WESTELL

Installation/User Guide

ADSL

WEBSHARE 36R566 PROXY ROUTER

User Guide

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FCC COMPLIANCE NOTE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment OFF and ON, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to a different circuit from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment also complies with Part 68 of the FCC rules. ON the bottom of this equipment is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, this information must be provided to the telephone company.

An FCC compliant telephone cord and modular plug is provided with the equipment. This equipment is designated to be connected to the telephone network or premises wiring using a compatible modular jack which is Part 68 compliant. See Installation Instructions for details.

If this terminal equipment, 36R505 USB ADSL modem, causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notification is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications to maintain uninterrupted service.

If you experience trouble with this equipment, 36R505 USB ADSL modem, do not try to repair yourself. The equipment can not be repaired in the field and must be returned to the manufacturer. Please contact: Westell Customer Support, (630)898-2500. Do NOT return damaged merchandise to Westell until you have first obtained a Return Material Authorization from Westell. For return of material, contact your Westell Customer Support representative.

This equipment can not be used on public coin phone service provided by the telephone company. Connection to party line service is subject to state tariffs.

CANADA CERTIFICATION NOTICE

The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local Telecommunications Company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions might not prevent degradation of service in some situations.

A representative designated by the supplier should coordinate repairs to certified equipment. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

⚠ CAUTION ⚠

Users should not attempt to make such connections themselves, but should contact the appropriate electrical inspection authority, or electrician, as appropriate.

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CONTENTS

ADSL WEBSHARE PROXY ROUTER USER GUIDE

1. Product Description

Westell's WebShare Proxy Router uses an existing phone line to provide multiple users with a reliable, high-speed, Internet access for home or office. The WebShare Proxy Router converts an existing phone line into a dedicated, high-speed connection ending the inconvenience of dial-up modems and busy signals.

The WebShare Proxy Router provides downstream data rates of 8 Mbps and upstream rates of 800 kbps, 140 times faster than a 56K analog modem. Unlike traditional analog modems, with Westell's WebShare Proxy Router the same phone line can be used for voice/fax communications and high-speed Internet access simultaneously, eliminating the need for separate voice and data lines.

Westell's WebShare Proxy Router enables multiple users to simultaneously share a single high-speed ADSL Internet connection. WebShare is the perfect solution for a low cost multi-user residential or small business network.

The WebShare Proxy Router uses the widely popular Point to Point Protocol over Ethernet (PPPoE) data protocol to connect to your Internet service provider (ISP). LAN network setup is a breeze through the use of Network Address Translation (NAT) and Dynamic Host Control Protocol (DHCP). With NAT, your Westell WireSpeed Ethernet WebShare Proxy Router is viewed by the Internet as a single IP address. This hides the IP addresses of the PCs on the LAN from the Internet providing a simple form of network security. With DHCP, WebShare will automatically assign an IP address to each PC on the network, thereby removing the chore of local IP address management.

WebShare Proxy Router Benefits

- Multiple Users can share a single Internet connection
- No need to tie up a PC to serve as a router
- No need to pay for multiple IP addresses
- No need to load Point to Point Protocol over Ethernet (WebShare) on each of the networked PCs
- Can retain IP addresses of the existing LAN

Minimum System Requirements

The following requirements outline the minimum system for WebShare:

- Westell WireSpeed Modem
- Pentium or equivalent and above class machines
- Microsoft Windows 95, 98, or NT 4.0
- Internet Explorer 4.x or Netscape Navigator 4.x installed
- At least 16 MB RAM
- 5 MB of Free Hard Drive Space
- Ethernet Connection between upgrading PC and ADSL Modem
- TCP/IP Protocol stack installed

- Multi-port Ethernet 10BaseT hub (for multiple users)
- VGA Monitor
- Cross over Ethernet cable for Modem to Ethernet Hub
- VPI/VCI Values (provided by your service provider)
- PPPoE Support (provided by your service provider)

ADSL signals must be blocked from reaching each telephone, answering machine, fax machine, conventional computer mode or any similar conventional devices. Failure to do so may degrade telephone voice quality and ADSL performance. There are two ways to block the ADSL signal from telephone equipment:

Method 1. Microfilters – Install a microfilter at each telephone jack being used for a phone, answering machine, fax machine or other telephone device. Microfilter installation is simple and requires no tools or telephone rewiring. Just unplug the telephone device from the baseboard or wall mount and snap in a microfilter, then snap in the telephone device. Contact Westell to obtain a microfilter kit (Westell part number A90-36FK201) which contains multiple microfilters for your installation.

Method 2: POTS Splitter – Install a POTS splitter (Westell model 32RTPSGNA1) at the telephone service entry point. Installation of a POTS splitter may require telephone rewiring, therefore, POTS splitter installation is typically performed by your service provider. If you choose to use a POTS splitter, contact your telephone company or service provider for installation.

1.1 Inspection

Upon receipt, thoroughly inspect the unit for damage. If the unit has been damaged during transit, report the damage immediately to the Transportation Company and Westell Customer Support. The transportation carrier assumes responsibility for safe delivery of goods. Refer to Section 10 for further information.

1.2 Package Contents

The WebShare Proxy Router is shipped with a power supply and straight through Ethernet cable.

You may have to supply the following cables:

- 10BaseT crossover cable with RJ45 connectors for Ethernet hub to WebShare Proxy Router connection
- RJ11 modular cable for phone line to WebShare Proxy Router connection

2. Safety

Follow these safety precautions before installing any electronic equipment:

1. Never install any telephone wiring during a lightning storm.
2. Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
3. Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
4. Use caution when installing or modifying telephone lines.
5. When installed, this equipment is to be used behind devices that provide primary lightning protection.

WARNING

Risk of electric shock. Voltages up to 140 Vdc (with reference to ground) may be present on telecommunications circuits.

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3. Installation

The WebShare Proxy Router operates up to 300 feet (91.4 M) from a PC or Ethernet hub over 100-Ohm, Category 5 cable.

If the WebShare Proxy Router is to be installed on a wall, follow the instructions in Paragraph 3.1. When the unit is secured to the wall, proceed to Paragraph 3.2 for instructions on connecting the unit.

3.1 Installing on Hollow, Drywall Surfaces (Optional)

To mount the WebShare Proxy Router to a wall:

1.   Obtain two pan-head screws (one #8 and one #6) and two #4 - #8 wall anchors (not provided).

2.   Place the WebShare Proxy Router against the wall where it is to be mounted, note and mark the upper keyhole slot and screw location.

3.   Drill a 3/16" hole for the upper anchor and insert the anchor and larger (#8) screw until the face of the screw is approximately 3/16" from the wall.

4.   Test fit the unit on the screw, and adjust the screw depth for a sliding fit.

5.   With a pencil, mark the opening in lower mounting tab. Remove the unit from the wall.

6.   Drill a 3/16" hole for the lower anchor and insert anchor. Hang the unit on the upper screw.

7.   Insert the smaller (#6) screw through the hole in the lower mounting tab.

8.   Tighten the lower screw lightly with a screwdriver. Do not overtighten.

3.2 Single User Setup

Refer to the wiring diagrams shown in Figure 1 and Figure 3.

1.   Connect the power supply cord to the power connector on the side of the unit and plug it into the wall power receptacle.

2.   Connect a standard RJ11 telephone cable from the LINE connector to the ADSL-equipped phone line.

3.   Connect the straight 10BaseT cable (included with this package) to the ETHERNET connector on the side of the unit to the interface on the computer. A crossover cable may be required when connecting to other equipment, such as an Ethernet hub (See Section 3.3 "Multiple User Setup" below).

4.   Turn the power switch ON.

5.   The Ready LED should be a solid green indicating that the power self-test has successfully completed and the unit is synchronized with the ADSL line card. It may take up to 70 seconds for the unit to synchronize with the central office ADSL unit.

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6. The Link LED should be solid green indicating that the CPE connection has been made.

7. During use, a pulsing yellow Activity LED indicates that data is being transmitted and received on the

   Ethernet interface.

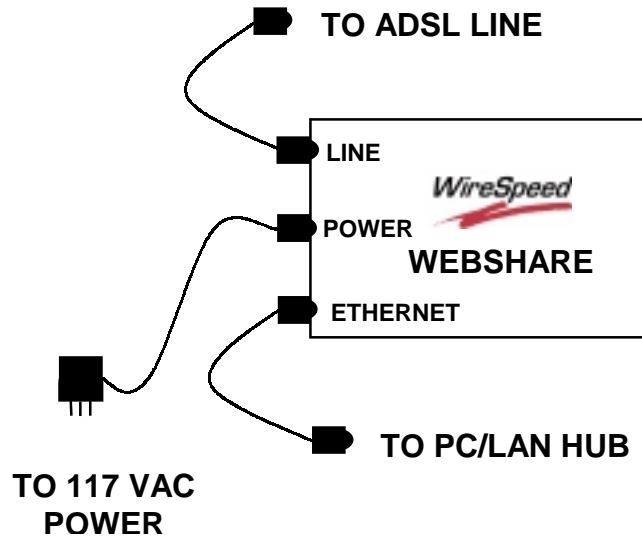8. Proceed to section 4 to configure the software.

TO ADSL LINE

LINE

POWER

ETHERNET

WEBSHARE

TO PC/LAN HUB

TO 117 VAC
POWER

Figure 1. WebShare Proxy Router Single User Setup Connections

3.3 Multiple User Setup

Refer to the wiring diagrams in Figure 2 and Figure 3.

1. Connect the power supply cord to the power connector on the side of the WebShare Proxy Router and plug into a power receptacle.

2. Connect a standard RJ11 telephone cable from the LINE connector to the ADSL-equipped phone line.

3. Obtain a multi-port Ethernet Hub (available separately). Ensure that the hub includes enough Ethernet ports to meet the requirements of the network.

4. Connect the straight 10BaseT cable (included with this package) to the jack labeled ETHERNET on the side of the unit to the jack-designated uplink on the Ethernet Hub. With some Ethernet Hubs, a crossover cable (available separately) may be required. Please see the documentation included with the selected Ethernet hub.

5. Connect each additional PC to the Ethernet hub.

6. Turn the power switch ON.

7. The Ready LED should be a solid green indicating that the power self-test has successfully completed and the unit is synchronized with the ADSL line card. It may take up to 70 seconds for the unit to synchronize with the central office ADSL unit.

8. The Link LED should be solid green indicating that the CPE connection has been made.

9. During use, a pulsing yellow Activity LED indicates that data is being transmitted and received on the Ethernet interface.

10. Proceed to section 4 to configure the software.
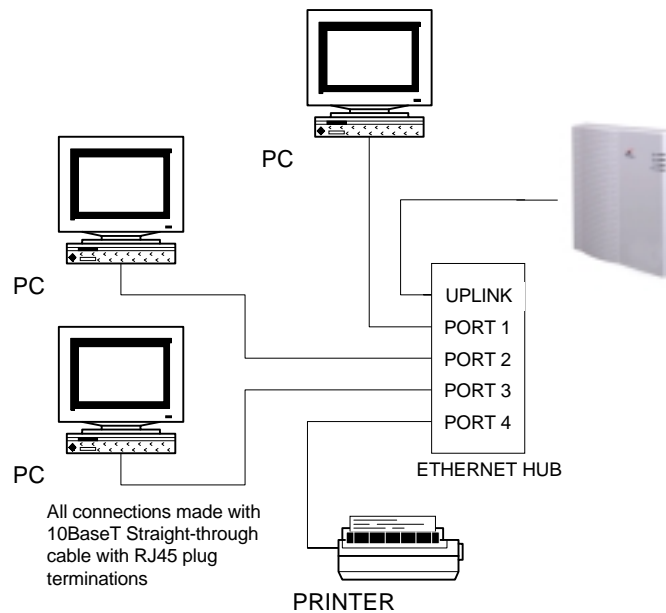
Figure 2. Typical WebShare Multi-User Setup Connections

3.4 Connectors

There are connectors on the side panel of the WebShare Proxy Router (Figure 3) for Power, an ON/OFF switch, 6-pin RJ11 DSL (LINE) connector and 8-pin RJ45 ETHERNET connector for customer terminal equipment. Tables 1 - 3 list the connector types and pinout designations.
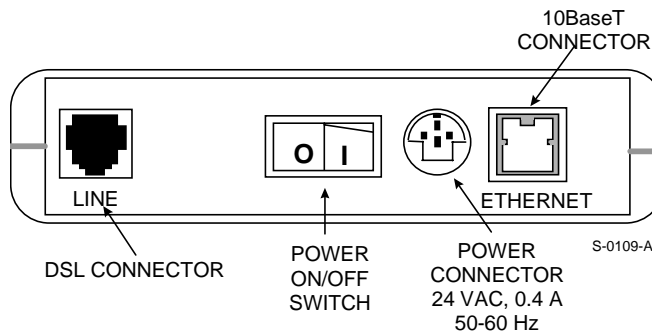

Figure 3. WebShare Proxy Router (Side Panel)

Table 1. WebShare Proxy Router Connectors

Connector Name	Connector Type	Description
LINE	6-pin (RJ11) modular jack	POTS/DSL is used to connect the telephone jack with ADSL
POWER	3-pin mini-DIN connector	Connects power cord
ETHERNET	8-pin (RJ45) jack	Connects to PC or 10BaseT hub

Table 2. LINE Connector Pinouts

LINE Pinouts (RJ11)	
Pin #	
1, 2, 5, 6	Not Used
3	DSL Tip
4	DSL Ring

Table 3. ETHERNET Connector Pinouts

ETHERNET Pinouts (RJ45)	
Pin #	
1	Rx+
2	Rx-
3	Tx+
4, 5, 7, 8	Not Used
6	Tx-

3.5 LED Indicators

The LED indicators shown in Figure 4 are used to verify the unit's operation and status.

S-236P-A

Figure 4. WebShare Proxy Router (Front)

Power

State	Description
Solid Green	Power ON
No Light	No power

Ready

State	Description
Slow Flashing Green	Power ON and passed power-up diagnostics (1 flash/sec)
Moderate Flashing Green	Power ON and attempting synchronization (2 flashes/sec)
Solid Green	Power ON and synchronized with the ADSL line card
Solid Red	Hardware power-up in progress
Blinking Red	Unit failed power-up diagnostic
Alternating Red/Green	Proxy Router diagnostic failed
No Light	No power

Link

State	Description
Solid Green	Link established
No Light	No 10Base-T link

Activity

State	Description
Pulsing Yellow	Data being transmitted. Pulses should match the reception or transmission of Ethernet data.
No Light	No data on Ethernet interface

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4. Installing the WebShare Utilities Setup Software on Your PC

4.1 WebShare Utilities Setup Installation Procedure

Account parameters must be added to WebShare before connecting to your ISP or Corporate LAN. Use the Westell provided WebShare Setup Utility to simplify the set up of the following:

- Selection of the desired Ethernet Adapter (in instances where more than one Ethernet adapter exists on the PC).
- Automatic enabling of DHCP (referred to "Obtain IP Address Automatically" in Windows 95, 98)
- Automatic assignment of the WebShare gateway address of 192.168.0.1
- Simplified service provider account information installation via the Account Install screen.
- Installation of the WebShare IP Discovery (Useful in the event that the factory WebShare Proxy Router IP settings have been altered from the default values)

If desired, the WebShare Setup Utility can be used on each PC in a multiple PC environment. Alternately, the remaining networked PC's can use the WebShare Proxy Router by enabling DHCP (referred to as "Obtain an IP Automatically" in Windows). In this instance, access to the WebShare home page is accomplished by entering the URL of 192.168.0.1 in your browser.

To use the Westell provided WebShare Setup Utility, proceed to section 4.1.1.

4.1.1 Windows 95, 98 and NT

To install the WebShare Setup Utility on your PC, insert the WebShare Setup Utility CD-ROM into the CD-ROM drive. From the Start menu, select **Run** and type the following line:

E:\win32\setup.exe (where "E" is the designation of the CD-ROM drive)

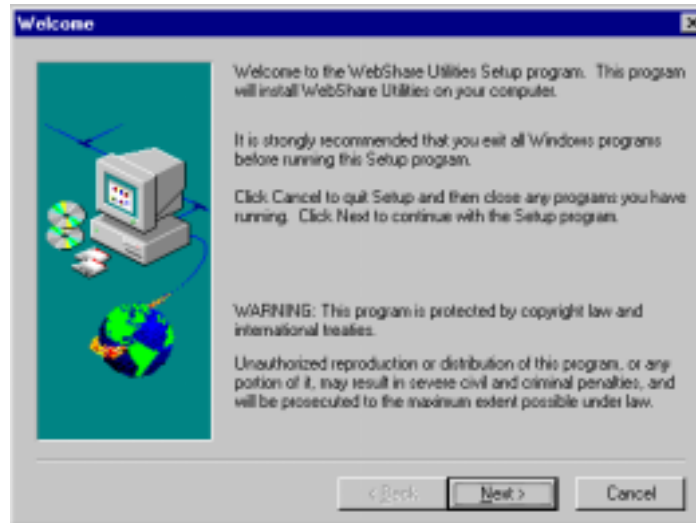Follow the installation wizard. Figure 5 shows the Welcome window.

Figure 5. Welcome Window

Click **Next**.

Click **Yes** to accept the license agreement.

The **Choose Destination Location** window (Figure 6) shows you where the application is stored on your hard drive.
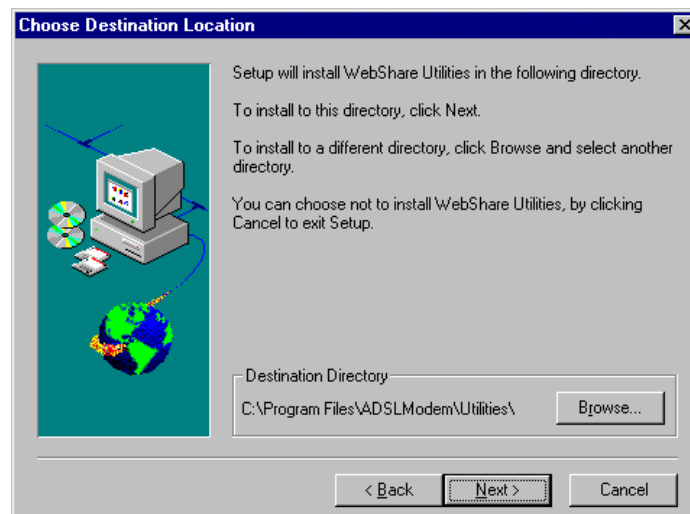
Figure 6. Destination Location Window

4.1.2 TCP/IP Configuration

It is recommended that Dynamic Host Configuration Protocol (DHCP) be enabled on the adapter connected to your WebShare Proxy Router. If you have multiple Ethernet adapters, select the one to be used with the WebShare Proxy Router. Figure 7 shows an example of a window with multiple Ethernet connections.
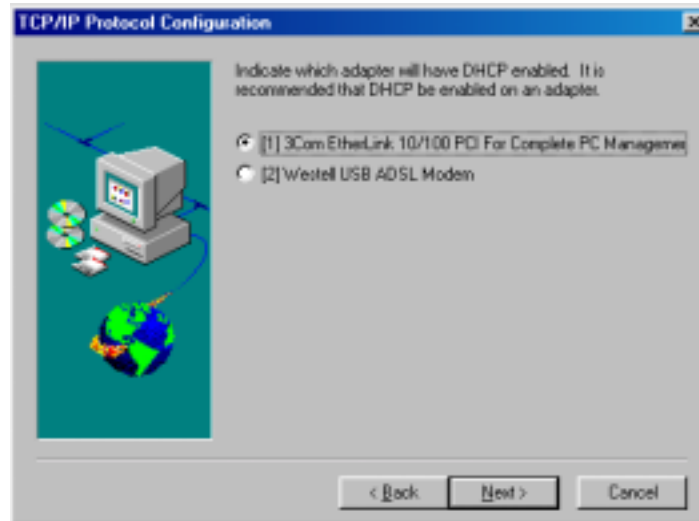
Figure 7. TCP/IP Configuration Window

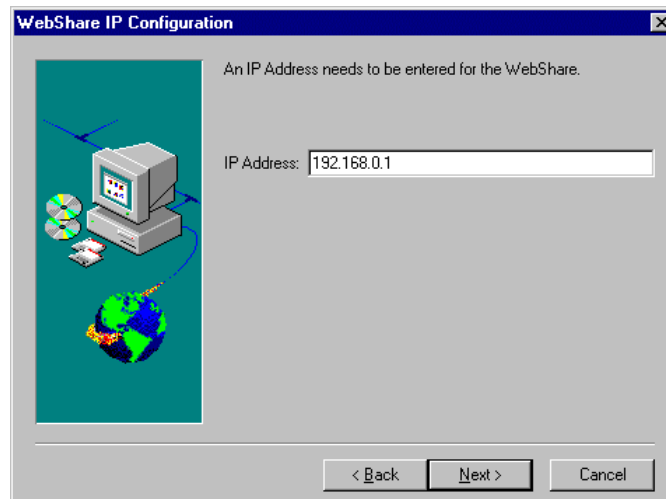The IP address should be left at the factory default shown in Figure 8.

Figure 8. IP Address Window

Click Next to display the Check Setup Information window (Figure 9). This window shows the current settings that you have provided.
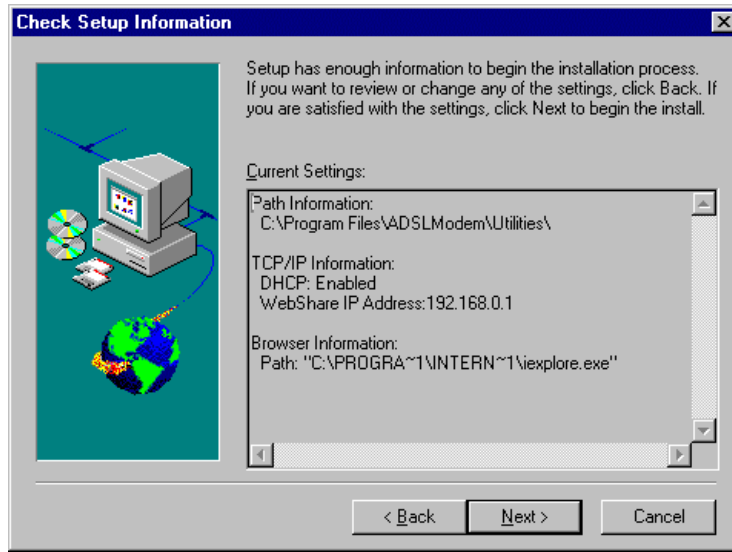
Figure 9. Check Setup Information Window

Click **Next** to install the Account Setup Utility.

If you are using Windows 95/98, you have to restart the computer for the installation parameters to take effect.

Select **Yes I want to restart my computer now** to restart the PC as shown in Figure 10.
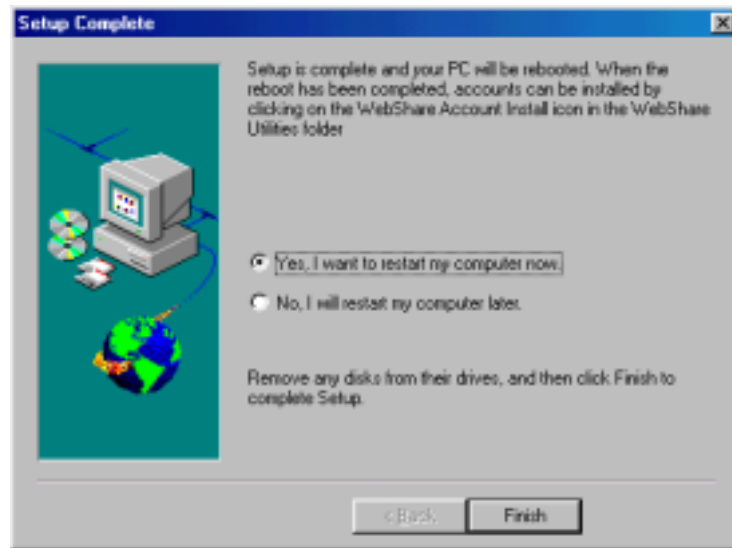

Figure 10. Setup Complete, Restart Window (Windows 95/98)

If you are using Windows 95/98, the installation process is completed. Click Finish to complete the installation (Figure 10). Proceed to Section 4.1.4 to disable the autodial feature.

NOTE: For Windows NT users, DHCP must be enabled. Continue with 4.1.3. See Figure 11.

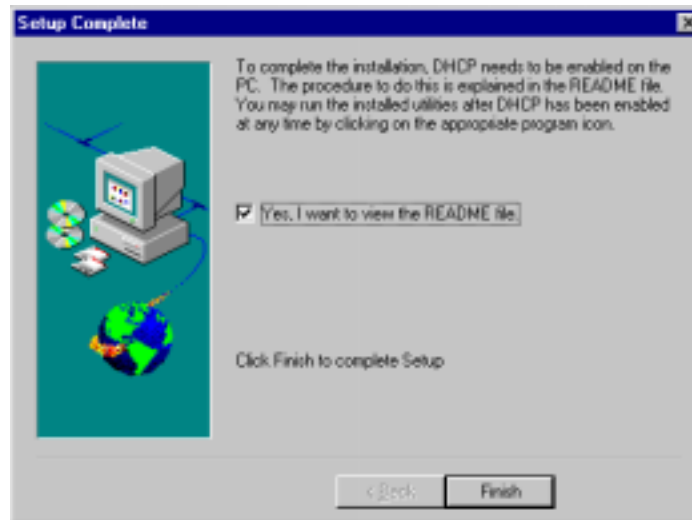### 4.1.3 Enabling DHCP for Windows NT

Figure 11. Setup Complete, Restart Window (Windows NT)

Click **Finish** to display the Readme.txt file (Figure 12). This file contains the information required by Windows NT users to enable DHCP, and additional application information. We suggest printing the Readme.txt file (Figure 12) for future installation reference.
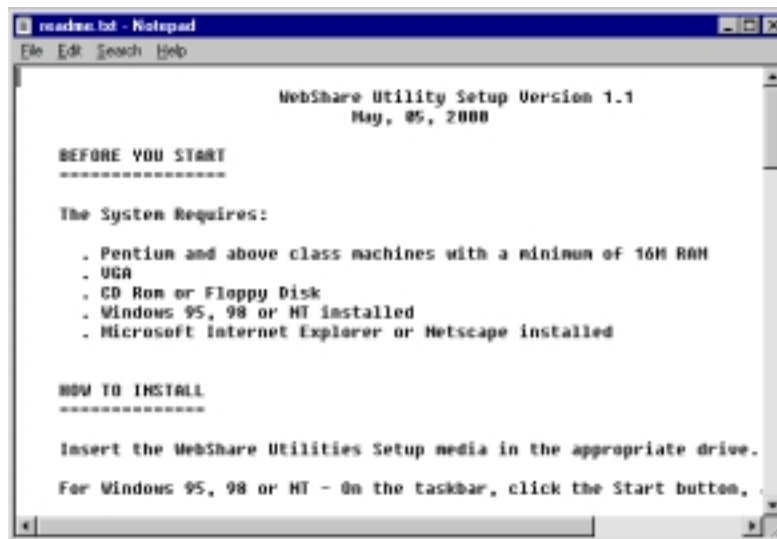

Figure 12. README.TXT File

To enable DHCP for Windows NT, use the following procedure:

1. From **Start**, select **Settings** > **Control Panel**.

2. Double-click the Network   icon and the networking dialog box appears.

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3. Select the **Protocols** tab and all the Network Protocols on your PC will be displayed.

4. Double-click the **TCP/IP Protocol** item and the **TCP/IP Properties** folder will appear.

5. From the adapter drop-down menu, select the Ethernet adapter that is going to be used with the WebShare Proxy Router.

6. Select the **Obtain an IP address from a DHCP server** option button. A dialog box states that DHCP will automatically configure your PC. Click the **Yes** button to enable DHCP.

7. Click the **OK** button in the **TCP/IP Properties** window to enable DHCP.

8. Close the Network box and close the Control box.

9. Restart your computer.

4.1.4 Disabling Autodial

A browser is typically set to dial into a user's ISP connection automatically when the browser is launched. In order to access the Internet through your "always-on" ADSL line, the autodial feature must be disabled.

Dial-Up Settings
Your Connection dial-up setting must be set to **Never dial a connection**. Follow this procedure to verify and/or change your dial-up setting:

1. Click **Start** > **Settings**, click **Control Panel**.
2. From the **Control Panel** screen, double-click **Internet Options**.
3. The **Internet Options** screen appears. Click the **Connections** tab.
4. In the **Dial-up settings** box, make sure that the option button for **Never dial a connection** is selected. (If you have not yet set up any connections, the Dial-up settings box will be dimmed (grayed-out).
5. Click **OK**.
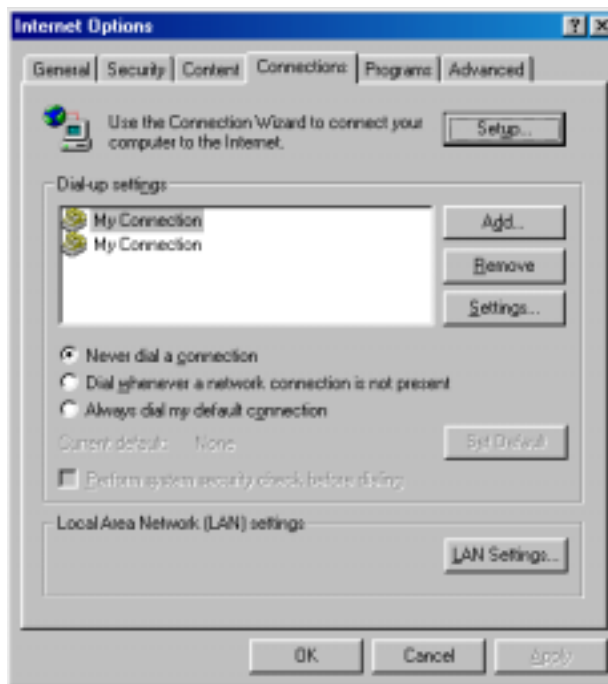
Internet Options Screen (Internet Explorer 5)

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5. Setting Up Your Account

This section show you how to set up your initial WebShare account.

NOTE
In a LAN, or multiple PC environments, this process needs only to be completed on the computer connected to the WebShare Proxy Router.

5.1 Account Parameters

Account parameters are required before connecting to your service provider. The account parameters to be entered in the Account Install window are obtained from your service provider. User ID and Account Description are the only required parameters. DNS Primary and DNS Secondary are optional parameters that your service provider may require in some cases.

The Account Description is a word or phrase created by the user to describes the account. It is used by the WebShare Proxy Router to coordinate with the service provider. For example, the following parameters were obtained from a service provider:

    User ID: Snape@inet
    DNS Primary: 204.48.31.10 (optional)
    DNS Secondary: 204.48.31.11 (optional)

With the following user-defined input:
        Account Description: Account 2

Procedure:
        1.   Open your Internet browser. In the address bar (location bar), type 192.168.0.1 and press ENTER. The WebShare Home page containing PPP Status and PPP Connections windows will appear.
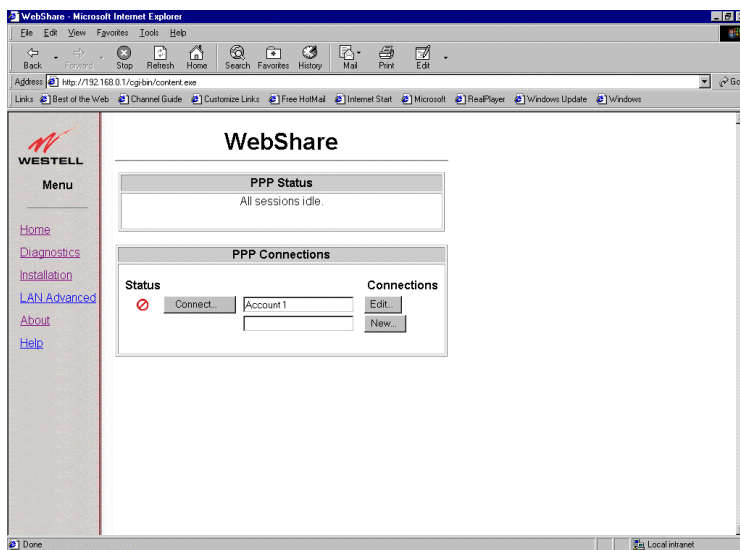

Figure 13. WebShare Home Page

2. On the **PPP Connections** window of the WebShare Home Page, click **New…** The **Configure Account** window appears.
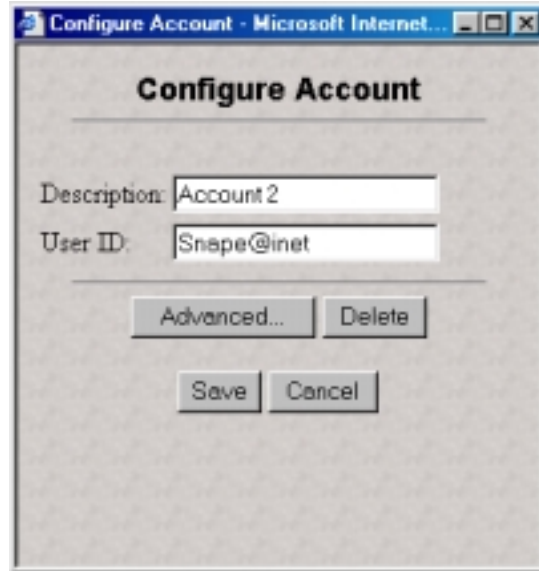

Figure 14. Configure Account Screen

3. In the **Description** field, type the Account Description you have chosen to call this connection.
4. In the **User ID** field, type the user ID given to you by your service provider.
5. Click **Save**. The new account will now appear in the **PPP Connections** window.

5.1.1 Setting or Verifying VPI/VCI Parameters

Your service provider will provide you with a VPI (Virtual Path Indicator) and VCI (Virtual Channel Indicator) which are path assignments for your ADSL connection. WebShare defaults to VPI = 0 and VCI = 35. To verify your VPI/VCI settings, select LAN Advanced from the WebShare Home Page Menu.

The WebShare LAN Advanced Configuration window (Figure 15) displays the current configuration settings.

If the information in the fields for the VPI and VCI agree with what your service provider provides, click **Cancel**, otherwise enter the correct information and click **Save**.
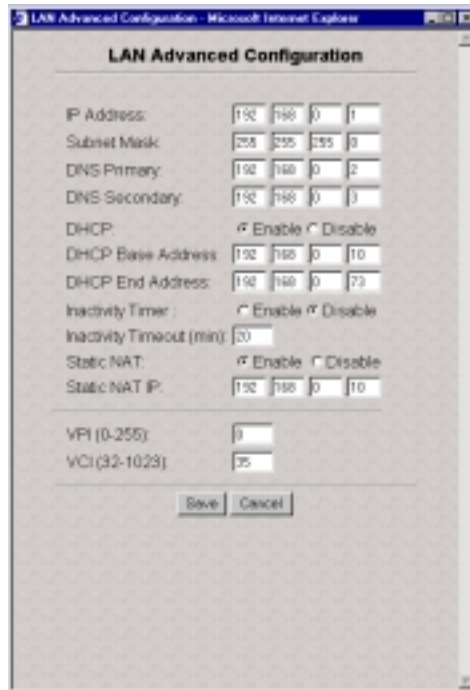
Figure 15.   Lan Advanced Configuration Window

Congratulations! You have just configured your first account. If you would like to add additional accounts at this time, refer to Section 7.2.

To connect to your new account, proceed with Section 6.

6. **Connecting to an Account**

Verify that the Ready LED of the WebShare Proxy Router is a solid green and at least one PPP account is installed before activating a PPP session with your ISP.

6.1 Activating a PPP Session

To activate a PPP session, follow these steps:

1. Click the **Connect** button of the desired PPP account to be activated on the Home page as shown in Figure 16.
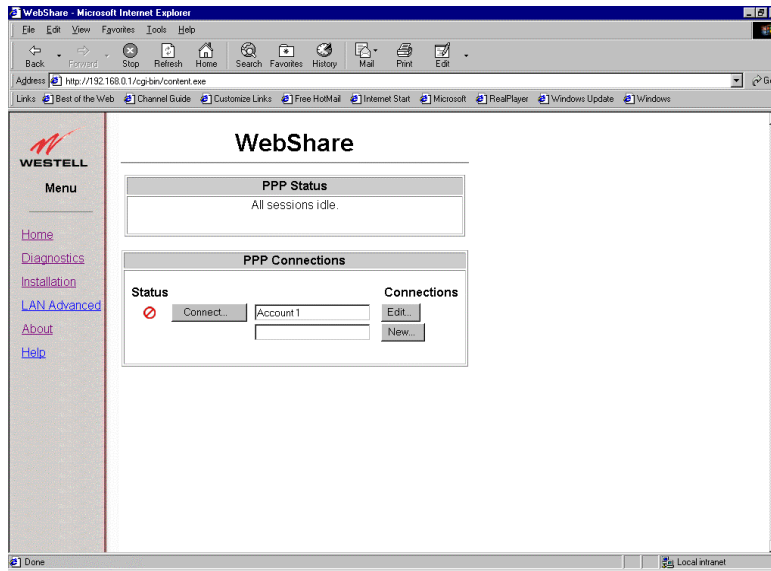
Installation/User Guide

Figure 16. WebShare Home Page

2. In the Connect window shown in Figure 17, enter your password (received from the ISP) for the User ID of that account. (Note: A valid password must start and end with something other than a space)
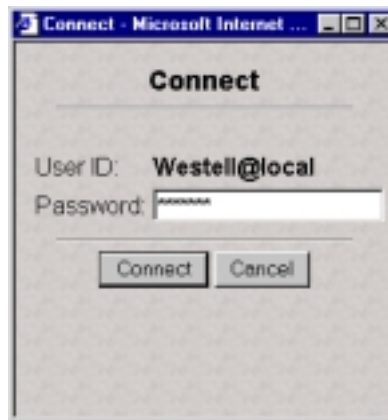

Figure 17. Connect Window

3. Click the **Connect** button.

After the first connection is made, the **Connect Succeeded** window (Figure 18) informs you that a PPP session is established.
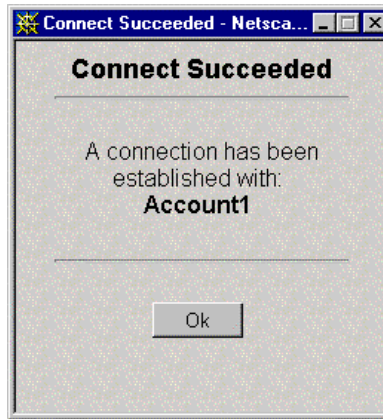
Figure 18. Connection Succeeded Window

When a PPP session becomes active, the WebShare Home page will return with a Disconnect button in place of the Connect button (Figure 19). The ⊞ icon replaces the ⊘ icon signifying that a PPP session has been established. The PPP Status window also turns green and indicates the connected Account.
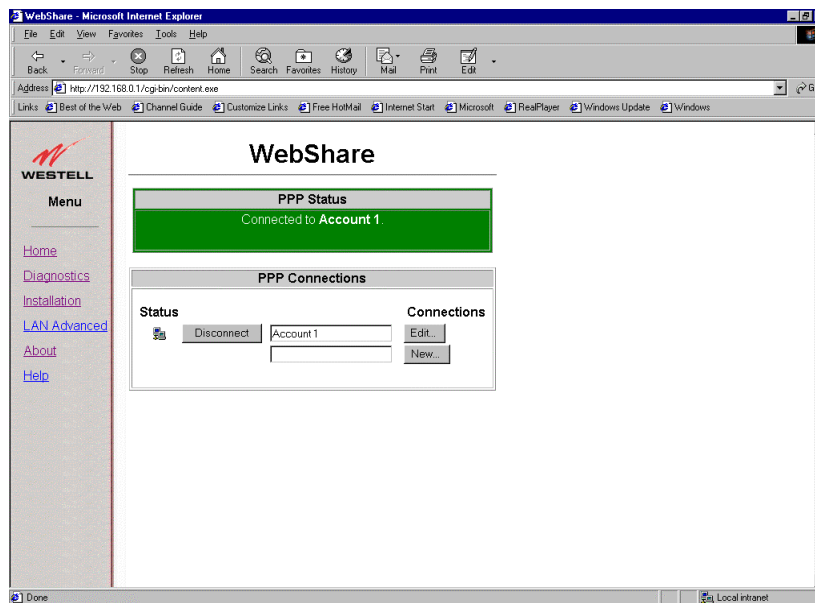

Figure 19. Active PPP Account Home Page

After the PPP account connects to the ISP, you can browse the Internet by entering the desired universal resource locator (URL) directly into the Address box of your browser.

You're now ready to surf the Web!

Try: http://www.westell.com

Figure 20. Westell Home Page

6.2 Disconnecting from a PPP Session

To exit a PPP session, return to the WebShare Home Page by:

- Maximizing WebShare, if you minimized the Home Page before surfing
- Selecting WebShare from Bookmarks or Favorites
- Closing your browser and double clicking the **WebShare** icon on your desktop

Click the **Disconnect** button on the WebShare Home page.

⚠️ CAUTION ⚠️
If ANY user disconnects a session, all active users are interrupted.

The ⊘ icon in place of the 🖳 icon signifies that a PPP session has been disconnected. Close your Web browser.

To begin another PPP session, click the **WebShare** icon on your desktop.

WebShare

7. Configuring WebShare

Use this section when adding new accounts or changing account parameters.

7.1 Accessing the WebShare Management Interface

To access the Web browser management interface, perform the following steps:

1. Make sure that your computer is turned OFF.

2. Verify that an Ethernet connection is established between your computer and the WebShare Proxy Router.

3. Turn the WebShare Proxy Router ON.

4. Turn the computer power ON.

Note: Because the computer gets the IP address from the WebShare Proxy Router, these steps ensure the WebShare Proxy Router is on before the computer boots up.

5. After the operating system has completely loaded, verify that the Link indicator light on the top of the WebShare Proxy Router is steady green.

6. Click on the WebShare icon on the desktop.

Figure 21 shows the initial Home page of a WebShare Proxy Router that contains no PPP accounts.
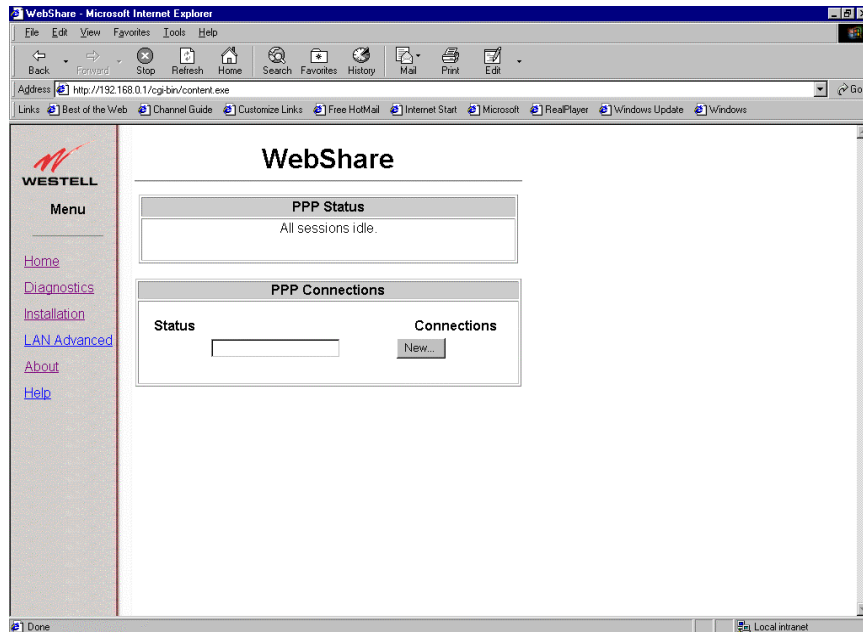
Figure 21.   WebShare Initial Home Page

7.2 Adding and Configuring Additional WebShare Accounts

To configure another PPP account, the following information must be obtained from your service provider:

- User ID
- Password
- Primary DNS IP address (optional)
- Secondary DNS IP address (optional)

1. Click the **New** button (Figure 21) and enter the user ID obtained from your ISP into the **User ID** field of the dialog box.

2. Enter a description of the account into the **Description** field of the dialog box (Figure 22). This can be any set of alphanumeric characters that make a user-friendly description for reference (e.g. Account 1, Sales 1, Sales 2, etc.).
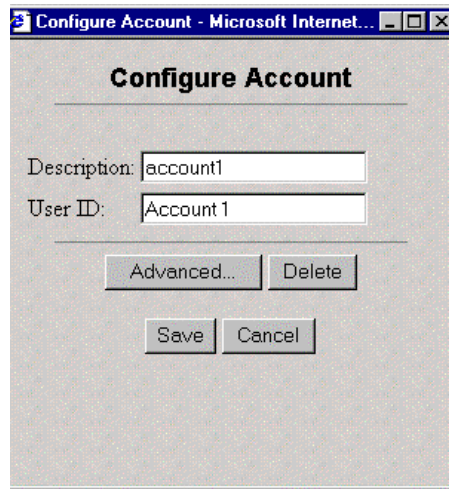
Figure 22. PPP Account Configuration Dialog Box

3.   Click **Save** to commit those values to WebShare.

4.   The **Configure Account** window disappears and a new row appears on the Home page as shown in Figure 23.
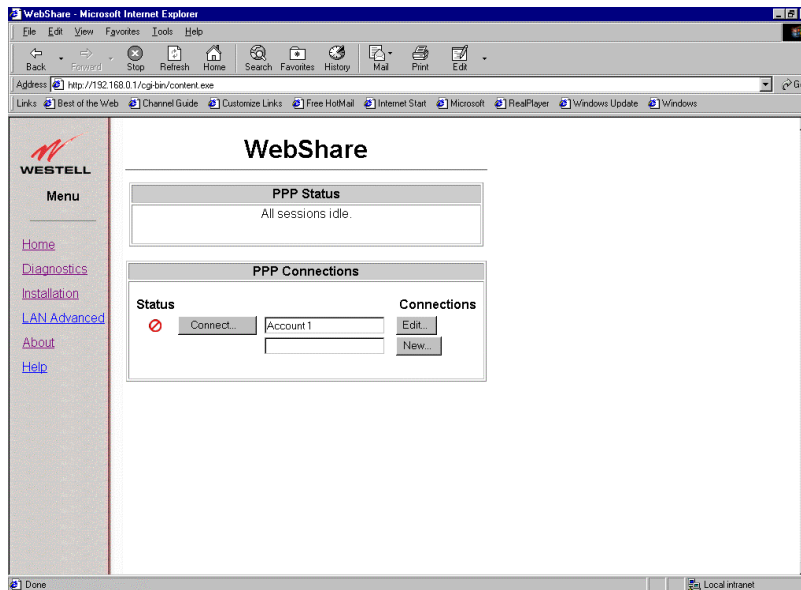

Figure 23. PPP Accounts

If your ISP supplies the DNS IP addresses, these addresses need to be added to the new PPP account via the account editing capability.

1.   Click the **Edit** button (Figure 23) for the configured account, then click the **Advanced** button in the **Configure Account** window (Figure 22). The **Advanced Configuration** window (Figure 24) appears.
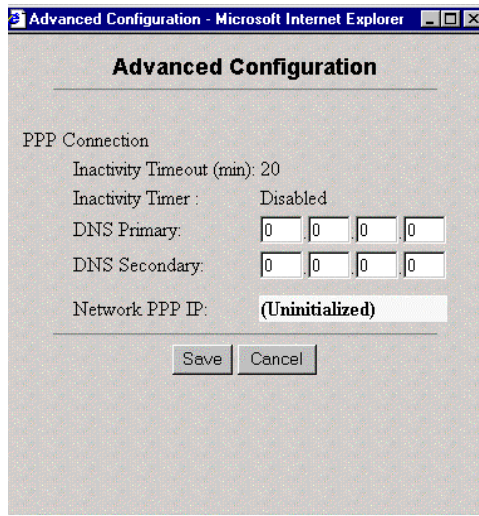
Figure 24. Advanced Configuration Window

2. In the **Advanced Configuration** window (Figure 24), enter the DNS IP values supplied by your service provider.

3. Select the **Save** button to commit these values to WebShare.

To add more PPP accounts to WebShare, repeat the configuration process outlined above.

⚠ **CAUTION** ⚠

With multiple accounts, when ANY user attempts to establish a session with an idle account while another session is active, a warning is displayed (Figure 25). If the OK button is selected, the currently active session is disconnected and all current user activity is interrupted

Figure 25. Session Conflict Warning

<div style="background:#ddd; padding:10px;">

8. WebShare Management Interface

</div>

8.1. Management Menu

Selecting the WebShare icon on the desktop activates your web browser and establishes a home page for WebShare. A **Management Menu** (Figure 26) is located in the left portion of your home page. It provides links to the other management pages available for configuration, status, control and other operation information for WebShare.

Home
 The Westell Menu (Figure 26) on the WebShare management Home page (Figure 27) provides access to all the configured PPP accounts and allows PPP session control.

Diagnostics
Provides WebShare Proxy Router and PPP session diagnostic capability (Figures 28 and 29).

Installation
Provides a method for installing an upgrade to WebShare software (Figure 30).

LAN Advanced
Allows the editing of local Ethernet interface configuration parameters (Figure 31).

About
Contains the model number, serial number and software versions of WebShare (Figure 34).

Help
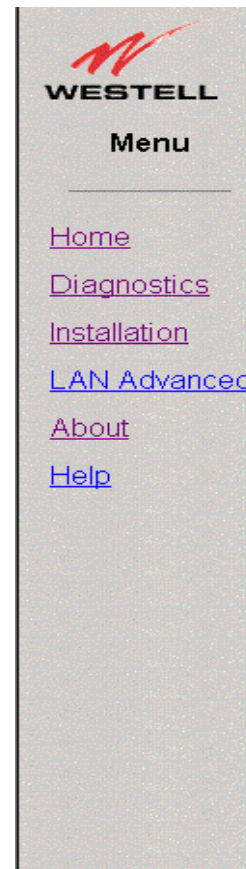Provides help information for the management page being displayed.

Figure 26. Menu

8.1.1 Home Page

The WebShare Home page (Figure 27) provides access to all of the configured PPP accounts and allows PPP session control.
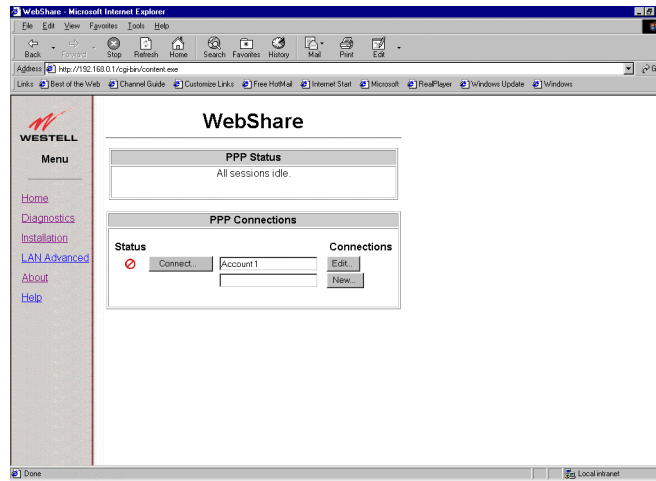
Figure 27.   WebShare Home Page

8.1.1.1 Home Page Main Window
This window contains a list of PPP accounts. Each PPP account is contained within a row of the table. Each row contains several columns and provides information about the account. The fields are defined in the sections immediately following.

This list will always contain one empty account field to be used for building new accounts. This account field has an empty description field and a New button on the right side.

8.1.1.2 Connections
The PPP Connections screen provides a window for the description of each individual PPP account. The text string is the user-friendly description you entered in the Configure Account dialog box.

8.1.1.3 Connect/Disconnect
The Connect/Disconnect button provides PPP session control for the associated account. This allows you to connect and disconnect from various PPP accounts, when desired.

This button changes depending upon the state of the PPP session. If the account is inactive, the button will appear as Connect. If the account is active it will appear as Disconnect.

8.1.1.4 Edit/New
The Edit/New button provides access to the PPP session parameters specific to the particular account.

8.1.1.5 Status
The **Status** column indicates the state of each PPP account.

This icon shows that the account is INACTIVE. (No connection established.) Click **Connect** to activate the connection.

This icon shows that a PPP account is ACTIVE. (A connection is currently active.) Clicking on this icon will disconnect the user. (An empty account has no icon in the Status column.)

8.1.1.6 Building New Accounts
Adding a New Account to the Home Page (Detailed in Section 7.2):

Click the **New** button. Within the **Configure Account** dialog box, type a description of the account into the **Description** field and the user ID defined by your ISP. Click the **Save** button in the dialog box to commit the new account information to the WebShare Proxy Router.

8.1.1.7 Setting DNS Primary and Secondary IP Addresses
It may be necessary to modify the DNS Primary and Secondary IP addresses for a specific PPP account (consult with your Service provider).

To accomplish this:

1. Click the **Edit** button of the appropriate PPP account. The **Configure Account** dialog box appears.

2. Click the **Advanced** button.

3. Enter the appropriate IP addresses supplied by your service provider into the appropriate DNS fields of the **Advanced Configuration** dialog box.

4. Click the **Save** button in the dialog box to commit the new account information to the WebShare Proxy Router.

8.1.1.8 Connecting to a PPP Account

Click the Connect button. Within the Connect dialog box, enter the account password. Click the Connect button.

8.1.2. Diagnostics

8.1.2.1 Accessing the Main Diagnostics Page
Select the **Diagnostics** menu item from the WebShare management menu to access the Diagnostics page. Figure 28 shows the window before any diagnostics have been performed.
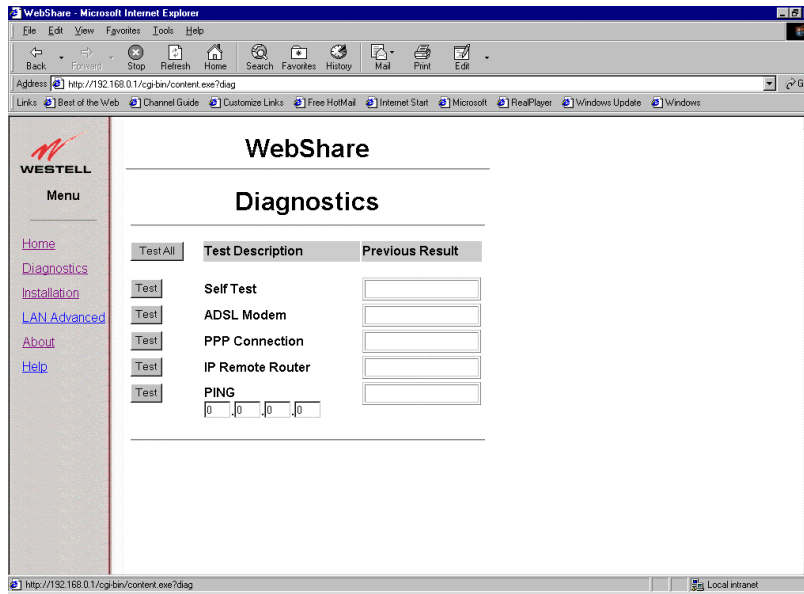
Figure 28. Diagnostics Window

8.1.2.2 Test All

The **Test All** button will execute all of the tests sequentially beginning with the Self Test and ending with Ping.

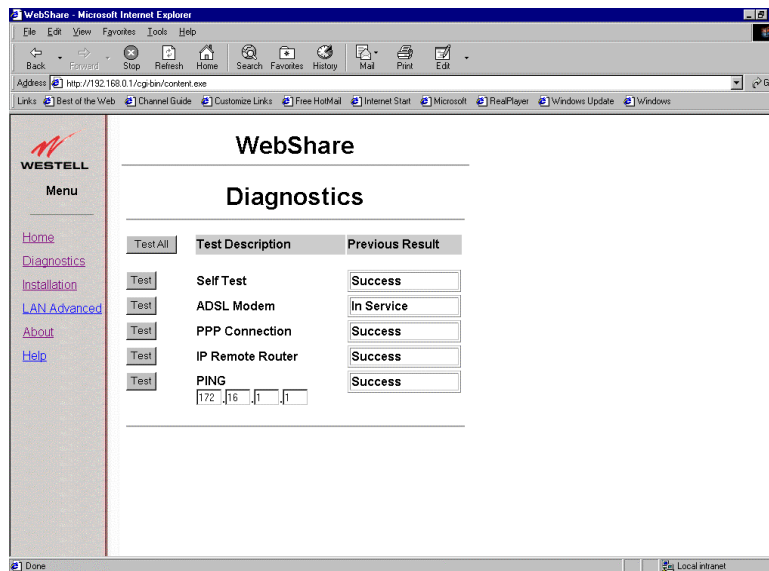Figure 29 shows the Diagnostics window returned after clicking the **Test All** button.

Figure 29. Diagnostics Window

8.1.2.3 Self-Test
The **Self-Test** button starts a testing process that verifies the integrity of all PPP account information.

Error Messages:
- Success – All stored information verified correctly.

- Failure – An error was detected in the stored PPP account information. The information needs to be re-entered.

8.1.2.4 WebShare Proxy Router
This test button initiates a testing process that verifies management communications with the WebShare Proxy Router transceiver.

Error Messages:
- In Service – The WebShare Proxy Router is synchronized with the central office Channel Unit and is ready to send/receive data.

- Out of Service – The WebShare Proxy Router transceiver is NOT synchronized with the central office Channel Unit, but is functioning properly. (This could be caused by the connector cable not plugged into the WebShare Proxy Router or the access jack properly)

- Failure – The WebShare Proxy Router transceiver is not functioning properly.

8.1.2.5 PPP Connection
This Test button initiates a testing process that verifies connectivity with the service provider's Remote Access Server (RAS).

Error Messages:
- Success – The WebShare Proxy Router has a verified connection with the ISP and is ready to send/receive data.

- No PPP Connection – There is no link between the WebShare Proxy Router and the central office equipment.

- Failure – A PPP session is active, but WebShare failed to get a response from the Remote Access Server.

8.1.2.6 IP Router
The Test button initiates a test that pings the remote IP address linked by the PPP session establishment.

Error Messages:

- Success – A response was obtained from the remote IP address.

• No PPP Connection – There isn't any link between the WebShare Proxy Router and the central office equipment.

• Failure – There is no response from the remote IP address.

8.1.2.7 PING
The Test button initiates a 'ping' to the host IP address specified within the ping host entry field. A PING (Packet Internet Groper) is a protocol program for sending a signal to see whether another network host or other device is on-line and responding. This application will tell you if a particular entity is presently connected to the Internet. It is used to check if a machine on the Internet is alive and reachable.

Error Messages:
• Success – A response was obtained from the IP address entered.

• No PPP Connection – There isn't any link between the WebShare Proxy Router and the Central Office Equipment.

• Failure – There is no response from the specified IP address.

8.1.3 New Software Installation Page

This screen (Figure 30) is reserved for installing future software upgrades. Westell will provide instructions with new upgrades.
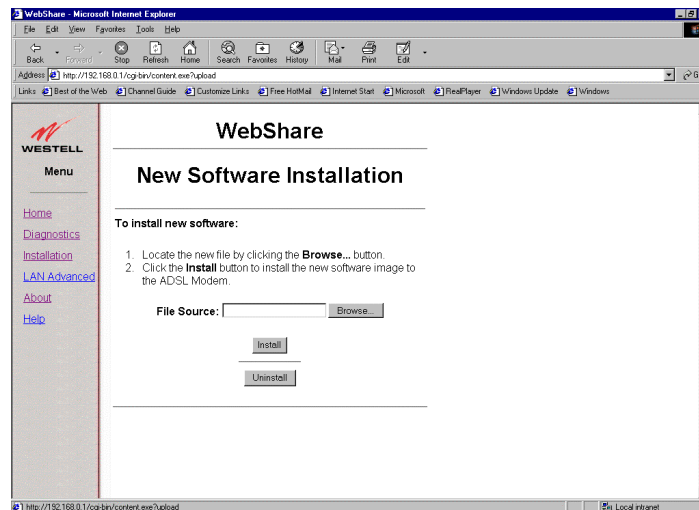

Figure 30. Installation Window

8.1.4 LAN Advanced Page

8.1.4.1 Accessing the LAN Advanced Configuration Dialog Box
The **LAN Advanced Configuration** dialog box is accessed by selecting the 'LAN Advanced' menu item from any of the WebShare management windows.

This window displays the local Ethernet characteristics including the IP address, subnet mask, DNS proxy IP addresses, and the state of the DHCP server, as shown in Figure 31.

These parameters are stored and remain in WebShare until changed, or the default values are reset with the 'IP Discovery and Default Reset' Utility. See Section 7.2.

⚠ WARNING ⚠

If the IP address is changed, WebShare will not respond to the default IP address of 192.168.0.1. Be sure to change the URL to the new IP address when accessing the management pages.
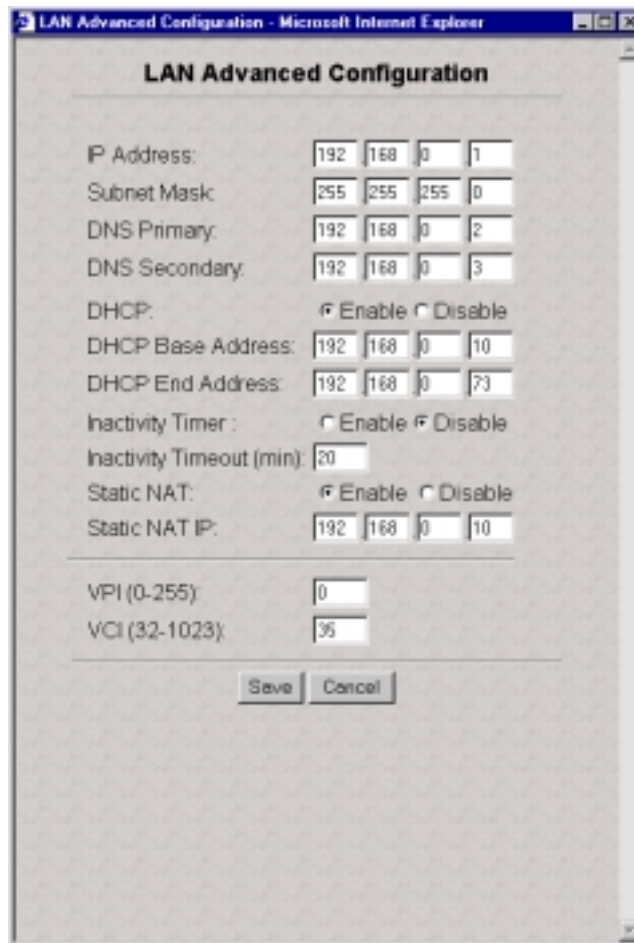

Figure 31. LAN Advanced Configuration Dialog Box

8.1.4.2 Router IP Discovery and Factory Default Reset
To return Ethernet characteristics to the factory default, Select **Start** > **Programs** > **WebShare Utilities** > **WebShare IP Discovery** and **Default Reset**.
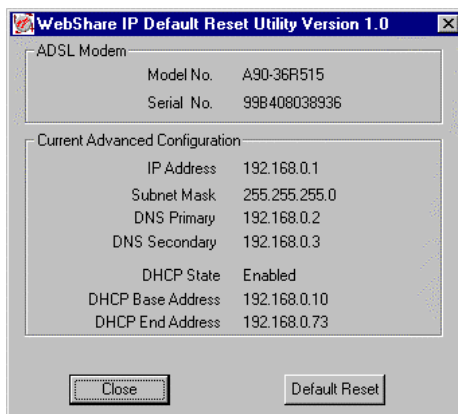
Figure 32.   WebShare IP Default Reset Utility Dialog Box

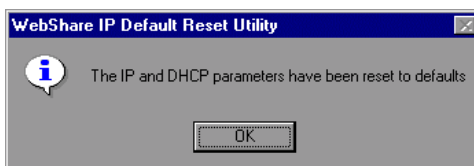Click the **Default Reset** button, shown in Figure 29, to restore the factory default values (Figure 28).

Figure 33. Default Reset Dialog Box

Click **OK** to return to the default settings.

8.1.4.3 IP Address
The Internet Protocol (IP) address is a unique 32-bit number used to identify the host computer connected to a TCP/IP network. The value of the IP Address is represented in a dotted decimal format. WebShare assigns 192.168.0.1 to this address by default. This value may be changed to any valid IP address e.g. an existing address assigned for local LAN administration. Note: If the default IP Address needs to be changed, the DHCP Base and End addresses will also have to be adjusted. All changes will be entered in the LAN Advanced Configuration screen.

8.1.4.4 Subnet Mask
The subnet mask is a 32-bit number used to identify the network and host segments of an IP address. This value is represented in the same dotted decimal format as the IP address. This is the subnet mask associated with the IP address above. This value should not be set to a subnet address greater than 255.255.255.248 to accommodate the WebShare IP.

The default value for the subnet mask is 255.255.255.0.

8.1.4.5 Domain Naming System (DNS) Primary
The domain naming system is a convention used for identifying computers attached to the Internet or a Local Area Network (LAN). A host to resolve a domain name to the IP address uses the main DNS server. The secondary or backup DNS server performs the same function as the main server.

This IP address represents the address that WebShare uses to respond to primary DNS queries from your computer. The default value is 192.168.0.2.

8.1.4.6 Domain Naming System (DNS) Secondary
This IP address represents the address that WebShare uses to respond to secondary DNS queries from your computer.

The default value is 192.168.0.3.

8.1.4.7 Dynamic Host Configuration Protocol (DHCP)
DHCP is a protocol used to automate the administration of IP addresses within a local area network. A server provides the IP allocation for computer hosts that are running a DHCP client. This controls the state of the local WebShare DHCP Server.

The default value is **enabled**.

8.1.4.8 DHCP Base Address
This is the first address in the block of IP addresses between the 'base' and 'end' addresses allocated by the DHCP server.

The default value is 192.168.0.10.

8.1.4.9 DHCP End Address
This is the last address in the block of IP addresses between the 'base' and 'end' addresses that the DHCP server allocates.

The default value is 192.168.0.73.

8.1.4.10 Inactivity Timer Timeout
WebShare provides an Inactivity Timer that closes an active PPP session if there has been no traffic through the WebShare Proxy Router either from or to any user. The timeout value may be adjusted within the LAN Advanced Configuration window shown in Figure 31 (page 29). For a session to be "always on", select the **Inactivity Timer Disable** option.

The Inactivity Timeout Value determines the length of time a session will remain connected with no data flow from either direction. The default setting is disabled. To enable, select LAN Advanced from the Management menu. In the LAN Advanced Configuration window, select the Enable option and enter an Inactivity Timeout time in minutes. The valid range is from 0 to 9999 minutes. A zero will have the same affect as disabling the timer. Click the Save button in the dialog box to commit the new account information to the WebShare Proxy Router.

8.1.4.11 Static NAT
Static NAT allows you to designate a LAN shared PC as a server (e.g. for a web page). Enter the IP address of the designated PC in the **Static NAT IP** location of the **LAN Advanced Configuration Window** and click **Enable**.

8.1.5 About Page

The About page (Figure 34) provides the model number and version information for WebShare. This information is necessary when calling for technical support.
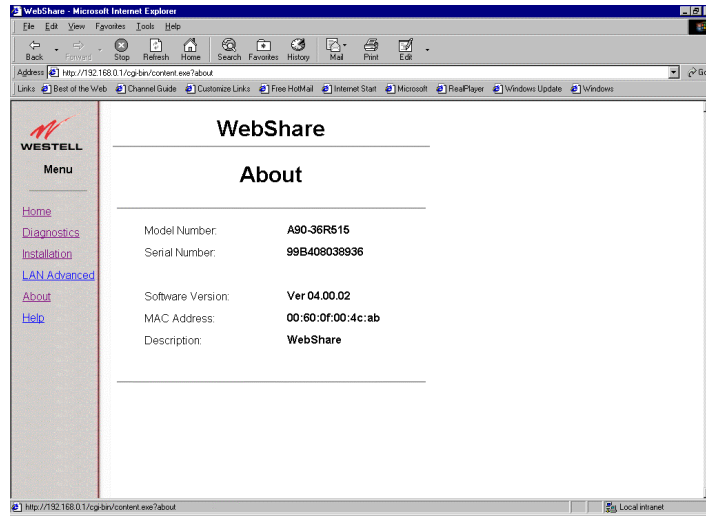
Figure 34. About Window

9. Troubleshooting

9.1   WebShare Error Messages

Figure 35 shows an example of an error message window. The following text lists other error messages that may be seen and how to correct them.
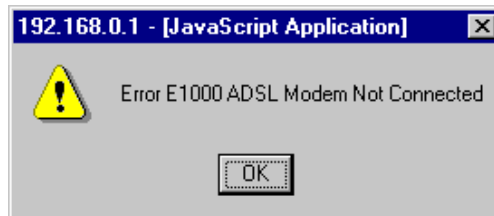

Figure 35. Example of Error Message

E1000 – WebShare Proxy Router Not Connected

Description – The WebShare Proxy Router has not achieved synchronization. The WebShare Proxy Router may take several minutes to achieve synchronization.

Remedy – Check the DSL cables and connections. If all connections are correct and the problem persists, contact your service provider.

E1001 – Network Circuit Not Available

> Description – The ATM virtual circuit has not been established within the ADSL Router.

> Remedy – Contact your ISP.

E1002 – PPP Remote Access Server (RAS) Not Available

> Description – There is no response from the RAS while attempting to activate a PPP account.

> Remedy – Contact your ISP.

E1003 – Invalid Login

> Description – An invalid User ID and/or password was used.

> Remedy – Check the User ID and ensure that it is a valid account, then retry the password. Contact your ISP if this problem persists.

E1005 – IP Remote Router Not Available

> Description – The remote router is not responding.

> Remedy – Contact your ISP.

E1008 – Configuration Information Corrupt

> Description – The PPP account or Advanced Configuration information is corrupt.

> Remedy – Delete the PPP accounts and re-enter the account information and the Advanced Configuration information.

10. Product Assistance and General Inquiries

10.1 Product Return

For technical assistance, contact:

> Westell Customer Support
> 750 North Commons Drive
> Aurora, Illinois 60504

> Phone: 1-630-898-2500
> Fax: 1-630-375-4931

> Web Address (Westell's Web Store): www.westell.com

10.2 Inspection

DO NOT return damaged merchandise to Westell until you have first obtained a Return Material Authorization (RMA) from Westell. For return of material, contact your Westell Customer Support representative.

11. Product Specifications

DIMENSIONS
   Height – 7.5 in (19 cm)
   Width – 7.78 in (19.76 cm)
   Depth – 1.9 in (4.82 cm)
WEIGHT
   Approx. 2.30 lbs. (1.04 kg) with power supply
ENVIRONMENTAL
   Ambient Operating Temperature – +32 to +113°F (0 to +45°C)
   Relative Humidity – 5 to 95%, non-condensing
POWER SUPPLY
   120 VAC (±10%) wall-mount power supply
POWER CONSUMPTION
   Less than 10 watts typical from 120 VAC
CONNECTORS
   POWER – 3-pin mini-DIN connector
   LINE (DSL) – 6-pin (RJ11) modular jack
   ETHERNET – 8-pin (RJ45) modular jack
ETHERNET CONNECTOR PINOUT
   An RJ45 type that carries the Receive data on Pins 1 and 2, and the Transmit data on Pins 3 and 6
ETHERNET INTERFACE
   Provides transmit and receive data paths for 10BaseT Network Connection.
LINE (DSL) CONNECTOR PINOUT
   An RJ11 type that carries combined ADSL and POTS signals on Pins 3 and 4.
DSL
   DSL Line Code – Discrete MultiTone (DMT) (Alcatel)
   DSL Rates – 32 kbps to 8 Mbps downstream and 32 kbps to 800 kbps upstream
   Power Spectral Density – -40 dBm/Hz
   DSL Impedance – 100 Ohms
   DSL Performance – per Category 1 in ANSI T1.413
EMC
   FCC, Class B
   EN50081-1, Class B
   EN50082-1
   GR-1089-CORE, Issue 2
SAFETY
   UL 1950
   cUL
   EN60950
REGULATORY APPROVAL
   UL
   CSA

Routing
- Up to 64 users with a user supplied Ethernet hub
- Network Address Translation (NAT)
- Dynamic Host Control Protocol (DHCP) - Automatic or Manual Local Address Assignment
- DHCP Host Configuration
- DNS Proxy Implementation

Transport and Application Protocol Support
- TCP, UDP, ICMP, SMTP, NNTP, FTP, HTTP, HTTPS, SSL
- RealAudio/Video, Microsoft NetMeeting, VDOLive, Win Frames, Xprotocol, H.323 (Over LAN environment), All direct play games

Traffic Management
- PPP over AAL5
- Link Control Protocol
- CHAP and PAP Authentication
- IP Control Protocol (IPCP): RFC – 1332
- IPCP Configuration Options
  – IP Address Configuration
  – Preliminary and Secondary DNS
- Address Proxy (Patent Pending)
- PPP Echo Request-Reply
- Internet Control Message Protocol
- Router Advertisement /Solicitation
- ICMP Echo Request/Reply (Ping)
- ARP
- Path MTU Discovery

Minimum System Requirements
- Microsoft® Windows™ 95, 98 or NT 4.0
- Microsoft® Internet Explorer™ 4.x or higher, or Netscape Navigator ™ 4.x or higher
- 5 MB of free Hard Drive space
- Ethernet 10BaseT connection between the computer and ADSL Router
- TCP / IP Protocol stack installed
- Multi-Port Ethernet 10BaseT Hub
- Cross-Over Ethernet cable for WebShare Proxy Router to Ethernet Hub
- VPI/VCI Values (provided by your Service provider)
- PPPoE Support (provided by your Service provider)
- 16 MB Ram

Configuration
- User configurable parameters include:
  - Account name and password
  - Static or Dynamic Router IP Address
  - DHCP Function (Enable/Disable)
  - DHCP Base Address
  - Primary and Secondary DNS server address
  - Inactivity Timer (Enable/Disable)
  - Static NAT (Enable/Disable)
  - Virtual Path Indicator (VPI)/Virtual Circuit Indicator (VCI)

APPENDIX A

Windows 2000, Apple MAC/iMAC, Linux Support

PCs running Windows 2000, Apple MAC and Linux operating systems can be installed in a network that is using WebShare by simply configuring the Windows 2000, Apple MAC or Linux PC to support DHCP. Once DHCP is enabled simply attach the PC to the network hub, launch the browser and begin surfing. To enable access to WebShare, launch the browser and enter the URL 192.168.0.1. Make this URL a favorite or a bookmark.

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