

Glorystar: Professional Install Guide



Guide Contents:

- Dish & LNBF Assembly
- Activating Receiver
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IMPORTANT:

There are several differences between the installation of a FSS satellite reception equipment package and a typical DSS (Dish Network) or DBS (DirecTV) installation. Please, READ the following information prior to arriving at customer's site to save time and reduce costly errors.

1. FSS Installations take longer

Professional Installers with previous FSS Experience

(typical time is 2-3 hours)

Professional Installers with no FSS Experience

(typical time is 3-4 hours)

2. FSS systems use linear LNBFs

Linear LNBF must be rotated/skewed based on installation site location.

Get customized rotation/skew information for any installation location

<http://www.geosatfinder.com>

3. FSS signals are weaker

(GEOSATpro receivers include signal strength meter)

FSS systems require a larger and more precisely tuned dish. Consult your signal meter instruction manual for linear LNBF settings.

4. Larger dishes require Mast Support Tripod Legs

(Mast Support Tripod Legs are included with GEOSATpro dishes)

Larger dishes need additional support against wind. Failure to install the tripod legs will result in a warranty return visit.



If this install cannot be completed for issues related to LOS or faulty equipment, installers must contact Glorystar at **866-597-0728** from the job site. Faulty equipment must be returned to Glorystar to approve return trip fees.

Satellite Meters

A digital identification meter such as a SatHawk, BirDog or SatBuddy will simplify the installation process. Please consult with the owners manual for correct operation.

Install Procedure with a Signal Identification Meter

- Connect LNBF # 1 (right side) to the meter and use data for standard LNB type LO 10750, KU, SES1 (formerly AMC4), Horizontal and Vertical transponders. Peak for maximum Signal Quality for SES1.
- Connect LNBF #2 (left side) and use a data set for standard LNB type LO 10750, KU, Galaxy19, Horizontal and Vertical transponders. Peak for maximum Signal Quality for Galaxy19.
- Verify and balance the aiming for optimum AMC4 and Galaxy19 reception.

Note: Birdog meters may have difficulty detecting weaker FSS type signals and must have the BER setting changed. Enter the main set-up menu and change the BER setting to LOG (logarithmic).

Installer Tip

If you are having trouble locating the satellites, remove both LNBFs from the clamp and install a DirecTV LNBF into the LNBF #1 (right side) position. Locate the DirecTV 101w satellite with your meter or a DirecTV receiver. Replace the Glorystar LNBFs into the clamp. The Dish is now roughly aimed and will only require fine tuning for optimal reception of the linear satellites.

Dish and LNBF Assembly

It is important to check the reflector for warping before assembly of the satellite dish.



Dish Reflector Accuracy

Before assembling the dish it is **Extremely Important** to verify that the reflector was not warped during shipping. Failure to check for dish warping could lead to many frustrating hours of trying to locate the satellite. This simple test may be the most important step in a successful installation!



Find a perfectly flat surface such as a garage cement floor and lay the reflector face down. Are the edges of the reflector laying perfectly flat? If any area of the edge is raised by even an 1/8th of an inch reception of the satellite signal could be affected!

If you cannot find a perfectly flat surface to check the dish edges, try the string test.

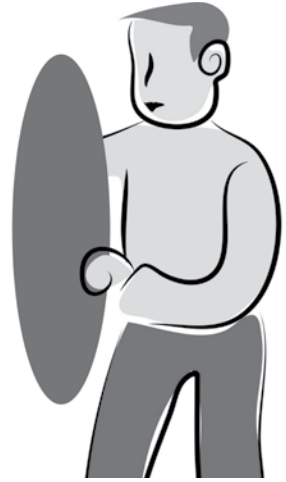
Stretch a string horizontally from edge to edge across the center of the dish

Stretch a string vertically from top to bottom on the edges of the dish.

If the strings do not touch in the center, the dish is warped and will need to be corrected before assembly or aiming.

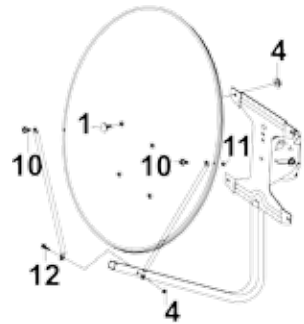


If the reflector is warped, pick up the dish by the edges like a steering wheel and quickly thrust the reflector away from your body while holding the edges of the dish like passing a basketball. This action will cause the reflector to flex and it will spring back into the factory pressed shape. Lay the reflector face down and observe if the edges are now laying perfectly flat. If not, repeat the flexing process until the reflector edges are uniformly flat.



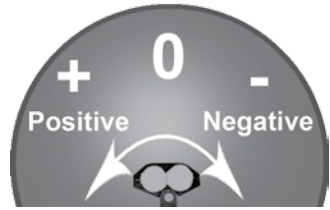
Most installations in the US and Canada will use Elevation Scale "A" type assembly. The dish has been correctly assembled for Measuring the Dish Elevation Angle using Scale A (10 - 60 degrees) if an upside letter B is visible stamped on the Post Clamp on the left side of the Post Clamp.

After verifying the Reflector is not warped, mount the Reflector to the Elevation Bracket and install the two LNBF Arm Side Supports. The Side Arm Supports will perfectly center and support the LNBFs for optimal reception.



Failure to install the tripod legs will result in a charge back.

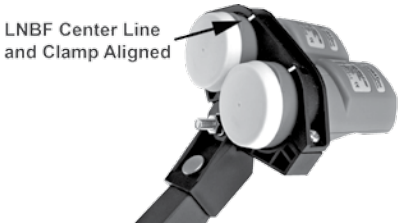
Rotate the Twin LNBF clamp to the Skew Angle (LNBF Rotation) specified in the aiming coordinates. Standing in front of the dish looking towards the reflector, a Positive (+) Skew Rotation is set counter clockwise meaning that the left LNBF is rotated lower than the right LNBF. Negative Skew (-) is a clockwise rotation and the right LNBF is rotated to be lower than the left LNBF.



If the Mast or mounting post is not **PERFECTLY** plumb, the skew angle will not be correct and the dish will be difficult to aim!

Example: Negative -40 is set while standing in front of the dish looking into or towards the reflector.

LNBF #1 is for SES1 reception and LNBF #2 is for Galaxy19. The LNBF Skew Scale is visible standing in front of the dish looking towards the reflector.



Install two GEOSATpro Mini Bullet LNBFs into the Twin LNBF Clamp, align the centering line on the top of each LNBF with the centering pointer on the clamp. Slide the LNBF forward towards the reflector so the white front face of the LNBF cap is slid 20mm (3/4") forward of the clamp towards the reflector. Securely tighten both clamp screws (2).

Connect Receiver to a TV

If you do not have a Signal Identification Satellite Meter for the install, the easiest way to aim the satellite dish is to temporarily place the satellite receiver connected to a small television at the dish antenna mounting location.

Use Channel 107 (The Word Network) for the best results.

Once 107 shows Word Network programming, call Glorystar and request the automatic update to be turned on. As of January 2015 Update has been set to manual and needs Glorystar to enable it.

DO NOT connect the 22KHz switch at this time!

Locate and Peak Satellite Signal

While observing the Signal Quality (Q) reading, slowly move the dish towards the right. Reference the distant landmark or the string on the ground that you identified in your site check that corresponds with the Azimuth (compass) reading. Usually the satellite will be found within a few degrees either side of the compass reading.

If the dish is moved beyond 15 degrees from the site's compass reading and no Signal Quality is detected, sweep 15 degrees in the opposite direction. When the correct satellite is found the beeping sound changes to a higher tone, the Signal Quality bar turns Green and the Spectrum Graph displays changes in Signal Quality.

The Signal Quality readings will increase as the correct satellite is detected and fine tuned. If the dish is aimed at an incorrect satellite, the Quality reading will display a low reading and not turn Green.

If no Signal Quality is detected, increase or decrease the elevation by one degree and repeat the slow sweep. The elevation may need to be adjusted +/- 5 degrees depending on the post being plumb. Move the dish very slowly to allow the receiver to process the signal information and update the meter.

When the dish is correctly aimed the programming will display and the Signal Quality reading will display a 50% or better level. A stable signal on the Spectrum Graph with minimal ripple indicates that the signal is optimized.



The Signal Level (S) is not important in detecting the satellite. Signal Level readings indicate a connection to a functioning LNBF, not the detection of the correct satellite.

Locate 2nd Satellite

Disconnect the coax cable from LNBF #1 and connect to LNBF #2.



Press the CH/DOWN arrow button on the remote control to place the receiver on TBN, Channel 101. This is a strong channel on the 2nd satellite, Galaxy19 on LNBF #2. Verify the Signal Quality reading is at least 50%. If the Signal Quality is less than 50%, make very small adjustments to fine tune the dish elevation and azimuth.

Press CH/UP arrow button to place the receiver on Cornerstone, Ch. 113, a weaker channel on 2nd satellite, Galaxy19 on LNBF #2. Verify the Signal Quality reading is at least 50%.

Switch Installation

Before connecting the Switch, the Master Power, located on the rear of the receiver **must be turned OFF**. This will prevent damage to the switch while connecting cables.

Verify that the dish is accurately aligned for reception of both satellites. Press the Signal button on the top of the remote control to display the Signal Meter.

Verify the Signal Quality reading is at least 50%. If any of the channels display a Signal Quality reading that is below 50%, additional fine tuning adjustments should be made to the dish elevation and azimuth aiming. If these adjustments do not increase the signal quality, slight adjustments to the LNBFs rotation or placement may be necessary.

LNBF Adjustment

Important Notice: Adjustments to the twin LNBF clamp or the LNBFs rotation or placement can negatively affect your installation. Please consider stopping the fine tuning process at this time and lock down the dish elevation and azimuth adjustments if the signal quality is 50% or better on the weakest channel!

LNBF Rotation Fine Tuning



LNBF #1 or #2 can be slightly rotated within the twin LNBF clamp $\pm 5^\circ$ to optimize the satellite quality readings.

Slightly loosen the two Phillips head screws that secure the twin LNBF clamp. Place the receiver on the weakest SES1 channel and slowly rotate LNBF #1 left or right. If no improvement in quality, re-center the LNBF. Place the receiver on the weakest Galaxy19 channel and slowly rotate LNBF #2 left or right. If no improvement in quality, re-center the LNBF.

LNBF Position Adjustment

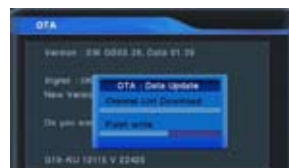
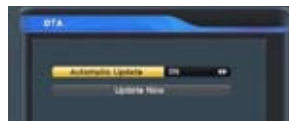


LNBF #1 or #2 can be slightly positioned in the twin LNBF clamp towards or away from the reflector to optimize the satellite quality readings. Place the receiver on the weakest SES1 channel and slowly slide LNBF #1 in toward the reflector or out away from the reflector. If no improvement, return the LNBF to the 20mm (3/4") forward position. Place the receiver on the weakest Galaxy19 channel and slowly slide LNBF #2 in or out. If there is no improvement, return the LNBF to the 20mm (3/4") offset. Tighten the two Phillips head screws to secure the dual LNBF clamp.

Updating the Glorystar Channel List

The Glorystar satellite receiver has been shipped preprogrammed with a list of the channels available at time of manufacturing. The receiver will be automatically updated with the most current channel list each week with a channel list update sent via the satellite. Glorystar recommends that the channel list be manually updated using the UPDATE NOW"at the completion on y g'kpucn0 Chgt'Lcp"4237"ecmI nqt { uxt"vq"wr f cvg0

- Press Menu
- Press Left Arrow to Accessory Menu
- Highlight OTA. Press OK.
- Select Automatic Update
- Press OK to display OTA Menu
- Verify OTA Update feature is ON
- Highlight UPDATE NOW
- Press OK
- Confirm Signal: OK (if not, adjust the dish)
- Press OK to update
- The update will take several minutes. The receiver will restart on Glorystar Channel #1 and the time will automatically set in approx. 15 seconds.



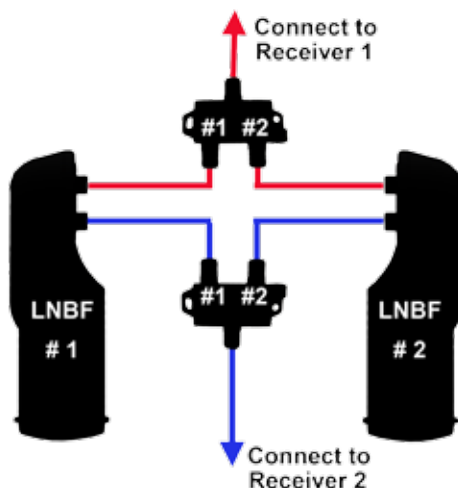
Important Notice: Do not turn off Automatic Update!

If the Automatic Update feature is turned OFF, the channel list will not be updated, new features cannot be added to the receiver and the Glorystar informational channels will not be updated with new programming.

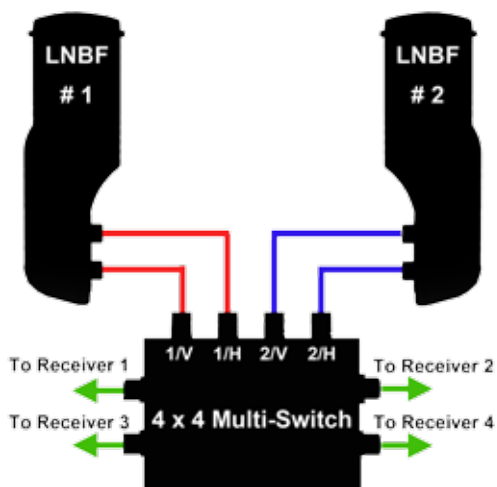
Favorites Channel

If the customer prefers to view only selected channel list such as only the Adventist broadcasters, Spanish, Russian or Arabic languages, press the FAV button on the remote to choose one of these preprogrammed FAVORITE LIST. Example: Select FAV - ADVENTIST to only receive the Adventist channels.

Two Room Install Diagram



Multiple Room Install Diagram



Troubleshooting FAQ

Receiving channels from only one satellite. Was the dish checked for damage or if warped during shipping? Is the LNBF clamp SKEW set correctly? Go to www.GeoSatFinder.com, enter the site zipcode and confirm and/or correct the setting. Are the jumper coax cables faulty? Swap LNBFs, does the outage follow the LNBF? Are fittings corroded or water wicked into damaged coax cable?

Trouble Shooting: Important Notice: Make sure that the Master Power Switch is always off before connecting or disconnecting any switch!

1. Connect coax directly from the receiver SAT IN to LNBF #1 (standing in front of dish LNBF on right side), bypassing the switch.
2. Place receiver on "UGU3"ej cpgpn Press the SIG button on the remote to display the Signal Level and Quality meters. Is this channel coming in? If so, LNBF is good and the dish aiming is correct. If the Signal Level is less than 10%, the LNBF may be faulty. If the Signal Level is above 50%, place the receiver on 101 (TBN). Is this channel coming in? If so, the dish is not properly aimed or the dish is aimed towards the wrong satellite.
3. Move the coax cable from LNBF #1 to LNBF #2 (left side LNBF standing in front of the dish).
4. Place receiver on 101 TBN. Is the channel coming in? If so, LNBF is good and the aiming is correct. If FqF was coming in when connected to LNBF #1 and TBN was coming in when connected to LNBF #2 then the aiming is correct, the LNBFs are both good, but the switch may be bad. Turn off the Master Power Switch on the rear of the receiver. Connect the coax cable from the receiver to the output of the switch, LNBF #1 to the switch port #1 and LNBF #2 to the switch port #2. Turn on the receiver. Are TBN and Fqf channels coming in? If not, Perform a factory reset and reactivate for Glorystar. If both satellites still do not come in after performing a reset, the coax cable may be bad. Run a temporary coax cable between the receiver and the switch. If both satellites now are coming in, the coax cable is faulty. If one satellite still is not coming in, replace the switch.

Channels from both satellites are coming in, but weaker channels are very breaking up or displaying No Signal. Misaligned dish, warped dish, LNBFs are not properly aligned.

1. Place the receiver on 101 (TBN).
2. Press the SIG key on the remote to display the Signal Level and Quality meters. Is the Signal Quality reading at or above 50%? If no, dish or the LNBF clamp SKEW setting needs adjustment.
3. If TBN is coming in at 50% or better, place the receiver on The Word Network. Is the Signal Quality below 50%? If yes, the dish or LNBF clamp SKEW setting needs adjustment.

Remote Control not working? Does the remote control power key red light come on when any key is pressed? If no, change the batteries.

What is the Signal Level reading with a good LNBF is connected?

The Signal Level reading is approximately 50%+ when a good LNBF is connected to the “Digital LNB In” and less than 10% if the LNBF is dead or the coax is disconnected or damaged.

What is the minimum Signal Quality reading to provide reliable reception? Ideally the Signal Quality should be 50% or better. The receiver will play channels with lower Signal Quality, but if the signal Quality falls below 40% the channels will be lost during poor weather conditions.

Remote doesn’t work but receiver front panel buttons may turn on/off and change channels. Press The STB button on the remote to control the Set Top Box. Check batteries, remote needs a clear line of sight to the receiver. Reset Master Power switch on the rear of the receiver.

No lights on receiver. Check power plug make sure that it is plugged into a working electrical outlet. Reset Master Power switch.

Receiver displays 50%+ Signal Level, but no Signal Quality on all channels. The dish might be pointed at the wrong satellite or there is an obstruction in the line of sight between the dish and the satellite. Mounting mast may have moved or is loose. Reset Master Power switch.

Meters display 0 - 10% signal level and no quality. Coax not connected from LNBF on dish to SAT IN on receiver. Bad coax, connectors or LNBF failure.

Satellite receiver displays “No Signal” only during very hot or cold weather. An aging or defective LNBF can drift off frequency and cause the loss of reception during the heat of the day or coolness of the night. Replace the LNBF.

Local or cable TV channels are fuzzy and channel number is displayed on front panel. Turn off the satellite receiver or press the ANT/SAT button when watching local or cable channels. Loop through function for antenna or cable is only available using the TV/VCR coax connection to a TV. Antenna or cable signal are not passed through the Video, Component or S-VHS connectors.

Please call **866-597-0728** for troubleshooting assistance.
7am - 4pm M - F