D-Link DI-704P

Express Ethernetwork[TM]
Broadband Router with Print Server

Manual

D-Link

Building Networks for People

Contents

Package Contents

Contents of Package:

- **D-Link DI-704P *Express EtherNetwork*™** Broadband Router
- Manual, Warranty and Print Server Software on CD
- Quick Installation Guide
- Power Adapter - 5V DC
- Ethernet (CAT5-UTP/Straight-Through) Cable

If any of the above items are missing, please contact your reseller.

> ⚠️ **WARNING!** *Using a power supply with a different voltage rating than the one included with the DI-704P will cause damage and void the warranty for this product.*

System Requirements for Configuration:

- Ethernet-based Cable or DSL Modem
- Computer with Windows, Macintosh, or Linux-based Operating System with an installed Ethernet adapter
- Internet Explorer version 6.x or Netscape Navigator version 6.x and above, with Javascript enabled

3

Introduction

Thank you for purchasing DI-704P 4-Port Ethernet Broadband Router. The DI-704P is an Ethernet Broadband Router with a built-in 4-port switch. It also features a parallel port to share a printer on the home or office network and includes a print server application for Windows[1]. As many as four computers can be connected directly to the router's integrated switch, using its four 10/100Mbps AutoMDIX Ethernet ports. More computers can be added to the network by connecting additional switches to the DI-704P. The DI-704P package even includes an Ethernet cable to get you started.

The DI-704P is ideal if you're creating your first home or small business network, or if you're a more advanced user looking for additional management settings.

The DI-704P includes a new, easy-to-use D-Link web-based graphical user interface (GUI) to configure the router. To prevent unwanted Internet intruders from accessing your private network, the DI-704P also serves as a feature-rich firewall.

So, whether you're a college student who wants to network with friends and roomates, an executive working at home or in a small office, or a concerned parent who just wants to have more control over how your children access the Internet, then the D-Link Express *EtherNetwork* DI-704P is the networking solution for you.

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[1] Print Server software included is for Windows Operating Systems only. Postscript Level 1 and 2 printers can be connected to the DI-704P for Macintosh OS 9.x or X computers. The DI-704P does not support non-Postscript printers with Macintosh OS.

Features & Benefits

- **Firewall Features**

    - **Filtering -** Easily applied filtering based on Media Access Control (MAC) Addresses, IP Addresses, Port Addresses, and time schedule allows or denies computer on the network access to the Internet.

    - **Network Address Translation** - NAT allows your private network to share a single public IP address. All your computer connected to the DI-704P will be on a private network shielded from Internet intruders.

- **Built-In 4-Port Switch** - Allows you to quickly and easily share an Internet connection with multiple computers and devices. Each 10/100 Ethernet Port automatically senses and accepts the type of Category (CAT) 5 cable you attach - whether straight through or cross-over. Connect additional switches to allow more computer to access the Internet.

- **Built-In Print Server** - Includes a parallel port to connect to a centronic printer and includes a Windows-based print server software application, so users on the network can share the printer[1]. The print server is also capable of TCP/IP printing.

- **Ethernet Cable Included** - One Ethernet cable is included with the DI-704P to get you started.

- **Simple Setup Wizard for Easy Installation** - The D-Link setup wizard simplifies the installation process, getting you up and running in just a few clicks.

[1] Print Server software included is for Windows Operating Systems only. Postscript Level 1 and 2 printers can be connected to the DI-704P for Macintosh OS 9.x or X computers. The DI-704P does not support non-Postscript printers with Macintosh OS.

LEDs
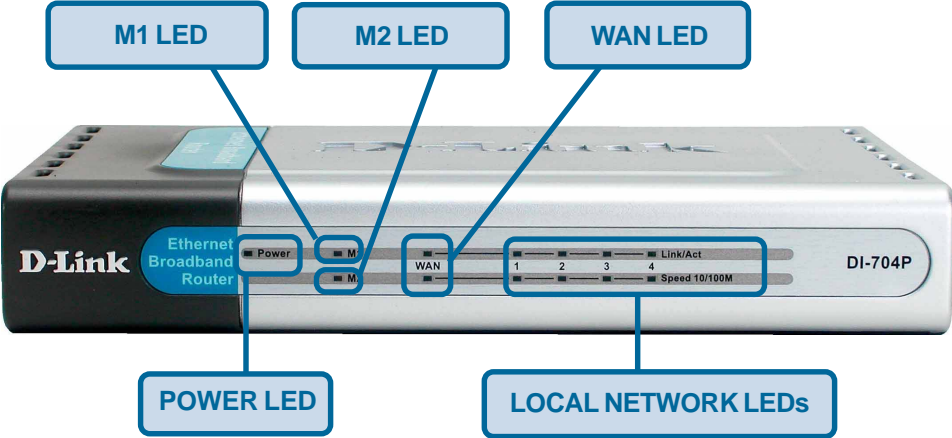
	LED Activity
Power	A solid light indicates a proper connection to the power supply.
M1 LED	Flashes consistently to indicate that the DI-704P is working properly.
M2 LED	Solid light indicates that Internet connection has been established.
WAN	A Solid light indicates connection on the WAN port. This LED blinks during data transmission.
LOCAL NETWORK LEDs (Ports 1-4)	A solid light indicates a connection to an Ethernet-enabled computer on ports 1-4. This LED blinks during data transmission

Connections

Printer Port   **WAN Port**   **Reset Button**

LAN Ports   **Receptor for Power Adapter**
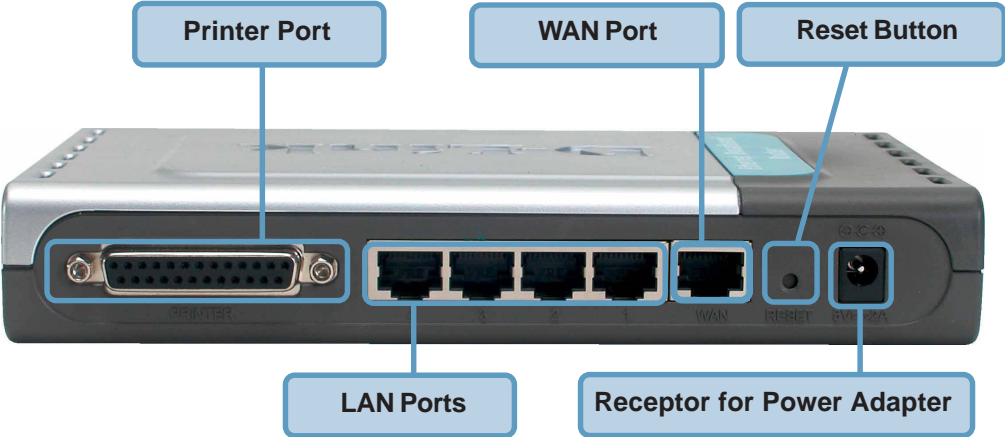
Receptor for Power Adapter	Connect the supplied power adapter that came with the unit. Using the wrong power adapter will damage the unit.
Reset Button	Reset button is to reset the device to its factory default settings.
Printer Port	Connect to the printer using a parallel cable. This feature is used to share the printer on the network.
WAN Port	WAN port is the connection point for your DSL or Cable modem.
Lan Ports	LAN port is where you would connect each computer to your network.

WARNING!
Using a power supply with a different voltage rating than the one included with the DI-704P will cause damage and void the warranty for this product.

Introduction to Broadband Router Technology

A router is a device that forwards data packets from a source to a destination. Routers can work on Open System Interconnection (OSI) layer 3, which forwards data packets using an IP address and not a MAC address. A router will forward data from the Internet to a particular computer on your LAN.

The information that makes up the Internet gets moved around using routers. When you click on a link on a wed page, you send a request to a server to show you the next page. The information that is sent and received from your computer is moved from your computer to the server using routers. A router also determines the best route that your information should follow to ensure that the information is delivered properly.

A router controls the amount of data that is sent through your network by eliminating information that shouldn't be there. This provides security for the computers behind your router because computers from the outside cannot access or send information directly to any computer on your network. The router determines which computer the information should be forwarded to and sends it. If the information is not intended for any computer on your network, the data is discarded. This keeps any unwanted or harmful information from accessing or damaging your network.

Introduction to Firewalls

A firewall is a device that sits between your computer and the Internet that prevents unauthorized access to or from your network. A firewall can be a computer using firewall software or a special piece of hardware built specifically to act as a firewall. In most circumstances, a firewall is used to prevent unauthorized Internet users from accessing private networks suchs as corporate LANs and Intranets.

A firewall watches all of the information moving to and from your network and analyzes each piece of data. Each piece of data is checked against a set of criteria that the administrator configures. If any data does not meet the criteria, that data is blocked and discarded. If the data meets the criteria, the data is paased through.. This method is called packet filtering.

A firewall can also run specific security functions based on the type of application or type of port that is being used. For example, a firewall can be configured to work with an FTP or Telnet server. Or a firewall can be configured to work with specific UDP or TCP ports to allow certain applications or games to work properly over the Internet.

Introduction to Local Area Networking

Local Area Networking (LAN) is the term used when connecting several computers together over a small area such as a building or group of buildings. LAN's can be connected over large areas. A collection of LANs connected over a large area is called a Wide Area Network (WAN).

A LAN is consists of multiple computers connected to each other. There are many types of media that can connect computers together. The most common media is CAT5 cable; UTP or STP twisted pair wire. Each computer must have a Network Interface Card (NIC), which communicates the data between computers. A NIC is usually a 10Mbps network card or 10/100Mbps network cards.

Most networks use hardware devices such as hubs or switches that each cable can be connected to in order to continue the connection between computers. A hub simply takes any data arriving through each port and forwards the data to all other ports. A switch is more sophisticated, in that a switch can determine the port that each piece of data is supposed to be delivered to. A switch minimizes network traffic and speeds up the communication over a network.

Networks take some time in order to plan and implement correctly. There are many types of scenarios to consider which could affect the operability of a network. Some of these issues are discussed in the manual under the **Networking Basics** section.

Sample Scenario
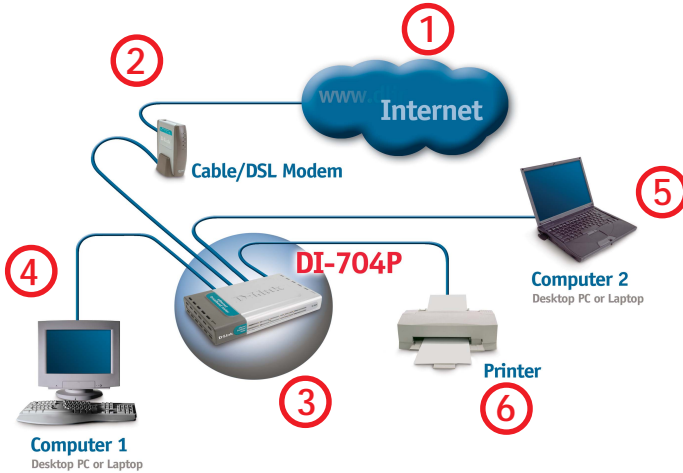
*A typical network setup at home (as shown above) might contain the following devices. For specific information on setting up your network with the DI-704P please see the **Network Setup** section on the following page.*

① You will need broadband Internet access (a Cable or DSL subscription line into your home or office)

② Consult with your Cable or DSL provider for proper installation of the modem

③ Connect the Cable or DSL modem to the DI-704P wireless broadband router (*see the Quick Installation Guide included with the DI-704P.*)

④ If you are connecting a desktop computer to your network, you can install the D-Link *DFE-530TX+* Ethernet adapter into an available PCI slot. (See the Quick Installation Guide included with the DWL-530TX+.)

⑤ If you are connecting a laptop computer to your network, install the drivers for the Ethernet Cardbus adapter (**e.g., D-Link DFE-690TXD**) into a laptop computer.(See the Quick Installation Guide included with the DFE-690TXD.)

⑥ Connect your printer to the printer port on the DI-704P. Please refer to the quick installation guide for loading the print server software.

** Easily upgrade to a wireless network by adding a wireless Access Point (D-Link DWL-900AP+) **

Network Setup
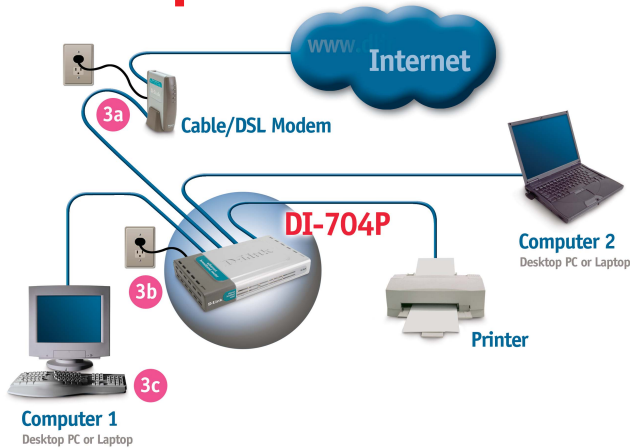
① Turn everything off.
A. Power OFF your Cable or DSL modem. If you modem does not have an on/off switch, disconnect the power cable.
B. Turn OFF your computer.
C. Do **NOT** connect the power adapter to your D-Link router.

② Connect the D-Link Router Cables.
A. Connect the Ethernet (or networking) cable from the Cable or DSL modem to the WAN port of the router.
B. Use the D-Link supplied Ethernet cable to connect the Ethernet port (Network Card) of your computer to one of the LAN ports of the router. The complete setup should look like Fig.1 shown above.

③ Power up the devices in sequence.
A. Power up the Cable or DSL modem. **Wait** until the modem has made the connection to your Internet Service Prover's (ISP's) network.

Note: Please see the Manual included with your modem for an explanation of the modem's LEDs.

B. Power up the D-Link router by connecting the D-Link provided power adapter to the router and to an available power outlet.
C. Turn on your computer.
D. Now, refer to either the *Quick Installation Guide* or continue to follow this manual to complete the installation process.

11

Using the Setup Wizard

Open your Web browser and type **"http://192.168.0.1"** into the URL address box. Then press the **Enter** or **Return** key.
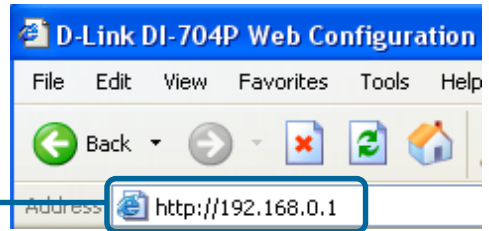
The logon pop-up screen will appear.

Type "admin" for the username and leave the password field blank.

Click OK

Once you have logged in, the **Home** screen will appear.
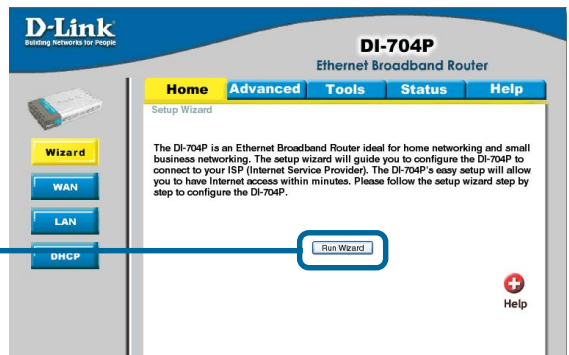
Click Run Wizard

Using the Setup Wizard (continued)

You will see the following screens

Setup Wizard - Microsoft Internet Explorer

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DI-704P Setup Wizard

Welcome to the DI-704P Setup Wizard. The Wizard will guide you through these four quick steps.Begin by clicking on **Next.**

Step 1. Set your new password

Step 2. Choose your time zone

Step 3. Set Internet connection

Step 4. Restart

Next   Exit
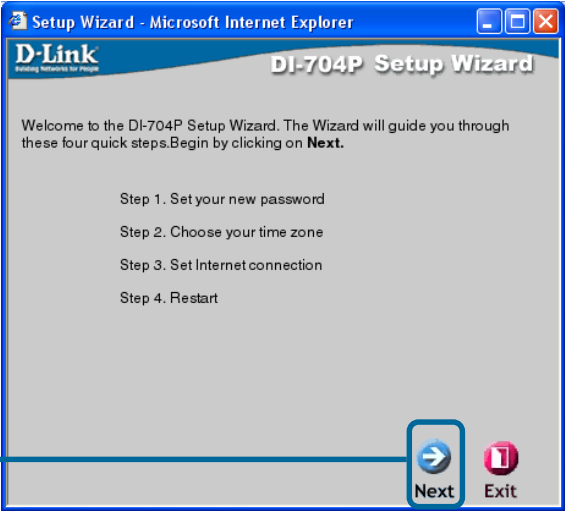
Click Next

Set up your new password. You have the option to establish a password.

Setup Wizard - Microsoft Internet Explorer

D-Link
Building Networks for People

DI-704P Setup Wizard

Set Password

You may change the **admin** account password by entering in a new password. Click **Next** to continue.

Old Password   ••••••••••

New Password

Reconfirm

Back   Cancel   Next   Exit

Click Next

Using the Setup Wizard (continued)

Set up your Time Zone. You have the option to the set standard time for your router. To change the default selection, select the drop down arrow and chose the correct time zone.

Setup Wizard - Microsoft Internet Explorer

D-Link

DI-704P Setup Wizard

Choose Time Zone

Select the appropriate time zone for your location and click **Next** to continue.

(GMT-08:00)Pacific Time (US & Canada)

Click Next

Back   Cancel   Next   Exit
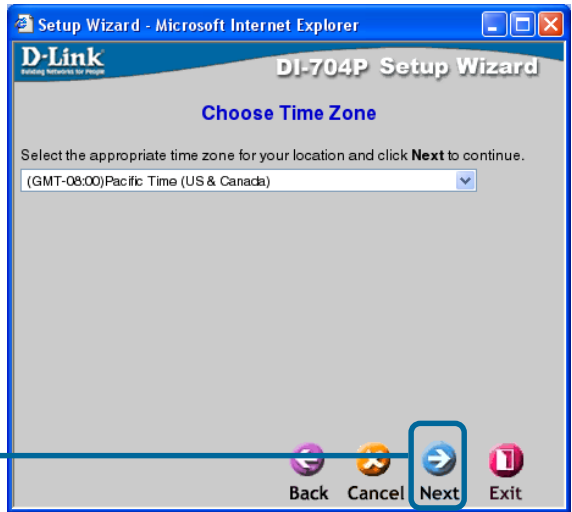
Select your Internet Connection. You will be prompted to select the type of Internet connection for your router.

Setup Wizard - Microsoft Internet Explorer

D-Link

DI-704P Setup Wizard

Select Internet Connection Type (WAN)

Select the connection type to connect to your ISP. Click **Next** to continue.

○ Dynamic IP Address | **Choose this option to obtain an IP address automatically from your ISP. (For most Cable modem users)**

○ Static IP Address | **Choose this option to set static IP information provided to you by your ISP.**

○ PPP over Ethernet | **Choose this option if your ISP uses PPPoE. (For most DSL users)**

○ Others | **PPTP and BigPond Cable.**

⚠ If you are unsure of which setting to select, please contact your Internet Service Provider.

Back   Cancel   Next   Exit

Click Next
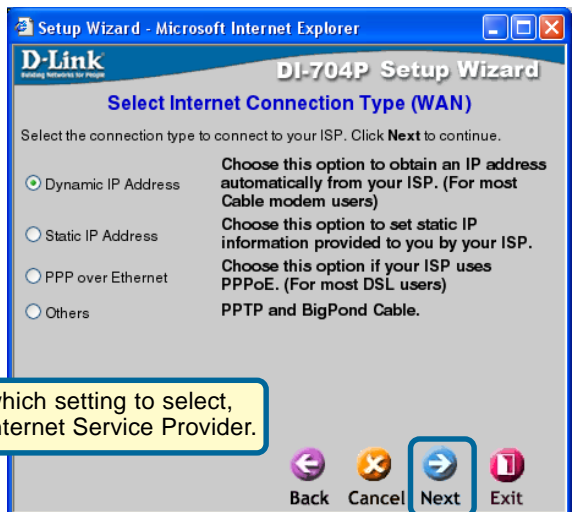
⚠ Select **Others** only if you use PPTP in Europe or BigPond Cable in Australia.

14

Using the Setup Wizard (continued)

If you selected **Dynamic IP Address**, this screen will appear: (Used mainly for Cable Internet service.)

Click the **"Clone MAC Address"** button to automatically copy the MAC address of the network adapter in your computer. You can also manually type in the MAC address.

What is a MAC address? Each network adapter has a discrete Media Access Control (MAC) address. Note that some computers and peripherals may already include built-in network adapters.

Click Next
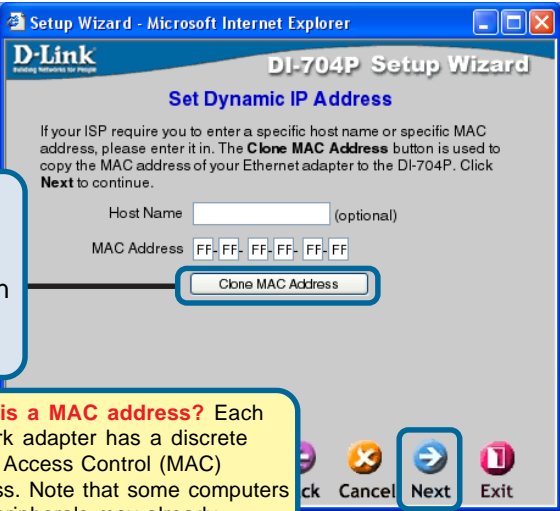
If your ISP requires a **Static IP Address**, and this option is selected, then this screen will appear:

Enter the IP Address information originally provided to you by your ISP. You will need to complete all the required fields.

Click Next
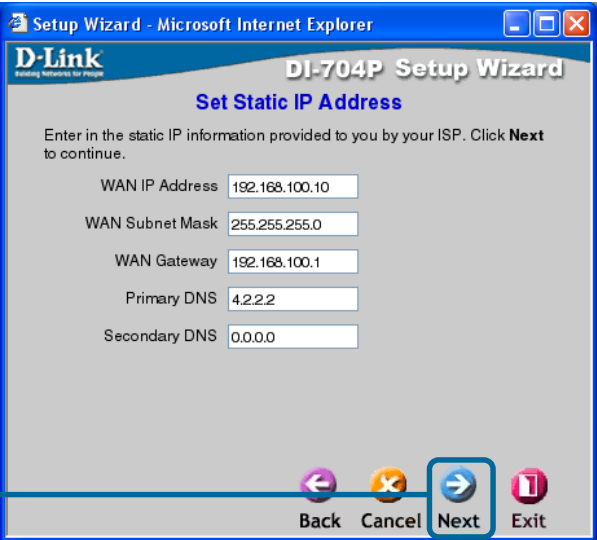
Using the Setup Wizard (continued)

If your ISP uses **PPPoE** (Point-to-Point Protocol over Ethernet), and this option is selected, then this screen will appear: (Used mainly for DSL Internet service.)

Please be sure to remove any existing PPPoE client software installed on your computers.

Enter in the username and password provided to you by your ISP.

Click Next

Click Restart

Using the Configuration Menu

Whenever you want to configure your network or the DI-704P, you can access the Configuration Menu by opening the web-browser and typing in the IP Address of the DI-704P. The DI-704P default IP Address is shown below:

Open the web browser
Type in the **IP Address** of
the DI-704P
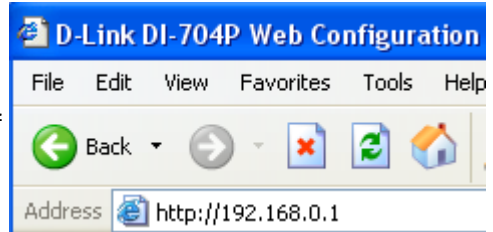
Home > Wizard

Note: if you have changed the default IP Address assigned to the DI-704P, make sure to enter the correct IP Address.

The factory default **User name** is **"admin"** and the default **Password** is blank (empty). It is recommended that you change the admin password for security purposes. Please refer to **Tools>Admin** to change the admin password.

Using the Configuration Menu (continued)

Home > Wizard (continued)
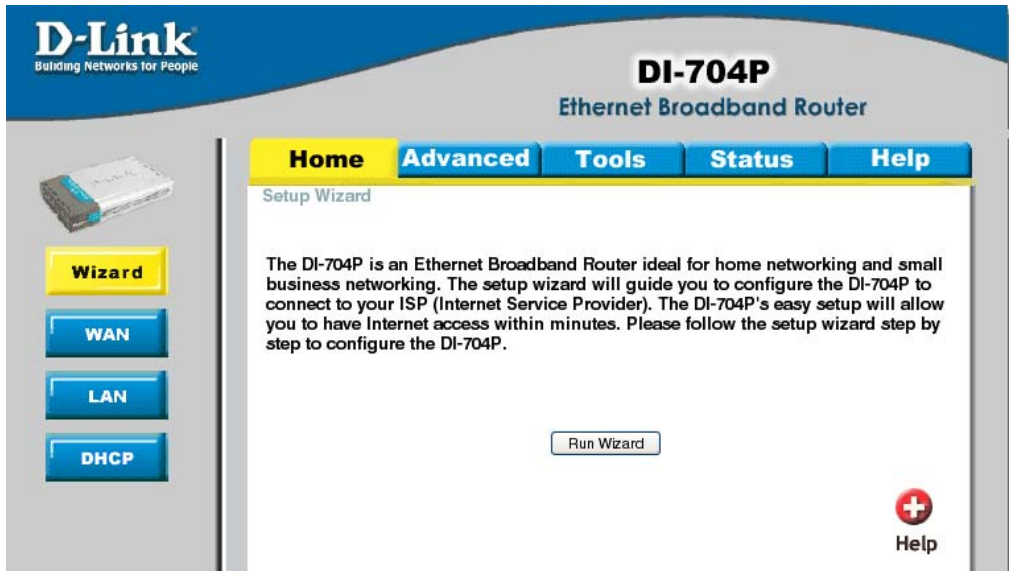
The **Home>Wizard** screen will appear. Please refer to the *Quick Installation Guide* for more information regarding the Setup Wizard.

Clicking **Apply** will save changes made to the page

Apply

Clicking **Cancel** will clear changes made to the page

Cancel

Clicking **Help** will bring up helpful information regarding the page

Help
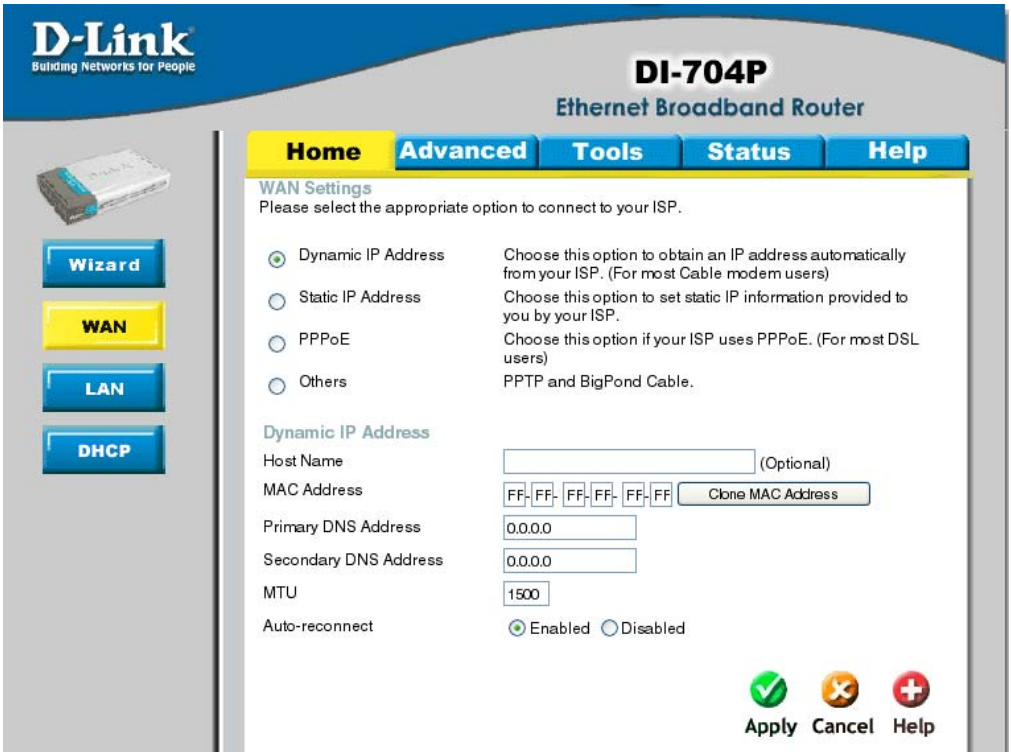
Clicking **Restart** will restart the router. (Necessary for some changes.)

Restart

Using the Configuration Menu (continued)

Home > WAN (continued)

WAN is short for Wide Area Network. The WAN settings can be referred to as the Public settings. All IP information in the WAN settings are public IP addresses which are accessible on the Internet. The WAN settings consist of four options: **Dynamic IP Address**, **Static IP Address**, **PPPoE, and Others**. Select the appropriate option and fill in the information needed to connect to your ISP.

Choose **Dynamic IP Address** to obtain IP address information automatically from your ISP. Select this option if your ISP does not give you any IP numbers to use. This option is commonly used for Cable modem services. **Host Name:** The Host Name field is optional but may be required by some ISPs. The host name is the device name of the Broadband Router.

Using the Configuration Menu (continued)

Home > WAN (continued)

MAC Address:
The default MAC address is set to the WAN's physical interface MAC address on the Broadband Router. You can use the "Clone MAC Address" button to copy the MAC address of the Ethernet Card installed by your ISP and replace the WAN MAC address with this MAC address. It is not recommended that you change the default MAC address unless required by your ISP.

Primary/Secondary DNS Address:
Enter a DNS Address if you do not wish to use the one provided by your ISP.

MTU:
Only enter the MTU if it is required by your ISP. Otherwise, leave it at the default setting of 1500.

Auto-reconnect:
If enabled, the Broadband Router will automatically connect to your ISP after your system is restarted or if the connection is dropped.

Using the Configuration Menu (continued)

Home > WAN > Static IP Address

Choose Static IP Address if all WAN IP information is provided to you by your ISP. You will need to enter in the IP Address, subnet mask, gateway address, and DNS address(es) provided to you by your ISP. Each IP address entered in the fields must be in the appropriate IP form, which are four IP octets separated by a dot (x.x.x.x). The Router will not accept the IP Address if it is not in this format.

IP Address:
Public IP address provided by your ISP.

Subnet Mask:
Subnet mask provided by your ISP.

ISP Gateway Address:
Public IP address of your ISP that you are connecting to.

Primary/Secondary DNS Address:
Enter a DNS Address if you do not wish to use the one provided by your ISP.

MTU:
Enter an MTU value only if required by your ISP. Otherwise, leave it at the default setting of 1500.

Using the Configuration Menu (continued)

Home > WAN > PPPoE

Please be sure to remove any Client Software program on your computer before you start your configuration of the DI-704P Router. Choose PPPoE (Point to Point Protocol over Ethernet) if your ISP uses PPPoE connection. Your ISP will provide you with a username and password. This option is typically used for DSL services. Select Dynamic PPPoE to obtain an IP address automatically for your PPPoE connection. Select Static PPPoE to use a static IP address for your PPPoE connection.

Using the Configuration Menu (continued)

Home > WAN > PPPoE (continued)

Dynamic PPPoE:
PPPoE connection where you will receive an IP address automatically from your ISP

Static PPPoE:
PPPoE connection where you have an assigned (static) IP address

User Name:
Your PPPoE username provided by your ISP

Password:
Your PPPoE password provided by your ISP

Retype Password:
Re-enter PPPoE password

Service Name:
Enter the service name provided by your ISP. (optional)

IP Address:
This option is only available for Static PPPoE. Enter in the static IP address for the PPPoE connection.

Primary DNS Address:
Primary DNS IP provided by your ISP

Secondary DNS Address:
Optional

Maximum Idle time:
The amount of time of inactivity before disconnecting your PPPoE session. Enter a Maximum Idle Time (in minutes) to define a maximum period of time for which the Internet connection is maintained during inactivity. If the connection is inactive for longer than the defined Maximum Idle Time, then the connection will be dropped. Either set this to zero or enable Auto-reconnect to disable this feature.

MTU:
MTU stands for Maximum Transmission Unit. For PPPoE connections, you may need to change the MTU settings in order to work correctly with your ISP.

Auto-reconnect:
If enabled, the Broadband Router will automatically connect to your ISP after your system is restarted or if the connection is dropped.

23

Using the Configuration Menu (continued)

Home > WAN > PPTP

Dynamic IP Address for PPTP is a WAN connection used in Europe.

My IP Address:
Enter in the IP address for the

My Subnet Mask:
Enter the subnet mask information.

Server IP:
Enter the Server IP address. By default, its set to 192.168.0.1

Using the Configuration Menu (continued)

Home > WAN > PPTP (continued)

PPTP Account:
Enter in the username for the PPTP account

PPTP Password:
Enter the password for the PPTP account. Retype in Password to confirm

Connection ID:
(Optional) enter the Connection ID if required
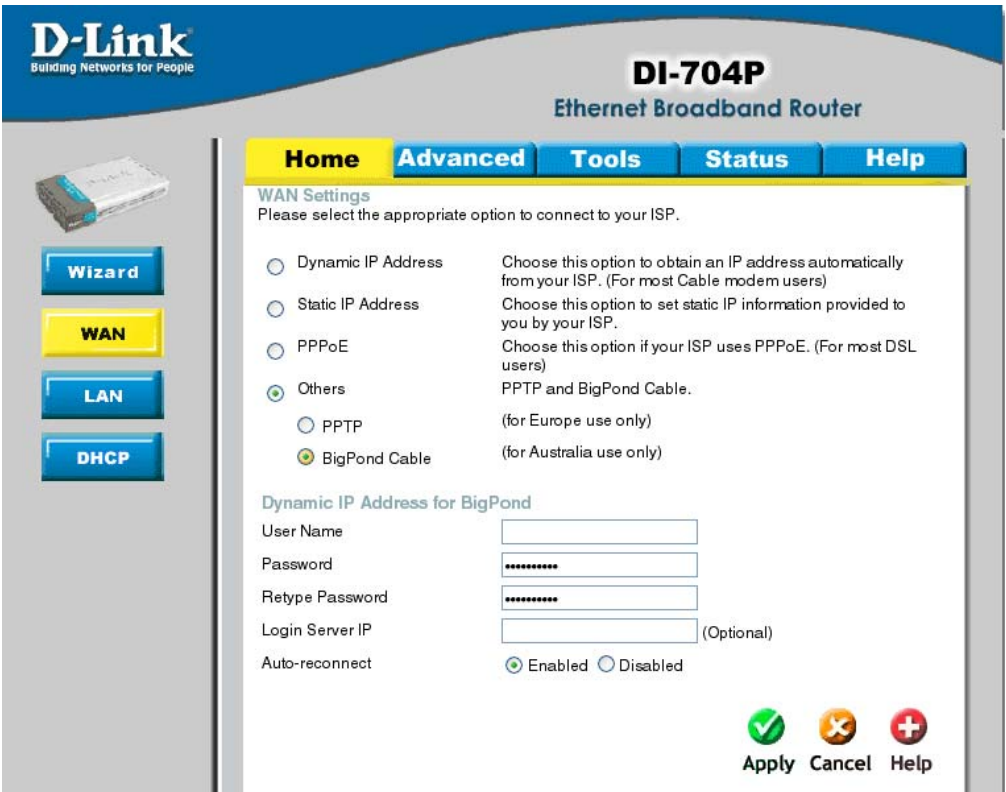
Maximum Idle Time:
The amount of time of inactivity before disconnecting your PPPoE session. Enter a Maximum Idle Time (in minutes) to define a maximum period of time for which the Internet connection is maintained during inactivity. If the connection is inactive for longer than the defined Maximum Idle Time, then the connection will be dropped. Either set this to zero or enable Auto-reconnect to disable this feature.

Auto-reconnect:
If enabled, the device will automatically connect to your ISP after your unit is restarted or when the connection is dropped.

Using the Configuration Menu (continued)

Home > WAN > BigPond Cable

Dynamic IP Address for BigPond is a WAN connection used in Australia.

Account:
Enter in the username for the BigPond account

Password:
Enter the password for the BigPond account

Login Server:
(Optional) enter the Login Server name if required

Auto-reconnect:
If enabled, the device will automatically connect to your ISP after your unit is re-started or when the connection is dropped.

Using the Configuration Menu (continued)

Home > LAN
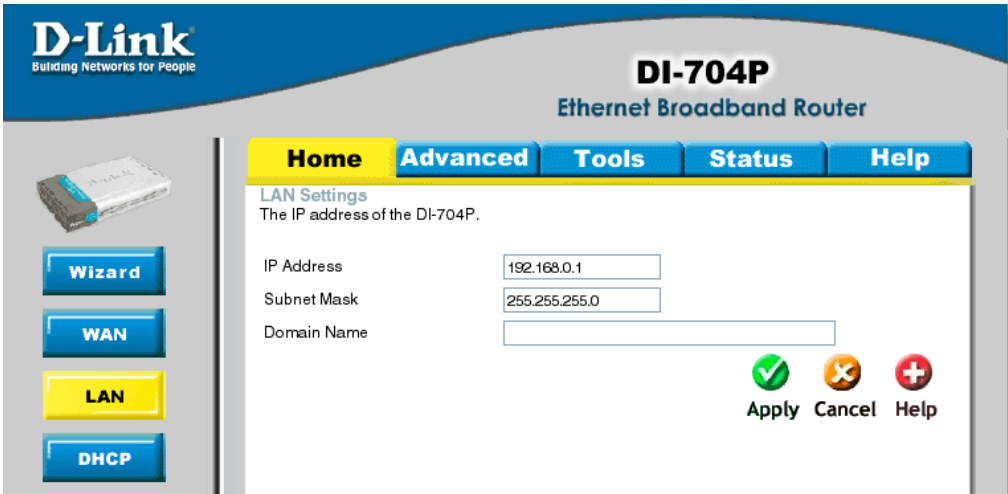
LAN is short for Local Area Network. This is considered your internal network. These are the IP settings of the LAN interface for the DI-704P. These settings may be referred to as Private settings. You may change the LAN IP address if needed. The LAN IP address is private to your internal network and cannot be seen on the Internet.

IP Address:
The IP address of the LAN interface. The default IP address is 192.168.0.1.

Subnet Mask:
The subnet mask of the LAN interface. The default subnet mask is 255.255.255.0.

Local Domain Name:
This field is optional. Enter in the your local domain name.

Using the Configuration Menu (continued)

Home > DHCP

DHCP stands for Dynamic Host Control Protocol. The DI-704P has a built-in DHCP server. The DHCP Server will automatically assign an IP address to the computers on the LAN/private network. Be sure to set your computers to be DHCP clients by setting their TCP/IP settings to "Obtain an IP Address Automatically." When you turn your computers on, they will automatically load the proper TCP/IP settings provided by the DI-704P. The DHCP Server will automatically allocate an unused IP address from the IP address pool to the requesting computer. You must specify the starting and ending address of the IP address pool.

Using the Configuration Menu (continued)

Home > DHCP

Static DHCP allows computers on the LAN to receive the same DHCP IP address everytime it boots up. You can bind a specific IP address to a specific computer based on the computer's MAC address

Starting IP address:
The starting IP address for the DHCP server's IP assignment.

Ending IP address:
The ending IP address for the DHCP server's IP assignment.

Lease Time:
The length of time for the IP lease.

Using the Configuration Menu (continued)

Advanced > Virtual Server

The DI-704P can be configured as a virtual server so that remote users accessing Web or FTP services via the public IP address can be automatically redirected to local servers in the LAN (Local Area Network). The DI-704P firewall feature filters out unrecognized packets to protect your LAN network so all computers networked with the DI-704P are invisible to the outside world. If you wish, you can make some of the LAN computers accessible from the Internet by enabling *Virtual Server.* Depending on the requested service, the DI-704P edirects the external service request to the appropriate server within the LAN network.

Using the Configuration Menu (continued)

Advanced > Virtual Server

The DI-704P is also capable of port-redirection meaning incoming traffic to a particular port may be redirected to a different port on the server computer. Each virtual services that are created will be listed at the bottom of the screen in the Virtual Servers List. There are already pre-defined virtual services already in the table. You may use them by enabling them and assigning the server IP to use that particular virtual service.

Name:
The name referencing the virtual service.

Private IP:
The server computer in the LAN (Local Area Network) that will be providing the virtual services.

Private Port:
The port number of the service used by the Private IP computer.

Protocol Type:
The protocol used for the virtual service.

Public Port:
The port number on the WAN side that will be used to access the virtual service.

Schedule:
The schedule of time when the virtual service will be enabled. The schedule may be set to Always, which will allow the particular service to always be enabled. If it is set to Time, select the time frame for the service to be enabled. If the system time is outside of the scheduled time, the service will be disabled.

Example #1:
If you have a Web server that you wanted Internet users to access at all times, you would need to enable it. Web (HTTP) server is on LAN (Local Area Network) computer 192.168.0.25. HTTP uses port 80, TCP.

Name: Web Server
Private IP: 192.168.0.25
Protocol Type: TCP
Private Port: 80
Public Port: 80
Schedule: always

Using the Configuration Menu (continued)

Advanced > Virtual Server

Click on this icon to edit the virtual service.

Click on this icon to delete the virtual service.

Example #2:
If you have an FTP server that you wanted Internet users to access by WAN port 2100 and only during the weekends, you would need to enable it as such. FTP server is on LAN computer 192.168.0.30. FTP uses port 21, TCP.

Name: FTP Server
Private IP: 192.168.0.30
Protocol Type: TCP
Private Port: 21
Public Port: 2100
Schedule: From: 01:00AM to 01:00AM, Sat to Sun

• All Internet users who want to access this FTP Server must connect to it from port 2100. This is an example of port redirection and can be useful in cases where there are many of the same servers on the LAN network.

Using the Configuration Menu (continued)

Advanced > Application

Some applications require multiple connections, such as Internet gaming, video conferencing, Internet telephony and others. These applications have difficulties working through NAT (Network Address Translation). *Special Applications* makes some of these applications work with the DI-704P. If you need to run applications that require multiple connections, specify the port normally associated with an application in the **Trigger** field, then enter the public ports associated with the trigger port into the **Incoming Ports** field.

Using the Configuration Menu (continued)

Advanced > Application

At the bottom of the screen, there are already defined special applications. To use them, select one from the drop down list and select an ID number you want to use. Then click the "Copy to" button and the router will fill in the appropriate information to the list. You will then need to enable the service. If the mechanism of Special Applications fails to make an application work, try using DMZ host instead.

Note! Only one PC can use each Special Application tunnel.

Enable / Disable:
Select to activate the policy. To disable the virtual server feature, select disable.

Trigger Port:
This is the port used to trigger the application. It can be either a single port or a range of ports.

Trigger Type:
Select the trigger protocol you would like to initiate. To chage the selection, use the drop down arrow and other choices will be listed.

Public Ports:
Enter in the public port or ports to be used. A range of ports can be specified with a hyphen.

Public Type:
Enter in the protocol type for public ports to access. To chage the selection, use the drop down arrow and other choices will be listed.

Special Application List:
In the Special Application List, it will list some of the popular services with its trigger ports. This is the port number on the WAN side that will be used to access the application. You may define a single port or a range of ports. You can use a comma to add multiple ports or port ranges.

Using the Configuration Menu (continued)

Advanced > IP Filter

Use IP (Internet Protocol) filters to allow or deny computers access to the Internet based on their IP address.

Using the Configuration Menu (continued)

Advanced > IP Filter

Enabled or Disabled:
Click **Enabled** to apply the filter policy or click **Disabled** to enter an inactive filter policy (You can reactivate the policy later.)

IP Address:
Enter in the IP address range of the computers that you want the policy to apply to. If it is only a single computer that you want the policy applied to, then enter the IP address of that computer in the Start Source IP and leave the End Source IP blank.

Port Ranges:
Enter in the port range of the TCP/UDP ports that you want the policy to apply to. If it is only a single port that you want the policy applied to, then enter the port number in the Start Port field and leave the End Port field blank. If you want to use all the ports, you can leave the port range empty.
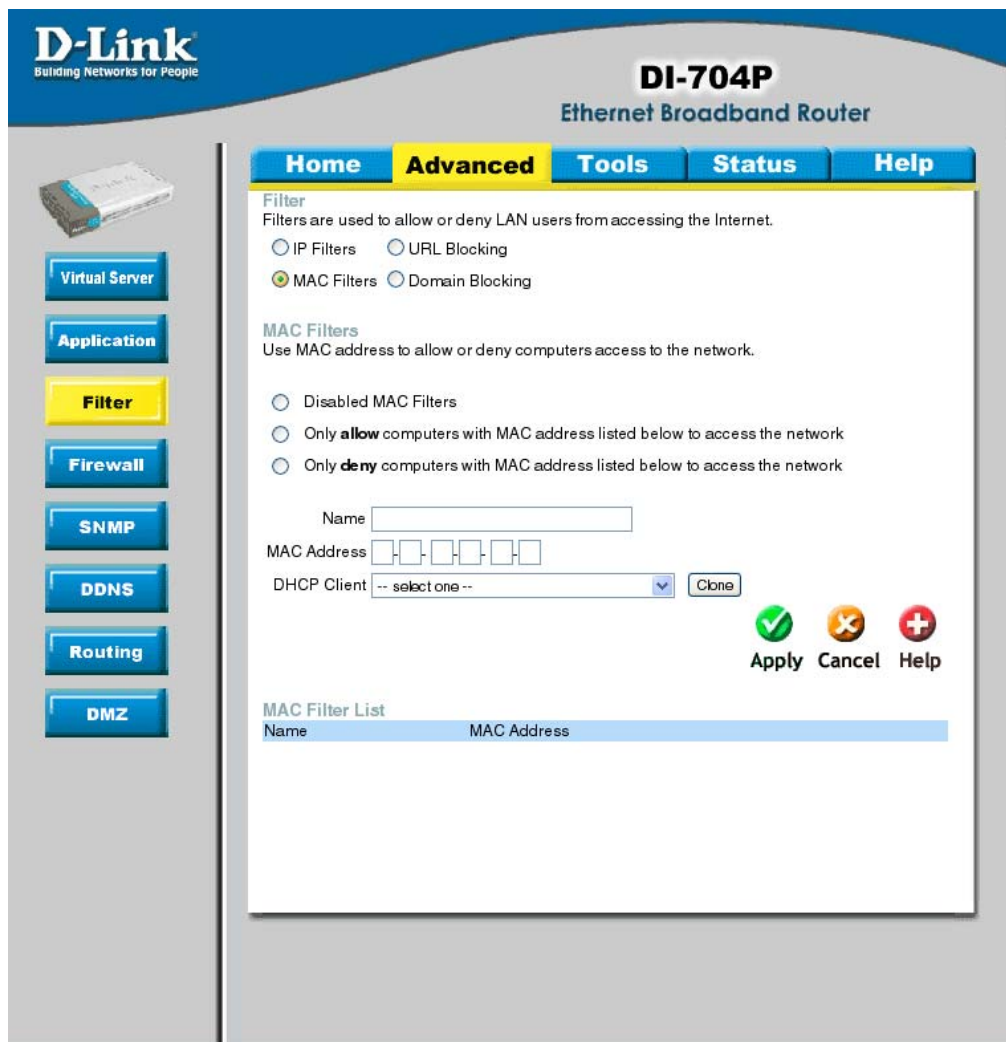
Protocol:
Select the protocol type to allow or disallow certain to certain IP addresses.

Schedule:
Select **Always**, or choose **From** and enter the time period during which the IP filter policy will be in effect.

Using the Configuration Menu (continued)

Advanced > MAC Filters

MAC (Media Access Control) Filters are used to deny or allow LAN (Local Area Network) computers from accessing the Internet and network by their MAC address.

At the bottom of the screen, there is a list of MAC addresses from the DHCP client computers connected to the DI-704P. To use them, select one from the drop down list and select an IP number you want to use. Then click the "Copy to" button and the DI-704P will fill in the appropriate information to the list.

Using the Configuration Menu (continued)

Advanced > MAC Filters

Disabled MAC Filter:
Select this option if you do not want to use MAC filters on your Local Area Network (LAN).

Only allow computers with MAC address listed below to access the network:
Select this option to allow only computers that are in the list access to the network and Internet. All other computers will be denied access to the network and Internet.

Only deny computers with MAC address listed below to access the network:
Select this option to deny only computers that are in the list access to the network and Internet. All other computers will be allowed access to the network and Internet.

Name:
Enter the **Name** to create a profile for the associated computer(s) on the network.

MAC Address:
Enter the **MAC Address** of the client that will be filtered.

DHCP Client:
Select from the DHCP Client list and click the Clone button to automatically clone that computer's MAC address to the MAC address field.

Using the Configuration Menu (continued)

Advanced > URL Blocking
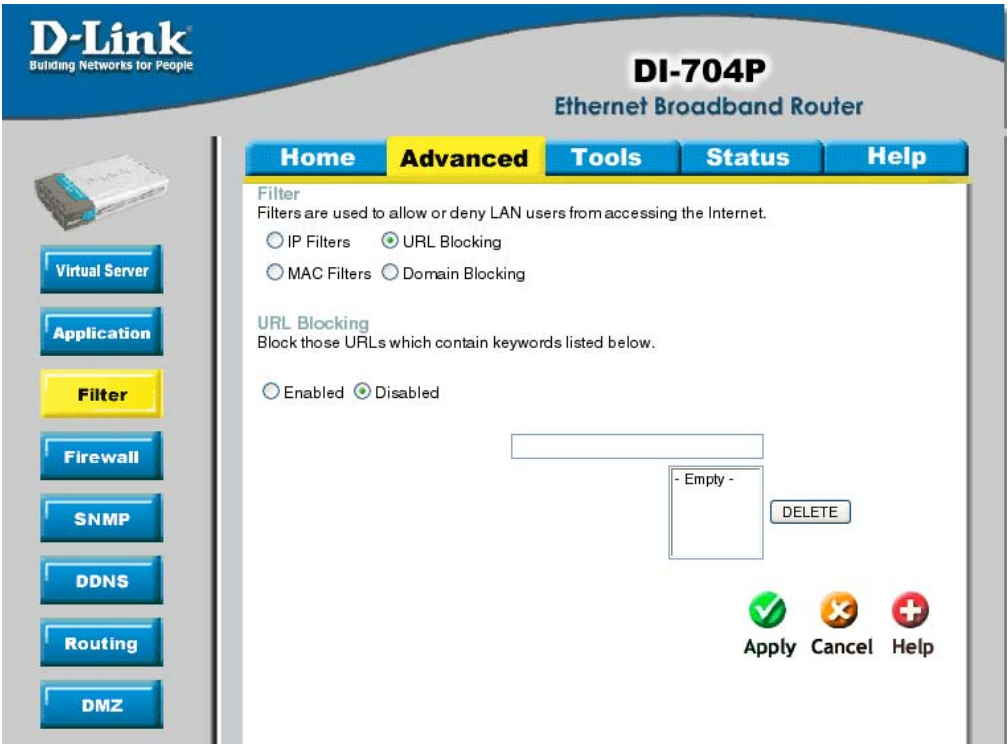
Use URL Blocking filters to disallow computer(s) to access Internet with the following URL keywords entered into the list. The URL Blocking filters are useful feature and similar to parental control. Users can enter keywords that may have adult content, hack, or other materials to prevent computers connected to the Local Area Network (LAN) from accessing those web sites.

Using the Configuration Menu (continued)

Advanced > Domain Filter

Use Domain filters to allow or deny computers access to specific Internet domains whether it is through www, ftp, snmp, etc. Domain filters apply to wired computers connected to one of the four Ethernet LAN ports to the DI-704P.

Using the Configuration Menu (continued)

Advanced > Domain Filter

Disabled Domain Filter:
Select this option if you do not want to use Domain filters.

Allow users to access the following domains and block all other domains:
Select this option to allow users to access the specified Internet domains listed below. Users will be denied access to all other Internet domains.

Deny users to access the following domains and permit all other domains:
Select this option to deny users to access the specified Internet domains listed below. Users will be allowed access to all other Internet domains.

Permitted Domains:
Enter in the domain suffix of the Internet domain you want to use.
(example: shopping.com, sports.net).

Blocked Domains:
Enter in the domain suffix of the Internet domain you want to block. (example: shopping.com, sports.net).

Delete:
Select this option to remove the domain suffix from the Permitted Domains or Blocked Domains list.

Using the Configuration Menu (continued)

Advanced > Firewall

Firewall Rules is an advance feature used to deny or allow traffic from passing through the Broadband Router. It works in the same way as IP Filters with additional settings. You can create more detailed access rules for the DI-704P. When virtual services are created and enabled, it will also display in Firewall Rules. Firewall Rules contains all network firewall rules pertaining to IP (Internet Protocol).

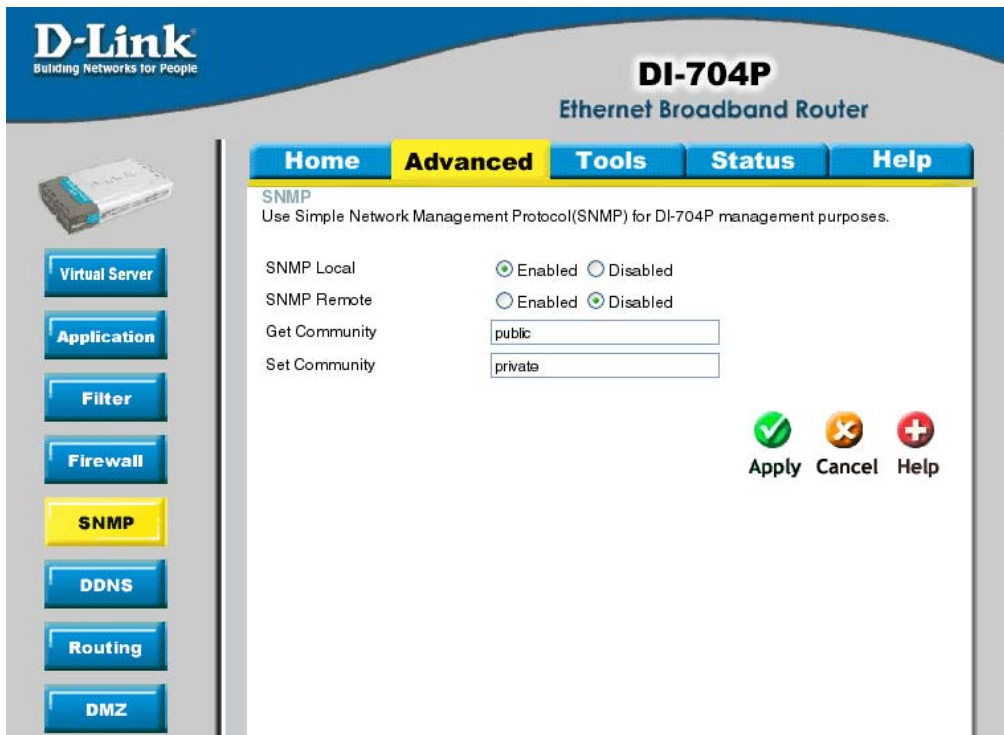In the **Firewall Rules List** at the bottom of the screen, the priorities of the rules are from top (highest priority) to bottom (lowest priority.)

> **Note:** The DI-704P MAC Address filtering rules have precedence over the Firewall Rules.

Using the Configuration Menu (continued)
Advanced > SNMP

SNMP (Simple Network Management Protocol) is a widely used network monitoring and control protocol that reports activity on each network device to the administrator of the network. SNMP can be used to monitor traffic and statistics of the DI-704P. The DI-704P supports SNMP v1.

Enabled or Disabled:
Click **Enabled** to enable SNMP click **Disabled** to deactivate SNMP.

Local:
SNMP services will be available on the Local (LAN) network.

Remote:
SNMP services will be available on the remote (WAN) network.
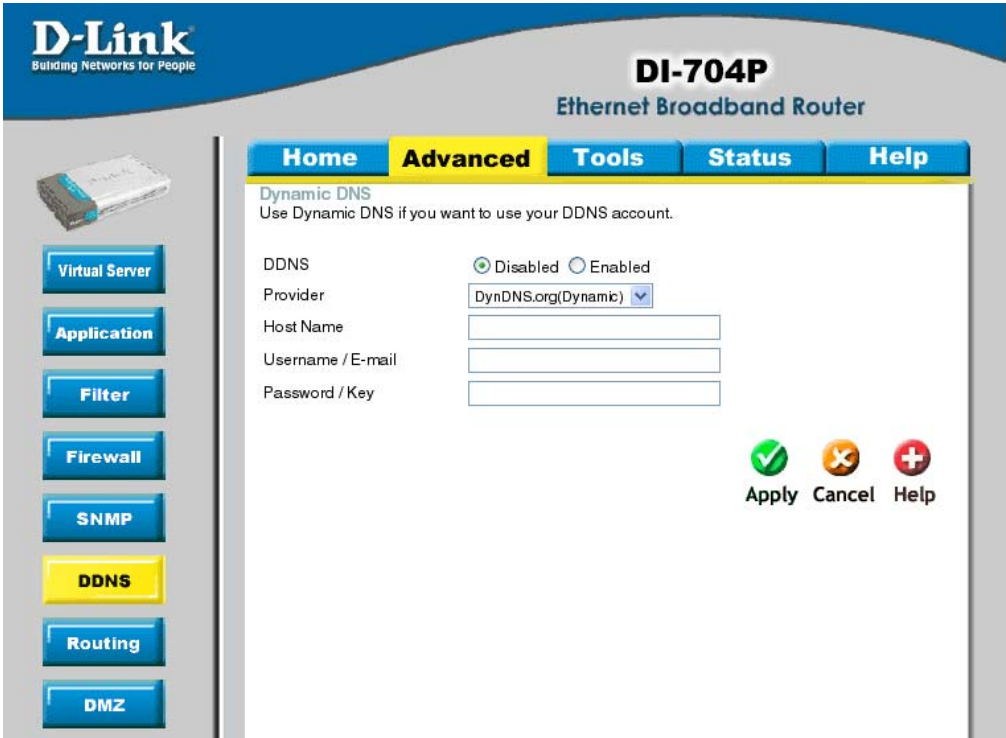
Get Community:
"Read only" access for network administration using SNMP. You can view the network, but no configuration is possible wth this setting.

Set Community:
"Read and Write" access for network administration using SNMP. The administrator can configure the network with this setting.

43

Using the Configuration Menu (continued)
Advanced > DDNS

DDNS (Dynamic Domain Name System) keeps dynamic IP addresses (e.g., IP addresses assigned by a DHCP capable router or server) linked to a domain name. Users who have a Dynamic DNS account may use this feature on the DI-704P.

DDNS:
When an IP address is automatically assigned by a DHCP server, DDNS automatically updates the DNS server.

Provider:
Select from the pull-down menu.

Host Name:
Enter the Host name.

Username/Email:
Enter the username/email address.

Password/Key:
Enter the password/key.

Using the Configuration Menu (continued)

Advanced > Routing

Static routes can be added if you require specific routes within your internal network. These routes will not apply to the WAN (Internet) network.

Destination:
Enter in the IP of the specified network that you want to access using the static route.

Subnet Mask:
Enter in the subnet mask to be used for the specified network.

Gateway:
Enter in the gateway IP address to the specified network.

Hop:
Enter in the amount of hops it will take to the specified network.

Enable:
Select this option for the specified static route to take effect.

> **Hop Count -** *in a transmission path, each link is terminated at a network device such as a router or gateway. The number of hops equals the number of routers or gateways that data must pass through before reaching the destination.*

Using the Configuration Menu (continued)
Advanced > DMZ
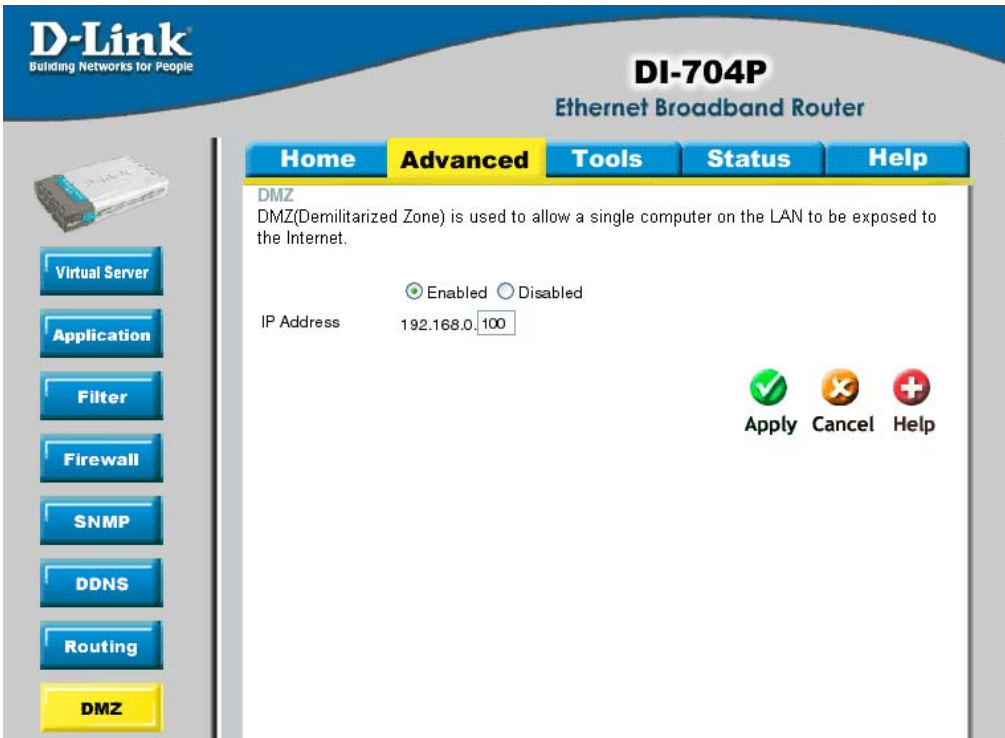
If you have a computer that cannot run Internet applications properly from behind the DI-704P, then you can allow that computer to have unrestricted Internet access. Enable this feature and enter the IP address of that computer as a DMZ (Demilitarized Zone) host with unrestricted Internet access. Adding a client to the DMZ may expose that computer to a variety of security risks; so only use this option as a last resort.

Using the Configuration Menu (continued)

Tools > Admin

Admininstrator Settings

At this page, the DI-704P administrator can change the system password. There are two accounts that can access the Broadband Router's Web-Management interface. They are *admin* and *user*. *Admin* has read/write access while *user* has read-only access. *User* can only view the settings but cannot make any changes.

Using the Configuration Menu (continued)

Tools > Admin

Remote Management
Remote Management allows the DI-614+ to be configured from the Internet by a web browser. A username and password is still required to access the Web-Management interface. In general, only a member of your network can browse the built-in web pages to perform "Administrator" tasks. This feature enables you to perform "Administrator" tasks from the remote (Internet) host.

IP Address:
Internet IP address of the computer that has access to the Broadband Router. *It is not recommended that you set the IP address to 0.0.0.0, because this allows any Internet IP address to access the Broadband Router, which could result in a loss of security for your network.* If you elect to **enable** Remote Management, enter the IP Address
of your remote location.

Port:
Select the port number used to access the Broadband Router.

Example: http://x.x.x.x:8080 whereas x.x.x.x is the WAN IP address of the Broadband Router and 8080 is the port used for the Web-Management interface.

Tools > Time

The system time is the time used by the DI-704P for scheduling services. You can manually set the time or connect to a NTP (Network Time Protocol) server. If an NTP server is set, you will only need to set the time zone.

48

Using the Configuration Menu (continued)

Tools > System
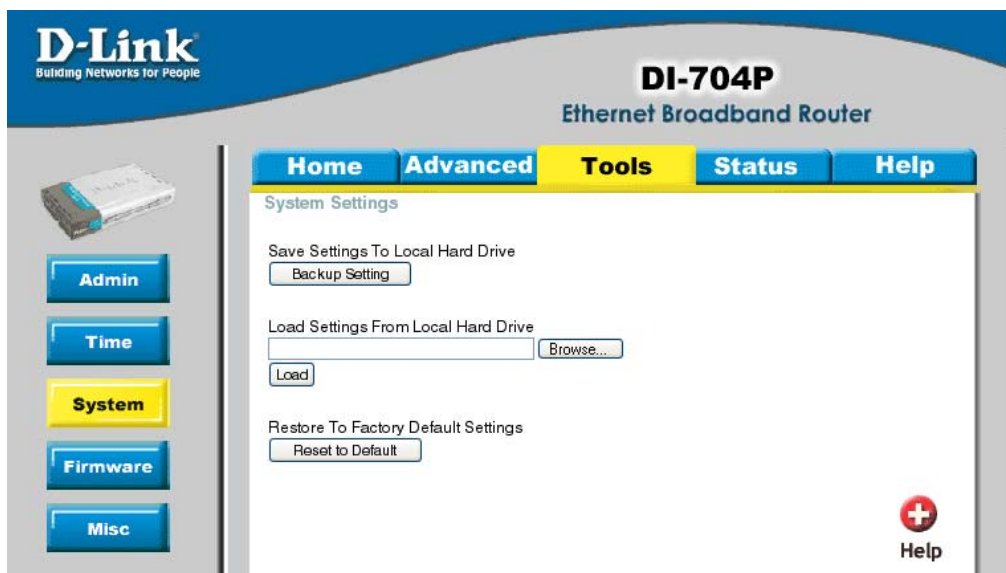
The current system settings can be saved as a file onto the local hard drive. The saved file or any other saved setting file created by the DI-704P can be uploaded into the unit. To reload a system settings file, click on **Browse** to search the local hard drive for the file to be used. The device can also be reset back to factory default settings by clicking on the **Reset to Default** button. Use the restore feature only if necessary. This will erase previously saved settings for the unit. Make sure to save your system settings to the hard drive before doing a factory restore.

Save Settings to Local Hard Drive:
Click **Save** to save the current settings to the local Hard Drive

Load Settings from Local Hard Drive:
Click **Browse** to find the settings file, then click **Load**

Restore to Factory Default Settings:
Click **Reset to Default** to restore the factory default settings

Using the Configuration Menu (continued)

Tools > Firmware
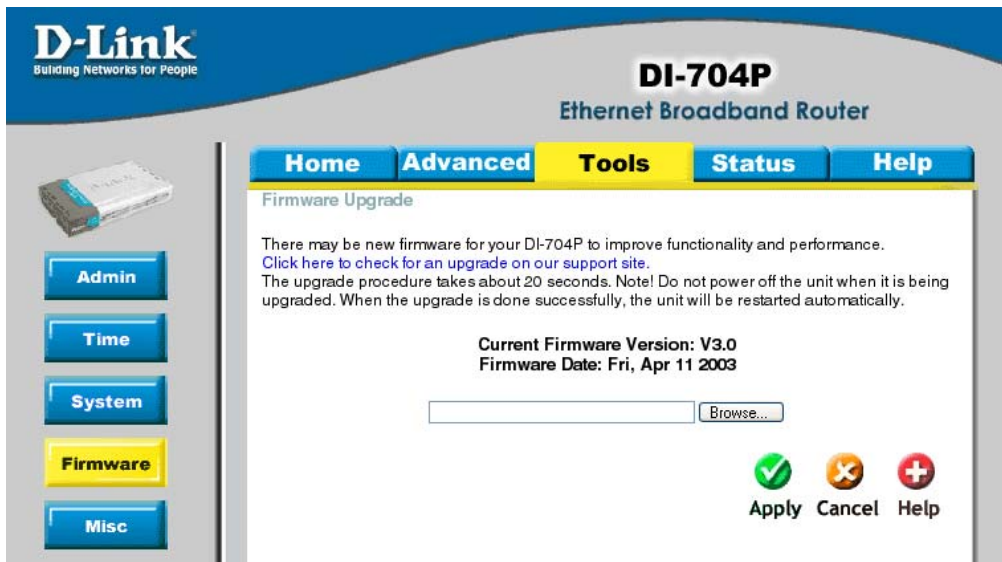
You can upgrade the firmware by using this tool. First, check the D-Link support site for firmware updates at http://support.dlink.com. Make sure that the firmware you want to use is
saved on the local hard drive of your computer. Click on **Browse** to search the local hard drive for the firmware that you downloaded from the D-Link website to be used for the update. Upgrading the firmware will not change any of your system settings but it is recommended that you save your system settings before doing a firmware upgrade.

Browse:
After you have downloaded the new firmware, click **Browse** in this window to locate the firmware update on your hard drive. Click **Apply** to complete the firmware upgrade.

Note! Do not power off the unit when it is being upgraded. When the upgrade is complete, the unit will be restarted automatically.

Using the Configuration Menu (continued)

Tools > Misc

Using the Configuration Menu (continued)
Tools > Misc

Ping Test:
This useful diagnostic utility can be used to check if a computer is on the Internet. It sends ping packets and listens for replies from the specific host.

Reboot:
Click reboot to restart the unit.

Block WAN Ping:
Click **Enable** to block the WAN ping. Computers on the Internet will not get a reply back from the DI-704P when it is being "ping"ed. This may help to increase security.

SPI Mode:
Stateful Packet Inspection is a form of firewall protection that will inspect all of the packets transmitted through the DI-704P. It carefully inspects all incoming packets and if it packets contain suspecious information, it will automatically drop those packets.

UPnP Setting:
Universal Plug and Play is a feature that is preset to allow certain popular applications such as MSN messenger to be functional using the router without making any configurations. By default UPnP setting is set to enable. It is recommended to keep UPnP Setting on enable.

VPN Pass Through:
For users who telecommute or use Virtual Private Network (VPN), you can select PPTP or IPSec to be used with this router.

Non-standard FTP port:
If an FTP server you want to access is not using the standard port 21, then enter in the port number that the FTP server is using instead.

Using the Configuration Menu (continued)

Status > Device Info

This page in the Configuration Utility displays the current information for the Broadband Router. It will display the WAN, LAN, and MAC address information. If your WAN connection is set up for **Dynamic IP** address a **Release** button and **Renew** button will be displayed. Use **Release** to disconnect from your ISP and use **Renew** to connect to your ISP. If your WAN connection is set up for **PPPoE**, a **Connect** button and **Disconnect** button will be displayed. Use **Disconnect** to drop the PPPoE connection and use **Connect** to establish the PPPoE connection. This page allows you to observe the DI-704P's working status:

Using the Configuration Menu (continued)

Status > Device Info

LAN
LAN MAC Address:
Displays the LAN port MAC/hardware address

IP Address:
LAN/Private IP Address of the DI-704P

Subnet Mask:
LAN/Private Subnet Mask of the DI-704P

WAN
WAN MAC Address:
Displays the WAN port MAC/hardware address

IP Address:
WAN/Public IP Address

Subnet Mask:
WAN/Public Subnet Mask

Gateway:
WAN/Public Gateway IP Address

Domain Name Server:
WAN/Public DNS IP Address

PeripheralPrinter:
Status of the parallel print server port.

Using the Configuration Menu (continued)

Status > Log
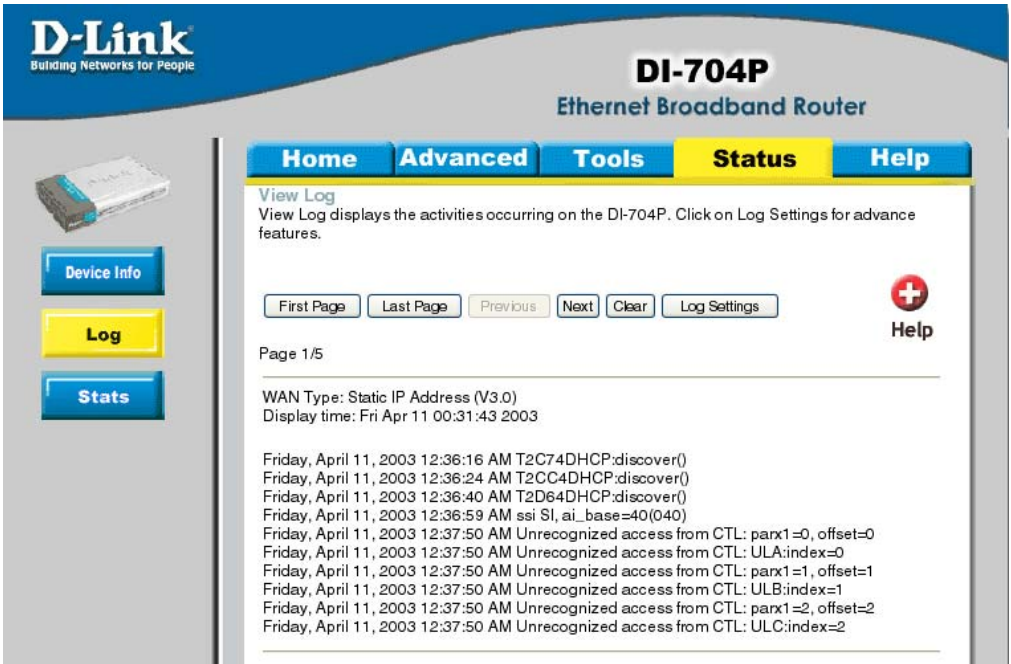
The Broadband Router keeps a running log of events and activities occurring on the Router. If the device is rebooted, the logs are automatically cleared. You may save the log files under Log Settings.

First Page:
The first page of the log.

Last Page:
The last page of the log.

Previous:
Moves back one log page.

Next:
Moves forward one log page.

Clear - Clears the logs completely.

Log Settings - Brings up the page to configure the logs.

Using the Configuration Menu (continued)

Status > Log Settings

Log Settings
Not only does the Broadband Router display the logs of activities and events, it can be setup to send these logs to another location.

E-Mail Alert:
The DI-704P can be set up to send the log files to a specific email address.

SMTP Server IP:
Input the SMTP information information. Usually, this is offered by your Internet service provider (ISP).

Send E-Mail alert to:
Enter in the email address of the recipient who will receive the email log.

Send Mail Now:
Click to send mail immediately.

Using the Configuration Menu (continued)

Help
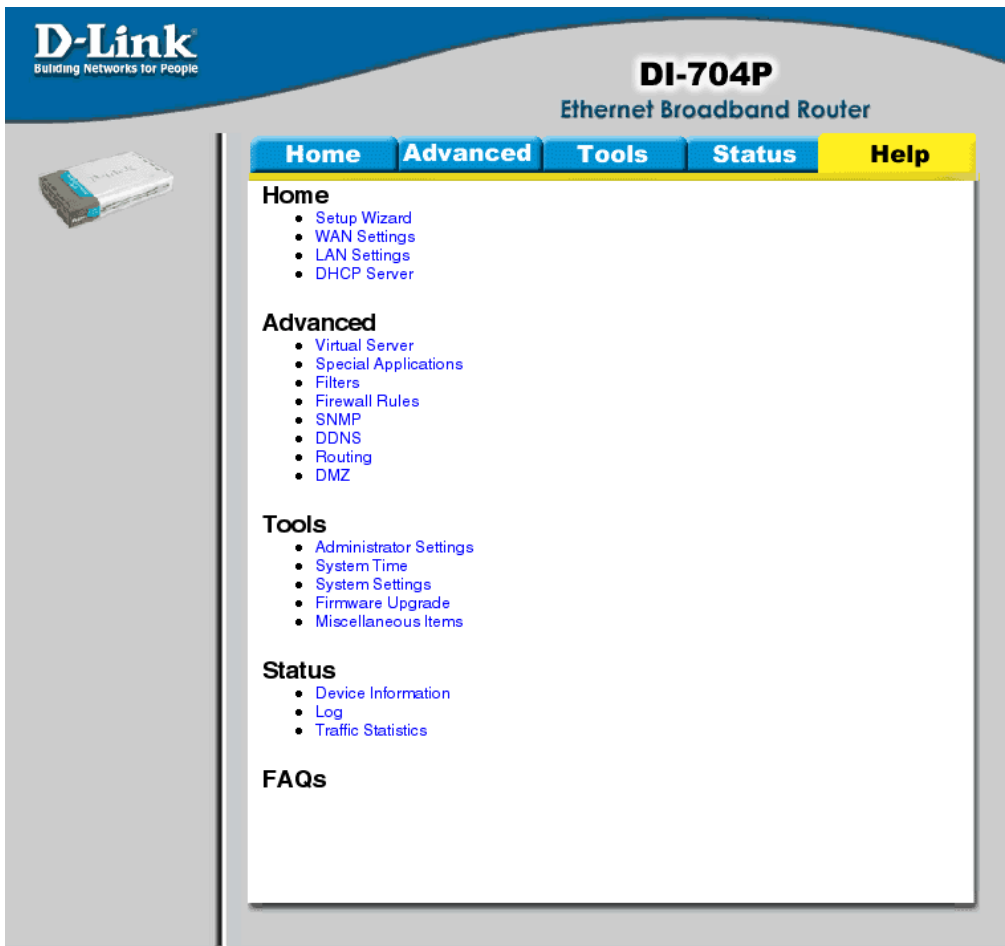
Help
This menu displays the complete **Hel**p menu. For help at anytime, click on the **Help** tab in the configuration menu.

Installing the Print Server Software

Insert the installation CD-ROM into the CD-ROM drive. The following window will be shown automatically. If it is not, please run "install.exe" on the CD-ROM.

Click Install Print Server Software
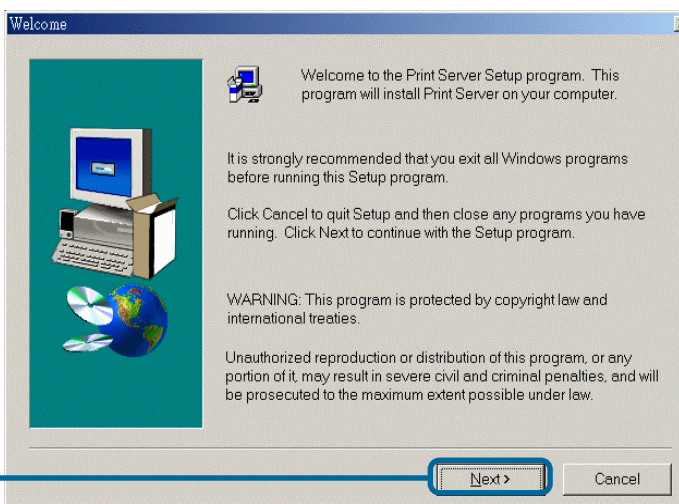
Click Next

Installing the Print Server Software (continued)

Select the destination folder.

Click Browse to select a destination folder

Click Next
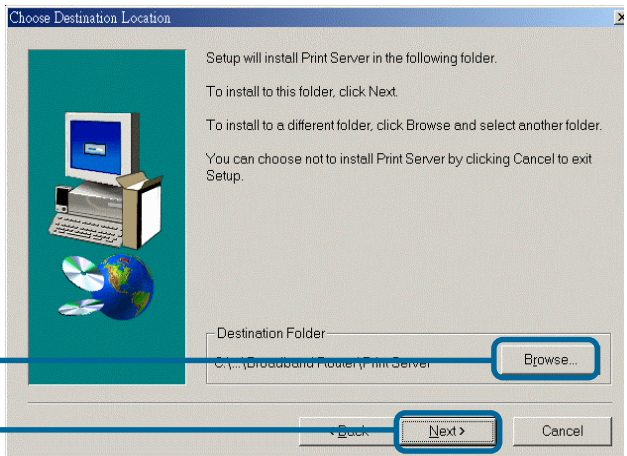
Click Finish
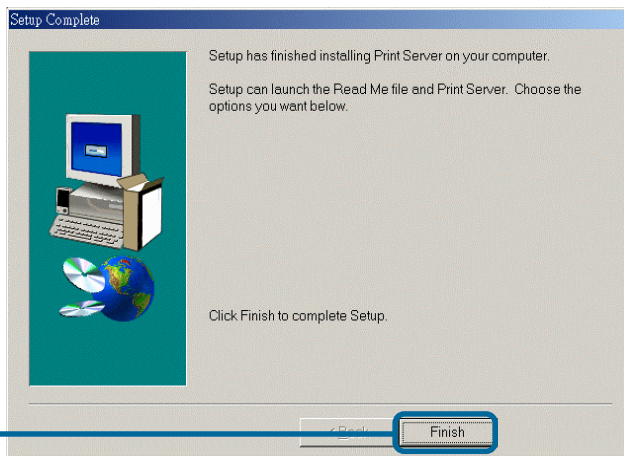
Select the option for restarting the computer.

Click OK
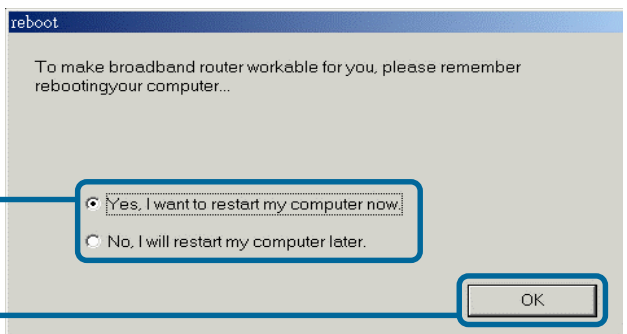
After rebooting your computer, the software installation procedure is finished.

Configuring on Windows 98SE/ME Platforms

After you finish the software installation procedure, your computer will be capable of network printing provided by the DI-704P. On a Windows 95/98 platform, open the **Printers** window in the **My Computer** menu.

Now, you can configure the print server of the DI-704P: Find out the corresponding icon of your *printer*, for example, the **HP LaserJet 6L**. Right click on that icon, and then select **Properties.**

The screen at right appears.

> **Click on the Details tab**
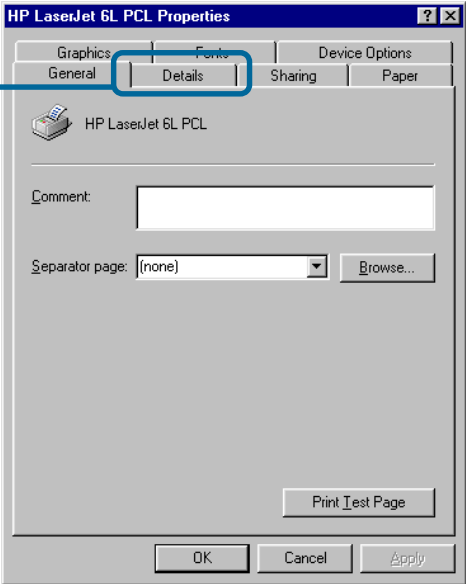
Choose the "PRTmate: (All-in-1)" from the list attached at the **Print To** item. Be sure that the **Printer Driver** item is

> **Click Port Settings**
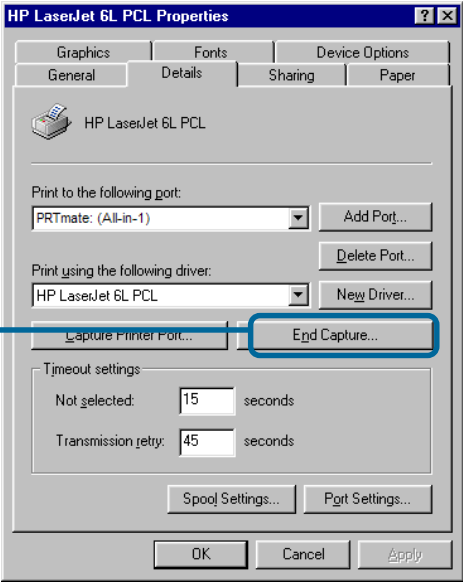
Configuring on Windows XP/2000/NT Platforms

Type in the IP address of the DI-704P.

Printer Position

Enter the Product's IP :

192.168. 0.1

OK

Cancel

Click OK

Click Port

HP LaserJet 6L Properties

General | Sharing | Ports | Advanced | Security | Device Settings

HP LaserJet 6L
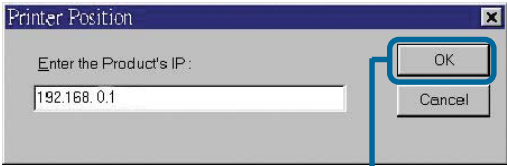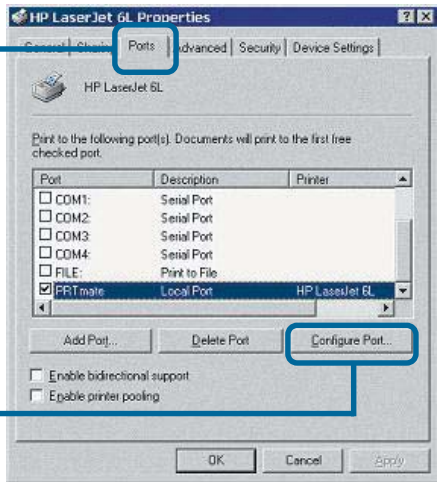
The configuration procedure for a Windows 2000/XP platform is similar to that of Windows 95/98 except the screen of printer **Properties**:

Print to the following port(s). Documents will print to the first free checked port.

Port	Description	Printer
☐ COM1:	Serial Port	
☐ COM2:	Serial Port	
☐ COM3:	Serial Port	
☐ COM4:	Serial Port	
☐ FILE:	Print to File	
☑ PRTmate	Local Port	HP LaserJet 6L

Add Port... | Delete Port | Configure Port...

☐ Enable bidirectional support
☐ Enable printer pooling

Click Configure Port

OK | Cancel | Apply

Type in the IP address of the DI-704P.

Printer Position

Enter the Product's IP :

192.168. 0.1

OK

Cancel
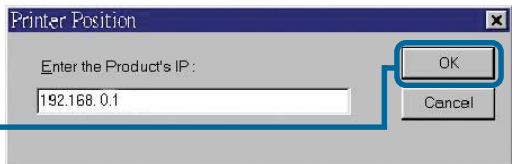
Click OK

(Note: Screen shots are taken in Windows 2000, similar screens will appear in Windows XP.)

Networking Basics

Using the Network Setup Wizard in Windows XP

In this section you will learn how to establish a network at home or work, using **Microsoft Windows XP.**

   Note: Please refer to websites such as http://www.homenethelp.com and http://www.microsoft.com/windows2000 for information about networking computers using Windows 2000, ME or 98SE.

Go to **Start>Control Panel>Network Connections**
Select **Set up a home or small office network**

When this screen appears, click **Next.**

Networking Basics

Please follow all the instructions in this window:
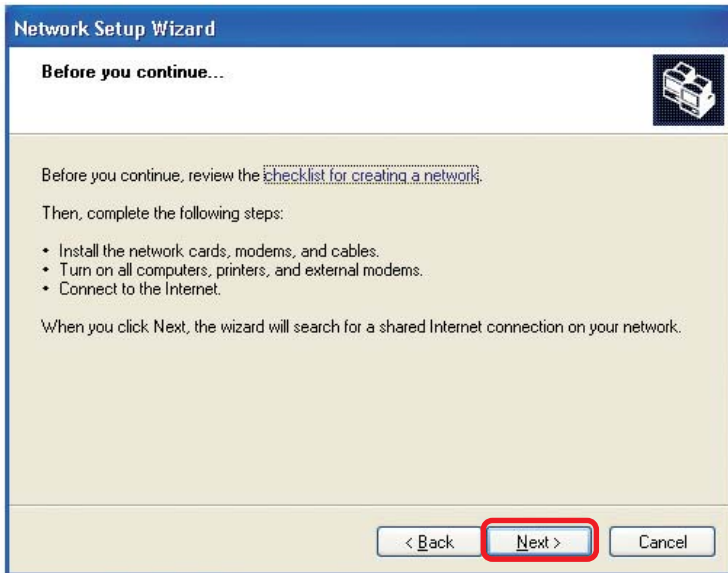
Click **Next**

In the following window, select the best description of your computer. If your computer connects to the internet through a gateway/router, select the second option as shown.
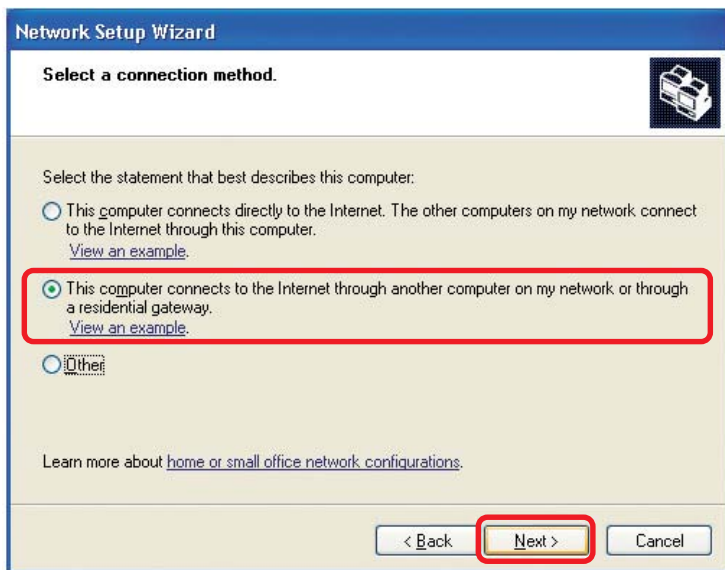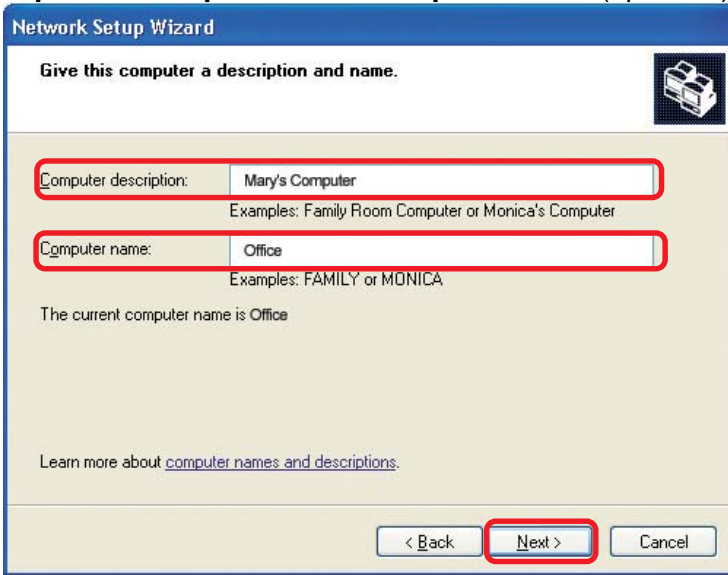
Click **Next**

Networking Basics

Enter a **Computer description** and a **Computer name** (optional.)

Click **Next**

Enter a **Workgroup** name. All computers on your network should have the same **Workgroup name.**

Click **Next**

Networking Basics

Please wait while the **Network Setup Wizard** applies the changes.

Network Setup Wizard
Ready to apply network settings...
The wizard will apply the following settings. This process may take a few minutes to complete and cannot be interrupted.
Settings:
Network settings:
Computer description: Mary's Computer
Computer name: Office
Workgroup name: Accounting
The Shared Documents folder and any printers connected to this computer have been shared.
To apply these settings, click Next.
< Back   Next >   Cancel

When the changes are complete, click **Next**.

Please wait while the **Network Setup Wizard** configures the computer.
This may take a few minutes.

Network Setup Wizard
Please wait...
Please wait while the wizard configures this computer for home or small office networking. This process may take a few minutes.
< Back   Next >   Cancel
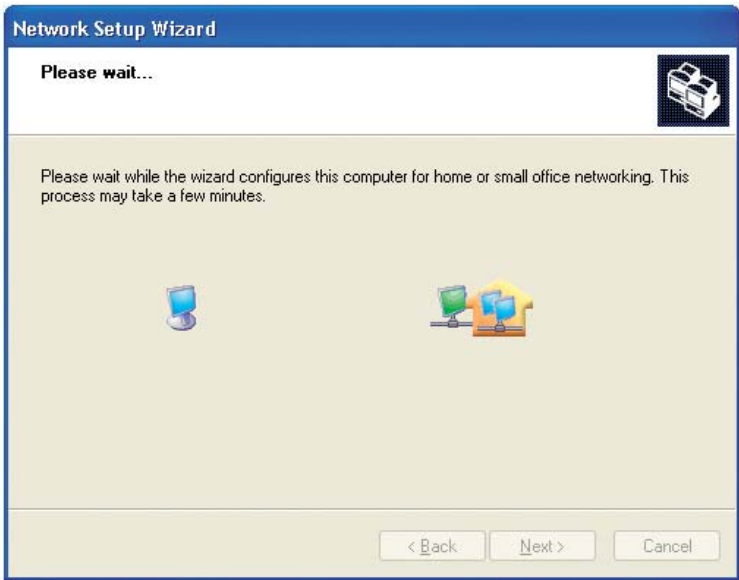
Networking Basics

In the window below, select the option that fits your needs. In this example, **Create a Network Setup Disk** has been selected. You will run this disk on each of the computers on your network. Click **Next**.

Network Setup Wizard

You're almost done...

ⓘ You need to run the Network Setup Wizard once on each of the computers on your network. To run the wizard on computers that are not running Windows XP, you can use the Windows XP CD or a Network Setup Disk.

What do you want to do?

⦿ Create a Network Setup Disk

◯ Use the Network Setup Disk I already have

◯ Use my Windows XP CD

◯ Just finish the wizard; I don't need to run the wizard on other computers

< Back   Next >   Cancel

Insert a disk into the Floppy Disk Drive, in this case drive **A.**

Network Setup Wizard

Insert the disk you want to use.

Insert a disk the into the following disk drive, and then click Next.

3½ Floppy (A:)

If you want to format the disk, click Format Disk.

Format Disk

< Back   Next >   Cancel
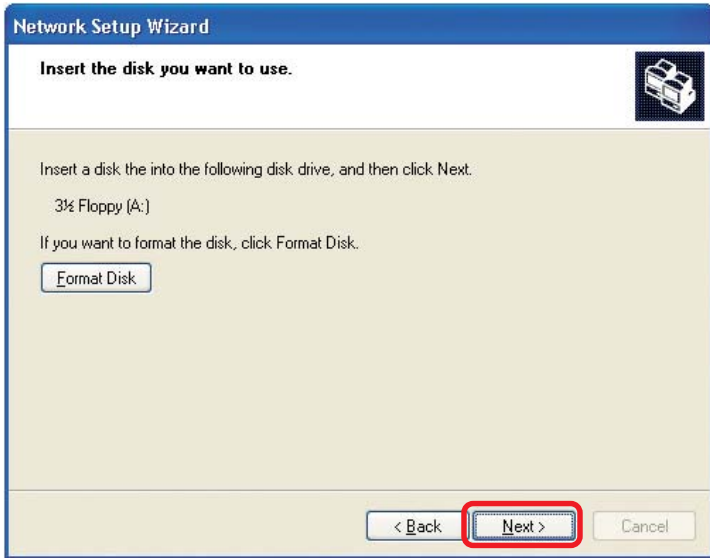
Format the disk if you wish, and click **Next.**

Networking Basics
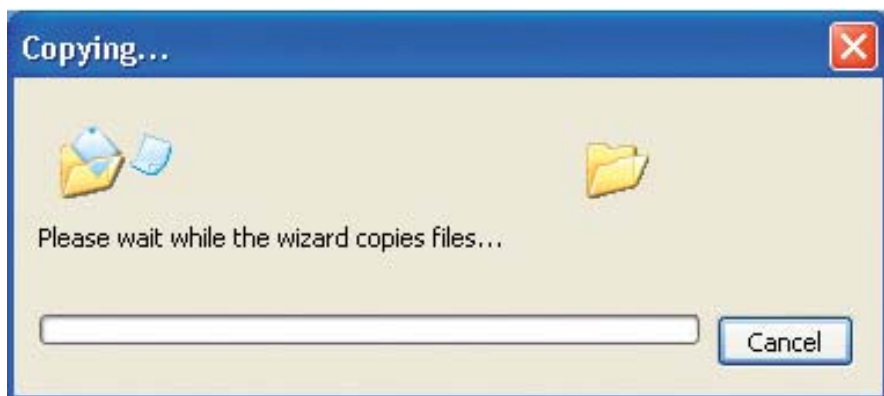
Please read the information under **Here's how** in the screen below. After you complete the **Network Setup Wizard** you will use the **Network Setup Disk** to run the **Network Setup Wizard** once on each of the computers on your network. To continue click **Next.**

Network Setup Wizard

To run the wizard with the Network Setup Disk...

Complete the wizard and restart this computer. Then, use the Network Setup Disk to run the Network Setup Wizard once on each of the other computers on your network.

Here's how:

1. Insert the Network Setup Disk into the next computer you want to network.
2. Open My Computer and then open the Network Setup Disk.
3. Double-click "netsetup."

< Back   Next >   Cancel

Networking Basics

Please read the information on this screen, then click **Finish** to complete the **Network Setup Wizard**.

The new settings will take effect when you restart the computer. Click **Yes** to restart the computer.
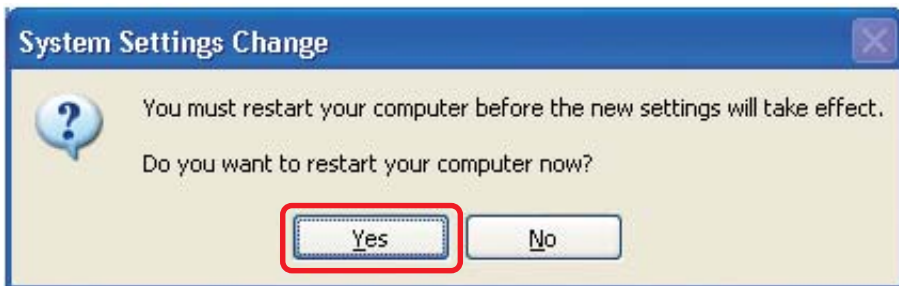
You have completed configuring this computer. Next, you will need to run the **Network Setup Disk** on all the other computers on your network. After running the **Network Setup Disk** on all your computers, your new wireless network will be ready to use.

Networking Basics
Naming your Computer

To name your computer, please follow these directions:In **Windows XP**:

- ■ Click **Start** (in the lower left corner of the screen)

- ■ **Right-click** on **My Computer**

- ■ Select **Properties** and click
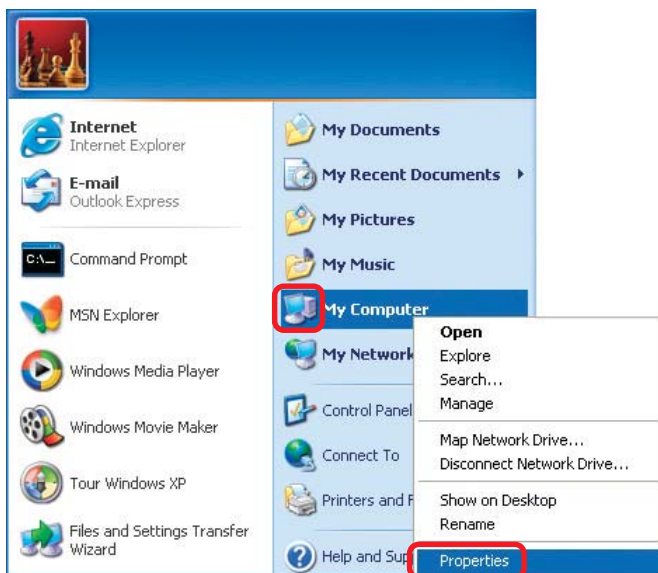
- ■ Select the **Computer Name Tab** in the System Properties window.

- ■ You may enter a **Computer Description** if you wish; this field is optional.

- ■ To rename the computer and join a domain, Click **Change**.

69
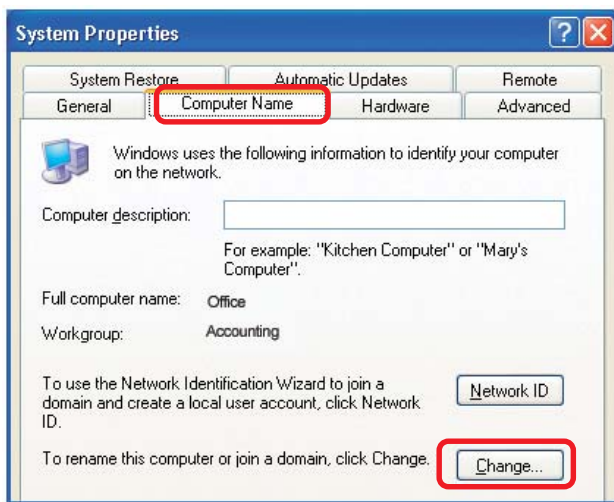
Networking Basics
Naming your Computer

- ■ In this window, enter the **Computer name**

- ■ Select **Workgroup** and enter the name of the **Workgroup**

- ■ All computers on your network must have the same **Workgroup** name.

- ■ Click **OK**

Computer Name Changes ？ ✕

You can change the name and the membership of this computer. Changes may affect access to network resources.

Computer name:

Office

Full computer name:
Office

More...

Member of

○ Domain:

⦿ Workgroup:

Accounting

OK   Cancel
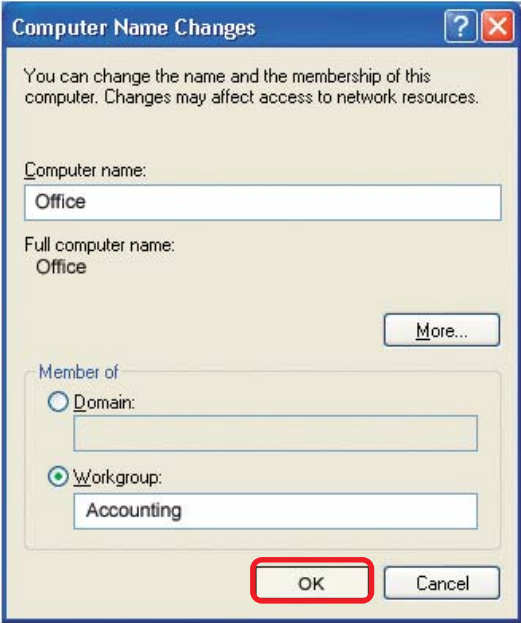
Checking the IP Address in Windows XP

The wireless adapter-equipped computers in your network must be in the same IP Address range (see Getting Started in this manual for a definition of IP Address Range.) To check on the IP Address of the adapter, please do the following:

- ■ Right-click on the *Local Area Connection icon* in the task bar

- ■ Click on **Status**

Disable

Status

Repair

View Available Wireless Networks

Open Network Connections

3:05 PM

Networking Basics
Checking the IP Address in <u>Windows XP</u>

This window will appear.

■ Click the
  Support tab

■ Click **Close**

Wireless Network Connection 7 Status ? X

General | Support

Internet Protocol (TCP/IP)

Address Type:	Assigned by DHCP
IP Address:	192.168.0.114
Subnet Mask:	255.255.255.0
Default Gateway:	192.168.0.1

[Details...]

[Repair]

[Close]
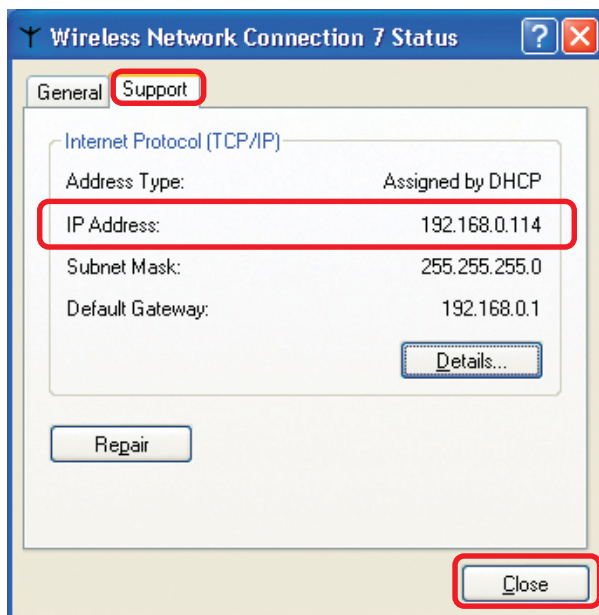
Assigning a Static IP Address in <u>Windows XP/2000</u>

Note: Residential Gateways/Broadband Routers will automatically assign IP Addresses to the computers on the network, using DHCP (Dynamic Host Configuration Protocol) technology. If you are using a DHCP-capable Gateway/Router you will not need to assign Static IP Addresses.

If you are not using a DHCP capable Gateway/Router, or you need to assign a Static IP Address, please follow these instructions:

■ Go to **Start**

■ Double-click on
  Control Panel

Tour Windows XP

Files and Settings Transfer Wizard

Paint

All Programs ▶

Control Panel

Printers and Faxes

Help and Support

Search

Run...

Log Off | Turn Off Computer

start
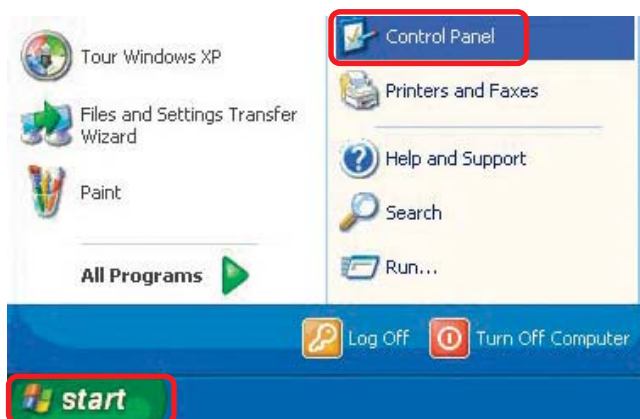
Networking Basics
Assigning a Static IP Address in <u>Windows XP/2000</u>

■ Double-click on **Network Connections**
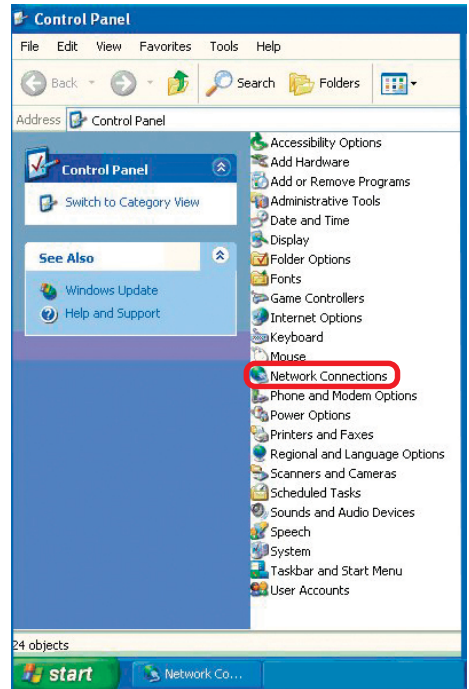
■ Right-click on **Local Area Connections**

■ Double-click on **Properties**
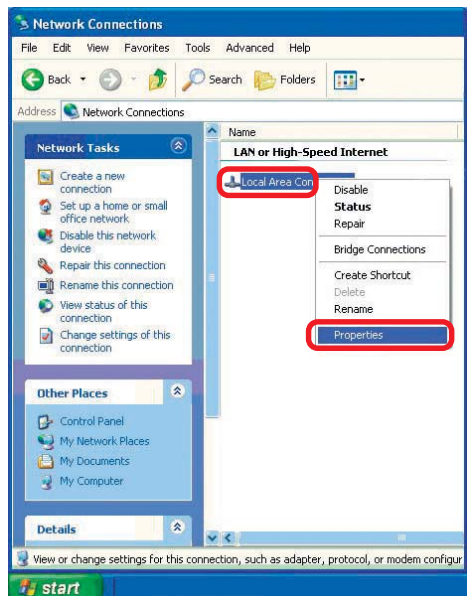
Networking Basics
Assigning a Static IP Address in Windows XP/2000

- Click on **Internet Protocol (TCP/IP)**

- Click **Properties**
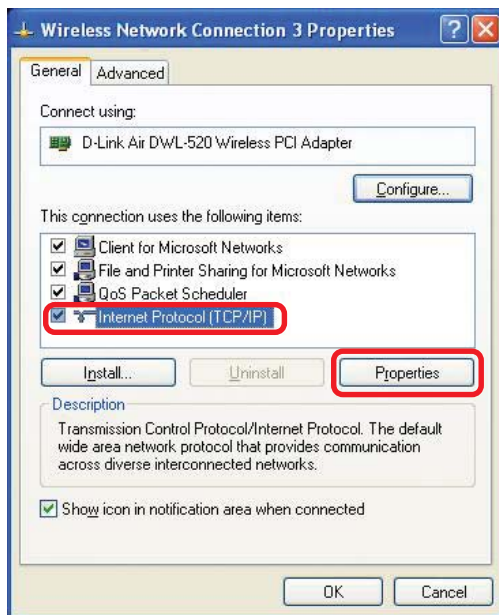
■ In the window below, select **Use the following IP address**. Input your **IP address and subnet mask.** (The IP Addresses on your network must be within the same range. For example, if one computer has an IP Address of 192.168.0.2, the other computers should have IP Addresses that are sequential, like 192.168.0.3 and 192.168.0.4. The subnet mask must be the same for all the computers on the network.)

IP Address:
e.g., 192.168.0.2

Subnet Mask:
255.255.255.0

Default Gateway:
Enter the LAN IP address of the wireless router. (D-Link wireless routers have a LAN IP address of 192.168.0.1)

- Select **Use the following DNS server address**. Enter the LAN IP address of the Wireless Router. (D-Link wireless routers have a LAN IP address of 192.168.0.1)

- Click **OK**
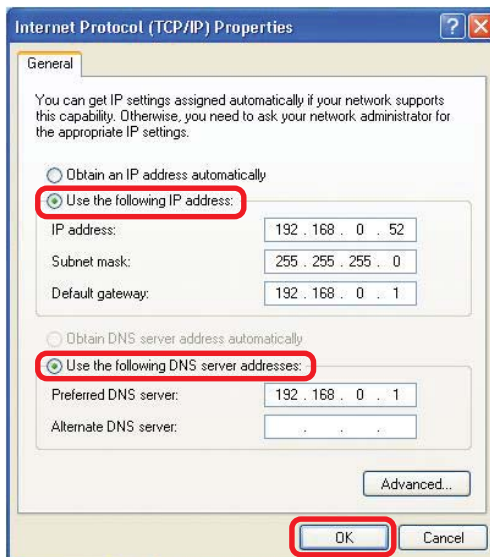
You have completed the assignment of a Static IP Address. (You do not need to assign a Static IP Address if you have a DHCP-capable Gateway/Router.)

Networking Basics

Selecting a Dynamic IP Address with <u>Macintosh OSX</u>

■ Go to the **Apple Menu** and se-
   lect **System Preferences**

■ Click on **Network**

■ Select **Built-in Ethernet** in
   the **Show** pull-down menu

■ Select **Using DHCP** in the
   Configure pull-down menu

■ Click **Apply Now**

■ The **IP Address, Subnet
   mask**, and the **Router's IP
   Address** will appear in a
   few seconds
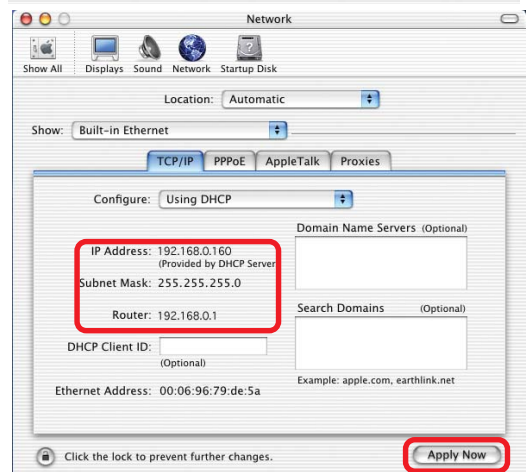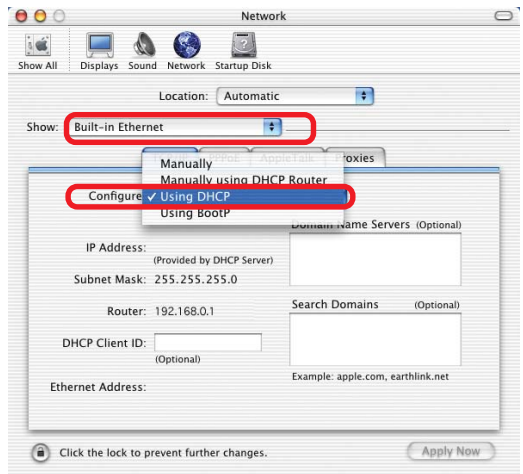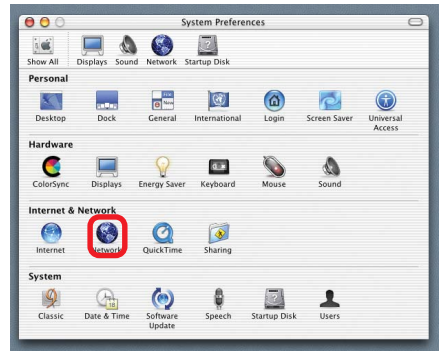
Networking Basics
Checking the Wireless Connection by <u>Pinging in Windows XP and 2000</u>

■ Go to **Start** > **Run** > type **cmd**. A window similar to this one will appear. Type **ping xxx.xxx.xxx.xxx**, where **xxx** is the **IP Address** of the Wireless Router or Access Point. A good wireless connection will show four replies from the Wireless Router or Acess Point, as shown.

```
F:\WINDOWS\System32\cmd.exe                    _ □ ×
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

F:\Documents and Settings\lab3>ping 192.168.0.50

Pinging 192.168.0.50 with 32 bytes of data:

Reply from 192.168.0.50: bytes=32 time<1ms TTL=64
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.0.50:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

F:\Documents and Settings\lab3>_
```

Checking the Wireless Connection by <u>Pinging in Windows Me and 98</u>

■ Go to **Start** > **Run** > type **command**. A window similar to this will appear. Type **ping xxx.xxx.xxx.xxx** where **xxx** is the **IP Address** of the Wireless Router or Access Point. A good wireless connection will show four replies from the wireless router or access point, as shown.

```
F:\WINDOWS\System32\cmd.exe                    _ □ ×
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

F:\Documents and Settings\lab3>ping 192.168.0.50

Pinging 192.168.0.50 with 32 bytes of data:

Reply from 192.168.0.50: bytes=32 time<1ms TTL=64
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.0.50:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

F:\Documents and Settings\lab3>_
```
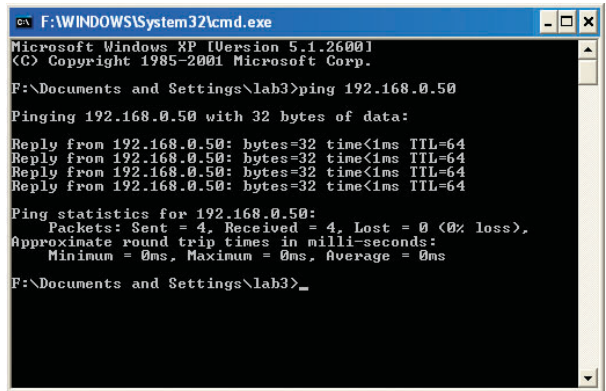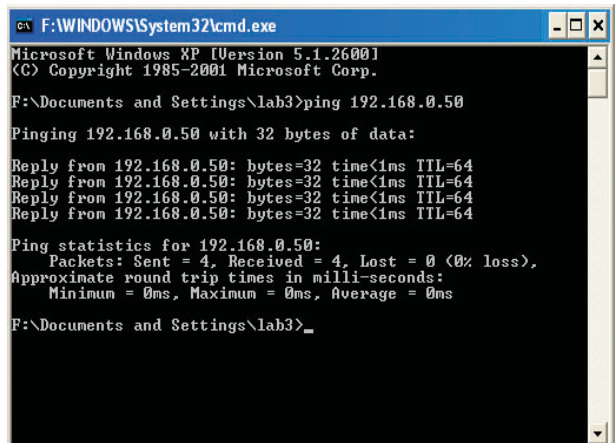
Networking Basics

Adding and Sharing Printers in <u>Windows XP</u>

After you have run the **Network Setup Wizard** on all the computers in your network (please see the **Network Setup Wizard** section at the beginning of **Networking Basics**,) you can use the **Add Printer Wizard** to add or share a printer on your network.

Whether you want to add a **local printer** (a printer connected directly to one computer,) share an **LPR printer** (a printer connected to a print server) or share a **network printer** (a printer connected to your network through a Gateway/Router,) use the **Add Printer Wizard**. Please follow the directions below:

First, make sure that you have run the <u>Network Setup Wizard</u> on all of the computers on your network.

On the following pages, we will show you these 3 ways to use the **Add Printer Wizard:**

1. Adding a local printer

2. Sharing an network printer

3. Sharing an LPR printer

(Other Networking Tasks)

For help with other tasks, that we have not covered here, in home or small office networking, see **Using the Shared Documents** folder and **Sharing files and folders** in the **Help and Support Center** in Microsoft **Windows XP**.

Networking Basics

Adding a local printer *(a printer connected directly to a computer)*

A printer that is not shared on the network and is connected directly to one computer is called a **local printer**. If you do not need to share your printer on a network, follow these directions to add the printer to one computer.

■ Go to **Start> Printers and Faxes**

Windows Movie Maker

Tour Windows XP

Files and Settings Transfer Wizard

Notepad

All Programs ▶

Control Panel

Printers and Faxes

Help and Support

Search

Run...

Log Off   Turn Off Computer

start

■ Click on **Add a printer**

Printer Tasks

Add a printer

Set up faxing

Start the Add Printer Wizard, which helps you install a printer.

See Also

Troubleshoot printing

Get help with printing

Other Places

Control Panel

Scanners and Cameras

My Documents

My Pictures

My Computer

Details

start   1.bmp - Paint   Printers and Faxes

Networking Basics

Adding a local printer

- Click **Next**

- Select **Local printer attached to this computer**

- *(Deselect **Automatically detect and install my Plug and Play printer** if it has been selected.)*

- Click **Next**

- Select **Use the following port:**

- From the pull-down menu **select the correct port** for your printer

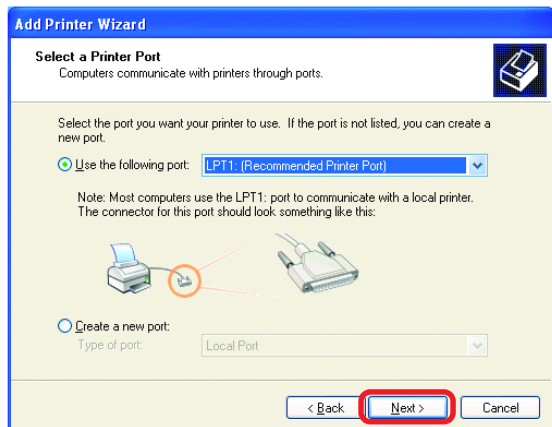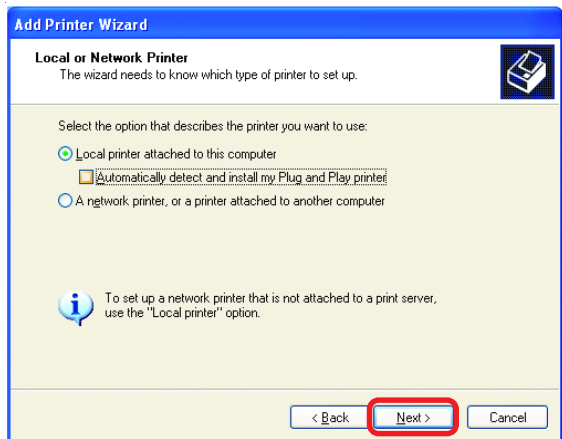*(Most computers use the **LPT1: ** port, as shown in the illustration.)*

- Click **Next**
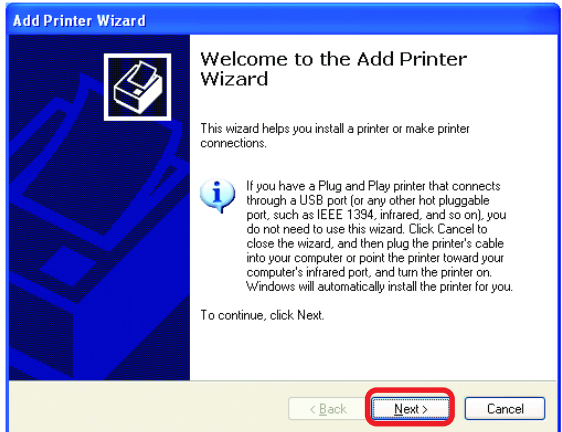
Adding a local printer

- Select and highlight the **correct driver** for your printer.

- Click **Next**

*(If the correct driver is not displayed, insert the CD or floppy disk that came with your printer and click **Have Disk**.)*
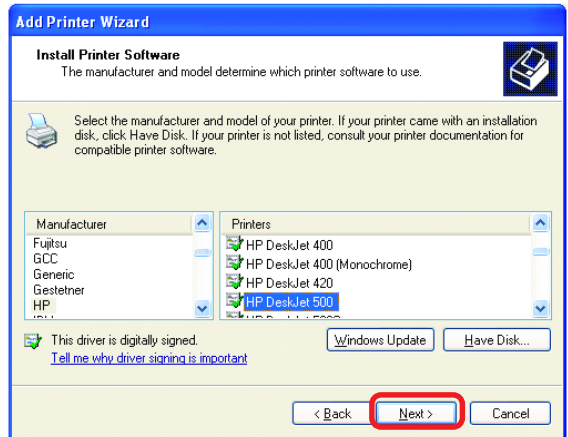
- At this screen, you can change the name of the printer (optional.)
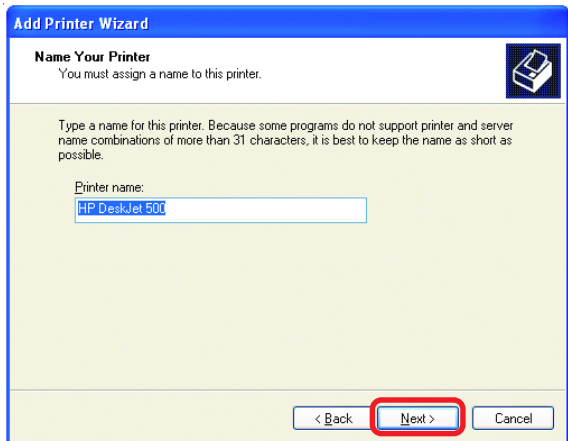
- Click **Next**

- Select **Yes**, to print a test page. A successful printing will confirm that you have chosen the correct driver.

- Click **Next**
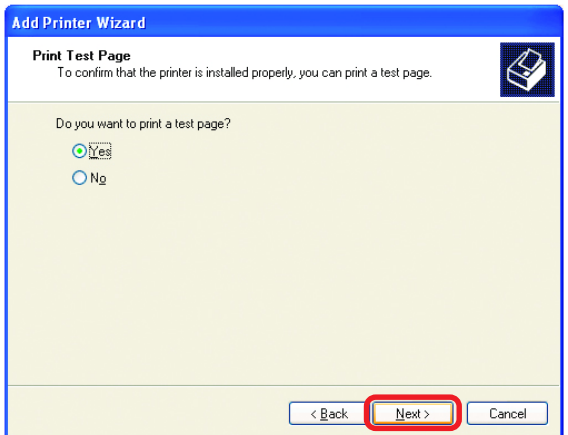
Adding a local printer

This screen gives you information about your printer.
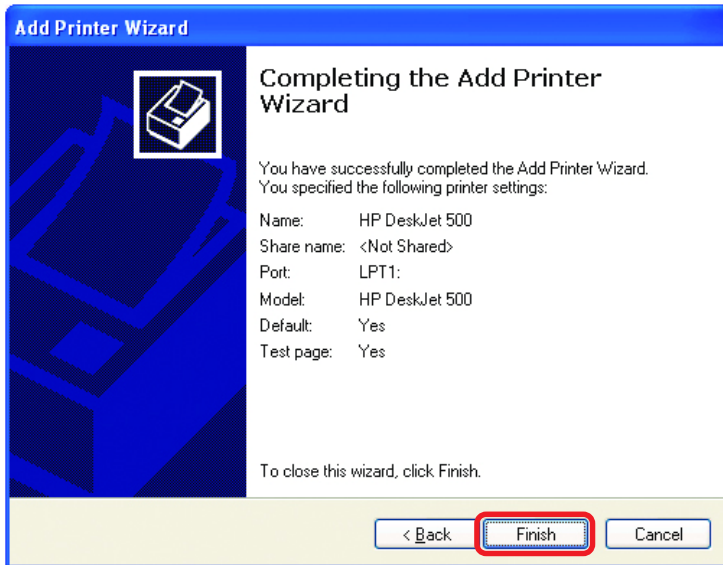
Click **Finish**

When the test page has printed,
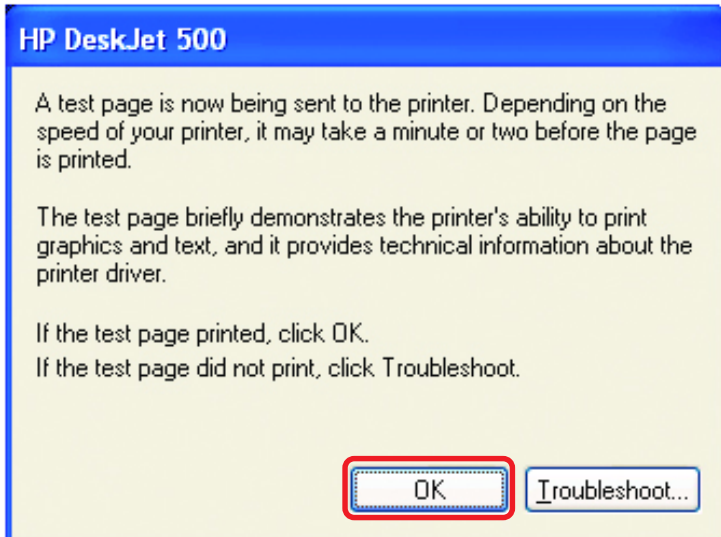
Click **OK**

Networking Basics

Adding a local printer

- Go to **Start**> **Printers and Faxes**

A successful installation will display the printer icon as shown at right.

You have successfully added a local printer.
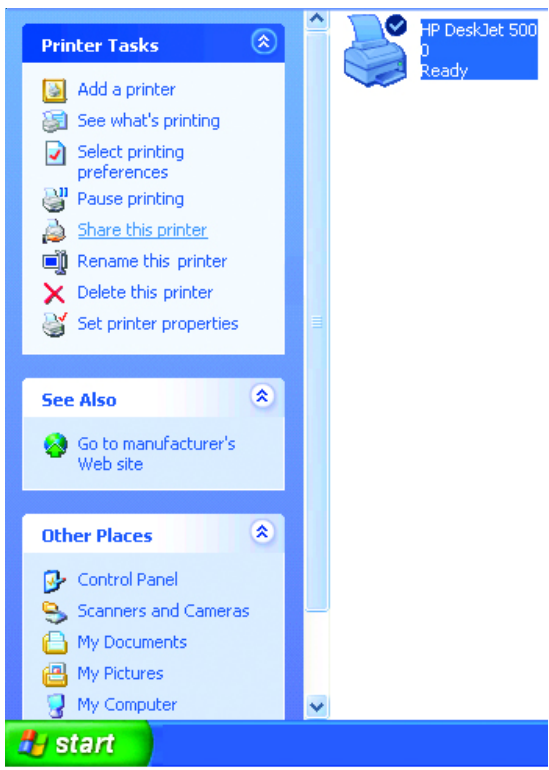
Sharing a network printer

After you have run the **Network Setup Wizard** on all the computers on your network, you can run the **Add Printer Wizard** on all the computers on your network. Please follow these directions to use the **Add Printer Wizard** to share a printer on your network:

- Go to **Start**> **Printers and Faxes**

Networking Basics

Sharing a network printer

■ Click on **Add a printer**

Printer Tasks

Add a printer

Set up faxing

Start the Add Printer Wizard, which helps you install a printer.

Add Printer Wizard

Welcome to the Add Printer Wizard

This wizard helps you install a printer or make printer connections.

If you have a Plug and Play printer that connects through a USB port (or any other hot pluggable port, such as IEEE 1394, infrared, and so on), you do not need to use this wizard. Click Cancel to close the wizard, and then plug the printer's cable into your computer or point the printer toward your computer's infrared port, and turn the printer on. Windows will automatically install the printer for you.
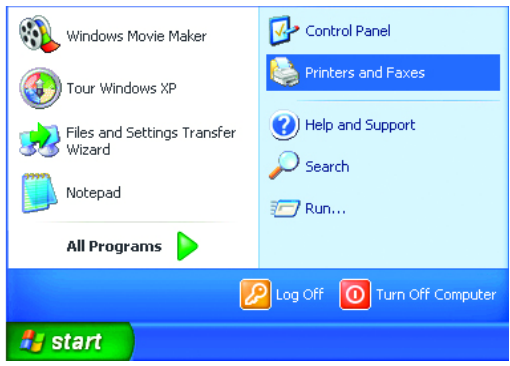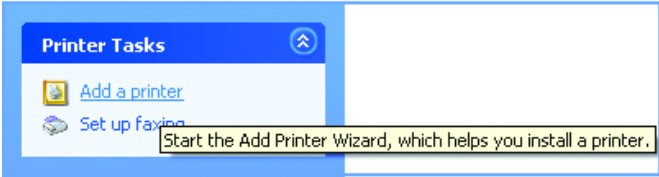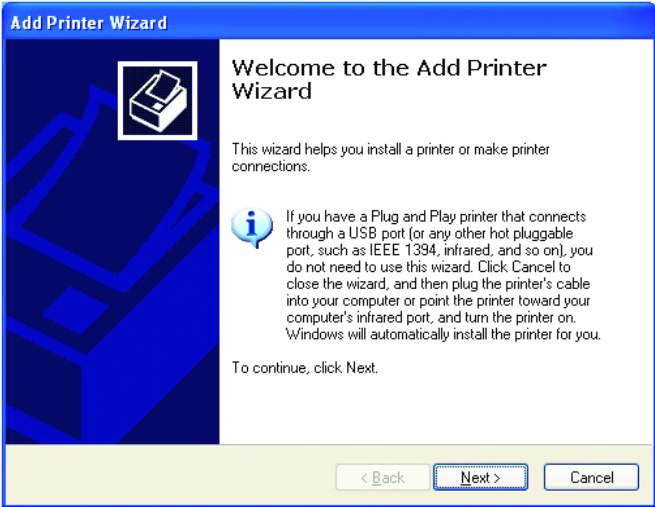
To continue, click Next.

< Back   Next >   Cancel

■ Click **Next**

■ Select **Network Printer**

Add Printer Wizard

Local or Network Printer
The wizard needs to know which type of printer to set up.

Select the option that describes the printer you want to use:

○ Local printer attached to this computer

☐ Automatically detect and install my Plug and Play printer

⦿ A network printer, or a printer attached to another computer

To set up a network printer that is not attached to a print server, use the "Local printer" option.

< Back   Next >   Cancel

■ Click **Next**

Networking Basics

Sharing a network printer

■ Select **Browse for a printer**

■ Click **Next**

Select the **printer** you would like to share
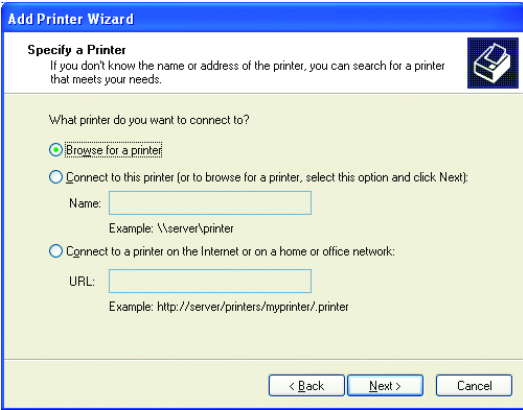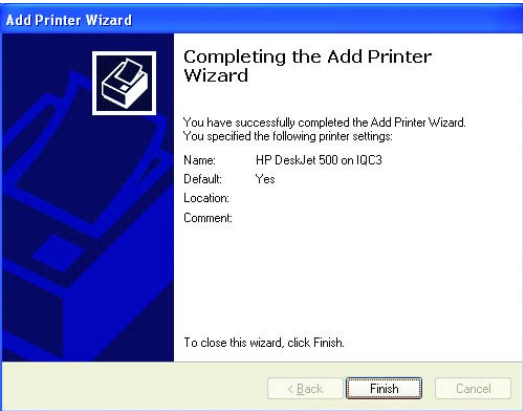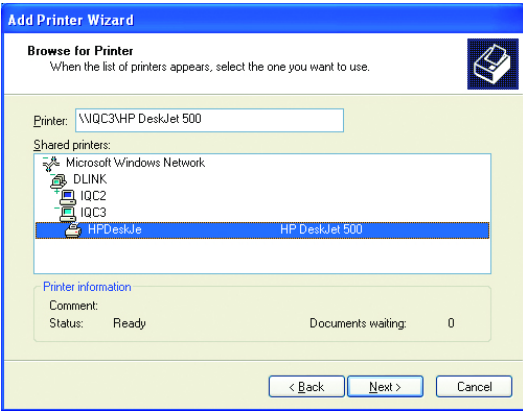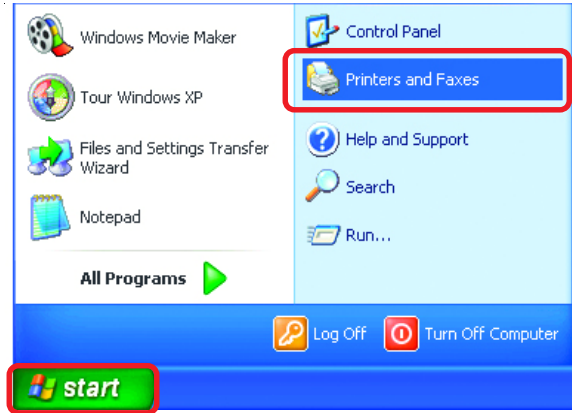
■ Click **Next**

■ Click **Finish**

Networking Basics

Sharing a network printer

- To check for proper installation:

- Go to **Start** > **Printers and Faxes**

The printer icon will appear at right, indicating proper installation.

You have completed adding the printer.

To share this printer on your network:

- Remember the **printer name**

- Run the **Add Printer Wizard** on all the computers on your network

- Make sure you have already run the **Network Setup Wizard** on all the network computers

After you run the **Add Printer Wizard** on all the computers in the network, you can share the printer.
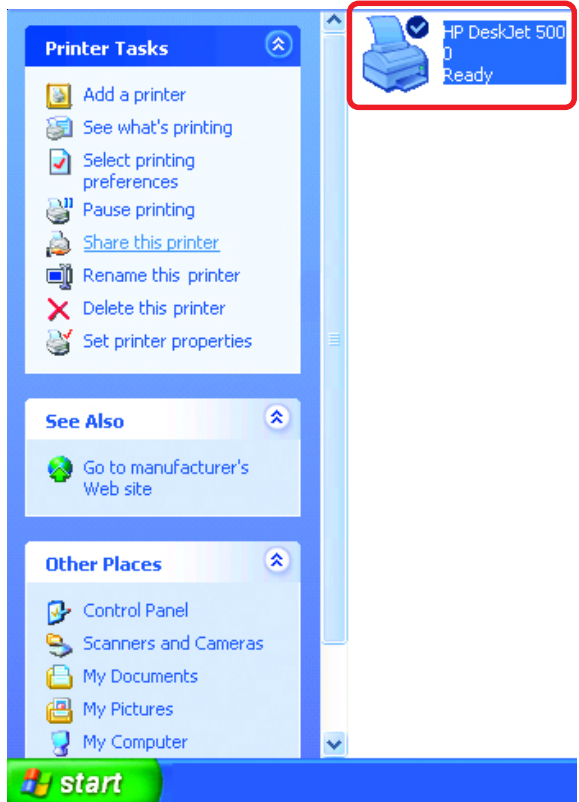
Networking Basics

Sharing an LPR printer

To share an **LPR printer** (using a print server,) you will need a Print Server such as the **DP-101P+**. Please make sure that you have run the **Network Setup Wizard** on all the computers on your network. To share an **LPR printer**, please follow these directions:

- Go to **Start** > **Printers and Faxes**

- Click on **Add a Printer**

The screen to the right will appear
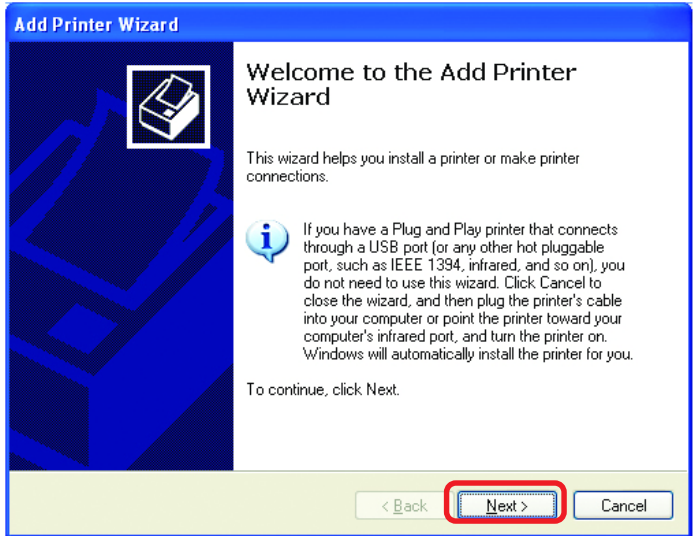
- Click **Next**

- Select **Local Printer...**

- Click **Next**

Networking Basics
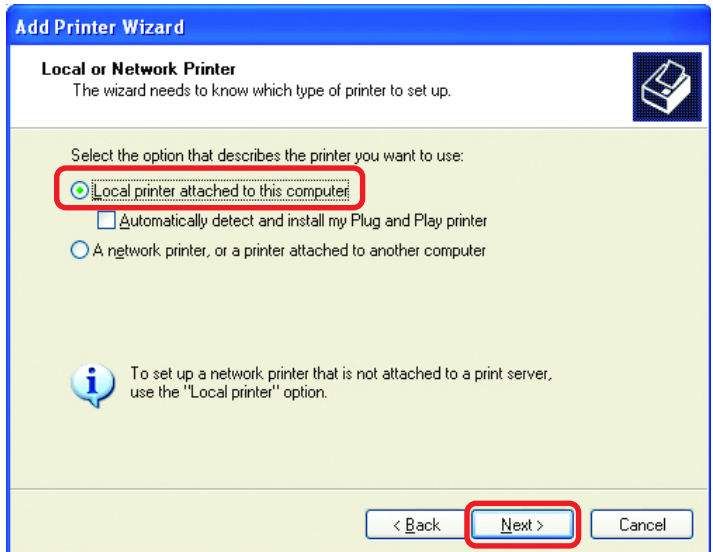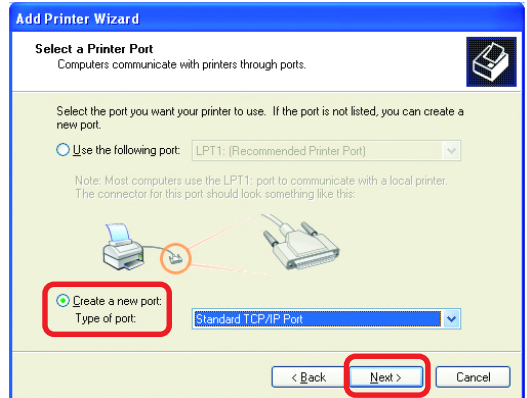
Sharing an LPR printer

■ Select **Create a new port**

■ From the pull-down menu, select **Standard TCP/IP Port**, as shown.

■ Click **Next**

■ Please read the instructions on this screen
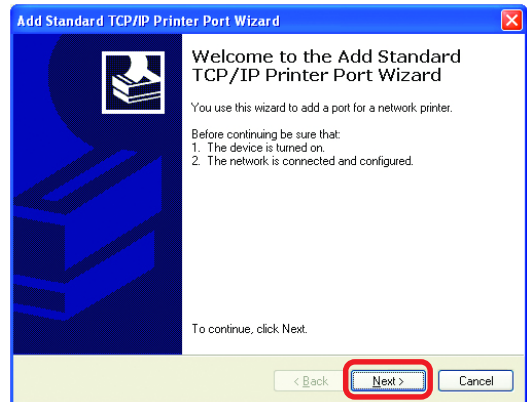
■ Click **Next**

■ Enter the **Printer IP Address** and the **Port Name**, as shown.

■ Click **Next**

86
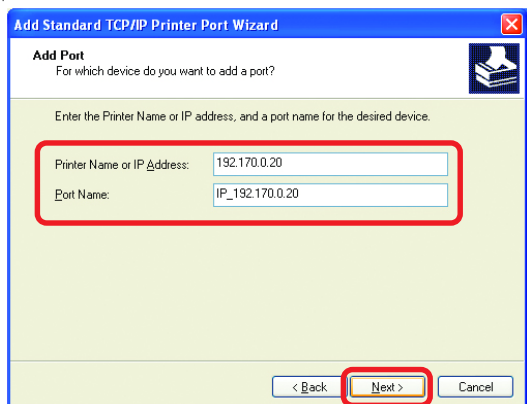
Sharing an LPR printer

- In this screen, select **Custom**

- Click **Settings**

- Enter the **Port Name** and the **Printer Name** or **IP Address**

- Select **LPR**

- Enter a **Queue Name** (if your Print-Server/ Gateway has more than one port, you will need a **Queue name**.)

- Click **OK**

Sharing an LPR printer

■ This screen will show
you information about
your printer.

■ Click **Finish**

■ Select the **printer** you
are adding from the
list of **Printers**.

■ Insert the printer driver disk
that came with your printer.

■ Click **Have Disk**

If the printer driver is already in-
stalled, do the following:

■ Select **Keep
existing driver**

■ Click **Next**

88
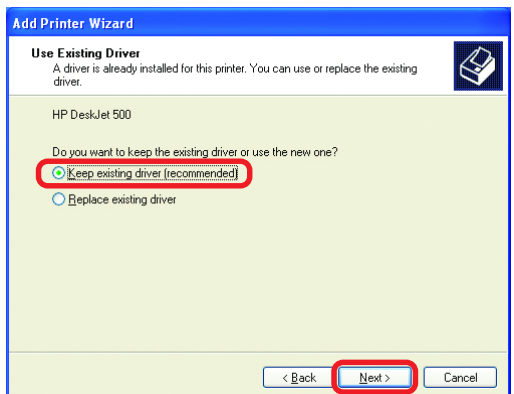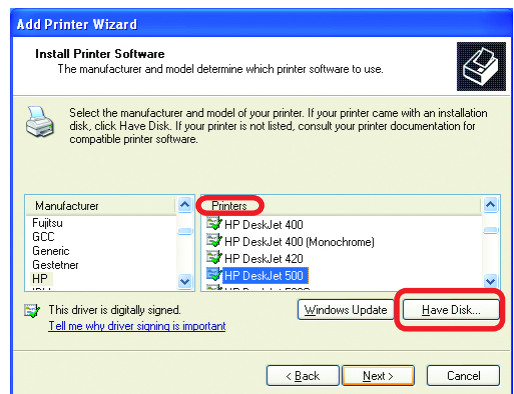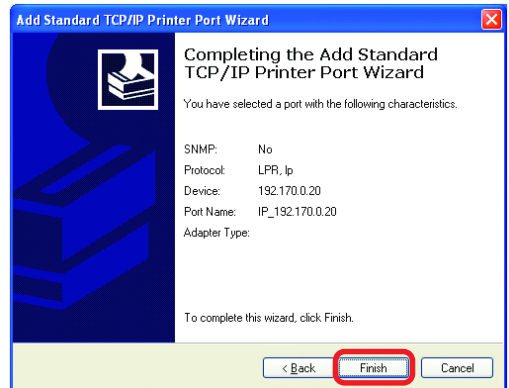
Sharing an LPR printer

■ You can rename your printer if you choose. It is optional.

■ *Please remember the name of your printer. You will need this information when you use the **Add Printer Wizard** on the other computers on your network.*
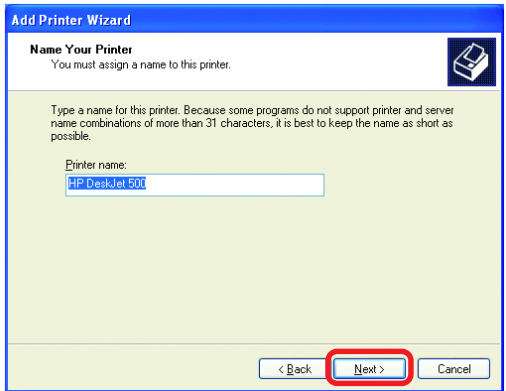
■ Click **Next**

■ Select **Yes**, to print a test page.

■ Click **Next**
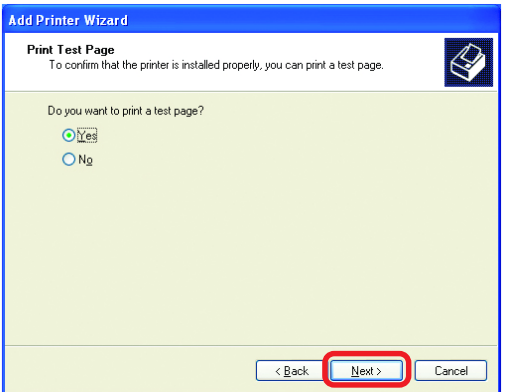
This screen will display information about your printer.

■ Click **Finish** to complete the addition of the printer.

■ Please run the **Add Printer Wizard** on all the computers on your network in order to share the printer.
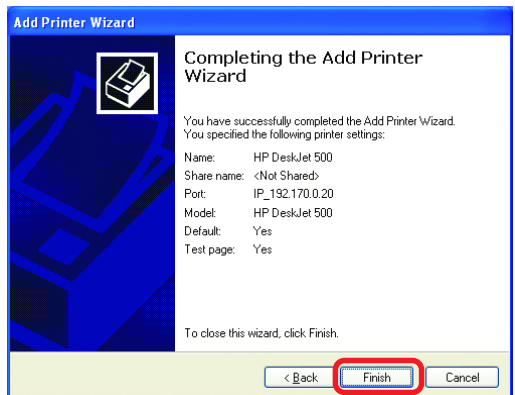
*Note: You must run the **Network Setup Wizard** on all the computers on your network before you run the **Add Printer Wizard**.*

Resetting the DI-704P
to the Factory Default Settings

After you have tried other methods for troubleshooting your network, you may choose to **Reset** the DI-704P to the factory default settings.

To hard-reset the D-Link DI-704P to the Factory Default Settings, please do the following:

- Turn off the DI-704P

- Locate the **Reset** button on the back of the DI-704P

- Use a paper clip to press the **Reset** button and power on

- Hold for about 5 seconds (don't hold too long) and then release. (Or, release when M1 and M2 flash at the same time.)

- After you have completed the above steps, the DI-704P will be reset to the factory default settings

Technical Specifications

Standard
IEEE 802.3 10Base-T Ethernet
IEEE 802.3u 100Base-TX Fast Ethernet
IEEE 802.3 NWay Auto-Negotiation

VPN Pass Through
PPTP
L2TP
IPSec

Ports
One WAN
Four LAN

LEDs
Power
WAN
Local Network - 10/100

Operating Temperature
32^oF to 131^oF (0^oC to 55^oC)

Humidity
95% maximum (non-condensing)

Power
External Power Supply
DC 5V, 2A

Dimensions
L = 7.56 inches (192mm)
W = 4.64 inches (118mm)
H = 1.22 inches (31mm)

Weight
0.68 lbs (0.31kg)

Warranty
One Year

Technical Support

You can find software updates and user documentation on the D-Link website.

D-Link provides free technical support for customers within the United States and within Canada for the duration of the warranty period on this product.

U.S. and Canadian customers can contact D-Link technical support through our website, or by phone.

Tech Support for customers within the United States:

D-Link Technical Support over the Telephone:
(877) 453-5465
24 hours a day, seven days a week.

D-Link Technical Support over the Internet:
http://support.dlink.com
email:support@dlink.com

Tech Support for customers within Canada:

D-Link Technical Support over the Telephone:
(800) 361-5265
Monday to Friday 8:30am to 9:00pm EST

D-Link Technical Support over the Internet:
http://support.dlink.ca
email:support@dlink.ca

Warranty and Registration (USA only)

Subject to the terms and conditions set forth herein, D-Link Systems, Inc. ("D-Link") provides this Limited warranty for its product only to the person or entity that originally purchased the product from:

- D-Link or its authorized reseller or distributor and
- Products purchased and delivered within the fifty states of the United States, the District of Columbia, U.S. Possessions or Protectorates, U.S. Military Installations, addresses with an APO or FPO.

Limited Warranty: D-Link warrants that the hardware portion of the D-Link products described below will be free from material defects in workmanship and materials from the date of original retail purchase of the product, for the period set forth below applicable to the product type ("Warranty Period"), except as otherwise stated herein.

1-Year Limited Warranty for the Product(s) is defined as follows:

- Hardware (excluding power supplies and fans) One (1) Year
- Power Supplies and Fans One (1) Year
- Spare parts and spare kits Ninety (90) days

D-Link's sole obligation shall be to repair or replace the defective Hardware during the Warranty Period at no charge to the original owner or to refund at D-Link's sole discretion. Such repair or replacement will be rendered by D-Link at an Authorized D-Link Service Office. The replacement Hardware need not be new or have an identical make, model or part. D-Link may in its sole discretion replace the defective Hardware (or any part thereof) with any reconditioned product that D-Link reasonably determines is substantially equivalent (or superior) in all material respects to the defective Hardware. Repaired or replacement Hardware will be warranted for the remainder of the original Warranty Period from the date of original retail purchase. If a material defect is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to repair or replace the defective Hardware, the price paid by the original purchaser for the defective Hardware will be refunded by D-Link upon return to D-Link of the defective Hardware. All Hardware (or part thereof) that is replaced by D-Link, or for which the purchase price is refunded, shall become the property of D-Link upon replacement or refund.

Limited Software Warranty: D-Link warrants that the software portion of the product ("Software") will substantially conform to D-Link's then current functional specifications for the Software, as set forth in the applicable documentation, from the date of original retail purchase of the Software for a period of ninety (90) days ("Warranty Period"), provided that the Software is properly installed on approved hardware and operated as contemplated in its documentation. D-Link further warrants that, during the Warranty Period, the magnetic media on which D-Link delivers the Software will be free of physical defects. D-Link's sole obligation shall be to replace the non-conforming Software (or defective media) with software that substantially conforms to D-Link's functional specifications for the Software or to refund at D-Link's sole discretion. Except as otherwise agreed by D-Link in writing, the replacement Software is provided only to the original licensee, and is subject to the terms and conditions of the license granted by D-Link for the Software. Software will be warranted for the remainder of the original Warranty Period from the date or original retail purchase. If a material non-conformance is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to replace the non-conforming Software, the price paid by the original licensee for the non-conforming Software will be refunded by D-Link; provided that the non-conforming Software (and all copies thereof) is first returned to D-Link. The license granted respecting any Software for which a refund is given automatically terminates.

Non-Applicability of Warranty: The Limited Warranty provided hereunder for hardware and software of D-Link's products will not be applied to and does not cover any refurbished product and any product purchased through the inventory clearance or liquidation sale or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product and in that case, the product is being sold "As-Is" without any warranty whatsoever including, without limitation, the Limited Warranty as described herein, notwithstanding anything stated herein to the contrary.

Submitting A Claim: The customer shall return the product to the original purchase point based on its return policy. In case the return policy period has expired and the product is within warranty, the customer shall submit a claim to D-Link as outlined below:

- The customer must submit with the product as part of the claim a written description of the Hardware defect or Software nonconformance in sufficient detail to allow D-Link to confirm the same.

- The original product owner must obtain a Return Material Authorization ("RMA") number from the Authorized D-Link Service Office and, if requested, provide written proof of purchase of the product (such as a copy of the dated purchase invoice for the product) before the warranty service is provided.

- After an RMA number is issued, the defective product must be packaged securely in the original or other suitable shipping package to ensure that it will not be damaged in transit, and the RMA number must be prominently marked on the outside of the package. Do not include any manuals or accessories in the shipping package. D-Link will only replace the defective portion of the Product and will not ship back any accessories.

- The customer is responsible for all in-bound shipping charges to D-Link. No Cash on Delivery ("COD") is allowed. Products sent COD will either be rejected by D-Link or become the property of D-Link. Products shall be fully insured by the customer. D-Link will not be held responsible for any packages that are lost in transit to D-Link. The repaired or replaced packages will be shipped to the customer via UPS Ground or any common carrier selected by D-Link, with shipping charges prepaid. Expedited shipping is available if shipping charges are prepaid by the customer and upon request.

- Return Merchandise Ship-To Address
  USA: 53 Discovery Drive, Irvine, CA 92618
  Canada: 2180 Winston Park Drive, Oakville, ON, L6H 5W1 (Visit http://www.dlink.ca for detailed warranty information within Canada)

D-Link may reject or return any product that is not packaged and shipped in strict compliance with the foregoing requirements, or for which an RMA number is not visible from the outside of the package. The product owner agrees to pay D-Link's reasonable handling and return shipping charges for any product that is not packaged and shipped in accordance with the foregoing requirements, or that is determined by D-Link not to be defective or non-conforming.

What Is Not Covered: This limited warranty provided by D-Link does not cover: Products, if in D-Link's judgment, have been subjected to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty installation, lack of reasonable care, repair or service in any way that is not contemplated in the documentation for the product, or if the model or serial number has been altered, tampered with, defaced or removed; Initial installation, installation and removal of the product for repair, and shipping costs; Operational adjustments covered in the operating manual for the product, and normal maintenance; Damage that occurs in shipment, due to act of God, failures due to power surge, and cosmetic damage; Any hardware, software, firmware or other products or services provided by anyone other than D-Link; Products that have been purchased from inventory clearance or liquidation sales or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product. Repair by anyone other than D-Link or an Authorized D-Link Service Office will void this Warranty.

Disclaimer of Other Warranties: EXCEPT FOR THE LIMITED WARRANTY SPECIFIED HEREIN, THE PRODUCT IS PROVIDED "AS-IS" WITHOUT ANY WARRANTY OF ANY KIND WHATSOEVER INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT. IF ANY IMPLIED WARRANTY CANNOT BE DISCLAIMED IN ANY TERRITORY WHERE A PRODUCT IS SOLD, THE DURATION OF SUCH IMPLIED WARRANTY SHALL BE LIMITED TO NINETY (90) DAYS. EXCEPT AS EXPRESSLY COVERED UNDER THE LIMITED WARRANTY PROVIDED HEREIN, THE ENTIRE RISK AS TO THE QUALITY, SELECTION AND PERFORMANCE OF THE PRODUCT IS WITH THE PURCHASER OF THE PRODUCT.

Register your D-Link product online at http://support.dlink.com/ register/