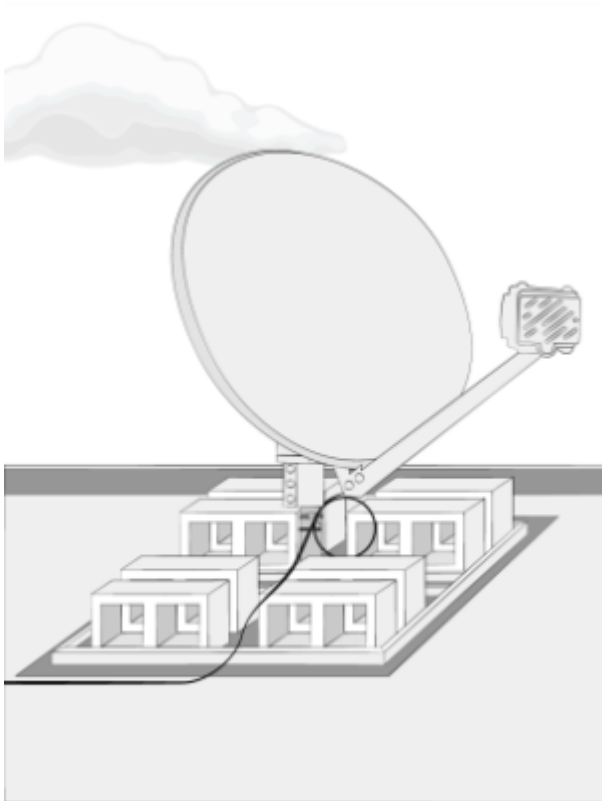


# Non-Penetrating (Non-Pen) Roof Mount



## Surfaces

The *only* approved location for a non-pen mount is on a **flat roof**.

**Note:** The Low Profile “Stub” Mount is approved and recommended for use with the Non-Pen Mount.

# Structural Elements

None

## Important considerations

**DANGER!** Locate power lines before you start the installation. These include overhead and underground power lines, electric lights, and power circuits.

- The non-penetrating roof mount is one of the specialized mount types that require additional materials for installation, which may lead to additional time and materials costs for the customer
- Only use Viasat-approved non-pen mounts listed in the Viasat Approved Materials List job aid

## Other Considerations

- The ground block must be within 20 feet of the NEC approved ground
- The total cable run from the modem to the TRIA must be less than 150 feet
- All antennas must be located at least 20 feet from any overhead power lines and 3 feet from any standard power circuit or electric light
- Position the mount antenna so that the bottom of the reflector is at least 4' above any walking surface

# Mounting Materials for Non-pen Mount

The Technician must provide the following materials:

- The non-pen mount – listed in the Viasat Approved Materials List job aid
- A minimum of 8, 28-pound cinder blocks. Use more ballast in windy areas. Follow manufacturer's instructions if they recommend more ballast
- A protective rubber mat to place under the mount

## Installing a Non-Pen Roof Mount

Cover the flat roof with a rubber mat to protect it from the non-pen.

Follow manufacturer's instructions for assembling the non-pen and mast tube, and place the mount and mast tube on the rubber mat.

Add ballast, following manufacturer's instructions, or at minimum, 8 28-pound cinder blocks.

- **Preferred:** Low Profile mount
- Level the mast tube

- *If needed:* Straight non-pen mast tube with 4 monopoles that come with the mount
- Attach the monopoles to the frame of the non-pen mount
- Level the mast tube
- *If needed:* Sloped Roof mount (with monopoles):
- Attach the monopoles to the frame of the non-pen mount
- Level the mast tube

**Note:** Non-pens may have pre-drilled holes in the frame, where you can attach the monopoles to the frame. In some cases, you may need to use a metal drill bit to drill holes in the non-pen mount frame, to accommodate the monopoles.

Once the mast tube is level, perform a quick tug test on the mount to verify that it is stable. Then you are ready to attach the antenna.