

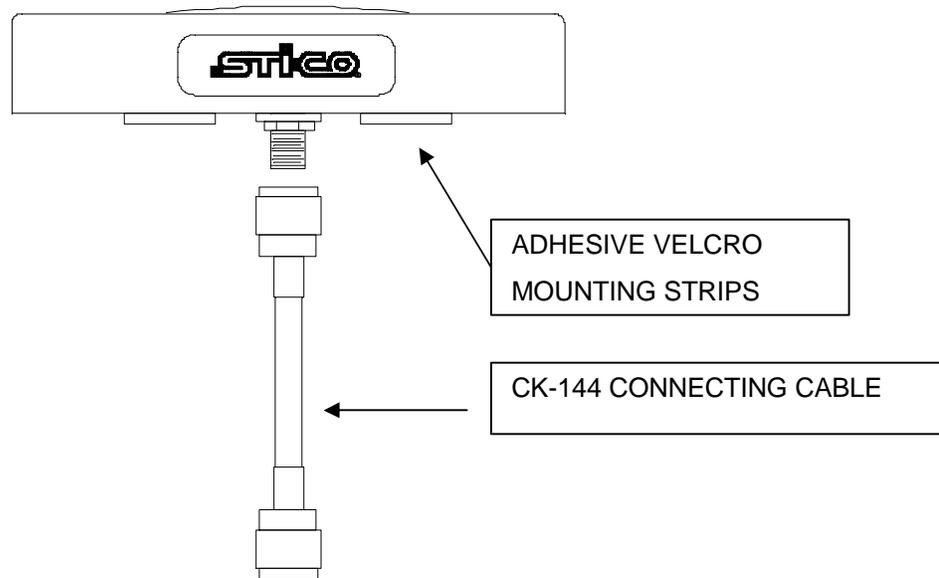
## Narrowband 4.7Ghz Antenna

RDCA-NB-4.7

### VERIFY:

#### Antenna Base

1. **Part List:** The system package includes antenna assembly and mounting. Use only components supplied with the antenna system (Refer to Figure 1-Parts List).
2. **Bandwidth:** 4.7Ghz Narrowband antennas are 500 MHz wide. The antenna is designed to operate between 4.4 GHz to 4.9 GHz unless otherwise specified.



**ANTENNA INSTALLATION:**

This antenna is designed with a universal mounting system HOWEVER due to the amount of differences between vehicle platforms we can't anticipate all of the challenges an installer may face. A certain amount of modification may be needed based on your particular installation.

The installation begins by locating a point on centerline of the back deck that is clear of any obstructions such as rear brake lights or safety belt restraint latches. The antenna base should be at least 6 to 8 inches from the rear glass. See reference A in figure 2 below.

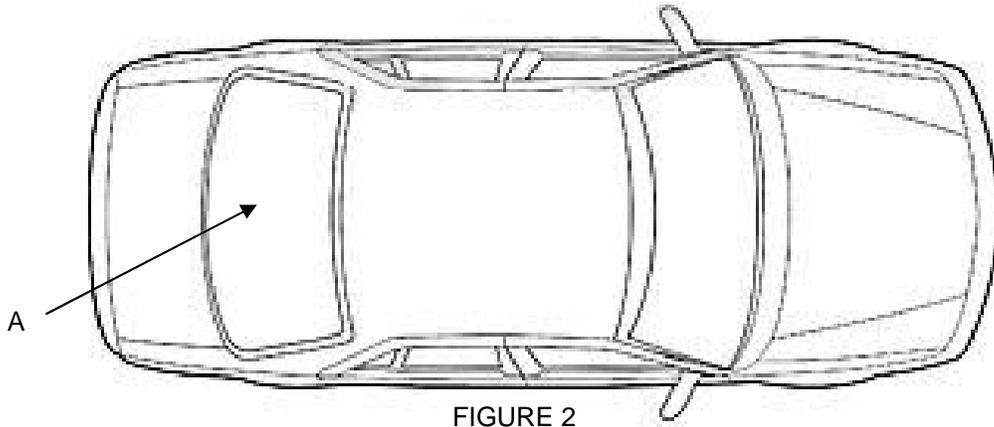


FIGURE 2

1. Drill a single 3/8" diameter hole from the underside of the deck through the metal frame as close to the chosen location as possible. Be careful not to go through the insulation in order to better conceal the base of the antenna.

Using a sharp knife cut a small slit or X over the top of the drilled hole to allow the top of the base to protrude.

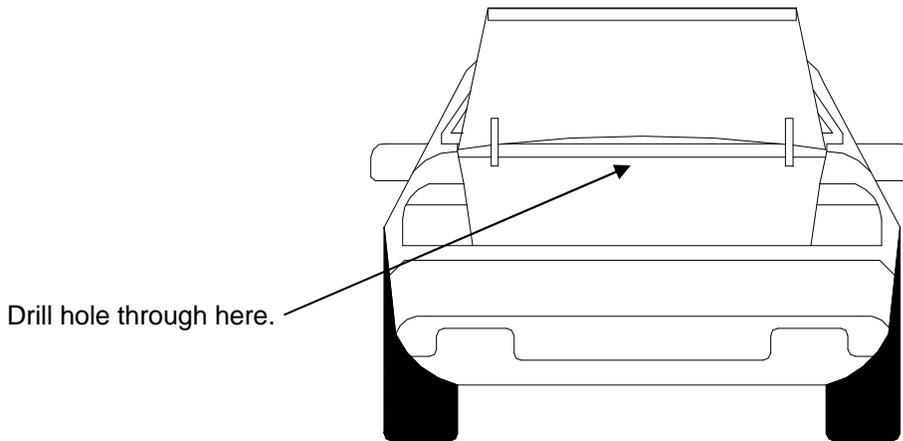


Figure 3



2. The base is designed to be held the base in place with 2 velcro strrips (supplied) to secure the assembly to the mounting structure
3. Connect radio transmit port to the antenna base using the CK-144 cable supplied.

**NOTE** It is very important that the metal portion of the antenna is kept at least 1 inch away from any vehicle chassis ground points including vehicle frame, defogger wires, factory OEM in glass wires, trim screws etc. **NOTE:** Vehicles with aftermarket tint must have non-metallic tint.

## TESTING AND VERIFICATION:

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.

***Note:** Some vehicles are sensitive to UHF frequencies. STI-CO suggests that you isolate feedline 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.
3. Connect the feedline provided from the antenna base to a wattmeter. Connect from the wattmeter to the transmit radio. Set the radio to a frequency that is closest to the center of the band of operation. Measure the reflected power
4. Check the reflected power above and below the center frequency to verify antenna matching. Remove wattmeter and proceed to the final hook-up.
5. Connect the matching harness from the antenna base to the radio.
6. Installation is now complete.