# How to modify your Fortec 120cm dish for the BSC621

Like most people, I've wanted to expand my FTA coverage by adding Cband, but neither had the room to fit a large 6-12 foot dish nor have the approval to put one up (i.e. HOA and/or wife). In addition, I liked the idea of using a disqec motor that utilized my existing setup. The BSC621(-2) lnb was the first on the market to combine both Cband and KU. While this lnb was geared more towards prime focus dishes, I really wanted to make this work on the 120cm. People have experimented with this setup in the past, but have found that they can't get optimal signal for both C and KU. I just wanted to get relative KU signal that I got from my Invacom QUAD, with the added possibility to pick up some Cband channels. My initial tested showed the same result and I was determined to find a working solution.

I spoke with Jamal from Sadoun about this lnb on this particular dish. He suggested modifying the LNB by cutting back the feedhorn that should put the KU and Cband focal points closer together. Unfortunately, that experiment was unsuccessful. On the bright side, Jamal allowed me to experiment risk-free. When it failed, Jamal allowed me to replace my LNB with a brand new BSC621 (Thanks Jamal!!). While I was testing the LNB mod, I noticed, by mistake, that the lnb was getting a stronger KU signal by moving the lnb further back. Problem was that the placement of the LNB holder couldn't hold the LNB at the distance I needed. That's when I made the following modifications to my dish that have given me the signal strength that I was looking for.

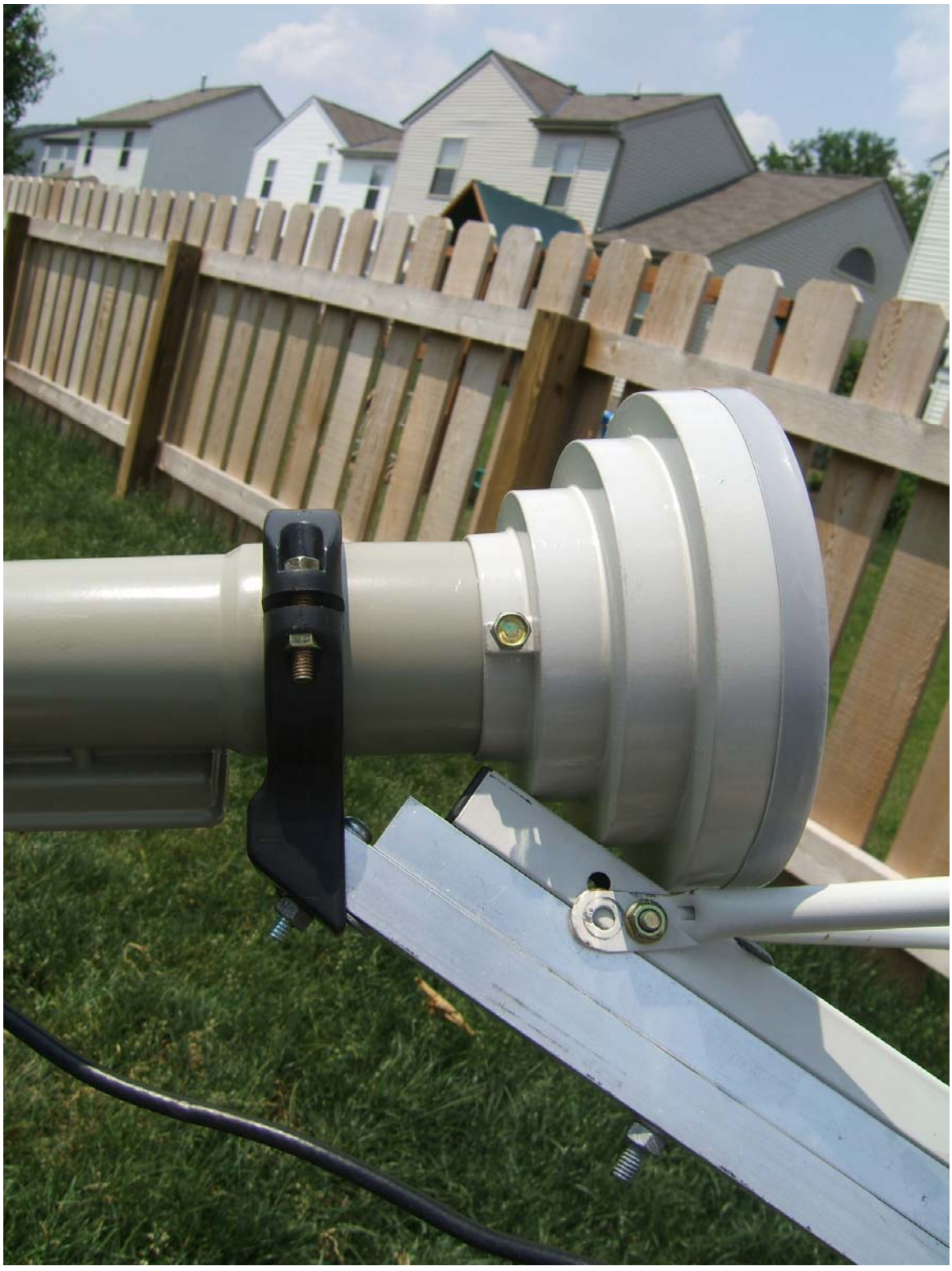
********Please note that this mod is to be done at your own risk. I take no responsibility for any damage this may cause to your setup*****

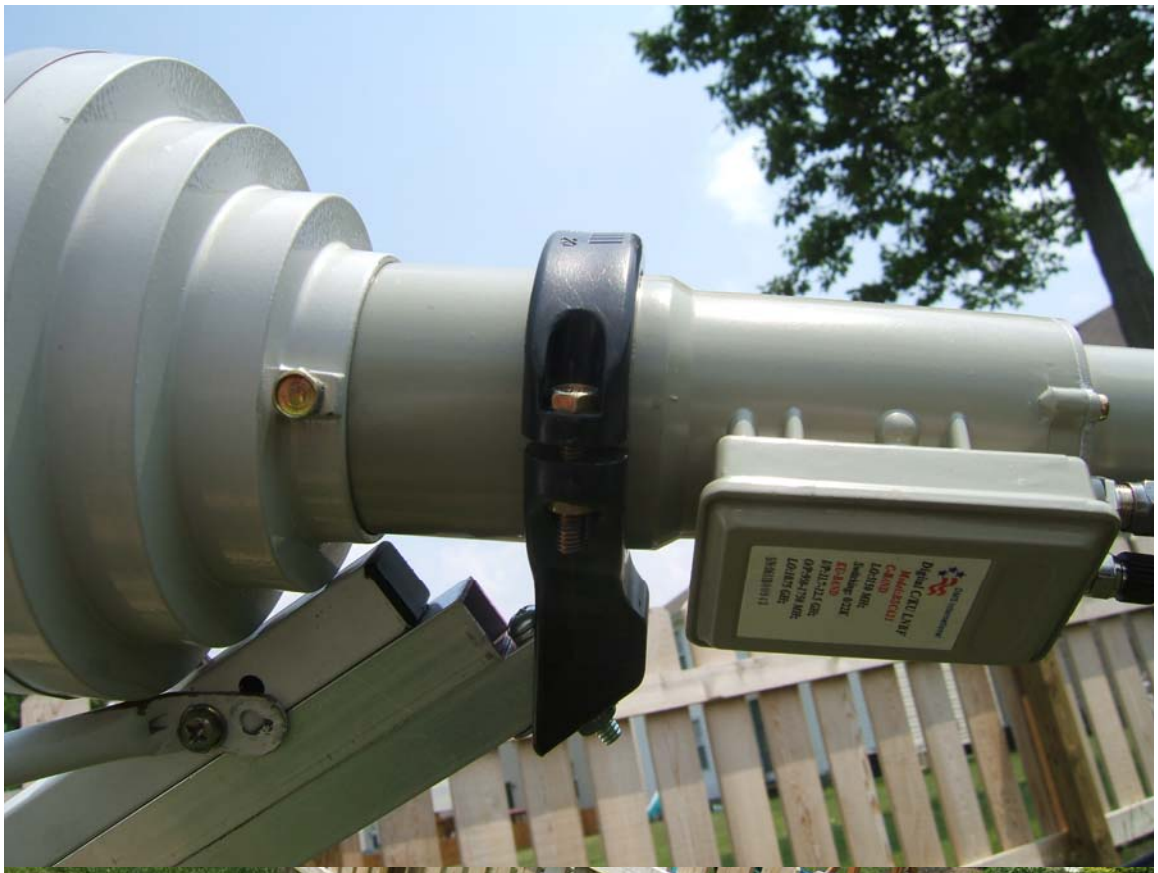
The picture above shows the finished modification that I made (didn't have a camera while I was doing this). I bought a ¾ inch by 3 foot aluminum square bar and some ¼ hex bolts/nuts. All of this can be found at your local Lowe or Home Depot. I started by cutting the bar 1 foot in length, leaving two bars (1 foot and 2 feet). I took the 2 foot bar and strapped it to the main white bar on the dish. The 1 foot bar was then strapped to the 2 footer. Bars were strapped by zip ties temporarily until the proper position was found. The end of the 1 footer was drilled with a ¼ drill bit for the lnb holder. A spare ¼ bolt (w/Phillips head) was used to tighten the holder to the bar. A portable TV and a spare Fortec Classic NA receiver was used to measure signal (G10 was used). I carefully moved the bottom bar up until I was able to get a KU signal. I then moved the lnb back until I peaked out 11800 V 26660. The conical scalar ring seen in the picture was not on at this point. I was able to peak out that TP to 73-79 signal quality, which was about the same as the Invacom QUAD I was using before. Adding the scalar ring did bring my SQ down to 66, but the ring was needed for any cband channels. Once I found the right length and location for the bar, I took down the LNB arm and measured two spots to drill through all 3 bars. Two ¼ hex bolts were placed in the drilled holes. I made a bigger opening for the hex head so it wouldn't rotate; punch tool and a hammer☺. Once the bolts were tight, I removed the zip ties and cut off the extra foot of the middle bar (could have been left there, but figured I might as well cut off some weight).

When I placed the Scalar ring back on, I did run into a problem. The side bars and the main LNB arm were blocking the ring. I was reluctant to cut the main bar just in case I ever wanted to go back to my invacom. I tried grinding down the top of the side bars a little, but I still needed more clearance. That's when I decided to move the side bars

down. Doing one side bar at a time, I moved the bar down and marked it, while keeping the main LNB arm at the same focal point and repeated for the other side. I then drilled new holes in the main arm and side bars. Above picture shows the extra clearance the mod achieved. The scalar ring is as far back as it can go. I may still cut the main bar so I have some more room to move the ring back. Where it is right now, I'm pretty happy with the results. For KU, All of my main sats between 74 and 123 are at good signal strength. There are a few that are worse than the Invacom, but they remain at 46-60 level which is fine by me. There are a few (AMC2) which I am not happy with. That is mainly on feeds that are 4.2.2 or HD. My twinhan is a little less forgiving than the Classic NA when it comes to SQ. On the CBAND side, it's everything that I expected. Using a 4 footer, I know that there are some sats and channels that I'm just not going to pick up. On the other hand, Analog feeds on multiple sats between 101 and 93 come in crystal clear. The networks on G16 are at 46 SQ (no breakups). A lot of religious channels are really strong. One of the strongest I get is Cox sports at the 121. It's blazing at 80+ SQ. One bit of warning is that I experience bleed over pretty bad. Ex. Sports time OHIO show up on the 121 position, but not when I am at 123. I find myself moving the motor with Disqec 1.2 command to optimize analog feeds all the time. So, my channel lists can be a little unique on the Cband side :).

Here are some more photos of my finished dish. Ignore the ghetto tri-pod setup☺. Its just there while I test and until an install comes out to put it on the roof.



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