

Calibrate the DirecTV Antenna with the 2 inch OD Post

This is a larger dish antenna than the 1-5/8 inch OD post dish. The DirecTV HD 5 satellite dish has two back assemblies; the CalAmp # 151561 and the WNC# BAU. Each back assembly has its own tilt and elevation gauges. Because of weight, the mast for the stand does not have any gauges. The mast is also the post that is inserted into the dish back assemblies and will be referred to as the "mast/post". This dish is receiving signals from 5, and soon, 7 satellites. The need to have a plumb mast is crucial. For this reason the mast has two levels at right angles to each other.

The only calibration is for the azimuth settings.

As this dish is receiving from satellites 99° to 119°, the line of sight must have a span of 20°. So you must have a clear line of sight to the satellites starting at the azimuth reading shown in the setup menu, plus and minus 10°.

For example, the azimuth reading for zip 98258 is 134°. So starting at azimuth 124° (134° – 10°) through azimuth 144° (134° + 10°) this span of 20° must have a clear line of sight.

If you do not have clear lines of sight then find a different location to do the calibration.

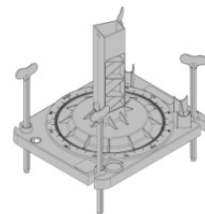
Start Here:

Using your providers User's Guide go to the Dish Antenna Installation section. Follow the instruction on Menu... Setup... Satellite... Repeat Satellite setup... 5 LNB Multi-Sat dish...

Record the Azimuth, Elevation, and Skew or Tilt settings for later use in calibrating your stand.

Azimuth _____ Elevation _____ Skew/Tilt _____

1. If you have not done so, assemble the stand according to the HD 2 inch OD model Assembly Instructions.
2. Remove the mast/post and dish from the stand.
3. Set the elevation on the dish mount by loosening the three bolts for the elevation. Check to make sure the adjustment rod is in the middle of its span. Move the gauge to the elevation from the setup menu tightening only the bolt that holds the adjustment rod. Leave the other two bolts loose.
4. Set the tilt by loosening the three bolts that holds the tilt



adjustment to the dish. Set the tilt to the setting recorded above. Snug the adjustment bolts.

5. Insert the mast/post with the dish antenna into the stand.
6. Align the base of the mast to the azimuth setting shown on the setup menu. Use the base locking knob to lock the mast to that azimuth reading.



7. Set up the stand so that it is on a magnetic north alignment.



8. Now adjust the mast to be plumbed. Using the threaded legs, adjust the built-in levels so that the bubble is centered on both levels.



9. Connect the RG6 cable to the satellite input of your network provider's receiver.

Note:

Be sure that the cable is on the first connection in the LNB. Not always required but on some LNBs this will cause a lack of a signal. If you have two cables coming from the LNB, label the one that is on the first connection. Use that one to connect to the control unit.

With satellite connections you cannot have any switches or splitters between the antenna and the receiver. If you do not know what is between the outside connection and the receiver, run a direct cable from the antenna to the receiver. Once you have gotten a strong signal you can then test the cable connection for any switches or splitters.

10. From the display menu select the 101 satellite with an odd number transponder, then select "Signal Meters". You will need two people for the rest of the calibration. One viewing the

display and relaying signal strength to the person at the dish. If you have a meter that displays the satellite number then only one person is needed.

11. With the azimuth set and the base locked, loosen the nuts on the dish antenna clamp so that the dish can slip on the post.
12. Check to see if you have any signal. If not, slowly move the antenna on the stand to the left. Move one or two degrees and then wait for 2 or 3 seconds. Repeat until you have a signal or where you have moved over 10°. If no readings, move to the right again, moving slowly one or two degrees until you have a signal or you have moved over 10° past the original point.
If you have signal continue by going to Step 15.



If you still do not have any signal, check to be sure that the cables to the receiver are good and connected, then go to the next step.

Note: Be sure that the cable is on the first connection in the LNB. This is not always required but on some LNBs this will cause a lack of a signal. If you have two cables coming from the LNB, label the one that is on the first connection. Use that one to connect to the control unit.

13. Increase the elevation by 2°, reference step 3 and redo step 12. If there is still no signal decrease the original elevation by 2° from the original setting and redo step 12. If this is the second time at this step continue with the next step.
14. If you still do not have a signal, recheck the zip code entered. Also check that the skew and elevation used is correct.
15. If that is all correct, remove and reset the Access card, along with pressing the red reset button. The smart card is usually behind a door on the front right bottom corner of the receiver. The red reset button is in the same area. Wait while the receiver is restarting. Then go to the menu and select Setup... Satellite... Repeat setup... 5 LNB Multi-Sat. set the elevation on the antenna back to the original elevation setting, reference step 3. Start again with step 10. If this is the second time you are at this point and still no signal, have the LNB and the antenna checked by a DirecTV provider.
16. You need to have had some signal to be at this step. Slowly move the antenna left and/or right until you have the highest signal strength. At this point tighten the clamp on the antenna so that the post cannot slide inside the clamp.

You have now calibrated the azimuth setting for this stand.

17. Pull on the top of the dish antenna. If the signal strength increases you will need to tighten the fine elevation screw. If it decreases, loosen the fine elevation screw.
18. Using a ½ inch socket, check to be sure the lockdown nuts for the elevation are still loose. Now increase or decrease the fine elevation screw. Stop when you have the strongest signal. Tighten the elevation lockdown nuts.
19. To fine tune the tilt, change the satellite to 119. Slightly loosen the tilt lockdown nuts. Slowly rotate the dish left or right to get the strongest signal. Carefully retighten the tilt lockdown nuts.

In most cases you now have setup your dish and should be receiving your regular HD channels.

However, occasionally, you will see a transponder that is not active, strength 00. It is possible that this transponder is reserved for upcoming programming expansion. Check to be sure that other transponders have good readings in the high 80's or 90's. Also check that you have signals for all the satellites; 99°, 101°, 103° (a), 103° (b), 110°, 119°. If you do not you may have line of sight issues, or need to start this process all over again as some step was incorrect.

If the HD channels are in question, you can further tune by adjusting satellite 103°(b) to a stronger signal .

On the control unit go to Menu... Setup... Satellite... Repeat Satellite setup... 5 LNB Muliti-Sat dish... Use satellite 103(b) and an odd transponder that has signal strength, loosen the elevation lockdown nuts, except for the adjustment rod, and adjust the elevation to the strongest strength.

After adjusting the elevation you need to adjust the azimuth.

Either by:

- a. Loosening the lockdown nuts to allow free movement of the azimuth fine-tune mechanism and then adjust the azimuth to the strongest signal ,
- b. Loosening the lock knob on the stand and adjust the azimuth on the stand.

Tighten all the lockdown nuts.

You should now have a very good reception for all the HD channels along with the other channels.