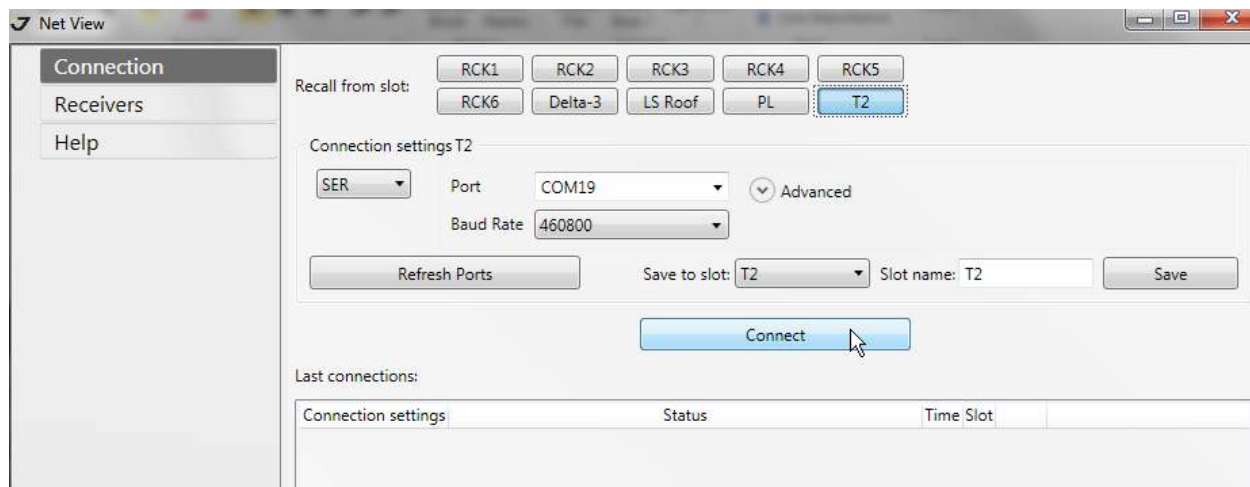
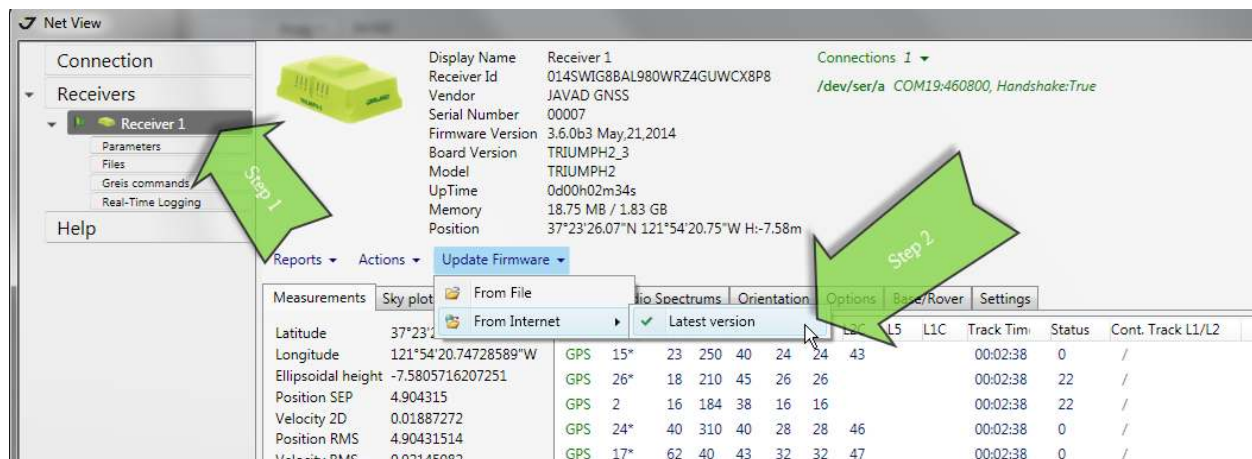


Here are the TRIUMPH-2 USB OAF/Firmware update instructions:

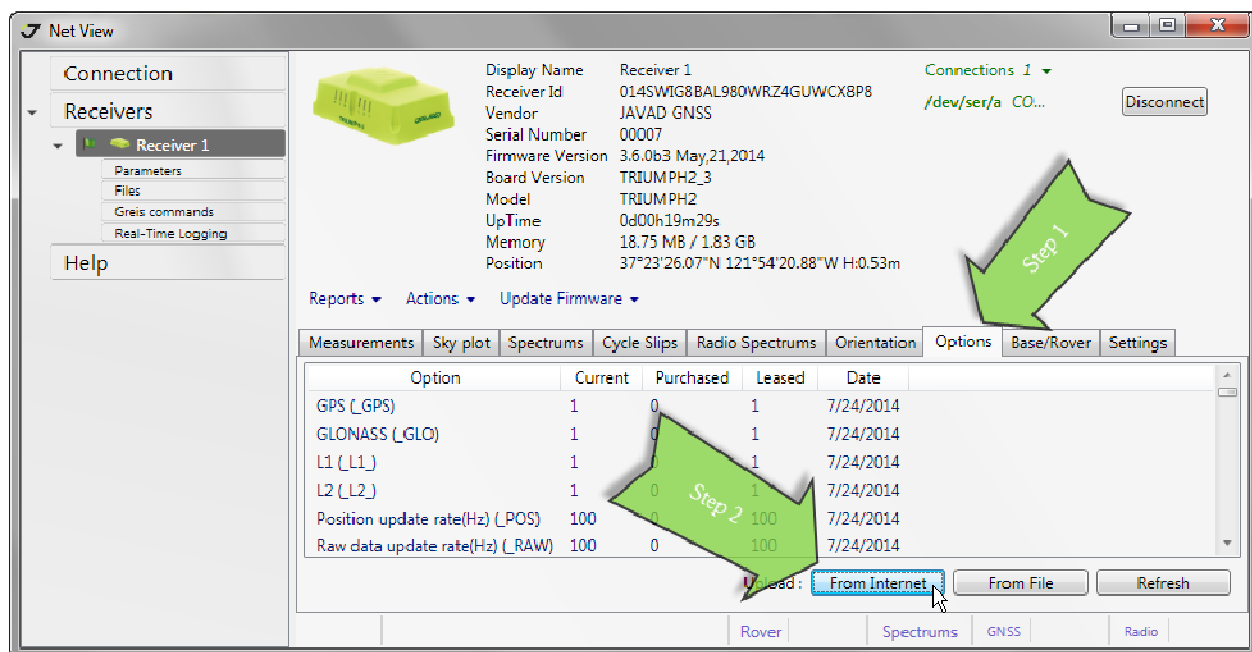
1. Download the TRIUMPH-2 USB driver to your local drive, <http://www.javad.com/downloads/javadgnss/drivers/usb/ignssusb.zip>
2. Extract the contents of the archive to your local drive
3. Plug the USB cable into the receiver first and then plug into the PC
4. Power on the GNSS receiver
5. Windows will begin searching for the appropriate USB driver. Click on the device driver search icon to open the Update Driver dialog window and select "Browse my computer for driver software."
 - a. If you do not see this icon or missed it when Windows initially attempted to install the TRIUMPH-2 USB driver, please see USB troubleshooting below
6. Click "Browse" and navigate to the location where the USB driver files have been extracted on our local drive
7. Windows will prompt you when the installation process has completed and indicate what COM port has been assigned to the TRIUMPH-2
8. To test the connection, run NetView, <http://www.javad.com/ignss/products/software/netview.html>, and select SER from the connection setting drop down menu. If the expected COM port does not appear in the list, click Refresh Ports. Finally, click Connect.
9. If you experience any difficulties with the driver installation, proceed to USB Driver Troubleshooting



Once connected, click the appropriate receiver under the Receivers list on the left and then click Update Firmware/From Internet/Latest version and allow it to perform the upload.

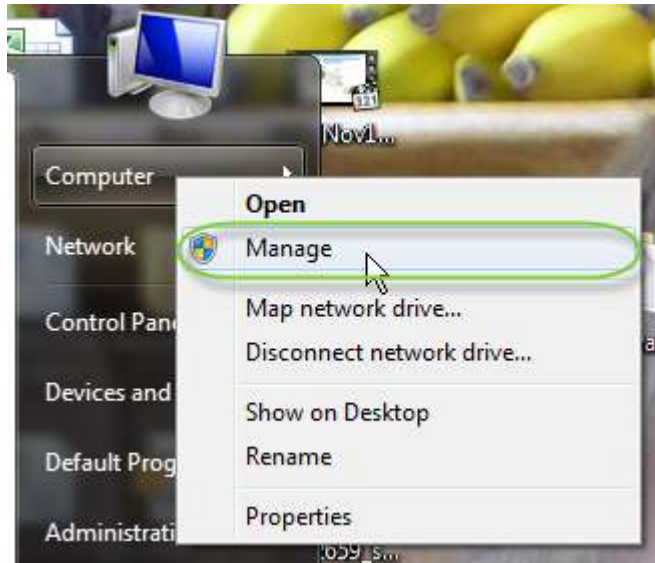


To update your TRIUMPH-2 OAF, just click on Options and Upload: From Internet.



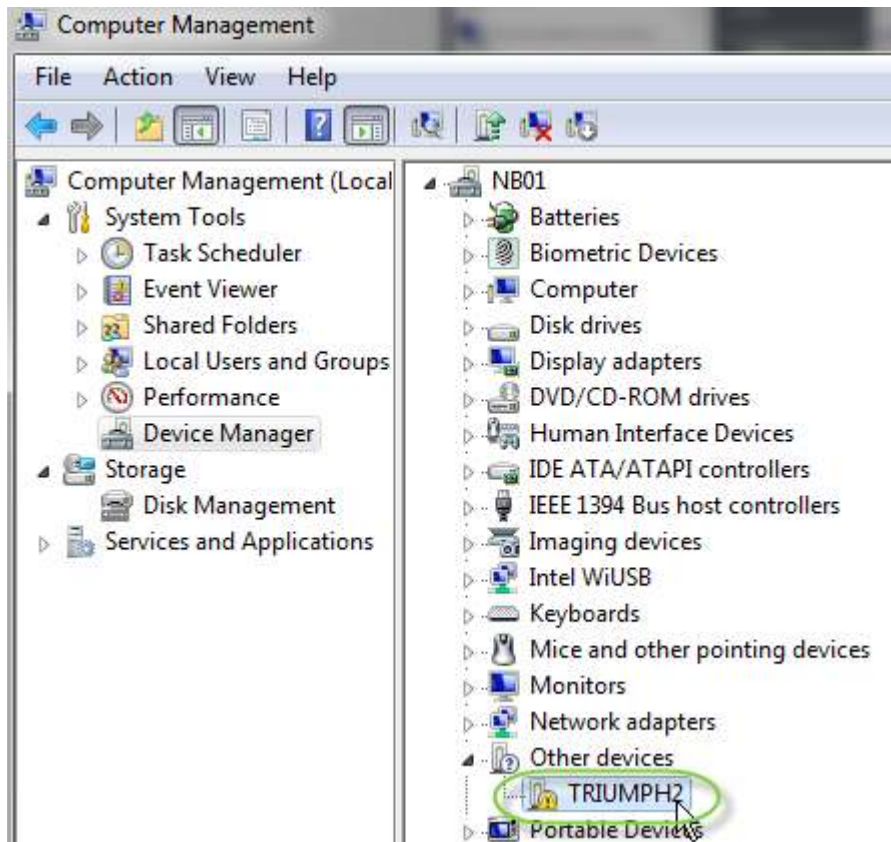
USB Driver Troubleshooting

1. Ensure that you have administrative privileges and are logged in as an administrator
 - a. You can verify that by checking here to see if Administrator is listed under your user account name, Start/Control Panel/User Accounts
 - i.
2. Open the start menu, right-click on "Computer", and left-click on "Manage". You will need administrator rights to do this.



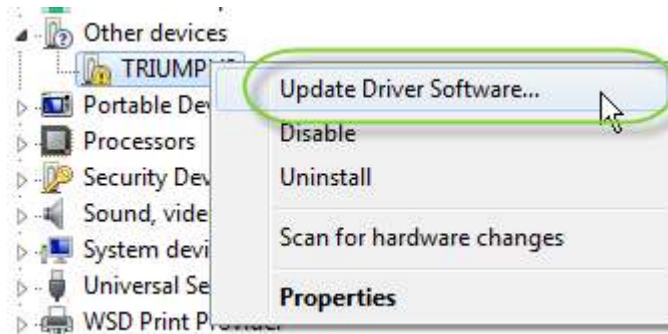
a.

3. Left click on "Device Manager" in the leftmost column. Here is where you will see orphaned hardware with an exclamation mark next to it.



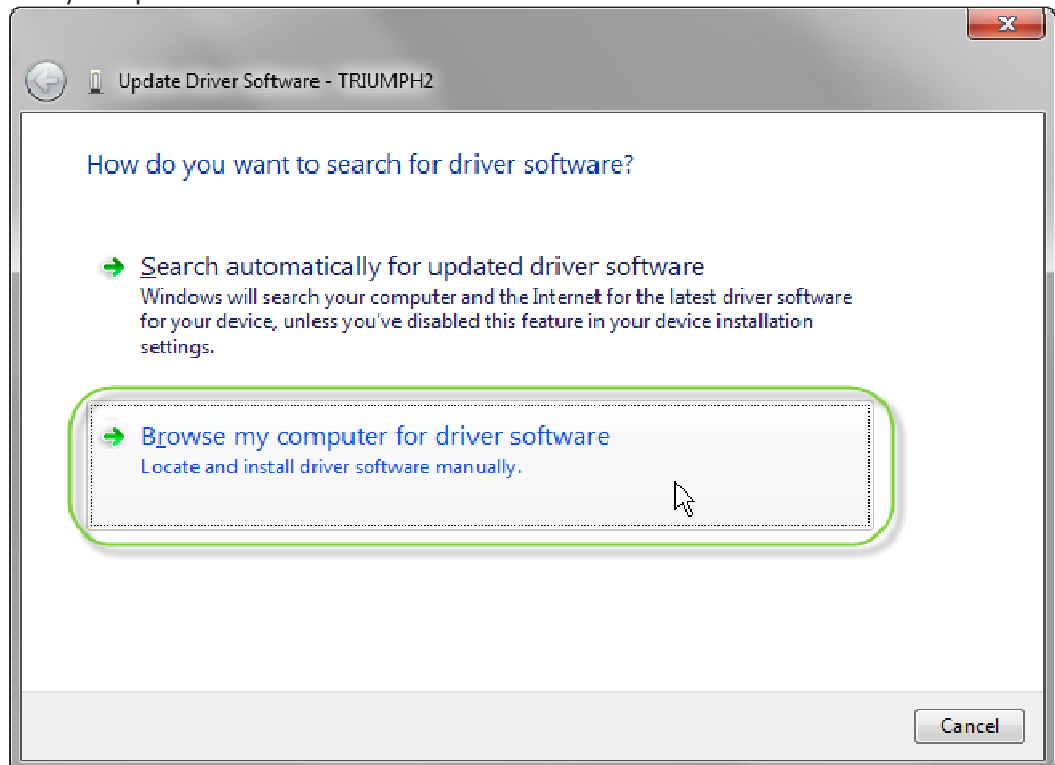
a.

4. Right-click on "TRIUMPH2" and left-click "Update Driver Software"



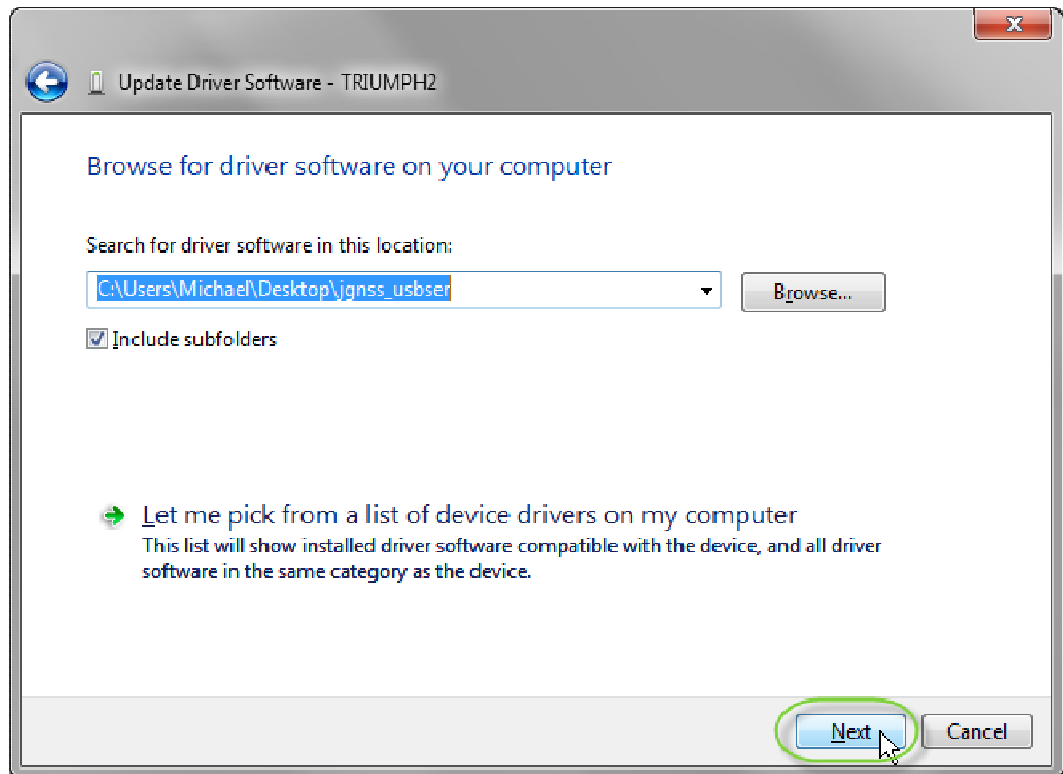
a.

5. Click Browse my computer for driver software



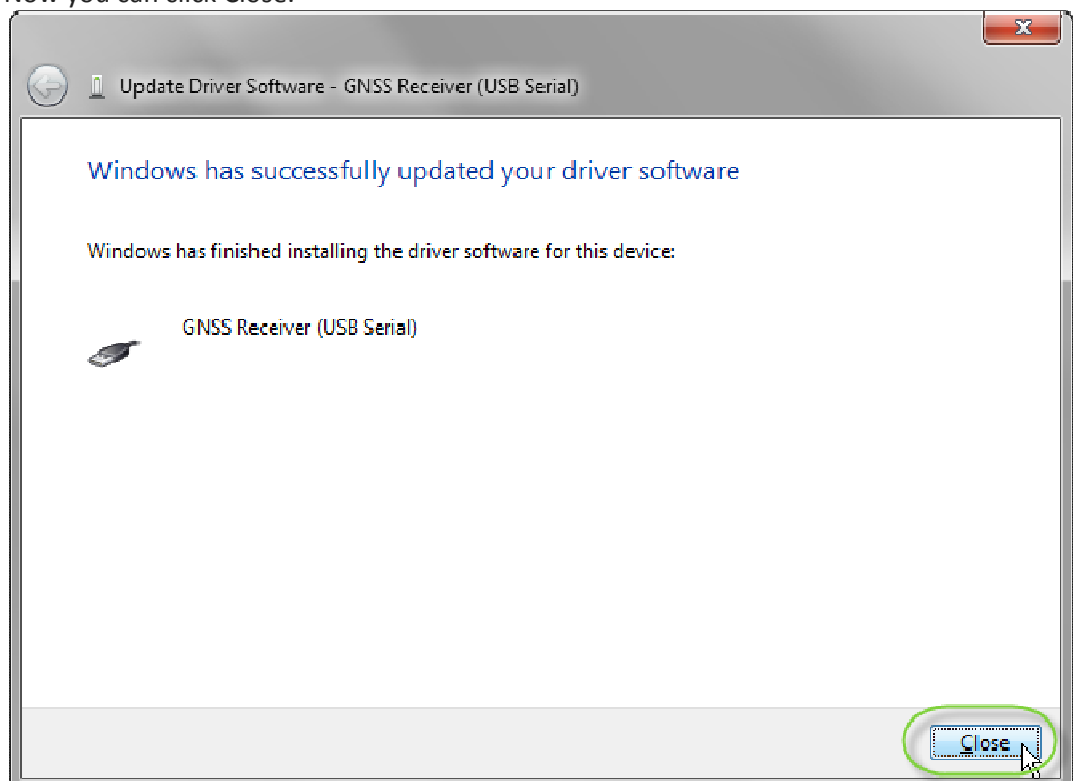
a.

6. Browse to the location where you extracted the jgnss_usbser driver and click next.



a.

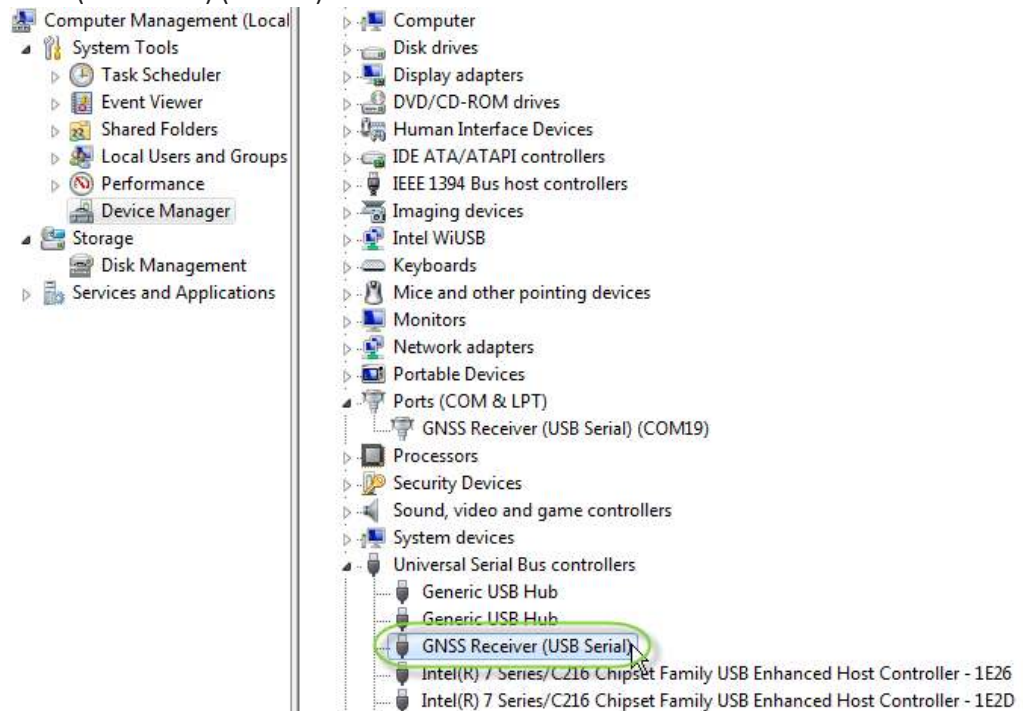
7. Windows will begin installing the driver and should prompt you that it has been successfully updated. Now you can click Close.



a.

8. The Device Manager page will refresh and you will see a new item with an exclamation mark, , named "USB Serial Port". You will need to follow the same procedure to install the driver for the USB Serial Port using the same driver you used for the TRIUMPH-2.

9. At the Computer Management screen, you should be presented with a new Universal Serial Bus controller entry “GNSS Receiver (USB Serial)” and a new port under Ports (COM & LPT) “GNSS Receiver (USB Serial) (COMxx)”

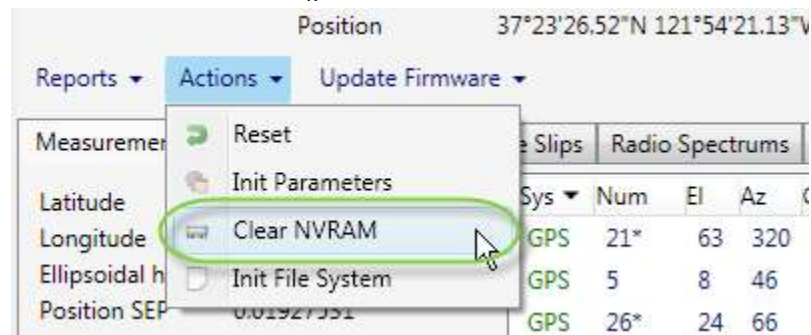


- a.
10. Using the COMxx port number which has been assigned for your installation (in my example, it is COM19), use NetView to establish a connection

USB Troubleshooting, Stage 2 If NetView is unable to establish a connection

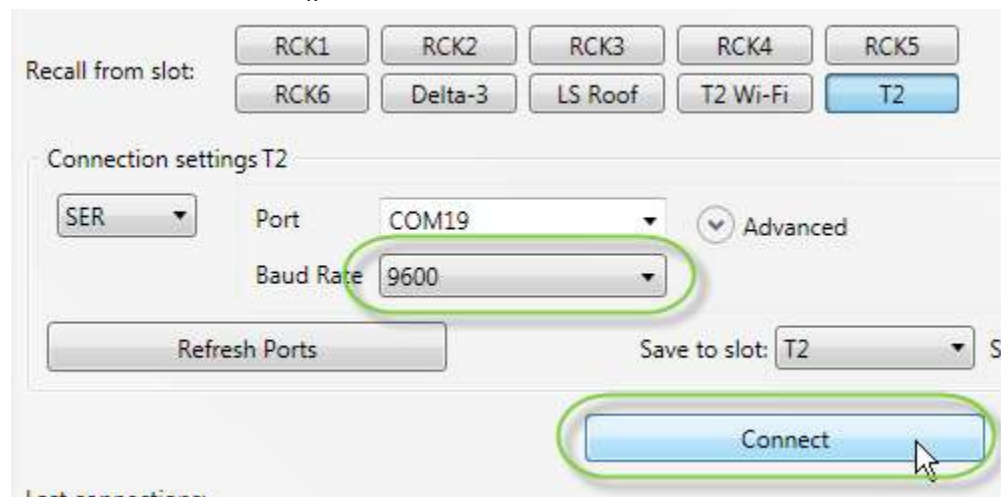
1. Clear the TRIUMPH-2 NVRAM
 - a. Power down the TRIUMPH-2
 - b. Press and hold the record button
 - c. While continuing to hold the recorder button, press the power button for ~2 seconds
 - d. After ~10 seconds, the five rightmost LEDs will flash yellow, release the record button
 - e. Use NetView to establish a connection
2. If clearing the NVRAM does not restore communication to the port, set the port to command mode @9600 baud
 - a. Power on the TRIUMPH-2
 - b. Press and hold the record button until the record LED flashes yellow, green and finally red (about four seconds). Release the record button while the record LED is still illuminated red
 - c. Use NetView to establish a connection at a baud rate of 9600

i.



- d. Once connected to the TRIUMPH-2, select Actions/Clear NVRAM. Once cleared, reconnect to the TRIUMPH-2 at 460,800 baud.

i.



- e. When the NVRAM clearing process has completed, reconnect to the TRIUMPH-2 at 1,500,000 baud.

i.

