

# Alfa Radio Ltd.

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## Alfa Spid Rotator – Getting Started

The instructions presented here should suffice to install and use the basic functions of the rotator and controller. For the complete manual please refer to the CD or to our website. Additional details may be found on our FAQ page as well.

**Initial hookup:** The connections to the motor and direction sensing circuits are under the plastic cover on the side of the motor. Remove the screws holding the plastic weather cover for access to the terminal strip. It is suggested to use a short pigtail (several feet long) of smaller gauge wire that will more easily fit under the plastic weather cover, and then connect this to your longer run of heavier cable. This pigtail is a convenient way to connect to the controller to test the operation.

**Polarity:** The wires to the motor **are polarity sensitive** as they determine the direction of rotation, but it is generally easier to reverse them at the controller end if the motor turns in the wrong direction. The two direction sensing wires have no polarity concerns. The power for the controller is automatically derived from any polarity DC or even AC voltage so you may connect the fixed lead from the controller (typically brown and blue wires) either way to your 12 to 24 volt (approx 5 amp) power supply. A small battery (12v gel cell type) capable of several amps is quite adequate for testing purposes and can be used for initial positioning of the antenna.

### **Installation Considerations:**

Mechanical installation to your mast and/or mounting plate is straightforward but there are a couple of concerns if mounting to a very thin mast or a very hard mast. **The 8 bolts exert a considerable force on the mast and will tend to dent a soft or thin mast if over tightened.** You might wish to consider inserting a sleeve of suitable diameter to reinforce the section of mast in the rotator. For very hard mast material that won't dent, it may be useful to make a small indentation with a drill bit to allow the bolts to grip better. However for most normal aluminum or steel masts it will work fine without any special precautions or modifications. If turning a heavy antenna, a longer mast either above or below the rotator (or both), will act as a shock absorber. This is a good thing. Be sure to allow enough slack in the coax loop to allow for full rotation and to take advantage of the 180 degrees of over travel on both sides.

**Waterproofing:** Before putting back the plastic cover over the terminal strip, a thin bead of silicone or other caulking compound around the edge will prevent any leakage there. For very windy wet locations a rubberized weatherproof rain hood might be beneficial. Some users have reported that driveway marker cones work for this purpose. If you live in a location where you get "horizontal rain" you may wish to caulk the under side of the top metal housing covering the top shaft.

**Where's North?** Well, you don't really care right now. Put up the rotator and tighten the mast bolts. Once on the ground then simply use the controller to turn the antenna to north. Don't worry what the readout says or if it even rotates in the right direction. Then zero the controller by turning it off, then holding the "F" button while turning the power back on. Now check to see that it rotates in the proper direction in accordance with the right and left arrows on the front panel. If not, simply reverse the 2 wires going to the motor. That's all the calibration needed.

That should complete the basic installation. Thank you for your purchase and your support of our product. If you have any questions or concerns we haven't addressed, just ask and we'll do our best to get the answer.