



Low or Zero Quality Number? Picture Freezing or Breaking Up?

Don't assume everything is fine at the dish. Get out and check!

The first step in evaluating your current dish condition is to see if the dish reflector is bent or sagging.

String test – A prime focus dish is not oval and should be perfectly round. To check whether or not it is warped, place a string across its horizontal axis and another string over its vertical axis, placed over the horizontal axis string. With tension on both strings, they should lightly touch at the center. Repeat again, but with the vertical axis string below the horizontal axis string this time. If the strings do not meet in both tests, the dish is warped.

Surface – Check for any signs of denting on the surface. While a minor dent may not appear that bad, it could be enough to deflect a beam from a nearby strong satellite onto the focal point and interfere with weaker channels. Mesh dishes are easily subject to denting. A dish damaged in this manner will suffer from poor signal gathering ability while also becoming more susceptible to interference from adjacent satellites. Consider buying a new dish if the damage cannot be repaired. Finally look to see that the feed horn is positioned correctly above the reflector. The horn should be positioned directly above the center of the dish reflector. Your focal distance should be set to manufacturing specs. Check any connecting hardware for the feed assembly support poles, making sure there is a tight fit to eliminate any potential movement.

Connections & Cable – Check connections for looseness or any oxidation. Replace old connectors with 3 ghz rated compression connectors. Check coax for any cracks or signs of degradation. Old dried out or cracking coax should be replaced with 3 ghz swept tested or better solid copper core RG6 coax. Rainier Satellite sells our premium 4.5 ghz swept tested solid copper core RG6u coax in our store. While you're at it replace the connector inside going to your receiver as well. It's better to start fresh.

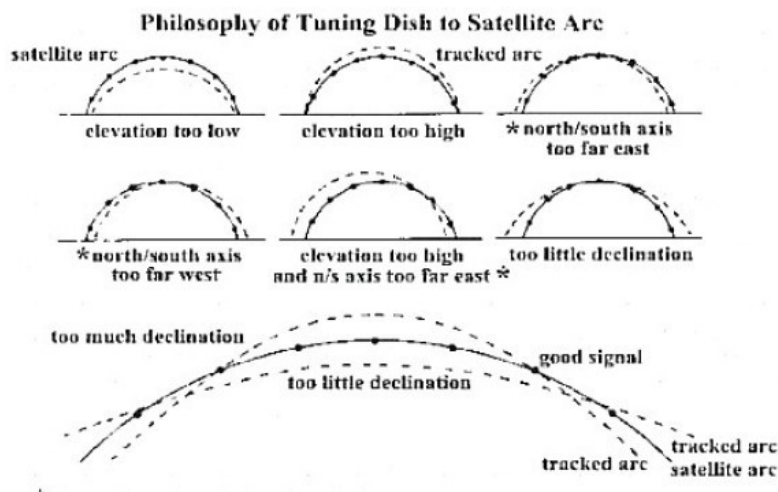
Jumpers – Replace any jumpers from Diseqc or High Block Splitter with premium 4.5 ghz Rainier solid copper center conductor coax with Belden compression fittings.

Feed Centering , F/ D Ratio, Focal Distance – Measure feed from in 4 different places from dish lip to feedhorn throat. All measurements must be identical. (Feed must be centered) Also make sure F/D ratio and focal distance is adjusted to your dish manufactures factory specs.

Alignment – How long has it been since your dish was properly aligned? Dish alignment should be checked yearly or more often in windy areas. Many times slight adjustment of azimuth will get you back tracking the arc properly. The wind moves the dish ever so slightly ¼ to ½ inch on the pole to the east or west. Using an inclinometer (available at your local hardware store). Place this unit on the back of the dish surface and on a low satellite at the end of the arc. Loosen the 4 bolts that secure the dish to the pipe, and adjust till you get the proper elevation angle shown on the inclinometer using Dish Pointer (at our site for your area) Then fine adjust for maximum **QUALITY** using the meter built in the D9865 receiver. Disregard the signal meter number as long as it's above 10. This only reads lnb noise and gain. Note: PLL LNB's will have a lower signal numbers vs non PLL's due to reduced noise floor, this is normal. PLL's will keep the channel locked better with lower QUALITY numbers then a non PLL. If you don't have a PLL consider getting one. Rainier carries them in our store.

If you have a now retired HITS 4DTV system and been locked to X4 (AMC-18, 105w) satellite for many years it's imperative you realign your dish to track the arc properly once again for Rainier's HD signals.

Alignment Bottom Line– When adjusting alignment using elevation and azimuth adjustments on your dish you need to achieve proper bell curve of the arc. (see image below)



Align your dish till all half circles are in line. Once this is done you will be tracking the arc properly.

Following the steps in this document and instruction videos at our Customer Information Tech Support / Reception Issues area on our site, you should be able to achieve maximum QUALITY and lock condition.

If you need phone tech support help contact Rainier Satellites tech support call center at 509-477-9270. This service is free for Rainier Satellite's current customers. For non-customers an \$85.00 per hour support fee is charged for technical phone support.