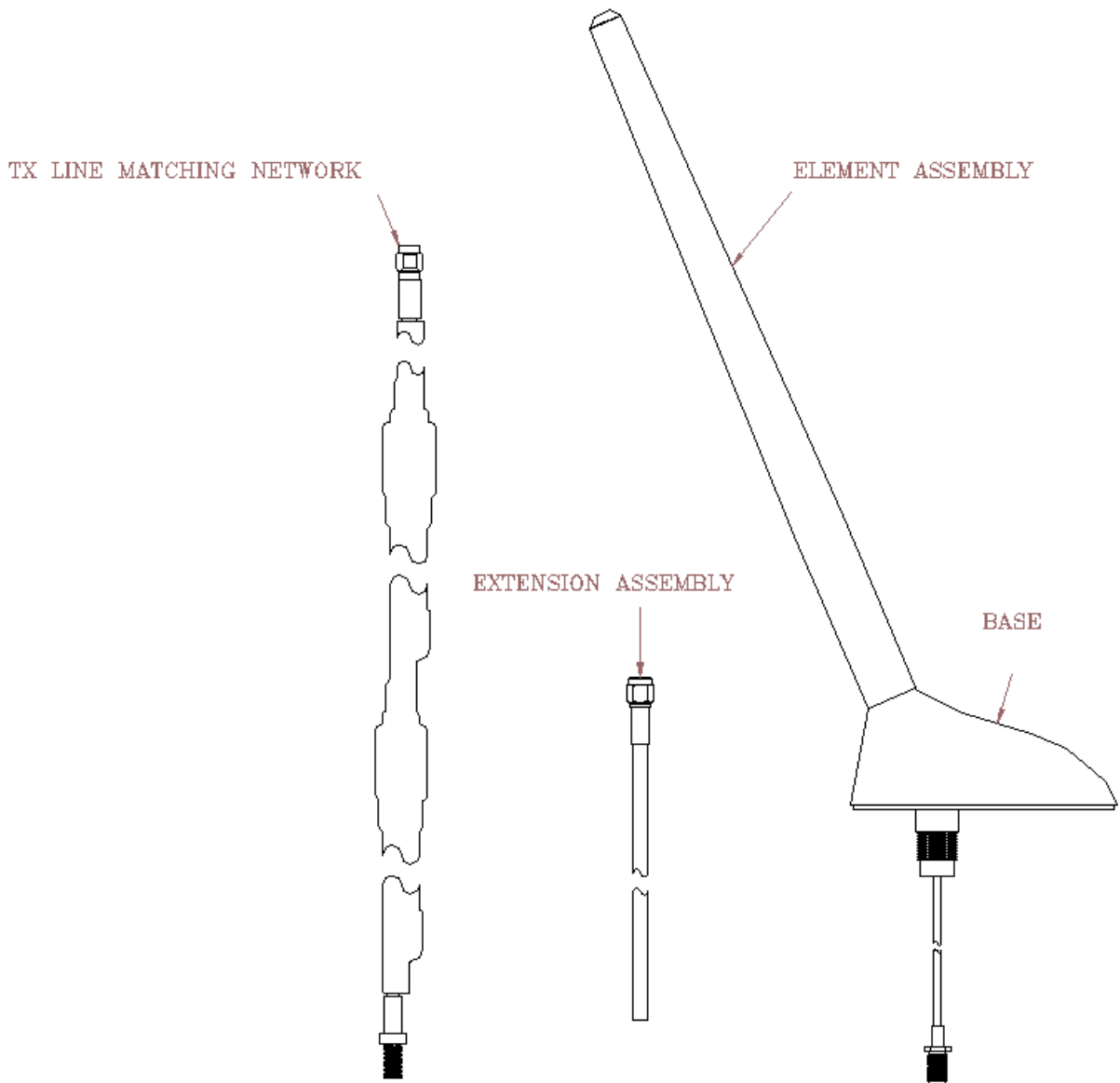


# OEM Roof Mounted Installation Instructions Superband<sup>®</sup>, VHF Antenna

MODEL: CPMT-SB-VHF

**VERIFY:**

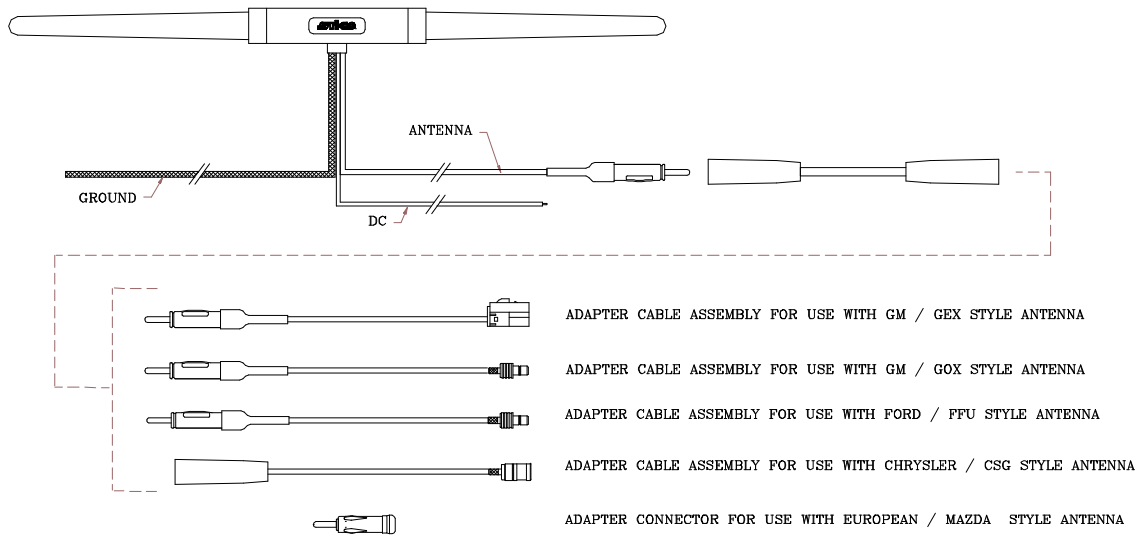
- A. System Parts:** The system package includes the antenna base, element assembly, transmission line matching network, 16 foot cable extension, and RF connectors (if applicable). Use only components supplied with the antenna system (Refer to Figure 1.).



**Figure 1: Antenna System Parts**

- B. Bandwidth:** This is a VHF Superband<sup>®</sup> antenna. It was designed to operate between 150 and 174 MHz only. Using this antenna at other frequencies could result in damage to the radio system.
- C. AM/FM Replacement Antenna Parts:** A replacement antenna for the AM/FM broadcast bands has been included with this package. This is a glass mount antenna and will replace the OEM roof mount antenna. (Refer to Figure 2.)

**Figure 2: AM/FM Replacement Antenna**



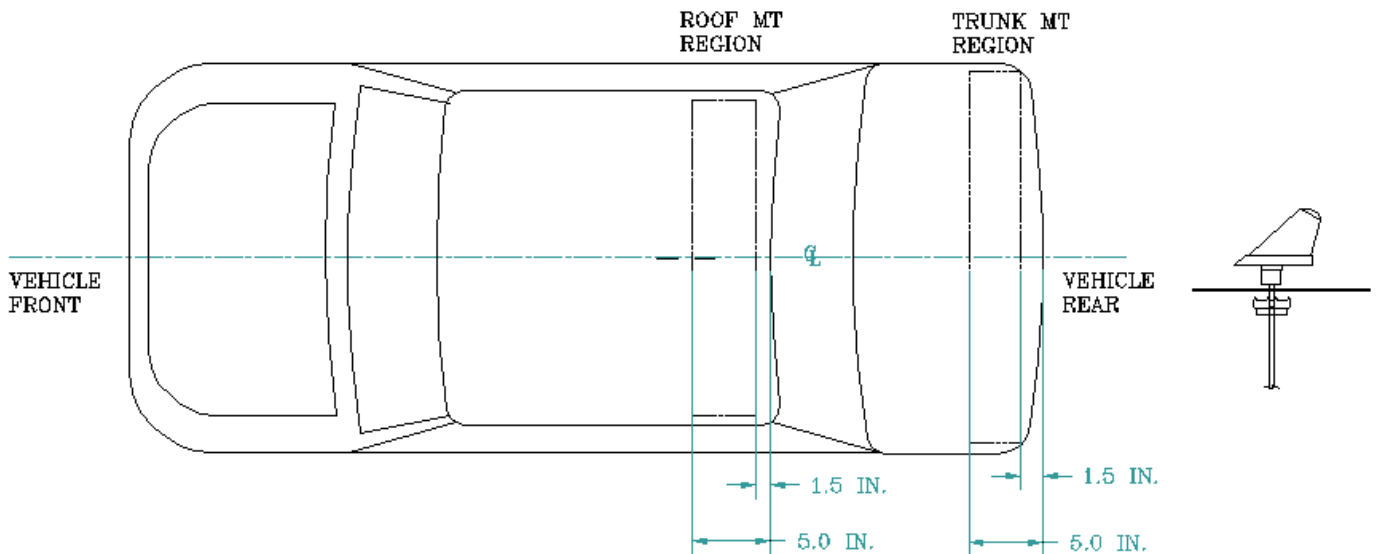
**INSTALLATION:**

**A. Antenna Mounting Location**

The antenna shall be located on the roof or the trunk of the vehicle subject to the following restrictions:

1. ROOF MOUNT: The antenna must be mounted inside an area extending from both sides of the vehicle and from 1.5 inches from the rear edge of the roof to 5 inches from the rear edge of the roof.
2. TRUNK MOUNT: The antenna must be located inside an area extending from both sides of the vehicle and from 1.5 inches from the rear edge of the trunk to 5 inches from the rear edge of the trunk.

**WARNING! If the antenna is not mounted as described above and depicted below it will likely not function as designed. The operator will likely see a sharp increase in SWR if not mounted properly.**





## B. Antenna Mounting Procedure

1. Remove "one way clips" on the inside roof panel near the window and set aside.
2. Remove OEM antenna connection for the AM/FM radio and allow the cable to hang. **Note: Some applications do not have existing OEM antennas. In that case a 3/4" hole is required.**
3. Using an adjustable wrench, remove the OEM antenna.
4. Position the disguised antenna mount into the mounting hole from the top of the vehicle. Note: This step may require an assistant to hold and align the new antenna.
5. Connect the transmission line matching network to the antenna's cable (pigtail) and connect the extension cable to the end of the matching network. Trim the excess cable extension. **Note: Do NOT overtighten the SMA connectors.**
6. Install the GLMT-AMFM antenna near the top center of the rear window. This will allow access to the +12VDC power feed in the vehicle roof and attachment of the AM-FM antenna lead to the vehicle harness AM/FM feed to the car radio.
7. Attach the +12vdc power lead from the GLMT-AMFM antenna to the +12vdc power lead, disconnected or unplugged, from the vehicle wiring harness, at the beginning of the installation, with the electrical splice connector supplied with the unit.
8. Attach the ground lead from the AM/FM antenna to any appropriate grounding location.
9. Choose the appropriate Glass mount AM/FM antenna lead adapter cable assembly for the vehicle harness and connect it to the AM/FM antenna connection removed from the OEM antenna at the beginning of the installation.
10. Conceal excess cabling under the headliner.
11. Test both antennas before re-installing the vehicle's trim. (See below)

**Note:** Take care not to tear the sheath of the 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.

## 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.

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

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