Reboot Router

Click Reboot if you need to restart the router. Its current settings will be retained.

Reboot

- 5. After the router reboots and the LEDs on the router have stabilized, if you still cannot access the Internet, please start at the beginning of this tutorial to determine if there is a new point of failure. It's possible that your wireless connection needs to be re-established.
- 6. If the router still does not have an IP address after repeating this tutorial, the problem may be with the cable/DSL modem or your ISP. Please contact your ISP's Customer Support.

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I cannot achieve 270 Mbps connections to the router.

Solution 1:

Make sure the wireless products you are using to connect to the Wireless Nd_1 Router support 270 Mbps speeds.

Solution 2:

See I am experiencing poor wireless link quality.

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I do not know if my IP address from my ISP is Static or Dynamic.

Solution:

If you have cable or DSL service, you most likely have a Dynamic IP address. You should always check with your Internet service provider to verify this information, since some providers will assign Static IP addresses.

If you have a Dynamic IP address, make sure you have selected Cable, DSL router, satellite, **ISDN**, **LAN**, or other in the Internet area of the configuration pages, and the Wireless Nd_1 Router will automatically obtain the information it needs from your service provider.

The router has connected to your ISP.

If you have a Static IP address, select the checkbox in the Static IP Address area and then enter the appropriate information. Depending on the information that was supplied by your ISP, you may not need to fill in all of the fields.

Static IP Ac	ldress
✓ My ISP provide	d an IP address for my Internet connection (such as "210.123.1.54").
Static IP address:	0.0.0.0
Subnet mask:	0.0.0.0
Gateway:	0.0.0.0
DNS servers:	
WINS servers:	

If you are using PPPoE, you must select **DSL modem (also known as PPPoE)** in the Internet area of the configuration pages and enter the appropriate information.



Refer to the Internet area of the <u>Internet</u> section for more detailed information about these different settings.

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I can't connect to the router configuration pages.

Solution:

Verify the connection settings of your Web browser and ensure that the HTTP Proxy feature of your Web browser is disabled. This is necessary for the Web browser to read your Wireless Nd_1 Router's configuration pages.

Internet Explorer users:

- 1. Click **Tools** > **Internet Options**, and select the **Connections** tab.
- Select Never dial a connection, then click Apply.
- 3. Click OK.
- 4. Click **Tools** > **Internet Options**, and select the **Connections** tab again.
- 5. Click the **LAN Settings** button.

- 6. Clear all the check boxes and click **OK**.
- 7. Click **OK** again.

Netscape Navigator 8.x users:

- 1. Click Tools > Options > General.
- 2. Click the Connection Settings button.
- 3. Select Direct connection to the Internet, and then click OK.

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My router configuration pages are not responding, but I can still access the Internet.

Solution:

If your router configuration pages stop responding, unplug and then plug back in the power supply of the Wireless Nd_1 Router. This will reboot the Wireless Nd_1 Router. If you are still unable to communicate with the router configuration pages, press in and hold the **Reset** button for 7 seconds. This will reset the Wireless Nd_1 Router to the factory default settings. If you made any personal configuration settings, you will need to make the changes again or restore your settings if you created a backup file.

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My router is not responding after I performed a firmware upgrade.

Solution 1:

It is possible that the upgrade process did not complete before you attempted to access the router configuration pages. Wait two minutes and then try to access the router configuration pages again.

Solution 2:

Unplug and then plug back in the power supply of the Wireless Nd_1 Router. This will reboot the Wireless Nd_1 Router. Wait for 30 seconds before you attempt to access the configuration pages of the Wireless Nd_1 Router.

Solution 3:

Press in and hold the **Reset** button for between five and ten seconds. This will reset the Wireless Nd_1 Router to the factory default settings. If you applied any personal configuration settings, you will need to make the changes again.

Solution 4:

You may need to <u>release and renew</u> the connection of your computer to the router.

Solution 5:

Check the file size of the firmware file to verify that the entire file downloaded correctly.

Note: The computer that you use for this procedure must be attached to the router using a network cable.

Windows XP, 2000, and NT users, perform this procedure.

Windows Me, 98, and 95 users, perform this procedure

Windows XP, 2000, and NT users:

Perform the following steps to manually install the router's firmware.

1. Write down the path to the folder where you saved the firmware file.

Example: C:\networking\

- 2. Go to Windows Start > Control Panel > Network Connections.
- 3. Right-click the **Local Area Connection** of the network connection that connects the computer to your router and select **Properties**.
- 4. On the General tab of Local Area Connection Properties, select Internet Protocol (TCP/IP) and click Properties.
- 5. Select Use the following IP address:

In this step you will specify an IP address for the NIC. This address must be on the same subnet as the router. If the IP address of the router is still the default 192.168.2.1, enter **192.168.2.100**. If the IP address of the router has been changed, use the first three numbers (octets) from the router's address and change the fourth number to 100. Make sure that the subnet mask is 255.255.255.0.

- 6. Click **OK**, then click **OK** again.
- 7. Click Windows Start > Run.
- 8. In the Run dialog box, type **cmd** and click **OK**.
- 9. Use the "cd" command to go to the folder where the firmware file is saved using the following syntax:

cd "path to the folder"

and press ENTER.

Example: If the firmware file is located in the folder C:\networking\, you would type:

cd "C:\networking\" and press ENTER.

- 10. Type the following command but DO NOT PRESS ENTER: **tftp -i 192.168.2.1 put 5464.usr**
- 11. Unplug the power supply of the Wireless Nd_1 Router.
- 12. Plug the power supply of the router back in.
- 13. Immediately press ENTER in the dialog box on your computer to execute the command.
- 14. You should now see a message stating the image was transferred. Wait for the upgrade to finish. When the Wireless LED turns on, the upgrade is complete.

You must now set IP addressing for the NIC back to "Obtain an IP address automatically."

- 1. Go to Windows Start > Control Panel > Network Connections.
- 2. Right-click the **Local Area Connection** of the NIC that connects the computer to the router and select **Properties**.
- 3. On the General tab of Local Area Connection Properties, select Internet Protocol (TCP/IP) and click Properties.
- 4. Select **Obtain an IP Address Automatically** and click **OK**, then click **OK** again.

Windows Me, 98, and 95 users:

Perform the following steps to manually install the router's firmware.

1. Write down the path to the folder where you saved the firmware file.

Example: C:\networking\

- 2. On the desktop, right-click **Network Places** or **Network Neighborhood** and select **Properties**.
- 3. On the Configuration tab, select the NIC that connects the computer to the router and click **Properties**.
- 4. Select Use the following IP address:

In this step you will specify an IP address for the NIC. This address must be on the same subnet as the router. If the IP address of the router is still the default 192.168.2.1, enter **192.168.2.100**. If the IP address of the router has been changed, use the first three numbers (octets) from the router's address and change the fourth number to 100. Make sure that the subnet mask is 255.255.255.0.

- 5. Click **OK**, then click **OK** again.
- 6. Click Windows Start > Run.
- 7. In the Run dialog box, type command and click OK
- 8. Use the "cd" command to go to the folder where the firmware file is saved using the following syntax:

cd "path to the folder"

and press ENTER.

Example: If the firmware file is located in the folder C:\networking\, you would type:

cd "C:\networking\" and press ENTER.

- Type the following command but DO NOT PRESS ENTER: tftp -i 192.168.2.1 put 5464.usr
- 10. Unplug the power supply of the Wireless Nd_1 Router.
- 11. Plug the power supply of the router back in.
- 12. Immediately press ENTER in the dialog box on your computer to execute the command.
- 13. You should now see a message in the command prompt stating the image was transferred. Wait for the upgrade to finish. When the Wireless LED turns on, the upgrade is done.

You must now set IP addressing for the NIC back to "Obtain an IP address automatically."

- 1. On your desktop, right-click **Network Places** or **Network Neighborhood** and select **Properties**.
- 2. On the Configuration tab, select the NIC that connects the computer to the router and click **Properties**.
- 3. On the General tab of Local Area Connection Properties, select Internet Protocol (TCP/IP) and click Properties.
- 4. Select Obtain an IP Address Automatically and click OK, then click OK again.

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I do not remember my wireless security settings.

Solution:

All of your wireless security settings (Method, Encryption, Pass phrase or Key, and Wireless MAC filter options) are displayed on the Status page, under Security.

Security

WPA2 and WPA (PSK) Method:

Encryption: TKIP and AES

Pass phrase: password

Wireless MAC filter: Disabled

All of the wireless security settings for your wireless adapter should match the wireless security settings on the router.

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My wireless adapter cannot connect to the router.

Solution:

Be certain that you have each Wireless PC Card, PCI Adapter, or USB Adapter set to Infrastructure mode. Verify that you are using the same SSID, Channel, and Security information as the Wireless $\mathbf{N}d_1$ Router. Refer to your Wireless PC Card's, PCI

Adapter's, or USB Adapter's documentation to determine how to change these settings.

Solution:

The wireless security settings of any wireless PC cards, PCI adapters, or USB adapters must match the settings for the Wireless Nd_1 Router.

- 1. In the configuration utility for your wireless card or adapter, ensure that you are connecting to the correct Wireless Nd_1 Router by verifying the MAC address, Network name (SSID), and wireless security settings. The MAC address is located on the label on the bottom of the Wireless Nd_1 Router.
- 2. Ensure that the correct Pass phrase or key and encryption option are being used. If you changed the settings in the configuration of the Wireless Nd_1 Router, you must also change the settings of every Wireless PC Card, PCI Adapter, or USB Adapter connecting to this network.

Refer to the Tutorial in the router configuration pages for additional information regarding new wireless clients. To access the Tutorial, open a Web browser and type: 192.168.2.1/tutorial_addclient.asp.

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SecureEasySetup could not configure my wireless client.

Solution:

Press the SecureEasySetup button on the back of the router for one full second, then verify that the SecureEasySetup LED on the front of the router starts blinking before initiating SecureEasySetup in the client utility for your wireless adapter.

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My router is not appearing in the list when my wireless adapter scans for it.

Solution 1:

You may be on a computer that is too far away from the Wireless Nd_1 Router. Try moving closer to the Wireless Nd_1 Router and repeating the scan procedure.

Solution 2:

- 1. Using a wired connection, start a Web browser.
- 2. In the location or address line of your Web browser, type 192.168.2.1 to log on and access the router configuration pages.
- Click the <u>Wireless</u> tab and verify **Broadcast network name** is selected under **Network** Name (SSID).

	Network Name (SSID)
	This is the name of your wireless network. Wireless devices will need to know the network name (also known as an SSID) of your router in order to communicate with it.
	Network name: USR5464
	In order to hide your router from new wireless devices, you can tell the router to stop broadcasting the router's network name.
	✓ Broadcast network name
IJ	and the second s

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I can access the Internet, but cannot access some special applications.

Solution:

If you have the Wireless Nd_1 Router properly connected and can access the Internet but are experiencing difficulties connecting with special applications (e.g., ICQ, Battle.net, etc.), you must assign specific ports in order to bypass the firewall function.

- 1. Click the **Firewall** tab in the configuration pages.
- 2. Enter the appropriate port information in the **Port Triggering** area.

On	Outbound Protocol	Ports	Inbound Protocol	Ports	Destination Ports			
	TCP	1 to 65535	TCP	to	10070 to 10080	Delete		
	UDP	1 to	UDP	to	10070 to	Delete		
Ou	tbound pr	65535 otocol:		10070 P 💌	10070			
Ou	tbound po	otocol: ort rang	je:	P V	10070			
Ou	tbound po	otocol: ort rang tocol:	je: To	PV	to			
Ou Inb Inb	tbound po	otocol: ort rang tocol: t range	TC ge:TC	PV				

Refer to the <u>Firewall</u> area of the Configuration section for more information regarding port forwarding and port triggering of special applications (e.g., ICQ, Battle.net, etc.). For a complete list of applications and port information, visit <u>www.iana.org</u>

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I received a "Page Not Found" error after trying to save new configuration settings on my router.

Solution:

If you are using a wireless connection to communicate with the router, after you save new configuration settings it may take a moment for your adapter to re-establish the connection with the router. During this time, your browser may display "Page Not Found" error and you will need press the Back button in your Web browser or refresh the page.

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After enabling a VPN connection on my computer, I am unable to connect to local computers on my network in order to share files or printing capabilities.

Solution:

Local network resources are not always available when connected to some VPN Servers. This can be configured from one of two places, Client or Server, and may depend on the corporate policies in place on your VPN server. The best option would be to disable the VPN connection when you need to access your local network resources. If this is not an option, you will need to read the documentation for the VPN client you are using. For any further VPN client questions, contact the system administrator that maintains your VPN server.

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Troubleshooting Ping Procedure

If at any time during the ping procedure you do not receive a return message for a successful ping, this means that the address you are pinging has been changed and is causing a conflict or is no longer available. Check the address in the configuration pages and make any necessary corrections using the console mode. After you have made the corrections, continue with the ping procedure.

Note: Linux users can perform steps 3 through 7 after opening a terminal.

- 1. Click Windows **Start** > **Run**.
- 2. In the **Run** dialog box:
 - Windows XP, 2000, and NT users: Type cmd and click OK.
 - Windows Me, 98, and 95 users: Type command and click OK.
- 3. Do one of the following:
 - Windows XP, 2000 and NT users: Type ipconfig /all and press ENTER.
 - Windows Me, 98, and 95 users: Type winipconfig /all and press ENTER.

This displays IP configuration, including values like the following:

IP Address: 192.168.2.2 **Subnet Mask**: 255.255.255.0

Default Gateway: 192.168.2.1 (This is the Default Gateway of your LAN)

DNS Server: 192.168.2.1

```
Connection-specific DNS Suffix
                                     Broadcom NetXtreme Gigabit Ethernet
Description .
Physical Address
                                     00-0F-FE-3E-08-89
Dhop Enabled.
Autoconfiguration Enabled
  Address.
Subnet Mask
Default Gateway
DHCP Server
DNS Servers
                                     192.168.2.1
                                     Friday, September 08, 2006 1:18:30 P
æase Obtained.
                                  : Friday, September 08, 2006 2:18:30
Lease Expires .
```

If you do not see information for the Ethernet adapter connection information, your computer is not communicating with your Ethernet adapter.

If you receive a message that your media is disconnected, your computer is communicating with your adapter but has not received an IP address from your router. Verify that your wireless security settings for your adapter match the wireless security settings on your router.

If you have an IP address of 196.254 or 0.0.0.0, verify that your wireless security settings for your adapter match the wireless security settings on your router and repair the network connection on your computer.

- 4. Type **Ping 127.0.0.1** and press ENTER. This is your local host address and this will ensure that the TCP/IP protocol is installed and functioning properly. If you cannot complete this ping, you must install the TCP/IP framework for your operating system. See your operating system documentation for information on how to install the TCP/IP framework.
- 5. Type **Ping** followed by the *IP address* you recorded in step 3, and press ENTER. This will ensure that your computer is responding to requests. If you cannot complete this ping, make sure all the cables are properly connected and that all the correct drivers are installed.
- 6. Type **Ping** followed by the LAN IP address, which is the *Default Gateway* you recorded in step 3, and press ENTER. This checks the communication with your gateway or wireless router. This will ensure that you can get to the router. If you can establish communication with the router, you can access the configuration pages and configure the settings. If you cannot complete this ping, make sure the power cord of the router is plugged in and that it is properly connected to your computer.
- 7. Type **Ping** followed by the outside WAN IP address of your router. This is not the same as the Default Gateway for your LAN that you saw in step 3. This address can be obtained from the <u>Status</u> page of the router. This procedure will ensure that you have access to the internet.
- 8. Type **Ping** followed by the *DNS Server* address you recorded in step 3, and press ENTER. This will allow you to resolve valid Internet host names to IP addresses and to verify that you can access the Internet.

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I am experiencing poor wireless link quality.

Solution 1:

Low link quality or range can be caused by environmental interference, such as leadbased paint and concrete walls. Try to move the antenna of the Wireless Nd_1 Router or to reposition the wireless clients to improve the link quality. If possible, ensure that there are no obstructions between wireless clients and the router.

Solution 2:

You can view your current Wireless settings on the Status page. Look at the Channel information. If you are only using one channel, your router is not set to run in 802.11n mode. You can go to Transmission in the Wireless page to change your 802.11n mode to Automatic.

Solution 3:

Perform a wireless site scan or site survey in the client utility for your wireless adapter to check for any adjacent networks. If you find any adjacent networks, check to see what Channels the networks are using. Although the router will try to select the best available wireless channel, if your router and another network are running on the same channel, you may need to adjust your wireless transmission settings to use another channel.

Solution 4:

Some electronic devices, such as 2.4GHz phones and microwave ovens, may interfere with the wireless signal and affect your wireless range and link quality. Try creating a wireless connection on a different channel.

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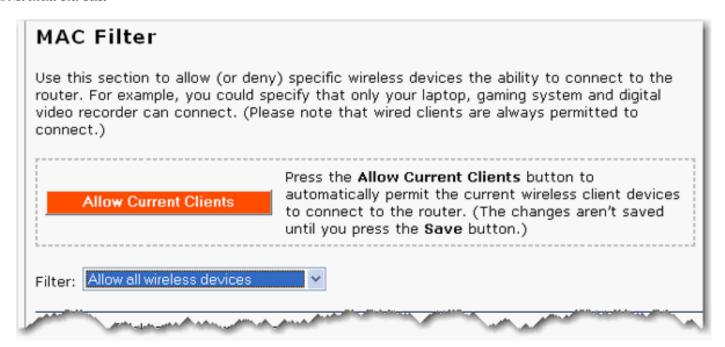
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I accidentally blocked all wireless devices from accessing the router.

Solution:

Connect to the Wireless Nd_1 Router using a wired Ethernet connection since wired connections are allowed by default.

- 1. Start a Web browser.
- 2. In the location or address line of your Web browser, type 192.168.2.1 to log on and access the router configuration pages.
- 3. Enter the login and password for your router.
- 4. Click the **Security** tab. Change your **Filter** setting to **Allow all wireless clients**.



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I cannot print to a network printer attached to my router in Windows Me or 98SE.

Solution 1:

Ensure that your printer is installed correctly and powered on.

Solution 2:

Check that your printer has sufficient ink and paper. A printer connected to the print server cannot send its status to your computer.

Solution 3:

Reboot the router by unplugging the power cord. Wait at least 30 seconds before plugging it in again. This will clear the print queue of any pending documents.

Solution 4:

Make sure that you've entered the Printer location URL address correctly (The URL information is case-sensitive and must be entered exactly as it is listed on the Printer **location** section on the **Status** page).

Solution 5:

Make sure that your PC firewall is configured to trust your Local Area Network (LAN) or disabled.

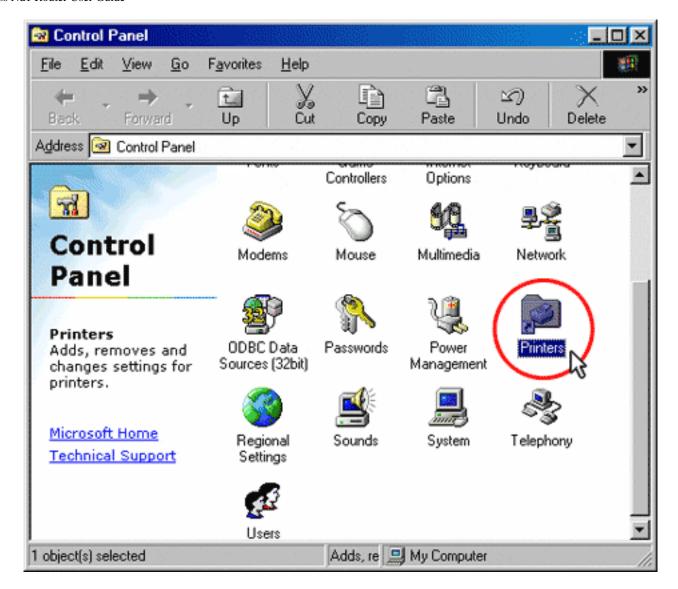
Solution 6:

Force clients to print RAW data type files in Windows 98 and Me. The RAW data type tells the spooler not to alter the print job at all prior to printing. If a client assigns this data type, the spooler passes the print job through without altering it.

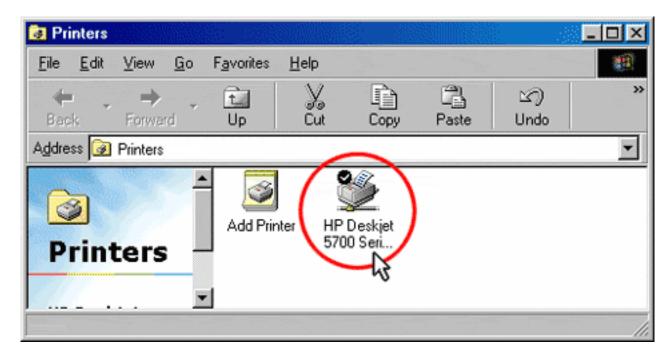
- 1. Click Windows **Start** > **Run**.
- 2. In the Open field, type control.exe and click OK.



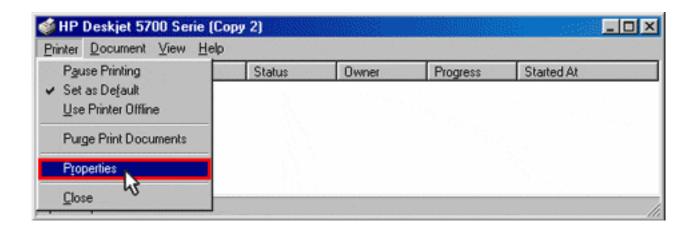
3. Double-click **Printers**.



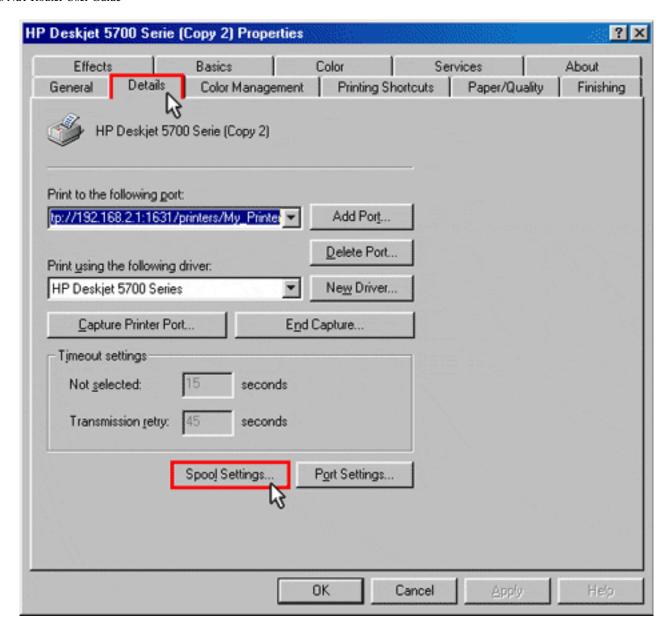
4. Double-click your printer.



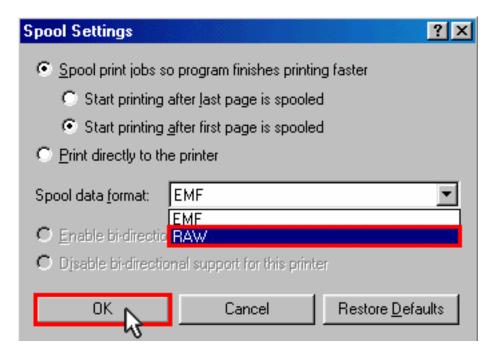
5. Select **Properties** from the **Printer** menu.



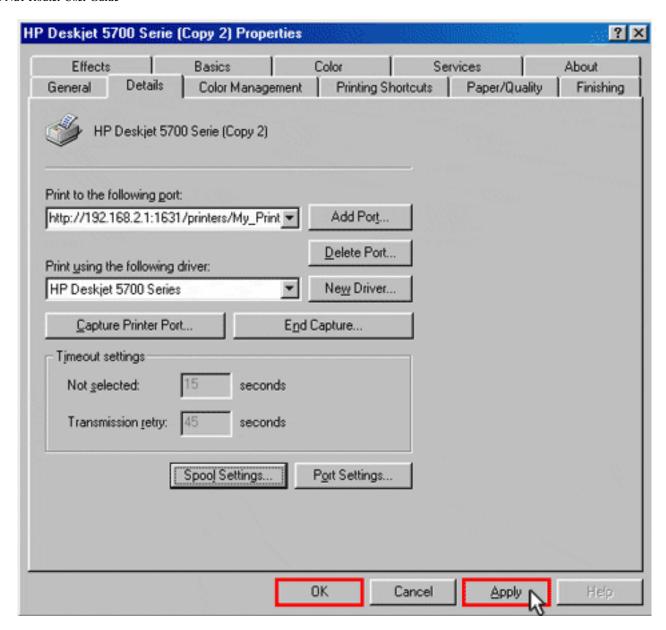
6. Click the **Details** tab, click **Spool Settings**.



7. Select **RAW** for Spool data format and click **OK**.



8. Click Apply, then click OK.



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I cannot print to a network printer attached to my router in Windows XP or 2000.

Solution 1:

Ensure that your printer is installed correctly and powered on.

Solution 2:

Check that your printer has sufficient ink and paper. A printer connected to the print server cannot send its status to your computer.

Solution 3:

Reboot the router by unplugging the power cord. Wait at least 30 seconds before plugging it in again. This will clear the print queue of any pending documents.

Solution 4:

Make sure that you've entered the Printer location URL address correctly (The URL information is case-sensitive and must be entered exactly as it is listed on the Printer **location** section on the **Status** page).

Solution 5:

Make sure that your PC firewall is configured to trust your Local Area Network (LAN) or disabled.

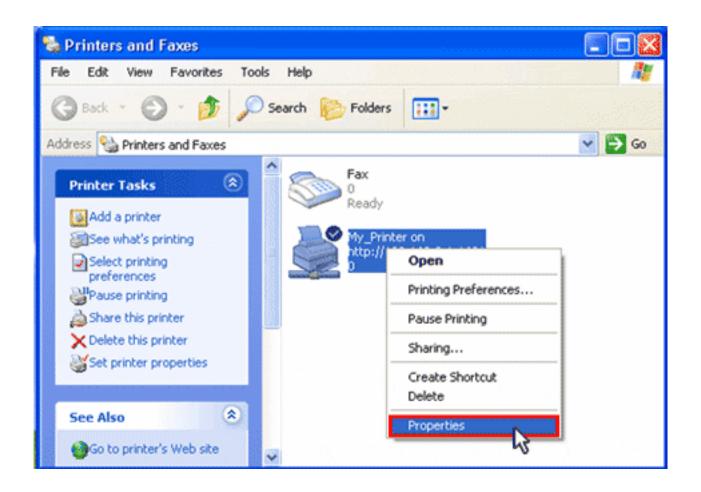
Solution 6:

1. Do one of the following:

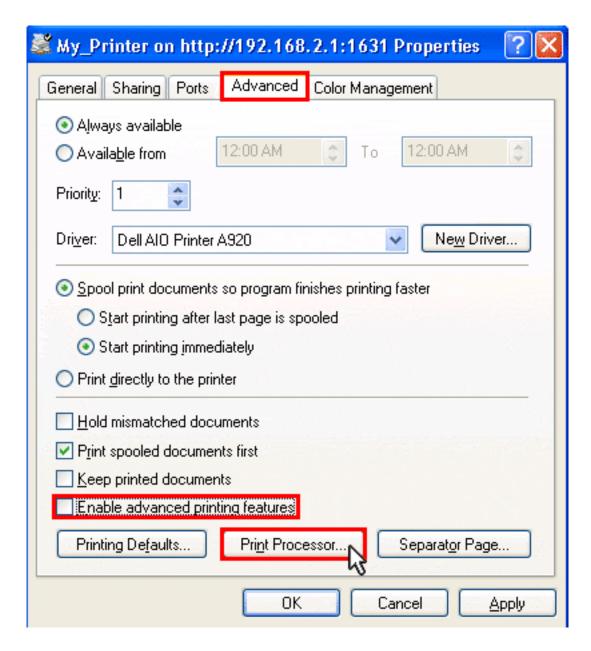
Windows XP Users: Click Windows Start > Printers and Faxes.

Windows 2000 Users: Click Windows Start > Settings > Printers.

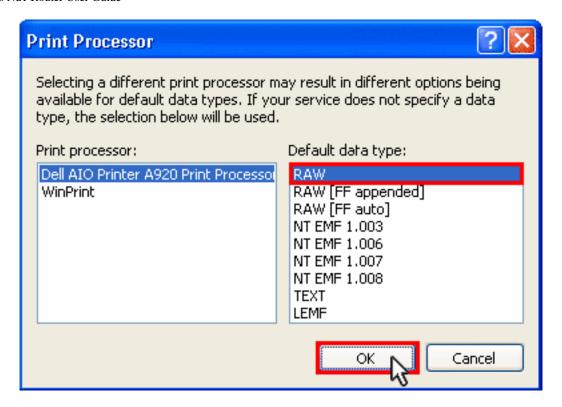
2. Right-click on My_Printer on http://192.168.2.1:1631 and click Properties.



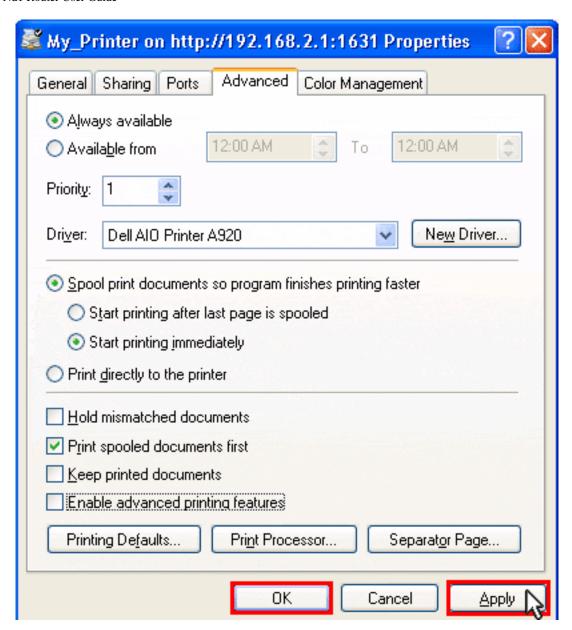
3. Click the **Advanced** tab, make sure that **Enable advanced printing features** is disabled, and then click **Print Processor**.



4. For **Default data type**, select **RAW**, and click **OK**.



5. Click **Apply**, then click **OK**.



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Documents printed using the print server on the router do not begin immediately and sometimes take one minute or longer to begin printing.

Please visit your printer manufacturer's support Web site and download the latest drivers available for your printer. Follow the instructions provided with the new drivers to ensure that the old drivers are removed and replaced with the new drivers.

Note: Large documents, such as high-resolution photographs, large graphics files or large PDF files, may take extra time to process, depending on their file size.

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My wireless card does not support WPA, can I still secure my network?

Yes! The Wireless Nd_1 Router supports the following forms of wireless security:

- WEP Open
- WEP Shared
- **WPA**
- WPA2
- 802.1x

If you have not configured your router yet:

- 1. Start your Web browser.
- 2. In the location or address line, type 192.168.2.1 and press ENTER to access the router configuration pages.

Note: The router's default IP address is 192.168.2.1.

3. Click **Start**. The Setup Wizard leads you through the basic router configuration process.



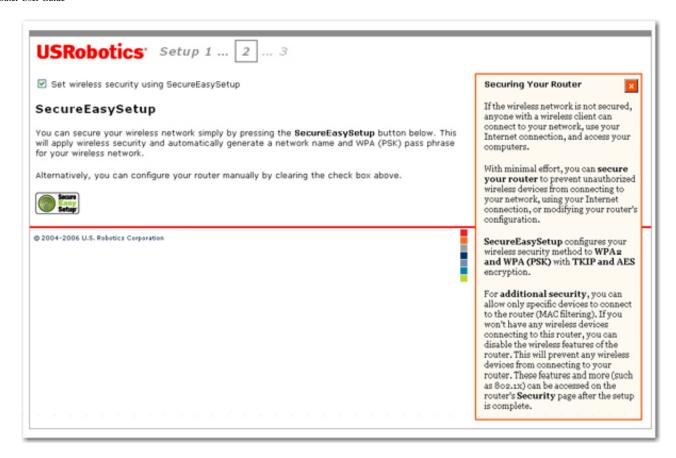
Note: If you see a "Page Not Found" error at any time while using the router configuration pages, press the **Back** button in your Web browser or refresh the page.

4. The Setup Wizard will attempt to automatically detect your Internet connection.

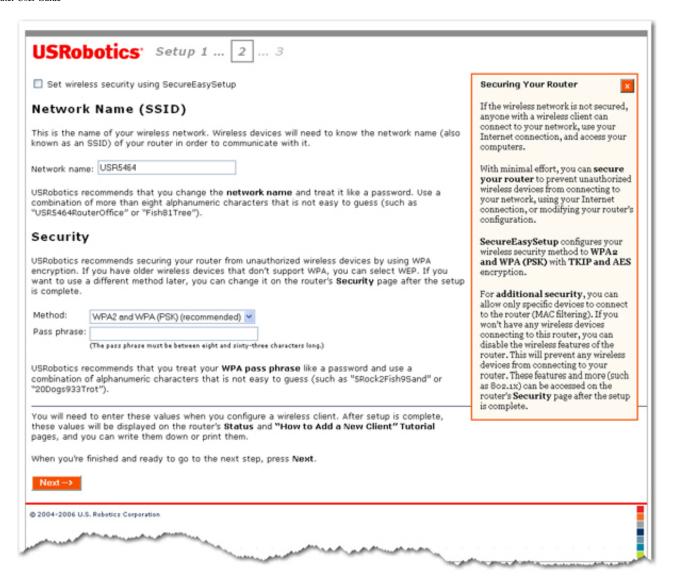
If the router does not automatically detect your Internet connection, verify the power cord and all the Ethernet cables are connected correctly This includes the cables connecting the router, the modem, and all the computers in the network. Also, verify your Internet connection is in working order. Then, click **Detect Connection** until you reach the "Internet Connection Configured" screen.

If the router still cannot connect, you can enter your ISP information manually.

- 5. Click Next.
- 6. Do one of the following:
 - A. To use SecureEasySetup to set your wireless security, select **Set wireless security using**SecureEasySetup and click the Secure button on the screen.



B. To manually set your wireless's security information, deselect **Set wireless security using SecureEasySetup** and enter the **Network Name** (SSID), select a security **Method**, and enter your <u>wireless security information</u> for the router, then click **Continue**.



7. Enter a User name and Password for your router and click Finish.

Router Login
In order to secure the router against unauthorized access, please enter a user name and password. You will need to enter the user name and password in order to access the router in the future, so you may want to write them down.
User name:
Password:
U.S. Robotics recommends using a password of eight or more alphanumeric characters (such as "Canyon79Snow" or "2Lake6Forest3"). Please note that the user name and password are case-sensitive.
When you're done and are ready to apply all your settings, press Finish.
Finish

If you have already configured your router:

- 1. Start you Web browser.
- 2. In the location or address line, type: <u>192.168.2.1</u> and press ENTER to access the router configuration pages.
- 3. Enter your user name and password and click **Ok**.
- 4. Click the **Security** tab.
- 5. Under **Wireless**, select your security **Method** and enter the appropriate <u>wireless security information</u> information in the corresponding fields.

Note: All wireless clients connecting to the router must be configured with the same security information.

- 6. Click Save to save all your new settings and reboot the router after you have completed all your changes.
- 7. Congratulations! You have successfully secured your router. All wireless clients with matching security parameters can now access the router securely.

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