Dual Satellite Reception Using an Offset Bracket

The Glorystar Christian Satellite Service standard system is shipped with a 90cm dish and simple to install Dual LNBF Rotating Bracket to receive the signals originating from multiple satellites. Glorystar programming originates from two satellites, AMC 4 (101W) and Galaxy 25 (97W). In certain areas of North America, Caribbean and the Central Americas, a larger 1.2m - 2.4M dish is required. Reception of both satellites is possible with a single dish, two GEOSATpro LNBFs, one GEOSATpro 22KHz Switch, and one GEOSATpro Multi-LNBF Offset Bracket securing the LNBFs in an optimum position. This guide has been developed to assist technicians with the unique installation procedure. Note: This adjustable bracket can also provide dual reception with off-brand dishes not supported with the Glorystar 4° Dual LNBF Rotating Bracket solution.





Geosynchronous communication satellites orbit the earth approximately 23,000 miles above the equator. From your install location, this arc of satellites follows a curve starting on the Eastern horizon, rising to the highest point directly South, then sloping to the Western horizon. It is important to note in dual satellite reception systems, both LNBFs must be placed in an exact position for the reflected satellite signals to be directed into the LNBF feed horns. If you are aiming at satellites located directly South of your install location, the two satellites will be located at a similar elevation. Both LNBFs will be installed at the same level and the individual LNBF Rotations (SKEW) will be set near the straight up 12 o'clock (zero) position. It is recommended to always place the Galaxy 25 LNBF in the Center LNBF Clamp and the AMC 4 LNBF to the right side attached with an Offset LNBF mount. The Galaxy 25 satellite is much weaker and will benefit from being in the optimal Center LNBF Clamp. AMC4 is a much stronger satellite and the slight signal loss incurred by placing the LNBF in an offset position will not significantly decrease the strong signal.



When the two satellite locations are to the East or West of your install location, the two satellites will be at different elevation angles. When the install location is east of the satellite location, the offset AMC 4 LNBF bracket will be bent upwards to capture the second satellite. This angle is approximately the same as the LNBF Rotation Angle (SKEW) settings either provided with your Glorystar System or available on the internet at http://www.GeoSatFinder.com. Each individual LNBF Rotation (SKEW) is initially rotated to a positive, Counter Clock-wise (left turn), while standing in front of the dish looking into the reflector, to match the approximate LNBF rotation (SKEW) settings. Reference an angle finder or mechanical compass when bending the Offset LNBF Bracket to the specified angle.



For install locations West of the satellite location, the Offset AMC 4 LNBF bracket will be bent down and the individual LNBF Rotation is set to the negative, clockwise (right turn) position.

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Offset

AMC 4

LNBF

Glorystar Aiming Instructions: GEOSATpro MULTI-LNBF OFFSET BRACKET

Carefully read all safety materials and review the standard install procedures provided in the Glorystar Install Guide. Assemble the dish using the Dish Assembly Guide provided with the dish hardware. Mount the single LNBF holder on the LNBF arm supports. Assemble the LNBF Offset Bracket using the instructions provided with the Offset Bracket hardware and connect to the dish LNBF arm supports on the right side of the single LNBF holder (standing in front of the dish facing the reflector).

Roughly place the offset LNBF into the correct position using the information provided on the front side of this paper and the Dish Aiming Coordinates (or go online at http://www.GeoSatFinder.com and calculate the correct Elevation, Azimuth and LNBF Rotation (SKEW) settings for the installation location). Connect the satellite receiver to a TV and activate the Glorystar System. Connect the satellite receiver directly to the Center LNBF. Once the satellite receiver is activated and a Signal Meter is displayed over the 3ABN channel, you are ready to begin the aiming process.

<u>DO NOT</u> connect the switch at this time!

Locate and Peak Satellite Galaxy 25 (97w)

- Press the CH/DOWN arrow button on the Remote Control to place the Receiver on TBN. This is the strongest channel on the Galaxy 25 satellite.
- Locate the Galaxy 25 satellite by adjusting the Dish Elevation and the Azimuth (left / right).
- Peak the Signal Quality reading by slightly rotating the Center LNBF (SKEW) and sliding the LNBF towards or away from the reflector.
- Place the satellite receiver on The Word Network channel. This is a weaker channel on the satellite.
- Fine tune the dish aiming and adjust the Center LNBF placement for Peak Signal Quality Reading.
- Tighten all Dish Elevation and Azimuth adjustments. No more dish adjustments will be necessary. Make sure the dish mounting hardware is tightened and the reflector is secured. Tighten the hardware securing the Center LNBF. No more adjustments will be necessary with the Center LNBF.

Locate and Peak Satellite AMC 4 (101w)

- Disconnect the coax cable from the Center LNBF and connect to the Offset LNBF for satellite AMC4.
- Place the satellite receiver on the 3ABN channel. This is the strongest channel on the AMC4 Satellite.
- Referencing an angle finder tool, bend the Offset Bracket to the correct angle.
- Slowly move the Offset LNBF Holder in and out on the rail while pointing the face of the LNBF towards the center of the reflector until the Signal Quality reading indicates that the LNBF is directed at the correct satellite. The face of the Offset LNBF will closely match the vertical angle of the Center LNBF.
- Peak the Signal Quality by slightly sweeping the Offset LNBF to the left or right slide while slightly moving the LNBF Holder to the left or right. A slight adjustment may be necessary to the bend angle of the Bracket.
- Once the signal Quality reading is peaked on 3ABN, place the satellite receiver on GMTN (Gospel Music Television Network). This is a weaker channel on the satellite.
- Fine tune the dish aiming and adjust the Offset LNBF placement for Peak Signal Quality Reading.
- Tighten the hardware securing the Offset LNBF. No more adjustments will be necessary.

Connect Switch to Receive Both Satellites

- Turn off the Master power Switch on the rear of the Receiver or unplug from the wall AC outlet.
- Disconnect the coax cable from the Offset LNBF.
- Connect the receiver to the Switch port marked Receiver (RX).
- Connect the Offset LNBF (AMC 4) to the Switch Port #1.
- Connect the Center LNBF (Galaxy 25) to Switch Port #2.
- Turn on Master Power Switch or plug the Receiver into the wall AC outlet.
- Verify Quality on all channels. Peak the individual LNBFs if Signal Quality is low.

Adjusting the Dish Elevation or Azimuth settings will require both LNBFs to be readjusted and peaked.

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