



Installation Instruction

Mini-Mag High Frequency Antennas: Unity Gain

Models Covered:

I. CHOOSING A MOUNTING LOCATION

Your antenna can be mounted on either the front or rear window. It is a good practice to choose the mounting location which will require the least amount of coax cable to reach the cellular receiver.

INSTALLATION SHOULD NOT BE ATTEMPTED IN TEMPERATURES LESS THAN 65oF (18oC). THE GLASS MUST BE CLEAN AND DRY AND ANTENNA PARTS SHOULD BE AT ROOM TEMPERATURE.

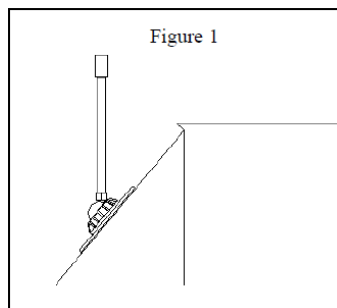
For best performance, the antenna should be mounted on an angled window. Mounting the antenna on a straight vertical window may result in intermittent or no communications. If the rear window is chosen, and the vehicle has a rear wiper, check wiper clearance. Your antenna may be affixed to windows with or without defroster wires. Some cars have a black decorative border painted on the top area of the glass. This has no effect on the antenna. The antenna may be affixed onto this black area if desired. Make sure you have clearance on the inside of the vehicle for the internal coupling box.

The round mounting flanges allow the inside and outside to be easily aligned. The outer assembly can be mounted in any orientation. The top cable entrance on the inner transfer box allows easy routing to the vehicle's headliner. The GPS antenna is inside the coupling box and always faces out the window.

If the front windshield is chosen, avoid obstructing the driver's view. If mounting the antenna in the upper center of the front windshield, check the clearance of the internal coupling box to insure the rearview mirror will not be interfered with. Lay the external radiator assembly loosely on the glass close to the top edge of the window. A second ideal mounting location is in the upper right corner of the windshield to minimize viewing obstruction. **DO NOT REMOVE THE BACKING FROM THE ADHESIVE AT THIS TIME.** Temporarily hold in place and turn on the windshield wipers to check for clearance.

II. CELLULAR WHIP ALIGNMENT

The external whip attaches to a very unique ball swivel joint. Before inserting the whip into the ball swivel joint, make sure the threads in the hole are on the bottom side. If the threads on the inside of the hole are up, spin the ball so they are facing down. The cellular whip can be easily rotated to any vertical position and locked with a simple twist. If necessary, tighten lock nut at base of the antenna with a 1/4" open end wrench. This whip mechanism insures the whip will stay where it was installed (Fig. 1).



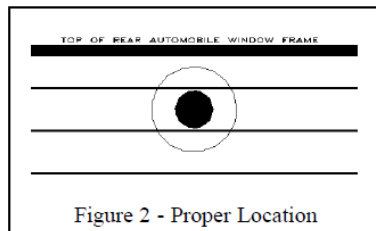
THE RADIATION PATTERN OF THE CELLULAR ANTENNA ALLOWS GOOD PERFORMANCE EVEN WHEN THE WHIP IS NOT PERFECTLY VERTICAL.

Once installed the cellular whip never needs to be removed; not even for carwashes. The very low profile of this antenna makes it perfect for mounting even on the front window, which can make cable wiring simpler

III. INSTALLING EXTERIOR PARTS

CAUTION: THE TAPE WILL ADHERE INSTANTLY UPON CONTACT, SO POSITION CAREFULLY!

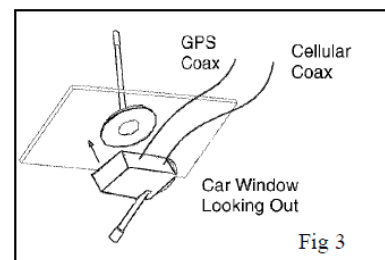
Avoid placing the center circle of the inside assembly over a defroster wire (see Fig. 2).



Remove the adhesive backing from the whip base. Press the assembly to the glass at the chosen mounting location and apply FIRM pressure around the entire flange.

IV. INSTALLING INTERNAL PARTS

remove the adhesive backing from the internal coupling box. While looking through the glass from the inside, carefully align the internal coupling box with the external whip base, then press FIRMLY onto the glass. The rod on the internal coupling box should be pointing down (Fig. 3). Route the Cellular & GPS coaxes around the window and to the transceiver(s). In many cases, the coax can be "dressed" under the window molding by loosening the molding screws and inserting the coax underneath the molding.



NOTE: AFTER ANTENNA PARTS HAVE BEEN AFFIXED TO GLASS, YOU MAY WISH TO USE A WOODEN STICK OR AN APPROPRIATE TOOL TO APPLY FIRM PRESSURE AROUND THE ENTIRE FLANGE OF THE INNER AND OUTER ASSEMBLIES.

V. ANTENNA MAINTENANCE

Under normal conditions, the Mobile Mark antennas do not require maintenance. If you wish, you may occasionally wipe any grime or dirt off the whip.

When removing the whip from the exterior mounting plate, it is a good idea to wipe off the threads before reinserting.

WARRANTY

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