

# SpaceLink Antenna Alignment Tips

## Technical Bulletin #2001-0702

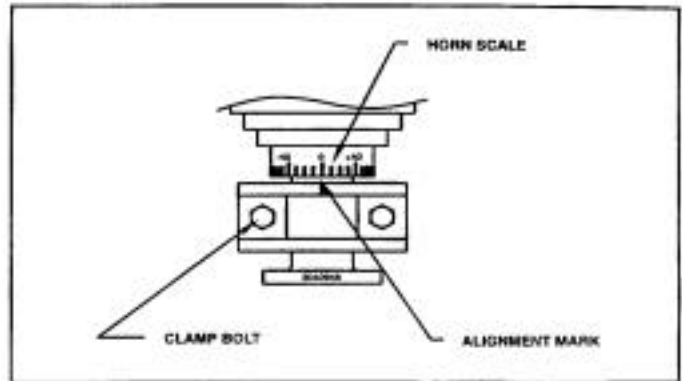
SpaceCom Systems' SpaceLink signal is transmitted on PanAmSat's Galaxy IVR located at 99 degrees west. The Ku-Band frequency is 12178.0 MHz with an L-band frequency of 1428.0 MHz.

You will need to know the latitude and longitude of your specific location in order to calculate the direction to aim your antenna. If you do not know this information, it is available from the U.S. Census Bureau's web site: [www.census.gov/cgi-bin/gazetteer](http://www.census.gov/cgi-bin/gazetteer). Once you have the latitude and longitude coordinates for the installation site, proceed to the customer tools section of SpaceCom's website at [www.spacecom.com](http://www.spacecom.com). Select the dish alignment option and choose the utility for "customers that know the coordinates for their city and satellite in question". Galaxy IVR is the satellite and is located at 99 degrees west. Select the polarity as horizontal, and enter the site's latitude and longitude. Click calculate and the utility will then provide you the coordinates for finding Galaxy IVR from the site. If you are utilizing a compass to locate the approximate location for Galaxy IVR, you will need to take magnetic declination into account for calculating the azimuth reading.

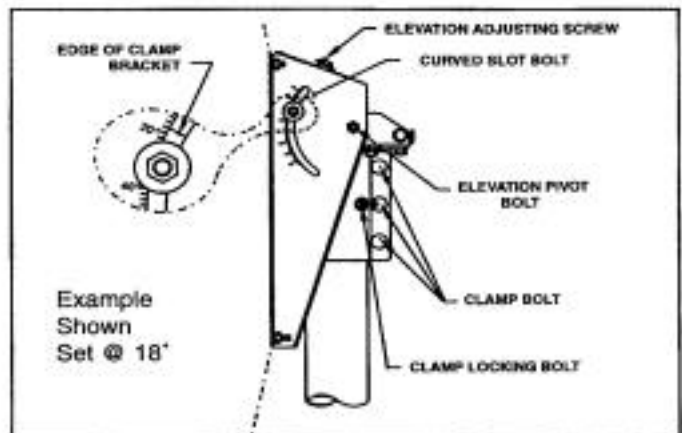
It is necessary to install the antenna in a permanent location where it will have a clear line of sight. The antenna's location should be anchored down securely in an area that will prevent accidental moving of the antenna alignment.

Use a spectrum analyzer or other signal strength measuring device to align the antenna to Galaxy IVR using the L- band frequency of 1428.0 MHz. If a spectrum analyzer is not available, SpaceCom Systems can recommend a satellite receiver to assist in locating the satellite signal.

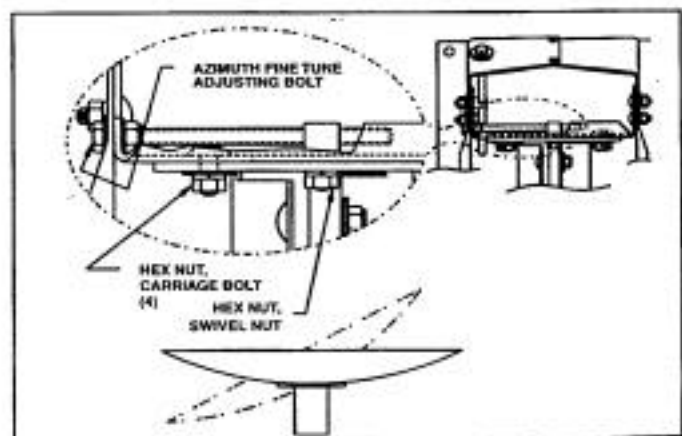
The attached diagram is from the antenna installation manual from Channel Master. It describes in detail how to align a satellite antenna.



**FIG. 3.0 - Polarization of the Feed**



**FIG. 3.1 - Setting the Elevation**



**FIG. 3.2 - Rotating Antenna for Azimuth**

Alignment with the satellite is obtained by setting polarization, elevation and azimuth.

**POLARIZATION OF THE FEED**

Loosen feed horn clamp bolts and turn feed

