

# Cellular Mount Installation Considerations Roof Mount, Dual Band, VHF/UHF Antenna

## ROOF-DB-VHF/UHF

### VERIFY:

1. **Part List:** The package includes antenna, cable(s), coupler, connectors and hardware (See drawing). Use only the components supplied with the antenna. I.e. mast, couplers and cable.
2. **Bandwidth:** VHF/UHF Broadband antennas are 24 MHz wide, within the range of 150-174 MHz, and 20 MHz wide between 406 and 512 MHz. Extended tuning ranges are available. Be certain that the antenna was tuned to the frequencies required.

### INSTALLATION:

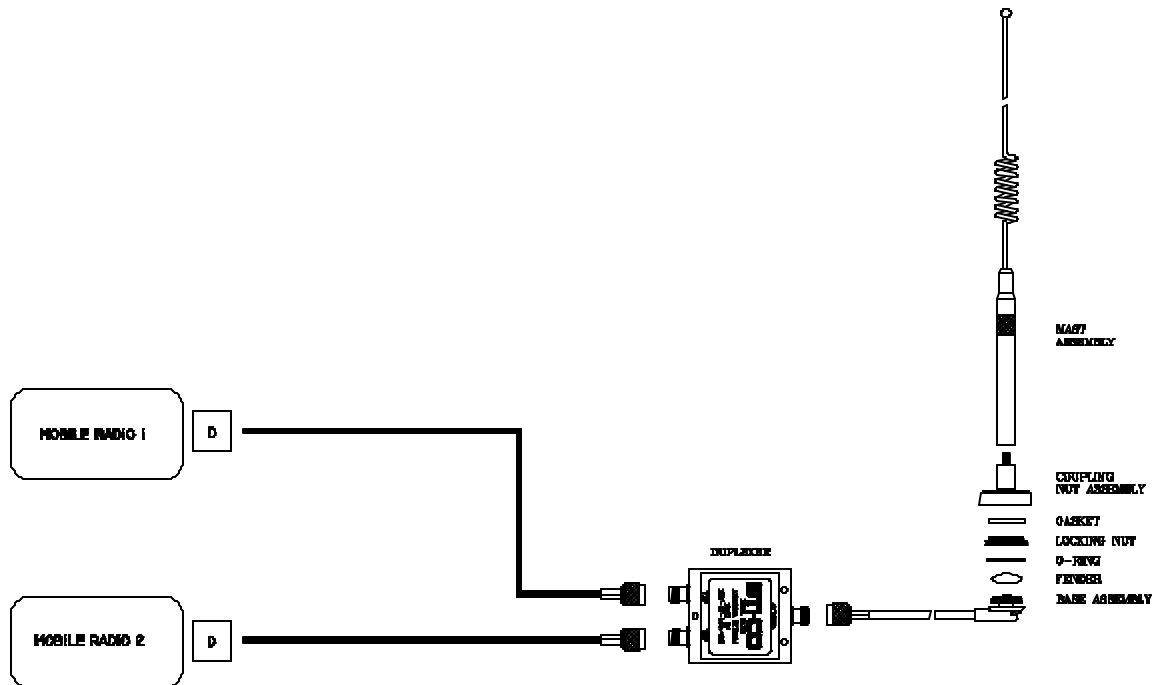
1. **Placement:** Select a desired location for the antenna; it may be mounted on roof or trunk lid. When mounting antenna on the roof, remember to allow room for duplexer unit and feedlines.

**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.

2. **How to attach:** Insert RF cable with TNC connector through hole from outside of vehicle.



VHF/UHF Dual Band Antenna Installation Diagram



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.

3. **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.
4. **Interconnect:** Refer to the VHF/UHF Dual Band Antenna Installation Diagram on the following page. Do not tape or secure any feedlines to data or vehicle cables during installation. Remove red fit caps and connect the VHF radio to the port marked "VHF" and the UHF radio to the "UHF" port.
5. **Cable Cutting:** Cut the feedline cable to the appropriate length required to reach the transmitter. Note: The feedline cable may be cut at any point between the duplexer unit and the transmitter.
6. **Install Connectors:** Refer to Cable Stripping Dimensions diagram.

## TESTING:

Installation testing, if required, must take place at the transmitter side of the feedline. This will ensure that the cable connectors and cables have the proper continuity. Make sure all doors, hood, and trunk are closed. The coupler can is part of the tuning network and needs to be in line for proper test results.

**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%, recheck grounding.
2. **SWR** - A measurement of SWR (standing wave ratio) will yield better than 2:1. If greater than 2:1, recheck grounding.

**CAUTION:** *The mast must be removed at the knurled portion of the mast assembly before entering a car wash.*