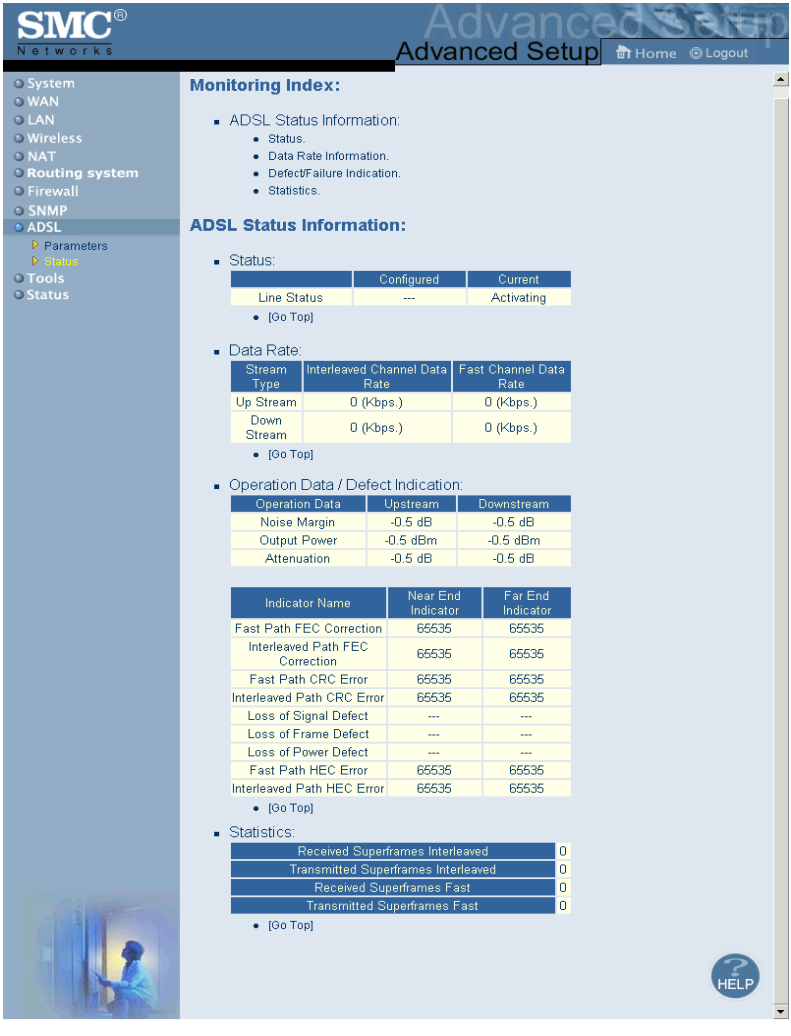
Status


SMC®
Networks
Advanced Setup
Home
Logout
System
WAN
LAN
Wireless
NAT
Routing system
Firewall
SNMP
ADSL
Parameters
Status
Tools
Status
Monitoring Index:
ADSL Status Information:
Status.
Data Rate Information.
Defect/Failure Indication.
Statistics.
ADSL Status Information:
Status:
Configured
Current
Line Status

Activating
[Go Top]
Data Rate:
Stream Type
Interleaved Channel Data Rate
Fast Channel Data Rate
Up Stream
0 (Kbps.)
0 (Kbps.)
Down Stream
0 (Kbps.)
0 (Kbps.)
[Go Top]
Operation Data / Defect Indication:
Operation Data
Upstream
Downstream
Noise Margin
-0.5 dB
-0.5 dB
Output Power
-0.5 dBm
-0.5 dBm
Attenuation
-0.5 dB
-0.5 dB
Indicator Name
Near End Indicator
Far End Indicator
Fast Path FEC Correction
65535
65535
Interleaved Path FEC Correction
65535
65535
Fast Path CRC Error
65535
65535
Interleaved Path CRC Error
65535
65535
Loss of Signal Defect

Loss of Frame Defect

Loss of Power Defect

Fast Path HEC Error
65535
65535
Interleaved Path HEC Error
65535
65535
[Go Top]
Statistics:
Received Superframes Interleaved
0
Transmitted Superframes Interleaved
0
Received Superframes Fast
0
Transmitted Superframes Fast
0
[Go Top]
HELP

Parameter	Description
Status	
Line Status	Shows the current status of the ADSL line.
Data Rate	
Upstream	Maximum data rate upstream.
Downstream	Maximum data rate downstream.
Operation Data/Defect Indication	
Noise Margin	
Upstream	Minimum noise margin upstream.
Downstream	Minimum noise margin downstream.
Output Power	Maximum fluctuation in the output power.
Attenuation	
Upstream	Maximum reduction in the strength of the upstream signal.
Downstream	Maximum reduction in the strength of the downstream signal.
Fast Path FEC Correction	There are two latency paths that may be used: fast and interleaved. For either path a forward error correction (FEC) scheme is employed to ensure higher data integrity. For maximum noise immunity, an interleaver may be used to supplement FEC.
Interleaved Path FEC Correction	An interleaver is basically a buffer used to introduce a delay, allowing for additional error correction techniques to handle noise. Interleaving slows the data flow and may not be optimal for real-time signals such as video transmission.
Fast Path CRC Error	Indicates the number of Fast Path Cyclic Redundancy Check errors.
Interleaved Path CRC Error	Indicates the number of Interleaved Path Cyclic Redundancy Check errors.
Loss of Signal Defect	Momentary signal discontinuities.
Loss of Frame Defect	Failures due to loss of frames.

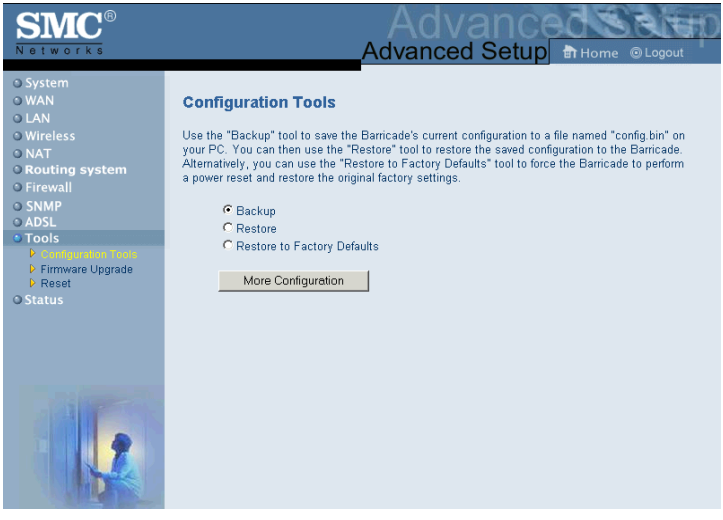
Parameter	Description
Loss of Power Defect	Failures due to loss of power.
Fast Path HEC Error	Fast Path Header Error Concealment errors.
Interleaved Path HEC Error	Interleaved Path Header Error Concealment errors.
Statistics	(Superframes represent the highest level of data presentation. Each superframe contains regular ADSL frames, one of which is used to provide superframe synchronization, identifying the start of a superframe. Some of the remaining frames are also used for special functions.)
Received Superframes Interleaved	Number of interleaved superframes received.
Transmitted Superframes Interleaved	Number of interleaved superframes transmitted.
Received Superframes Fast	Number of fast superframes received.
Transmitted Superframes Fast	Number of fast superframes transmitted.

Tools

Use the Tools menu to backup the current configuration, restore a previously saved configuration, restore factory settings, update firmware, and reset the Barricade.

Configuration Tools

Choose a function and click More Configuration.

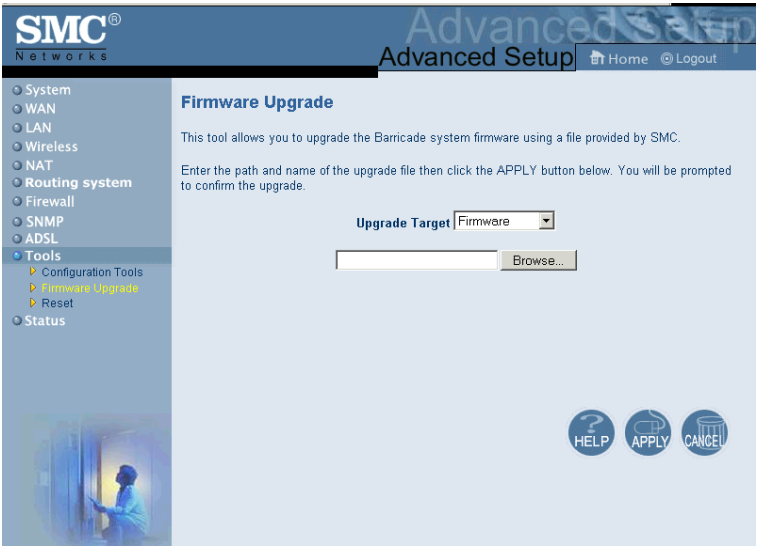


Backup allows you to save the Barricade Router's configuration to a file. You can then check Restore to restore the saved backup configuration file. Restore to Factory Defaults resets the Barricade to the original settings.

You will be asked to confirm your decision.

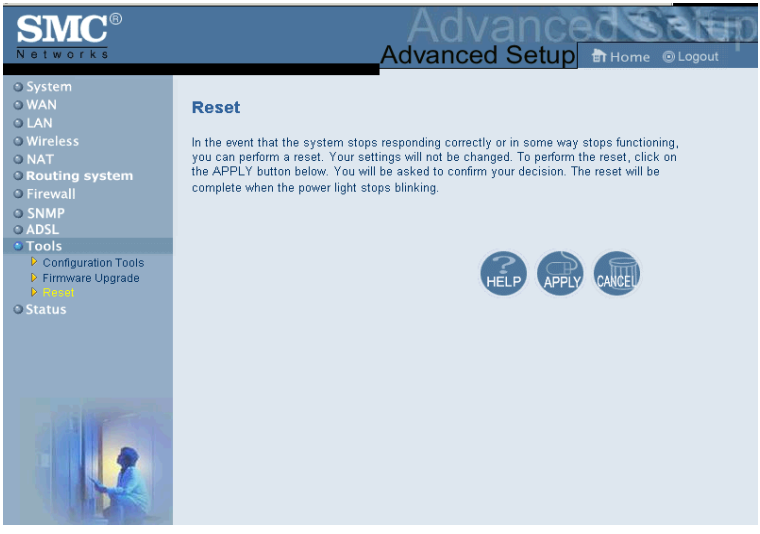
Firmware Upgrade

Use this screen to update the firmware or user interface to the latest versions. Download the upgrade file from the SMC Web site (www.smc.com) and save it to your hard drive. In the Upgrade Target field, choose Firmware. Then click Browse to look for the previously downloaded file. Click APPLY. Check the Status page Information section to confirm that the upgrade process was successful.



Reset

Click APPLY to reset the Barricade. The reset will be complete when the power LED stops blinking.

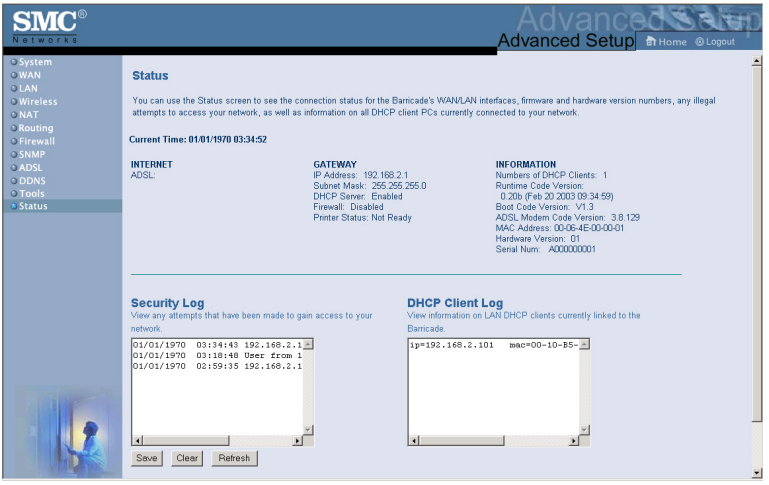


If you perform a reset from this page, the configurations will not be changed back to the factory default settings.

Note: If you use the Reset button on the front panel, the Barricade performs a power reset. If the button is held depressed for over five seconds, all the LEDs will illuminate and the factory settings will be restored.

Status

The Status screen displays WAN/LAN connection status, firmware, and hardware version numbers, illegal attempts to access your network, as well as information on DHCP clients connected to your network. The security log may be saved to a file by clicking Save and choosing a location.



The following items are included on the Status screen:

Parameter	Description
INTERNET	Displays WAN connection type and status.
GATEWAY	Displays system IP settings, as well as DHCP Server and Firewall status.
INFORMATION	Displays the number of attached clients, the firmware versions, the physical MAC address for each media interface, and for the Barricade, as well as the hardware version and serial number.
Security Log	Displays illegal attempts to access your network.
DHCP Client Log	Displays information on DHCP clients on your network.

Finding the MAC address of a Network Card

Windows 95/98/ME

Click Start/Run. Type "winipcfg" and press ENTER.

The MAC address is in the "Adapter Address" section.

Windows NT4/2000/XP

Click Start/Programs/Command Prompt. Type "ipconfig /all" and press ENTER.

The MAC address is listed as the "Physical Address."

Linux

Run the command "/sbin/ifconfig."

The MAC address is the value after the word "HWaddr."

CHAPTER 5
CONFIGURING PRINTER SERVICES

To use the print server built into the Barricade, you must first install the Port Monitor program as described in the following section for Windows 95/98/Me.

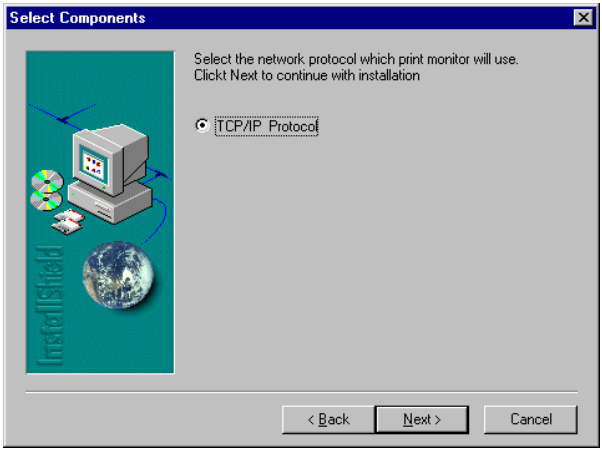
To set up the Barricade Print Server for Windows NT, see "Printer Server Setup in Windows NT" on page 5-4. For Windows 2000, see "Printer Server Setup in Windows 2000" on page 5-6. For Windows XP, see "Printer Server Setup in Windows XP" on page 5-8. For Unix Systems, see "Printer Server Setup in Unix Systems" on page 5-18.

Printer Server Setup in Windows 95/98/Me

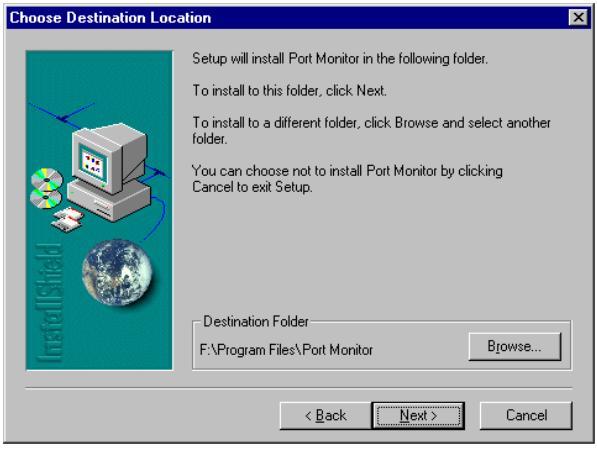
You may find that the instructions here do not exactly match your version of Windows. This is because these steps and screenshots were created in Windows 98. Windows 95 and Windows Millennium Edition are very similar, but not identical, to Windows 98.

1. Insert the installation CD-ROM into your CD-ROM drive. Under the PrintSvr directory, run the "setup.exe" program. The Port Monitor installation program advises you to close all other Windows programs currently running on your computer. Click Next to continue.

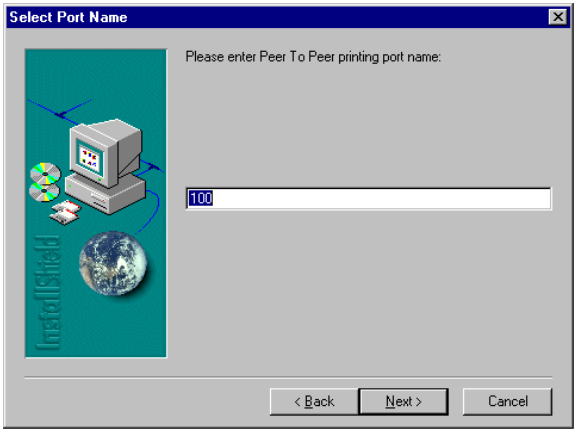
2. The next screen indicates that the print client uses the TCP/IP network protocol to monitor print requests. Click Next.



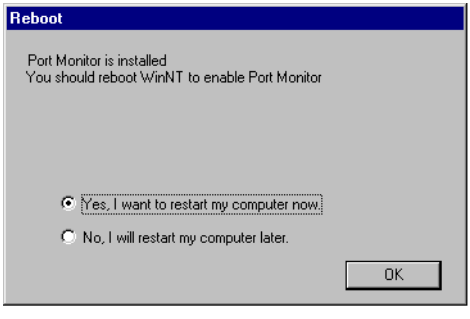
3. Select the destination folder and click on the Next button. The setup program will then begin to install the programs into the destination folder.



4. Select the Program Folder that will contain the program icon for uninstalling the port monitor, and then click Next.
5. Enter the printer port name that will be used to identify the port monitor in your system, and click Next.

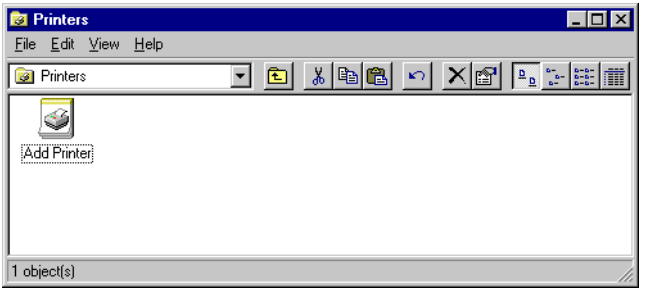


6. When the setup program finishes installing the port monitor, choose "Yes, I want to restart my computer now" and then click OK.

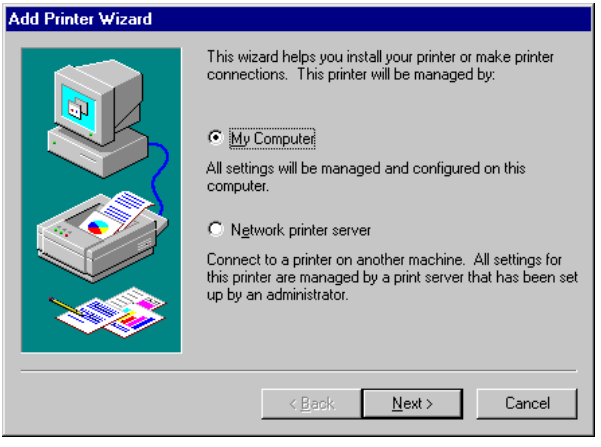


Printer Server Setup in Windows NT

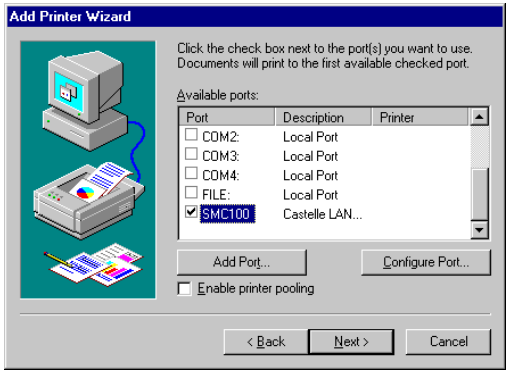
1. On a Windows NT platform, open the Printers window in the My Computer menu, and double-click the Add Printer icon.



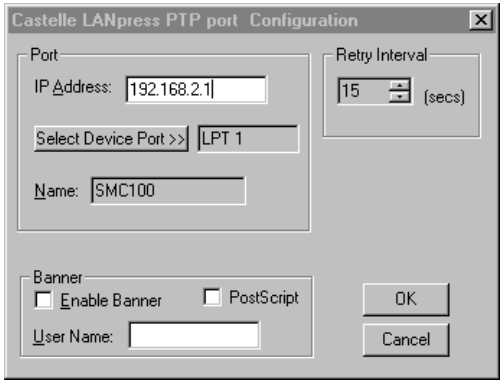
2. Follow the prompts to add a local printer to your system.



3. Select the monitored port. The default port name is "SMC100." Then click the Configure Port button.



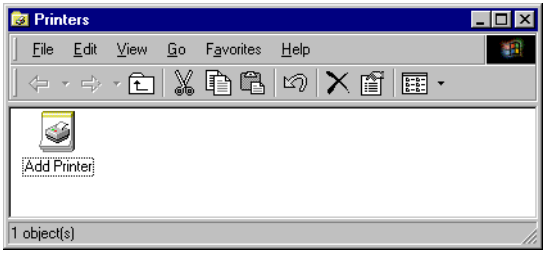
4. Enter the IP address of the Barricade and click OK. Click Next in the Add Printer Wizard dialog box.



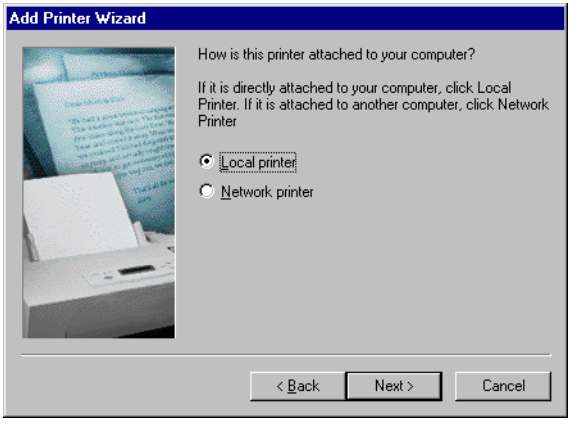
5. Specify the printer type attached to the Barricade.
6. Continue following the prompts to complete the installation of the Barricade print server. The printer type you specified will now be added to your Printers menu.

Printer Server Setup in Windows 2000

1. On your desktop, click Start/Settings/Printers to open the Printers window, then double-click the Add Printer icon.

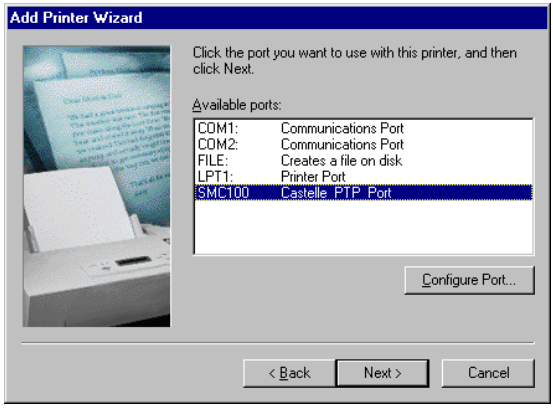


2. Follow the prompts to add a local printer to your system.

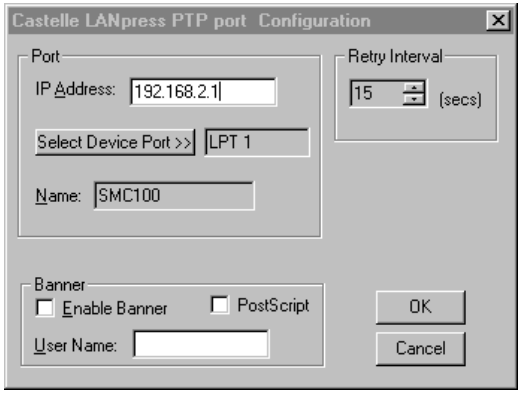


3. Specify the printer type attached to the Barricade.

4. Select the monitored port. The default port name is "SMC100." Click the Configure Port button.



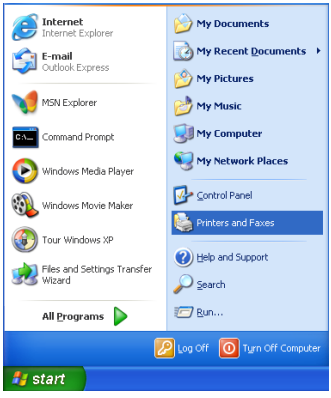
5. Enter the IP address of the Barricade and click OK. Then click Next in the Add Printer Wizard dialog box.



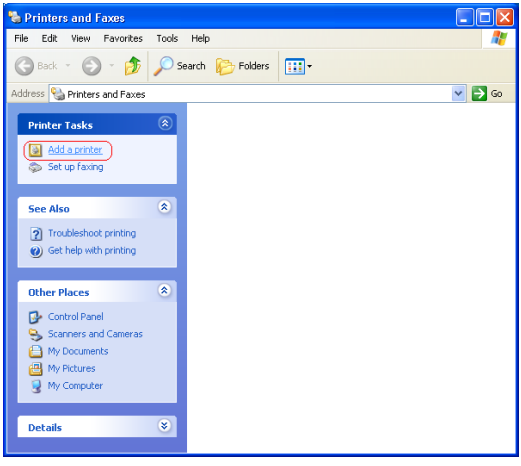
6. Continue following the prompts to complete the installation of the Barricade print server. The printer will now be added to your Printers menu.

Printer Server Setup in Windows XP

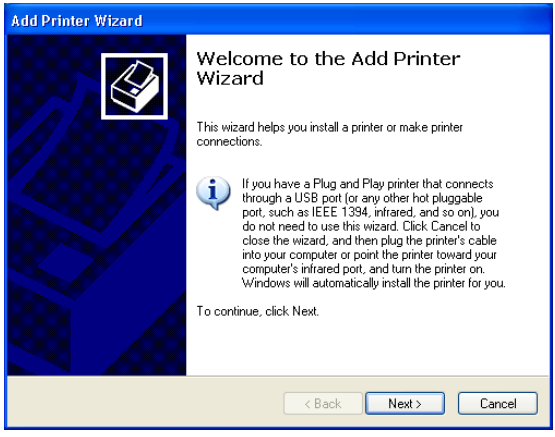
1. On your desktop, click Start/Printers and Faxes.



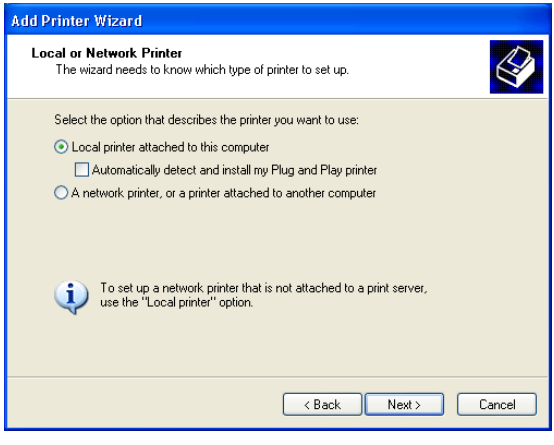
2. The Printers and Faxes dialog box will open. You should see a menu with options on the left-hand side on the screen. Click Add a Printer to launch the Add Printer Wizard.



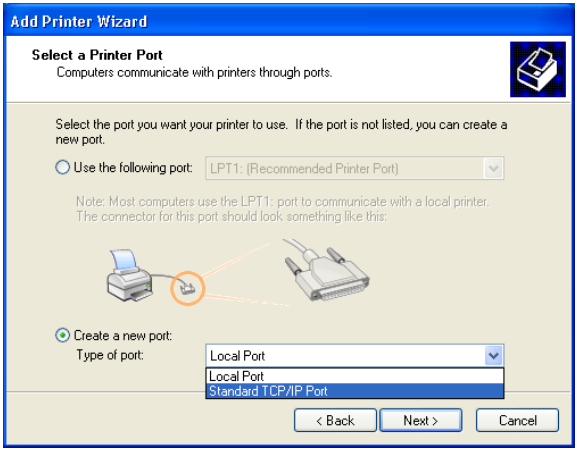
3. Click Next.



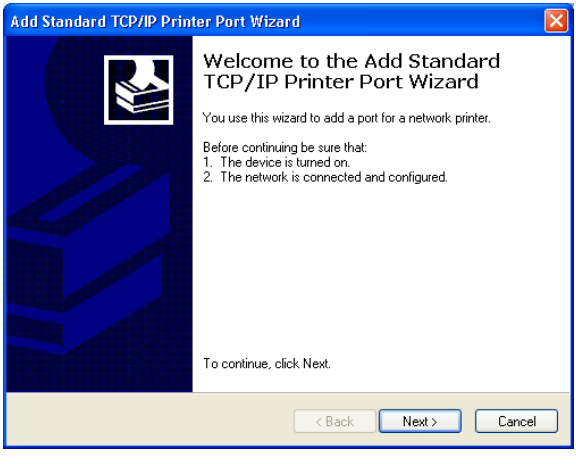
4. Select "Local printer attached to this computer" and uncheck the "Automatically detect and install my Plug and Play printer" option. Click Next.



5. Select “Create a new port:” and then choose “Standard TCP/IP Port” on Type of port: drop-down list. Click Next.

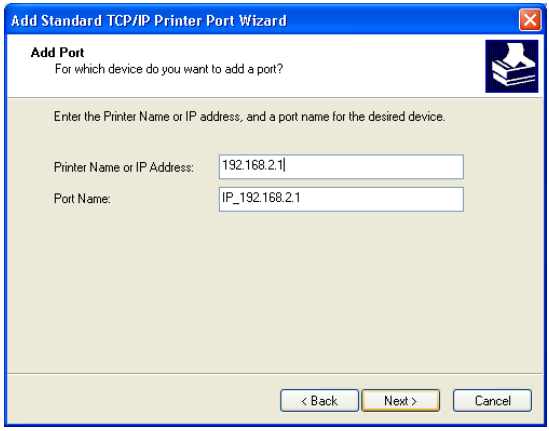


6. The Add Standard TCP/IP Printer Port Wizard window will open. Click Next.

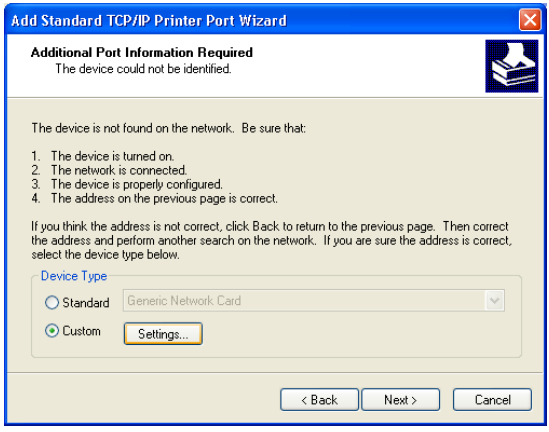


7. Provide the appropriate IP and Port name for your new printer port on this window, then click Next.

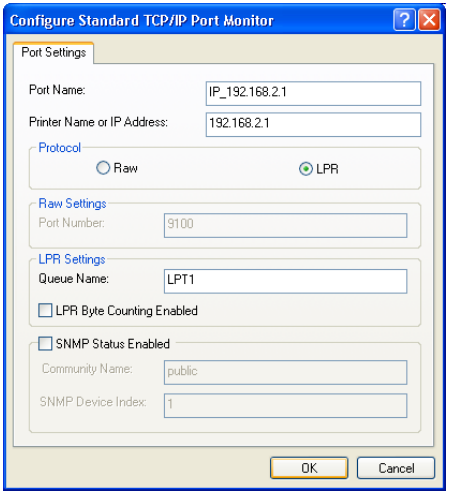
   Please set the same IP address on the Printer Port and the router (for example: 192.168.2.1). In the Port Name field, choose whatever you like. For simplicity we have chosen "IP_192.168.2.1" to maintain consistency with the default IP settings of the Barricade.



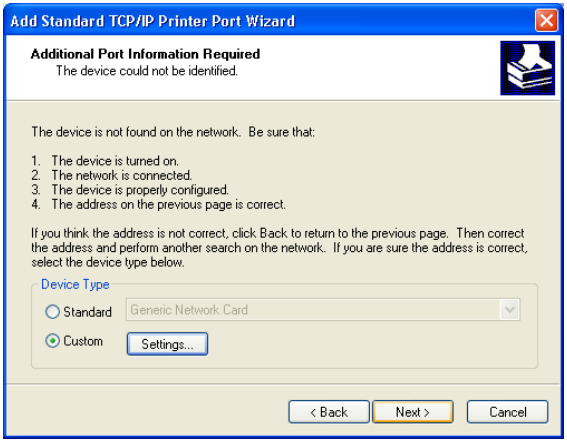
8. Select the Custom radio button and click Settings.



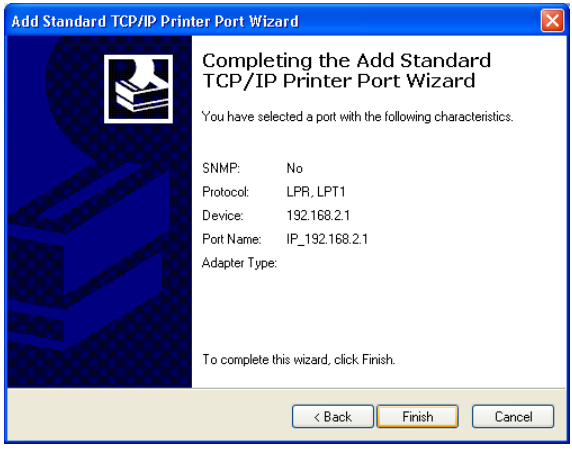
9. The Configure Standard TCP/IP Port Monitor window will open. Under Protocol category, select LPR. Then, set the Queue Name as "LPT1" under LPR Settings category, and uncheck the LPR Byte Counting Enabled checkbox. Click OK.



10. This should take you back to the Add Standard TCP/IP Printer Port Wizard window. Click Next.



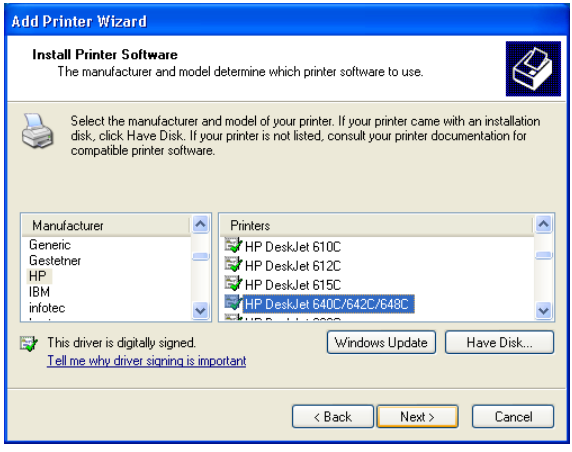
11. Click Finish to complete the configuration of TCP/IP port.



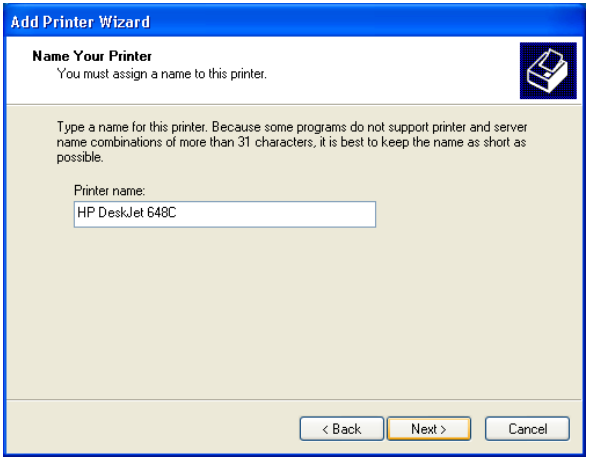
12. After configuration, continue to install a printer.

    In the Add Printer Wizard window as shown below, choose your printer on Manufacturer and Printers list. Click Next.

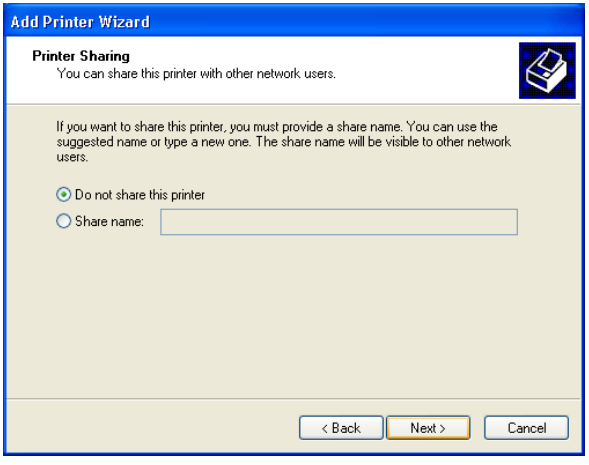
    Note: If your printer is not listed here, refer to your printer documentation for installation instruction.



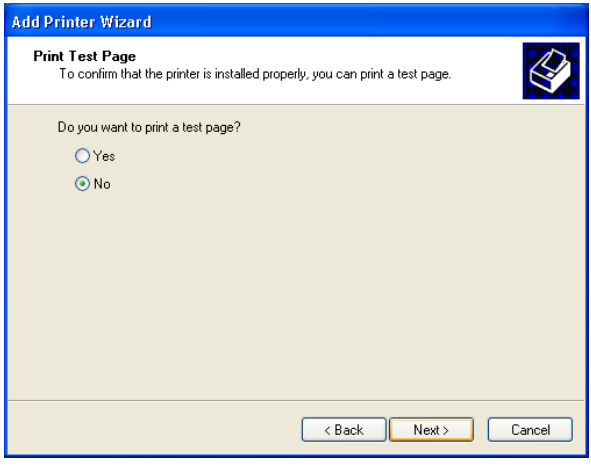
13. Type a name for your printer. Click Next.



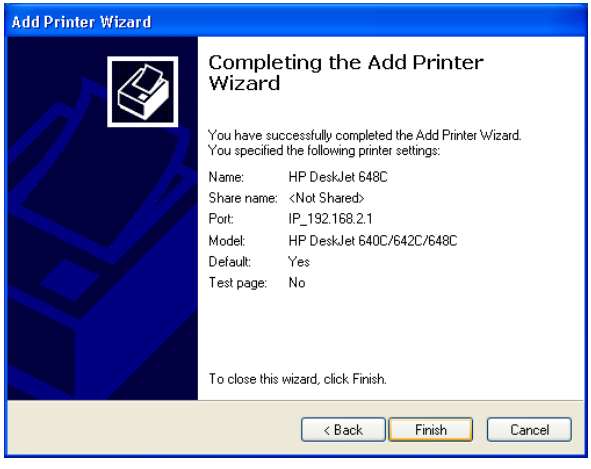
14. Select "Do not share this printer," then click Next.



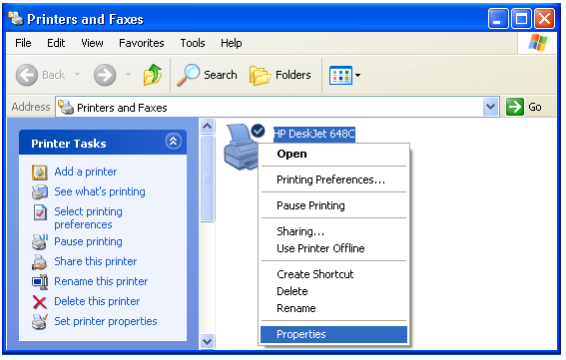
15. You will need to confirm some information before you successfully test your printer. When prompt to print a test page request, choose No. Click Next.



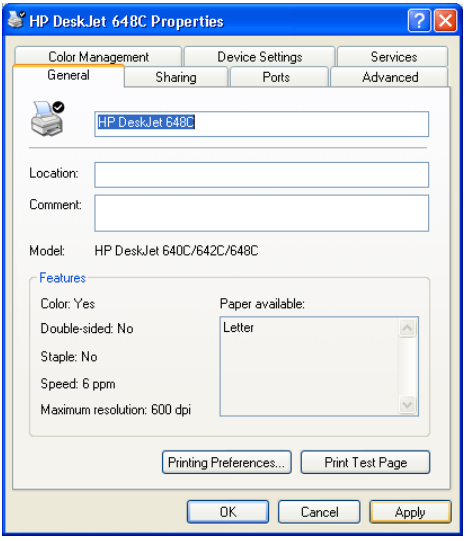
16. You should see all your printer information on this screen. Click Finish to complete the installation.



17. Now you need to configure some properties on your printer. Click Start/Printers and Faxes on your desktop. On the Printer and Faxes window, select the printer you just installed, right-click the mouse and click Properties.

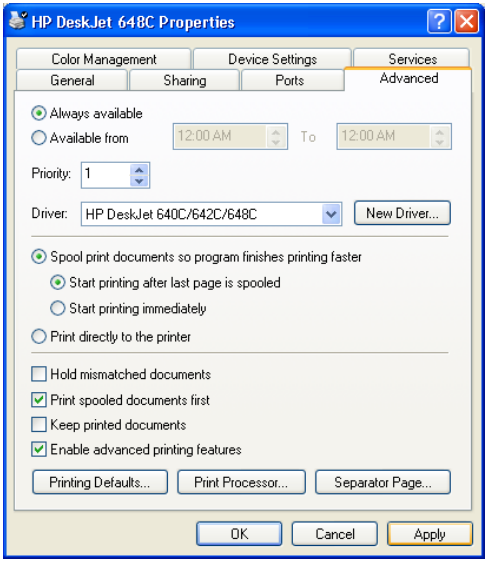


18. The Printer Properties window will open as shown below.

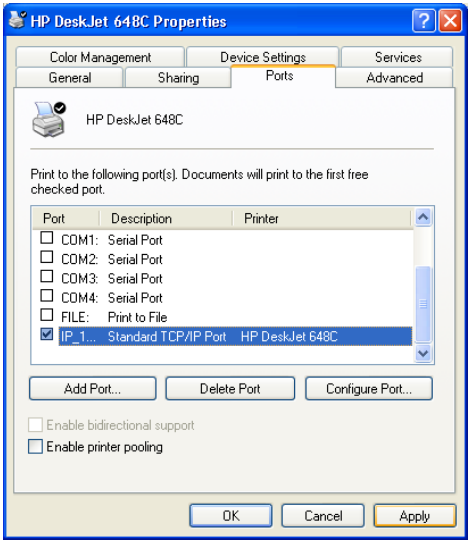


19. Follow the instructions below to verify that your printer is configured properly:

    - Click the Advanced tab. Select "Spool printer documents so program finishes printing faster" and select "Start printing after last page is spooled." Then check both "Print spooled documents first" and "Enable advanced printing features" checkboxes.



- Click the Ports tab. Verify that the selected TCP/IP port is the one you just created. Click Apply to save the settings.



- Click the General tab. Click Print Test Page to verify that you have successfully setup your LPR printing port on Windows XP.

Now you can print through the SMC Barricade Router.

Printer Server Setup in Unix Systems

Follow the standard configuration procedure on your Unix platform to set up the Barricade print server. The printer name is "lpt1."

CHAPTER A
TROUBLESHOOTING

This section describes common problems you may encounter and possible solutions to them. The Barricade can be easily monitored through panel indicators to identify problems.

Troubleshooting Chart	
Symptom	**Action**
LED Indicators	
Power LED is Off	• Check connections between the Barricade, the external power supply, and the wall outlet. • If the power indicator does not turn on when the power cord is plugged in, you may have a problem with the power outlet, power cord, or external power supply. However, if the unit powers off after running for a while, check for loose power connections, power losses, or surges at the power outlet. If you still cannot isolate the problem, then the external power supply may be defective. In this case, contact Technical Support for assistance.

Troubleshooting Chart	
Symptom	**Action**
LED Indicators	
Link LED is Off	• Verify that the Barricade and attached device are powered on. • Be sure the cable is plugged into both the Barricade and the corresponding device. • Verify that the proper cable type is used and that its length does not exceed the specified limits. • Be sure that the network interface on the attached device is configured for the proper communication speed and duplex mode. • Check the adapter on the attached device and cable connections for possible defects. Replace any defective adapter or cable if necessary.
Network Connection Problems	
Cannot Ping the Barricade from the attached LAN, or the Barricade cannot Ping any device on the attached LAN	• Verify that the IP addresses are properly configured. For most applications, you should use the Barricade's DHCP function to dynamically assign IP addresses to hosts on the attached LAN. However, if you manually configure IP addresses on the LAN, verify that the same network address (network component of the IP address) and subnet mask are used for both the Barricade and any attached LAN devices. • Be sure the device you want to ping (or from which you are pinging) has been configured for TCP/IP.

Troubleshooting Chart	
Symptom	**Action**
Management Problems	
Cannot connect using the Web browser	• Be sure to have configured the Barricade with a valid IP address, subnet mask, and default gateway. • Check that you have a valid network connection to the Barricade and that the port you are using has not been disabled. • Check the network cabling between the management station and the Barricade.
Forgot or lost the password	• Press the Reset button on the rear panel (holding it down for at least five seconds) to restore the factory defaults.

Troubleshooting Chart	
Symptom	**Action**
Wireless Problems	
A wireless PC cannot associate with the Barricade.	• Make sure the wireless PC has the same SSID settings as the Barricade. See "Channel and SSID" on page 4-26. • You need to have the same security settings on the clients and the Barricade. See "Encryption" on page 4-28.
The wireless network is often interrupted.	• Move your wireless PC closer to the Barricade to find a better signal. If the signal is still weak, change the angle of the antenna. • There may be interference, possibly caused by a microwave oven or wireless phone. Change the location of the interference sources or Barricade. • Change the wireless channel on the Barricade. See "Channel and SSID" on page 4-26. • Check that the AP antenna, connectors, and cabling are firmly connected.
The Barricade cannot be detected by a wireless client.	• The distance between the Barricade and wireless PC is too great. • Make sure the wireless PC has the same SSID and security settings as the Barricade. See Barricade. See "Channel and SSID" on page 4-26 and "Encryption" on page 4-28.

APPENDIX B
CABLES

Ethernet Cable

Caution: DO NOT plug a phone jack connector into any RJ-45 port. Use only twisted-pair cables with RJ-45 connectors that conform with FCC standards.

Specifications

Cable Types and Specifications			
Cable	**Type**	**Max. Length**	**Connector**
10BASE-T	Cat. 3, 4, 5 100-ohm UTP	100 m (328 ft)	RJ-45
100BASE-TX	Cat. 5 100-ohm UTP	100 m (328 ft)	RJ-45

Wiring Conventions

For Ethernet connections, a twisted-pair cable must have two pairs of wires. Each wire pair is identified by two different colors. For example, one wire might be red and the other, red with white stripes. Also, an RJ-45 connector must be attached to both ends of the cable.

Each wire pair must be attached to the RJ-45 connectors in a specific orientation. The following figure illustrates how the pins on an Ethernet RJ-45 connector are numbered. Be sure to hold the connectors in the same orientation when attaching the wires to the pins.

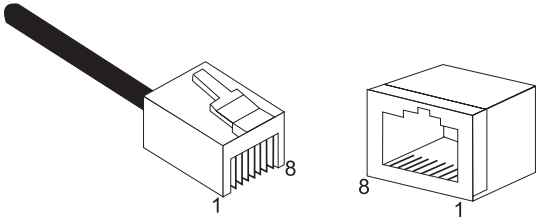


Figure B-1. RJ-45 Ethernet Connector Pin Numbers

RJ-45 Port Connection

Use the straight-through CAT -5 Ethernet cable provided in the package to connect the Barricade to your PC. When connecting to other network devices such as an Ethernet switch, use the cable type shown in the following table.

AttachedDevicePortType	Connecting Cable Type
MDI-X	Straight-through
MDI	Crossover

Pin Assignments

With 100BASE-TX/10BASE-T cable, pins 1 and 2 are used for transmitting data, and pins 3 and 6 for receiving data.

RJ-45 Pin Assignments	
Pin Number	Assignment[1]
1	Tx+
2	Tx-
3	Rx+
6	Rx-

1: The "+" and "-" signs represent the polarity of the wires that make up each wire pair.

Straight-Through Wiring

If the port on the attached device has internal crossover wiring (MDI-X), then use straight-through cable.

Straight-Through Cable Pin Assignments	
End 1	End 2
1 (Tx+)	1 (Tx+)
2 (Tx-)	2 (Tx-)
3 (Rx+)	3 (Rx+)
6 (Rx-)	6 (Rx-)

Crossover Wiring

If the port on the attached device has straight-through wiring (MDI), use crossover cable.

Crossover Cable Pin Assignments	
End 1	End 2
1 (Tx+)	3 (Rx+)
2 (Tx-)	6 (Rx-)
3 (Rx+)	1 (Tx+)
6 (Rx-)	2 (Tx-)

ADSL Cable

Use standard telephone cable to connect the RJ-11 telephone wall outlet to the RJ-11 ADSL port on the ADSL Router.

Caution: Do not plug a phone jack connector into an RJ-45 port.

Specifications

Cable Types and Specifications		
Cable	**Type**	**Connector**
ADSL Line	Standard Telephone Cable	RJ-11

For ADSL connections, a cable requires one pair of wires. Each wire is identified by different colors. For example, one wire might be red and the other, red with white stripes. Also, an RJ-11 connector must be attached to both ends of the cable.

Wiring Conventions

Each wire pair must be attached to the RJ-11 connectors in a specific orientation. The following figure illustrates how the pins on the RJ-11 connector are numbered. Be sure to hold the connectors in the same orientation when attaching the wires to the pins.

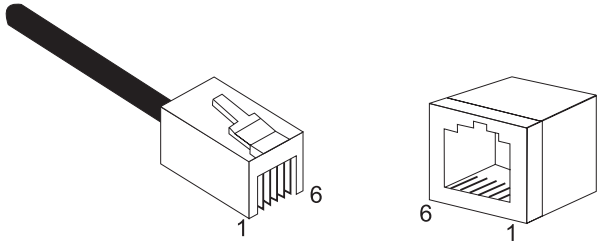
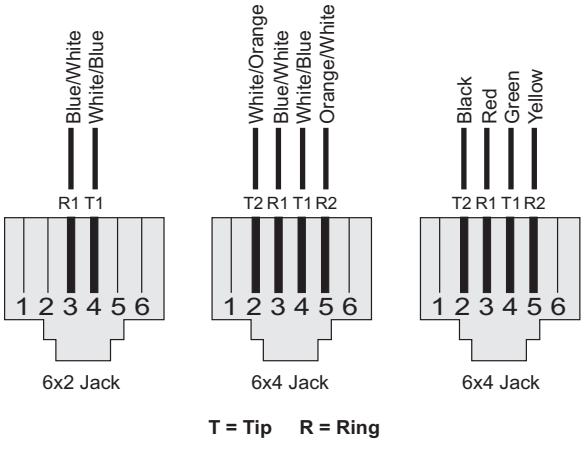


Figure B-2. RJ-11 Connector Pin Numbers



Pin	Signal Name	Wire Color
1	Not used	
2	Line 2 Tip	Black or White/Orange
3	Line 1 Ring	Red or Blue/White
4	Line 1 Tip	Green or White/Blue
5	Line 2 Ring	Yellow or Orange/White
6	Not used	

Figure B-3. RJ-11 Pinouts

APPENDIX C
SPECIFICATIONS

Standards Compliance

CE Mark

Emissions

- FCC Class B, VCCI Class B
- Industry Canada Class B
- EN55022 (CISPR 22) Class B
- C-Tick - AS/NZS 3548 (1995) Class B

Immunity

- EN 61000-3-2/3
- EN 61000-4-2/3/4/5/6/8/11

Safety

- UL 1950
- EN60950 (TÜV)
- CSA 22.2 No. 950

IEEE 802.3 10 BASE-T Ethernet

IEEE 802.3u 100 BASE-TX Fast Ethernet

IEEE 802.11b Wireless LAN

Modem Standards

- ITU G.992.1 (G.dmt)
- ITU G.992.2 (G.Lite)
- ITU G.994.1 (G.handshake)
- ITU T.413 issue 2 - ADSL full rate

LAN Interfaces

4 RJ-45 10 BASE-T/100 BASE-TX ports

Auto-negotiates the connection speed to 10 Mbps Ethernet or 100 Mbps Fast Ethernet, and the transmission mode to half duplex or full duplex. On-board wireless LAN card allows up to 253 wireless users to access resources on the wired LAN.

WAN Interface
1 ADSL RJ-11 port

Indicator Panel
Power, Ethernet, ADSL Syn, ADSL Data

Dimensions
220 x 132.8 x 30.5 mm (8.66 x 5.23 x 1.20 in)

Weight
0.6 kg (1.32 lbs)

Input Power
12 V 1 A

Power Consumption
12 Watts max.

Management
Web management

Advanced Features
Dynamic IP Address Configuration – DHCP, DNS
Firewall – Client privileges, hacker prevention and logging, Stateful Packet Inspection
Virtual Private Network – PPTP, IPSec pass-through, VPN pass-through

Internet Standards
RFC 826 ARP, RFC 791 IP, RFC 792 ICMP, RFC 768 UDP, RFC 793 TCP, RFC 783 TFTP, RFC 1483 AAL5 Encapsulation, RFC 1661 PPP, RFC 1866 HTML, RFC 2068 HTTP, RFC 2364 PPP over ATM

Temperature
Operating 0 to 40°C (32 to 104°F)
Storage -40 to 70°C (-40 to 158°F)

Humidity
5% to 95% (noncondensing)

Warranty
Limited Lifetime

GLOSSARY

10BASE-T

IEEE 802.3 specification for 10 Mbps Ethernet over two pairs of Category 3, 4, or 5 UTP cable.

100BASE-TX

IEEE 802.3u specification for 100 Mbps Fast Ethernet over two pairs of Category 5 UTP cable.

Access Point (AP)

An interface between the wireless network and a wired network. Access points combined with a distribution system (e.g. Ethernet) support the creation of multiple radio cells (BSSs) that enable roaming throughout a facility.

Asymmetric Digital Subscriber Line (ADSL)

One of four DSL technologies. ADSL is designed to deliver more bandwidth downstream (from the central office to the customer site) than upstream. Downstream rates range from 1.5 to 9 Mbps, whereas upstream bandwidth ranges from 16 to 640 kbps. ADSL transmissions work at distances up to 18,000 feet (5,488 meters) over a single copper twisted pair.

Asynchronous Transfer Mode (ATM)

A cell-based connection-oriented data service offering high speed (up to 2.488 Gbps) data transfer. ATM integrates circuit and packet switching to handle both constant and burst information. Frequently called cell relay.

Authentication

The process a station uses to announce its identify to another station. IEEE 802.11 specifies two forms of authentication: open system and shared key.

Bandwidth

The difference between the highest and lowest frequencies available for network signals. Also synonymous with wire speed, the actual speed of the data transmission along the cable.

Basic Service Set (BSS)

A set of 802.11-compliant stations that operate as a fully-connected wireless network.

Cyclic Redundancy Check (CRC)

An error detection process that (at the transmitting station) divides the data being sent by a particular polynomial and appends the resulting remainder to the transmitted data. Then (at the receiving station) the process divides the received data by the same polynomial and compares the resulting remainder to the remainder appended to the data at the transmitting station. If the remainders are equal, there is very high probability that no errors are present in the data. If they do not match, then errors are present.

Domain Naming System (DNS)

System used in the Internet for translating names of network nodes into addresses.

Dynamic Host Configuration Protocol (DHCP)

Issues IP addresses automatically within a specified range to devices such as PCs when they are first powered on. The device retains the use of the IP address for a specific license period that the system administrator can define. DHCP is available as part of the many operating systems including Microsoft Windows NT Server and UNIX.

Ethernet

A network communication system developed and standardized by DEC, Intel, and Xerox, using baseband transmission, CSMA/CD access, logical bus topology, and coaxial cable. The successor IEEE 802.3 standard provides for integration into the OSI model and extends the physical layer and media with repeaters and implementations that operate on fiber, thin coax and twisted-pair cable.

File Transfer Protocol (FTP)

A TCP/IP protocol for file transfer.

Firewall

A device that interfaces the network to the outside world and shields the network from unauthorized users. The firewall does this by blocking certain types of traffic. For example, some firewalls permit only electronic mail traffic to enter the network from elsewhere. This helps protect the network against attacks made to other network resources, such as sensitive files, databases, and applications.

Forward Error Correction (FEC)

A method of error control where the receiving node automatically corrects as many channel errors as it can without referring to the sending node.

G.lite

A standard that defines the more economical splitterless ADSL connection that transmits data at up to 1.5 Mbps downstream and 512 Kbps upstream. This ADSL option can be installed without an on-site visit by the service provider.

IEEE

Institute of Electrical and Electronic Engineers.

IEEE 802.11

Specifies medium access and physical layer specifications for 1 Mbps and 2 Mbps wireless connectivity within a local area.

IEEE 802.3x

Defines Ethernet frame start/stop requests and timers used for flow control on full-duplex links.

International Control Message Protocol (ICMP)

Network layer Internet protocol that reports errors and provides other information relevant to IP packet processing. Documented in RFC 792.

Local Area Network (LAN)

A group of interconnected computer and support devices.

LED

Light emitting diode used for monitoring a device or network condition.

Logical Link Control Layer (LLC)

The highest layer of the IEEE 802 Reference Model and provides similar functions of a traditional data link control protocol.

Management Information Base (MIB)

Database of network management information that is used and maintained by a network management protocol such as SNMP or ICMP. The value of a MIB object can be changed or retrieved using SNMP or ICMP commands. MIB objects are organized in a tree structure that includes public (standard) and private (proprietary) branches.

Media Access Control (MAC)

A portion of the networking protocol that governs access to the transmission medium, facilitating the exchange of data between network nodes.

Node

Any network-addressable device on the network, such as a router or network interface card.

Point-to-Point Protocol (PPP)

A protocol that provides router-to-router and host-to-network connections over both synchronous and asynchronous circuits. PPP is the successor to SLIP.

RJ-45 Connector

A connector for twisted-pair wiring.

Routing Information Protocol (RIP)

A common type of routing protocol. RIP bases its routing path on the distance (number of hops) to the destination. RIP maintains optimum routing paths by sending out routing update messages if the network topology changes. For example, if a router finds that a particular link is faulty, it will update its routing table, then send a copy of the modified table to each of its neighbors.

Service Set Identifier (SSID)

An identifier attached to packets sent over the wireless LAN that functions as a "password" for joining a particular radio network (BSS). All radios and access points within the same BSS must use the same SSID, or their packets will be ignored.

Simple Network Monitoring Protocol (SNMP)

Defines the transfer of information between Management Information Bases (MIBs). Most high-end network monitoring stations require the implementation of SNMP on each of the components the organization wishes to monitor.

Transmission Control Protocol (TCP)

A commonly used protocol for establishing and maintaining communications between applications on different computers. TCP provides full-duplex, acknowledged, and flow-controlled service to upper-layer protocols and applications.

User Data Protocol (UDP)

A connectionless protocol that works at the OSI transport layer. UDP transports datagrams but does not acknowledge their receipt.

UTP

Unshielded twisted-pair cable.

Virtual channel Identifier (VCI)

A 16-bit field in the header of an ATM cell. The VCI, together with VPI, is used to identify the next destination of a cell as it passes through a series of ATM switches on its way to its destination.

Virtual LAN (VLAN)

A collection of network nodes that share the same collision domain regardless of their physical location or connection point in the network. A VLAN serves as a logical workgroup with no physical barriers, allowing users to share information and resources located on the same LAN.

Virtual Path Identifier (VPI)

A 8-bit field in the header of an ATM cell.

Wired Equivalent Privacy (WEP)

An optional IEEE 802.11 function that offers frame transmission privacy similar to a wired network. The Wired Equivalent Privacy generates secret shared encryption keys that both source and destination stations can use to alter frame bits to avoid disclosure to eavesdroppers.

FOR TECHNICAL SUPPORT, CALL:

From U.S.A. and Canada (24 hours a day, 7 days a week)
(800) SMC-4-YOU; (949) 679-8000; Fax: (949) 679-1481
From Europe (8:00 AM - 5:30 PM UK Time)
44 (0) 118 974 8700; Fax: 44 (0) 118 974 8701

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european.techsupport@smc-europe.com
support@smc-asia.com
Driver updates:
http://www.smc.com/index.cfm?action=tech_support_drivers_downloads
World Wide Web:
http://www.smc.com
http://www.smc-europe.com
http://www.smc-asia.com

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Spain:	34-93-477-4935;	Fax 34-93-477-3774
UK:	44 (0) 118 974 8700;	Fax 44 (0) 118 974 8701
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Italy:	39 02 739 12 33;	Fax 39 02 739 14 17
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Nordic:	46 (0) 868 70700;	Fax 46 (0) 887 62 62
Northern Europe:	44 (0) 118 974 8700;	Fax 44 (0) 118 974 8701
Eastern Europe:	34 -93-477-4920;	Fax 34 93 477 3774
Sub Saharian Africa:	27-11 314 1133;	Fax 27-11 314 9133
North Africa:	34 93 477 4920;	Fax 34 93 477 3774
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PRC (Beijing):	86-10-8251-1550;	Fax 86-10-8251-1551
PRC (Shanghai):	86-21-6485-9922;	Fax 86-21-6495-7924
Taiwan:	886-2-8797-8006;	Fax 886-2-8797-6288
Asia Pacific:	(65) 6 238 6556;	Fax (65) 6 238 6466
Korea:	82-2-553-0860;	Fax 82-2-553-7202
Japan:	81-3-5645-5715;	Fax 81-3-5645-5716
Australia:	61-2-8875-7887;	Fax 61-2-8875-7777
India:	91 22 5696 2790;	Fax 91 22 5696 2794
Middle East:	97 14 299 4466	Fax 97 14 299 4664
Thailand:	66 2 651 8733	Fax 66 2 651 8737

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