

Tracking the arc with your SG2100

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Tracking the arc has always been one of the most mis-understood parts of satellite installations. The SG2100 is ingeniously built to follow the satellite arc PERFECTLY if it is properly set to do so.

The SG2100 has a feature called "Go to 0". It simply drives the motor to a position that should be "0" on the degree of rotation scale of the SG2100. For installation purposes, Go to "0" is a simple way of aligning everything in a nice straight line and should only be used for a starting point. If the "0" point is off, drive the motor using the manual buttons until it is at the "0" position on the motors degree of rotation scale.

But let's not get ahead of ourselves. Always remember, **The mounting pole being perfectly plumb and the declination being set exactly on is the foundation for good tracking.** To make your mounting pole plumb you need a good quality level or other instrument that will give you a plumb reading. Everything you need to know about declination is in the manual that came with your SG2100. Follow the instructions carefully and your declination will be correct. Correct setting of your declination is critical to how your dish will track the satellite arc. Set the declination and tighten the bolts. If you have set it correctly you won't need to move it again.

Now at this time you should have the motor and dish set on the mounting pole and all of the adjustments made carefully following the manual. Here's what I believe to be the best and most accurate method of tracking your dish. It simply gives you a way of matching the satellite arc in space with the arc your dish follows as your motor turns it.

After setting up the motor and dish you will start by pointing the dish south and snugging the motor to the mounting pole. Now motor to the east most satellite that you can get a signal on and adjust your elevation ONLY for best possible signal. Snug the elevation. Motor to the west most satellite and adjust your azimuth ONLY for the best possible signal. Snug the azimuth. Repeat this process until no improvements can be made in signal strength. Each time you make an adjustment it should be less than the time before. If not, you are doing something wrong.

Of course this is the quick explanation. It will take you a while to get the hang of it and certainly longer to do it than it took you to read this.

If you are a installer doing this often and using the same equipment (same dish), take some readings in the "0" position with your angle finder on this now perfectly aligned motorized system. Take a compass heading of the dish in "0" position. Record the angle of the LNBF support. Record the angle of the motor tube. Now motor to the first satellite close to the "0" degree of the motor and record that setting. Keep these recorded findings in a safe place and your next installation will be a breeze.

When you go to install your next SG2100 motorized system, simply plumb the mounting pole and motor to "0" position on the SG2100. By using the readings that you took from your first install, set the angle of motor tube and set the angle of the LNBF support. Now motor to the known degree of the satellite and you're set. Just turn the dish and motor on the mounting pole until you get a signal. You should be very close to perfectly tracking the arc. Check your work using the method described above. You just went from a grueling hour or more of tracking the dish to a smooth 10 minute install.

This will work within a reasonable distance from where you took the first readings. If your service takes you more than 50 miles from the original site (where you took the readings) you may need to make some small adjustments.

I certainly hope this helps you do not only faster installs of motorized systems, but more accurate installs. Good installs are critical to avoiding service calls that don't pay. Faster installs allow you to make more money and be more professional.

Always do your installs on the ground whenever possible. Ground installs allow for better and faster access in case of service calls and they also avoid most dish movement that happens on roofs that tend to warp and buckle in changing weather conditions. A roof mounted dish that moves a fraction of an inch at the base can translate into an inch or more at the top of the dish. The next time you have a service call for a system that has signal in the day time but not at night (or vice versa), check out where the dish is mounted. I'll bet it's on a roof.

Keep us in mind for your equipment needs. [DMS International](#) is the only exclusive wholesaler of the official [SG2100](#). If it doesn't have [DMS International](#) on the box and on the labels, it's not the original [SG2100](#).