



SONICWALL

Installation Guide

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About This Guide

This guide provides information on registering and installing your SonicWALL Internet Security appliance. Three common network configurations, Network Address Translation (NAT), NAT with PPPoE, and NAT with DHCP Client, and are described as part of the installation process. For more detailed information on other network settings, consult your SonicWALL Product Family manual for complete details.

The chapters in this guide are summarized as follows:

Quick Start Guide, if you have previous network experience and are familiar with getting connected to the Internet, then the **Quick Start Guide** provides abbreviated instructions on configuring your SonicWALL to access the Internet. If, at any time during the installation, you require assistance, refer to the following chapters for more information.

Chapter 1, Introduction, describes the contents of the package and has an overview of the configuration process.

Chapter 2, Performing the Initial Configuration, describes the three most common ways of configuring your SonicWALL for use as a firewall on your network

Chapter 3, Registering Your SonicWALL, describes the process of registering your SonicWALL appliance on the MysonicWALL.com web site. You should register your SonicWALL, any services, and upgrades before installing it to access technical support, if necessary, during installation.

Chapter 4, Hardware Description, has descriptions of all SonicWALL products. There are both front and back descriptions of the hardware.

Chapter 5, Troubleshooting, provides solutions to problems you may encounter while configuring your SonicWALL.

Chapter 6, Support, outlines the support packages available from SonicWALL.

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SonicWALL is a registered trademark of SonicWALL, Inc.

Other product and company names mentioned herein can be trademarks and/or registered trademarks of their respective companies.

Specifications and descriptions subject to change without notice.

LIMITED WARRANTY

SonicWALL, Inc. warrants the SonicWALL Internet Security Appliance (the Product) for one (1) year from the date of purchase against defects in materials and workmanship. If there is a defect in the hardware, SonicWALL will replace the product at no charge, provided that it is returned to SonicWALL with transportation charges prepaid. A Return Materials Authorization (RMA) number must be displayed on the outside of the package for the product being returned for replacement or the product will be refused. The RMA number can be obtained by calling SonicWALL Customer Service between the hours of 8:30 AM and 5:30 PM Pacific Standard Time, Monday through Friday.

Phone:(408) 752-7819

Fax:(408) 745-9300

Web: <<http://www.sonicwall.com/support>>

This warranty does not apply if the Product has been damaged by accident, abuse, misuse, or misapplication or has been modified without the written permission of SonicWALL.

In no event shall SonicWALL, Inc. or its suppliers be liable for any damages whatsoever (including, without limitation, damages for loss of profits, business interruption, loss of information, or other pecuniary loss) arising out of the use of or inability to use the Product.

Some states do not allow the exclusion or limitation of implied warranties or liability for incidental or consequential damages, so the above limitation or exclusion can not apply to you. Where liability can not be limited under applicable law, the SonicWALL liability shall be limited to the amount you paid for the Product. This warranty gives you specific legal rights, and you can have other rights which vary from state to state.

By using this Product, you agree to these limitations of liability.

THIS WARRANTY AND THE REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, ORAL OR WRITTEN, EXPRESS OR IMPLIED.

No dealer, agent, or employee of SonicWALL is authorized to make any extension or addition to this warranty.

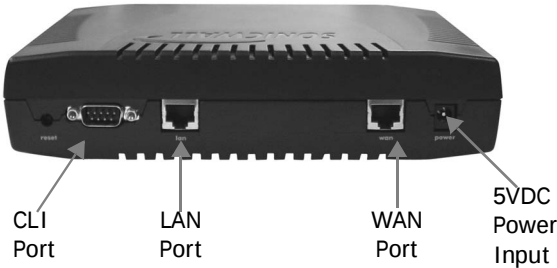
Quick Start Installation Guide

Thank you for purchasing a SonicWALL Internet security appliance. The SonicWALL acts as a secure barrier between your private LAN and the public Internet (WAN) to protect your network from security threats on the Internet.

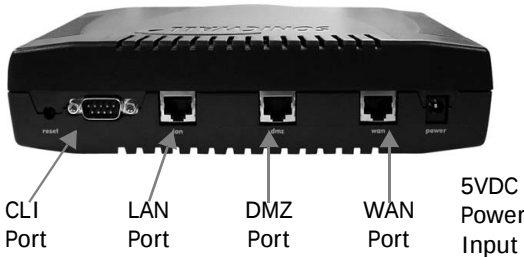
If you are currently familiar with firewalls or networking equipment, the QuickStart Guide provides instructions to establish connectivity between your network and the Internet using the SonicWALL. If you are new to networks and the Internet, begin the installation process on page 17.

Note: This guide covers initial installation instructions for all SonicWALL Internet security appliances. The instructions are the same for all hardware models.

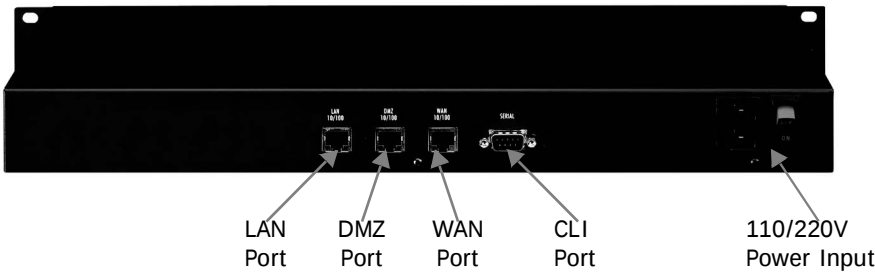
Below are rear panel descriptions for each SonicWALL hardware platform. The SonicWALL TELE3 and SOHO3 models have a **LAN** port and **WAN** port. The PRO 100, PRO 200, and the PRO 300 have a **LAN** port, a **WAN** port, and a **DMZ** port. The QuickStart Guide covers only the **LAN** port and the **WAN** port. For information on the DMZ port, please refer to your SonicWALL manual.



SonicWALL Tele3 and SOHO3



SonicWALL PRO 100



SonicWALL PRO 200 and 300

Check Package Contents

- One SonicWALL Internet security appliance
- One SonicWALL Installation Guide
- One SonicWALL Manual
- One SonicWALL CD
- One Ethernet cable
- One Crossover cable (labeled “Crossover”)
- One 5 Volt DC power supply (SonicWALL TELE3, SOHO3, and PRO 100 models)
-or-
- One power cable (SonicWALL PRO 200 and PRO 300; *US only*)

If any items are missing from your package, contact SonicWALL, Inc. immediately.

Web: <<http://www.sonicwall.com/support/>>

Phone: (408) 745-9600



SonicWALL Manual



CD



Ethernet Cable (gray)



Crossover Cable (red)



Power Supply*



Power Cable*

***Note:** Your actual power supply may vary from the pictures above. This does not affect functionality of the part.

Installing the SonicWALL

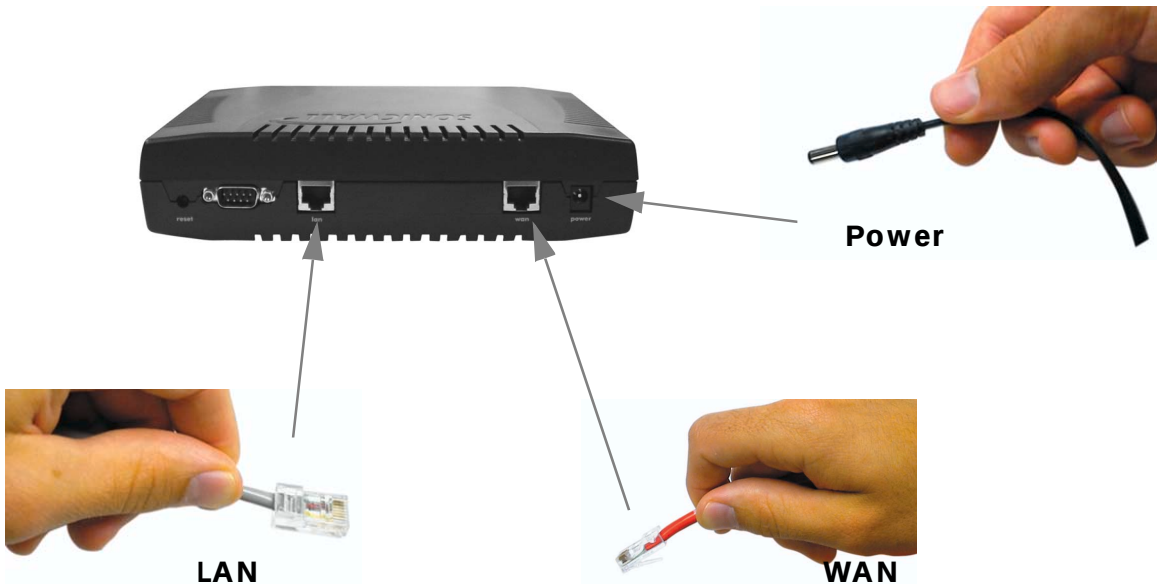
Before you begin your SonicWALL installation, contact your ISP and obtain your Internet connection information. Enter this information into **Section 4**. Next, place your SonicWALL on a hard, flat surface near your cable modem, DSL modem, or Internet router.

Note: *SonicWALL PRO 100, PRO 200, and PRO 300 front and rear panel views are different from the SOHO3 pictured below. The same installation instructions, however, apply to all models.*

1 Apply Power to the SonicWALL

If you are installing a TELE3, SOHO3, or PRO 100, attach the power supply to the power cord. Plug the power input into the SonicWALL and the other end into a power outlet.

If you are installing a PRO 200 or PRO 300, attach the power cable to the power input of the SonicWALL, and plug the other end into an AC power outlet. Use the power switch to turn on the SonicWALL.



2 Connect the SonicWALL to the Internet

Connect the SonicWALL WAN port to your cable modem, DSL modem, or Internet router using the red crossover cable. The Link LED should light up indicating a connection. If it does not light, use the grey Ethernet cable to establish a connection. The two cables can be interchanged without damage to the SonicWALL or your computer.

Connect the SonicWALL to Your Network

Connect the grey Ethernet cable to the SonicWALL LAN port. Connect the other end to your computer at the network port. The LAN link LED should light up indicating a connection. If the Link LED does not light, try the red crossover cable.

Check Link LEDs

- 3
- If a **Link** LED does not light after connecting a cable, try connecting the ports using the other cable in the box. For instance, if you used the red **Crossover** cable to connect the **WAN** port to the cable modem, DSL modem, or your Internet router and the **Link** LED does not light, try connecting the grey **Ethernet** cable to the ports.



WAN Link LED LAN Link LED Test LED

The SonicWALL Test LED stays lit when the SonicWALL is powered on initially. It stays lit while the SonicWALL performs a series of diagnostic tests.

Network Addressing Information

- 4
- In order to continue the installation of your SonicWALL, you need to obtain IP addressing information from your Internet Service Provider (ISP). The information is required to connect to the Internet.

ISP Contact Information

Telephone Number, if contact by phone _____ or e-mail address if you contact your ISP via e-mail _____.

You will use one of the following connection types to connect to the Internet:

Static IP Address	NAT with PPPoE	NAT with DHCP
IP Address _____	User Name: _____	Host Name: _____
Subnet Mask _____	Password: _____	MAC Address (SonicWALL Serial Number): _____
Default Gateway: _____		Domain Suffix: _____
DNS Address: _____		

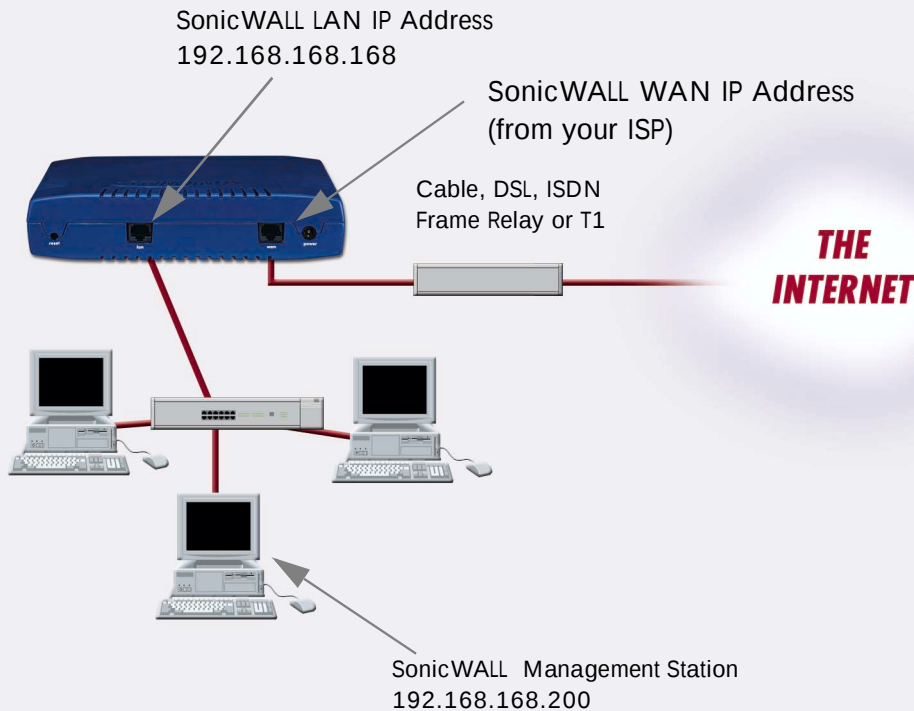
Setting Up Your Management Station

You can manage your SonicWALL from any computer on your LAN. This computer is called the Management Station.

Contacting the SonicWALL from your PC

The SonicWALL is preconfigured with the IP address 192.168.168.168. To access the Management interface for the first time, you have to change the IP address of your computer to 192.168.168.200.

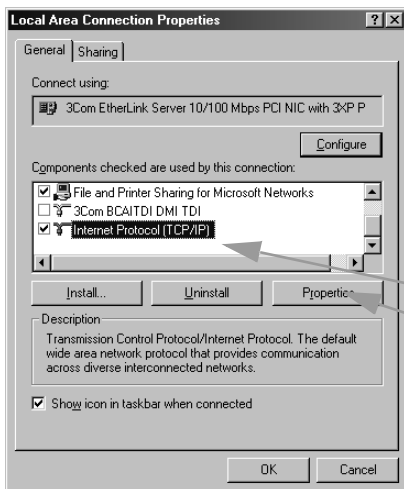
SonicWALL Network Diagram



Configure TCP/IP Settings

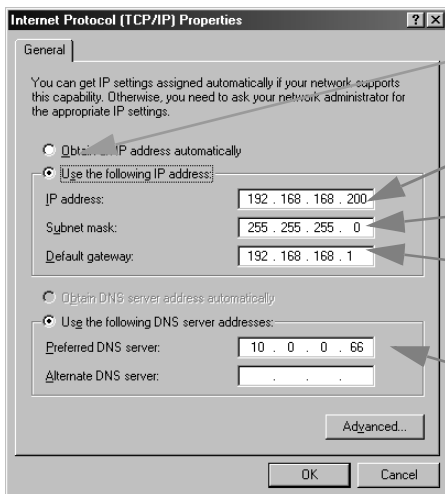
Configure your computer IP address, subnet mask, and gateway IP address. If the Management station is running Windows 2000, do the following:

Note: Consult your operating system manuals for specific instructions on configuring network settings.



1. From the **Start** menu, select **Settings**, and then **Network and Dial up Connections**.
2. Right click on the **Local Area Connection** icon, and select **Properties**.
3. Select **Internet Protocol (TCP/IP)**.
4. Click **Properties**.

A **TCP/IP Properties** window appears.



5. Select **Specify an IP address**.
6. Enter 192.168.168.200 in the **IP address** field.
7. Enter 255.255.255.0 in the **Subnet mask** field.
8. Enter 192.168.168.1 in the **Gateway** field.
9. If there are no server IP addresses listed in the DNS settings, use the DNS IP addresses from your ISP.
10. Click **OK**, then **OK** again to close the **Local Area Connection Properties** window.

Restart your computer if you are running Windows 95, 98, or NT. Windows 2000 does not require restarting the computer for network settings to take effect.

Logging into the SonicWALL

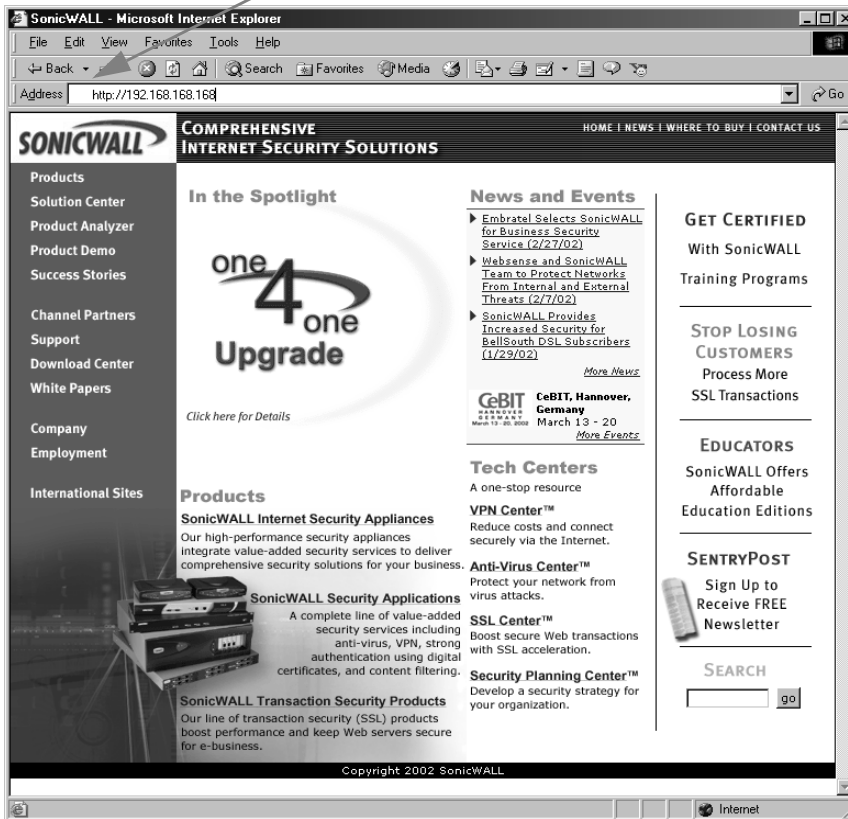
Now that you have changed the IP address of your computer, you need to log into the SonicWALL to begin the configuration.

8

Configure the SonicWALL

Launch your Web browser. Because you are not connected to the Internet, you may get an error page displayed with a message stating that you cannot access the Internet.

Type 192.168.168.168 into the **Location** or **Address** field at the top of your browser and press **Enter** on your keyboard.



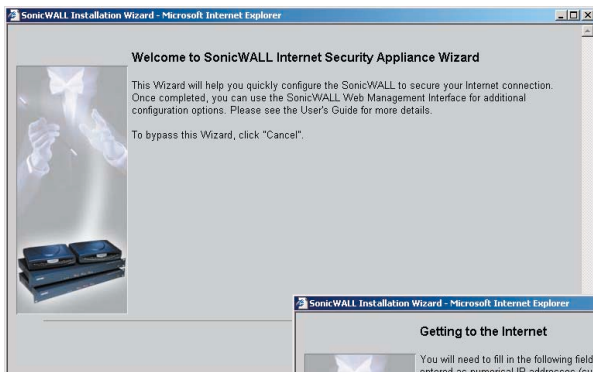
!

Your Web browser must support JAVA and HTTP uploads in order to fully manage the SonicWALL. Internet Explorer 5.0 or higher, as well as Netscape Navigator 4.0 or higher, are recommended.

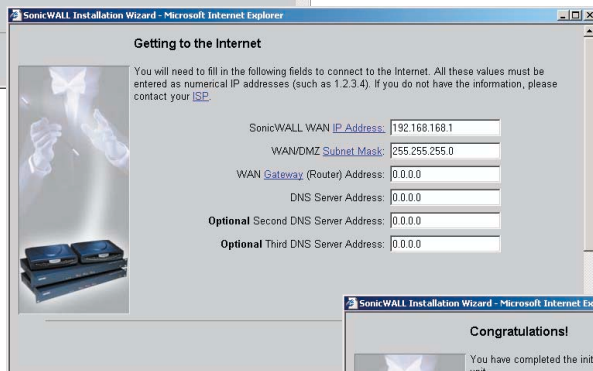
The Installation Wizard

The first time you access the SonicWALL, the Installation Wizard automatically launches. The Installation Wizard guides you through the initial setup.

Note: Certain browser configurations may not launch the wizard. In this case, you can log into the SonicWALL using “Admin” as the **User Name** and “password” as the **Password**. After you log into the SonicWALL, click **Tools**, then **Preferences**. Click **Launch Wizard** to begin configuring the SonicWALL.



Please note that you need your IP addressing details from your Internet Service Provider (ISP) to complete the configuration of your SonicWALL.



Be sure to register your SonicWALL at <http://www.mysonicwall.com> to take advantage of a free 30 day trial subscription to the Content Filter List. Also, by registering your SonicWALL, you have access to technical support services.



Note: Once you have completed the Installation Wizard and restarted your SonicWALL, you can manage the SonicWALL by typing the LAN IP address of the SonicWALL into a Web browser. You must log into the SonicWALL with the **User Name** “admin” and the **Password** that you defined in the Installation Wizard.

Configuring Computers on the LAN

10 While the SonicWALL is restarting, two windows appear: one with the administrator login prompt, and the second with instructions for configuring your computers on your network (LAN). Minimize the login window to view and print the Installation Wizard instructions. Complete either **A** or **B** depending on the configuration selected during installation.

A

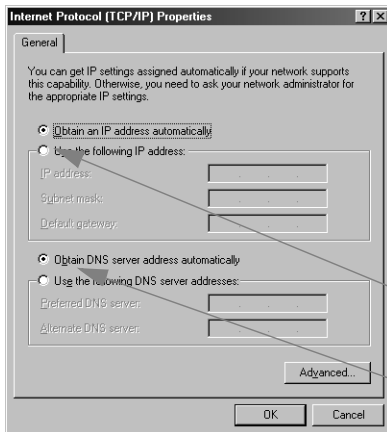
DHCP Server Enabled

If you enabled the SonicWALL DHCP server, a screen is displayed with instructions to configure computers on your LAN.



Print this screen. You need it to properly configure the computers on your LAN.

After the SonicWALL has restarted, change the network settings on the computers on the LAN. Each computer must be configured to get its IP address dynamically.



On a Windows 2000 computer, do the following:

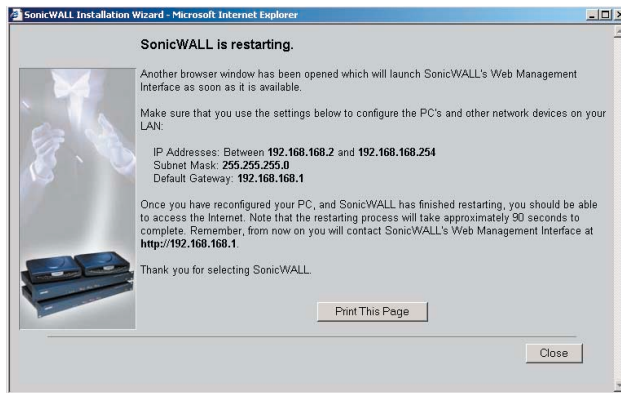
1. From the **Start** menu, select **Settings**.
2. Then select **Network and Dial-up Connections**.
3. Right click on the **Local Area Connection** icon, and then select **Properties**.
4. Click **Internet Protocol (TCP/IP)** and then **Properties**.
5. Click **Obtain IP address automatically**.
6. You can select **Obtain DNS server address automatically** or enter IP addresses of the DNS servers.
7. Click **OK**, then **OK** again to close the **Properties** window.

You may need to restart the computers on your LAN to update the network settings. The SonicWALL is now functioning and protecting your LAN from Internet-based attacks and break-ins.

B

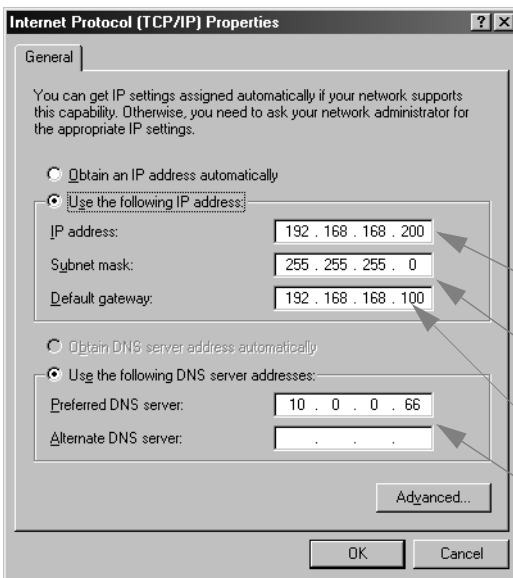
DHCP Server Disabled

If you did not enable the SonicWALL DHCP server, a window with configuration instructions is displayed:



Print this screen. You need the information to configure computers on your LAN.

After the SonicWALL has restarted, change the network settings on the computers located on the LAN. Configure each computer with a static IP address from the range displayed in your configuration instructions.



On a Windows 2000 computer, do the following:

1. From the **Start** menu, select **Settings**.
2. Then select **Network and Dial-up Connections**.
3. Right click on the **Local Area Connection** icon, and then select **Properties**.
4. Click **Internet Protocol (TCP / IP)** and then **Properties**.
5. Select **Use the following IP address** and enter an IP address from the range indicated in your Wizard restart screen.
6. Enter the subnet mask indicated in your Wizard restart screen in the **Subnet Mask** field.
7. Enter the Default Gateway IP address in the Gateway field.
8. Enter IP addresses of the DNS servers provided by your ISP.
9. Click **OK**, then **OK** again to close the **Properties** window.

You may need to restart the computers on your LAN to update the network settings.

The SonicWALL is now functioning and protecting your LAN from Internet-based attacks and break-ins.

1 Introduction

This Installation Guide covers initial installation instructions for all SonicWALL Internet Security appliances. The instructions are the same for all SonicWALL models.

The Installation Guide assumes that you have a working knowledge of the Internet and networks. If you are unfamiliar with networking and networking terminology, read **Basic Network Terminology and Configuration**, see "Basic Networking Terminology" on page 44, as a starting point for your installation.

Inspecting the Package

The following items should be included in the package:

- One SonicWALL Internet Security Appliance
- One power supply (not included with International SonicWALL PRO 200 or PRO 300)
- One Category 5 Ethernet crossover cable (labeled "Crossover")
- One Category 5 Ethernet standard cable
- One SonicWALL Installation Guide
- One Companion CD
- One SonicWALL Internet Security Appliance User's Guide

If an item is missing from the package, you can contact SonicWALL, Inc. by phone at (408) 752-7819 or submit a Web Support Form at <<http://techsupport.sonicwall.com/swtech.html>>.

Here are a few helpful guidelines for installing the SonicWALL appliance.

- The **WAN** Ethernet port should be connected to the Internet router or modem.
- The **LAN** Ethernet port should be connected directly to your PC, or a network hub, or a switch on the internal, protected network.
- The **DMZ** Ethernet port, included with the SonicWALL PRO 100, the SonicWALL PRO 200 and the SonicWALL PRO 300, should be connected to publicly accessible servers, such as Web and Mail servers.
- A crossover cable should be used when connecting the SonicWALL directly to another computer or router.
- A standard Ethernet cable should be used when connecting the SonicWALL to a network hub, switch, or modem.

Note: *In some cases, you may need to switch the crossover cable with the standard cable. Switching cables will not damage your system.*

Internet Service Provider (ISP) Information

To install your SonicWALL Internet Security appliance and connect to the Internet, you need the following IP addressing information from your ISP.

ISP Contact Information

- **Telephone Number**, if contact by phone _____ or e-mail address if you contact your ISP via e-mail _____.
- **Service Representative's name:** _____

Your ISP uses one of the following IP addressing methods below. Select a method and fill in the pertinent information.

Static/Permanent IP Addressing

First IP Address: _____

Last IP Address: _____

Gateway IP Address: _____

Subnet Mask: _____

DNS IP Address: _____

___ DHCP

Authentication Method

___ **Host Name:** _____

___ **MAC Address: (SonicWALL serial Number)** _____

___ **N/A**

Domain Suffix: _____

___ PPPoE

Username: _____

Password: _____

___ L2TP

Addressing Method

___ **DHCP**

___ **Static:**

IP Address: _____

Gateway IP Address: _____

Subnet Mask: _____

DNS IP Address: _____

L2TP Settings

Host Name: _____

Server IP: _____

Username: _____

Password: _____

Note: *Items in bold are required information.*

Note: *Be sure to store this information in a safe place after establishing your Internet connectivity.*

SonicWALL Configuration Overview

There are three major sections to the configuration of the SonicWALL:

- **Management Station Configuration** - In this step, configuring your computer to act as the management station that establishes connectivity with the SonicWALL.
- **SonicWALL Configuration** - Configuring the SonicWALL to connect to the Internet using the information from your ISP. If you are assigned a single IP address from your ISP, enter it as the SonicWALL WAN IP address during the configuration.
- **Computer Configuration on the LAN** - You must configure the computers on your LAN to be on the same network as the SonicWALL after setting up your SonicWALL.

Note: *For specific, step by step instructions on installing and configuring your SonicWALL, consult the instructions beginning on page 9 of this manual.*

Management Station Configuration

1. Change the TCP/IP settings of your PC to be in the same subnet as the default IP address of the SonicWALL. Typically, set your IP address to 192.168.168.200, subnet mask 255.255.255.0, and default gateway of 192.168.168.1.
2. Open your Web browser and enter the IP address, 192.168.168.168, into the Address field. This is the default IP address of the SonicWALL.

SonicWALL Configuration

3. Use the Wizard to configure the SonicWALL with the information from your ISP. If you have a single IP address assigned to you, enter it into the SonicWALL WAN IP Address field. Finish the steps as outlined by the Wizard.
4. Or, if you prefer not to use the Wizard, the user name of "admin" and the password "password" can be used to access the Management interface.
5. Restart the SonicWALL.

Computer Configuration on the LAN

6. Change your TCP/IP settings of your computer to be in the same subnet as the SonicWALL. For example, if you have used the default address of the SonicWALL, 192.168.168.1, configure the IP settings of your computer to be 192.168.168.X.

Important: Do not set the computer IP address to be the same as the SonicWALL LAN IP Address.

7. Open your Web browser and see if you can access a Web site on the Internet. If so, you've successfully completed the configuration of your SonicWALL. If you cannot access the Internet, recheck the IP settings of your computer and your SonicWALL. Also refer to Chapter 5 for more troubleshooting information.

2 Performing the Initial Configuration

Installing the SonicWALL

Start by placing the SonicWALL on a hard, flat surface near your cable modem, DSL modem, or Internet router.

Note: *The hardware photos are used for descriptive purposes only. Refer to your model for specific locations.*

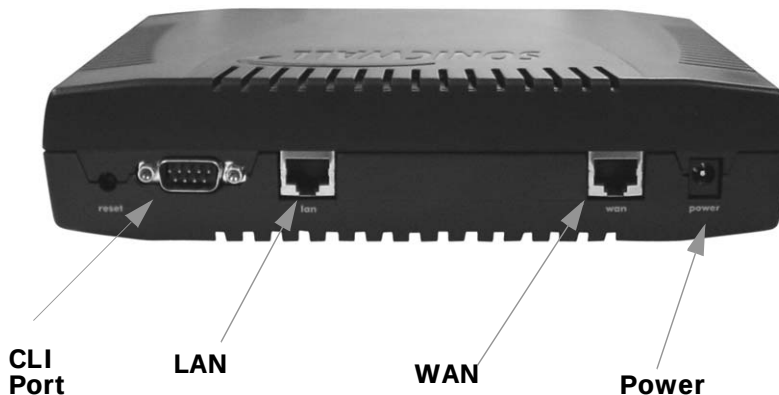
Connecting to Your Network

1. **Apply Power to the SonicWALL** - If you are installing the SonicWALL TELE3, SOHO3, or PRO 100, attach the power supply to the power input on the SonicWALL and plug the other end into a power outlet.

If you are installing a SonicWALL PRO 200 or a PRO 300, attach the power cable to the power input on the SonicWALL and the other end into an AC power outlet. Use the power switch to turn on the SonicWALL.

The **Test** LED stays on while the SonicWALL performs a series of diagnostic tests.

2. **Connect the SonicWALL to your Network** - Connect the SonicWALL LAN port to your LAN network card or hub using the grey Ethernet cable provided in the box. If the Link LED does not light, try the red Crossover cable.



3. **Connecting to the Internet** - Connect the SonicWALL WAN port to your cable modem, DSL modem, or Internet router using the red crossover cable provided in the box. If the Link LED does not light, try the grey Ethernet cable.

4. Checking Link LEDs



The WAN Link LED and the LAN Link LED light up when the SonicWALL is properly connected to the LAN and WAN ports of the computer and the modem.

Important: You may have to switch the red crossover cable with the standard grey cable to establish a connection. Switch cables until a link is established. Switching between a crossover cable and a standard cable does not damage your SonicWALL or your computer.

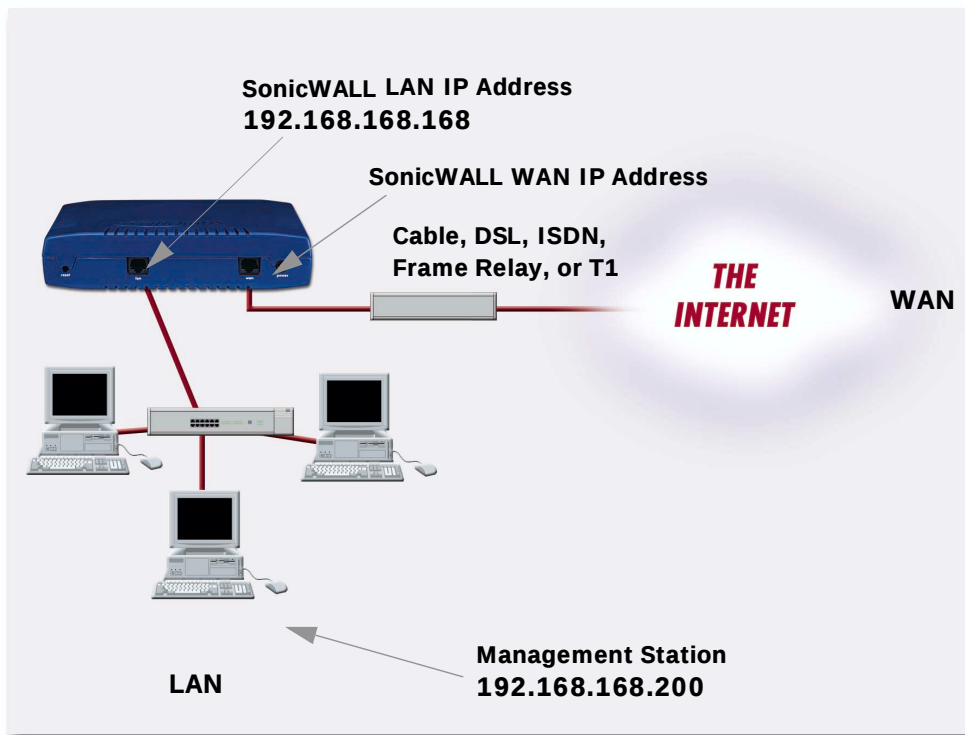
Setting Up a Management Station

To access the SonicWALL Management interface, you must set up a PC on your LAN to be in the same subnet (network) as the SonicWALL. This computer is called the “Management Station”.

Accessing the SonicWALL from your PC

The SonicWALL is preconfigured to have an IP address of 192.168.168.168. To contact the SonicWALL for the first time, you must change the Management Station (your PC) IP address to 192.168.168.X where X is any number between 0 and 254, except 168 which is the SonicWALL IP address. In this section, you configure your Management Station IP address to 192.168.168.200.

SonicWALL Network Diagram



Setting up your Management Station

All management functions on the SonicWALL are performed from a Web browser-based user interface. Management can be performed from any computer connected to the LAN port of the SonicWALL. The computer used for managing the SonicWALL is referred to as the Management Station.

The following steps describe how to configure the Management Station TCP/IP settings in order to initially access the SonicWALL. It is assumed that the Management Station can access the Internet through an existing connection.

Note: If you are running Windows XP, consult your operating system documentation for configuring TCP/IP settings.

Configuring TCP/IP Settings

The SonicWALL is pre-configured with the IP address "192.168.168.168". During the initial configuration, it is necessary to temporarily change the IP address of the Management Station to one in the same subnet as the SonicWALL. For initial configuration, set the IP address of the Management Station to "192.168.168.200".

Make a note of the Management Station current TCP/IP settings. If the Management Station accesses the Internet through an existing broadband connection, the TCP/IP settings are helpful when configuring the IP settings of the SonicWALL.

Windows 95 or 98 computer

1. From the **Start** list, highlight **Settings** and then select **Control Panel**.
2. Double-click the **Network** icon in the **Control Panel** window.
3. Double-click **TCP/IP** in the **TCP/IP Properties** window.
4. Select the **Specify an IP Address** radio button.
5. Enter "192.168.168.200" in the **IP Address** field.
6. Enter "255.255.255.0" in the **Subnet Mask** field.
7. Click **OK**, and then click **OK** again.
8. Restart the computer for changes to take effect.

Windows2000

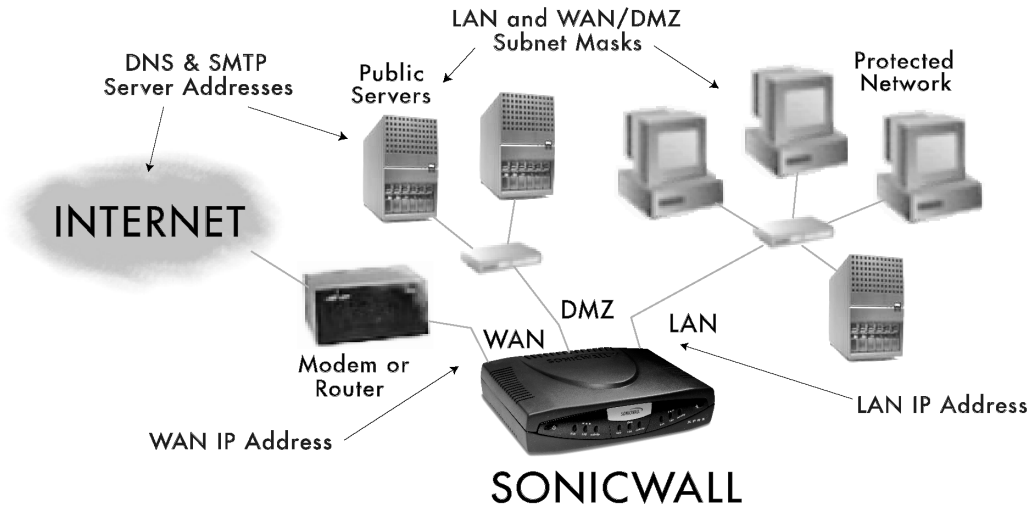
1. From the **Start** list, highlight **Settings** and then select **Network and Dial Up Connections**.
2. Select the **Local Area Network** icon in the **Network and Dial Up Connections** window.
3. Highlight **TCP/IP** in the **Local Area Connection Properties** window.
4. Select the **Specify an IP Address** radio button.
5. Enter "192.168.168.200" in the **IP Address** field.
6. Enter "255.255.255.0" in the **Subnet Mask** field.
7. Click **OK**, and then click **OK** again.

Macintosh computer

1. From the **Apple** list, choose **Control Panel**, and then choose **TCP/IP** to open the **TCP/IP Control Panel**.
2. From the **Configure** list, choose **Manually**.
3. Enter "192.168.168.200" in the **IP address** field.
4. Enter "255.255.255.0" in the **Subnet Mask** field.
5. Click **OK**.

Connecting the SonicWALL to the Network

The following diagram illustrates how the SonicWALL is connected to the network:



Important: Before installing the SonicWALL on your network, register your appliance on the user registration web site located at <http://www.mysonicwall.com>. It is strongly recommended that you create a user account before installing your SonicWALL and register any services and upgrades for your SonicWALL. As a registered user, you have access to the SonicWALL technical support website.

Configuring your SonicWALL to Access the Internet

Three common network configurations, **NAT Enabled**, **NAT with PPPoE Client**, and **NAT with DHCP Client** are included in this chapter. For more network configurations, please refer to Chapter 2, **Installation**, of the SonicWALL Internet Security Appliance User's Guide.

Network Address Translation (NAT) Enabled

Using NAT to set up your SonicWALL eliminates the need for separate IP addresses for all computers on your LAN. It is a way to conserve IP addresses available from the pool of IPv4 addresses for the Internet. If you do not have enough individual IP addresses for all computers on your network, you can use NAT for your network configuration.

Essentially, NAT translates the IP addresses in one network into those for a different network. As a form of packet filtering for firewalls, it protects a network from outside intrusion from hackers by replacing the internal (LAN) IP address on packets passing through a SonicWALL with a "fake" one from a fixed pool of addresses. The actual IP addresses of computers on the LAN are hidden from outside view.

Instructions for configuring **NAT Enabled Mode** begin on page 24.

NAT with PPPoE Client

NAT with PPPoE Client is a network protocol that uses Point to Point Protocol over Ethernet to connect with a remote site using various Remote Access Service products. This protocol is typically found when using a DSL modem with an ISP requiring a user name and password to log into the remote server. The ISP may then allow you to obtain an IP address automatically or give you a specific IP address.

Instructions for configuring **NAT with PPPoE Client** mode begin on page 31.

NAT with DHCP Client

NAT with DHCP Client is a networking mode that allows you to obtain an IP address for a specific length of time from a DHCP server. The length of time is called a lease which is renewed by the DHCP server typically after a few days. When the lease is ready to expire, the client contacts the server to renew the lease. This is a common network configuration for customers with cable or DSL modems. You are not assigned a specific IP address by your ISP.

Instructions for configuring **NAT with DHCP Client** mode begin on page 36.

Configuring the SonicWALL in NAT (Network Address Translation) Enabled Mode

This section describes configuring the SonicWALL appliance in the NAT mode. If you are assigned a single IP address by your ISP, follow the instructions below. If you do not want to use **NAT Enabled** mode for your network, please follow the installation instructions for **Standard** mode in the SonicWALL Internet Security Appliance User's Guide.

Note: *Be sure to have your network information including your WAN IP address, subnet mask, and DNS settings ready. This information is obtained from your ISP.*

Accessing the Wizard

1. Open a Web Browser. Then type the default SonicWALL IP address, "192.168.168.168", into the Location or Address field in the Web browser.

Note: *Your Web browser must be Java-enabled and support HTTP uploads in order to fully manage SonicWALL. Internet Explorer 5.0 and above as well as Netscape Navigator 4.0 and above are recommended.*

The first time you access the SonicWALL Management interface, the SonicWALL **Installation Wizard** automatically launches and begins the installation process.



The SonicWALL **Installation Wizard** simplifies the initial installation and configuration of the SonicWALL. The **Wizard** provides a series of menu-driven instructions for setting the administrator password and configuring the settings necessary to access the Internet.

Note: To bypass the Wizard, click **Cancel**. Then log into the SonicWALL **Management Interface** by entering the User Name "admin" and the Password "password".

1. To configure your SonicWALL appliance, read the instructions on the Wizard **Welcome** window and click **Next** to continue.

Setting the Password



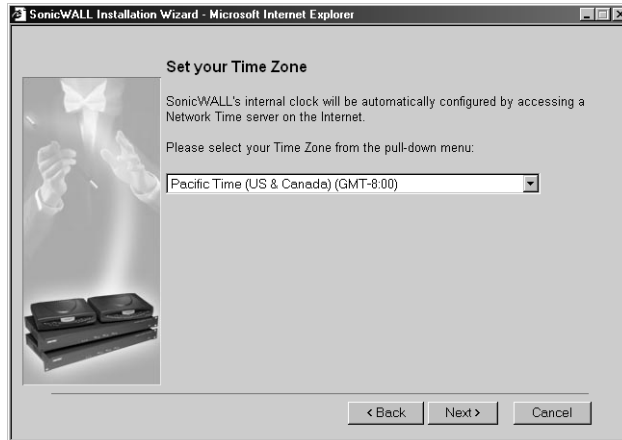
2. To set the password, enter a new password in the **New Password** and **Confirm New Password** fields.

Note: *It is very important to choose a password which cannot be easily guessed by others.*

This window also displays the **Use SonicWALL Global Management System** check box. SonicWALL Global Management System (SonicWALL GMS) is a web browser-based security management system. **SonicWALL GMS** allows enterprises and service providers to monitor and manage hundreds of remote SonicWALLs from a central location. For more information about SonicWALL GMS, contact SonicWALL Sales at (408) 745-9600.

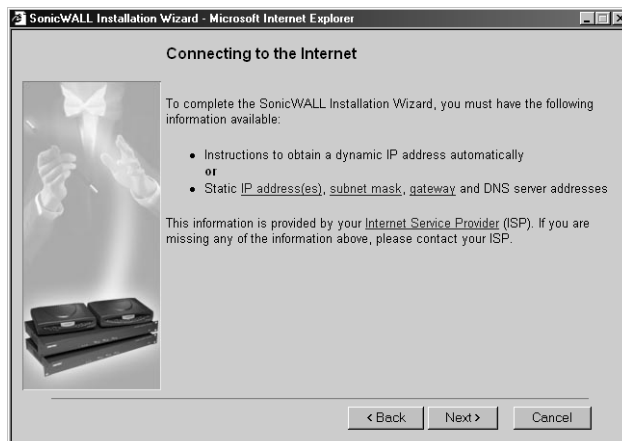
3. Do not select the **Use Global Management System** check box unless your SonicWALL is remotely managed by SonicWALL GMS. Click **Next** to continue.

Setting the Time and Date



4. Select the appropriate **Time Zone** from the **Time Zone** menu. The SonicWALL internal clock is set automatically by a Network Time Server on the Internet. Click **Next** to continue.

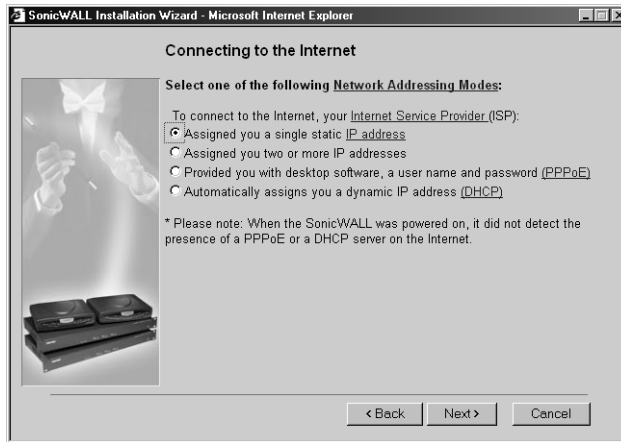
Connecting to the Internet



The **Connecting to the Internet** screen lists the information required to complete the installation. You need instructions for obtaining an IP address automatically or IP addresses from your ISP. You should have all of this information from your ISP on your ISP checklist found at the beginning of this guide.

5. Confirm that you have the proper network information necessary to configure the SonicWALL to access the Internet. Click the hyperlinks for definitions of the networking terms. Click **Next** to proceed to the next step.

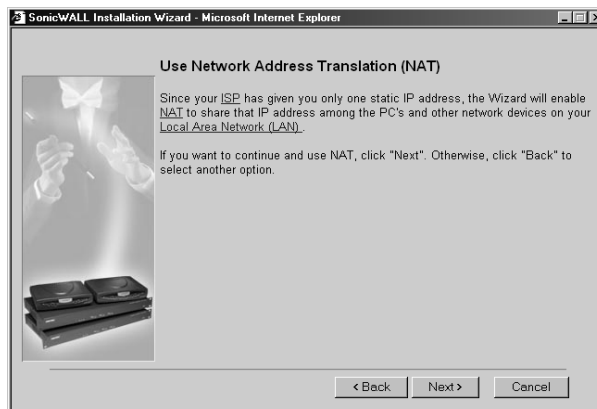
Selecting Your Internet Connection



6. Select **Assigned you a single static IP address**, if your ISP has provided you with a single, valid IP address. You can configure the SonicWALL to use NAT with a single, static IP address. The advantages of Network Address Translation (NAT) are IP address conservation, and hiding your IP address from a public WAN such as the Internet.

Confirming Network Address Translation (NAT) Mode

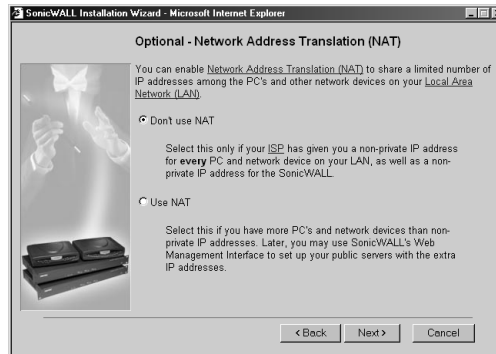
If you select **Assigned you a single static IP address** in the **Connecting to the Internet** window, the **Use Network Address Translation (NAT)** window is displayed.



The **Use Network Address Translation (NAT)** window verifies that the SonicWALL has a registered IP address.

Selecting NAT Enabled Mode

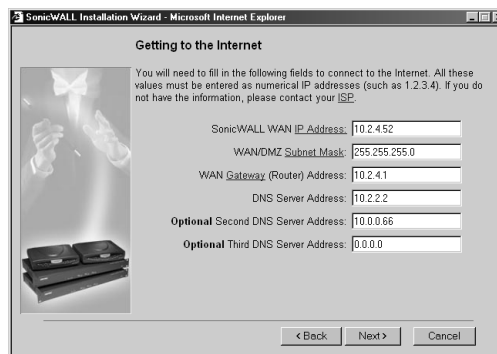
If you selected **Assigned you two or more static IP Addresses**, the **Optional-Network Address Translation** window is displayed.



7. The **Optional-Network Address Translation (NAT)** window offers the ability to enable NAT. Select **Don't Use NAT** if there are enough static IP addresses for your SonicWALL, all PCs, and all network devices on your LAN. Selecting **Don't Use NAT** enables the **Standard** mode. Select **Use NAT** if valid IP addresses are in short supply or to hide all devices on your LAN behind the SonicWALL valid IP address. Click **Next** to continue.

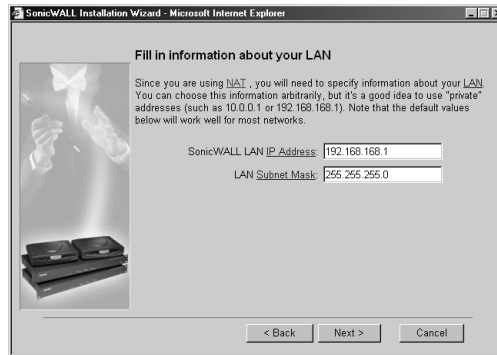
Configuring WAN Network Settings

If you selected either **NAT** or **Standard** mode, the **Getting to the Internet** window is displayed.



8. Enter the IP address provided by your ISP in the **SonicWALL WAN IP Address**, **WAN/DMZ Subnet Mask**, **WAN Gateway (Router) Address**, and **DNS Server Addresses**. Click **Next** to continue.

Configuring LAN Network Settings



Fill in information about your LAN

Since you are using NAT, you will need to specify information about your LAN. You can choose this information arbitrarily, but it's a good idea to use "private" addresses (such as 10.0.0.1 or 192.168.168.1). Note that the default values below will work well for most networks.

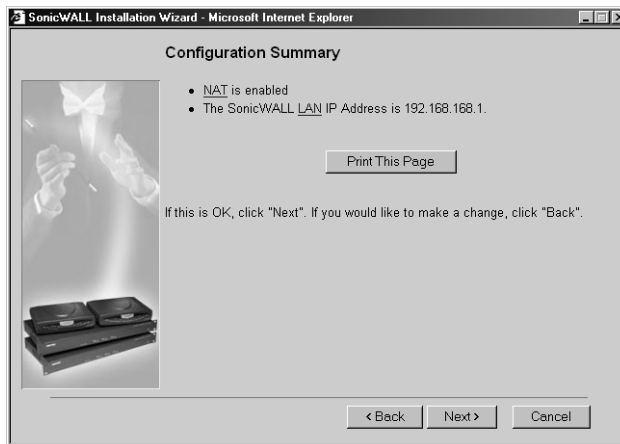
SonicWALL LAN IP Address:

LAN Subnet Mask:

< Back Next > Cancel

9. The **Fill in information about your LAN** window allows the configuration of the SonicWALL LAN IP Address and the LAN Subnet Mask. The SonicWALL LAN IP Address is the private IP address assigned to the LAN port of the SonicWALL. The LAN Subnet Mask defines the range of IP addresses on the LAN. The default values provided by the SonicWALL work for most networks. If you do not use the default settings, enter the SonicWALL LAN settings and click **Next** to continue.

Configuration Summary



Configuration Summary

- NAT is enabled
- The SonicWALL LAN IP Address is 192.168.168.1.

Print This Page

If this is OK, click "Next". If you would like to make a change, click "Back".

< Back Next > Cancel

10. The **Configuration Summary** window displays the configuration defined using the Installation Wizard. To modify any of the settings, click **Back** to return to the **Connecting to the Internet** window. If the configuration is correct, click **Next** to proceed to the **Congratulations** window.

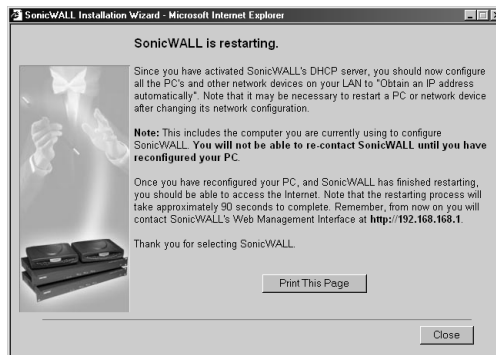
Congratulations



Note: The new SonicWALL LAN IP address, displayed in the **URL** field of the **Congratulations** window, is used to log in and manage the SonicWALL.

11. Click **Restart** to restart the SonicWALL.

Restarting



Note: The final window provides important information to help configure the computers on the LAN. Click **Print this Page** to print the window information.

12. The SonicWALL takes 90 seconds to restart. During this time, the yellow **Test** LED is lit. Click **Close** to exit the SonicWALL Wizard.

Configuring NAT Enabled with PPPoE

The first time you access the SonicWALL Management interface, the SonicWALL **Installation Wizard** automatically launches and begins the installation process.



The SonicWALL **Installation Wizard** simplifies the initial installation and configuration of the SonicWALL. The **Wizard** provides a series of menu-driven instructions for setting the administrator password and configuring the settings necessary to access the Internet.

Note: Be sure to have your network information including your WAN IP address, subnet mask, and DNS settings ready. This information is obtained from your ISP.

Note: To bypass the Wizard, click **Cancel**. Then log into the SonicWALL **Management Interface** by entering the User Name "admin" and the Password "password".

To configure your SonicWALL appliance, read the instructions on the Wizard **Welcome** window and click **Next** to continue.

Setting the Password



The screenshot shows a web browser window titled "SonicWALL Installation Wizard - Microsoft Internet Explorer". The main heading is "Set Your Password". On the left is a graphic of a hand holding a glowing butterfly above a SonicWALL device. The text explains the importance of a good administrator password and provides instructions on password requirements. It includes two input fields: "New Password:" and "Confirm New Password:". Below these is a checkbox labeled "Use Global Management System" with the instruction: "If you plan to manage your SonicWALL remotely using the SonicWALL Global Management System, check the following checkbox." At the bottom are buttons for "< Back", "Next >", and "Cancel".

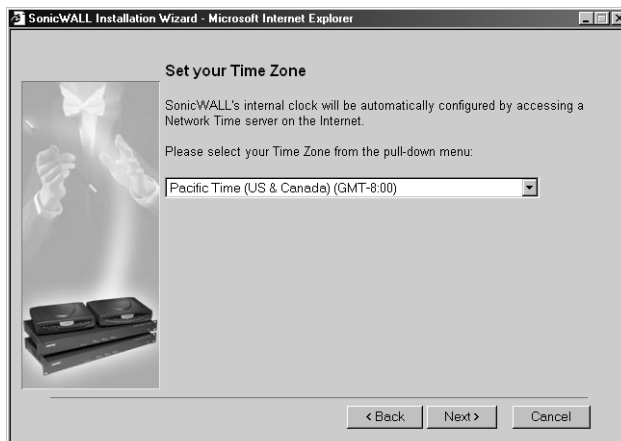
Note: *It is very important to choose a password which cannot be easily guessed by others.*

1. To set the password, enter a new password in the **New Password** and **Confirm New Password** fields.

This window also displays the **Use SonicWALL Global Management System** check box. SonicWALL Global Management System (SonicWALL GMS) is a web browser-based security management system. **SonicWALL GMS** allows enterprises and service providers to monitor and manage hundreds of remote SonicWALLs from a central location. For more information about SonicWALL GMS, contact SonicWALL Sales at (408) 745-9600.

2. Do not select the **Use Global Management System** check box unless your SonicWALL is remotely managed by SonicWALL GMS. Click **Next** to continue.

Setting the Time and Date



The screenshot shows a web browser window titled "SonicWALL Installation Wizard - Microsoft Internet Explorer". The main heading is "Set your Time Zone". On the left is a graphic of a hand holding a glowing butterfly above a SonicWALL device. The text states: "SonicWALL's internal clock will be automatically configured by accessing a Network Time server on the Internet." It then says: "Please select your Time Zone from the pull-down menu:" followed by a pull-down menu showing "Pacific Time (US & Canada) (GMT-8:00)". At the bottom are buttons for "< Back", "Next >", and "Cancel".

3. Select the appropriate **Time Zone** from the **Time Zone** menu. The SonicWALL internal clock is set automatically by a Network Time Server on the Internet. Click **Next** to continue.

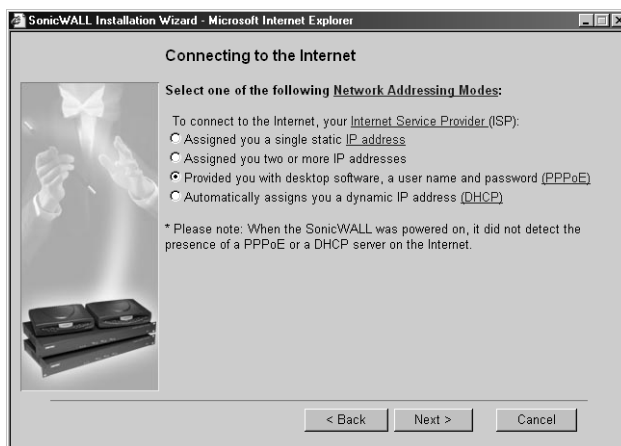
Connecting to the Internet



The **Connecting to the Internet** screen lists the information required to complete the installation. You need instructions for obtaining an IP address automatically or IP addresses from your ISP. You should have all of this information from your ISP on your ISP checklist found at the beginning of this guide.

4. Confirm that you have the proper network information necessary to configure the SonicWALL to access the Internet. Click the hyperlinks for definitions of the networking terms. Click **Next** to proceed to the next step.

Selecting Your Internet Connection



5. Select **Provided you with desktop software, a user name and password (PPPoE)**, if your ISP has provided you with desktop software, a user name and password information.

Setting the User Name and Password for PPPoE

6. If you select **Provided you with desktop software, a user name and password (PPPoE)** window, the **SonicWALL ISP Settings (PPPoE)** window is displayed.

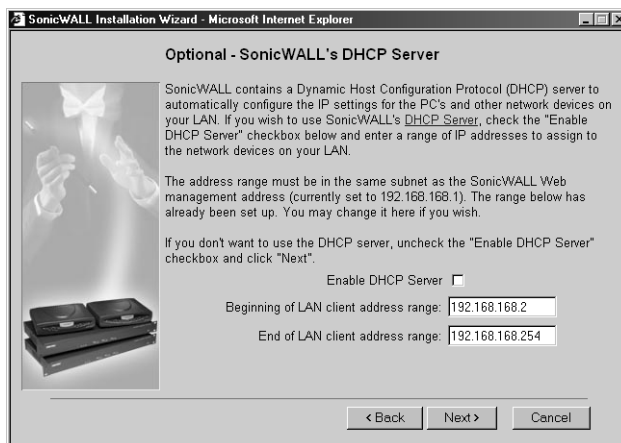
7. Enter the User Name and Password provided by your ISP into the **User Name** and **Password** fields.

Configuring LAN Network Settings

8. The **Fill in information about your LAN** window allows the configuration of the SonicWALL LAN IP Address and the LAN Subnet Mask. The SonicWALL LAN IP Address is

the private IP address assigned to the LAN port of the SonicWALL. The **LAN Subnet Mask** defines the range of IP addresses on the LAN. The default values provided by the SonicWALL work for most networks. If you do not use the default settings, enter the SonicWALL LAN settings and click **Next** to continue.

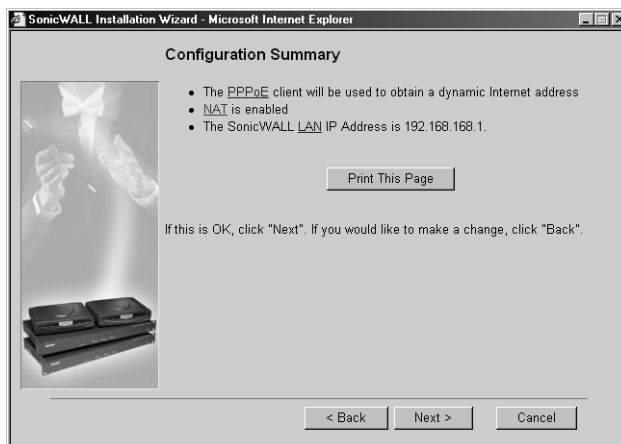
Configuring the SonicWALL DHCP Server



9. The **Optional-SonicWALL DHCP Server** window configures the SonicWALL DHCP Server. If enabled, the SonicWALL automatically configures the IP settings of computers on the LAN. To enable the DHCP server, select the **Enable DHCP Server** check box, and specify the range of IP addresses that are assigned to computers on the LAN.

If the **Enable DHCP Server** check box is not selected, the DHCP Server is disabled. Click **Next** to continue.

Configuration Summary



10. The **Configuration Summary** window displays the configuration defined using the **Installation Wizard**. To modify any of the settings, click **Back** to return to the **Connecting to the Internet** window. If the configuration is correct, click **Next** to proceed to the **Congratulations** window.

Congratulations



Note: The new SonicWALL LAN IP address, displayed in the **URL** field of the **Congratulations** window, is used to log in and manage the SonicWALL.

11. Click **Restart** to restart the SonicWALL.

Restarting



Configuring NAT with DHCP Client Mode

Accessing the Installation Wizard

The first time you access the SonicWALL Management interface, the SonicWALL **Installation Wizard** automatically launches and begins the installation process.



The SonicWALL **Installation Wizard** simplifies the initial installation and configuration of the SonicWALL. The **Wizard** provides a series of menu-driven instructions for setting the administrator password and configuring the settings necessary to access the Internet.

Note: To bypass the Wizard, click **Cancel**. Then log into the SonicWALL **Management Interface** by entering the User Name "admin" and the Password "password".

1. To configure your SonicWALL appliance, read the instructions on the Wizard **Welcome** window and click **Next** to continue.

Setting the Password



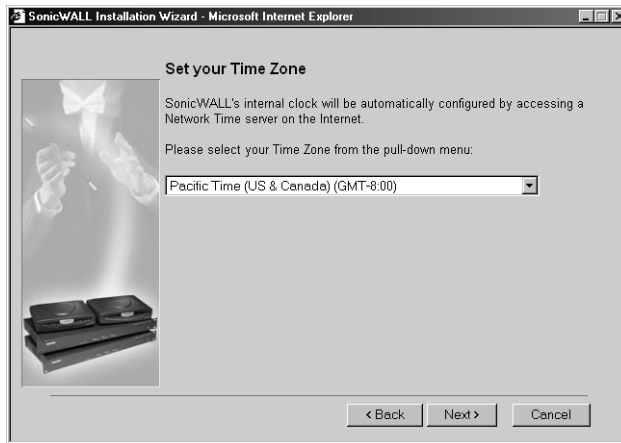
Note: It is very important to choose a password which cannot be easily guessed by others.

2. To set the password, enter a new password in the **New Password** and **Confirm New Password** fields.

This window also displays the **Use SonicWALL Global Management System** check box. SonicWALL Global Management System (SonicWALL GMS) is a web browser-based security management system. **SonicWALL GMS** allows enterprises and service providers to monitor and manage hundreds of remote SonicWALLs from a central location. For more information about SonicWALL GMS, contact SonicWALL Sales at (408) 745-9600.

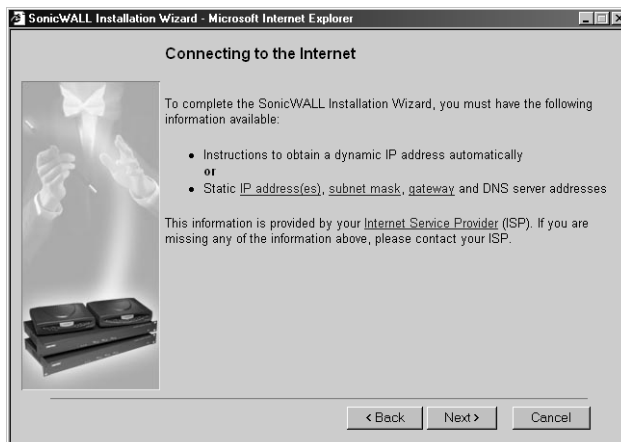
3. Do not select the **Use Global Management System** check box unless your SonicWALL is remotely managed by SonicWALL GMS. Click **Next** to continue.

Setting the Time and Date



4. Select the appropriate **Time Zone** from the **Time Zone** menu. The SonicWALL internal clock is set automatically by a Network Time Server on the Internet. Click **Next** to continue.

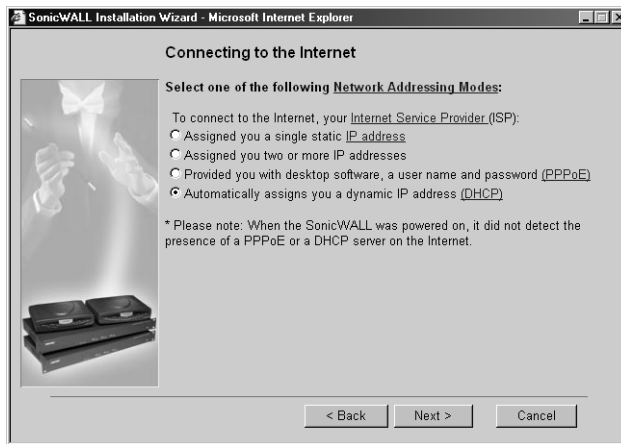
Connecting to the Internet



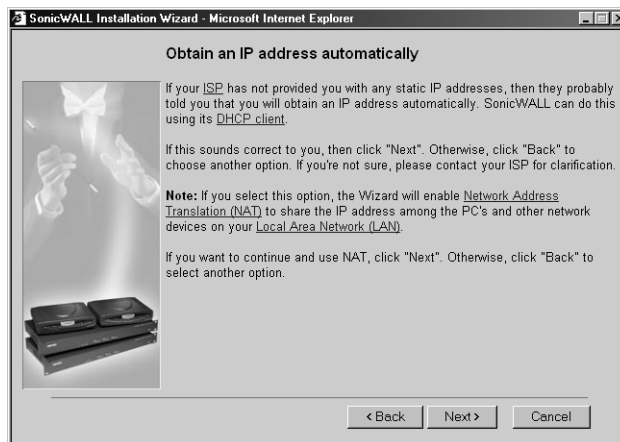
The **Connecting to the Internet** screen lists the information required to complete the installation. You need instructions for obtaining an IP address automatically or IP addresses from your ISP. You should have all of this information from your ISP on your ISP checklist found at the beginning of this guide.

5. Confirm that you have the proper network information necessary to configure the SonicWALL to access the Internet. Click the hyperlinks for definitions of the networking terms. Click **Next** to proceed to the next step.

Selecting Your Internet Connection



6. Select the option, **Automatically assigns you a dynamic IP address (DHCP)**, the **Obtain an IP address automatically** window is displayed.



The **Obtain an IP address automatically** window states that the ISP dynamically assigns an IP address to the SonicWALL. To confirm this, click **Next**.

Configuring LAN Network Settings



7. The **Fill in information about your LAN** window allows the configuration of the SonicWALL LAN IP Address and the LAN Subnet Mask. The SonicWALL LAN IP Address is the private IP address assigned to the LAN port of the SonicWALL. The **LAN Subnet Mask** defines the range of IP addresses on the LAN. The default values provided by the SonicWALL work for most networks. If you do not use the default settings, enter the SonicWALL LAN settings and click **Next** to continue.

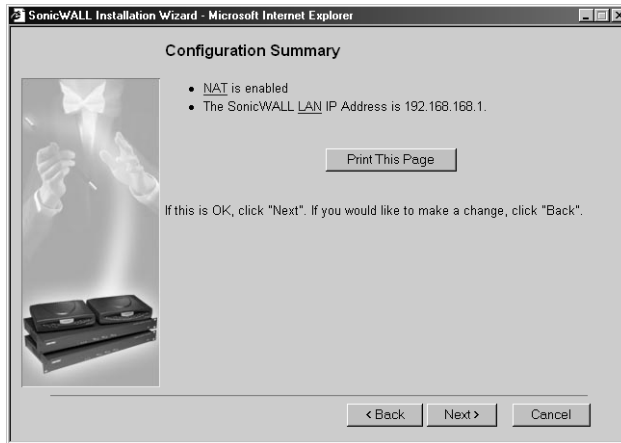
Configuring the SonicWALL DHCP Server



8. The **Optional-SonicWALL DHCP Server** window configures the SonicWALL DHCP Server. If enabled, the SonicWALL automatically configures the IP settings of computers on the LAN. To enable the DHCP server, select the **Enable DHCP Server** check box, and specify the range of IP addresses that are assigned to computers on the LAN.

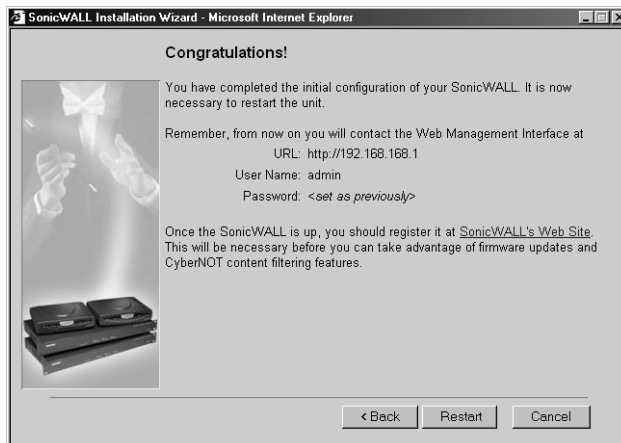
If the **Enable DHCP Server** check box is not selected, the DHCP Server is disabled. Click **Next** to continue.

Configuration Summary



9. The **Configuration Summary** window displays the configuration defined using the **Installation Wizard**. To modify any of the settings, click **Back** to return to the **Connecting to the Internet** window. If the configuration is correct, click **Next** to proceed to the **Congratulations** window.

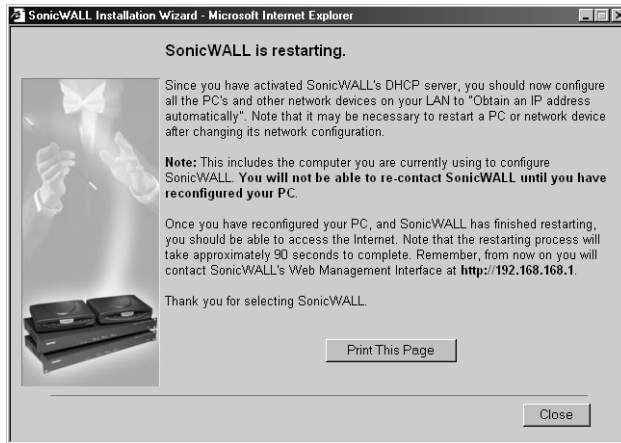
Congratulations



Note: The new SonicWALL LAN IP address, displayed in the **URL** field of the **Congratulations** window, is used to log in and manage the SonicWALL.

10. Click **Restart** to restart the SonicWALL.

Restarting

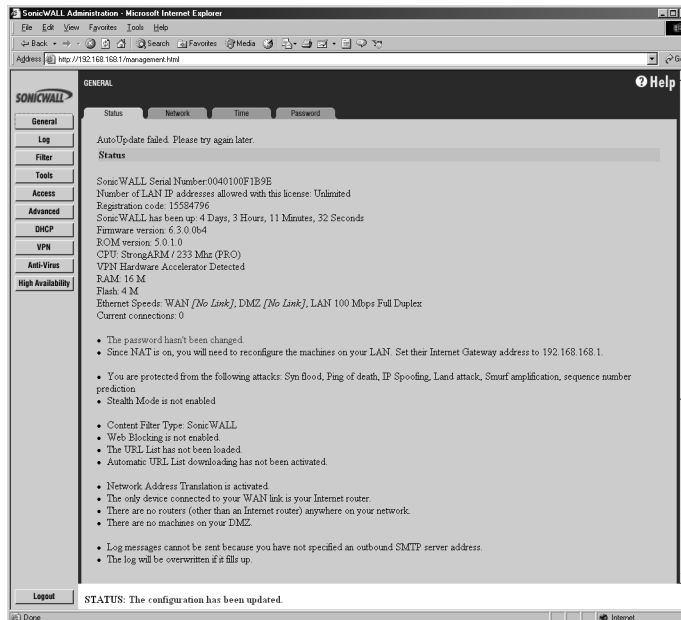


Note: The final window provides important information to help configure the computers on the LAN. Click **Print this Page** to print the window information.

The SonicWALL takes 90 seconds to restart. During this time, the yellow **Test** LED is lit. Click **Close** to exit the SonicWALL Wizard.

Log into the SonicWALL Management Interface

Once the SonicWALL restarts, contact the SonicWALL Management interface at the new **SonicWALL LAN IP address**. Enter the **User Name** “admin” and enter the new administrator password to log into the SonicWALL. The **Status** page is displayed.



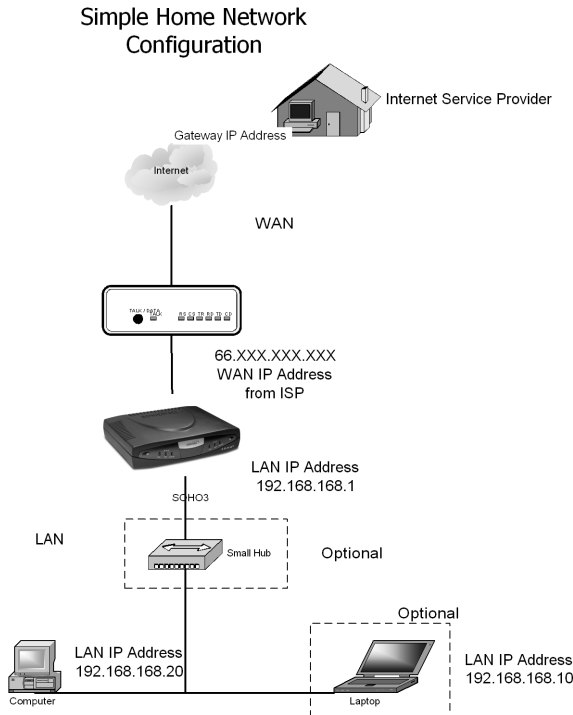
The **Status** tab displays the following information:

- **SonicWALL Serial Number** - the serial number of the SonicWALL unit.
- **Number of LAN IP addresses allowed with this license** - number of IP addresses that can be managed by the SonicWALL
- **Registration code** - the registration code generated when the SonicWALL is registered at <<http://www.mysonicwall.com>>.
- **SonicWALL Active time** - the length of time in days, hours and minutes that the SonicWALL is active.
- **Firmware version** - shows the current version number of the firmware installed on the SonicWALL.
- **ROM version** - the version number of the ROM.
- **CPU** - the type and speed of the SonicWALL processor.
- **VPN Hardware Accelerator Detected** - indicates the presence of a VPN Hardware Accelerator in the firewall. This allows better throughput for VPN connections.
- **RAM** - the amount of Random Access Memory on the board
- **Flash** - the size of the flash on the board
- **Ethernet Speeds** - network speeds of the network card
- **Current Connections** - number of computers connected to the SonicWALL.

Other SonicWALL general status information is displayed in this section relating to other features in the SonicWALL such as the type of network settings in use, log settings, content filter use, and if Stealth Mode is enabled on the SonicWALL.

Refer to the SonicWALL Internet Security Appliance User's Guide for detailed information on managing and configuring your SonicWALL.

Basic Network Terminology and Configurations



The above diagram depicts a simple home network solution with the SonicWALL Internet Security appliance.

Note: *The WAN IP address is an example of an IP address and does not reflect the actual IP address supplied by your ISP.*

Basic Networking Terminology

This section provides a non-technical overview of the network protocols supported by the SonicWALL and includes a discussion of Internet Protocol (IP) addressing.

It can be helpful to review a book on TCP/IP for an overview of protocols such as TCP (Transmission Control Protocol), UDP (User Datagram Protocol), and ICMP (Internet Control Message Protocol). The following book is recommended for beginner and intermediate network administrators:

Teach Yourself TCP/IP in 14 Days Second Edition

Timothy Parker, Ph.D

SAMS Publishing

ISBN # 0-672-30885-1

Network Hardware Components

- **Computers** - IBM- compatible, MAC, notebooks, and PDAs
- **Resources** - printers, fax machines, tape backup units, and file storage devices
- **Cables** - crossover, ethernet
- **Connectors** - bridges, routers
- **Network Interface Card (NIC)** - a card installed inside a computer that physically connects a computer to a network and controls the flow of data from the network to the computer. The NIC has a port where the network cable is connected.

Network Types

- **LAN** stands for **Local Area Network**. Local area refers to a network in one location, Local Area Networks connect computers and devices close to each other such as on one floor of a building, one building, or a campus. LANs can connect as few as two computers or as many as 100 computers.
- **WAN (Wide Area Network)** connects LANs together. The networks that make up a WAN can be located throughout a country or even around the world. If a single company owns a WAN, it is often referred to as an enterprise network. The Internet is currently the largest WAN.

Firewalls

A firewall is a software or hardware system that prevents unauthorized outside access, theft, deletion, or modification of information stored on a local network. Typically, unauthorized access would be via an organization's Internet connection.

Gateways

A gateway can be a computer that acts as a connector between a private internal network and another network such as the Internet. A gateway used as a firewall can transmit information from an internal network to the Internet. Also, gateways can examine incoming information and determine if the information is allowed access to the network.

Network Protocols

The method that used to regulate a workstation's access to a computer network to prevent data collisions. The SonicWALL uses the TCP/IP protocol.

- **TCP/IP** - Internet Protocol, or "IP", provides connectionless data transfer over a TCP/IP network. Since IP alone does not provide end-to-end data reliability as well as some other services, other protocols such as TCP (Transmission Control Protocol) can be added to provide these services. In TCP/IP, TCP works with IP to ensure the integrity of the data traveling over the network. TCP/IP is the protocol of the Internet.
- **FTP** - File Transfer Protocol (FTP) is used to transfer documents between different types of computers on a TCP/IP network.

- **HTTP** - HyperText Transfer Protocol (HTTP) is a widely used protocol to transfer information over the Internet. Typically, it is used to transfer information from Web servers to Web browsers.
- **UDP** - User Datagram Protocol (UDP) transfers information using virtual ports between two applications on a TCP/IP network. Slightly faster than TCP, it is not as reliable.
- **DNS** - Domain Name System (DNS) is a protocol that matches Internet computer names to their corresponding IP addresses. By using DNS, a user can type in a computer name, such as www.sonicwall.com, instead of an IP address, such as 192.168.168.168, to access a computer.
- **DHCP** - Dynamic Host Configuration Protocol (DHCP) allows communication between network devices and a server that administers IP numbers. A DHCP server leases IP addresses and other TCP/IP information to DHCP client that requests them. Typically, a DHCP client leases an IP address for a period of time from a DHCP server which allows a larger number of clients to use a set pool of IP addresses.
- **WINS** - Windows Internet Naming System (WINS), used on Microsoft® TCP/IP Networks, matches Microsoft® network computer names to IP addresses. Using this protocol allows computers on the Microsoft® network to communicate with other networks and computers that use the TCP/IP suite.
- **HTTPS** - Secure HyperText Transfer Protocol (HTTPS) is a protocol to transfer information securely over the Internet. HTTPS encrypts and decrypts information exchanged between a Web server and a Web browser using Secure Socket Layer (SSL).
- **SMTP** - Simple Mail Transfer Protocol (SMTP) is used to send and receive e-mail messages. Typically, SMTP is used only to send e-mail while another protocol, POP3, is used to receive e-mail messages.
- **POP3** - Post Office Protocol 3 (POP3) is used to receive e-mail messages and storing messages on a server, referred to as a POP server.
- **ICMP** - Internet Control Messages Protocol (ICMP) reports errors and controls messages on a TCP/IP network. PING uses ICMP protocol to test if a network device is available.

IP Addressing

To become part of an IP network, a network device must have an IP address. An IP address is a unique number that differentiates one device from another on the network to avoid confusion during communication. To help illustrate IP addresses, the following sections compare an IP address to the telephone numbering system, a system that is used every day.

Like a phone number with its long distance “1” and area code, an IP address contains a set of four numbers. While we separate phone number components with dashes, for example 1-408-555-1212, IP address number components are separated by decimal points or dots (called dotted decimal notation), for example 123.45.67.89. Because computers use a binary number system, each number in the set must be less than 255.

There are three components of IP addressing:

- **IP address**
- **Subnet mask**
- **Default gateway**

IP Address

Just as each household or business requires a unique phone number, a networked device (such as a computer, printer, file server, or router) must have a unique IP address. Unlike phone numbers, an IP address requires the entire number when communicating with other devices.

There are three classes of IP addresses: A, B, and C. Like a main business phone number that one can call, and then be transferred through interchange numbers to an individual's extension number, the different classes of IP addresses provide for varying levels of "interchanges" or subnetworks, and "extensions" or device numbers. The classes are based on estimated network size:

- Class A — used for very large networks with hundreds of subnetworks and thousands of devices. Class A networks use IP addresses between 0.0.0.0 and 127.0.0.0.
- Class B — used for medium to large networks with 10–100 subnetworks and hundreds of devices. Class B networks use IP addresses between 128.0.0.0 and 191.0.0.0.
- Class C — used for small to medium networks, usually with only a few subnetworks and less than 250 devices. Class C networks use IP addresses between 192.0.0.0 and 223.0.0.0.

Just as one would go to the phone company for a phone number, there are controlling bodies for IP addresses. The overall controlling body for IP addresses worldwide is InterNIC. Businesses or individuals can request one or many IP addresses from InterNIC. It's a good idea to estimate the network's future growth when requesting the class and number of IP addresses requested.

Subnet Mask

The IP addressing system allows subnetworks or "interchanges" to be created and device numbers or "extensions" to be established within these subnetworks. These numbers are created using a mathematical device called a subnet mask. A subnet mask, like the IP address, is a set of four numbers in dotted decimal notation. Subnet masks typically take three forms:

- 255.0.0.0
- 255.255.0.0
- 255.255.255.0

The number 255 "masks" out the corresponding number of the IP address, resulting in IP address numbers that are valid for the network. For example, an IP address of 123.45.67.89 and a subnet mask of 255.255.255.0 results in a sub network number of 123.45.67.0 and a device number of 89. The IP address numbers that are actually valid to use are those assigned by InterNIC. Otherwise, anyone could set up IP addresses that are duplicates of those at another company.

The subnet mask used for the network typically corresponds to the class of IP address assigned. If the IP address is Class A, it uses a subnet mask of 255.0.0.0. Class B addresses use a subnet mask of 255.255.0.0, and Class C IP addresses use a subnet mask of 255.255.255.0.

Default Gateway

A default gateway is like a long distance operator. Users can dial the operator to get assistance connecting to the end party. In complex networks with many subnetworks, gateways keep traffic from traveling between different subnetworks unless addressed to travel there. While this helps to keep overall network traffic more manageable, it also introduces another level of complexity.

To communicate with a device on another network, one must go through a gateway that connects the two networks. Therefore, users must know the default gateway IP address. If there is no gateway in the network, use an IP address of 0.0.0.0 in fields that apply to a default gateway.

Network Address Translation (NAT)

NAT hides internal IP addresses by converting all internal host IP addresses to the IP address of the firewall as packets are routed through the firewall. The firewall then retransmits the data payload of the internal host from its own address using a translation table to keep track of which sockets on the exterior interface equate to which sockets on the interior interface. To the Internet, all of the traffic on the network appears to come from the same computer.

Nodes

A node is a device, such as a PC or a printer, on a network with an IP address. The feature chart shows how many node licenses for PCs or printers are included with a SonicWALL Internet Security appliance. The TELE3 has a non-upgradeable 5-node license, but the SOHO3 is upgradeable up to have 10, 50, or an unlimited number of node licenses. The PRO 100, PRO 200, and PRO 300 have an unlimited number of node licenses.

The TELE3, SOHO3-10, and SOHO3-50 allow a maximum of 5, 10, or 50 LAN IP addresses, respectively, to exist on the LAN (Local Area Network). The licenses for the nodes are counted cumulatively, not simultaneously. When the SonicWALL is turned on and configured, the SonicWALL begins to count IP addresses against the license, and continues to count new LAN IP addresses accessing the Internet until the appliance is rebooted.

When a computer or other device connects to the LAN port of the SonicWALL, it is detected via broadcast and stores the computer or other device IP address in memory. If 5, 10, or 50 IP addresses have been stored in the SonicWALL, the SonicWALL does not permit any additional machines to access the Internet. Therefore, the SonicWALL restricts the number of IP addresses on the LAN, not the number of simultaneous connections to the Internet.

If you have fewer than the maximum number of computers or other devices on your LAN, but it appears that the IP license limit is exceeded, download a **Tech Support Report** and review the devices with IP addresses. Rogue devices such as printers are filling up the SonicWALL IP address limit. **Tech Support Reports** are explained in the **Tools** chapter of this manual.

Additionally, computers with two (2) Network Interface Cards (NIC) can take up two IP addresses. You must reconfigure your network to avoid these problems by turning off IP forwarding on Windows® NT or Windows2000® servers using two NICs.

3 Registering at mySonicWALL.com

After you complete the initial installation and configuration of your SonicWALL, you should register your SonicWALL Internet Security Appliance at <http://www.mysonicwall.com>. You must create a user account to activate and manage services, as well as access technical support, for all of your SonicWALL Internet Security Appliances.

Important: You must register your SonicWALL on mySonicWALL.com to access technical support. By registering your SonicWALL, you provide the initial information necessary for technical support if any problems arise during installation.

ONLINE SUPPORT

Submit your request
for support here.
For registered products only

Note: User interface screens may vary as mySonicWALL.com is updated with new features. For the latest version of this manual and other SonicWALL documentation, go to <http://www.sonicwall.com/products/documentation.html>

What is mySonicWALL.com?

MySonicWALL.com delivers a convenient, centralized way to register all your SonicWALL Internet Security appliances and Security Services. It eliminates the need to individually register SonicWALL appliances and upgrades to streamline the management of all your SonicWALL security services. Instead of registering each SonicWALL product individually, using mySonicWALL.com allows you to have a single user profile where you can manage all of your product registrations and security services.

What Can I Do with mySonicWALL.com?

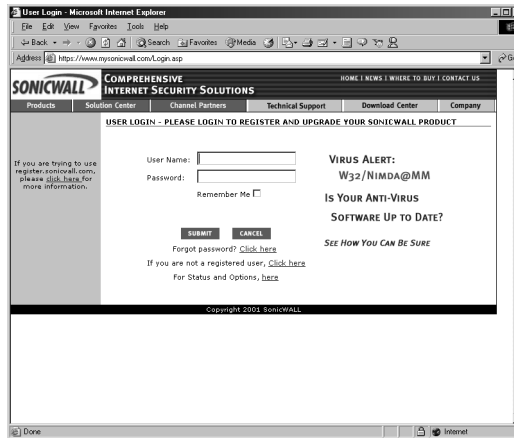
You can do the following with MySonicWALL.com:

- Centrally register all your SonicWALL appliances and services
- Access firmware and security service updates
- Get SonicWALL alerts on services, firmware, and products
- Check status of your SonicWALL services and upgrades linked to each registered SonicWALL Internet security appliance
- Manage (activate, change or delete) your SonicWALL security services online

Creating a New User Account

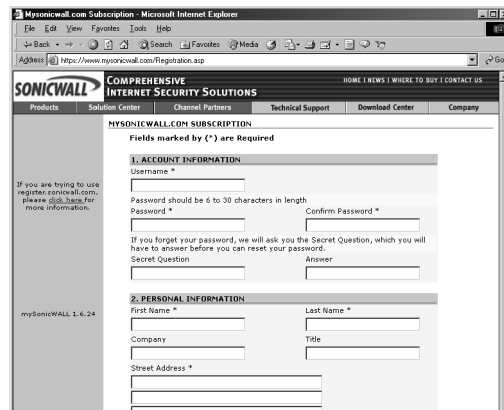
If you currently have a mySonicWALL.com user account, you can skip this section and proceed to **Adding New Appliances or Services**.

1. Type <http://www.mysonicwall.com> into your web browser.



2. As a new user, locate the statement, “If you are not a registered user, [click here](#).” Click the link, and an information form appears.

Account Information



3. All field marked with an * are required fields. Be sure to fill out the form completely before submitting to the user database. Create a **User Name** and password for your mySonicWALL account. Confirm the password by typing it in the **Confirm Password** field. For your convenience, you can record the information below.

User Name: _____ Password: _____

Important: You must remember your user name and password until you have activated your account. You cannot obtain your password if you forget it before activating your account. If you do forget your password before your user account is active, you have to create a new user account.

Note: If your security policy doesn't allow you to write down passwords, write down a hint or a prompt for your password.

4. Create a **Secret Question and Answer** to prompt you for your password if you forget it.

Personal Information

5. Complete the **Personal Information** section of the Registration form.

The screenshot shows a web browser window displaying the SonicWALL Registration form. The browser's address bar shows the URL <http://www.mysonicwall.com/Registration.asp>. The form is titled "mySonicWALL 1.6.24" and includes a sidebar on the left. The main content area is divided into sections: "2. PERSONAL INFORMATION" and "3. PREFERENCES".

2. PERSONAL INFORMATION

If you forget your password, we will ask you the Secret Question, which you will have to answer before you can reset your password.

Secret Question: Answer:

First Name * Last Name *

Company Title

Street Address *

City *

State * (If in the United States) Province * (If outside the United States)

Country * Postal Code *

Phone Number * Fax Number

Please note that a valid E-mail address is required to receive the Subscription Code. You will need this code to activate your account.

E-mail Address * Confirm E-mail Address *

URL

3. PREFERENCES

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

☐ Yes, I would like to be a Beta Tester

☐ No, I do not want to be contacted by SonicWALL via e-mail

☒ I would like to receive Security Alerts from SonicWALL

☒ I would like to receive Product Information from SonicWALL

Copyright 2002 SonicWALL

Be sure to enter the correct e-mail address as the subscription code for your SonicWALL user account is e-mailed to you. The subscription code is necessary to activate your account.

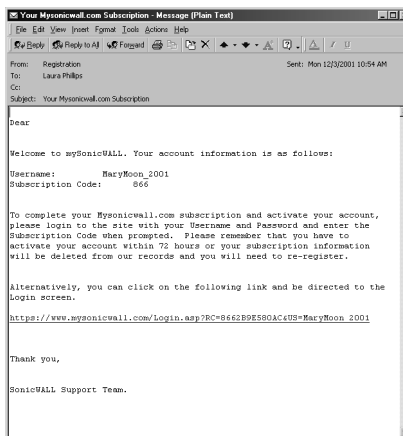
6. Select your time zone from the **Time Zone** menu, and then select any or all of the following options:
 - **Yes, I would like to be a Beta Tester.**
 - **No, I do not want to be contacted by SonicWALL via e-mail.**
 - **I would like to receive security alerts from SonicWALL.**
 - **I would like to receive product information from SonicWALL.**
7. Click **Submit**.
8. Review your information carefully to ensure that it is accurate. Click **Back** on your Web browser navigation bar to go back to the form and re-enter any information.

The screenshot shows a web browser window titled "Confirm Mysonicwall.com Subscription - Microsoft Internet Explorer". The address bar shows "https://www.mysonicwall.com/Registration.asp". The page features the SonicWALL logo and a navigation menu with links: Products, Solution Center, Channel Partners, Technical Support, Download Center, and Company. The main heading is "CONFIRM MYSONICWALL.COM SUBSCRIPTION". Below this, a message states: "Please confirm the information provided. If you would like to modify any information, use the browser's Back button. Please note that the password is not displayed for security reasons." The form contains the following fields:

User Name: SonicWALL_User	
Personal Information:	Contact Information:
Jane Doe	Time Zone: (GMT-08:00)Pacific Time(US & Canada);Tijuana
1234 Any Street	Phone: 925-555-1212
Anytown, CA, 94588	Email: anyone@anycompany.com
United States	Every Company, IT Manager http://
Secret Question: World Series	
Answer: Winning_Team	

At the bottom of the form is an "OK" button. A copyright notice "Copyright 2001 SonicWALL" is visible at the bottom of the page.

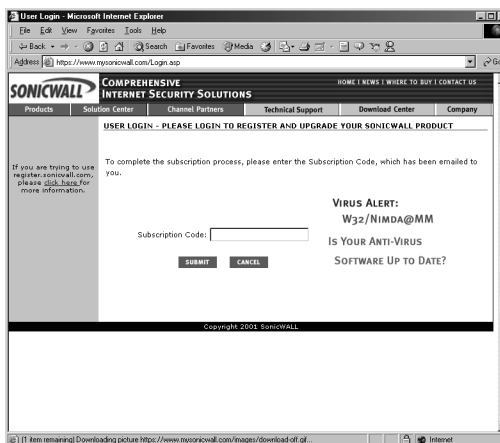
9. If all the information is correct, click **OK**. A confirmation message appears notifying you that your account must be activated within 72 hours of creating it. You also receive an e-mail with your subscription key in it. You can return to the mySonicWALL.com login screen, or alternatively, click on the link within the e-mail message.



Note: For security reasons, the subscriber name and part of the subscription code are masked.

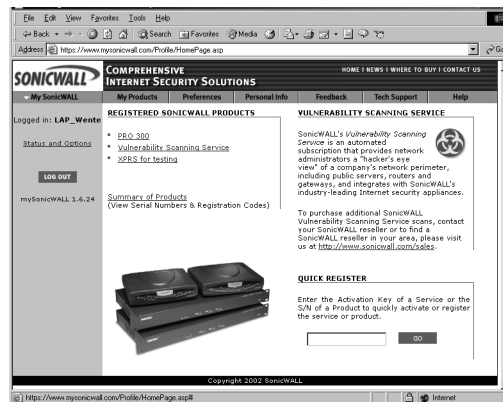
10. The next time you access your mySonicWALL.com account, you must provide your subscription code to activate your account. Write your subscription code below.

Subscription code: _____



11. Type the subscription code you received via e-mail into the **Subscription Code** field, and click **Submit**. Your Account Management interface appears and you can now

register SonicWALL Internet Security appliances or services. You can also delete or move appliances from your user account.



Problems Creating a MySonicWALL.com user Account?

If you're having trouble creating a user account on the mySonicWALL.com website, be sure to check the following items in your browser:

- Accept Cookies
- Internet Explorer 5.0 or higher
- Netscape 4.5 or higher
- Allow Java scripts
- Correct Password for MysonicWALL.com

User Name and Password Functions

If you forget your user name, you must send an e-mail message to Tech Support requesting your user name. Be sure to include the e-mail address used to create the MysonicWALL.com account.

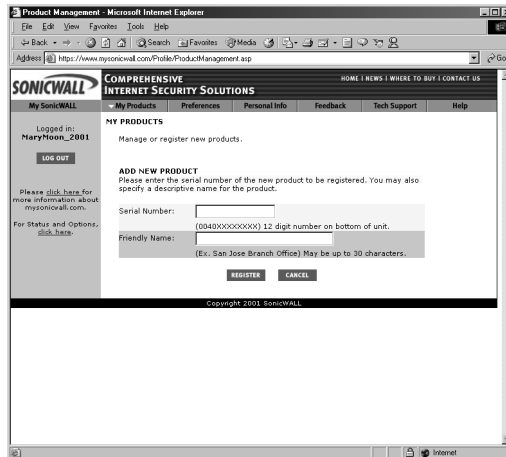
If you forget your password, use the **Forget Password? [Click here.](#)** link to use your **Secret Question and Answer** to remember your password. If you did not set up a **Secret Question and Answer** for your password, a link appears allowing you to reset your password. Be sure to use the same user name and e-mail address as your MysonicWALL.com user account.

Registering Your SonicWALL Internet Security Appliance

To register your SonicWALL Internet Security appliance, click the hyperlink, **Click Here**, in the **Registered SonicWALL Products** section. Or to quickly register your appliance, enter the **Activation Key** of a service, or a SonicWALL Internet Security appliance serial number into the field in the **Quick Register** section.

Click Here Registration

If you use the hyperlink, **Click Here**, a **My Products** page appears, and you can register your appliance by entering the Serial Number in the **Add New Product** field. You can also create a **Friendly Name**, such as San Francisco Office, to identify the SonicWALL. Using **Friendly Names** can assist you with managing multiple SonicWALLs.



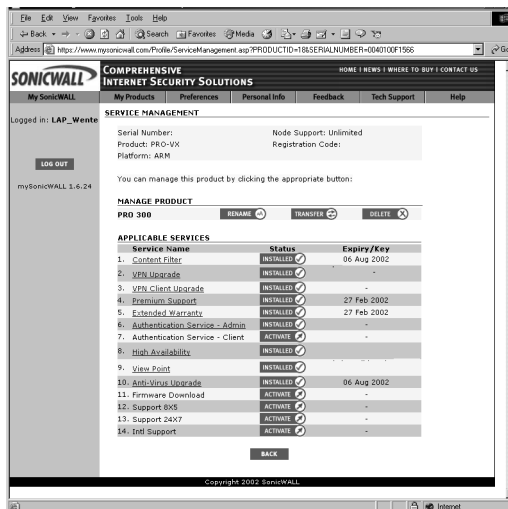
Quick Registration

To quickly register a SonicWALL Internet Security appliance, type the serial number in the field under the **Quick Register** section, and click **Go**. The serial number automatically appears in the **Serial Number** field. You can then create a **Friendly Name** for the appliance. If you type the incorrect serial number into the Serial Number field, a message stating that the appliance is previously registered may be returned. Write your SonicWALL serial number below.

SonicWALL Serial Number: _____



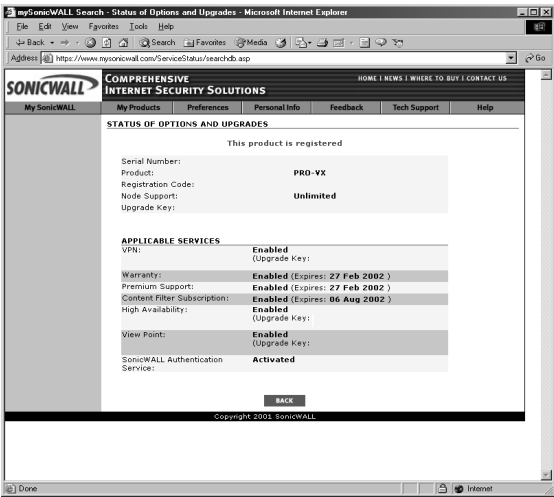
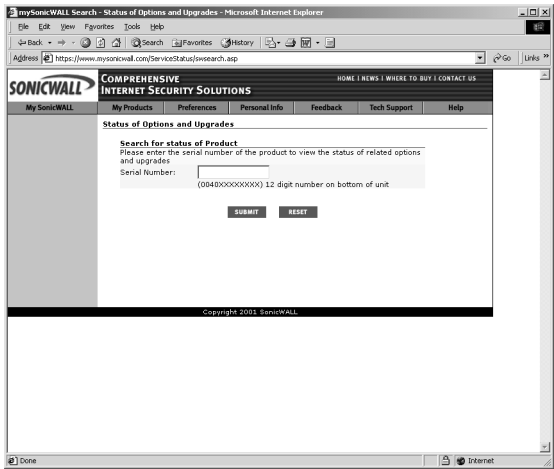
After you register the SonicWALL, the **Friendly Name** appears as a hyperlink under Registered SonicWALL Products. Click on the **Friendly Name** to view the services activated on the appliance.



Note: Services may vary from model to model and may not have the same activated fields as the above appliance. Also, the serial number, registration code, and activation keys are masked for security reasons.

Status and Options

Click **Status and Options** underneath the login information to search for the status and options relating to a particular SonicWALL appliance. Enter the SonicWALL serial number to search for the related information.



Information displayed includes

- **Serial Number**
- **Product**
- **Registration Code**
- **Node Support Upgrade Key**

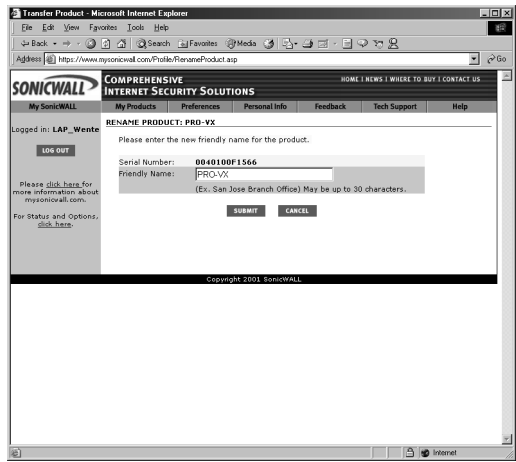
There is also a list of applicable services with their activation keys as well as expiration dates for subscriptions.

Managing Your SonicWALL

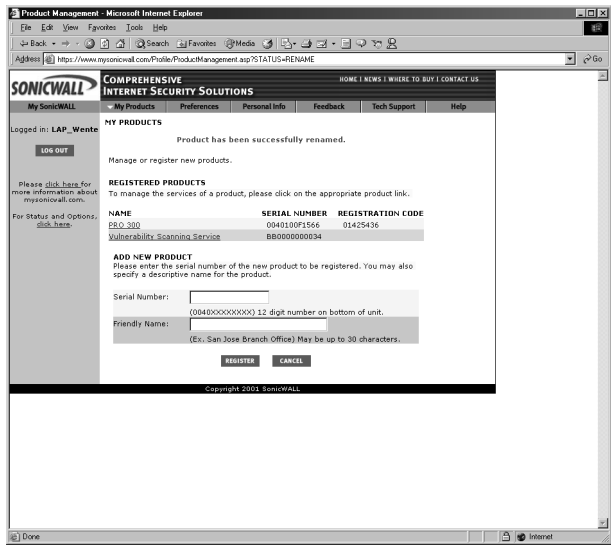
You can rename your SonicWALL, transfer your SonicWALL, or delete your SonicWALL in this section of **Services Management**.

Renaming Your SonicWALL

You can rename your SonicWALL at any time in order to manage your SonicWALLs. To rename your SonicWALL, click **Rename** in the **Manage Products** section. Type the new name in the **Friendly Name** field, and click **Submit**.



After clicking **Submit**, a new page appears with the message that you have successfully renamed your SonicWALL.



Transfer Product

You can transfer a SonicWALL to another mySonicWALL.com user at any time. Transferring a SonicWALL is necessary if you sell the appliance to another user, or if you want to transfer it to another person in your company. For example, the sales manager for the East Coast has left, and you were managing the services for his SonicWALL. However, another manager may have an immediate need for the SonicWALL, and requests that you transfer the appliance to him. To transfer a SonicWALL to another user, click **Transfer** in the **Manage Product** section.

The screenshot shows a web browser window titled "Transfer Product - Microsoft Internet Explorer". The address bar shows the URL "http://www.mysonicwall.com/Profile/TransferProduct.asp". The page header includes the SonicWALL logo and navigation links: "My Products", "Preferences", "Personal Info", "Feedback", "Tech Support", and "Help". The main content area is titled "TRANSFER PRODUCT: PRO-VX" and contains a form with the following fields: "New User Name:" and "E-mail ID:". Below these fields are "SUBMIT" and "CANCEL" buttons. A message states: "Please specify the username and E-mail address. An E-mail confirmation will be sent." The left sidebar contains a "LOG OUT" button and links for more information about mySonicWALL.com.

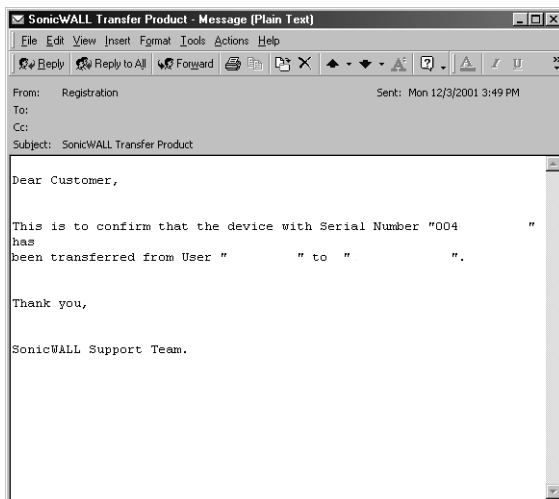
Type in the **User Name** of the new owner, and the e-mail address ID in the appropriate fields. Click **Submit**. A page is returned with the message that you've successfully transferred the SonicWALL to the new user.

The screenshot shows a web browser window titled "Product Management - Microsoft Internet Explorer". The address bar shows the URL "http://www.mysonicwall.com/Profile/ProductManagement.asp?STATUS=TRANSFER". The page header includes the SonicWALL logo and navigation links: "My Products", "Preferences", "Personal Info", "Feedback", "Tech Support", and "Help". The main content area is titled "MY PRODUCTS" and displays a message: "Product has been successfully transferred. Manage or register new products." Below this message is a table with the following data:

NAME	SERIAL NUMBER	REGISTRATION CODE
Vulnerability Scanning Service	8B0000000034	

Below the table, there is a section titled "ADD NEW PRODUCT" with a form for entering the serial number and a friendly name. The form includes a "Serial Number:" field with a placeholder "(0040XXXXXXX) 12 digit number on bottom of unit." and a "Friendly Name:" field with a placeholder "(Ex. San Jose Branch Office) May be up to 30 characters." Below these fields are "REGISTER" and "CANCEL" buttons. The left sidebar contains a "LOG OUT" button and links for more information about mySonicWALL.com.

Also, an e-mail message is sent to both the old and new user as a notification that the appliance was transferred.



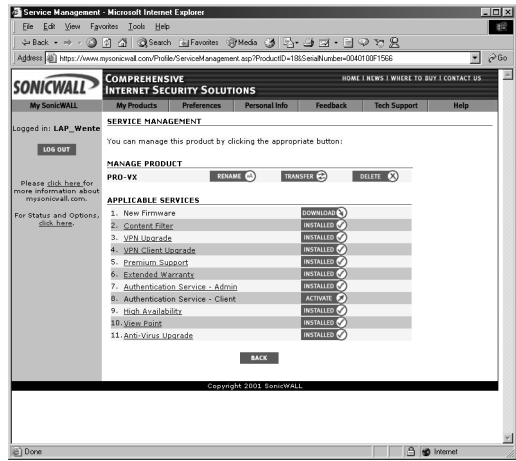
Note: You can only transfer a SonicWALL to another registered user of mySonicWALL.com.

Delete Product

You can also delete a SonicWALL from your mySonicWALL.com user account. Click on the **Friendly Name** for the appliance, and then click **Delete**. A confirmation message appears in the next window, and you have successfully deleted a SonicWALL from your user account. You can add the SonicWALL back to your account at anytime.

Applicable Services for SonicWALL Internet Security Appliances

In the **Applicable Services** section of mySonicWALL.com, a list of installed and unactivated services for your SonicWALL is displayed.



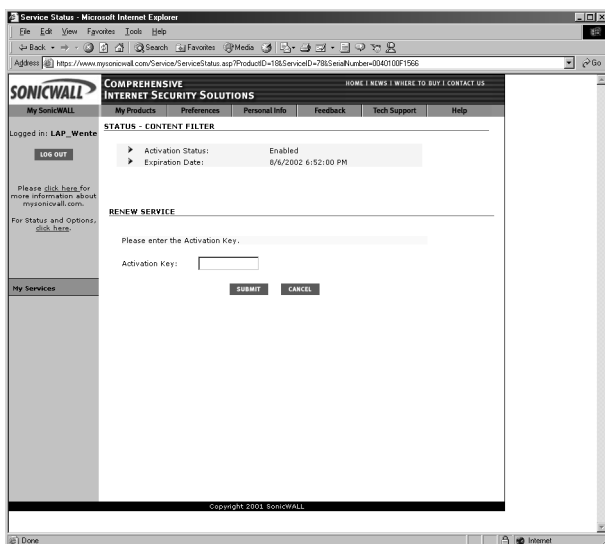
Activated services are indicated by the **Installed** icon with a green check mark.



Inactive services are indicated by the **Activate** icon with a red arrow.



Activated service names are also hyperlinked to an information page with **Activation Status** and the **Expiration Date** of the service. Services can also be renewed by clicking on the name, and entering the activation key into the **Activation Key** field.



Available Services on SonicWALL Appliances

Services	SOHO3, TELE3, & PRO100	PRO 200	PRO 300	GX 2500	GX 6500
Content Filter			Optional	Optional	Optional
VPN Upgrade					
VPN Client Upgrade		One License	50 Licenses Included	100 Licenses Included	100 Licenses Included
Premium Support (optional)					

Available Services on SonicWALL Appliances

Services	SOHO3, TELE3, & PRO100	PRO 200	PRO 300	GX 2500	GX 6500
Extended Warranty					
Authentication Service - Admin					
Authentication Service - Client					
High Availability					
ViewPoint					
Anti-Virus Upgrade					
Firmware download					
Support 8X5					
Support 24X7 (US only)					
Int'l Support					

Activating Services Using mySonicWALL.com

To activate a service such as **Content Filter**, use the following steps:

1. Log into mySonicWALL.com using your username and password. Select the appliance to be upgraded with the **Content Filter List** subscription, and click the name.
2. Click **Activate** next to **Content Filter**. The following screen appears with an **Activation Key** field, and a **Terms and Conditions** message.
3. Type the **Activation Key** into the **Activation Key** field, and select **I have read and agreed** to all of the above terms and conditions. Click **Submit**.
4. The **Content Filter List** subscription is now active, and you can download the **Content Filter List** through your SonicWALL appliance.

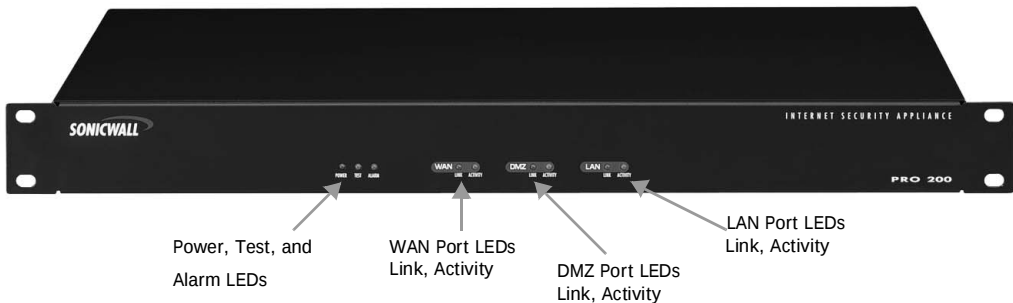
Note: *The Anti-Virus service also needs to be activated on your SonicWALL appliance. See the Anti-Virus User's Guide for more information.*

4 Hardware Description

This chapter provides detailed illustrations and descriptions of the SonicWALL Internet Security Appliances front and back panels by model. Refer to this chapter to learn the location of LEDs, switches, and connectors.

SonicWALL PRO 200 and PRO 300 Front Panel

The SonicWALL PRO 200 front panel is shown below, followed by a description of each item. The SonicWALL PRO 300 is identical to the SonicWALL PRO 200 except for the PRO 300 label on the front panel and has 64MB of RAM.



SonicWALL PRO 200 and SonicWALL PRO 300 Front Panel Description

- **Power**
Lights up when power is applied to SonicWALL PRO or SonicWALL PRO 300.
- **Test**
Lights up when the SonicWALL is powered up and performing diagnostic tests to check for proper operation. These tests take about 90 seconds. If the Test LED remains lit after this time, the software is corrupt and must be reinstalled.
- **Alarm**
Lights up and flashes for 10 seconds when an event generates an alert. **Alarm** LED flashes for 10 seconds. Alert events are defined in the **Log Settings** section in Chapter 5 of the SonicWALL Internet Security Appliance User's Guide.

There are three Ethernet ports; one for each of the LAN, DMZ, and WAN ports:

- **Link**

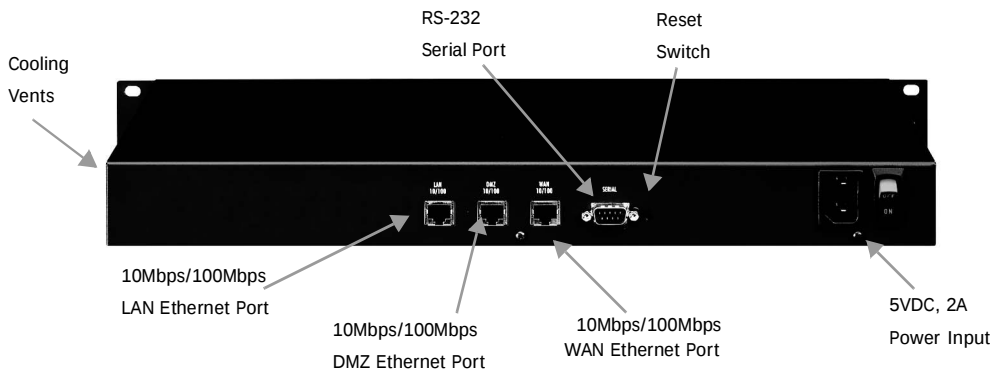
Lights up when a **Twisted Pair** connection is made to another Ethernet device (usually a hub) on the port. Note that the device connected to the SonicWALL must support the standard Link Integrity test.

- **Activity**

Lights up when the SonicWALL transmits or receives a packet through the Twisted Pair port onto the network.

SonicWALL PRO 200 and PRO 300 Back Panel

The SonicWALL PRO 200 back panel is shown below, followed by a description of each item. *The SonicWALL PRO 300 back panel is identical to the SonicWALL PRO 200.*



SonicWALL PRO 200 and SonicWALL PRO 300 Back Panel Description

- **(3) Twisted Pair (10Base-T, 100Base-T) Ethernet Ports**

(3) Auto switching 10Mbps/100Mbps Ethernet ports provide connectivity for both Ethernet and Fast Ethernet networks. The Ethernet ports connect the SonicWALL to the LAN, DMZ, and WAN using Twisted Pair cable with RJ45 connectors.

- **Serial**

DB-9 RS-232 Serial port

- **Reset Switch**

Resets the SonicWALL PRO 200 or the SonicWALL PRO 300 to its factory clean state. This can be required if you forget the administrator password, or the SonicWALL firmware has become corrupt.

- **Power Input**

Connects the SonicWALL to power input. The use of an Uninterruptible Power Supply (UPS) is strongly recommended to protect the SonicWALL against damage, or loss of data due to electrical storms, power failures, or power surges.

- **Power Switch**

Powers the SonicWALL on and off.

- **Cooling Vents**

The SonicWALL is convection cooled; an internal fan is not necessary. Do not block the cooling vents on the SonicWALL side panels.

SonicWALL PRO 100 Front Panel

The SonicWALL PRO 100 front panel is shown below, followed by a description of each item.



SonicWALL PRO 100 Front Panel Description

- **Power**

Lights up when power is applied to the SonicWALL PRO 100.

- **Test**

Lights up when the SonicWALL PRO 100 is first powered up and performing diagnostic tests to check for proper operation. These tests take about 90 seconds. If the **Test LED** remains lit after this time, the software is corrupt and must be reinstalled.

There are three Ethernet ports; one for each of the LAN, DMZ, and WAN ports:

- **Link**

Lights up when the **Twisted Pair** port is connected to a 10Mbps or 100Mbps hub or switch, or directly connected to a computer. Note that the connected Ethernet device must support the standard Link Integrity test.

- **100**

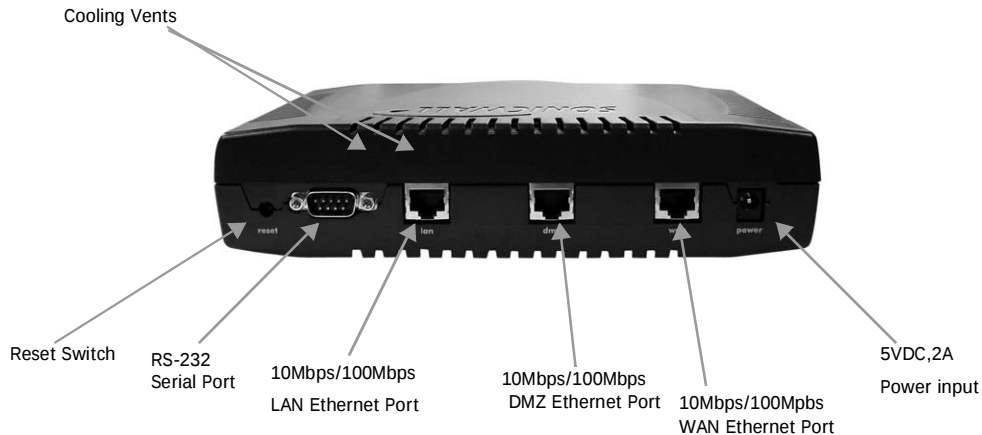
Lights up when the **Twisted Pair** port is connected to a 100Mbps hub or switch or directly connected to a computer with a 100Mbps network interface.

- **Activity**

Flashes when the SonicWALL PRO 100 transmits or receives a packet through the **Twisted Pair** port.

SonicWALL PRO 100 Back Panel

The SonicWALL PRO 100 back panel is shown below, followed by a description of each item.



The SonicWALL PRO 100 Back Panel Description

- **Reset Switch**

Erases the firmware and resets SonicWALL PRO 100 to its factory clean state. This can be necessary if the administrator password is forgotten, or the firmware has become corrupt. Instructions for erasing the SonicWALL firmware are Guide.

- **Serial**

DB-9 RS-232 Serial port.

- **(3) Twisted Pair (10Base-T, 100Base-T) Ethernet Ports**

(3) Auto switching 10Mbps/100Mbps Ethernet ports provide connectivity for both Ethernet and Fast Ethernet networks. The Ethernet ports connect the SonicWALL PRO 100 to the LAN, DMZ, and WAN using Twisted Pair cable with RJ45 connectors.

- **Power Input**

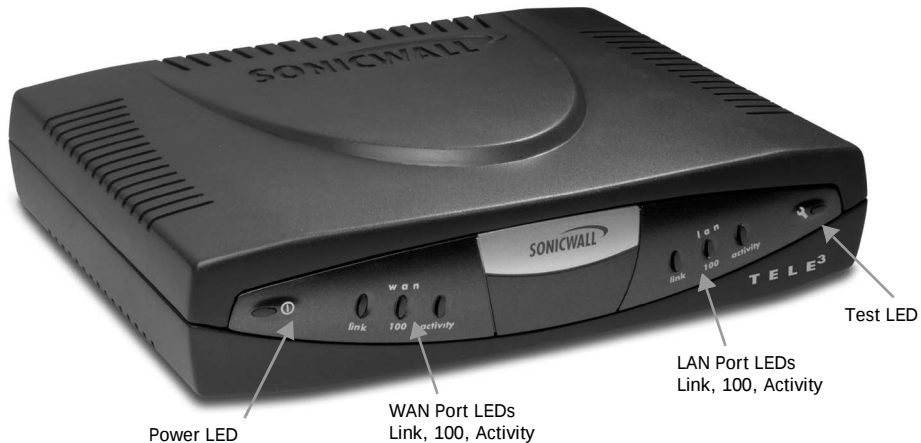
Connects to the external power supply that is provided with the SonicWALL PRO 100. The use of an Uninterruptible Power Supply (UPS) is recommended to protect the SonicWALL PRO 100 against damage or loss of data due to electrical storms, power failures, or power surges.

- **Cooling Vents**

- The SonicWALL PRO 100 is convection cooled; an internal fan is not necessary. Do not block the cooling vents.

SonicWALL SOHO3 and TELE3 Front Panel

The SonicWALL **SOHO3** front panel is shown below, followed by a description of each item. The SonicWALL **TELE3** is identical to the SonicWALL **SOHO3** except for the **TELE3** label on the front panel and the inclusion of SonicWALL VPN.



SonicWALL SOHO3 and SonicWALL TELE3 Front Panel Description

- **Power**

Lights up when power is applied to the SonicWALL SOHO3 or SonicWALL TELE3.

- **Test**

Lights up when the SonicWALL is first powered up and performing diagnostic tests to check for proper operation. These tests take about 90 seconds. If the Test LED remains lit after this time, the software is corrupt and must be reinstalled.

There are two Ethernet ports; one of the following for the LAN and WAN ports:

- **Link**

Lights up when the Twisted Pair port is connected to a 10Mbps or 100Mbps hub or switch or directly connected to a computer. Note that the connected Ethernet device must support the standard Link Integrity test.

- **100**

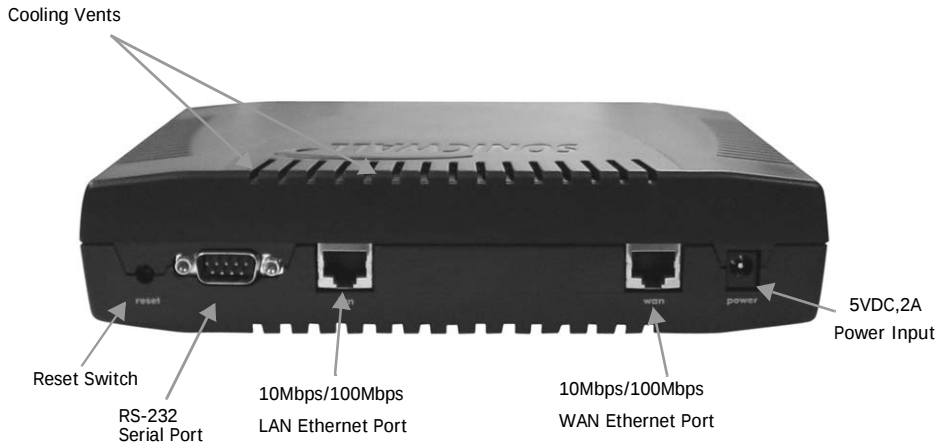
Lights up when the Twisted Pair port is connected to a 100Mbps hub or switch or directly connected to a computer with a 100Mbps network interface.

- **Activity**

Flashes when the SonicWALL transmits or receives a packet through the Twisted Pair port.

SonicWALL SOHO3 and TELE3 Back Panel

The SonicWALL SOHO3 back panel is shown below, followed by a description of each item. The SonicWALL TELE3 back panel is identical to the SonicWALL SOHO3.



The SonicWALL SOHO3 and TELE3 Back Panel Description

- **Reset Switch**

Erases the firmware and resets the SonicWALL to its factory clean state. This can be necessary if you forget the administrator password or the firmware has become corrupt.

- **Serial Port**

DB-9 RS-232 Serial port

- **(2) Twisted Pair (10Base-T, 100Base-T) Ethernet Ports**

(2) Auto switching 10Mbps/100Mbps Ethernet ports provide connectivity for both Ethernet and Fast Ethernet networks. The Ethernet ports connect the SonicWALL to the LAN and WAN using Twisted Pair cable with RJ45 connectors.

- **Power Input**

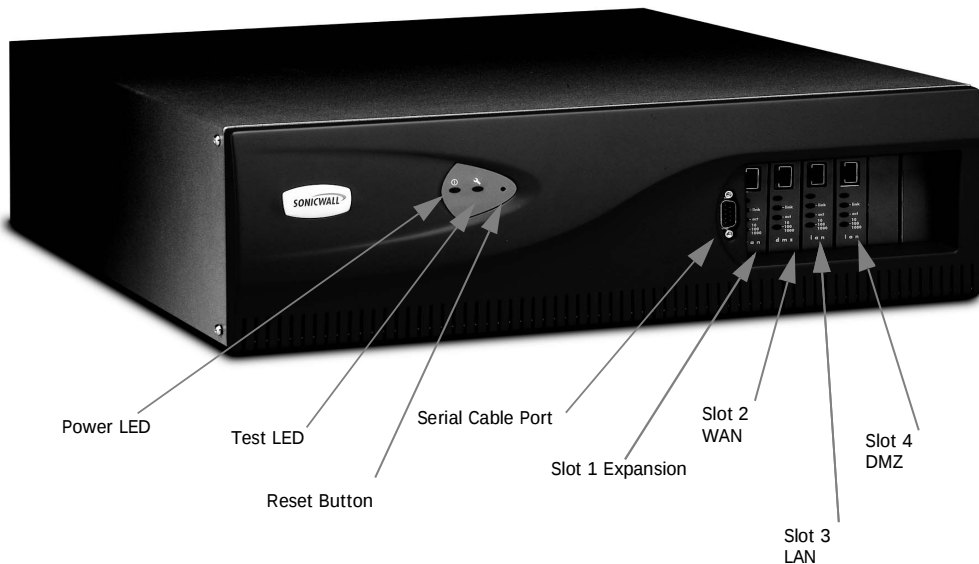
Connects to the external power supply which is provided with the SonicWALL SOHO3 and the SonicWALL TELE3. The use of an Uninterruptible Power Supply (UPS) is recommended to protect against damage or loss of data due to electrical storms, power failures, or power surges.

- **Cooling Vents**

The SonicWALL is convection cooled; an internal fan is not necessary. Do not block the cooling vents on the SonicWALL SOHO3 or the TELE3 side panels.

SonicWALL GX 250 and GX 650 Front Panel

The SonicWALL GX 250 front panel is shown below, followed by a description of each item. The SonicWALL GX 650 is identical to the SonicWALL GX 250 except for the GX 650 label on the front panel and the types of network interfaces installed.



SonicWALL GX Models Front Panel Description

- **Power**

Lights up green if both power supplies are functioning on the SonicWALL GX Models. If it is red, one of the power supplies has failed, and an audible alarm also sounds.

- **Test**

Lights up when the SonicWALL is powered up and performing diagnostic tests for proper operation. These tests take up to 5 minutes. If the Test LED remains lit after this time, the firmware is corrupt and must be reinstalled.

- **Serial Port**

DB-9 RS-232 Serial port for a modem or null-modem cable to support Command Line Interface Management.

There are three network interfaces on the GX Models from left to right:

- **WAN**
- **LAN**
- **DMZ**

The GX 250 includes two Fast Ethernet network interfaces. The GX 650 includes either Fast Ethernet or 1000Base-SX over Fiber network interfaces. A fourth slot for upgrades is available on the GX 250.

Two types of network cards are available in the GX series:

- **Fast Ethernet (10/100Base-T)**
- **Gigabit over Fiber (1000Base-SX)**

GX 250 Front Panel

Three Fast Ethernet interfaces provide connectivity for either Ethernet and Fast Ethernet networks. The Ethernet ports connect the SonicWALL to the LAN, DMZ, and WAN using category 5 twisted pair cable with RJ-45 connectors. There is an additional slot available for upgrading the appliance. The standard NIC has two LEDs:

- **Link/Activity**

The **Link** light is green when a twisted pair connection is made to another Ethernet device (usually a switch or a hub) on the port. Note that the device connected to the SonicWALL must support the standard link integrity test. The **Link** LED blinks, indicating **Activity**, when the SonicWALL transmits or receives a packet through the Twisted Pair port onto the network.

- **Network Speed**

The **Network Speed** LED is not lit if the network speed is 10 Mbps, and the LED is green if the network speed is 100 Mbps.

- **GX650 Front Panel**

Three Gigabit over Fiber ports provide connectivity for Gigabit networks. Before inserting the cables into the network ports on the fiber optics card, remove the plug from the ports. The 1000Base-SX interface has the following LED lights:

- **Transmit (TX)**

The **TX** light is lit when the network is transmitting data over the network connection.

- **Receive (RX)**

The **RX** light is lit when data is received over the network connection.

- **Link**

The Link LED indicates that the interface is connected to a valid link partner and is receiving link pulses.

The 1000Base-T network interface has the following LEDs:

- **Link**

The **Link** light is green when a network connection is made to another Ethernet device (usually a hub) on the port.

- **Activity**

The **Activity** LED blinks, indicating **Activity**, when the SonicWALL transmits or receives a frame.

- **Network Speed**

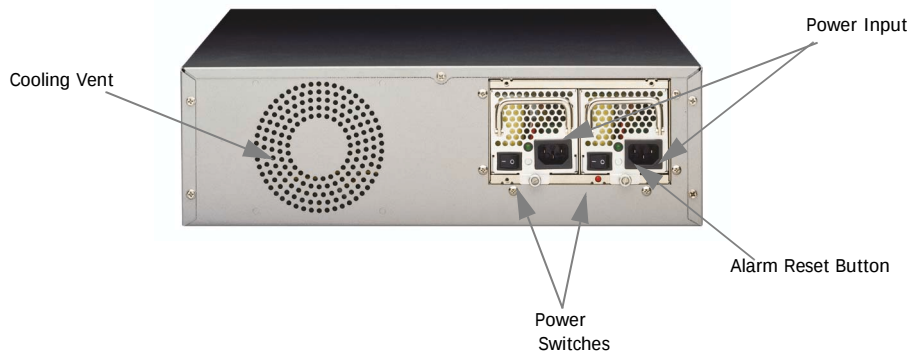
The **Network Speed** light remains off if there is no connection or if a 10Mbps connection is made. If a 100 Mbps connection is made, the LED is green. If a 1000 Mbps connection is obtained, the LED is yellow.

Reset Switch

Resets the SonicWALL GX 250 or the SonicWALL GX 650 to its factory clean state. This may be required if you forget the administrator password, or the SonicWALL firmware has become corrupt.

SonicWALL GX 250 and GX 650 Rear Panel

The SonicWALL GX 250 back panel is shown below, followed by a description of each item. *The SonicWALL GX 650 back panel is identical to the SonicWALL GX 250.*



SonicWALL GX 250 and SonicWALL GX 650 Back Panel Description

- **Power Inputs**

There are two power input receptacles to connect the SonicWALL to the AC power input. The unit comes standard with redundant hot swappable power supplies with active power function correction (100-240 VAC 50/60 Hz).

- **Power Switches**

One power switch for each hot swappable power supply module. The audible alarm sounds if only one power supply is functioning.

- **Alarm Reset Button**

The **Alarm Reset** button resets the audible alarm.

- **Cooling Vents**

The SonicWALL is convection cooled and has an internal fan that is not crucial to the function of the GX, but provides additional cooling to the unit. Do not block the cooling vents on the SonicWALL front and back panels.

5 Troubleshooting Guide

Tips for Cable /DSL Modem Users

No Internet Access

If you are experiencing problems connecting to the Internet after installing your SonicWALL, you should turn off your cable modem for five (5) minutes, and then turn it back on. Restart the SonicWALL and try to access it using the LAN IP address. This is an easy fix that's worth trying before contacting tech support.

If you are using **NAT with DHCP Client** network configuration, log into the SonicWALL and click **General**, then **Network**. Verify that the **Host Name** field has information in it. Your ISP may require a Host Name to connect to the Internet.

Some ISPs require the MAC address or the Ethernet address of the SonicWALL before the IP lease can be established. The MAC address of the SonicWALL is the serial number located on the bottom of the appliance. It is also displayed on the **Status** page of the **General** window.

Cannot Maintain IP Address

Typically, cable modem users obtain an IP address dynamically via DHCP. The IP address is leased for a specific period of time and then renewed by the DHCP server. If you are experiencing trouble maintaining your lease from your service provider, configure the SonicWALL to be "pingable" from the WAN. Some ISPs assume that if they cannot ping you, you must not be online and the lease is not renewed by the DHCP server. Use the following steps to solve this problem:

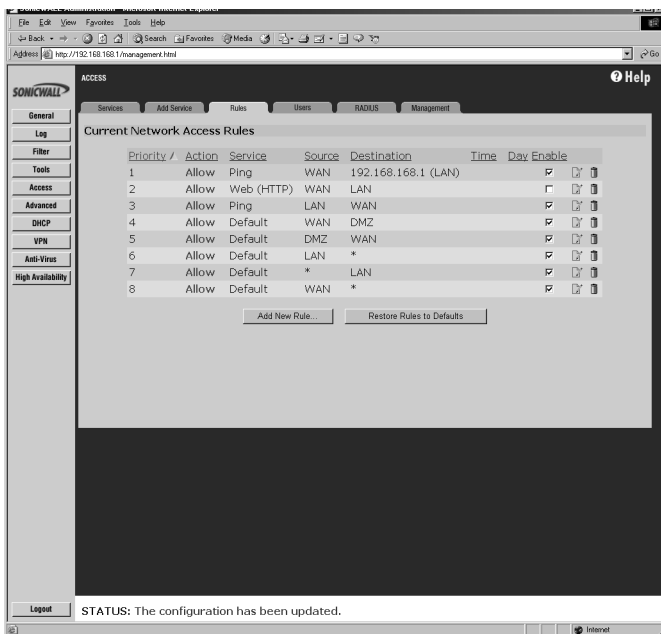
1. Open your Web browser and enter the LAN IP address of the SonicWALL to access the Management interface.
2. Log into the Management interface using the user name and password you created during configuration.
3. Click **Access**, then **Rules**.
4. Click **Add New Rule**.

The screenshot shows a web browser window titled "Add Rule - Microsoft Internet Explorer". The main content area is titled "Add Network Access Rule". It contains several fields and controls:

- Action:** Two radio buttons, "Allow" (selected) and "Deny".
- Service:** A dropdown menu showing "Ping".
- Source:** A dropdown menu showing "WAN".
- Destination:** A text input field containing "192.168.168.1".
- Ethernet Addr. Range:** Two text input fields, "Begin" and "End", both empty.
- Apply this rule:** A dropdown menu showing "always", followed by two date/time pickers showing "Sun" and "Sun".
- Inactivity Timeout:** A text input field containing "5", followed by the text "(24-Hour Format)".
- Allow Fragmented Packets:** A checkbox that is unchecked.
- Buttons:** "Update" and "Reset" buttons at the bottom.

5. Select **Allow** from the **Action** choices.

6. Select **Ping** from the **Service** menu.
7. Select **WAN** from the **Source** menu. Enter the LAN address of your SonicWALL.
8. Click **Update** and the **Rule** is added to your **Rule** list.



Other Troubleshooting Tips

Be sure you can connect from your computer directly to the cable modem and establish an Internet connection. If you can do this with your computer, but not with the SonicWALL, record all of your Network settings and check them against the information in the SonicWALL.

Erasing the Firmware

There can be instances when it is necessary to reset the SonicWALL to its factory clean state if the following events happen to the appliance:

- Administrator password is forgotten.
- The firmware has become corrupt, and you cannot contact the Management Interface.
- The test light comes on and stays on for more than a few minutes.
- During the troubleshooting process, you must start from a “known” state.

Once the firmware is erased, new firmware must be loaded, and the SonicWALL must be reconfigured.

The following procedure erases all settings and reverts the unit to the factory default state. It is necessary to follow the initial configuration procedures detailed in this manual's QuickStart

section to reconfigure the SonicWALL. If you need the firmware, download it from <<http://firmware.sonicswall.com>> or load it from the CD included with the appliance. You can also download firmware by logging into <<http://www.mysonicswall.com>> as a registered user.

Locating the Reset button on your SonicWALL Internet Security Appliance

SonicWALL SOHO3, PRO 100, TELE3, SOHO 10, SOHO 50, XPRS, SOHO Telecommuter, PRO 200, PRO 300, and newer SonicWALL DMZ models use the small recessed button on the back of the unit for this procedure. If your SonicWALL DMZ unit has a square reset button that is not recessed on the back of the unit, follow the procedure below to locate the blue reset button.

SonicWALL 10 and 50 models, SonicWALL Plus, and older SonicWALL DMZ models have a blue reset button inside. Open the SonicWALL unit by unscrewing the screws on the bottom and gently pulling the top cover off. (The front and back panels remain in place.) Locate the blue button towards the front between the Power, Test, and WAN LEDs.

If your SonicWALL DMZ unit has a circular reset button that is recessed in the back of the unit, then it's an older DMZ model and you should follow the procedure for locating the reset button inside the unit.

Erasing the Firmware for all Models

1. Turn off the SonicWALL and disconnect all cables to the network.
2. Locate the recessed Reset Switch on the back panel of the SonicWALL.
3. Press and hold the Reset Switch and then apply power to the SonicWALL. Once the Test LED starts to flash, let go of the Reset Switch.

The Test LED flashes for approximately 90 seconds while the firmware is erased. After completing the diagnostic sequence, the Test LED stays lit, indicating that the firmware has been erased. It is normal for the Test LED to stay lit after erasing the firmware. It does not go off until the firmware is installed and loaded into memory by the automatic restart.

4. Log back into the SonicWALL at the default IP address, "<http://192.168.168.168>". Make sure that the Management Station's IP address is in the same subnet as the SonicWALL--for example, "192.168.168.200".
5. The SonicWALL Management Interface displays a message stating that the firmware has been erased. Click **Browse** to locate the SonicWALL firmware file on the Management Station hard drive. Or upload the firmware file that is located on the SonicWALL Companion CD.
6. Reconfigure the SonicWALL as described in Chapter 2 of this guide.

6 SonicWALL Support Solutions

SonicWALL's powerful security solutions give unprecedented protection from the risks of Internet attacks. SonicWALL's comprehensive support services protect your network security investment and offer the support you need - when you need it.

Knowledge Base

All SonicWALL customers have immediate, 24X7 access to our state-of-the-art electronic support tools. Power searching technologies on our web site allow customers to locate information quickly and easily from our robust collection of technical information - including manuals, product specifications, operating instructions, FAQs, web pages, and known solutions to common customer questions and challenges.

Internet Security Expertise

Technical Support is only as good as the people providing it to you. SonicWALL support professionals are Certified Internet Security Administrators with years of experience in networking and Internet security. They are also supported by the best in class tools and processes that ensure a quick and accurate solution to your problem.

Support Offers

Warranty Support - North America and International

SonicWALL products are recognized as extremely reliable as well as easy to configure, install, and manage. SonicWALL Warranty Support enhances these features with

- 1 year, factory replacement for defective hardware
- 90 days of advisory support for installation and configuration assistance during local business hours.
- 90 days of software and firmware updates
- Access to SonicWALL's electronic support and Knowledge Base system.

SonicWALL Support 8X5

Designed for customers who need advanced technical support and the additional benefits of ongoing software and firmware updates, SonicWALL Support 8X5 is an annual service that includes

- Factory replacement for defective hardware
- Telephone or electronic technical support during local business hours
- Access to SonicWALL's electronic support and Knowledge Base systems

- All software and firmware updates and upgrades

SonicWALL Support 24X7

For customers with mission-critical network requirements who cannot afford downtime, SonicWALL Support 24X7 is an annual subscription service that offers

- Advanced-exchanged replacement of defective hardware
- Telephone or electronic support, 24 hours, 7 days a week
- Enhanced escalation for high priority problems
- Access to SonicWALL's electronic support and Knowledge Base systems

All of SonicWALL Support Services offer a variety of support services to meet your unique needs including fast, responsive service, instant access to electronic support tools, and high quality technical support.

SonicWALL Support Services Features and Benefits

Telephone or Web-based Technical Support. SonicWALL's technical support experts help solve your problems or answer your questions quickly, reducing your risk of Internet attack.

Knowledge Base. Instant access to solutions and documentation provides answers to questions and solves problems electronically.

Firmware/Software Upgrades. Automatic firmware and software upgrades give instant access to new features and capabilities, allowing you to extend your Internet security investment.

Annual Support Agreement. Low, fixed prices for support services allow you to budget accurately and protect you from unexpected technical support expenses.

	SonicWALL Warranty	SonicWALL Support 8X5	Super SonicWALL Support
Telephone/Web-based technical support	90 days 8:00 a.m. - 5:00 p.m., local time, Monday - Friday	1-year 8:00 a.m. - 5:00 p.m., local time, Monday - Friday	1-year 24 hours by 7 days a week
Hardware Replacement	1 year, return to factory	1 year, return to factory	1 year, advanced exchange
Software/Firmware Updates	90 days	1-year	1-year
Enhanced Escalation			Yes

SonicWALL Support 24X7

Overview

Available for all SonicWALL products, **SonicWALL Support 24X7** includes software/firmware technical support, and factory replacement of defective hardware. Coverage is provided 24 hours a day, 7 days a week.

Deliverables

Coverage Hours

Support is provided during standard business hours, 24 hours per day local time, seven days per week, including locally-recognized SonicWALL holidays.

Telephone and Web-based Support

SonicWALL provides technical assistance during standard coverage hours by telephone or through web-based support tools. A SonicWALL technical specialist works with you to remotely diagnose and identify firmware and hardware not performing to documented specifications. Web-based support includes interactive communication with a SonicWALL technical specialist. SonicWALL also provides general assistance regarding usage and documentation on a limited basis.

Hardware Service

SonicWALL Support 24X7 includes the repair or replacement of failing hardware returned to the SonicWALL factory.

Upon diagnosis of a hardware failure, a SonicWALL technical specialist issues an RMA number and provides instructions for returning the hardware to SonicWALL. SonicWALL ships a replacement appliance to you based upon the RMA information. You are responsible for returning the failed appliance to SonicWALL with 30 days or be charged for the full replacement cost.

SonicWALL does not accept failed appliances without a valid RMA number.

Software/Firmware Support

SonicWALL logs, tracks, prioritizes, and resolves software, firmware and/or documentation bug reports and enhancement requests for software support under this agreement.

SonicWALL Support 24X7 includes priority escalation based on problem severity.

Support for software, firmware, and documentation is limited to the most current version and the immediate prior revision.

Software/Firmware Updates

All software and firmware maintenance releases and updates are included with this agreement. SonicWALL notifies administrators via electronic mail of new updates. The updates are delivered exclusively via the web.

Support Tools

SonicWALL Support 24X7 provides access to SonicWALL's web-based support tools, including FAQs, documentation, and Knowledge Base systems.

Availability

SonicWALL Support 24X7 is an annual service available for sale at the time of product purchase or anytime before warranty expiration.

SonicWALL Support 8X5

Overview

Available for all products, **SonicWALL Support 8X5** includes software/firmware technical support and factory hardware replacement. Coverage is provided during standard business hours.

Deliverables

Coverage Hours

Support is provided during standard business hours, 8:00 a.m. - 5:00 p.m. local time, Monday through Friday, excluding locally-recognized SonicWALL holidays.

Telephone and Web-based Support

SonicWALL provides technical assistance during standard coverage hours by telephone or through web-based support tools. A SonicWALL technical specialist works with you to remotely diagnose and identify firmware and hardware not performing to documented specifications. Web-based support includes interactive communication with a SonicWALL technical specialist. SonicWALL also provides general assistance regarding usage and documentation on a limited basis.

Hardware Service

SonicWALL Support 8X5 includes the repair or replacement of failing hardware returned to the SonicWALL factory.

Upon diagnosis of a hardware failure, a SonicWALL technical specialist issues an RMA number and provides instructions for returning the hardware to SonicWALL. Upon receipt of the failed appliance, SonicWALL ships a fully functional replacement appliance to you. The replacement appliance is equivalent to a new appliance.

SonicWALL does not accept failed appliances without a valid RMA number.

Software/Firmware Support

SonicWALL logs, tracks, prioritizes, and resolves software, firmware and/or documentation bug reports and enhancement requests for software support under this agreement.

SonicWALL Support 8X5 includes priority escalation based on problem severity.

Support for software, firmware, and documentation is limited to the most current version and the immediate prior revision.

Software/Firmware Updates

All software and firmware maintenance releases and updates are included with this agreement. SonicWALL notifies administrators via electronic mail of new updates. The updates are delivered exclusively via the web.

Support Tools

SonicWALL Support 8X5 provides access to SonicWALL's web-based support tools, including FAQs, documentation, and Knowledge Base systems.

Availability

SonicWALL Support 8X5 is an annual service available for sale at the time of product purchase or anytime before warranty expiration.

Warranty Support - *North America*

Overview

Included with all SonicWALL products, SonicWALL warranty support includes return-to-factory hardware replacement for one year. Warranty Support also includes technical support and software/firmware updates for 90 days. Coverage is provided during normal business hours.

Deliverables

Coverage Hours

Support is provided during standard business hours, 24 hours per day local time, seven days per week, including locally-recognized SonicWALL holidays.

Telephone and Web-based Support

SonicWALL provides technical assistance during standard coverage hours by telephone or through web-based support tools for 90 days after the date of purchase. A SonicWALL technical specialist works with you to remotely diagnose and identify firmware and hardware not performing to documented specifications. Web-based support includes interactive communication with a SonicWALL technical specialist. SonicWALL also provides general assistance regarding usage and documentation on a limited basis.

Hardware Service

Warranty Support includes the repair or replacement of failing hardware returned to the SonicWALL factory for a period of year following the date of purchase.

Upon diagnosis of a hardware failure, a SonicWALL technical specialist issues an RMA number and provides instructions for returning the hardware to SonicWALL. SonicWALL ships a replacement appliance to you based upon the RMA information. Upon receipt of the failed appliance, SonicWALL ships a fully functional replacement appliance to you. The replacement appliance is equivalent to a new appliance.

SonicWALL does not accept failed appliances without a valid RMA number.

Software/Firmware Support

SonicWALL logs, tracks, prioritizes, and resolves software, firmware and/or documentation bug reports and enhancement requests for software support for a period of 90 days after the date of purchase.

Software/Firmware Updates

All software and firmware maintenance releases and updates are included for 90 days after the date of purchase. SonicWALL notifies administrators via electronic mail of new updates. The updates are delivered exclusively via the web.

Support Tools

Warranty Support provides access to SonicWALL's web-based support tools, including FAQs, documentation, and Knowledge Base systems.

Availability

This warranty is available only in the United States and Canada.

Warranty Support - *International*

Overview

Included with all SonicWALL products, SonicWALL warranty support includes return-to-factory hardware replacement for one year. Warranty Support also includes technical support and software/firmware updates for 90 days. Coverage is provided during normal business hours.

Deliverables

Coverage Hours

Support is provided during standard business hours, 24 hours per day local time, seven days per week, including locally-recognized SonicWALL holidays.

Hardware Service

Warranty Support includes the repair or replacement of failing hardware returned to the SonicWALL factory for a period of year following the date of purchase.

Upon diagnosis of a hardware failure, a SonicWALL technical specialist issues an RMA number and provides instructions for returning the hardware to SonicWALL. Upon receipt of the failed appliance, SonicWALL ships a fully functional appliance. The replacement appliance is equivalent to a new appliance.

SonicWALL does not accept failed appliances without a valid RMA number.

Software/Firmware Updates

All software and firmware maintenance releases and updates are included for 90 days after the date of purchase. SonicWALL notifies administrators via electronic mail of new updates. The updates are delivered exclusively via the web.

Support Tools

Warranty Support provides access to SonicWALL's web-based support tools, including FAQs, documentation, and Knowledge Base systems.

Availability

This warranty applied to products sold in Europe, the Middle East, Africa, Asia, Central and South America.



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Part# 232-000302-00
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