

Technical Bulletin #0107-03

07-05-01

Subject: Gateway Installation Verification Procedures

This procedure is used to verify performance once the satellite dish is installed and aligned and the gateway is hooked up and ready to test. If at any point of the verification process you get a result other than the one indicated in this guide, it must be corrected before proceeding.

Once the gateway has booted all the way to the Remote Gateway screen you are ready to start. 1) Minimize the remote gateway screen. 2) Enter the user name and password for the system. On some systems a user name and password may not have been assigned. On these units click on “OK” to minimize the Remote Gateway screen.

1. Verify that the receiver is working.

Open the Combox Satstream by clicking on the icon with the satellite dish in the lower right hand corner of the screen if it is not already on the screen. The window should indicate “modem locked”. If it indicates “Configuration Process Result: Fail”, then click on the reconnect button. If the indication doesn’t change to “modem locked” improper dish alignment will most likely be the problem. Other possible problems could be LNB is off frequency or there is no DC to the LNB. For both of these problems call SpaceCom for technical assistance. Next click on the status button. The EB/N0 value should read >7. If the EB/N0 is less than 7, the satellite dish is not properly aligned. Close the status window.

2. Verify that the Gateway transmits.

Open the Remote Gateway window. There should be a list of free channels in the top center of the window. Obtain a command prompt by minimizing the Remote Gateway window then clicking on the start button and selecting programs and then command prompt. Start a ping running by typing the following command: ping -t 208.169.216.129 . The command may time out a few times then it should indicate a return time between 550 to 650 ms. Open the remote gateway window. The Connected Box should be checked. Note the power level after several minutes. Normally the level will be at -12 or lower. The box next to DR (data rate) will indicate the base connect data rate. The Transmit On/Off should indicate Green. If this works properly, minimize the Remote Gateway window and then shut down the ping command by holding down the control key and pressing C.

Note: Always shut down the gateway completely and remove power cord prior to troubleshooting transmit problems. Failure to remove the power cord may render your troubleshooting ineffective. Possible problems when unit does not transmit:

- A. Cable is shorted or connectors are not installed properly. Check cable with Ohm meter. It should read open between center pin and shield and should have continuity from one end to the other. If the cable was shorted remove and or replace connectors to clear the short, then check the BUC fuse on the back of the gateway, next to the transmit cable. Extra fuses are provided in the gateway box.
- B. BUC is installed incorrectly. The flat side of the BUC should be face toward or away from the LNB. If it is 90 degrees or 270 degrees away from the LNB it is installed incorrectly. Remove the BUC, rotate it where the flat side of the BUC faces the LNB and replace it.
- C. Power level is higher than -12 after several minutes of the ping command running. If cable is longer than 200 feet you will need to install a transmit line amp. Contact SpaceCom to purchase one. This could also be caused by improper alignment of satellite dish. If not, cable connectors could be installed incorrectly causing a high standing wave ratio. Check connectors with an Ohm meter. It should read open between center pin and shield and should have continuity from one end to the other. Repair or replace connectors if this is the problem.
- D. If after several minutes of trying to connect gateway still does not connect, shut down the computer and unplug it. Check the BUC fuse on the back of the gateway next to the transmit cable. If it is blown, replace fuse, then check the transmit cable for a short. Repair or replace shorted connectors.

1. Verify Internet Connectivity and Netgain Functionality

Open Internet Explorer. Go to a web page that you are familiar with. While the page is loading, look at the Blue Square Icon with a white star located in the bottom right hand corner of the screen. The white star should change intermittently to green while the page is loading. This indicates that Netgain is working properly. The web page should load normally. If page loads normally, shut down internet explorer. If the page does not load or Netgain does not operate properly, open the remote gateway window and check to see that the connected box is checked. If the connected box is not checked, refer to guidelines above for checking to see if the gateway transmits. If gateway indicates connected, and web page still does not load, contact SpaceCom for technical assistance.

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