

For more information on Iridium Antenna Guidelines visit our website at  
[www.beamcommunications.com](http://www.beamcommunications.com)



The whip antenna provides a permanent installation with flexible installation options. The cable supplied with the antenna is to the maximum specified length to avoid any loss of signal and maintain call quality. It is not recommended to extend this cable further to avoid loss of dB beyond the specification.

#### Correct Installation



*“Ideally the antenna should be fitted on the bull bar of a vehicle...”*

The antenna should be attached in a location that provides the clearest line of site to the sky without obstruction or interference. Ideally the antenna should be fitted on the bull bar of a vehicle, if available as most bull bars already have a fitting and hole for this type of antenna, if not, then a suitable hole or fixing plate will be required.

To install the antenna you will need to;

- 1) Use an existing mounting hole or drill a hole that will enable the antenna connector to pass through
- 2) The hole size should not exceed the size of the hexagonal locking nut
- 3) Remove the hexagonal locking nut from the base of the antenna
- 4) Feed the cable from the antenna through the hole until the antenna sits flush
- 5) Feed the hexagonal nut through the cable and tighten on the antenna to hold it firmly in place
- 6) Connect the cable to the communications device

**Antenna installation is critical for optimum performance of your Iridium service.**

**Installing Guidelines**

To ensure maximum performance of the antenna system and to maximise availability and reliability of service the antenna must;

- have a clear line of site to the sky
- be clear and free of obstructions
- be clear of metal objects
- be located away from other transmitting devices
- be securely affixed in location
- not be located indoors
- be installed in conjunction with a certified cable

**Installing Antenna Cables**

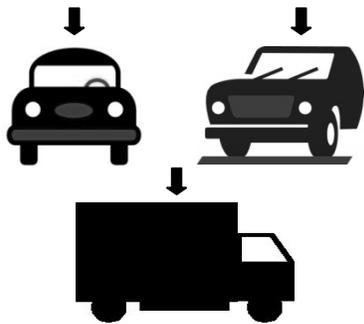
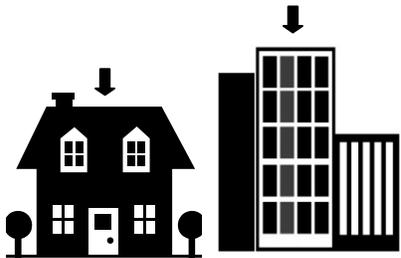
When installing antenna cables, follow these guidelines:

- Route and restrain cables to prevent them from vibrating or moving under normal conditions, which could result in damage to the antenna or the coaxial cable connections.
- Wherever the cables contact structures, protect the cables from chafing or abrasion. If a cable needs to be bent, avoid kinking it, and ensure that each bend radius follows the cable supplier limits.
- Use coaxial sealant, shrink-wrap tubing, electrical tape, or another suitable product to seal all cable connections appropriately to prevent moisture and corrosion damage from weather exposure.
- Mount all antennas vertically and clear of nearby metal obstructions
- Minimize horizontal obstructions as much as possible because they can create areas of poor system coverage.
- To minimize the loss of radio signal from the antenna to the terminal, the specific coaxial cable system between the antenna and the other component should be less than 3db including connector loss.

**Installation Options**

The antenna system is suitable for marine, vehicle and fixed applications and is designed to meet Iridium System performance requirements when installed according to the instructions in this guide.

The following figure shows typical Installations:

<i>Preferred Antenna Location</i>		
		
<p><b>Vehicle Antenna Installation</b>            The ideal position for any vehicle-mounted application is to capitalise on the greatest ground plane from the surface of the vehicle.</p>	<p><b>Marine Antenna Installation</b>            The antenna must be installed without obstruction of other instruments or structures. The antenna must not be positioned within range of radar equipment or other RF interference.</p>	<p><b>Fixed Site Installation</b>            The antenna must be installed without obstruction of other buildings, chimneys or other structures. Consideration should also be given to the surrounding environments such as large trees, mountains or other buildings.</p>