CONFIGURING AN ADTRAN EXPRESS 3000 WITH A NETGEAR FWG114P FIREWALL/ROUTER

Configuring the ADTRAN Express 3000

1. Connect the DB-25 Serial connection on the back of the ADTRAN Express 3000 to a COM port on your PC with a serial cable.

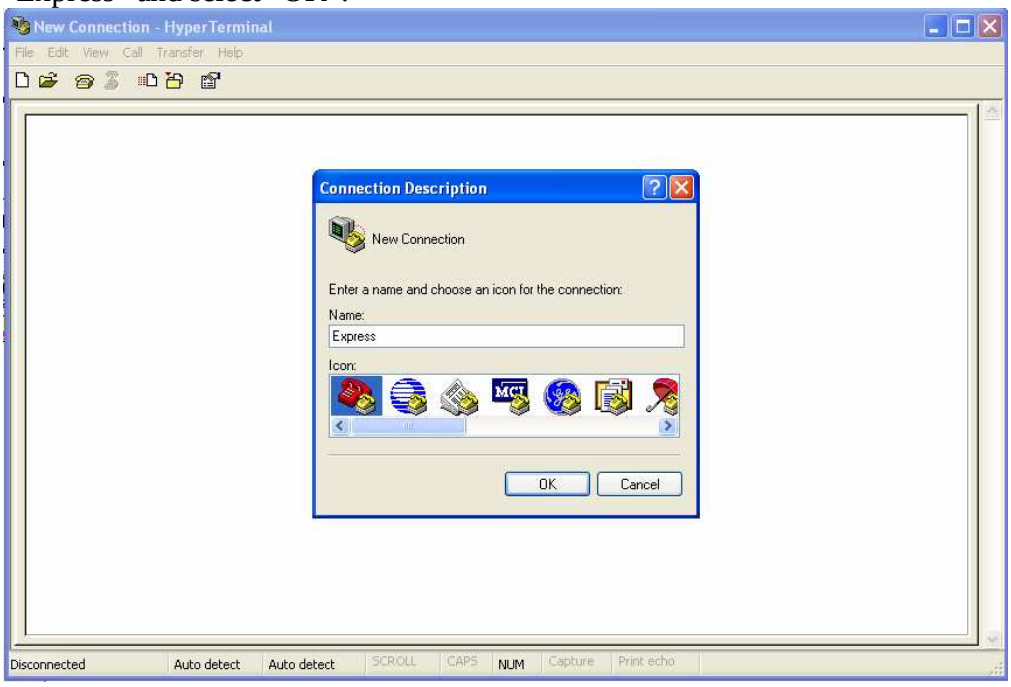
2. Connect the ISDN wall jack to the large RJ-45 ISDN jack on the far right of the back of the ADTRAN Express 3000 using the provided cable.

3. Power on the ADTRAN Express 3000 by plugging in the power cord.

4. From your PC, click on the “start” button, go to programs > accessories > communications > HyperTerminal. Click on HyperTerminal.

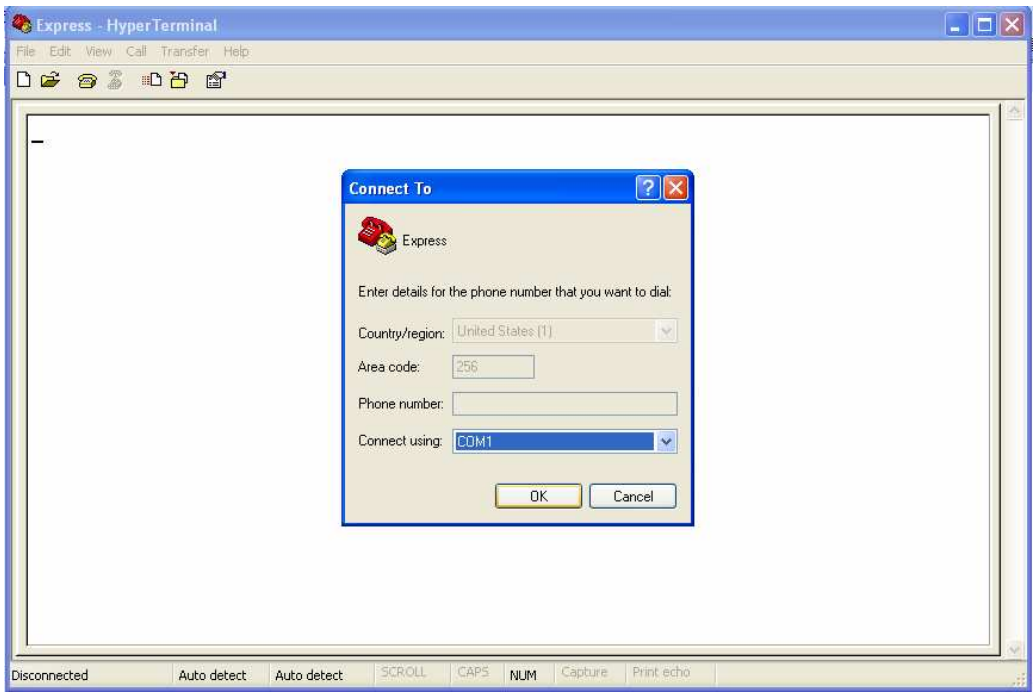
5. In HyperTerminal, it may ask if you would like to make HyperTerminal your default telnet client. Select “No”.

6. You will then be prompted to give the connection a name. Name the connection “Express” and select “OK”.

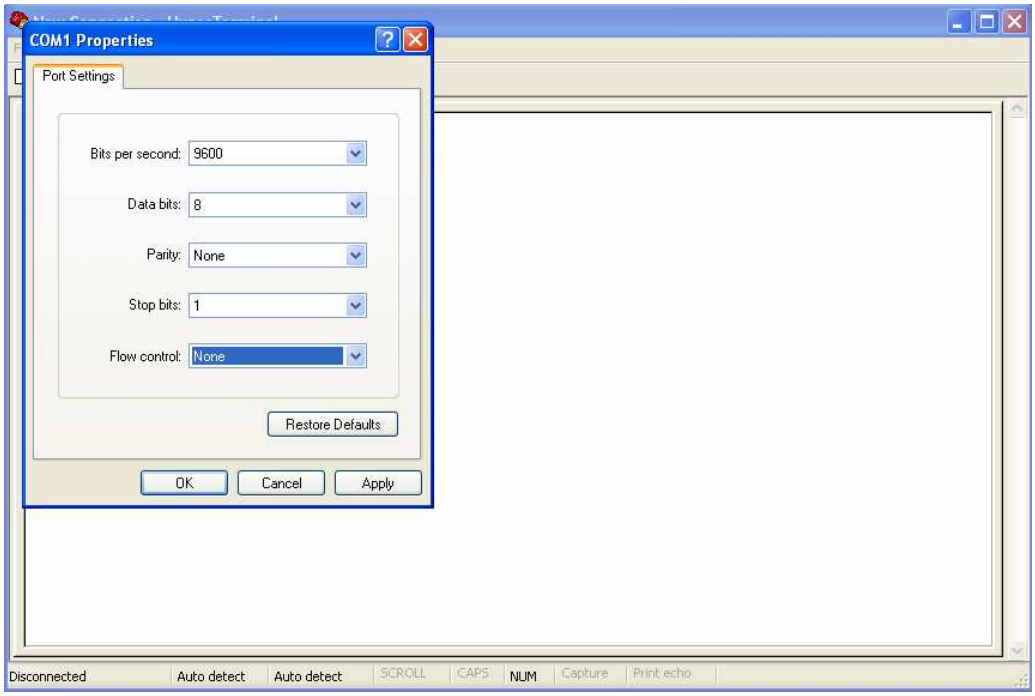


7. You will then be prompted with a “Connect To” window. Change the “Connect using:” line to the COM port that the Express is connected (probably COM1).

DO NOT select the ADTRAN Express 3000 if it is one of the options in the drop down menu, select the corresponding COM port.

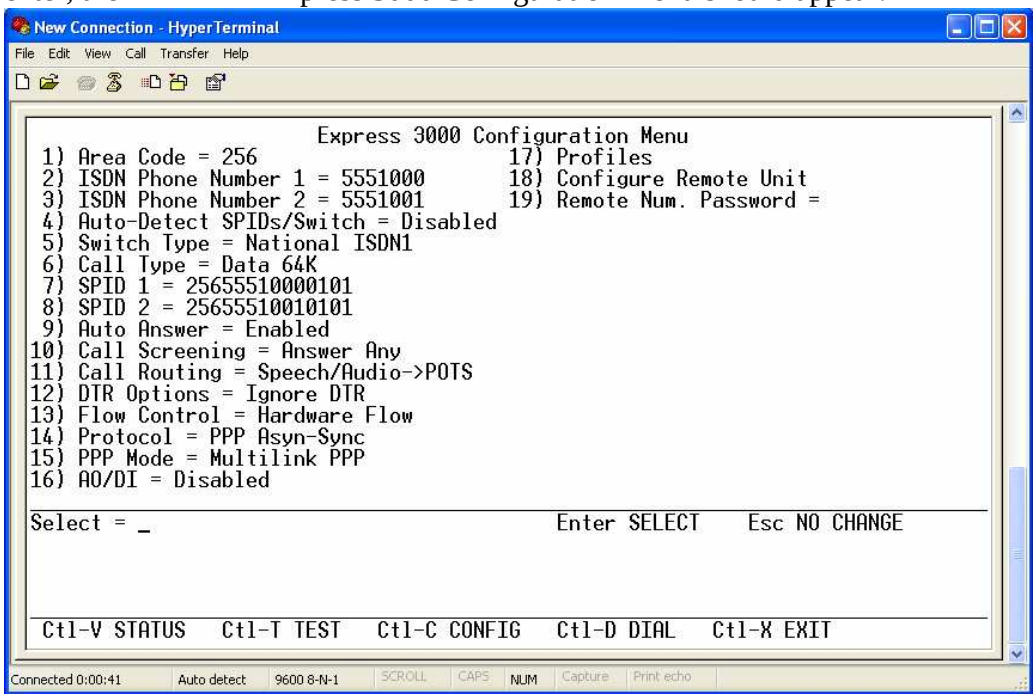


8. You will now be prompted for “COM Properties”. Change “Bits per second:” to “9600” and “Flow control:” to “None”. Click “Apply” then “OK”.



9. You will now be prompted with a blank screen and a cursor. At this screen you will need to enter the command “at!v” then press enter. You may not be able to

see the command on the screen, but you are inputting characters. After you press enter, the ADTRAN Express 3000 Configuration Menu should appear.



10. Here you will need to enter your information to configure the Express 3000. To configure the unit you will enter the number of the option you wish to change, press enter, and then enter the number of the option you wish to select (i.e. to change the area code press "1" and enter, then enter the area code and press enter again). Your ISDN phone numbers should be 7 digit numbers that correlate to your ISDN line. Your SPID numbers will most likely be 14 digit numbers, and these will also correspond to the ISDN line. Both of these sets of numbers should be provided to you by your service provider. You will also need to verify the Switch Type, which should also be provided by your service provider, it will most likely be National ISDN1. All other options need to match the figure above.

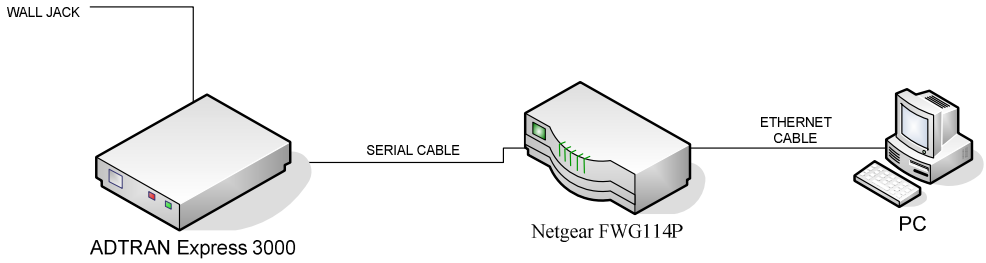
11. The power/line light on the front of the Express 3000 should now be solid. If it is not, please contact your service provider and verify your ISDN line information, then contact ADTRAN Technical Support.

Setting up the circuit

1. Unplug the serial cable from the COM port of the PC and plug that end into the Modem connection on the Netgear FWG114P. The serial cable should now be connecting the Netgear FWG114P router with the ADTRAN Express 3000.

2. Use the Ethernet cable provided with the Netgear FWG114P to connect one of the local ports on the Netgear FWG114P to the Network card on your PC.

3. Power on the Netgear FWG114P by plugging in the power cord and restart your computer.



Network Diagram

Configuring the Netgear FWG114P

NOTE: The steps that follow may differ depending on the firmware version loaded on the Netgear.

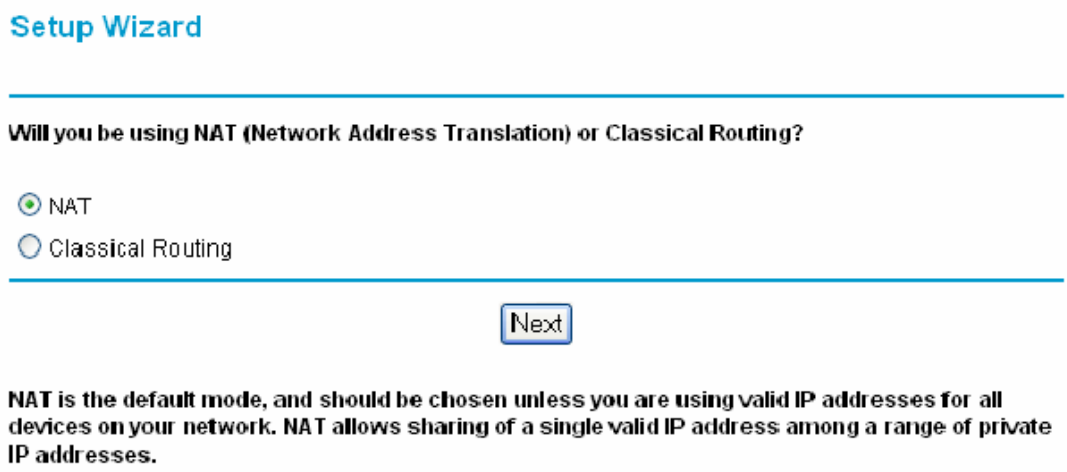
1. Open your web browser (Internet Explorer, Mozilla Firefox, etc.).

2. In the address bar type http://192.168.0.1 (this is the built in web page for the Netgear router). If you are unable to connect, restart the Netgear FWG114P by cycling the power.

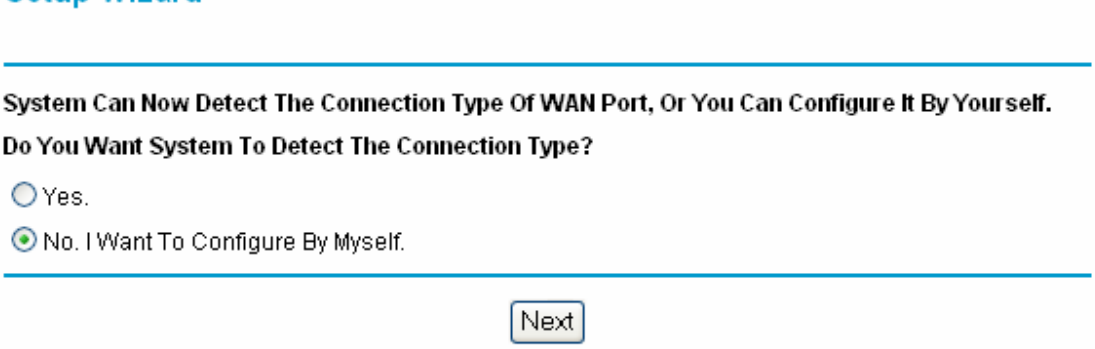
3. You will be asked for a username and password, and by default they are “admin” and “password”, respectively.

4. You will then gain access to the Netgear FWG114P configuration guide.

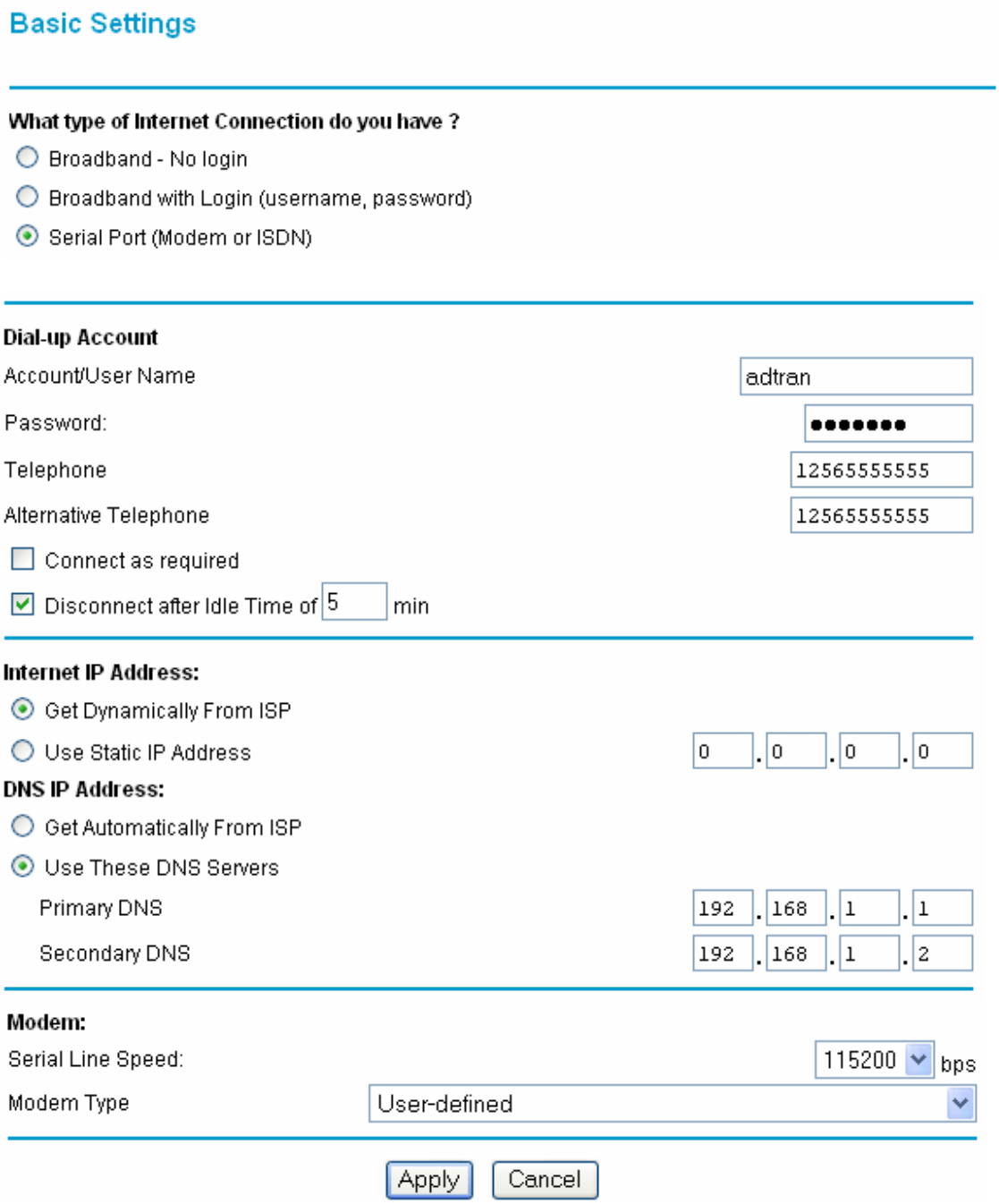
5. You may then be asked if you wish to use NAT or Classical Routing, select NAT and click Next (If you do not see this option skip to step 6).



6. You will then be asked if you would like the router to identify your connection type, select "No. I Want To Configure By Myself." and click Next.

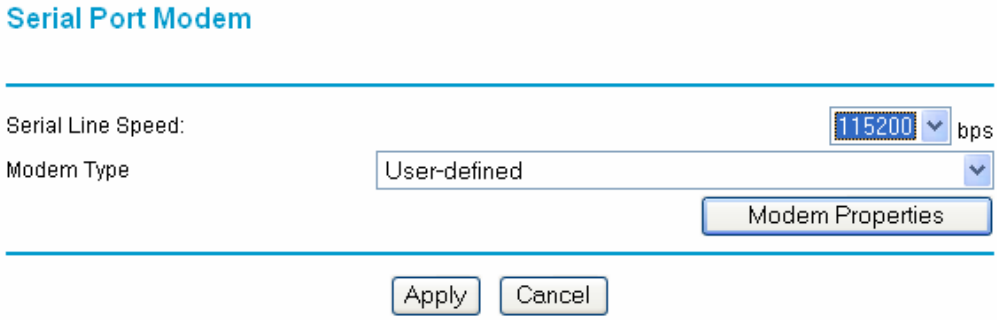


7. You will then be taken to the "Basic Settings" menu. From here you will be asked "What type of Internet Connection do you have?" and you will need to select "Serial Port (Modem or ISDN)". You will then need to enter your Dial-up Account information, enter your username and password provided by your service provider and the phone number to which you dial-up. The "Connect as required" checkbox will need to be selected if you wish to have a permanent connection. If you only wish to connect periodically, you will need to verify that this box is NOT checked. You may have to use permanent DNS server. To do this, select "Use These DNS Servers" and enter your DNS server's IP address (Your service provider will be able to supply this information). Verify that all of the other options match the figure below. Then Click Apply.

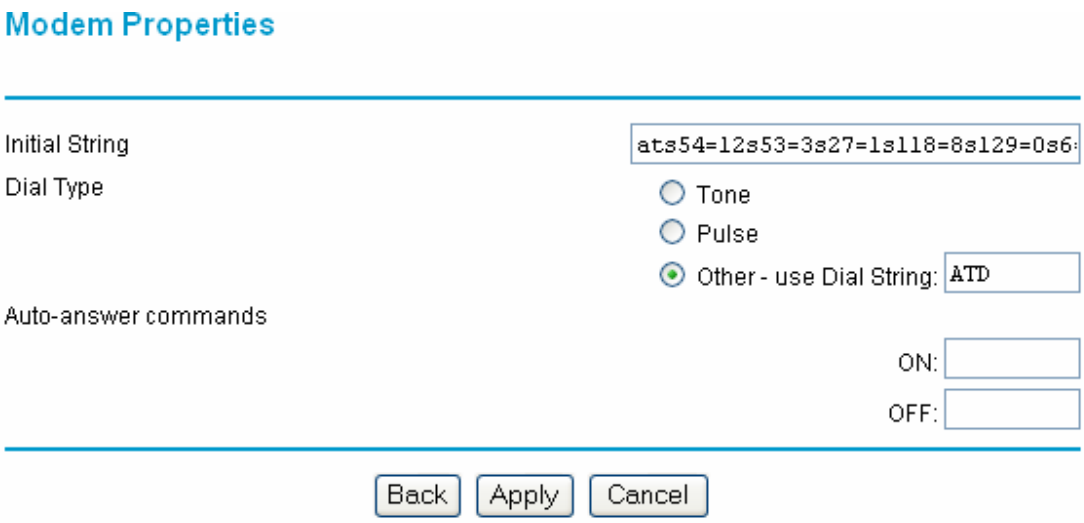


8. On the blue menu on the left of the screen, scroll down and select “Modem” under the “Serial Port” heading.

9. Verify that the settings match the figure below, and then click the “Modem Properties” button.



10. In the Modem Properties menu, delete the entry in the Initial String and then enter "ats54=12s53=3s27=1s118=8s129=0s6=0s13=1". Select "Other" under dial type and enter "atd" as the dial string. Delete the ATS0=0 and ATS0=1 from the On and Off under the Auto-answer commands. Verify the menu looks like the figure below. Then Click Apply.



11. This completes the configuration of the Netgear router.

12. To finish the configuration process, power down the ADTRAN Express 3000, Netgear FWG114P, and your PC. Power on the Express 3000 and wait until the power/line light is solid. Next, power on the Netgear FWG114P and wait until the Test light has gone off. Finally, power on your PC.

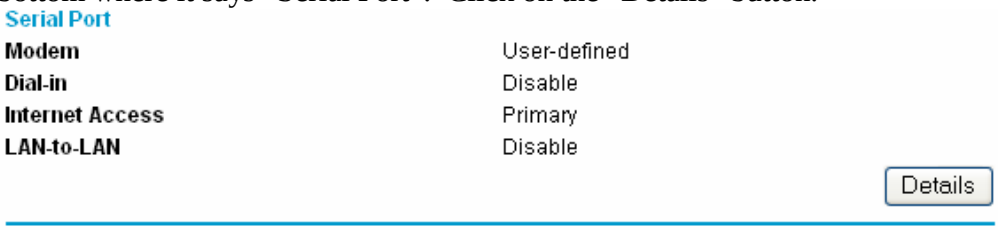
Connecting to the Internet

1. This is only applicable if you do NOT have the “Connect as Required” block selected. If the block is selected, your connection should dial up automatically.

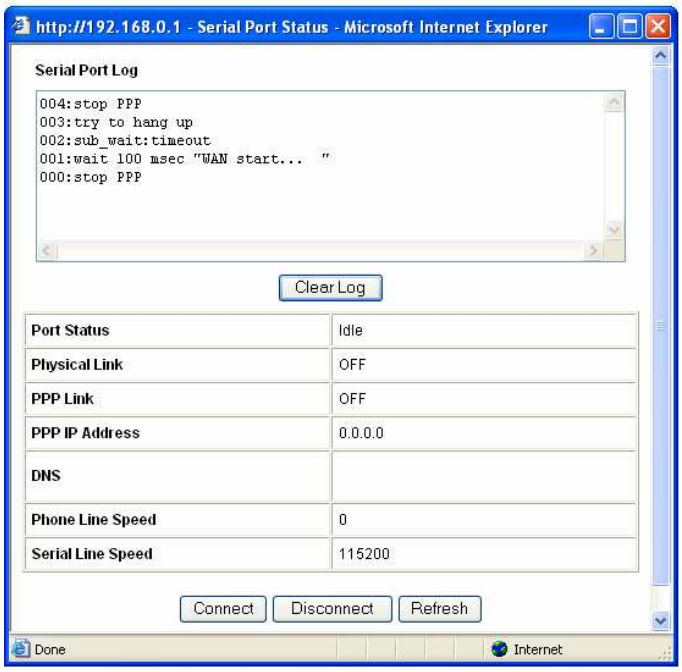
2. Open your web browser, and enter http://192.168.0.1 in the address bar. Enter the username (admin) and password (password).

3. On the blue menu on the left of the screen, scroll down to Maintenance and select Router Status.

4. A new menu will appear on the main part of the screen. Scroll down to the bottom where it says “Serial Port”. Click on the “Details” button.



5. A “Serial Port Status” window will appear. Select the “Connect” button to connect to the Internet. A “Server Response” window will appear; you can hit the “Back” button to return to the “Serial Port Status” window. The Express 3000 should connect to the server after several seconds (both Phone 1 and 2 lights should be illuminated on the front of the Express 3000 for a 128k connection). You will then be able to access the internet.



6. Follow the same steps as above to disconnect, but you will need to select “Disconnect” instead of “Connect”.