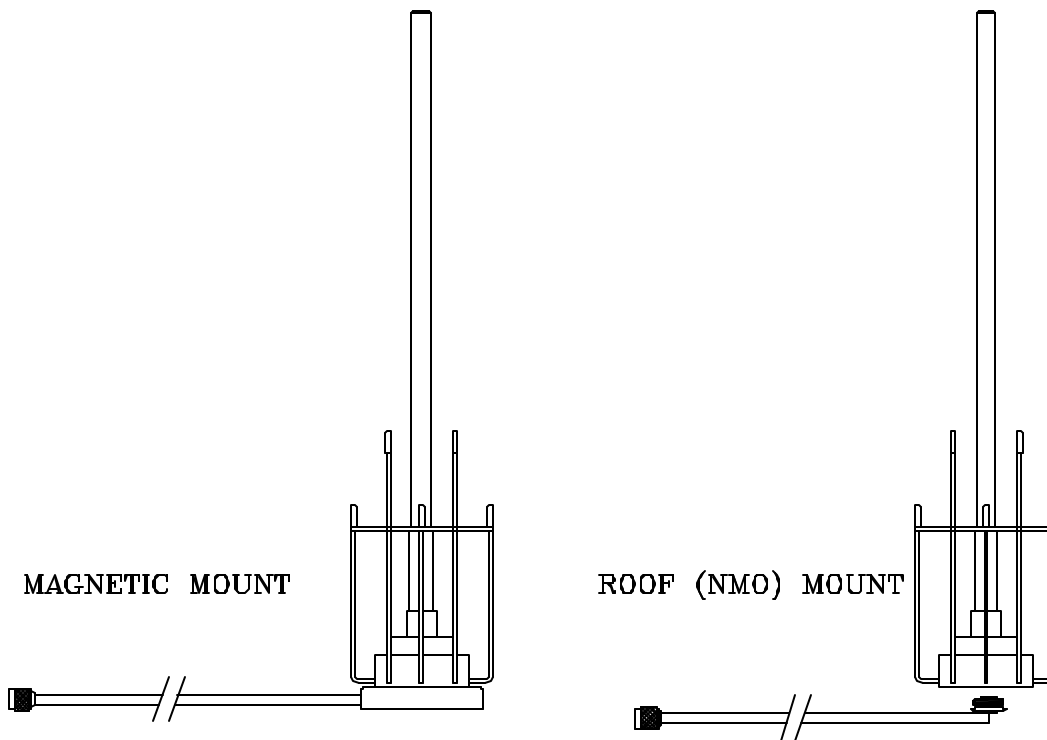


## Cellular Mount Installation Considerations Magnetic Mount, Tri-Band VHF/UHF/CEL

MODELS: MGNT-TB-V/U/C, MGNT-TB-V/U/C-N, ROOF-TB-V/U/C



### VERIFY:

1. **Part List:** The package includes an antenna, feedline, three jumper cables, and a coupler box. Use only the components supplied with the antenna.
2. **Bandwidth:** The Tri-Band Antenna operates 24 MHz wide between 150 MHz to 174 MHz, 106 MHz wide between 406 MHz to 512 MHz, 90 MHz wide between 806 MHz to 896 MHz.

### INSTALLATION: MAGNETIC MOUNT

1. **Placement:** Select the flattest surface in center of the roof or trunk lid.

**Note:** If the area is convex, a rocking motion will be encountered. A concave surface will reduce the magnet's holding power affecting the quality of the antennas "RF" ground.

Keep in mind that some vehicles will have aluminum or composite trunk lids.

2. **Run Cable:** Route coaxial cable toward the two-way radio. Damage to vehicle and antenna may result from closing window or trunk lid onto a cable junction. Cable will normally not be damaged by opening and closing the window or trunk.



**Note:** Be careful not to tear the sheath of cable when pulling through sharp body panels. If a hole appears in the cable's sheath, cover with several layers of a high quality electrical tape.

3. **Electromagnetic interference:** Do not coil feedline cable or matching network. If limited space is a concern, fold the cable upon itself rather than coiling. Do not tape or secure any feedlines to data or vehicle cables during installation.

4. **Cable Cutting:** If desired, cut the feedline cable to the length required to reach the transmitter.

**Note:** The feedline may be cut only between the last cable junction and transmitter (Refer to the VHF Cellular Look-Alike Antenna Cabling Diagram drawing).

5. **Install Connectors:** Refer to drawing below: Cable Stripping Dimensions (Drawing is not to scale).

## INSTALLATION: ROOF (NMO) MOUNT

6. **Placement:** Select a desired location for the antenna; it may be mounted on roof or trunk lid. When mounting antenna on the roof, remember to allow room for the feedline.

**Note:** Keep in mind that some vehicles will have aluminum or composite trunk lids.

Drill 3/4" hole. Remove any burrs above and below the hole.

**Note:** Be careful not to tear the sheath of cable when pulling through sharp body panels. If a hole appears in the cable's sheath, cover with several layers of a high quality electrical tape.

7. **How to attach:** Insert RF cable through the hole from outside of vehicle.

Tilt the antenna base slightly and insert into mounting hole.

Thread the locking nut, with "O" ring seated in groove, onto base and tighten. Make sure mounting base is centered and shoulder is seated properly. Locking nut must compress "O" ring and contact with vehicle.

8. **Assemble:** Assemble the remainder of the antenna as shown. Apply a small amount of silicone grease to spring loaded pin in base and the stud that the mast threads onto.

9. **Cable Cutting:** At least 5 feet of feedline cable must remain attached to the antenna base (See the Roof Mount Antenna drawing). Cut the feedline cable (**after the 5 foot mark**) as necessary to reach each transmitter.

10. **Install Connectors:** Refer to Cable Stripping Dimensions diagram.

## TESTING:

Installation testing must take place at the transmitter side of the feedline. Make sure all doors, the hood, and trunk are closed.

**Note:** Some vehicles are sensitive to VHF frequencies. STI-CO suggests that you isolate feedlines and check for unwanted interference with the ignition switch on.

1. **Reflective Power:** A measurement of reflective power using a wattmeter, you can expect up to 11% reflected power. When results are greater than 11%, reposition antenna.
2. **SWR:** A measurement of SWR (standing wave ratio) will yield better than 2:1. If greater than 2:1, reposition antenna.
3. **Continuity:** A test of continuity between the center pin and ground will show as a short for this antenna.

**CAUTION: The antenna must be removed before entering a car wash.**