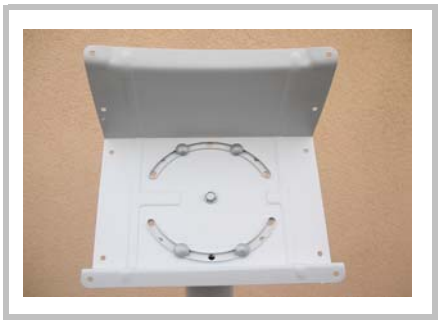
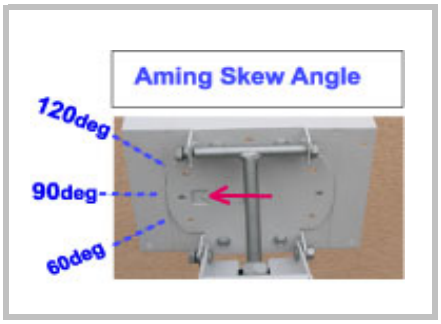
■ Tips on the Assembly Process

You need to start with a vertical pole mount. It has to be plum all around. Very Very Very Important. 0.1 degree offset on the pole mount will have a same impact as you are off on a few degrees of elevation and azimuth. The angle locator can be purchased from any hardware store at around $10.

If possible, install T90 at ground level (on a hardwood/plywood board) and place your receiver and monitor right next to your T90. It will be a lot easier and safer during the alignment process. After you have satisfactory signals, you can simply put it up on the roof or wall and adjust azimuth only for final alignment.

Assemble the parts (A7, A6, A14, A15) as shown above. Later on you will use these bolts to adjust elevation.





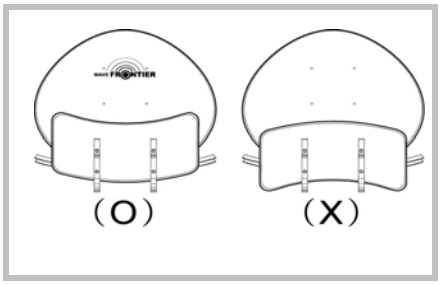
Attach A5. This part enables T90 to tilt for skew adjustment.

Assemble A7, A8.

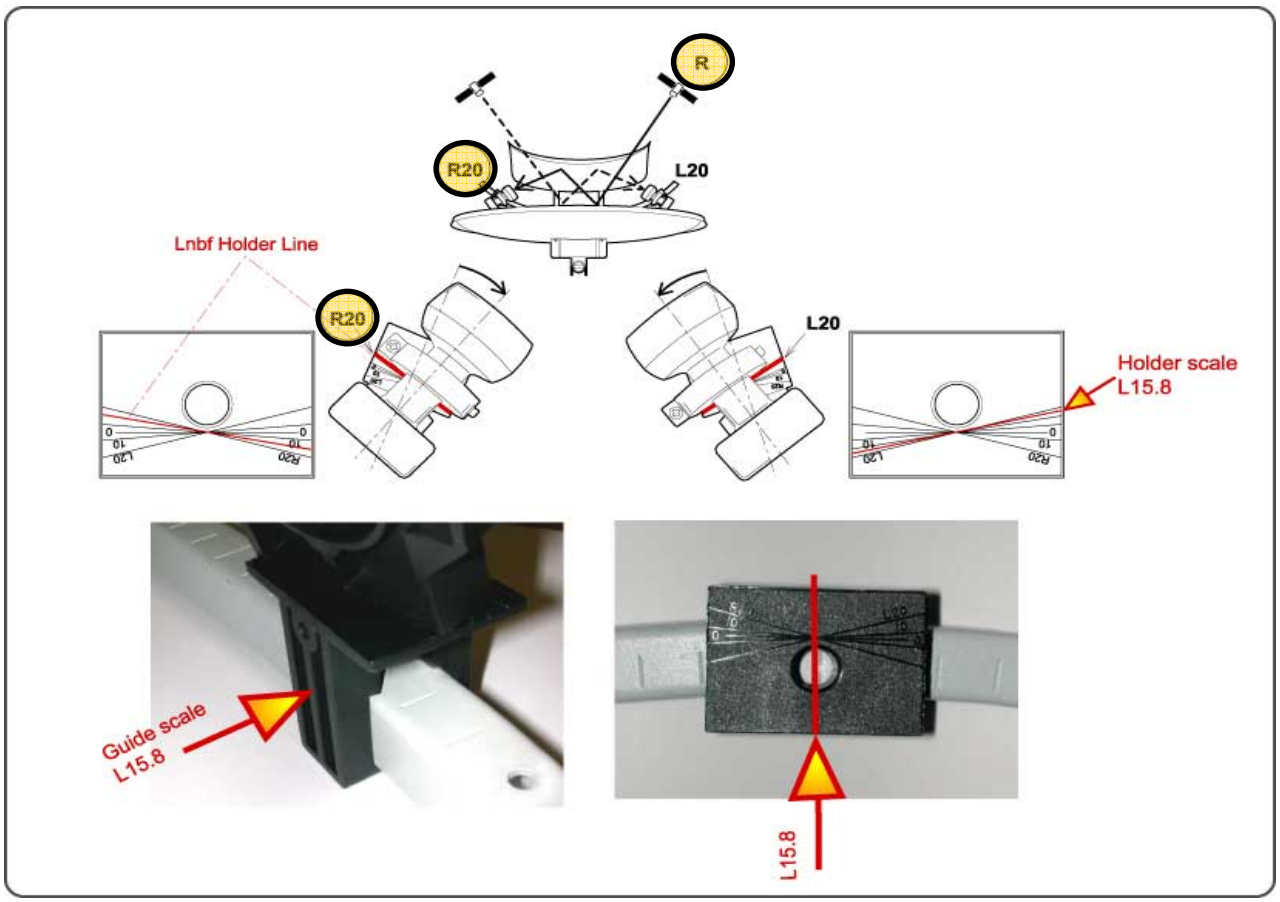
Support arms will hold LNBFs and sub-reflector.

TOROIDAL

Some LNBF may require adapter. Place your LNBFs before sub-reflector assembly.



Check orientation of sub-reflector after the assembly.



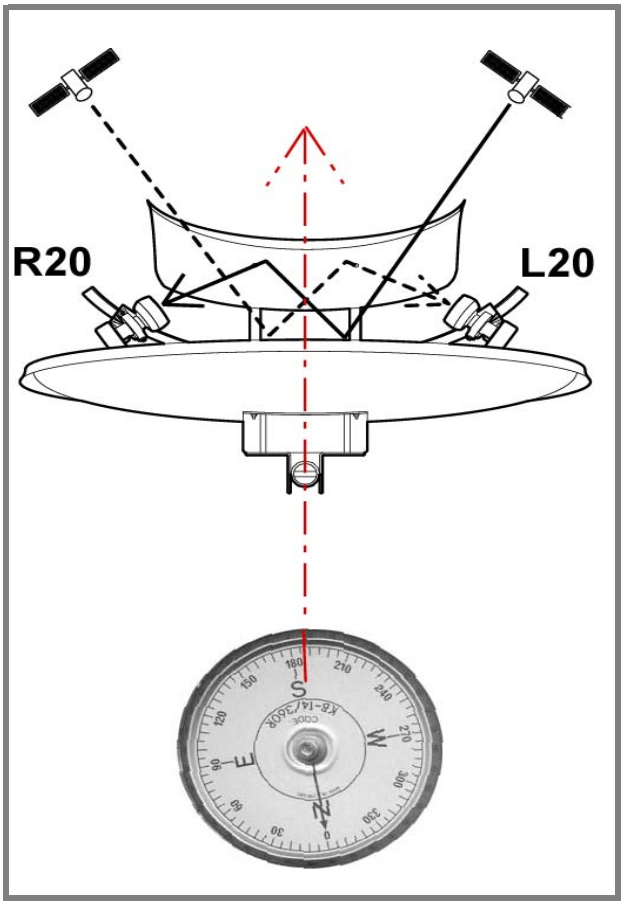
The values provided for each sat (e.g. L15.8 for 91W) apply to both on the holder supporter (direction of LNBF) and LNBF guide (location of LNBF). Place your LNBF on the approximate value. You will not find 15.8 on the guide bar, place between 15 and 16. Please note the "L" and "R" marking at each ends of the guide bar.



Attach A13 and then main-reflector. (This part assembly (A13) is not required for the US market. This is designed for the European market where there is severe wind all year long like Norway. Just put screws on the main reflector.) Without any skew angle (90 degree on the mark.), place angle locator to read elevation.

■ Tips on the Alignment Process

1. Setup the dish according to the setup coordinates as we provided for:
   ⇨ Elevation, skew and LNBF locations



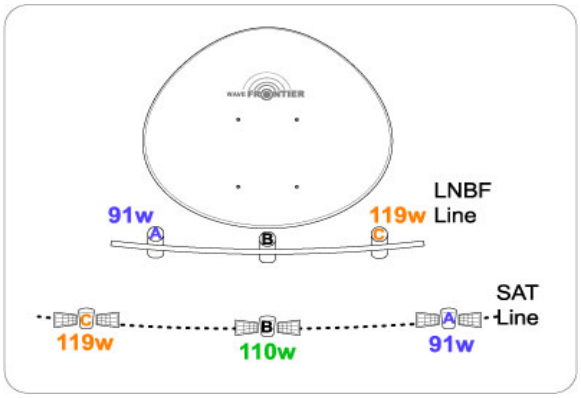
The azimuth for the above example is 183.

2. First of all, setup ⓐ elevation, ⓑ skew angle and ⓒ LNBF location as provided.

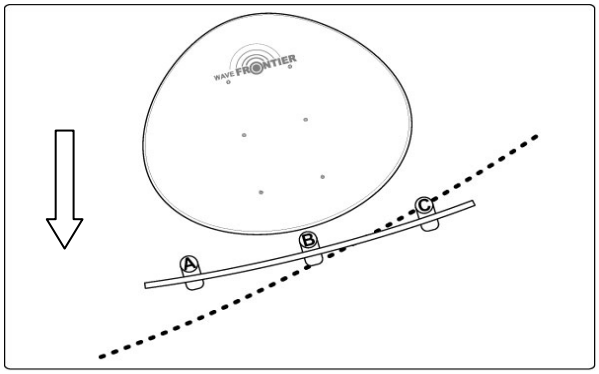
3. Then connect LNBF to your receiver (one on the center or at the end) directly to your receiver. Swing the dish left or right (half inches at a time) and up/down to find a signal. You may need to adjust elevation at the same.

4. Now make adjustment on elevation (quarter inches at a time). You will see a greater fluctuation on the signal strength. Find the best spot for your target satellite.

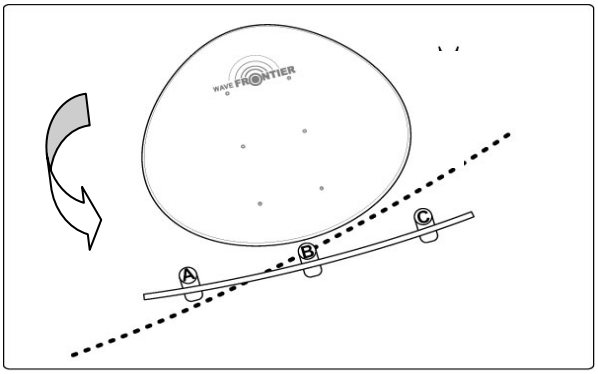
5. Now you are ready to go for the other. Connect LNBF to receiver directly (no switch). Make fine adjustment on skew angle (up/down) half degree at a time.



6. The alignment process is to line up two imaginary lines. ⓐ the line composed among of LNBFs & ⓑ the line composed of your target satellites. If you view your satellites from your location, they are not parallel to the ground line because they are above the equator of the earth.

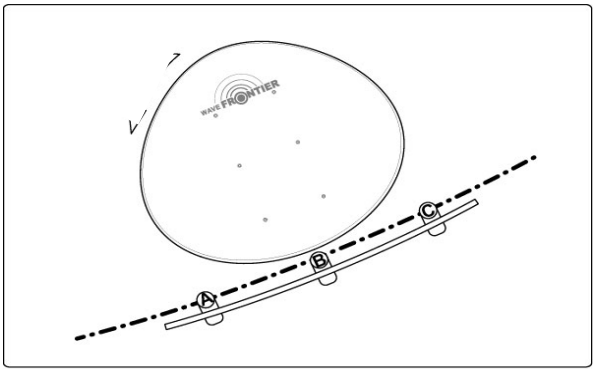


7. This may be the position where you are after finishing up step 4 getting good signal on your first sat.



8. In this example, if you make adjustment on skew or elevation to find signal from Sat B, you may lose signal from Sat C.

9. In order to get both satellites, you will need to make both adjustments on elevation & skew angles by monitoring signal strength on both satellites. By changing LNBF location, you may be able to get a little better signal strength.



10. Once you achieve maximum signal strength for both satellites, all other sats will be automatically captured in the line.

Tip: You really don't need signal meter (or expensive sat finder) if you are looking for Dish Network or DirecTV satellites. We've found that the best sat meter is Dish Network/DirecTV Receivers for their own satellites. It tells you which satellite you are getting and its strength. Many difficulty comes in when you don't know which satellite you are on. Most sat finder gives you signal strength but no info on its satellite.