



Cable Modem Router

Model Number: U10C012



User's Guide

Rev. 1.1

Firmware 5.11.1117

September 17th, 2004

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1. Before You Begin

Your new cable modem provides high-speed access to the Internet by an active Internet Connection through your cable service provider. This user guide describes how to set up and use the cable modem. Before installing the cable modem, you should read this user guide to ensure proper cable modem operation.

Understand the Cable Modem's Features

Your cable modem has the following features to help you access and use the Internet:

- Two-way design allows the cable modem to send and receive data over the cable television network.
- Cable bandwidth allows data rates of up to 38 megabits per second (Mbps)*, which is faster than analog modems, integrated services digital network (ISDN), or asymmetric digital subscriber line (ADSL).
- Using your cable line means that the cable modem is always on, always connected, and does not tie up your phone line.
- Plug-and-play operation through universal serial bus (USB) ensures easy setup and installation.
- Data Over Cable Service Interface Specification (DOCSIS™) compliance ensures interoperability with DOCSIS compliant cable operators.

**NOTE: Speeds may vary based on the following factors:*

- *Computer equipment including available RAM and processor speed*
- *Software applications utilizing your computer's resources*
- *Network traffic depending on the time of day*
- *Limitations set by your Cable Service Provider*

Contact Your Local Cable Operator

Before installing your new cable modem, you must contact your local cable service provider to activate your Internet account. Be sure to have the cable modem's MAC address available, which can be found on the underside of the cable modem.

Prepare Your Area for Cable Modem Installation

Before installing your cable modem, you should first prepare your area. To do this:

1. Locate your cable outlet and ensure that it is located within proper distance of your cable modem and computer. Be sure not to bend the cable as this may strain the connector and cause damage.
2. Ensure that the temperature in the room where the cable modem will be operating is between 0 and 40°C (32 and 104°F)

Gather Supplied and Required Items

You will use a variety of items to install your cable modem. Some of the items are supplied with your cable modem.

Supplied

Verify that these items were included in the cable modem's package:

- cable modem
- Power adapter
- USB cable (1.5m)
- Ethernet cable (1.8m)
- CD containing USB drivers
- This user guide

Not Supplied

Verify that these items are available before beginning the installation:

- If using the cable modem's USB port:
 - A PC running Windows 98® Second Edition (SE), Windows Me, Windows 2000, or Windows XP. The cable modem's USB setup does not support the Macintosh® operating system, Windows 98 First Edition, and NT.
 - Windows 98 SE, Windows Me, Windows 2000, or Windows XP CD or diskettes.
 - An active USB port on your PC.
- If using the cable modem's Ethernet port:
 - A PC running Windows 95 (or later) operating system or a Macintosh computer running system 7.6 (or later) operating system
 - An active Ethernet port on your PC or Macintosh

Be sure to follow the instructions provided for the port that you want to use.

Using the USB port allows you to install the cable modem more quickly and easily than using the Ethernet port, because you do not have to install and configure a network interface card (NIC).

USB, however, only enables you to connect one computer to the cable modem. Using the Ethernet port allows you connect multiple computers to a cable modem through the use of additional equipment that is not included. Please contact your cable service provider for more information on using multiple computers.

2. Installing the Cable Modem Using the USB Port

This chapter explains the process for installing your cable modem using the USB port. First, you will install the hardware (cable modem, USB cable, coax cable, and power adapter). You will then install the cable modem drivers and verify that the modem is functioning properly.

NOTE: The cable modem's USB setup does not support the Macintosh® operating system, Windows 95 & NT.

Using the USB port allows you to install the cable modem more quickly and easily than using the Ethernet port, because you do not have to install and configure a network interface card (NIC).

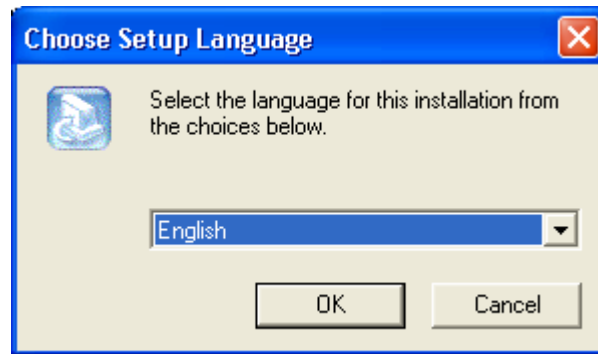
USB, however, only enables you to connect one computer to the cable modem. Using the Ethernet port allows to you connect multiple computers to a cable modem using additional equipment which is not included. Please contact your cable service provider for more information on using multiple computers.

Installing the Software Drivers Before Hardware Connection

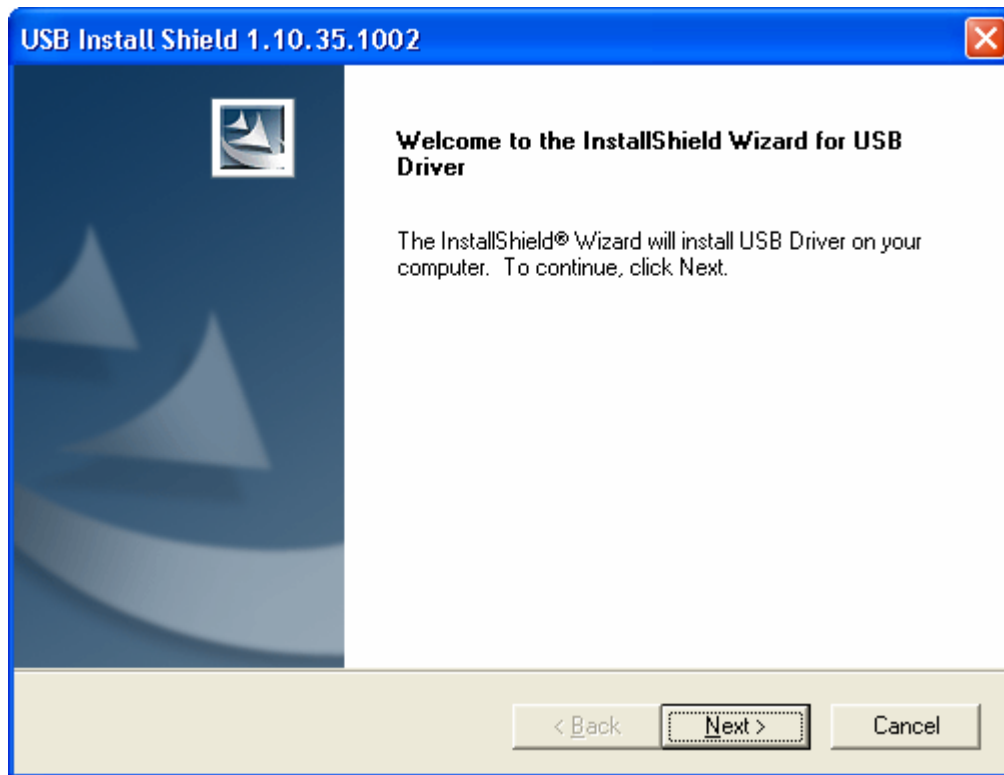
CAUTION: You should run the “Setup.exe” program first before you connect USB cable to PC.

To install the cable modem software drivers using the Windows operating system:

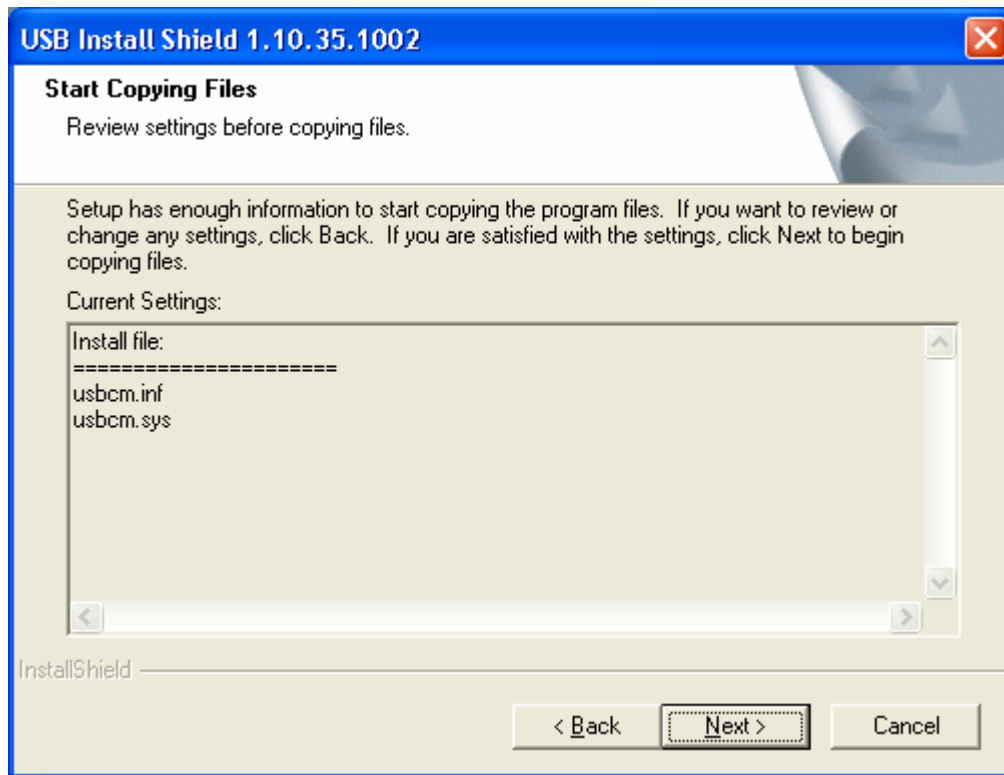
1. Double click the “Setup.exe” program in the CD.
2. Then the “Choose Setup Language” screen appears. You can choose the language you need and click “OK”.



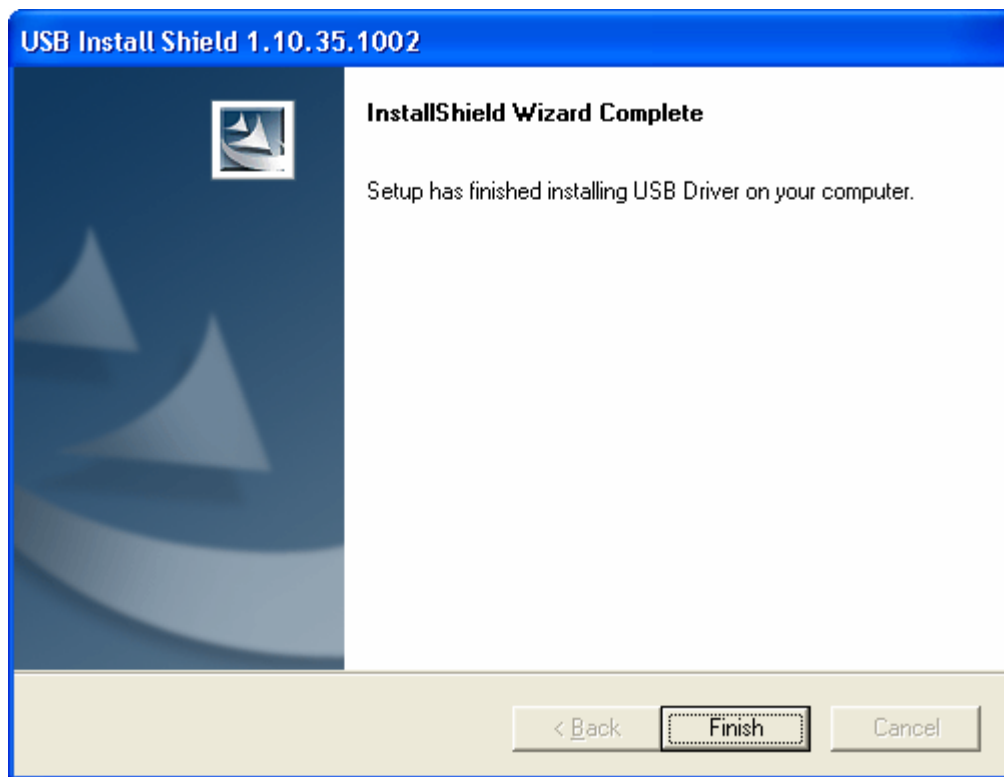
3. You will see the following Welcome screen.



4. Click "Next>". You will see the following Start screen.



5. Click “Next>”. You will see the following ‘Complete’ screen.



6. Click “Finish”. You will see below screen, and then select ‘Yes.’ Now you can connect the

USB cable to the PC by following next section instructions.

Installing the Hardware

This section explains how to connect the cable modem to the computer, wall outlet, and electrical outlet.

To install the hardware:

1. Power off the computer
2. Connect one end of the coaxial cable to the cable modem's cable connector. Connect the other end of the coaxial cable to the cable wall outlet. Be sure not to bend or over tighten the cables as this may strain the connector and cause damage. If you plan to connect the cable modem and television to the same wall outlet, you must use a cable line splitter (not included).
3. Connect one end of the USB cable to the cable modem's USB port and the other end of the cable to the USB port on the PC.
4. Plug the cable modem's power adapter into the cable modem's power jack and into a wall outlet or surge protector.
5. You are now ready to install the software drivers.

Installing the Software Drivers

This section explains how to install the software drivers that your PC requires for the cable modem to operate.

Installing the Software Drivers in Windows 98 SE Operating System

CAUTION: You must install the drivers located on the CD that ships with your cable modem. If you use the default Windows-supplied software drivers, you will not be able to properly install the cable modem.

To install the cable modem software drivers using the Windows 98 operating system:

1. Power on your PC. After your computer boots, Windows detects the cable modem. The Found New Hardware screen appears, followed by the Add New Hardware Wizard screen.



2. Insert the CD into the PC's CD-ROM and click *Next*. You will see the following screen.



3. Select *Search for the best driver for your device (Recommended)*. Then select *Next*. You will see the following screen.



4. Check the *CD-ROM drive* check box and verify that the CD is in the CD-ROM drive. Click *Next* to have Windows search for the necessary driver files. You will see the following:



5. Select *the updated driver (Recommended) Ambit USB Cable Modem* and click next. You will see the following screen.

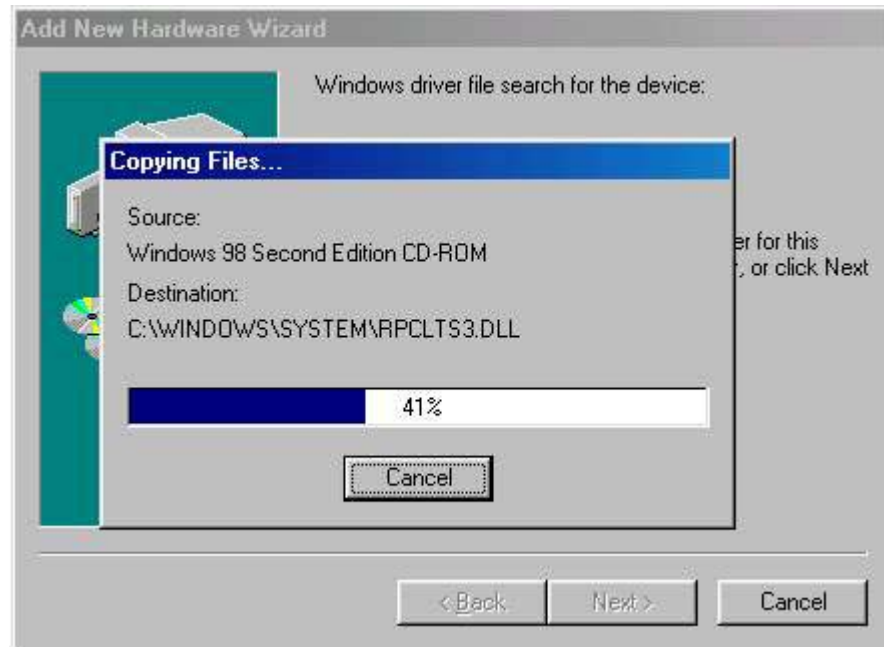
CAUTION: You must verify that **Ambit USB Cable Modem** appears on the screen. If **USB Composite Device** appears, you must click *Back* twice and specify the correct location of the driver files. **DO NOT** proceed if **USB Composite Device** is displayed in the above window. Contact your cable provider for further assistance.



6. Click *Next*. The computer automatically installs the necessary driver files. You may see the following screen



7. If the above screen appears, you must insert the Windows 98 CD so that Windows can copy the remaining files.



8. After files copying is done, you will see the following screen:



9. Click *Finish* to complete the installation. You will see the following screen.

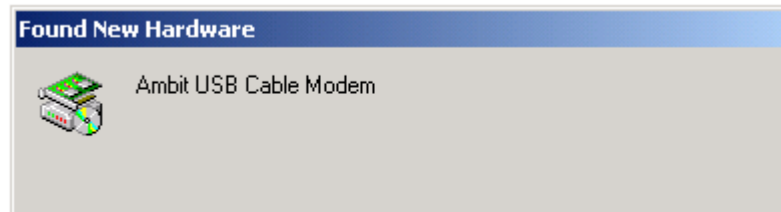


10. Choose *Yes* to restart your computer.
11. After the computer is rebooted, verify that the USB LED is lit on the front of you cable modem. If not, refer to the troubleshooting section later in this chapter.

Installing the Software Drivers in Windows Me Operating System

To install the cable modem software drivers using the Windows Me operating system:

1. Power on your PC. After your computer boots, Windows detects the cable modem. The Found New Hardware screen appears, followed by the Found New Hardware Wizard screen.



2. Insert the CD into the PC's CD-ROM and click *Next*. You will see the following screen.



3. Select *Automatic search for a better driver (Recommended)* and click (*Next*). The computer automatically copies the necessary driver files from the CD. You will see the following screen.

S



4. Click *Next*. The computer automatically installs the necessary driver files.



5. Click *Finish* after the computer has copied the necessary files. You will see the following screen.

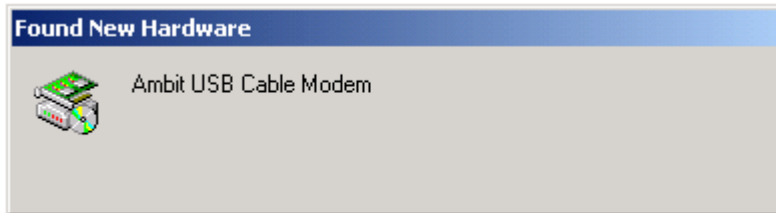


6. Click *Yes* to restart the computer

Installing the Software Drivers in Windows 2000 Operating System

To install the cable modem software drivers using the Windows 2000 operating system:

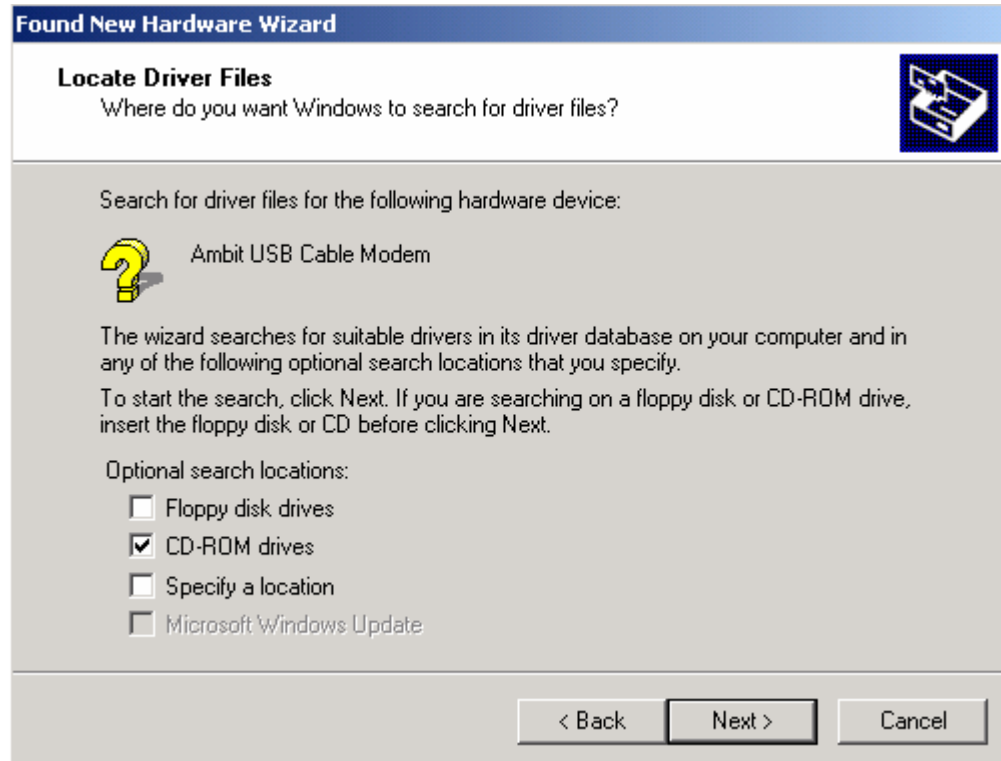
1. Power on your PC. After your computer boots, Windows detects the cable modem. The Found New Hardware screen appears, followed by the Found New Hardware Wizard screen.



2. Insert the CD into the PC's CD-ROM Drive and click *Next*. You will see the following screen.

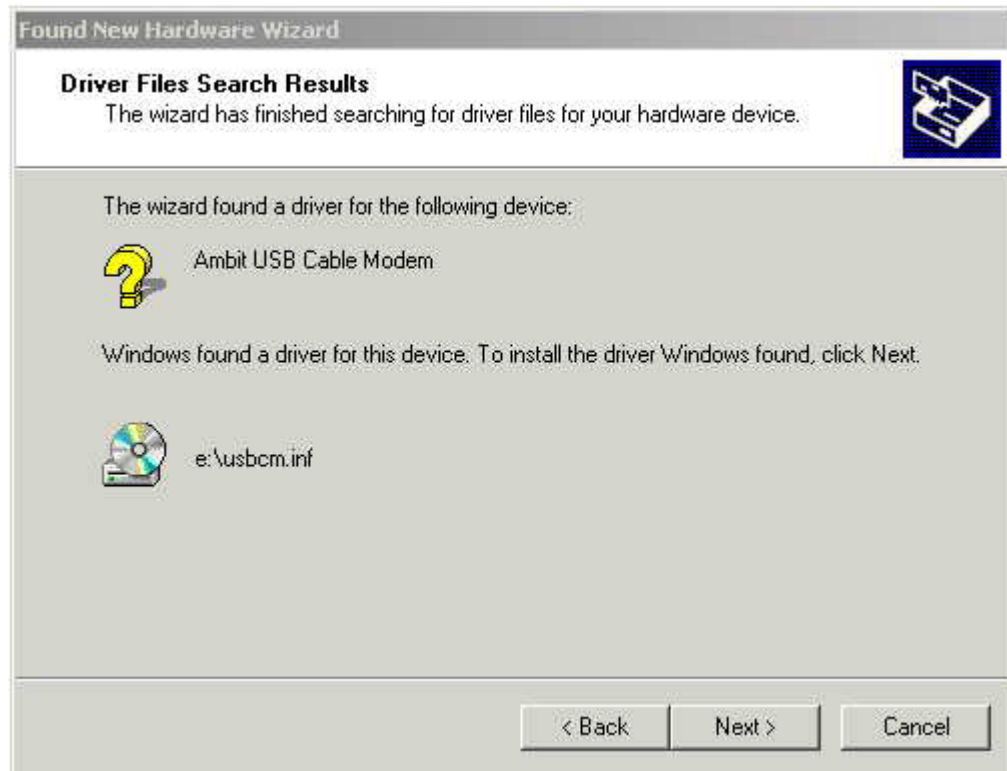


3. Select *Search for a suitable driver for my device (recommended)*. Then select *Next*. You will see the following screen

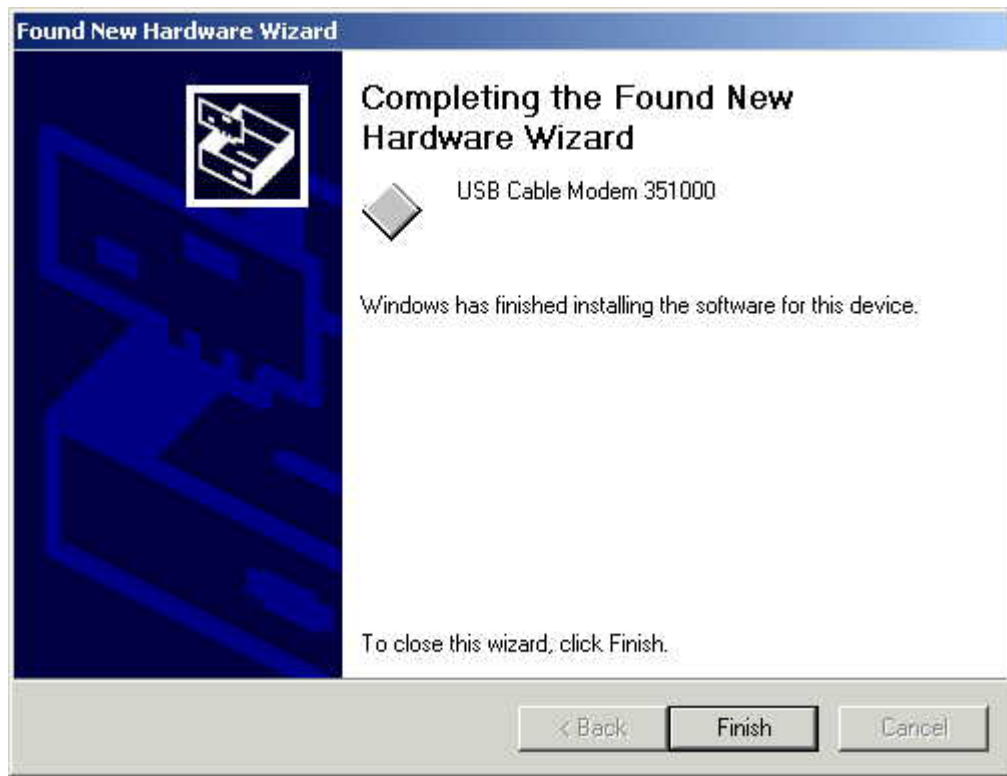


4. Check the *CD-ROM drive* check box and verify that the CD is in the CD-ROM drive. Click

Next to have Windows locate the necessary driver files. You will see the following screen.



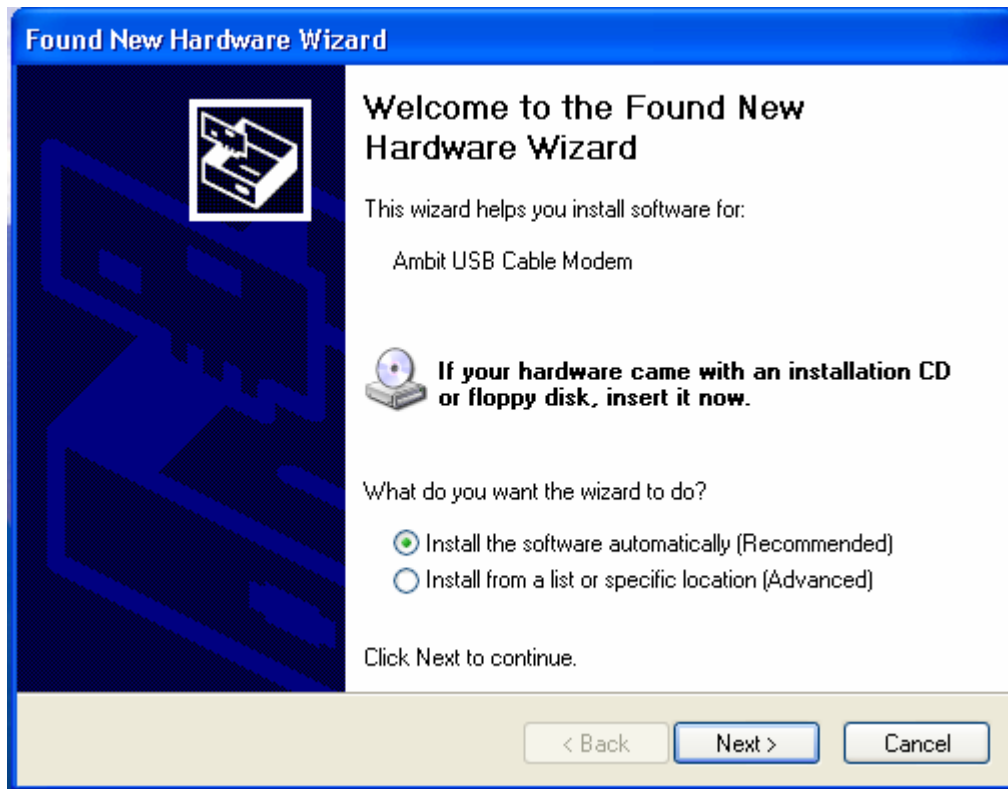
5. Click *Next* to install the driver files for the cable modem. You will see the following screen.



7. Click *Finish* to complete the installation.
8. After the installation is completed, verify that the USB LED is lit on the front of you cable modem. If not, refer to the troubleshooting section later in this chapter.

Installing the Software Drivers in Windows XP Operating System

1. Power on your PC. After your computer boots, Windows detects the cable modem. The Found New Hardware screen appears, followed by the Found New Hardware Wizard screen.



2. Choose *the software automatically (Recommended)*. Click *Next* to continue. You will see the following screen.



3. Click *Finish* to complete the installation.

Troubleshooting the USB Installation

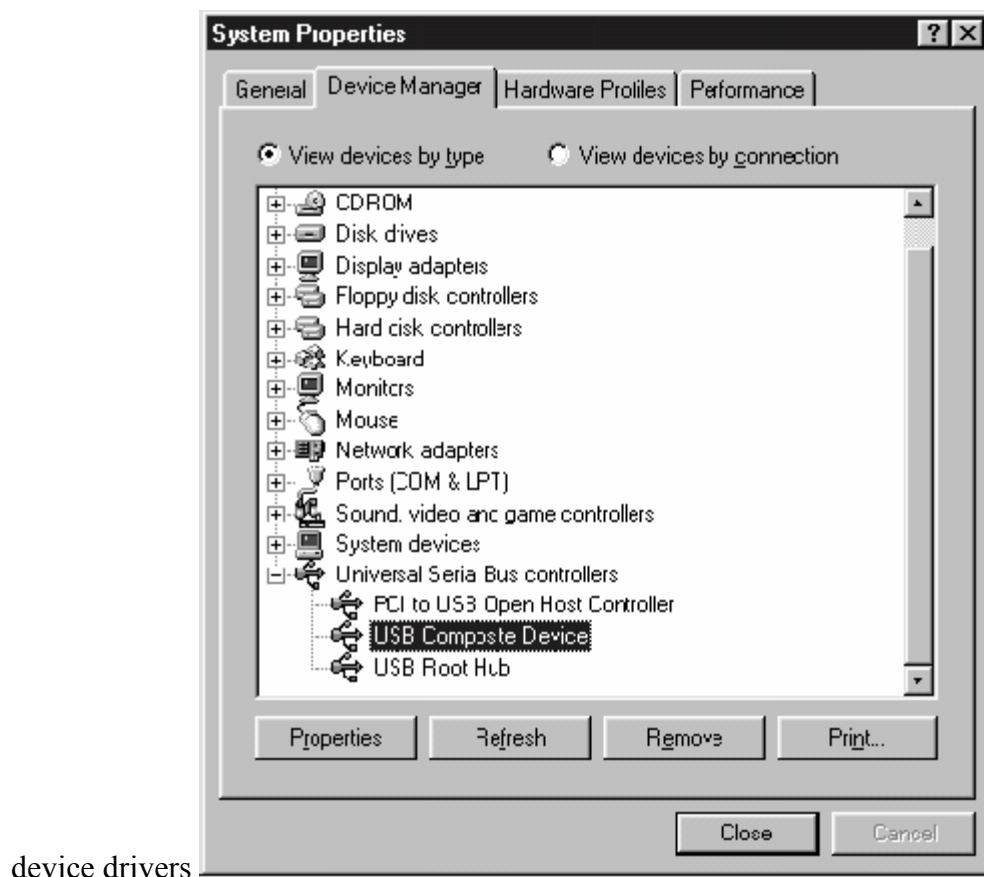
None of the LEDs is on when I power on the LAN Cable Modem.

Check the connection between the power adapter and the cable modem. Power off the LAN Cable Modem and wait for 5 Seconds and power on the modem again. If the problem still exists, you may have a hardware problem.

When attempting to install the USB driver in Windows 98 SE, I receive the following error message: Device not installed at this time. Driver not found.

This usually occurs when the wrong driver has been installed. To remove the wrong driver and install the correct driver:

1. Right-click on the *My Computer* icon on your desktop and choose *Properties*.
2. Click the *Device Manager* tab
3. Click the plus sign next to *Universal Serial Bus controllers* to view the list of installed USB



4. Select *USB Composite Device* and click *Remove*
5. Click *Refresh*

The Add New Hardware Wizard window appears, displaying the device name *USB Composite Device*. Refer to the proper operating system instructions in this chapter for information on reinstalling the driver properly.

All of the LEDs on the front of my modem look correct, but I cannot access the Internet.

- If the POWER, USB, SYNC, and READY are solidly lit, the cable modem is working properly. Use the following procedures to verify connectivity between the PC and the cable modem:
 - Launch Your PC's Internet Browser (e.g., Netscape, IE)
 - Enter <http://192.168.100.1> into your browser. This URL connects you directly to the web server within your cable modem. A successful connection indicates that the PC is able to communicate with the cable modem. The next step is to enter a public URL to ensure connectivity between the cable modem and your cable service provider. If this fails, please contact your cable service provider for further assistance.
- Try restarting the computer so that it could re-establish a connection with the cable modem.
- Power cycle the cable modem by removing the power adapter from the electrical outlet and plugging it back in. Wait several minutes for the cable modem to re-establish communications with your cable service provider.
- Remove any other USB devices from your computer and connect the cable modem's USB cable directly to the USB port on your computer.
- If you are using a cable splitter, try removing the splitter and connect the cable modem directly to the cable wall outlet. Wait several minutes for the cable modem to re-establish communications with your cable service provider.
- Your USB or coaxial cable may be damaged. Try using another cable.
- If none of these suggestions work, contact your cable service provider for further assistance.

Uninstalling the USB Driver

1. Insert the supplied CD into your CD-ROM drive
2. Click on the *My Computer* icon on your desktop. Then click on the icon that belongs to your CD-ROM Drive.
3. Locate the file called "Uninstall" and click on the file. This program will remove all the

necessary files from your computer.

3. Installing the Modem Using the Ethernet Port

This chapter explains the process for installing your cable modem using the Ethernet port.

See Chapter 2 “Installing the Cable Modem Using the USB Port” for instructions on installing the cable modem using the USB port.

You can use the cable modem’s Ethernet ports if you have:

- A PC running Windows 95 (or later) operating system or a Macintosh computer running system 7.6 (or later) operating system
- An active Ethernet port on your PC

Before you begin, verify that your Network Interface Card (NIC) has been installed and configured for use with your cable modem. The cable modem requires TCP/IP to be installed. Contact your cable service provider for assistance with installing and configuring TCP/IP. After installed the hardware, your computer can connect the cable modem directly by using Network Interface Card. Unlike USB installation, there is no needed for software installation for the Ethernet connection.

Installing the Hardware

This section explains how to connect the cable modem to the computer, wall cable outlet, and electrical outlet.

To install the hardware:

1. Power off the computer
2. Connect one end of the coaxial cable to the cable modem’s cable connector. Connect the other end of the coaxial cable to the cable wall outlet. Be sure not to bend or over tighten the cables as this may strain the connector and cause damage. If you plan to connect the cable modem and television to the same wall outlet, you must use a cable line splitter (not included).
3. Connect one end of the Ethernet cable to the cable modem’s Ethernet port and the other end of the cable to the Ethernet port on the PC or network interface card (NIC).
4. Plug the cable modem’s power adapter into the cable modem’s power jack and into a wall outlet or surge protector.
5. If the POWER, SYNC, and READY LEDs are solidly lit, the cable modem is working

properly.

Troubleshooting the Ethernet Installation

None of the LEDs are on when I power on the Cable Modem.

Check the connection between the power adapter and the cable modem. Power off the Cable Modem and wait for 5 seconds and power on the modem again. If the problem still exists, you may have a hardware problem.

The Ethernet 1/2/3/4 LED on my cable modem is not lit.

- Try restarting the computer so that it could re-establish a connection with the cable modem.
- Check for a resource conflict (Windows users only). To do this:
 - 1) Right-click on the *My Computer* icon on your desktop and choose *Properties*.
 - 2) Click the *Device Manager* tab and look for a yellow exclamation point or red X over the NIC in the *Network Adapters* field. If you see either one, you may have an IRQ conflict. Refer to the manufacturer's documentation or your cable service provider for further assistance.
- Verify that TCP/IP is the default protocol for your network interface card (NIC)
- Power cycle the cable modem by removing the power adapter from the electrical outlet and plugging it back in. Wait several minutes for the cable modem to re-establish communications with your cable service provider.
- Your Ethernet cable may be damaged. Try another cable.

All of the LEDs on the front of my modem look correct, but I cannot access the Internet.

- If the POWER, SYNC, READY and Ethernet 1/2/3/4 LEDs are solidly lit, the cable modem is working properly. Try restarting the computer so that it could re-establish a connection with the cable modem.
- Power cycle the cable modem by removing the power adapter from the electrical outlet and plugging it back in. Wait several minutes for the cable modem to re-establish communications with your cable service provider.
- If your PC is connected to a hub or gateway, try connecting the PC directly into the cable modem.

- If you are using a cable splitter, try removing the splitter and connect the cable modem directly to the cable wall outlet. Wait several minutes for the cable modem to re-establish communications with your cable service provider.
- Your Ethernet or coaxial cable may be damaged. Try using another cable.
- If none of these suggestions work, contact your cable service provider for further assistance.

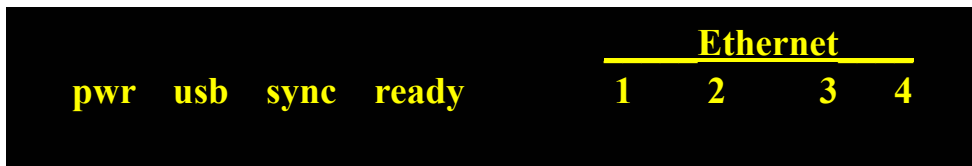
4. Cable Modem Router LEDs and Connectors

This chapter describes the functions of the cable modem router's LEDs and connectors.

When the **pwr**, **sync**, and **ready** LEDs are lit, the cable modem router is working properly. The **usb** or **enet 1, 2, 3, 4** LEDs should also be lit depending on what port is being used.

The following provides an overview of the LED indicator lights on the front of the cable modem router and what the LEDs mean.

LEDs on the Front of the Modem

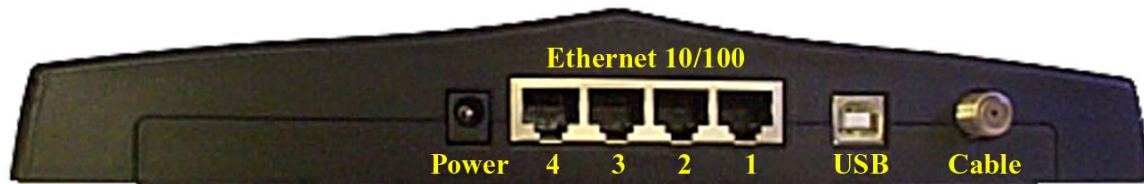


- **pwr**: Indicates that the cable modem has successfully completed internal power-on tests.
- **usb**: Indicates connectivity between the USB port on the cable modem and the PC's USB port.
- **sync**: Indicates the connection status between the cable modem and the cable network. The LED is lit when the cable modem has established a downstream channel with the cable service provider's Cable Modem Termination System (CMTS).
- **ready**: Indicates that the cable modem has completed the ranging/registration process and is ready to send/receive data.
- **Ethernet 1, 2, 3, 4**: Indicates connectivity between the Ethernet port on the cable modem router and the Ethernet port on a PC or Mac. This LED blinks when the cable modem router is transferring or receiving data over the Ethernet cable.

Installation problems with the cable modem are commonly due to the cable network and its topography. LEDs on the front panel of the cable modem reveal operational status and help you determine problem areas.

Connectors on the Back of the Modem

This list of connectors describes where to connect the cables and power adapter when installing the cable modem.

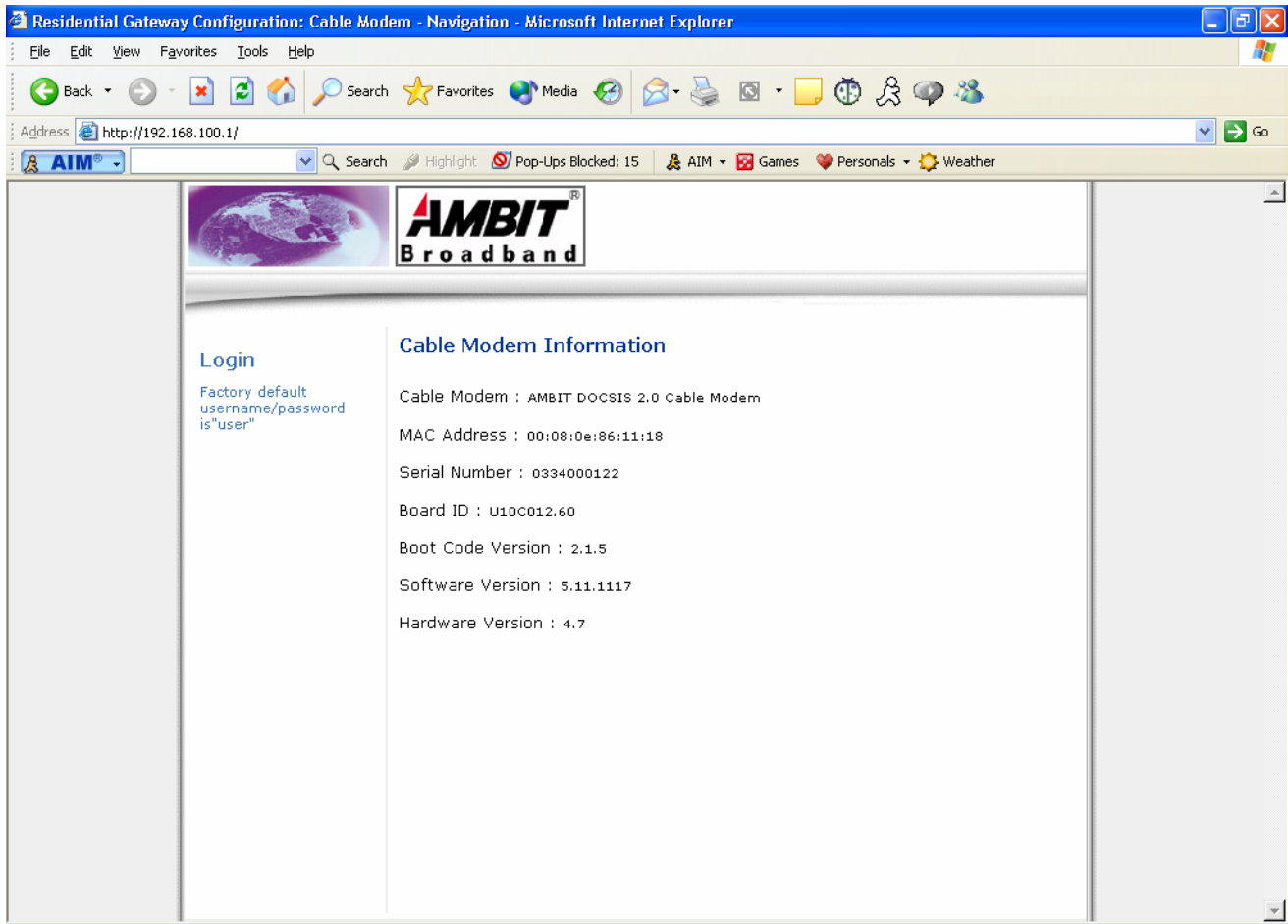


1. **Power:** This is where you plug the included power adapter. Remember to use only the power adapter that came with the cable modem.
2. **Ethernet 10/100 Port 1, 2, 3, 4:** This is where you plug the Ethernet cable. The other end connects to the Ethernet port on the PC.
3. **USB:** This is where you plug the included USB cable. The other end connects to the USB port on your PC.
4. **Cable:** This is where you connect the coaxial cable (not included) that leads to the cable splitter (not included) or the cable wall outlet.

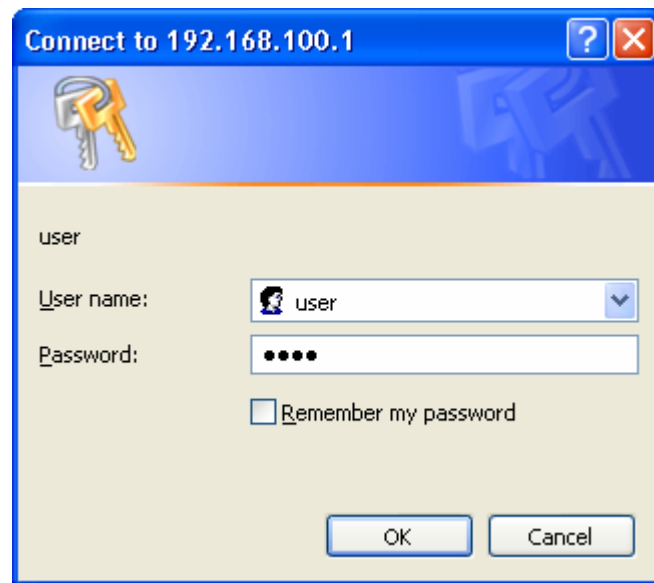
5. Web User Interface

Accessing the Web User Interface

1. The PC connected to the cable modem must support TCP/IP connection and dynamic DHCP IP address acquisition, and must have a web browser installed.
2. Open the web browser and set the URL location as: `http://192.168.100.1`



3. Click LOGIN. Enter user for User name and user for Password, and then click **OK**.



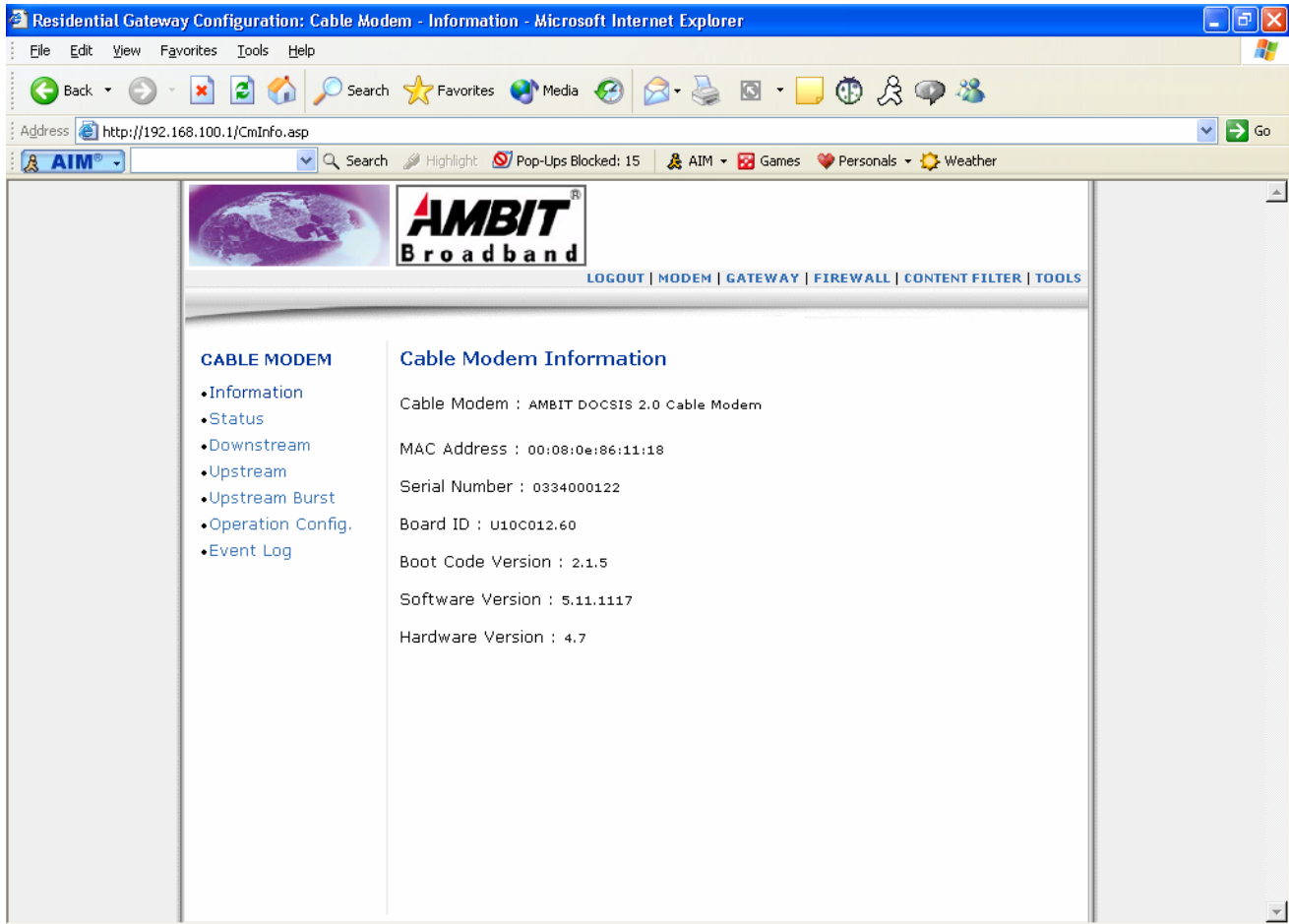
4. If the user enters an incorrect user name and/or password, the web user interface displays “401Unauthorized”.

Web User Interface Home Page

A main menu is shown at the top of the pages and the user can select different options to view the cable modem information. They include:

Cable Modem

Cable Modem Information



Cable Modem Status


Residential Gateway Configuration: Cable Modem - Status - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Reload Home Search Favorites Media Print Mail News RSS Feeds

Address http://192.168.100.1/CmStatus.asp Go

AIM Search Highlight Pop-Ups Blocked: 15 AIM Games Personals Weather

 **AMBIT**
Broadband

LOGOUT | **MODEM** | GATEWAY | FIREWALL | CONTENT FILTER | TOOLS

CABLE MODEM

- Information
- **Status**
- Downstream
- Upstream
- Upstream Burst
- Operation Config.
- Event Log

Cable Modem Status

Item	Status	Comments
Acquire a Downstream Channel	561000000 Hz	Locked
Connectivity State	OK	Operational
Boot State	OK	Operational
Security	Disabled	Disabled

Refresh

Downstream

Residential Gateway Configuration: Cable Modem - Downstream - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back


Search

Favorites

Media

Address http://192.168.100.1/CmDnstream.asp Go

AIM Search Highlight Pop-Ups Blocked: 15 AIM Games Personals Weather



LOGOUT

MODEM

GATEWAY

FIREWALL

CONTENT FILTER

TOOLS

CABLE MODEM

- Information
- Status
- Downstream
- Upstream
- Upstream Burst
- Operation Config.
- Event Log

Cable Modem Downstream

Downstream Lock :	Locked
Downstream Channel Id :	6
Downstream Frequency :	
Downstream Modulation :	QAM64
Downstream Symbol Rate :	5056941 sym/sec
Downstream Interleave Depth :	32
Downstream Receive Power Level :	-2.8 dBmV
Downstream SNR :	31.3 dB

Refresh

Upstream


Residential Gateway Configuration: Cable Modem - Upstream - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print Mail Calendar People

Address http://192.168.100.1/CmUpstream.asp Go

AIM Search Highlight Pop-Ups Blocked: 15 AIM Games Personals Weather

 **AMBIT**
Broadband

LOGOUT | MODEM | GATEWAY | FIREWALL | CONTENT FILTER | TOOLS

CABLE MODEM

- Information
- Status
- Downstream
- Upstream
- Upstream Burst
- Operation Config.
- Event Log

Cable Modem Upstream

Upstream Lock :	Locked
Upstream Channel ID :	2
Upstream Frequency :	
Upstream Modulation :	QAM16
Upstream Symbol Rate :	2560 Ksym/sec
Upstream transmit Power Level :	39.0 dBmV
Upstream Mini-Slot Size :	2

Refresh

Upstream Burst


Residential Gateway Configuration: Cable Modem - Upstream Burst - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media

Address http://192.168.100.1/CmUpBurst.asp Go

AIM Search Highlight Pop-Ups Blocked: 15 AIM Games Personals Weather

 **AMBIT**
Broadband

LOGOUT | MODEM | GATEWAY | FIREWALL | CONTENT FILTER | TOOLS

CABLE MODEM

- Information
- Status
- Downstream
- Upstream
- Upstream Burst
- Operation Config.
- Event Log

Cable Modem Upstream Burst

	Req (1)	Init Maint (3)	Per Maint (4)	Short Data (5)	Long Data (6)
Modulation Type	QPSK	QPSK	QPSK	16QAM	16QAM
Differential Encoding	Off	Off	Off	Off	Off
Preamble Length	64	128	128	144	160
Preamble Value Offset	56	0	0	272	256
FEC Error Correction (T)	0	5	5	6	8
FEC Codeword Information Bytes (k)	16	34	34	78	220
Scrambler Seed	338	338	338	338	338
Maximum Burst Size	2	0	0	7	0
Guard Time Size	8	48	48	8	8
Last Codeword Length	Fixed	Fixed	Fixed	Short	Short
Scrambler on/off	On	On	On	On	On

Refresh

Operation Configuration


Residential Gateway Configuration: Cable Modem - Operation Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Reload Home Search Favorites Media Print Mail News RSS AIM Games Personals Weather

Address http://192.168.100.1/CmOpConfig.asp Go

AIM Search Highlight Pop-Ups Blocked: 15

 **AMBIT**
Broadband

LOGOUT | MODEM | GATEWAY | FIREWALL | CONTENT FILTER | TOOLS

CABLE MODEM

- Information
- Status
- Downstream
- Upstream
- Upstream Burst
- Operation Config.
- Event Log

Cable Modem Operation Configuration

Network Access :	Allowed
Maximum Downstream Data Rate :	4300000
Maximum Upstream Data Rate :	540000
Maximum Upstream Channel Burst :	0
Maximum Number of CPEs :	1
Modem Capability :	Concatenation Disabled, Fragametation Disabled, PHS Disabled

Event Log

Residential Gateway Configuration: Cable Modem - Event Log - Microsoft Internet Explorer

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Address http://192.168.100.1/CmEventLog.asp Go

AIM Search Highlight Pop-Ups Blocked: 15 AIM Games Personals Weather

AMBIT Broadband

LOGOUT | MODEM | GATEWAY | FIREWALL | CONTENT FILTER | TOOLS

CABLE MODEM

- Information
- Status
- Downstream
- Upstream
- Upstream Burst
- Operation Config.
- Event Log

Cable Modem Event Log

Contact Email Address :

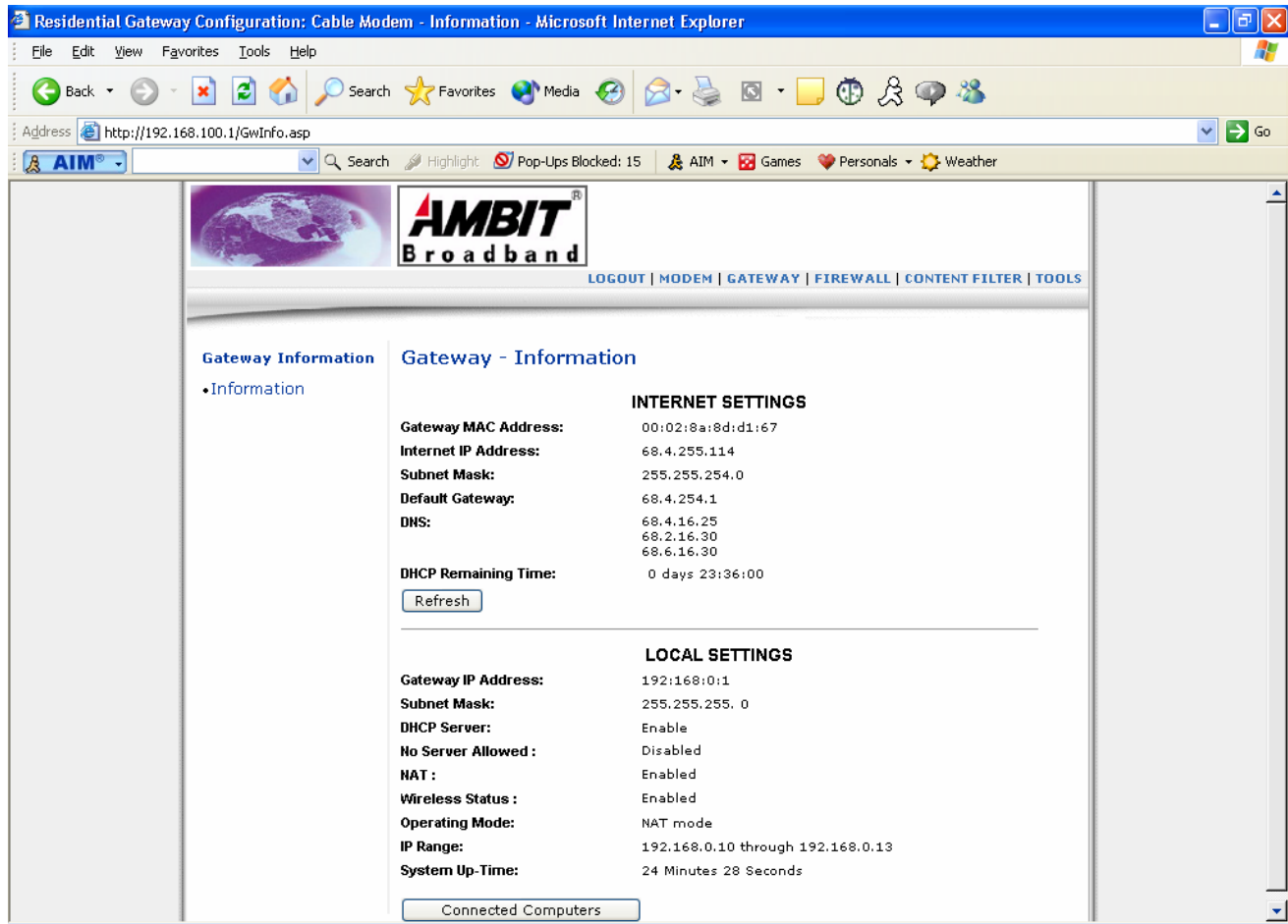
SMTP Server Name :

First Time	Last Time	Counts	Level	ID	Text
------------	-----------	--------	-------	----	------

- **Contact E-mail Address**
Enter E-mail address for sending event log.
- **SMTP Server Name**
Enter SMTP Server Name for sending event log.
- **Apply**
Any configuration changes must be followed by “**Apply**” before changes will occur.
- **E-mail Log**
Send current event log to e-mail address specified.
- **Refresh**
Update event log.
- **Clear Log**
Clear event log.

Gateway Information

This page shows gateway information.



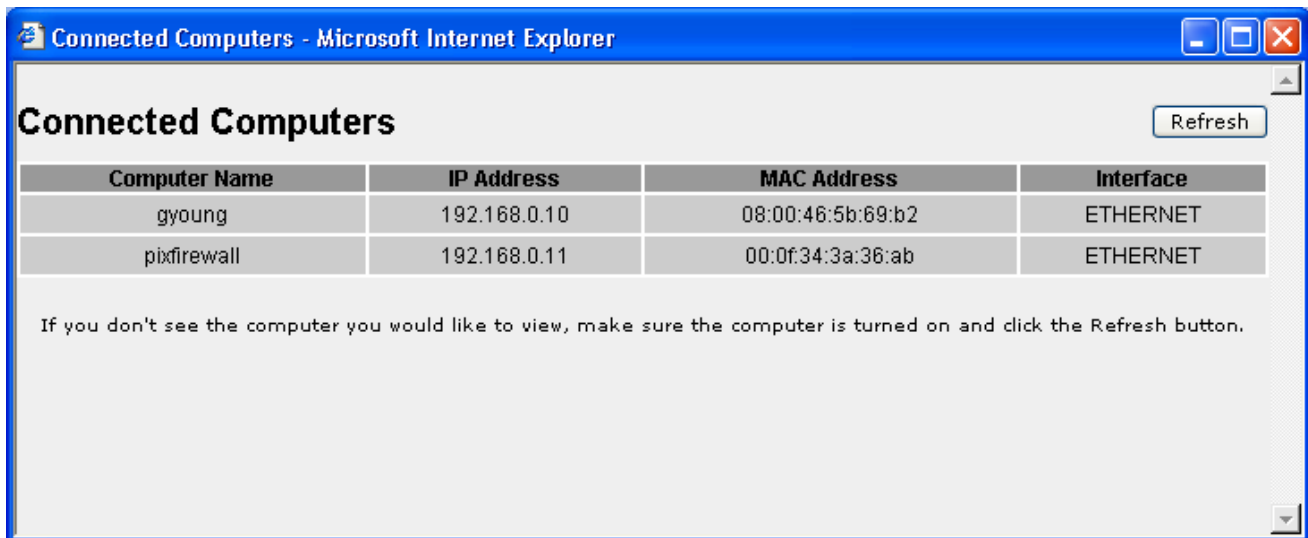
Gateway Information

- **Refresh**

Click "**Refresh**" to get current gateway information.

- **Connected Computers**

Click "**Connected Computers**" to show computers attached to the cable modem.



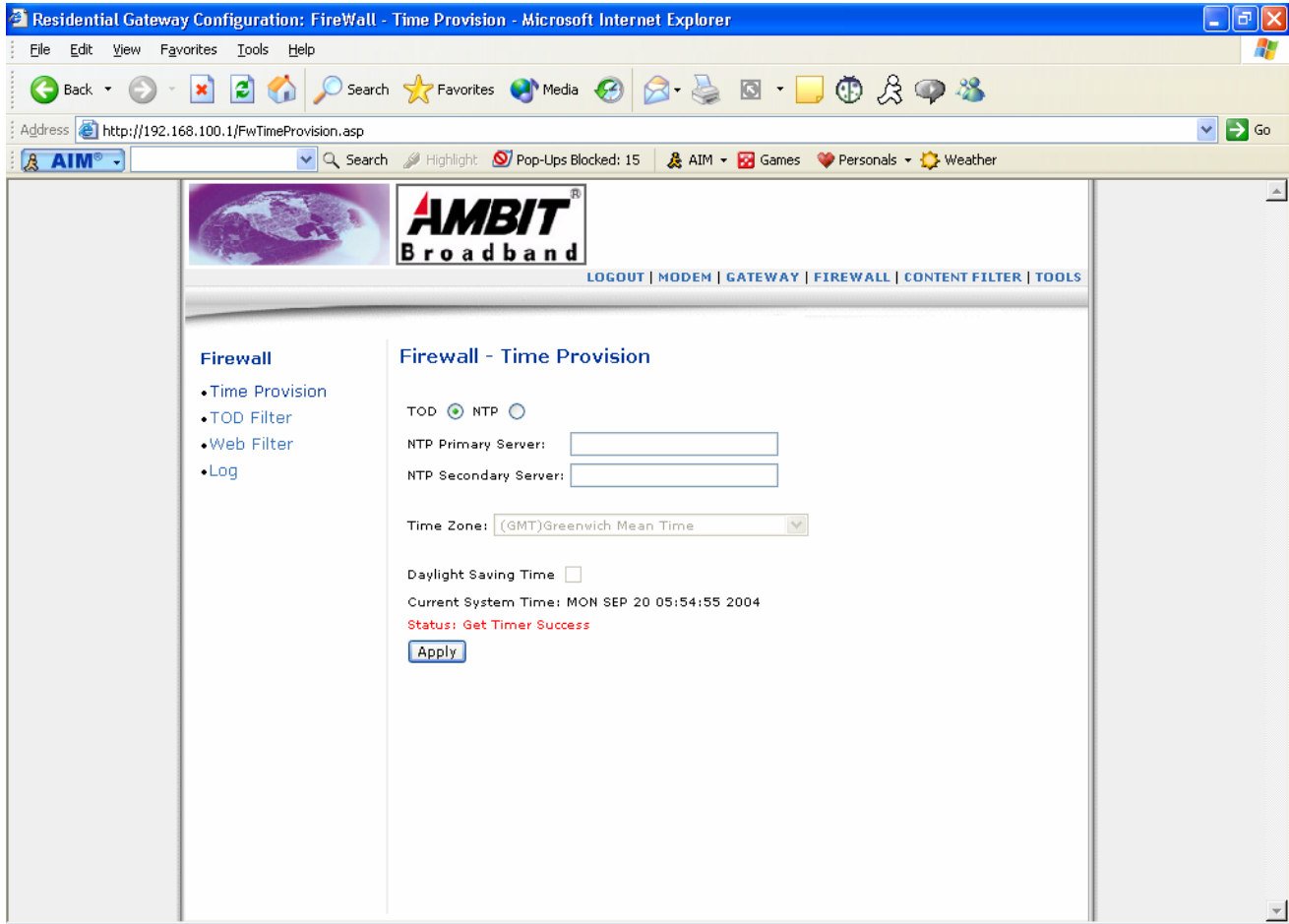
- **Refresh**

Click “**Refresh**” to get connected computers information.

Firewall

Time Provision

This page allows configuration of Time Provision to get the current time via specific provision mode.



Firewall – Time Provision

- **TOD / NTP**

Check “TOD” to enable Time Provision using TOD.

Check “NTP” to enable Time Provision using NTP.

- **NTP Primary Server:**

Specify NTP Primary Server IP address when in NTP Time Provision mode.

- **NTP Secondary Server:**

Specify NTP Secondary Server IP address when in NTP Time Provision mode.

- **Time Zone**

Select time zone from a given list when in NTP Time Provision mode.

- **Daynight Saving time**

Check to enable Daynight saving time.

- **Apply**

Any configuration changes must be followed by “**Apply**” before changes will occur.

TOD filter

This page allows configuration of web access filters to block all internet traffic to and from specific network devices based on time of day settings.

Residential Gateway Configuration: Firewall - TOD Filter - Microsoft Internet Explorer

Address: http://192.168.100.1/FwTodFilter.asp

LOGOUT | MODEM | GATEWAY | FIREWALL | CONTENT FILTER | TOOLS

Firewall

- Time Provision
- **TOD Filter**
- Web Filter
- Log

Firewall - TOD Filter

Click 'Connected Computers' to select a computer.

Connected Computers

Current Internet Access Time Limits
Time limits have been set for the following computers.

Computer Name	View Additional Time Limits	Enable	Remove
1. gyoung		<input type="checkbox"/>	Remove

Block Internet access according to this schedule:

Day(s) to Block:

☐ Everyday ☒ Sunday ☐ Monday ☐ Tuesday
☐ Wednesday ☐ Thursday ☐ Friday ☒ Saturday

Time of Day to Block:

☒ All day
Start: 12 (hour) 00 (min) AM
End: 11 (hour) 59 (min) PM

Applications Block:

☒ Block All ☐ Block HTTP ☐ Block SMTP ☐ Block FTP
☐ Block POP3 ☐ Block SNMP ☐ Block TELNET ☐ Block TFTP
Other: 0

Apply

Firewall – TOD Filter

- **Connected Computers**

Click “**Connected Computers**” to specify day & time to block certain computer in the network.

- **Computer Name**

Select Computer Name and check “**Enable**” to start blocking internet access according to the schedule.

Select Computer Name and check “**Remove**” to stop blocking internet access according to the schedule.

- **Apply**

Any configuration changes must be followed by “**Apply**” before changes will occur.

Connected Computers - Microsoft Internet Explorer

Connected Computers

Refresh

Computer Name	IP Address	MAC Address	Interface	Add
gyoung	192.168.0.10	08:00:46:5b:69:b2	ETHERNET	<input checked="" type="radio"/>
pixfirewall	192.168.0.11	00:0f:34:3a:36:ab	ETHERNET	<input type="radio"/>

If you don't see the computer you would like to view or add, make sure the computer is turned on and click the Refresh button.

Block Internet access according to this schedule:

Day(s) to Block:

☐ Everyday
 ☒ Sunday
 ☐ Monday
 ☐ Tuesday
 ☐ Wednesday
 ☐ Thursday
 ☐ Friday
 ☒ Saturday

Time of Day to Block:

☐ All day
 Start: (hour) (min)
 End: (hour) (min)

Applications Block:

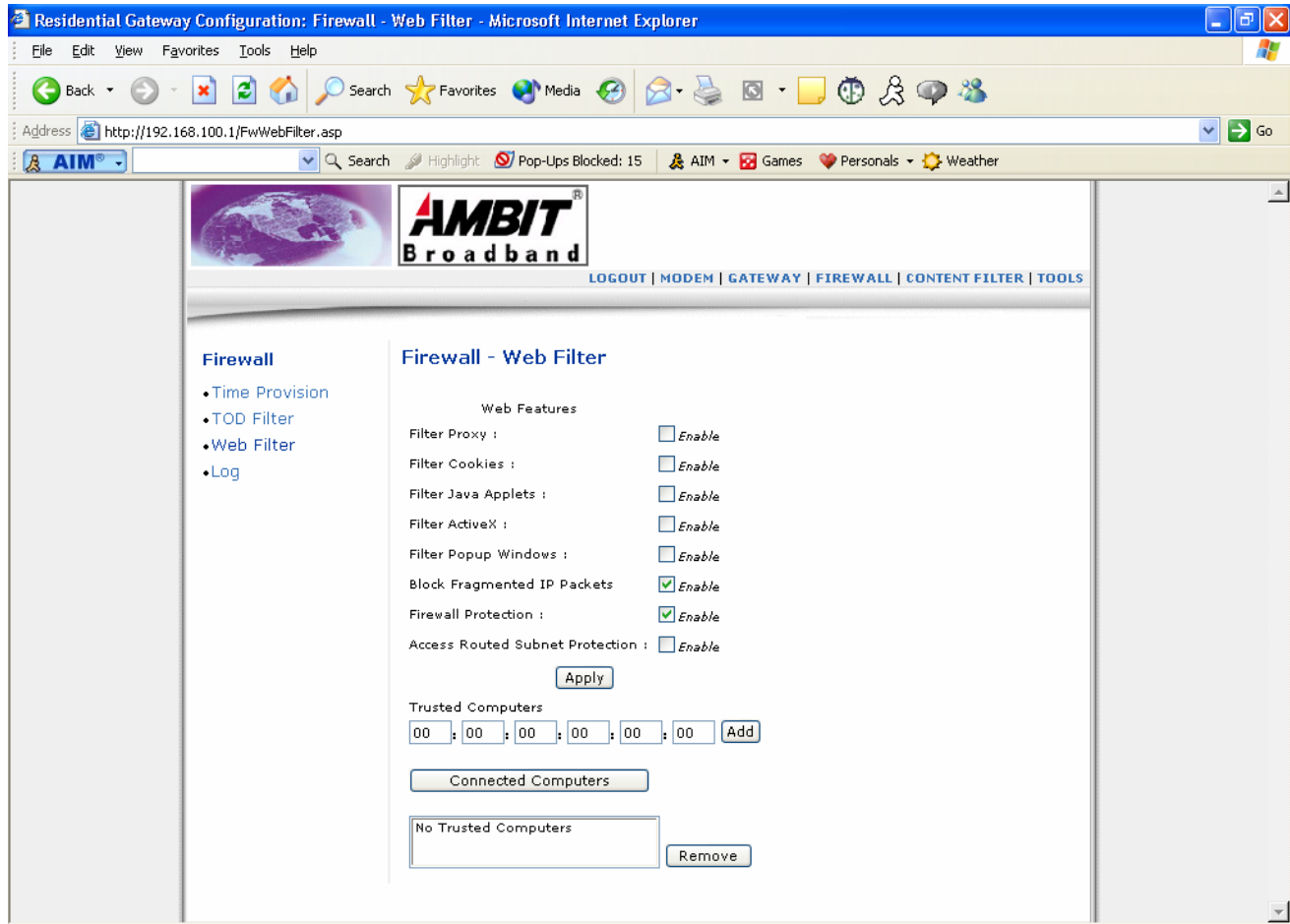
☐ Block All
 ☐ Block HTTP
 ☐ Block SMTP
 ☐ Block FTP
 ☐ Block POP3
 ☐ Block SNMP
 ☐ Block TELNET
 ☐ Block TFTP
 Other:

Firewall – TOD Filter

- **Day(s) to Block**
Check day(s) to block internet access for the “Add Computer”.
- **Time of Day to Block**
Check Time of Day to block access for the “Add Computer”.
- **Applications Block**
Check Applications to block for the “Add Computer”
- **Apply**
Any configuration changes must be followed by “**Apply**” before changes will occur.

Web filter

This page allows configuration of content filters to block to and from specific network devices based on keyword and domain name entries. A list of "trusted computers" can also be entered that are not subject to the filters entered. Specific Firewall features can also be enabled. It is highly recommended that the Firewall is left enabled at all times for protection against Denial of Service attacks, etc.



Firewall – Web Filter

- **Filter Proxy**
Check “**Enable**” to enable Proxy filter.
Uncheck “**Enable**” to disable Proxy filter.
- **Filter Cookies**
Check “**Enable**” to enable Cookies filter.
Uncheck “**Enable**” to disable Cookies filter.
- **Filter Java Applets**
Check “**Enable**” to enable Java Applets filter.
Uncheck “**Enable**” to disable Java Applets filter.
- **Filter ActiveX**
Check “**Enable**” to enable ActiveX filter.

Uncheck “**Enable**” to disable ActiveX filter.

- **Filter Popup Windows**

Check “**Enable**” to enable Popup Windows filter.

Uncheck “**Enable**” to disable Popup Windows filter

- **Block Fragmented IP Packets**

Check “**Enable**” to enable blocking Fragmented IP Packets.

Uncheck “**Enable**” to disable blocking Fragmented IP Packets.

"With this feature enabled, all packets are checked to determine if the packet contains a "fragment" flag. If the flag exists, the CM will discard the packet. This feature is used primarily to protect against any intruders/hackers from gaining access to the router or network." "Under certain conditions, this feature may cause communication issues with other devices on the network and should be disabled. For example, streaming media applications may fragment the packets depending on the encoding used for the video stream. Depending on the encoding used for the clip, some or a majority of the packets will become fragmented. For clips encoded at 300 Kbps, 66% of the packets are IP fragments, while below 100 Kbps there is no fragmentation.

- **Firewall Protection**

Check “**Enable**” to enable Firewall Protection.

Uncheck “**Enable**” to disable Firewall Protection.

- **Access Routed Subnet Protection**

Check “**Enable**” to enable Routed Subnet Protection.

Uncheck “**Enable**” to disable Routed Subnet Protection.

- **Apply**

Any configuration changes must be followed by “**Apply**” before changes will occur.

- **Trusted Computers - Add**

Specify MAC address for trusted computer and click “**Add**” to add it to the list.

- **Trusted Computers - Remove**

Select MAC address from trusted computer list and click “**Remove**” to remove it from the list.

Log

This page allows configuration of Firewall event log reporting via email alerts and a local view of the attacks on the system.

Residential Gateway Configuration: Firewall - Log - Microsoft Internet Explorer

Address: http://192.168.100.1/FwLog.asp

LOGOUT | MODEM | GATEWAY | FIREWALL | CONTENT FILTER | TOOLS

Firewall

- Time Provision
- TOD Filter
- Web Filter
- Log

Firewall - Log

Contact Email Address :

SMTP Server Name :

E-mail Alerts : ☒ Enable

Description	Count	Last Occurrence	Target	Source
IP Fragmented Packet	5	SAT AUG 14 04:47:30 2004	68.5.246.245:1026	69.93.10.57:15177
SYN Flood	18	SAT AUG 14 06:37:28 2004	192.168.0.10:3777	63.150.145.9:80
IP Fragmented Packet	10	MON AUG 16 03:02:16 2004	68.5.246.245:1026	69.93.10.57:12392
SYN Flood	2	MON AUG 16 07:03:25 2004	192.168.0.10:3438	64.4.241.18:80
IP Fragmented Packet	7	MON AUG 16 18:27:05 2004	68.5.246.245:1026	69.93.10.57:29854
SYN Flood	1	TUE AUG 17 06:34:06 2004	192.168.0.10:4545	64.4.241.18:80
IP Fragmented Packet	1	TUE AUG 17 09:52:24 2004	68.5.246.245:1026	69.93.10.57:14958
SYN Flood	17	FRI SEP 10 06:39:11 2004	192.168.0.10:3431	64.6.17.1:80
IP Fragmented	3	FRI SEP 10 17:29:17	68.96.89.186:1026	67.18.244.29:9199

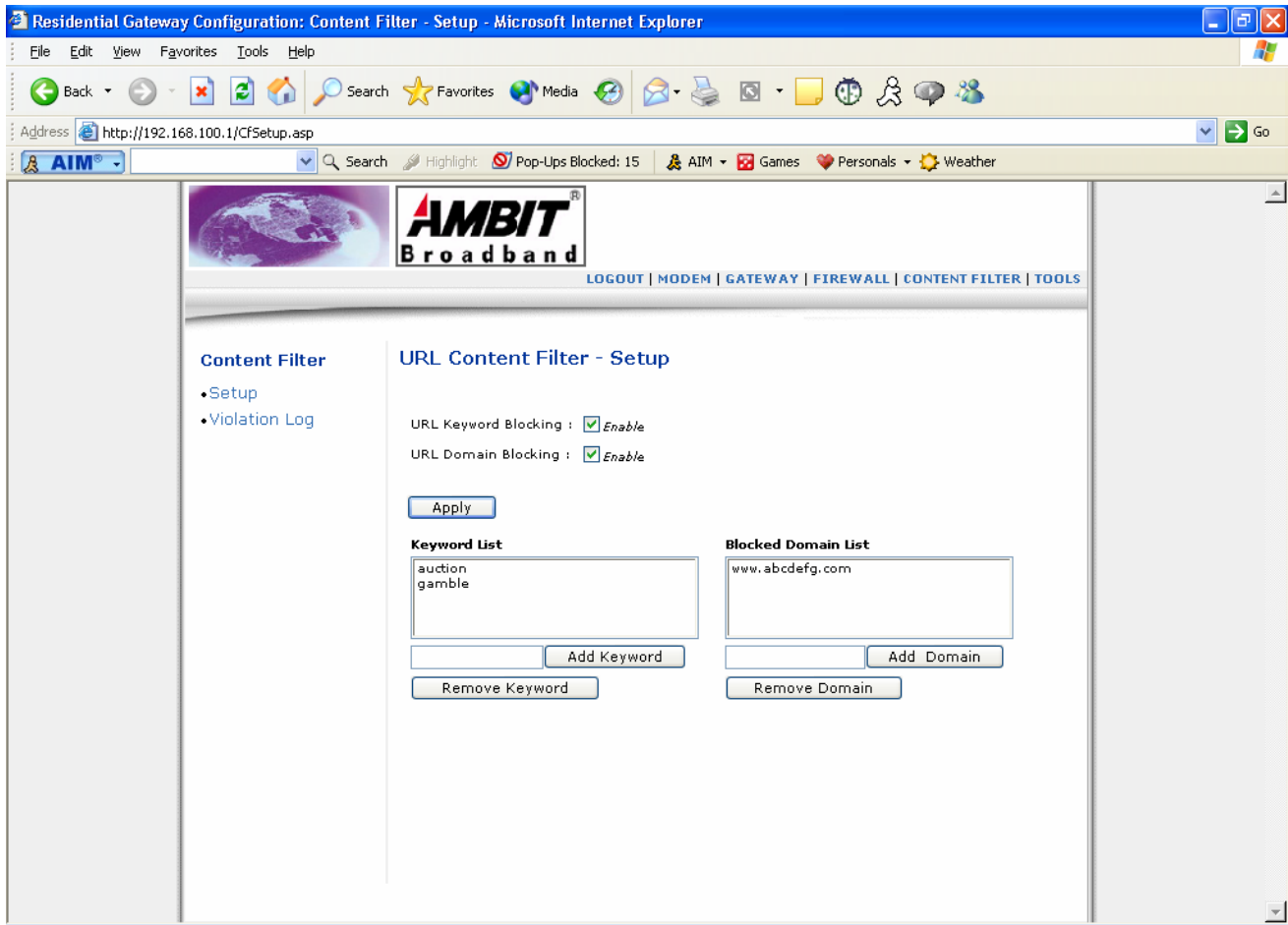
Firewall – Log

- **Contact E-mail Address**
Enter E-mail address for sending Firewall event log.
- **SMTP Server Name**
Enter SMTP Server Name for sending Firewall event log.
- **Apply**
Any configuration changes must be followed by “**Apply**” before changes will occur.
- **E-mail Log**
Send current Firewall event log to e-mail address specified.
- **Refresh**
Update event log.
- **Clear Log**
Clear event log.

Content Filter

Setup

This page allows configuration of URL content filter rules.



Content Filter – Setup

- **URL Keyword Blocking**

Check “**Enable**” to enable URL Keyword Blocking.

Uncheck “**Enable**” to disable URL Keyword Blocking.

- **URL Domain Blocking**

Check “**Enable**” to enable URL Domain Blocking.

Uncheck “**Enable**” to disable URL Domain Blocking.

- **Add Keyword**

Specify Keyword and click “**Add Keyword**” to add keyword to the list.

- **Remove Keyword**

Select Keyword from the list and click “**Remove Keyword**” to delete keyword from the list.

- **Add Domain**

Specify Domain and click “**Add Domain**” to add Domain to the list.

- **Remove Domain**

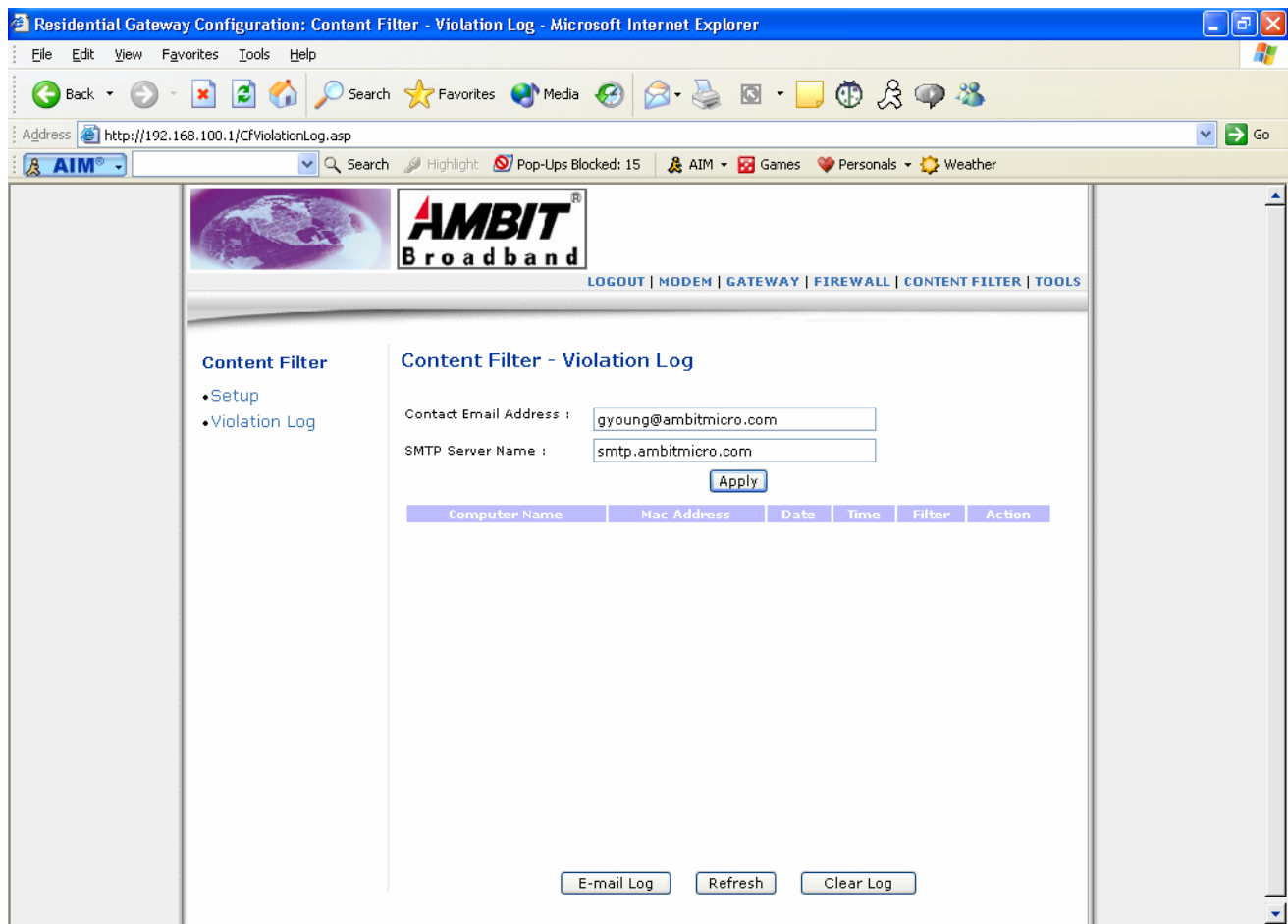
Select Domain from the list and click “**Remove Domain**” to delete Domain from the list.

- **Apply**

Any configuration changes must be followed by “**Apply**” before changes will occur.

Violation Log

This page provides a local view of the content filter log.



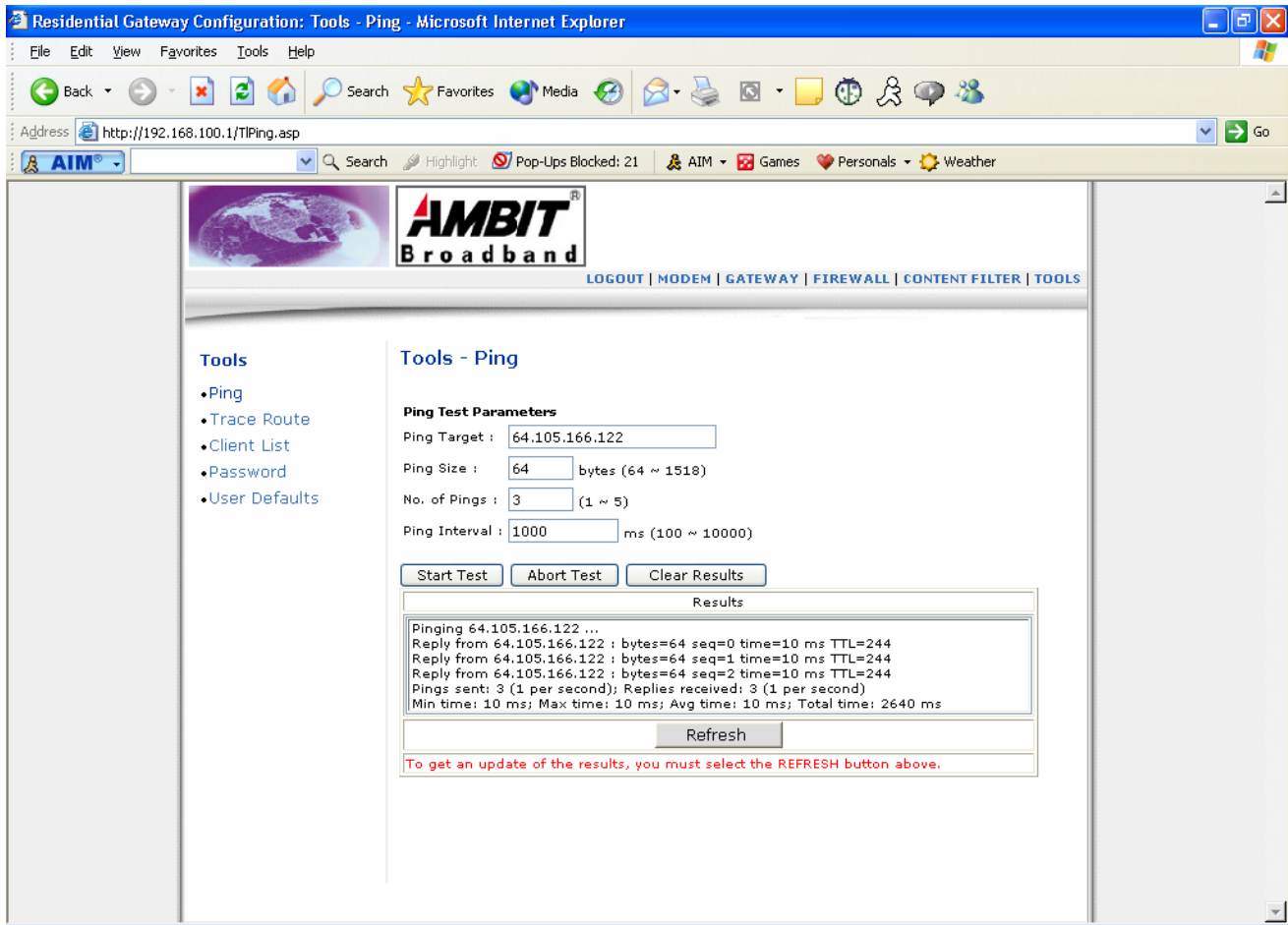
Content Filter – Violation Log

- **Contact E-mail Address**
Enter E-mail address for sending Content Violation log.
- **SMTP Server Name**
Enter SMTP Server Name for sending Content Violation log.
- **Apply**
Any configuration changes must be followed by “**Apply**” before changes will occur.
- **E-mail Log**
Send current Content Violation log to e-mail address specified.
- **Refresh**
Update event log.
- **Clear Log**
Clear event log.

Tools

Ping

This page provides ping diagnostics to help with IP connectivity problems.



Tools - Ping

- **Ping Target**
Specify target IP address.
- **Ping Size**
Specify ping packet size in bytes.
- **No. of Pings**
Specify number of pings.
- **Ping Interval**
Specify interval between pings in ms.
- **Start Test**
Click to start ping test.
- **Abort Test**
Click to abort ping test.
- **Clear Results**
Click to clear result messages.
- **Refresh**
Click “**Refresh**” to get updated results.

Trace Route

This page provides trace route diagnostics to help with IP connectivity problems.

Residential Gateway Configuration: Tools - Trace Route - Microsoft Internet Explorer

Address: <http://192.168.100.1/TITracert.asp>

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Tools

- Ping
- Trace Route
- Client List
- Password
- User Defaults

Tools - Trace Route

Tracert Test Parameters

Tracert Target :

MAX Hops : Hops (1 ~ 50)

Time out : ms (100 ~ 10000)

Results

Tracing route to 64.105.166.122 over a maximum of 30 hops

1	40ms	10ms	10ms	68.4.254.1
2	10ms	10ms	10ms	68.4.14.153
3	10ms	10ms	10ms	68.4.15.109
4	10ms	10ms	10ms	68.4.15.241
5	10ms	10ms	10ms	68.1.0.188
6	170ms	50ms	40ms	68.1.0.182
7	10ms	10ms	10ms	65.59.168.1
8	10ms	10ms	10ms	4.68.114.17
9	20ms	10ms	10ms	4.68.128.153

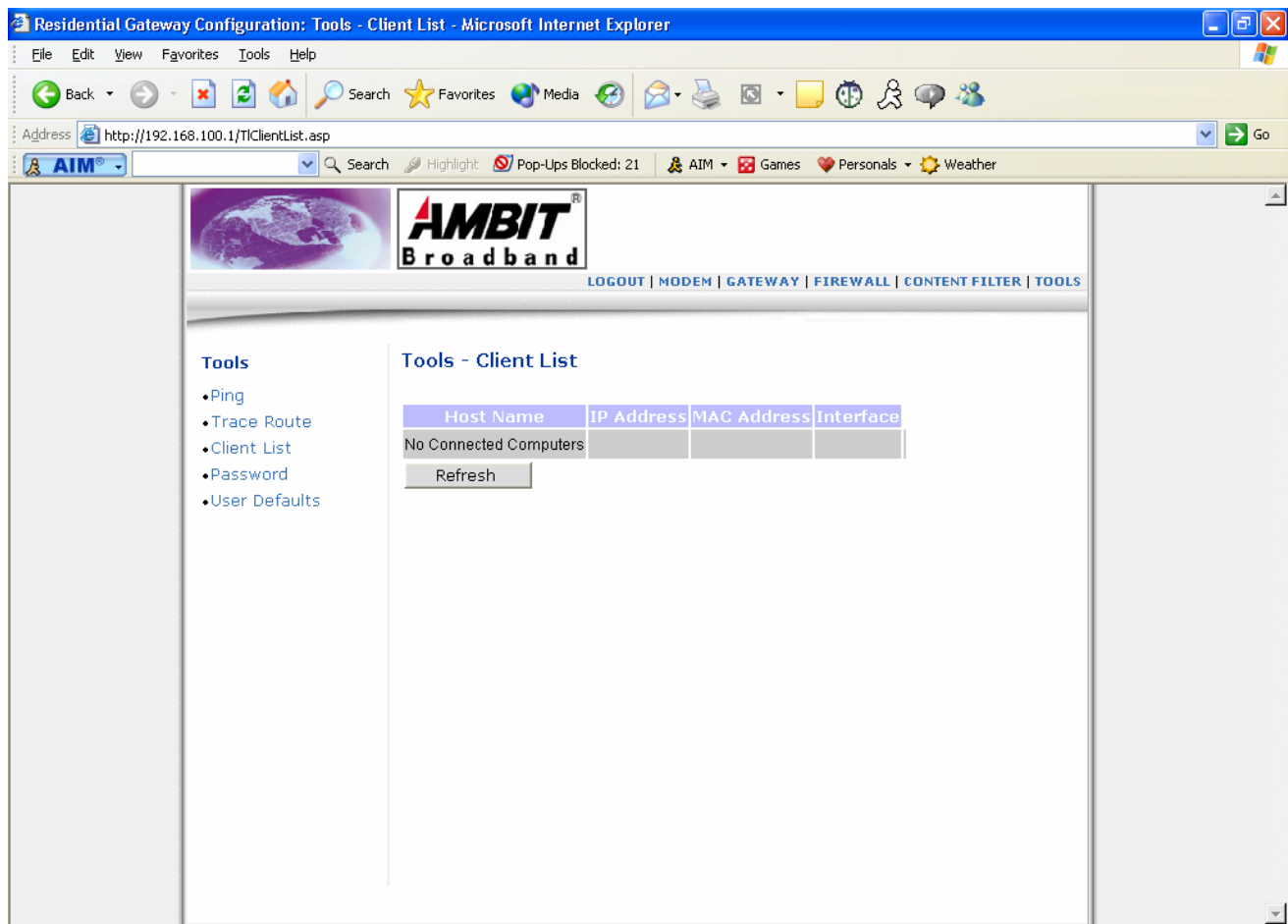
To get an update of the results, you must select the REFRESH button above.

Tools – Trace Route

- **Tracert Target**
Specify trace route target IP address.
- **MAX Hops**
Specify maximum hops.
- **Timeout**
Specify timeout.
- **Refresh**
Click “**Refresh**” to get updated results.
- **Start Test**
Click “**Start Test**” to start trace route test.
- **Abort Test**
Click “**Abort Test**” to abort trace route test.
- **Clear Results**
Click “**Clear Results**” to clear result messages.

Client List

This page shows connected computer in client list.



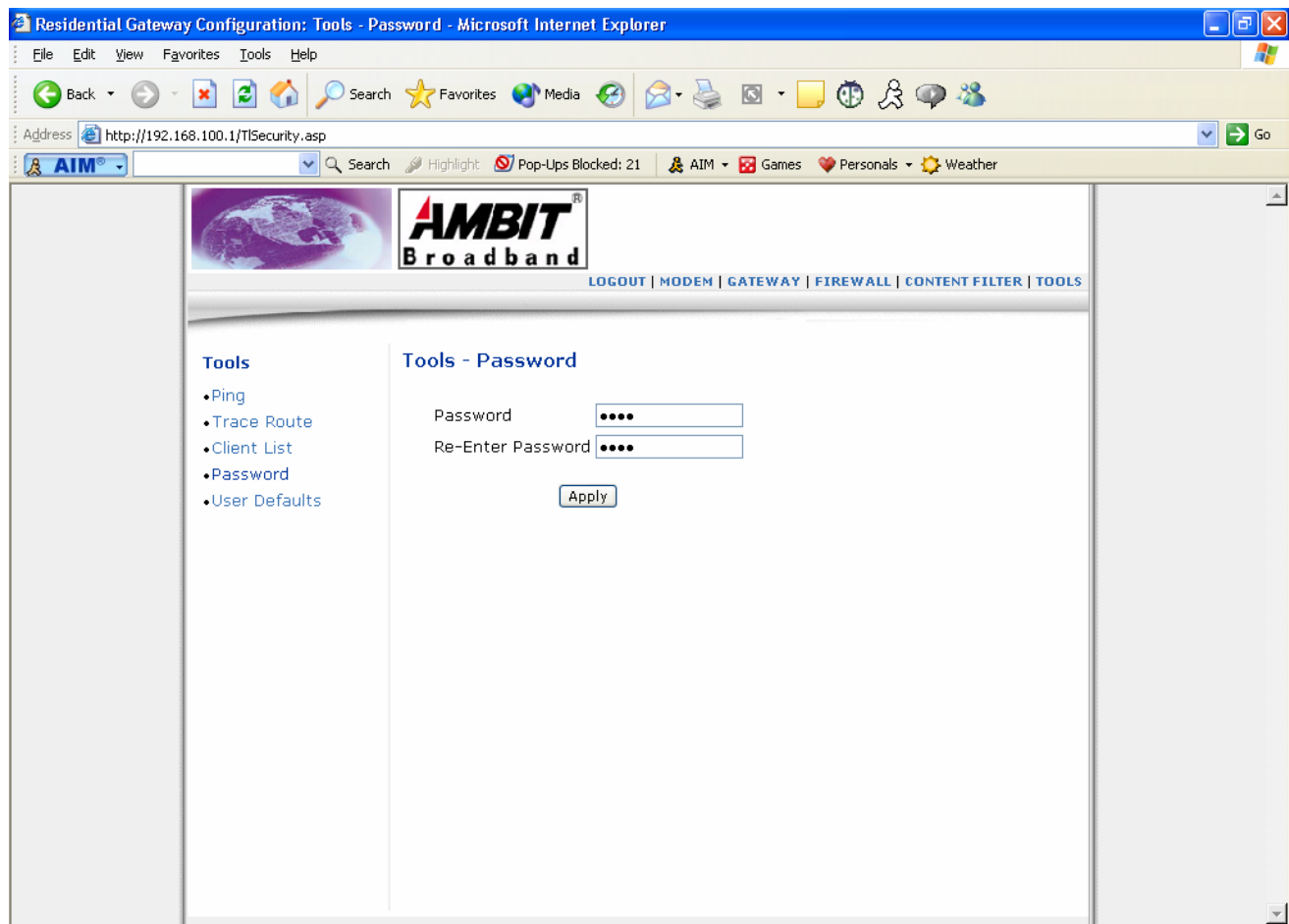
Tools – Client List

- **Refresh**

Click “**Refresh**” to get updated results.

Password

This page allows you to change the user's password.



Tools – Password

- **Password**

Specify new password.

- **Re-Enter Password**

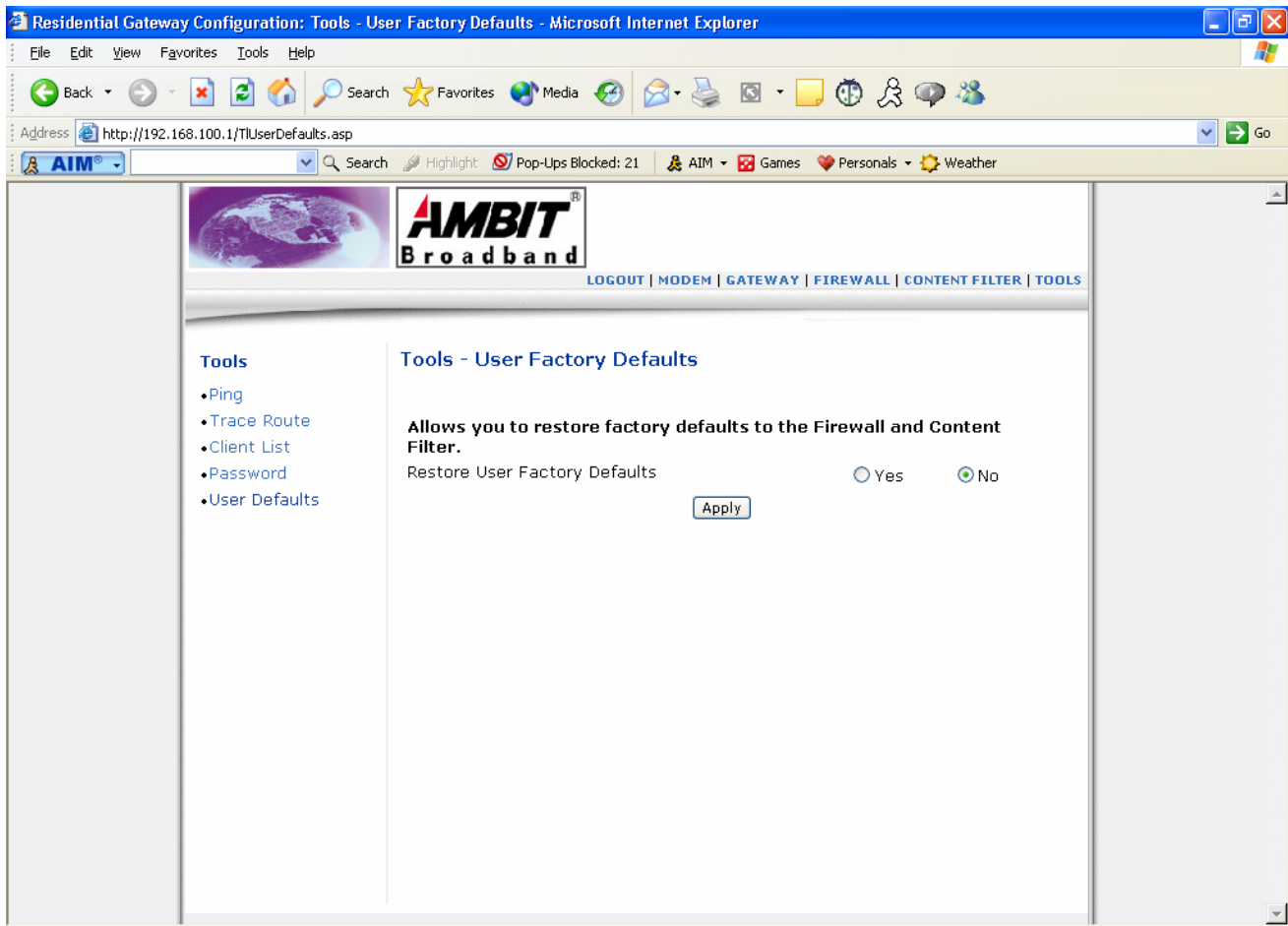
Re-Enter new password.

- **Apply**

Any configuration changes must be followed by “**Apply**” before changes will occur.

Factory Defaults

This page allows you to restore factory defaults to the system.



Tools – Factory Defaults

- **Restore User Factory Defaults**

Check “**Yes**” to restore user firewall and content filter to factory defaults.

- **Apply**

Any configuration changes must be followed by “**Apply**” before changes will occur.