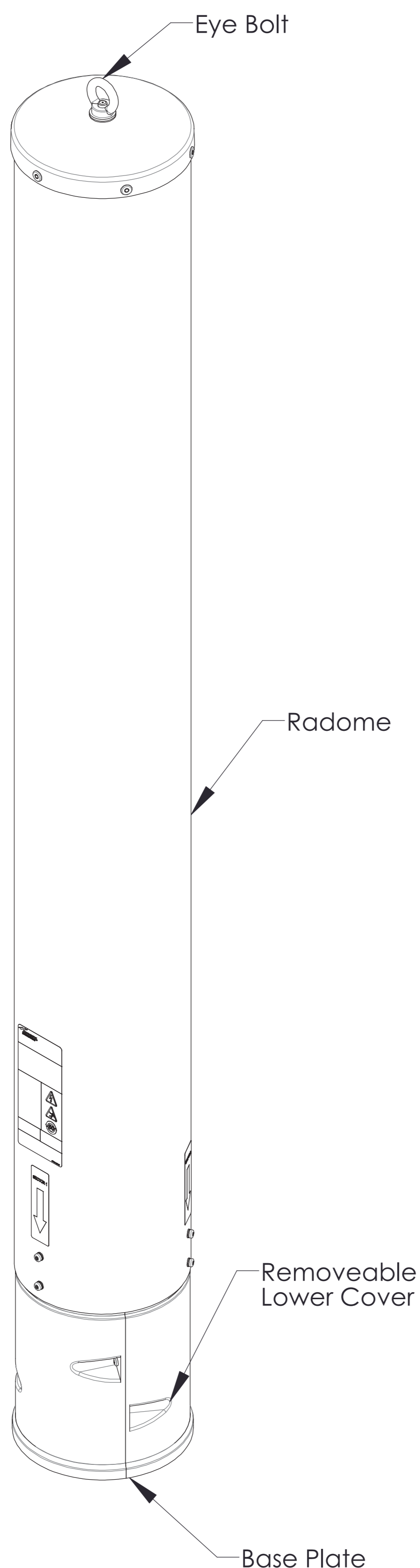


Figure 1. 3X-V65A-3XR

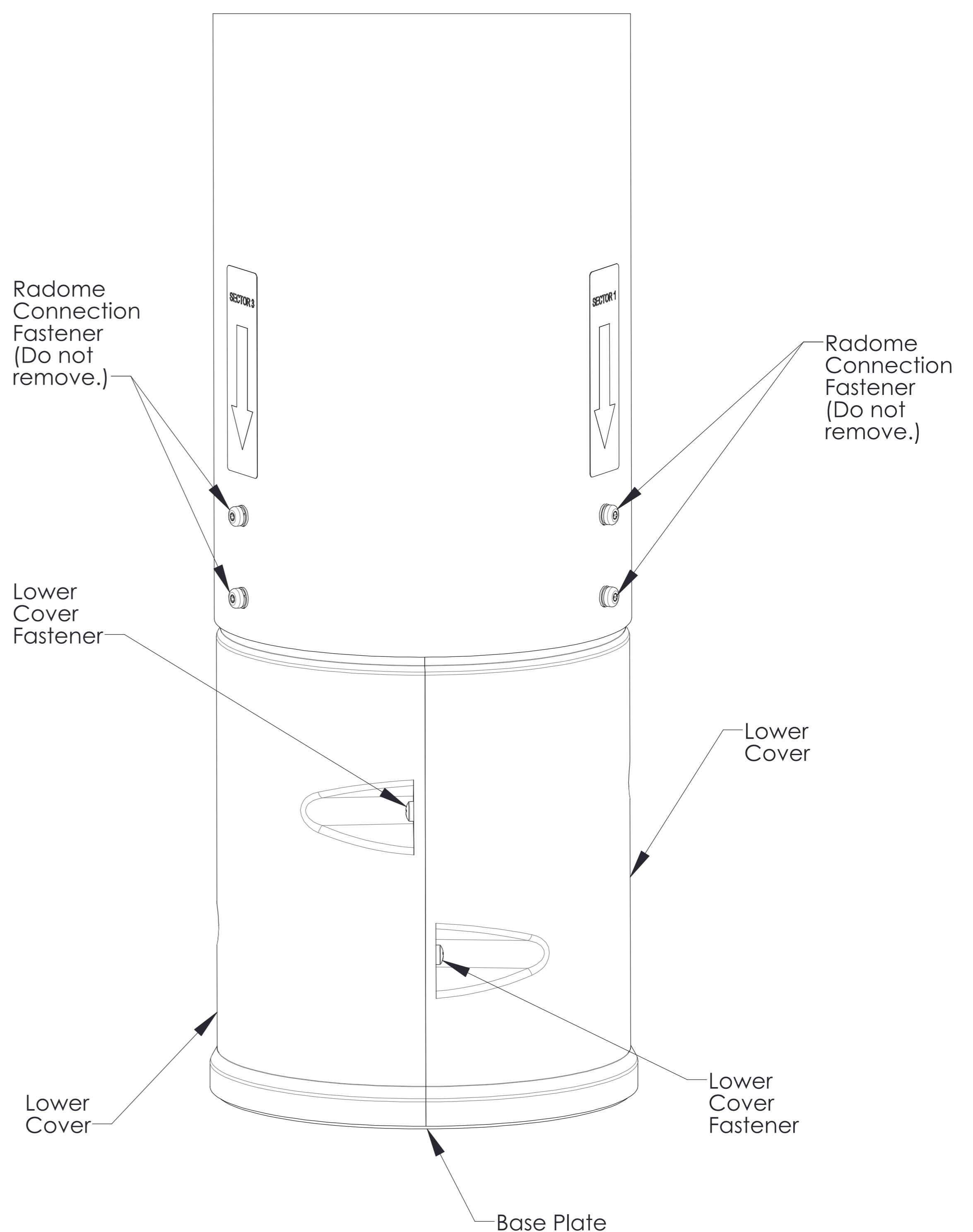


Figure 2. Removing Lower Cover.

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Bulletin 627085 • Revision D • September 2014 Page 2 of 5

- Refer to Figures 3, 4 and 5 for mounting and boresite alignment. It is recommended that the mounting holes be marked and made ready in the mounting surface prior to installing the antenna.

- Using customer supplied hardware, mount the base plate of the antenna to the mounting surface. Tighten hardware to securely anchor the antenna.

The boresite of each antenna is shown by the boresite indicator (featured in Figure 5). The direction of each antenna must be considered prior to mounting to ensure desired performance.

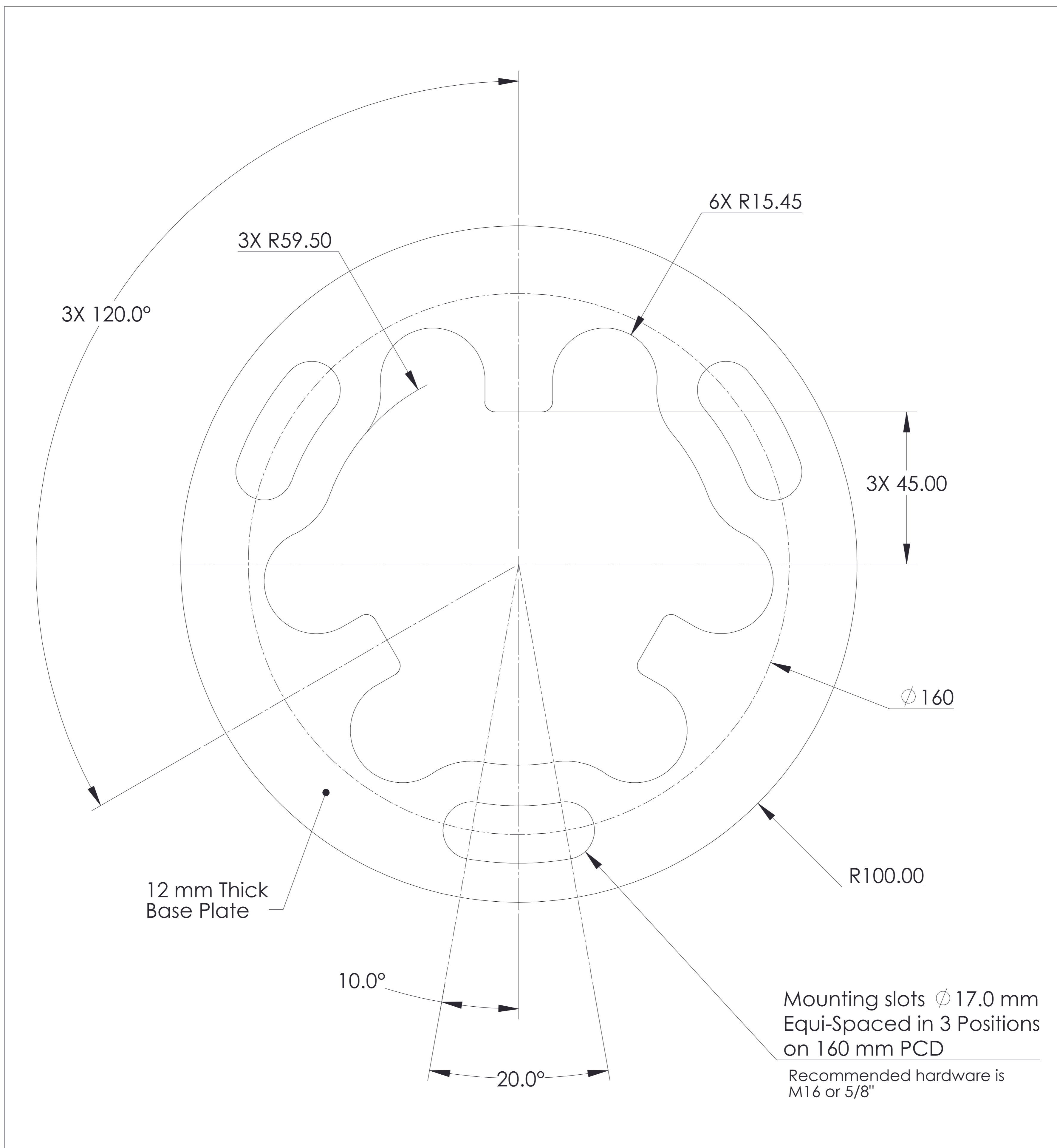


Figure 3. Mounting and Cable Routing Holes on Base.

4. Remote Electrical Tilt Connection.

The AISG connector fitted to the antenna is designed to accept any AISG compliant assembly. After ensuring the connector is dry, push in the mating connector. Tighten the AISG mating connector by hand only. Do not apply any more rotational force to the AISG mating connector than needed to properly mate the seal and do not exceed 1.1 Nm. Using excessive torque may damage the AISG connection in the antenna. If needed or required by local procedures apply mastic (or similar waterproofing) to the mating connectors (Figure 4).

5. Attach the RF cables to the antenna input connectors and torque to 25-30 Nm (Figure 5).

Route RF cable along metal rails, etc. as much as possible, to enhance noise and lightning immunity. The antenna base provides openings that can be used to route cable through the base when mounting on a monopole (Figure 3).

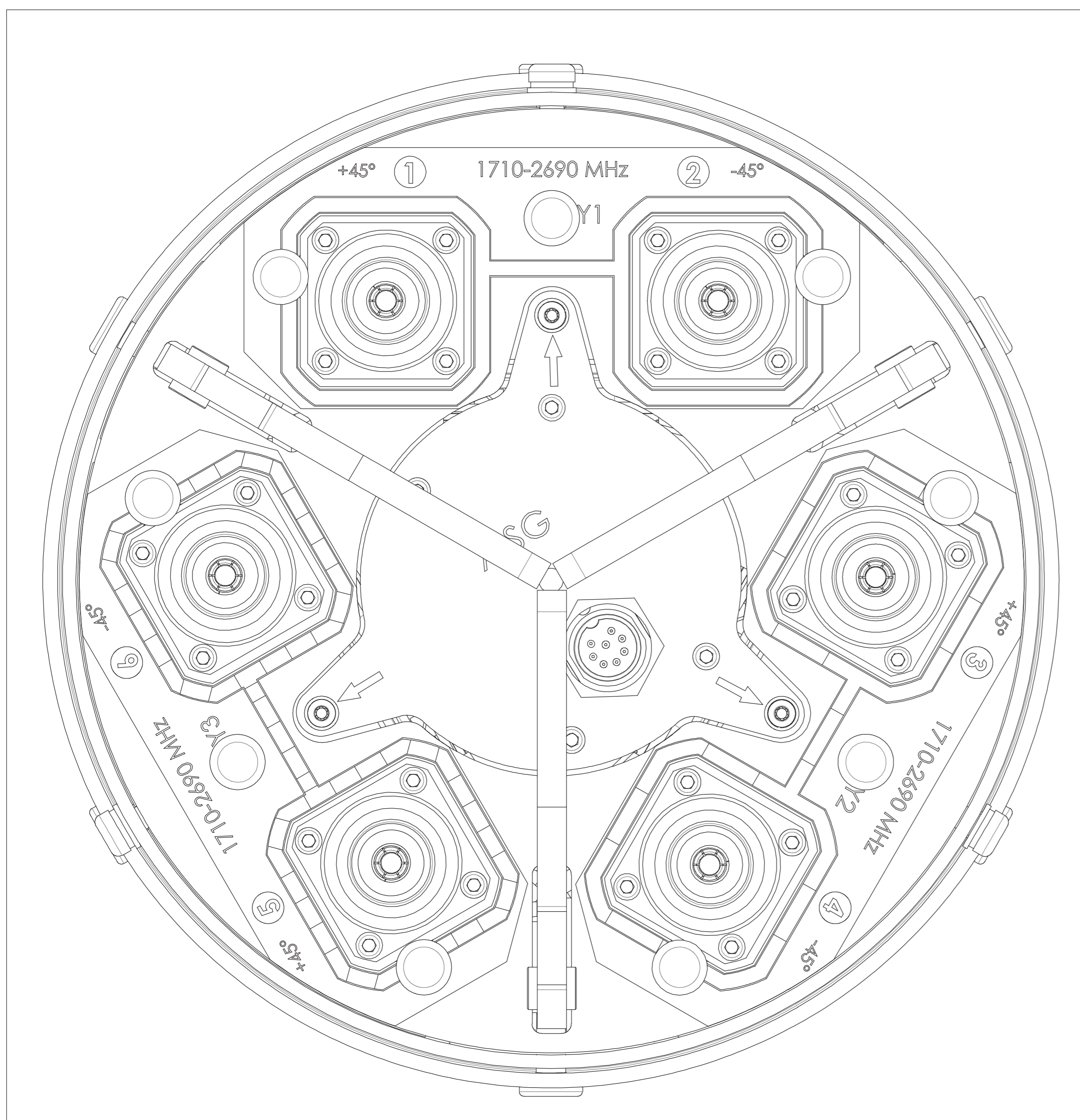


Figure 4. Connector Interface.

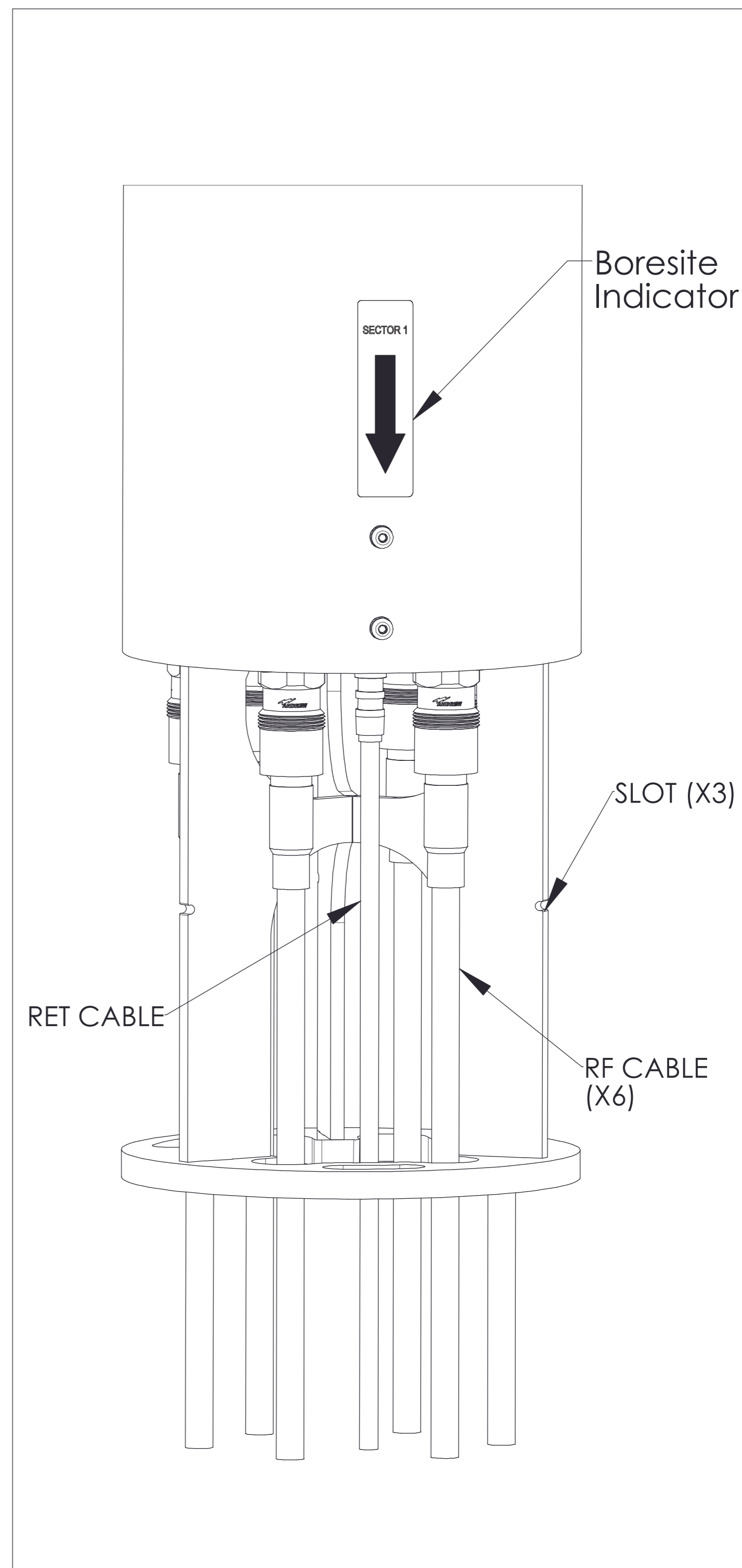


Figure 5. Routing Cables.

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6. Once the antenna is correctly installed and positioned and all RF cables, RET cable and securing hardware are correctly tightened, the lower covers should be re-attached.

**When installing the lower covers, make sure the screws attach to the cover (Figure 6), then fit the rib, see Figure 7, to the slot, and then tighten screws.**

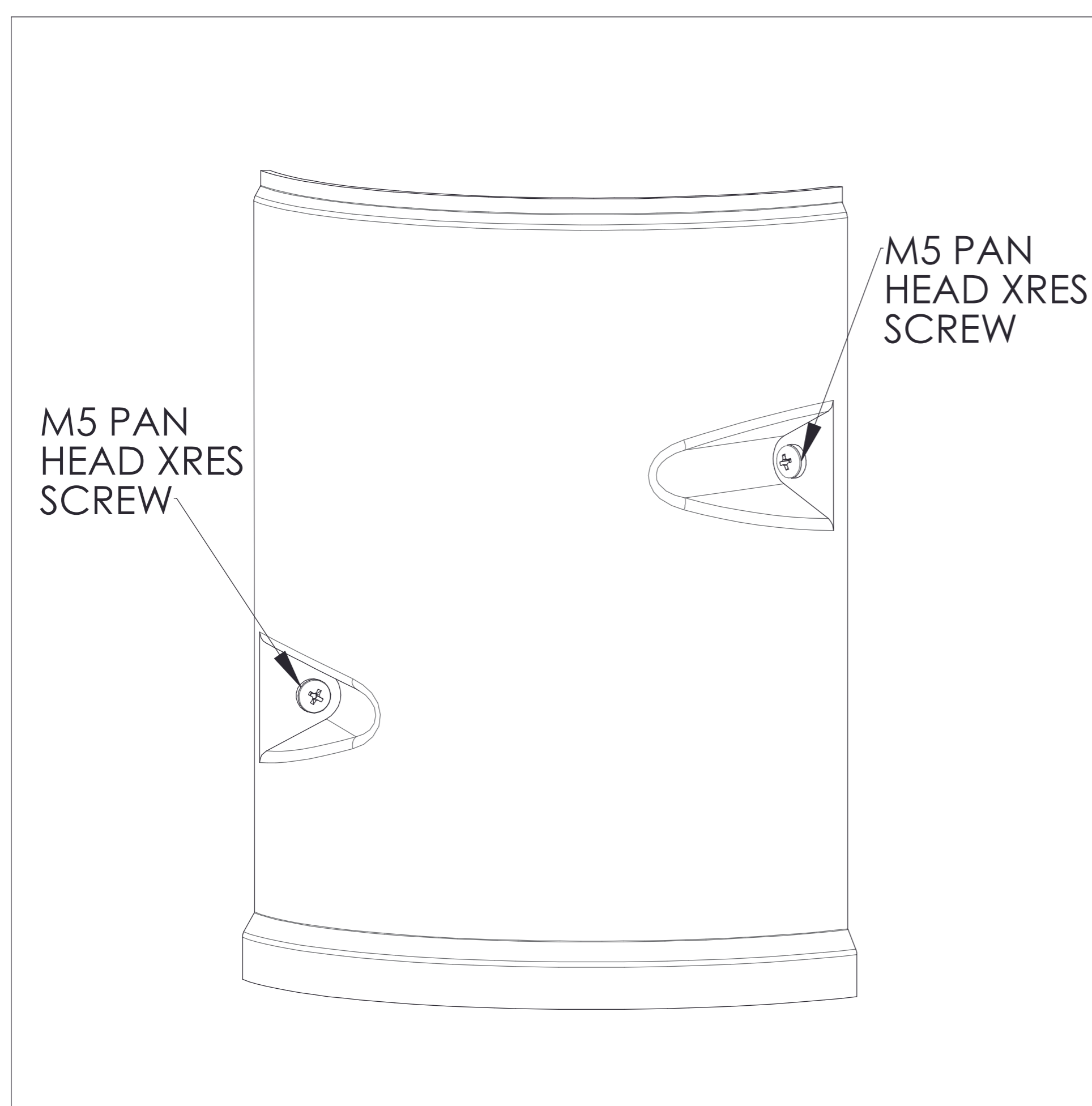


Figure 6. Cover with attached screws

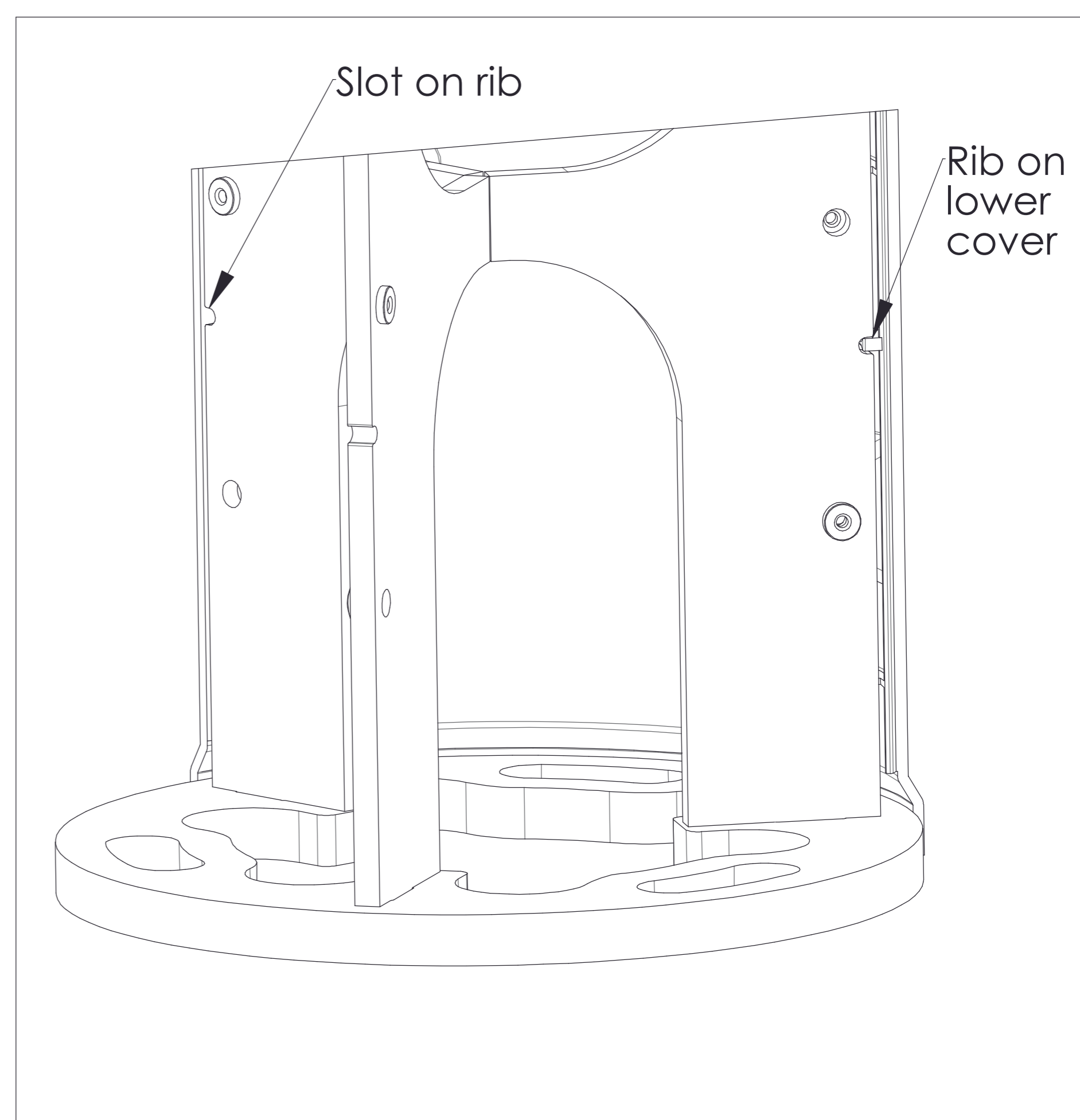


Figure 7. Location of rib on lower cover.

## 7. Optional action

3X-V65A-3XR contains DC grounding on the feed networks. The eye bolt is intended for lifting the antenna and is sealed against water ingress but is not part of a lightning protection circuit. For normal operating conditions it is recommended that the eye bolt be left in place after installation. For some special cases the customer may wish to remove the eye bolt. For these situations the eye bolt may be replaced with a plastic cover using the following instructions.

**Take off the eye bolt, metal washer and silicone washer; Clean the silicone adhesive on screw and endcap. (Figure 8)**

**Install silicone washer and nut, top cap on screw with torque 2~3Nm. (Figure 9)**

**Check the nut, top cap is well installed. (Figure 10)**

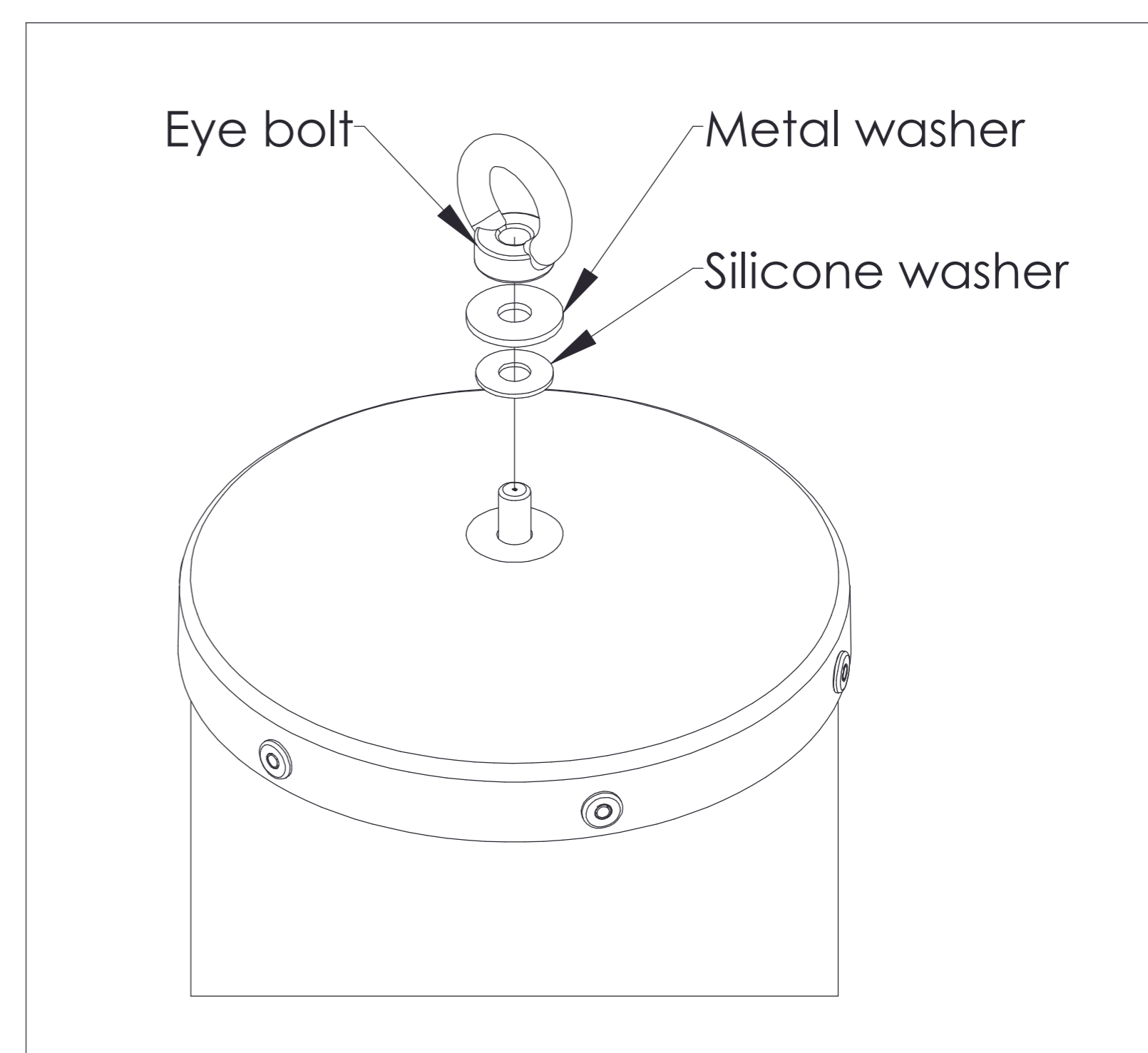


Figure 8

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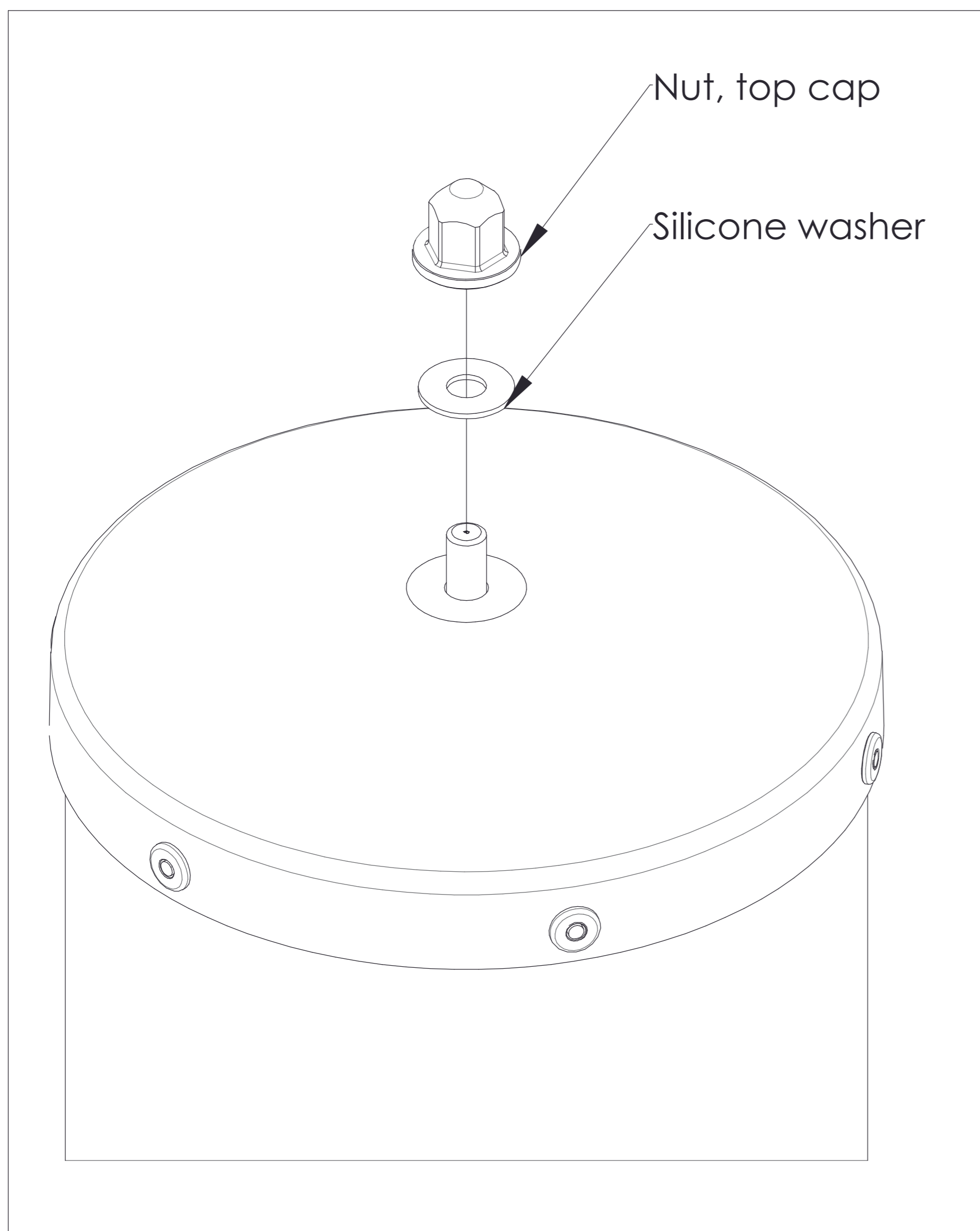


Figure 9

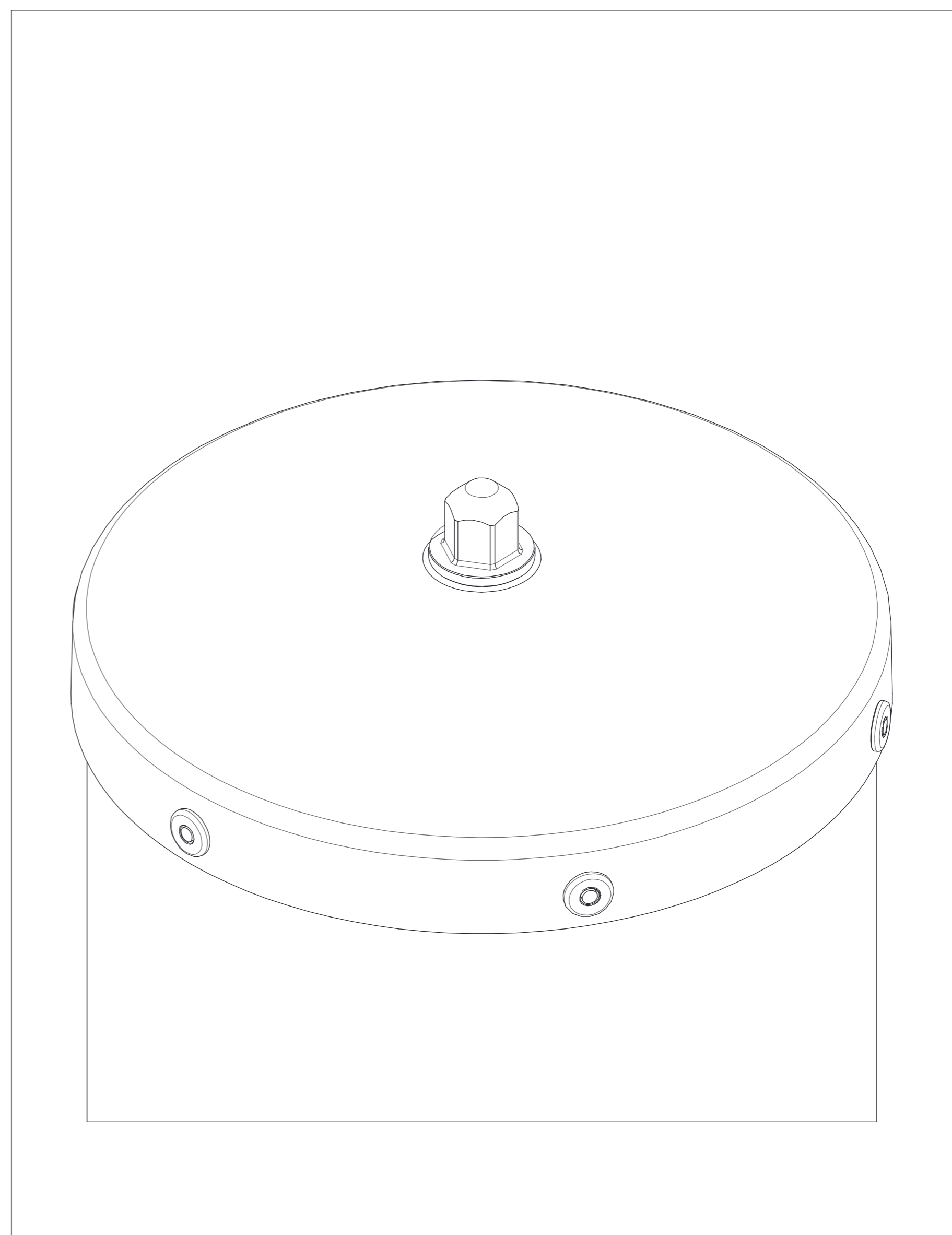


Figure 10

**SAFETY NOTICE**

The installation, maintenance, or removal of an antenna requires qualified, experienced personnel. CommScope installation instructions are written for such installation personnel. Antenna systems should be inspected once a year by qualified personnel to verify proper installation, maintenance, and condition of equipment.

CommScope disclaims any liability or responsibility for the results of improper or unsafe installation practices.

It is recommended that transmit power be turned off when the field installation is performed. Follow all applicable safety precautions as shown on this page.



Do not install near power lines. Power lines, telephone lines, and guy wires look the same. Assume any wire or line can electrocute you.



Do not install on a wet or windy day or when lightning or thunder is in the area. Do not use metal ladder.



Wear shoes with rubber soles and heels. Wear protective clothing including a long-sleeved shirt and rubber gloves.

**CommScope**

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