NOTE: Please read through this entire Guide prior to attempting to do the FC recovery.

1. INTRODUCTION

This guide discusses the steps necessary to fix a 7700FC after a failed upgrade attempt.

1.1. REQUIREMENTS

You will need the following equipment in order to update the module Firmware:

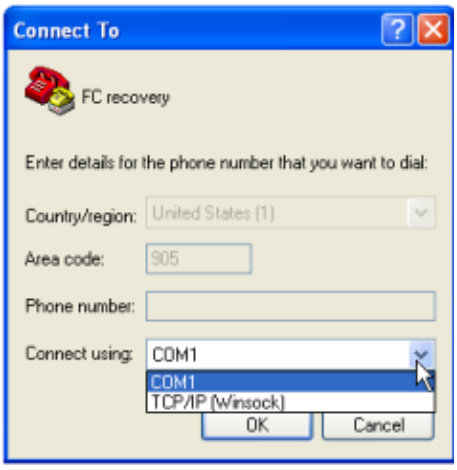
- PC with available communications port. The communication speed is 57600 baud, therefore a 486 PC or better with a 16550 UART based communications port is recommended.
- "Straight-thru" serial extension cable (DB9 female to DB9 male).
- Evertz Upgrade cable (multi-colored ribbon cable, Evertz part number WA-S76)
- Terminal program that is capable of Xmodem file transfer protocol (such as TerraTerm HyperTerminal).
- This Guide uses Windows Hyper Terminal and Windows Command Prompt and Windows FTP.

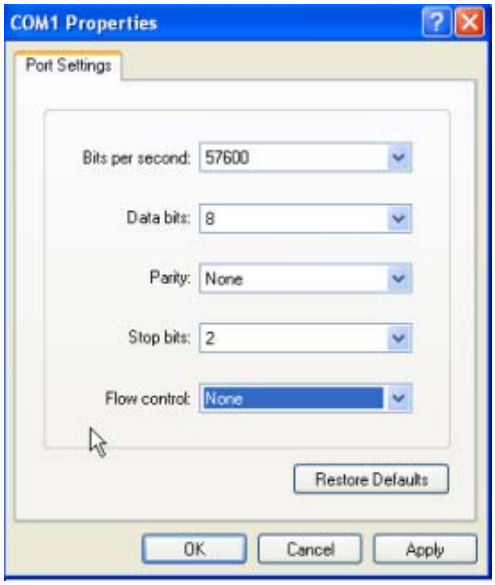
2. TEMPORARY BOOTLOADER INSTALLATION

The 7700FC will need to have a known IP address applied. The upgradeRecoverForceIP.bin file will be loaded overtop of the standard FC boot-loader to accomplish this.

2.1. LOADING UPGRADERECOVERFORCEIP.BIN

1. Pull the 7700FC from the 7700 Frame. Set the upgrade jumper to the "UPGRADE" position from the "RUN" position.
2. Connect the Evertz serial cable to the 4 Pin header
3. Launch Hyper Terminal.
   - Enter a name for the connection
   - Select the COM port
   - Set connection parameters: (57600, 8, None, 2, None)





4. Insert the 7700FC – Watch for the power up message.

```
EVERTZ 7700FC BOOT MONITOR.
MON8240 1.1 BUILD 9.
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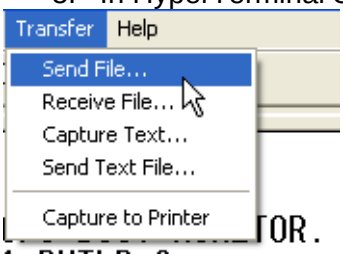
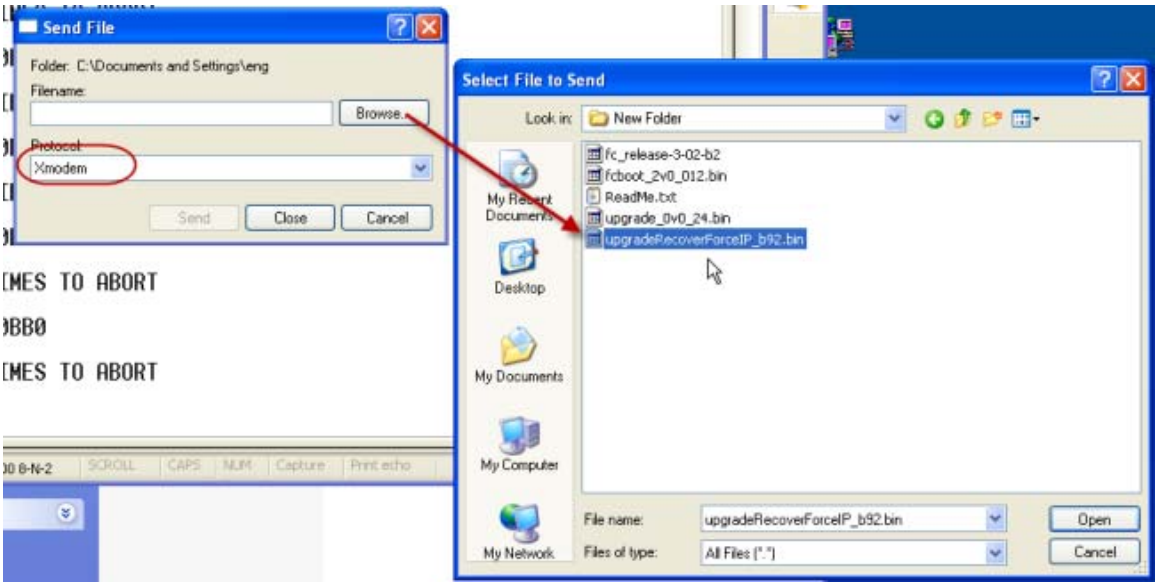
UPGRADE JUMPER PRESENT
UPLOAD MAIN PROGRAM
S_
```

5. In HyperTerminal Select Transfer --> Send File...

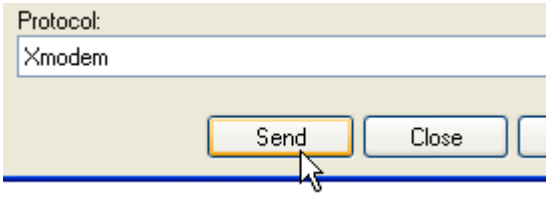


The “Send File” dialog will appear

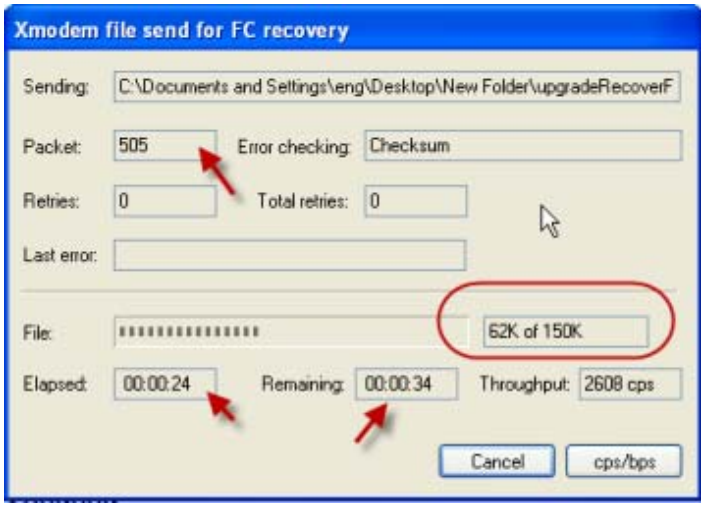
6. Ensure protocol is "Xmodem".
7. Click the Browse Button, navigate to and select the file "upgradeRecoverForceIP.bin"



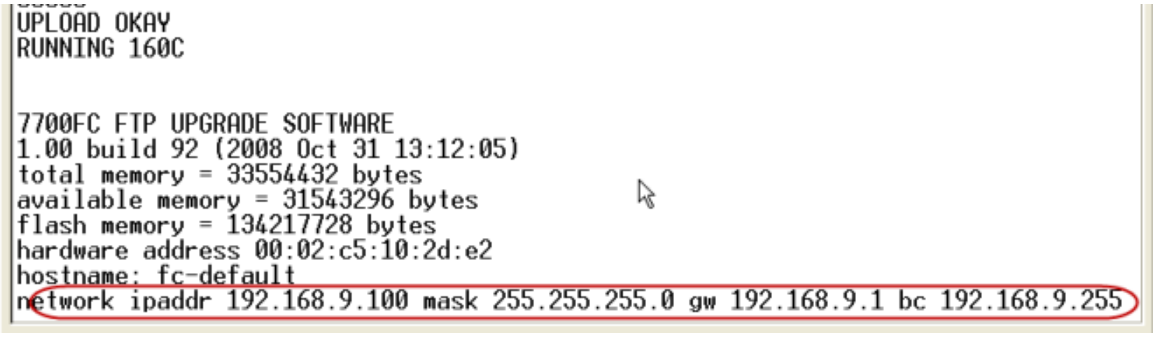
8. “Send” the file



9. A 'transfer window' will open up. Within a few seconds you should see packets being sent



10. When this is complete it should boot automatically, showing the newly set IP at the bottom of the Hyper Terminal window.



NOTE: The address 192.168.9.100 cannot be changed at this point, ensure no other equipment on your network uses this address.

- If it does not boot automatically then type "boot" at the HyperTerminal command prompt(">"). Leave the HyperTerminal Window open

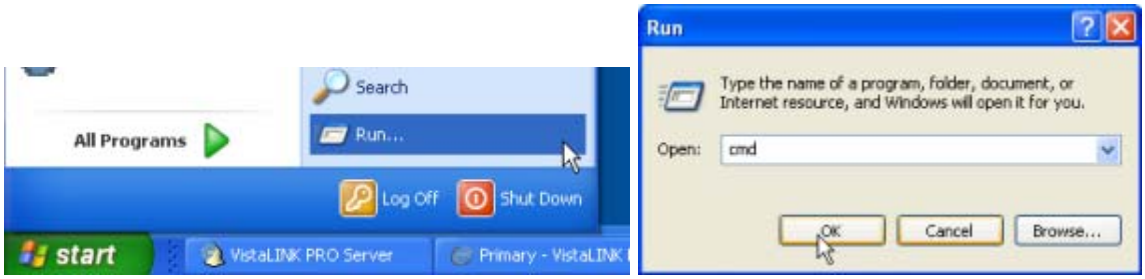
11. Ensure the 7700FC and the computer are connected to a network
    - OR Connect the PC to the 7700FC via a crossover cable
12. Set the PC's IP address to 192.168.9.xxx (where xxx is something between 2 and 254)
    - Make sure that address is not used by other equipment as well.

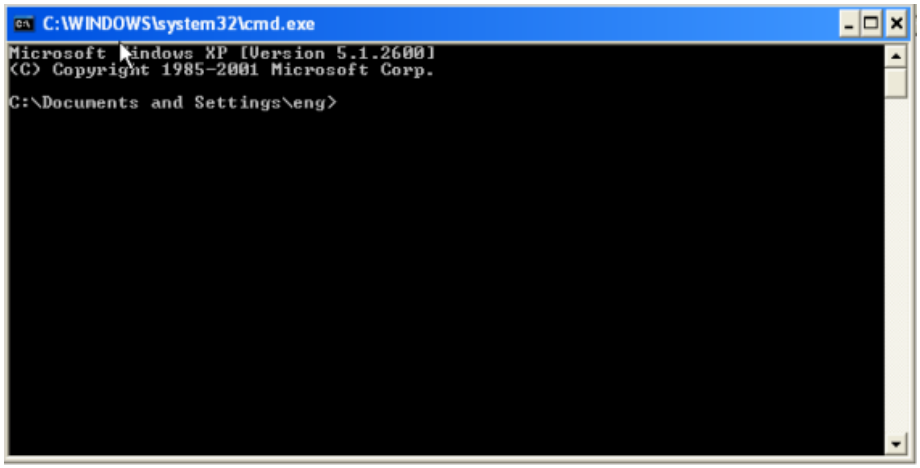
3. IMAGE FILE INSTALLATION

This section discusses the steps required to transfer the image file via FTP

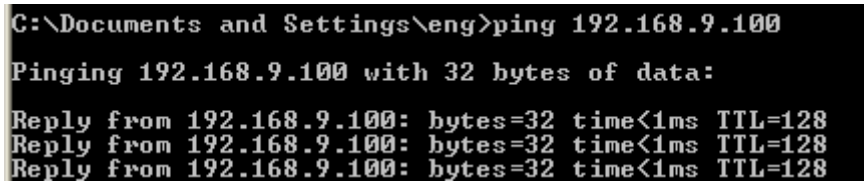
3.1. LOADING THE IMAGE FILE

1. Open a Command prompt window





2. In the command window Type Ping 192.168.9.100
You should see replies –



3. If you delayed to long you may see the following in the HyperTerminal window (and won't get Replies in the command window):

```
Timing Out ... .

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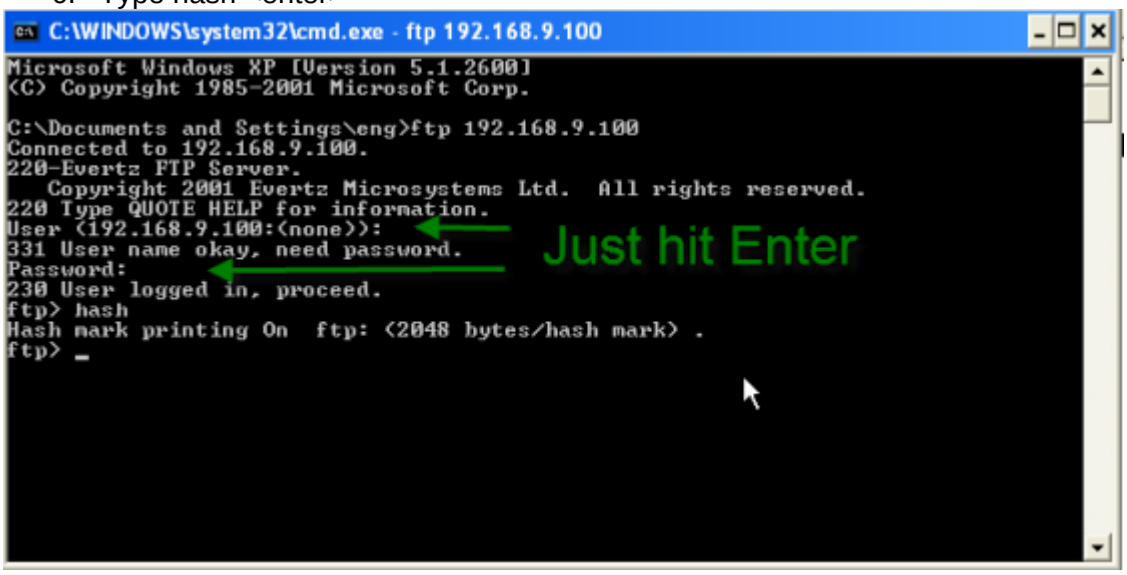
UPGRADE JUMPER PRESENT
UPLOAD MAIN PROGRAM
§§§§§§§§§§§§§§§§§§§§BB0BB0
NO UPLOAD
PRESS CONTROL-X FIVE TIMES TO ABORT
UPLOAD MAIN PROGRAM
§§§§§§§§§
```

- If so, in HyperTerminal, press and hold the <Ctrl> on your keyboard and hit the "x" key until the upload is cancelled and then type "boot" <enter> – go back to step 13

```
UPLOAD CANCELLED
ENTERING COMMAND LOOP
> boot
```

4. On your PC, in the command prompt type: ftp 192.168.9.100 <enter>
5. When prompted, hit <Enter> for both USER and PASSWORD
6. Type hash <enter>

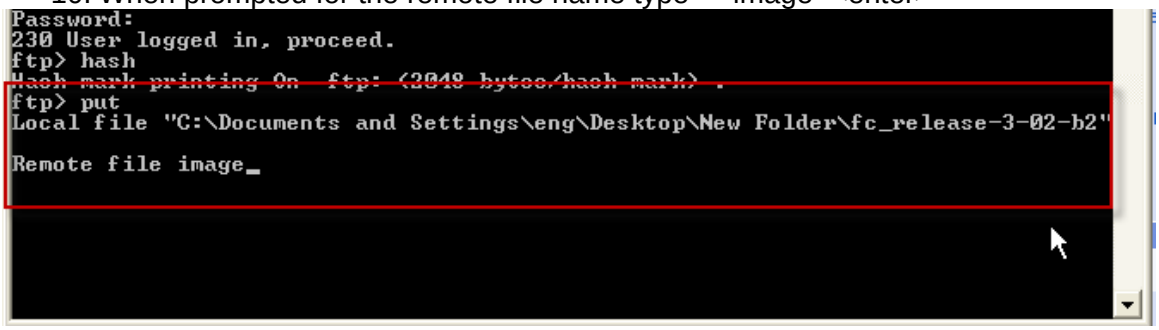


7. Type "put" <enter>
8. When prompted enter the path to the file: "C:\directory path\latestImagefile.bin image"

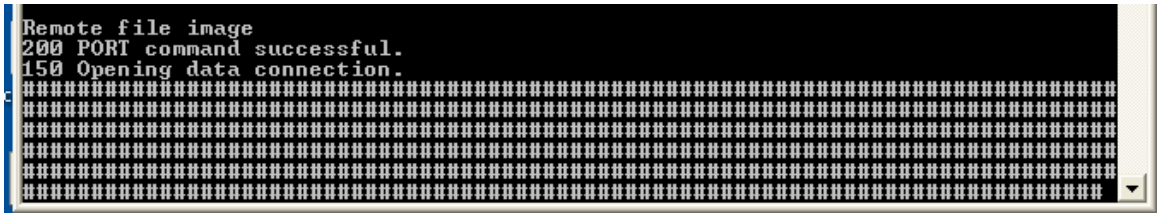
in this case actually enter the quotes (" ") see screenshot (where "directory path" is actual location of the file) (where latestImagefile.bin is the image file to upgrade) OR Drag and drop the file onto the command window

9. Hit <enter>

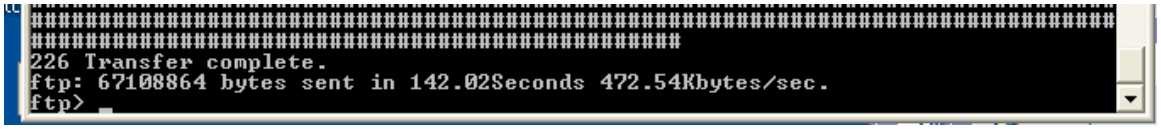
10. When prompted for the remote file name type - “image” <enter>



11. The message after pressing enter should be:
"200 PORT command successful." & "150 Opening data connection.".
The ### represent data packets being sent



12. When it is done transmitting it will show the amount of bytes transferred (this value will change with different version of the firmware the value below is an example) and present you with the "ftp>" prompt again.



13. Close the command window
14. Cycle power on the 7700FC card, leaving it off for at least 3 seconds.

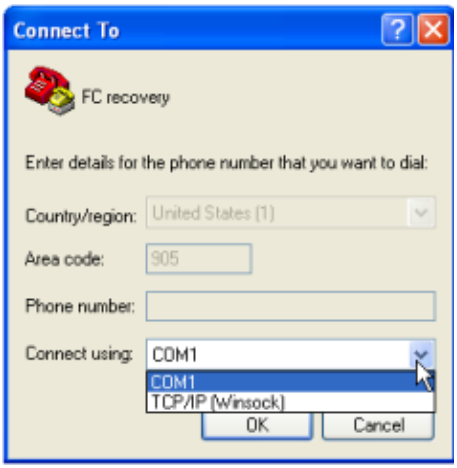
4. RELOADING THE ORIGINAL BOOTLOADER

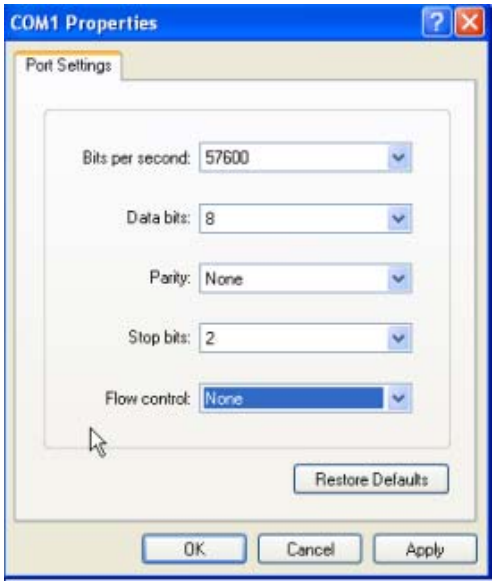
The 7700FC is now running the upgradeRecoverForceIP.bin instead of the standard file. fcboot_2v0_012.bin will be loaded again.

4.1. LOADING FCBOOT_2V0_012.BIN

1. Return to the HyperTerminal window.

2. Pull the 7700FC from the 7700 Frame. Set the upgrade jumper to the "UPGRADE" position from the "RUN" position.
3. Connect the Evertz serial cable to the 4 Pin header
4. Launch Hyper Terminal.
   - Enter a name for the connection
   - Select the COM port
   - Set connection parameters: (57600, 8, None, 2, None)





5. Insert the 7700FC – Watch for the power up message.

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UPGRADE JUMPER PRESENT
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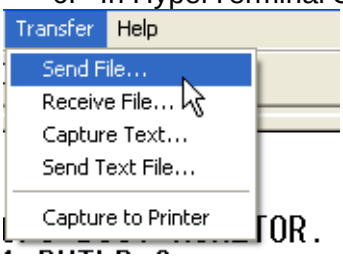
S_
```

6. In HyperTerminal Select Transfer --> Send File...



The “Send File” dialog will appear

7. Ensure protocol is "Xmodem".
8. Click the Browse Button, navigate to and select the file " fcboot_2v0_012.bin "
9. “Send” the file
10. A 'transfer window' will open up. Within a few seconds you should see packets being sent

11. 28. When this transfer is complete - Remove the 7700FC from the frame and change to jumper from UPGRADE to RUN
12. Re-insert the 7700FC card.
13. The card should now boot up. If watching from Hyper Terminal it will come to a login prompt.
14. Login using:

Login - customer
Password – customer

15. Change the IP address to the desired IP and save it.
16. Remove the 7700FC – disconnect the Evertz Serial Cable
17. Re-insert the 7700FC
18. After 7700FC boots up, open VistaLINK and look under HARDWARE for the Frame/7700FC