

Non Penetrating Roof Mount Installation Instructions

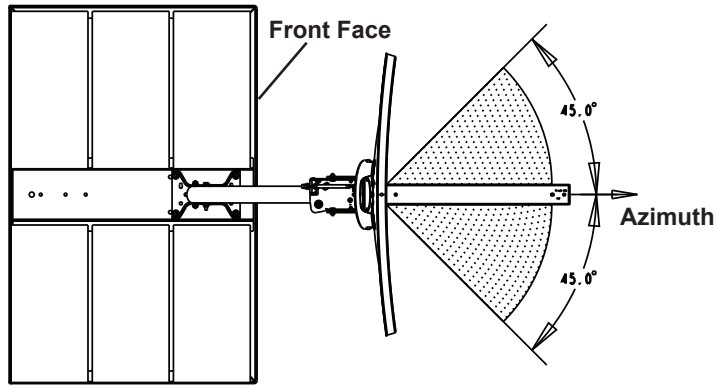


Figure 2

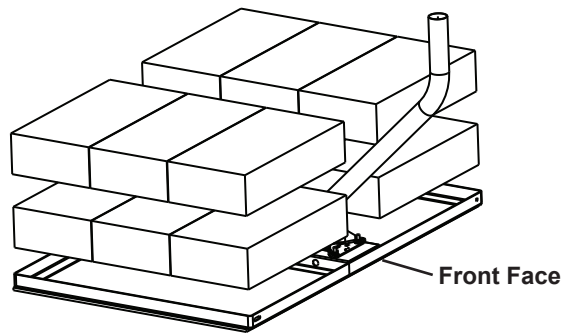


Figure 3

Overview

This mount is designed for use with smaller residential style satellite antennas and other small antennas. This mount is intended to be installed in areas in which anchoring to the structure is prohibited or not recommended. A rubber mat is highly recommended for use with this mount.

Mount Contents:

- Mounting Frame
- Hardware Kit
- Rubber Mat (optional on some models)

Tools Required for Installation (Mount Only):

- 7/16 inch Wrench, 7/16 inch Socket and Ratcheting Wrench,
- Torque Wrench, Compass, Level

Additional Materials Required:

Solid Concrete Blocks (4 x 8 x 16). See Table 1.

Use of other block sizes not permitted.

If tethering the mount is required:

- Use Stranded Aircraft Grade Cable
 - Stainless or Galvanized Steel
 - 1500 lb minimum breaking strength
- Cable Clamps

Ballast Requirements (lbs)

| Wind Speed | 46 cm Dish 300 | 51 cm Dish 500 | 60 cm 24-inch Dish 1000.2 | Dish 1000.4 |
|------------|-------------------|-------------------|---------------------------------|-------------|
| 80 mph | 210 | 280 | 420 | 420 |
| 100 mph | 350 | 420 | 560 | 560 |
| 120 mph | 420 | 560 | 1050 | 1050 |

Table 1

Warnings and Safety Instructions

Installation of this mount near power lines or electrical wiring is dangerous. This mount should not be located within 20 feet of overhead power lines or other electric light and power circuits or where the mount can come in contact with power lines or circuits. When installing an antenna on this mount, extreme care should be taken to avoid contact with power lines, electrical wiring or electrical circuits, as contact with these objects may result in severe injury or death.

Local Building and Electrical Codes as well as any Local Covenants should be reviewed to determine if the installation conforms to any requirements not mentioned here. If you are unsure, contact a licensed building inspector in your area.

This mount must be electrically grounded according to the applicable Building and Electrical Code and all other applicable local building codes.

Installation of this mount is at the discretion and is the responsibility of the installer and facility owner. The load limits of the supporting structure should be determined and reviewed by a certified engineer. The antenna weight, mount weight and ballast requirements of this mount may exceed the safe structural loading for certain buildings.

When exposed to strong winds in excess of 80 mph, even a small antenna will exert several hundred pounds of load on the mounting surface. The structure on which this is mounted is very critical to the functionality and performance of the antenna and mount. The rubber mat, ballast specification, antenna size and mounting requirements must also be adhered to very stringently. If these instructions are not strictly followed, the wind load survivability, mount warranty and any structural damage are the sole responsibility of the installer.

This antenna was tested on a rubber membrane, a granular bitumen membrane, and a concrete roof surface. A mat is highly recommended for use with this mount and is required on elevated roof structures to prevent damage to the roof. All wind load calculations are based on the use of a rubber mat and rubber, granular membrane or concrete roofing material. If a mat is not used or the mount is installed on a different roofing material, ballast and load calculations should be determined or specified by a certified engineer.

This mount is not recommended for use with antennas larger than 32 inches in diameter.

Tethering the mount with the use of cable may be necessary in certain applications as required by Local Building Codes, and is highly recommended for installations where the wind load requirement exceeds 100 mph.

If tethering the mount is necessary, the mount can be tethered by attaching cables to the holes and slots near the corners of the mount. A minimum of three cables should be used, and the cables should be tethered to three different mounting locations on the structure. The angle between any pair of adjacent cables should be roughly the same and should be less than 140 degrees.

Installation and Assembly Instructions

1. Determine the Azimuth reading for the installation.
2. Choose and prepare the installation site per the following requirements:
 - a. Choose a location to install the mount that has a clear line of sight for the antenna to the sky without any obstructions whatsoever. Make certain that the antenna will not experience signal blockage due to trees, buildings or utility poles and wires. Also make sure the antenna sight would not be affected by tree growth or other foliage over time.
 - b. Make certain the mounting structure will support the weight of the antenna, mount and ballast.
 - c. Make certain the mount is positioned so that the antenna will be pointed to within 45 degrees parallel to the long front face of the mount.
 - d. If tethers are required, the tether attachment points or locations should be solid enough to withstand 1500 lbs of tensile loading from the cable tether.
 - e. Remove any rock, gravel or other objects to provide a clean and level surface on which to install the rubber mat and mount.
3. Place the rubber mat on the installation surface.
4. Assemble the mast / foot assembly supplied with the antenna, to the center plate of the non-penetrating roof mount using the four screws and nuts provided. The mast should be extended over the edge of the mount. Torque the hardware to 120 in-lbs minimum. See Figure 1.
5. Place the mount and center it evenly on the rubber mat. The mount should set level without rocking. **Do not shim or raise the frame from the mounting surface in any way.**
6. Using a compass, align the mast and antenna toward the satellite or azimuth position determined in step 1. The mount should be aligned to within 45 degrees of the azimuth. See Figure 2.
7. Ground the mount as required by the applicable Electrical Code.
8. Plumb the upper portion of the mast using the level and torque the mast / foot assembly as required.
9. Install the proper amount of ballast on the frame according to Table 1. The ballast should be distributed evenly. See Figure 3.
10. Install the antenna according to the manufacturer installation instructions.

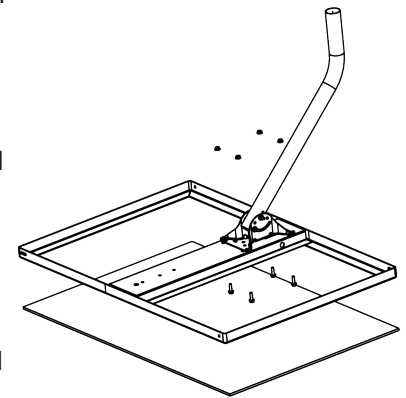


Figure 1