



**WESTELL**  
**ULTRALINE (MODELS 7400/7401)**  
**VERSALINK (MODELS 328W10/328W11)**

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**USER GUIDE**



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## 1. PRODUCT DESCRIPTION

Your Westell® Router provides reliable, high-speed, Internet access to your existing small office phone line. Your ADSL connection is “always-on” ending the hassles of dial-up modems and busy signals. Installation is easy ... no tools ... no headaches. Simply connect the hardware, apply power, and perform the simple software configuration for Router and you are on the Internet.

The Westell® Router is capable of data rates hundreds of times faster than a traditional analog modem. But unlike analog modems, your Westell® Router allows you to use the same phone line for simultaneous voice/fax communications and high-speed Internet access, eliminating the need for dedicated phone lines for voice and data needs. The Router supports a variety of networking interfaces such as wireless 802.11b/g/g+, ADSL, Ethernet and the following optional features:

**NOTE: The actual features and functions of your product may vary depending on the model you are using.**

## 2. SAFETY INSTRUCTIONS

Never install any telephone wiring during a lightning storm.

Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.

Never touch non-insulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.

Use caution when installing or modifying telephone lines.



### **WARNING**

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

## 3. REGULATORY INFORMATION

### 3.1 FCC Compliance Note

(FCC ID: CH8-328WXX-6)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the Federal Communication Commission (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 the 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.

**Modifications made to the product, unless expressly approved by Westell Inc., could void the users' right to operate the equipment.**

#### RF EXPOSURE

**This device has been tested and complies with FCC RF Exposure (SAR) limits in typical laptop computer configurations and this device can be used in desktop or laptop computers with side-mounted PCMCIA slots, which can provide 1 cm separation distance from the antenna to the body of the user or a nearby person. Thin laptop computers may need special attention to maintain antenna spacing while operating. This device cannot be used with handheld PDAs (personal digital assistants). Use in other configurations may not ensure compliance with FCC RF exposure guidelines. This device and its antenna must not be co-located or operate in conjunction with another antenna or transmitter.**

#### PART 68 – COMPLIANCE REGISTRATION

This equipment (Models 7400, 7401, 328W10, 328W11) complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. A label on the bottom of this equipment contains, among other information, the Ringer Equivalence Number (REN) and the product identifier. For products approved after July 23, 2001 the product identifier is in the format US:AAAEQ##TXXXX. The digits represented by ## are the REN without a decimal point (e.g. 03 is a REN of 0.3). The REN is used to determine the number of devices that may be connected to a telephone line. For earlier products, the REN is separately shown on the label. If requested, this number must be provided to the telephone company.

Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company.

This equipment is designated to connect to the telephone network or premises wiring using a compatible modular jack that is Part 68 compliant. An FCC compliant telephone cord and modular plug is provided with the equipment. See the Installation Information section of this User Guide for details.



A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. A compliant telephone cord and modular plug is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant. See installation instruction for details.

If this terminal equipment (Models 7400, 7401, 328W10, 328W11) causes harm to the telephone network, the telephone company may request you to disconnect the equipment until the problem is resolved. The telephone company will notify you in advance if temporary discontinuance of service is required. If advance notification is not practical, the telephone company will notify you as soon as possible. You will be advised of your right to file a complaint with the FCC if you believe such action is necessary.

If you experience trouble with this equipment (Models 7400, 7401, 328W10, 328W11), do not try to repair the equipment yourself. The equipment cannot be repaired in the field. Contact your ISP, or contact the original provider of your DSL equipment.

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

If your home has specially wired alarm equipment connected to the telephone line, ensure that the installation of this equipment (Models 7400, 7401, 328W10, 328W11) does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.

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

## 3.2 Canada Certification Notice

The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operations 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.

This equipment meets the applicable Industry Canada Terminal Equipment Technical Specification. This is confirmed by the registration number. The abbreviation, IC, before the registration number signifies that registration was performed based on a Declaration of Conformity indicating that Industry Canada technical specification were met. It does not imply that Industry Canada approved the equipment. The Ringer Equivalence Number (REN) is 0.0. The Ringer Equivalence Number that is assigned to each piece of terminal equipment provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed five.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local Telecommunication Company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations. Connection to a party line service is subject to state tariffs. Contact the state public utility commission, public service commission, or corporation commission for information.

If your home has specially wired alarm equipment connected to the telephone line, ensure that the installation of this equipment (Models 7400, 7401, 328W10, 328W11) does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.

If you experience trouble with this equipment (Models 7400, 7401, 328W10, 328W11), do not try to repair the equipment yourself. The equipment cannot be repaired in the field and must be returned to the manufacturer. Repairs



to certified equipment should be coordinated by a representative, and designated by the supplier. Refer to section 19 in this User Guide for further details.

The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed five.

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.**

## 4. NETWORKING REQUIREMENTS

The following system specifications are required for optimum performance of the Router via 10/100 Base-T Ethernet, Wireless, or USB installations.

CONNECTION TYPE	MINIMUM SYSTEM REQUIREMENTS	NETWORKING SCHEME
ETHERNET (All Models)	<ul style="list-style-type: none"> <li>• Pentium® or equivalent class machines</li> <li>• Microsoft® Windows® (98 SE, ME, 2000, NT 4.0, or XP) Macintosh® OS X, or Linux installed</li> <li>• 64 MB RAM (128 MB recommended)</li> <li>• 10 MB of free hard drive space</li> <li>• TCP/IP Protocol stack installed</li> <li>• 10/100 Base-T Network Interface Card (NIC)</li> <li>• Computer Operating System CD-ROM on hand</li> </ul>	Networking via 10/100 Base-T Ethernet requires an available Ethernet port with a 10/100 Base-T Network Interface Card (NIC) installed.
WIRELESS IEEE 802.11g (Models 328W10, 328W11)	<ul style="list-style-type: none"> <li>• Pentium® or equivalent class machines</li> <li>• Microsoft® Windows® (98 SE, ME, 2000, or XP) or Macintosh® OS X installed</li> <li>• Computer Operating System CD-ROM on hand</li> <li>• Internet Explorer 4.x or Netscape Navigator 4.x or higher</li> <li>• 64 MB RAM (128 MB recommended)</li> <li>• 10 MB of free hard drive space</li> <li>• An available IEEE 802.11b/g/g+ PC adapter</li> </ul>	Networking via Wireless or other 802.11b/g/g+ capable network adapter card.
USB (Models 7400, 328W10)	<ul style="list-style-type: none"> <li>• Pentium® or equivalent and above</li> <li>• Microsoft® Windows® (98 SE, ME, 2000, or XP) installed</li> <li>• Computer operating system CD-ROM on hand</li> <li>• Internet Explorer 4.x or Netscape Navigator 4.x or higher</li> <li>• 64 MB RAM (128 MB recommended)</li> <li>• 10 MB of free hard drive space</li> <li>• USB Version 1.0 or higher compliant bus</li> </ul>	Networking via USB Version 1.0 or higher compliant bus.



## 5. HARDWARE FEATURES

### 5.1 LED Indicators

This section explains the LED States and Descriptions of your Router. LED indicators are used to verify the unit's operation and status. Please refer to the table of the Model you are using.

**LED States and Descriptions (Model 7400)**

LED	State	Description
<b>POWER</b>	<b>Solid Green</b>	Modem power is ON.
	<b>OFF</b>	Modem power is OFF.
	<b>Solid Red</b>	POST (Power On Self Test), Failure (not bootable) or Device Malfunction. Note: The Power LED should be red no longer than two seconds after the power on self test passes.
<b>ETHERNET</b> (E1, E2, E3, E4)	<b>Solid Green</b>	Powered device is connected to the associated port (includes devices with wake-on LAN capability where slight voltage is supplied to an Ethernet connection). Note: When using the optional UPLINK/E1 port (E1), Ethernet LAN connection is limited to E2, E3, and E4.
	<b>Flashing Green</b>	10/100 Base-T LAN activity is present (traffic in either direction)
	<b>OFF</b>	Modem power is OFF, no cable or no powered device is connected to the associated port.
<b>USB</b>	<b>Solid Green</b>	USB link established
	<b>Flashing Green</b>	Transmit or Receive Activity
	<b>OFF</b>	No USB link established
<b>DSL</b>	<b>Solid Green</b>	Good DSL sync.
	<b>Flashing Green</b>	DSL attempting to sync.
	<b>OFF</b>	Modem power is OFF.
<b>INTERNET</b>	<b>Solid Green</b>	Internet link established.
	<b>Flashing Green</b>	IP connection established and IP Traffic is passing through device (in either direction). Note: If the IP or PPP session is dropped due to an idle timeout, the light will remain solid green, if an ADSL connection is still present. If the session is dropped for any other reason, the light is turned OFF. The light will turn red when it attempts to reconnect and DHCP or PPP fails).
	<b>Solid Red</b>	Device attempted to become IP connected and failed (no DHCP response, no PPP response, PPP authentication failed, no IP address from IPCP, etc.).
	<b>OFF</b>	Modem power is OFF, Modem is in Bridge Mode, or the connection is not present.

*NOTE: Safe Boot is reflected when the Power and Internet LED's are both Red and all other LED's are off.*

**LED States and Descriptions (Model 7401)**

<b>LED</b>	<b>State</b>	<b>Description</b>
<b>POWER</b>	<b>Solid Green</b>	Modem power is ON.
	<b>OFF</b>	Modem power is OFF.
	<b>Solid Red</b>	POST (Power On Self Test), Failure (not bootable) or Device Malfunction. Note: The Power LED should be red no longer than two seconds after the power on self test passes.
<b>ETHERNET</b> (E1, E2, E3, E4)	<b>Solid Green</b>	Powered device is connected to the associated port (includes devices with wake-on LAN capability where slight voltage is supplied to an Ethernet connection). Note: When using the optional UPLINK/E1 port (E1), Ethernet LAN connection is limited to E2, E3, and E4.
	<b>Flashing Green</b>	10/100 Base-T LAN activity is present (traffic in either direction)
	<b>OFF</b>	Modem power is OFF, no cable or no powered device is connected to the associated port.
<b>DSL</b>	<b>Solid Green</b>	Good DSL sync.
	<b>Flashing Green</b>	DSL attempting to sync.
	<b>OFF</b>	Modem power is OFF.
<b>INTERNET</b>	<b>Solid Green</b>	Internet link established.
	<b>Flashing Green</b>	IP connection established and IP Traffic is passing through device (in either direction). Note: If the IP or PPP session is dropped due to an idle timeout, the light will remain solid green, if an ADSL connection is still present. If the session is dropped for any other reason, the light is turned OFF. The light will turn red when it attempts to reconnect and DHCP or PPP fails).
	<b>Solid Red</b>	Device attempted to become IP connected and failed (no DHCP response, no PPP response, PPP authentication failed, no IP address from IPCP, etc.).
	<b>OFF</b>	Modem power is OFF, Modem is in Bridge Mode, or the connection is not present.

*NOTE: Safe Boot is reflected when the Power and Internet LED's are both Red and all other LED's are off.*

**LED States and Descriptions (Model 328W10)**

<b>LED</b>	<b>State</b>	<b>Description</b>
<b>POWER</b>	<b>Solid Green</b>	Modem power is ON.
	<b>OFF</b>	Modem power is OFF.
	<b>Solid Red</b>	POST (Power On Self Test), Failure (not bootable) or Device Malfunction. Note: The Power LED should be red no longer than two seconds after the power on self test passes.
<b>ETHERNET</b> (UPLINK/E1, E2, E3, E4)	<b>Solid Green</b>	Powered device is connected to the associated port (includes devices with wake-on LAN capability where slight voltage is supplied to an Ethernet connection). Note: When using the optional UPLINK/E1 port (E1), Ethernet LAN connection is limited to E2, E3, and E4.
	<b>Flashing Green</b>	10/100 Base-T LAN activity is present (traffic in either direction)
	<b>OFF</b>	Modem power is OFF, no cable or no powered device is connected to the associated port.
<b>WIRELESS</b>	<b>Solid Green</b>	Link Established.
	<b>Flashing Green</b>	Wireless LAN activity is present (traffic in either direction).
	<b>OFF</b>	Modem power is OFF or No Link.
<b>USB</b>	<b>Solid Green</b>	USB link established
	<b>Flashing Green</b>	Transmit or Receive Activity
	<b>OFF</b>	No USB link established
<b>DSL</b>	<b>Solid Green</b>	Good DSL sync.
	<b>Flashing Green</b>	DSL attempting to sync.
	<b>OFF</b>	Modem power is OFF.
<b>INTERNET</b>	<b>Solid Green</b>	Internet link established.
	<b>Flashing Green</b>	IP connection established and IP Traffic is passing through device (in either direction). Note: If the IP or PPP session is dropped due to an idle timeout, the light will remain solid green, if an ADSL connection is still present. If the session is dropped for any other reason, the light is turned OFF. The light will turn red when it attempts to reconnect and DHCP or PPP fails).
	<b>Solid Red</b>	Device attempted to become IP connected and failed (no DHCP response, no PPP response, PPP authentication failed, no IP address from IPCP, etc.).
	<b>OFF</b>	Modem power is OFF, Modem is in Bridge Mode, or the connection is not present.

*NOTE: Safe Boot is reflected when the Power and Internet LED's are both Red and all other LED's are off.*

**LED States and Descriptions (Model 328W11)**

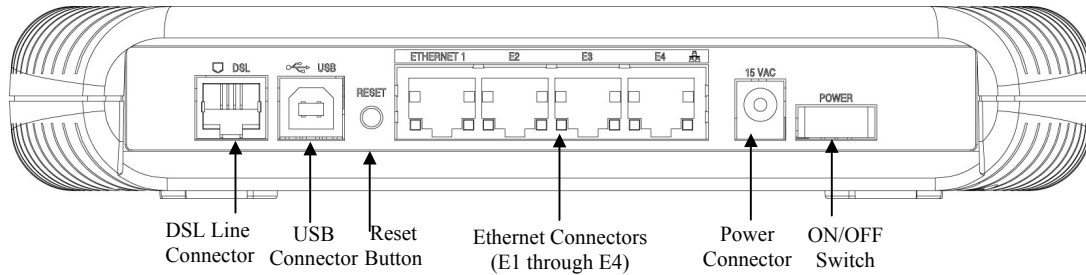
LED	State	Description
<b>POWER</b>	<b>Solid Green</b>	Modem power is ON.
	<b>OFF</b>	Modem power is OFF.
	<b>Solid Red</b>	POST (Power On Self Test), Failure (not bootable) or Device Malfunction. Note: The Power LED should be red no longer than two seconds after the power on self test passes.
<b>ETHERNET</b> (UPLINK/E1, E2, E3, E4)	<b>Solid Green</b>	Powered device is connected to the associated port (includes devices with wake-on LAN capability where slight voltage is supplied to an Ethernet connection). Note: When using the optional UPLINK/E1 port (E1), Ethernet LAN connection is limited to E2, E3, and E4.
	<b>Flashing Green</b>	10/100 Base-T LAN activity is present (traffic in either direction)
	<b>OFF</b>	Modem power is OFF, no cable or no powered device is connected to the associated port.
<b>WIRELESS</b>	<b>Solid Green</b>	Link Established.
	<b>Flashing Green</b>	Wireless LAN activity is present (traffic in either direction).
	<b>OFF</b>	Modem power is OFF or No Link.
<b>DSL</b>	<b>Solid Green</b>	Good DSL sync.
	<b>Flashing Green</b>	DSL attempting to sync.
	<b>OFF</b>	Modem power is OFF.
<b>INTERNET</b>	<b>Solid Green</b>	Internet link established.
	<b>Flashing Green</b>	IP connection established and IP Traffic is passing through device (in either direction). Note: If the IP or PPP session is dropped due to an idle timeout, the light will remain solid green, if an ADSL connection is still present. If the session is dropped for any other reason, the light is turned OFF. The light will turn red when it attempts to reconnect and DHCP or PPP fails).
	<b>Solid Red</b>	Device attempted to become IP connected and failed (no DHCP response, no PPP response, PPP authentication failed, no IP address from IPCP, etc.).
	<b>OFF</b>	Modem power is OFF, Modem is in Bridge Mode, or the connection is not present.

*NOTE: Safe Boot is reflected when the Power and Internet LED's are both Red and all other LED's are off.*

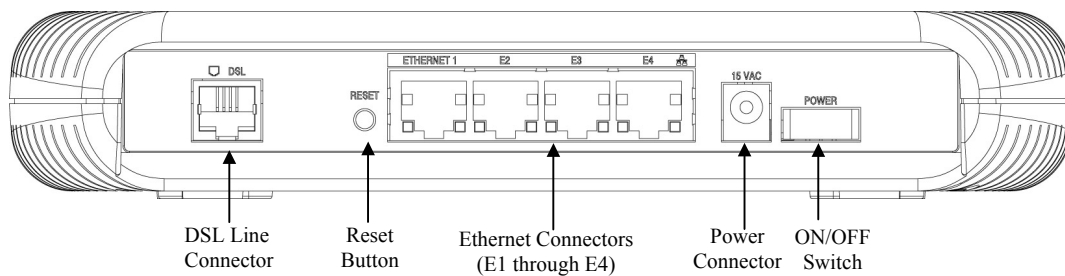
## 5.2 Cable Connectors and Switch Locations

- DSL connector (RJ-11)
- USB connector (Models 7400, 328W10 only)
- Reset button
- (4) Ethernet connector (RJ-45) with optional uplink port  
(Note: When using the optional UPLINK/E1 port (E1), Ethernet LAN connection is limited to E2, E3, and E4. Models 328W10, 328W11 only)
- Power connector (barrel)
- ON/OFF Switch
- Wireless IEEE 802.11b/g SMA connector and antenna (Models 328W10, 328W11 only)

**Model 7400 Rear View**

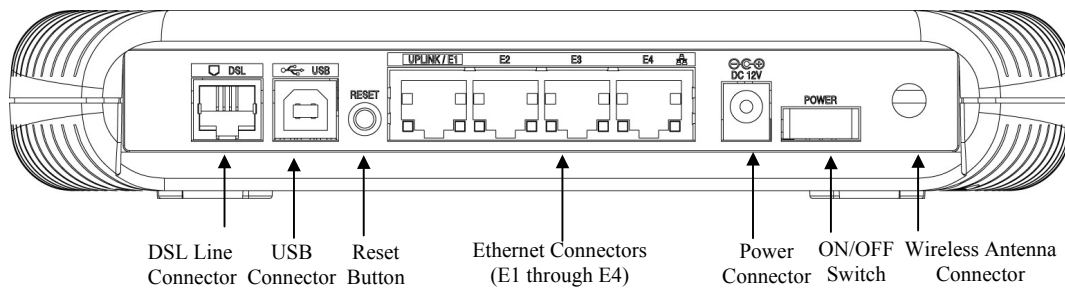


**Model 7401 Rear View**

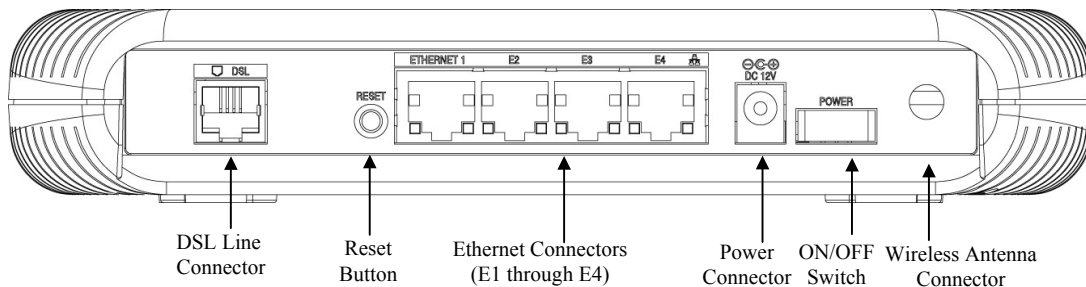


NOTE: For Models 328W10 and 328W11, when using the optional UPLINK/E1 or ETHERNET 1 ports, Ethernet LAN connection is limited to E2, E3, and E4. The UPLINK feature is optional. If UPLINK feature is not enabled, the Router will use DSL and Wireless only.

**Model 328W10 Rear View**






**Model 328W11 Rear View**





### 5.3 Connector Descriptions

The following chart displays the connector types for the Model you are using.

#### Model 7400

SYMBOL	NAME	TYPE	FUNCTION
	DSL LINE	6-pin RJ-11 modular jack	Connects to an ADSL-equipped telephone jack or DSL connection of a POTS splitter.
	USB	4-pin USB Series B connector	Connects the USB device to the PC.
	ETHERNET	8-pin (RJ-45) modular jack	Connects the Ethernet device to the PC.
<b>15 VAC</b>	POWER	Barrel connector	Power source.
<b>Wireless</b>	ANTENNA	SMA connector and antenna	Connects to wireless IEEE 802.11b/g/g+




#### Model 7401

SYMBOL	NAME	TYPE	FUNCTION
	DSL LINE	6-pin RJ-11 modular jack	Connects to an ADSL-equipped telephone jack or DSL connection of a POTS splitter.
	ETHERNET	8-pin (RJ-45) modular jack	Connects the Ethernet device to the PC.
<b>15 VAC</b>	POWER	Barrel connector	Power source.
<b>Wireless</b>	ANTENNA	SMA connector and antenna	Connects to wireless IEEE 802.11b/g/g+





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**Model 328W10**

SYMBOL	NAME	TYPE	FUNCTION
	DSL LINE	6-pin RJ-11 modular jack	Connects to an ADSL-equipped telephone jack or DSL connection of a POTS splitter.
	USB	4-pin USB Series B connector	Connects the USB device to the PC.
	ETHERNET	8-pin (RJ-45) modular jack	Connects the Ethernet device to the PC.
<b>DC 12V</b>	POWER	Barrel connector	Power source.
<b>Wireless</b>	ANTENNA	SMA connector and antenna	Connects to wireless IEEE 802.11b/g/g+

**Model 328W11**

SYMBOL	NAME	TYPE	FUNCTION
	DSL LINE	6-pin RJ-11 modular jack	Connects to an ADSL-equipped telephone jack or DSL connection of a POTS splitter.
	ETHERNET	8-pin (RJ-45) modular jack	Connects the Ethernet device to the PC.
<b>DC 12V</b>	POWER	Barrel connector	Power source.
<b>Wireless</b>	ANTENNA	SMA connector and antenna	Connects to wireless IEEE 802.11b/g/g+

## 5.4 Pin-out Descriptions

The following tables list the pin-out descriptions.

### DSL Pin-outs (Models 7400, 7401, 328W10, 328W11)

Pin-out	Description
1, 2, 5, 6	Not Used
3	DSL Tip
4	DSL Ring

### USB Pin-outs (Models 7400, 328W10)

Pin	Name	Description	Cable Color
1	VBUS/Vcc	5 Vdc	Red
2	D -	Data -	White
3	D +	Data +	Green
4	GND	Ground	Black

### Optional UPLINK/E1, E2, E3, and E4 (Ethernet) Port Pin-outs (Models 328W10, 328W11)

Pin-out	Description
1	Rx+
2	Rx-
3	Tx+
4,5,7,8	Not Used
6	Tx-

### E1, E2, E3, E4 (Ethernet) Port Pin-outs (Models 7400, 7401)

Pin-out	Description
1	Rx+
2	Rx-
3	Tx+
4,5,7,8	Not Used
6	Tx-





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## **6. INSTALLING THE HARDWARE**

### **6.1 Installation Requirements**

To install your Router, you will need the following:

- A Network Interface Card (NIC) installed in your PC
- An IEEE 802.11b/g adapter (Models 328W10, 328W11 only)

**NOTE:** Internet service provider subscriber software and connection requirements may vary. Consult your ISP for installation instructions. Please wait until you have received notification from your ISP that your DSL line has been activated before installing the Router and the software.

### **6.2 Before you begin**

Make sure your kit contains the following items:

- Westell® Router
- Power Supply
- RJ-45 Ethernet cable (straight-through) (yellow)
- USB Cable (blue) (Models 7400, 328W10 only)
- RJ-11 Phone cable
- SMA Antenna (Models 328W10, 328W11 only)
- Westell CD-ROM containing User Guide in PDF format
- Quick Start Guide

### **6.3 Microfilters**

ADSL signals must be blocked from reaching each telephone, answering machine, fax machine, computer modem or any similar conventional device. Failure to do so may degrade telephone voice quality and ADSL performance. Install a microfilter if you desire to use the DSL-equipped line jack for telephone, answering machine, fax machine or other telephone device connections. Microfilter installation requires no tools or telephone rewiring. Just unplug the telephone device from the baseboard or wall mount and snap in a microfilter, next snap in the telephone device. You can purchase microfilters from your local electronics retailer, or contact the original provider of your DSL equipment.

## 6.4 Hardware Installations



NOTE: If you are using the Router in conjunction with an Ethernet Hub or Switch, refer to the manufacturer's instructions for proper installation and configuration. When using a Microfilter, be certain that the DSL phone cable is connected to the "DSL/HPN" non-filtered jack. Please wait until you have received notification from your ISP that your DSL line has been activated before installing the Router. **Westell recommends the use of a surge suppressor to protect equipment attached to the power supply.**

### 6.4.1 Installation via 10/100 Base-T Ethernet



**IMPORTANT:** Before you connect via 10/100 Base-T, you must have an available Ethernet card installed in your computer. If your Ethernet card does not auto-negotiate, you must set it to half duplex. Refer to the Ethernet card manufacturer's instructions for installing and configuring your Ethernet card.

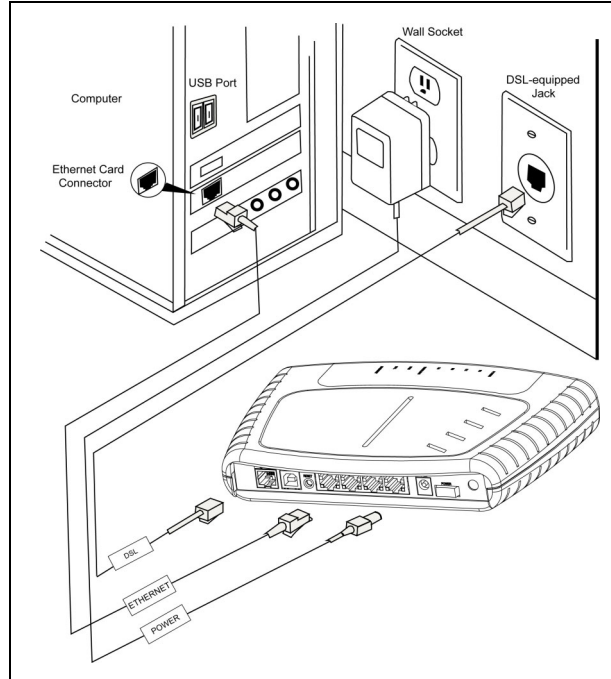
**Warning:** Your power requirements may differ from those displayed in the following instructions. **You must use only the power adapter provided with your kit.**

1. Connect the power supply cord to the power connector marked **15 VAC** on the rear panel of the Router. Plug the other end of the power supply into a wall socket.
2. Connect the DSL phone cable from the connector marked  **DSL** on the rear panel of the Router to the DSL-equipped telephone line jack on the wall. **IMPORTANT:** Do not use a DSL filter on this connection. You must use the phone cord that was provided with the kit.
3. Connect the yellow Ethernet cable from any one of the Ethernet jacks marked  on the rear panel of the Router to the Ethernet port on your computer. **Repeat this step to connect up to three additional PCs to your Westell Router.**

NOTE: You may connect to any of the four Ethernet jacks on the rear panel as they serve as an Ethernet switch. However, when using the optional UPLINK/E1 port, Ethernet LAN connection is limited to ports E2, E3, and E4.

4. Check to see if the DSL LED is solid green. If the DSL LED is solid green, the Router is functioning properly.
5. Check to see if the Ethernet LED is solid green. Solid green indicates that the Ethernet connection is functioning properly.

Congratulations! You have completed the Ethernet hardware installation. No software installation is required when using only an Ethernet connection. You must now proceed to section 8 to configure your Router for Internet connection.



**Figure 1. Connection via 10/100 Base-T Ethernet**


## 6.4.2 Connecting PCs via Wireless (Models 328W10, 328W11)

**IMPORTANT:** If you are connecting to the Router via a wireless network adapter, the SSID must be the same for both the Router and your PC's wireless network adapter. The default SSID for the Router is the serial number of the unit (located below the bar code on the bottom of the unit and also on the Westell shipping carton). Locate and run the utility software provided with your PC's Wireless network adapter and enter the SSID value. The PC's wireless network adapter must be configured with the SSID (in order to communicate with the Router) before you begin the account setup and configuration procedures. Later, for privacy you can change the SSID by following the procedures outlined in section 13.4 (Wireless Configuration).

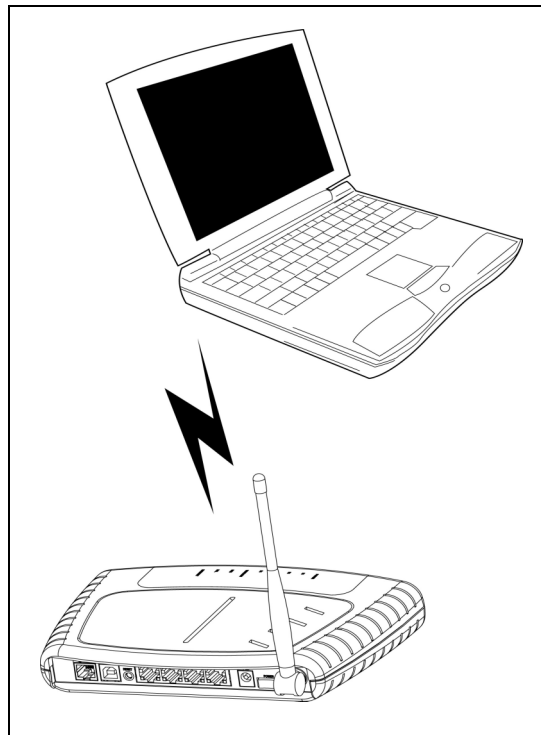
**IMPORTANT:** Client PCs can use any Wireless Fidelity (Wi-Fi) 802.11b/g/g+ certified card to communicate with the Router. The Wireless card and Router must use the same security code type. **If you use WPA-PSK or WEP wireless security, you must configure your computer's wireless adapter for the security code that you use. You can access the settings in the advanced properties of the wireless network adapter.**

**Warning:** Your power requirements may differ from those displayed in the following instructions. **You must use only the power adapter provided with your kit.**

To network the Router to additional computers in your home or office using a wireless installation, you will need to confirm the following:

1. Ensure that an 802.11b/g/g+ wireless network adapter has been installed in each PC on your wireless network.
2. Install the appropriate drivers for your Wireless IEEE802.11b or IEEE802.11g adapter.
3. Make sure the SMA antenna connector is loose. Orient the antenna in the proper configuration. Then, tighten the antenna knob to lock it into place.
4. Connect the power supply cord to the power connector marked **15 VAC** on the rear panel of the Router. Plug the other end of the power supply into a wall socket.
5. Connect the DSL phone cable from the connector marked  **DSL** on the rear panel of the Router to the DSL-equipped telephone line jack on the wall. **IMPORTANT:** Do not use a DSL filter on this connection. You must use the phone cord that was provided with the Router kit.
6. Check to see if the DSL LED is solid Green. If the DSL LED is solid Green, the Router is functioning properly.
7. Check to see if the Router's Wireless LED is solid Green. This means that the Wireless interface is functioning properly.

Congratulations! You have completed the Wireless installation for the Router. You must now proceed section 8 to configure your Router for Internet connection.





**Figure 2. Connection via Wireless**

### 6.4.3 Installation via Ethernet and Wireless Combination (Models 328W10, 328W11)

The Router supports simultaneous use of 10/100 Base-T Ethernet and Wireless configurations. The following instructions explain how to install the Router for simultaneous use of Ethernet and Wireless ports.

NOTE: Refer to Figure 1 and Figure 2 for instructions on hardware installation via Ethernet and Wireless connections.

**Warning:** Your power requirements may differ from those displayed in the following instructions. **You must use only the power adapter provided with your kit.**

1. Ensure that an 802.11b/g/g+ wireless network adapter has been installed in each PC on your wireless network
2. Install the appropriate drivers for your Wireless IEEE802.11b or IEEE802.11g adapter.
3. Make sure the SMA antenna connector is loose. Orient the antenna in the proper configuration. Then, tighten the antenna knob to lock it into place.
4. Connect the power supply cord to the power connector marked **15 VAC** on the rear panel of the Router. Plug the other end of the power supply into a wall socket.
5. Connect the DSL phone cable from connector marked  **DSL** on the rear panel of the Router to the DSL-equipped telephone line jack on the wall. **IMPORTANT: Do not** use a DSL filter on this connection. You must use the phone cord that was provided with the kit.
6. Connect the yellow Ethernet cable from any one of the Ethernet jacks marked  on the rear panel of the Router to the Ethernet port on your computer. **Repeat this step to connect up to three additional PCs to your Westell Router.**

NOTE: You may connect to any of the four Ethernet jacks on the rear panel as they serve as an Ethernet switch. However, when using the optional UPLINK/E1 port, Ethernet LAN connection is limited to ports E2, E3, and E4.

7. Check to see if the DSL LED is solid green. If the DSL LED is solid green, the Router is functioning properly.
8. Check to see if the Ethernet LED is solid green. Solid green indicates that the Ethernet connection is functioning properly.
9. Check to see if the Router's Wireless LED is solid green. This means that the Wireless interface is functioning properly.

Congratulations! You have completed the simultaneous hardware (Ethernet and Wireless) installation. You must now proceed to section 8 to configure your Router for Internet connection.



## 6.4.4 Installation via USB (Models 7400, 328W10)

Westell recommends using the Router via Wireless or Ethernet connections. However, if you choose to connect via USB, you must follow the instructions in this section.



**IMPORTANT:** The USB installation will not function for Macintosh computers. Macintosh computers must install via Ethernet connection. See section 6.4.1 for Ethernet installation instructions. **Prior to installing the Router via USB, confirm that the CD-ROM provided with your Router kit is inserted in your computer's CD-ROM drive.**

**Warning:** Your power requirements may differ from those displayed in the following instructions. **You must use only the power adapter provided with your kit.**

1. Connect the power supply cord to the power connector marked **15 VAC** on the rear panel of the Router. Plug the other end of the power supply into a wall socket.
2. Connect the DSL phone cable from the jack marked  **DSL** on the rear panel of the Router to the DSL-equipped telephone line jack on the wall. **IMPORTANT: Do not** use a DSL filter on this connection. You must use the phone cord that was provided with the kit.
3. Connect the blue USB cable from the USB connector marked  **USB** on the rear panel of the Router to the USB port on the PC. You must now go to section 7 for instructions on installing the USB drivers.
4. Check to see if the DSL LED is solid green. If the DSL LED is solid green, the Router is functioning properly.
5. Check to see if the USB LED is solid green. Solid green indicates that the USB connection is functioning properly.

Congratulations! You have completed the USB hardware installation. You must now proceed to section 8 to configure your Router for Internet connection.

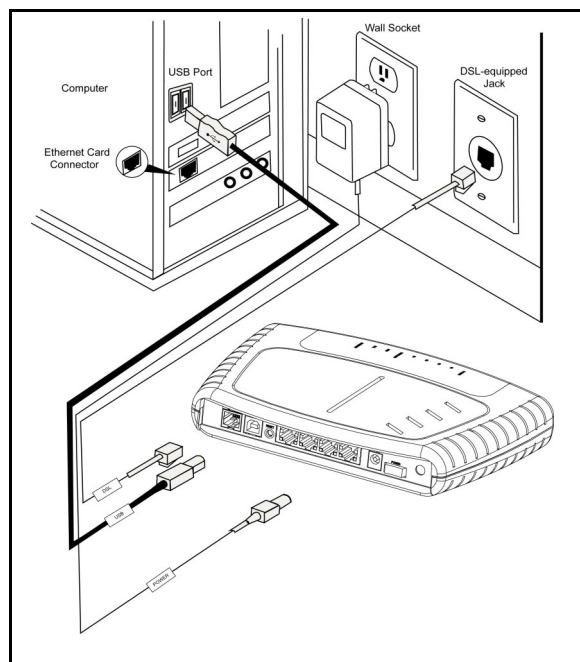


Figure 3. Connection via USB

## 7. INSTALLING THE USB DRIVERS (MODELS 7400, 328W10)

If you are using only Ethernet or Wireless connections, USB driver installation is not necessary. The Microsoft® Plug and Play auto-detect feature recognizes when new hardware has been installed. After you connect the Router to the PC, the Router will be detected automatically.

Before you begin the USB software installation, determine which operating system is installed on your PC, and then follow the installation instructions that match your operating system. When the installation has completed, proceed to section 8 in the User Guide to configure the Router for Internet connection. The following table provides a reference to the USB driver installation instructions.

Your Operating System	Refer to this section for USB driver instructions
Windows 98 SE	Installing the USB Driver for Windows 98 SE
Windows ME	Installing the USB Driver for Windows ME
Windows 2000	Installing the USB Driver for Windows 2000
Windows XP	Installing the USB Driver for Windows XP

### 7.1 CD-ROM Installation:

1. Place the CD-ROM that you received in the Router kit into the CD-ROM drive of the PC that is connected to the USB port.
2. Verify the connection to the computer by observing the state of the USB LED. Once the USB drivers have been installed, the USB LED should be solid green. Solid green indicates a USB connection has been established.
3. Go to the USB driver installation section that matches your operating system and follow the procedures outlined in that section.

NOTE: The actual information displayed in the USB screens may vary according to product.

### 7.2 Installing the USB Drivers for Windows 98 SE



**IMPORTANT:** Confirm that the CD-ROM provided with the Router kit is inserted in the appropriate drive before continuing this installation.

1. **Windows 98 SE:** After you connect the Router to your PC, the **Found New Hardware** window will appear (Figure 4). After a brief delay, the **Add New Hardware Wizard** window will appear (Figure 5) Click **Next**.

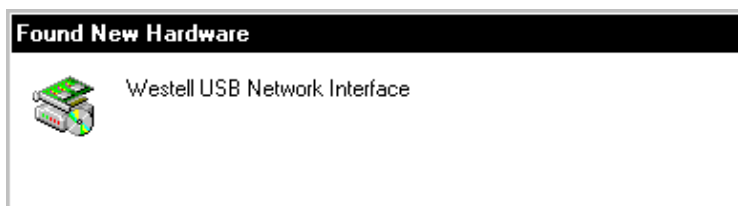


Figure 4. Windows 98 SE

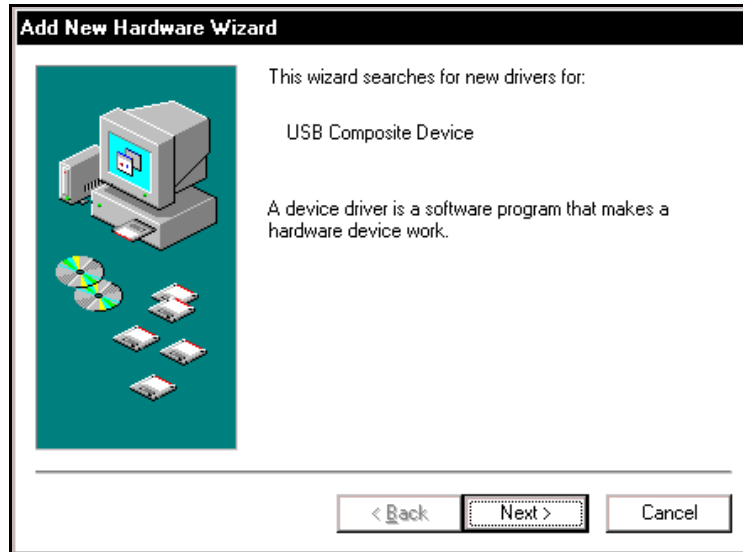


Figure 5. Windows 98 SE

2. **Windows 98 SE:** Select **Search for the best driver for your device. (Recommended)**. See Figure 6. Click **Next**.

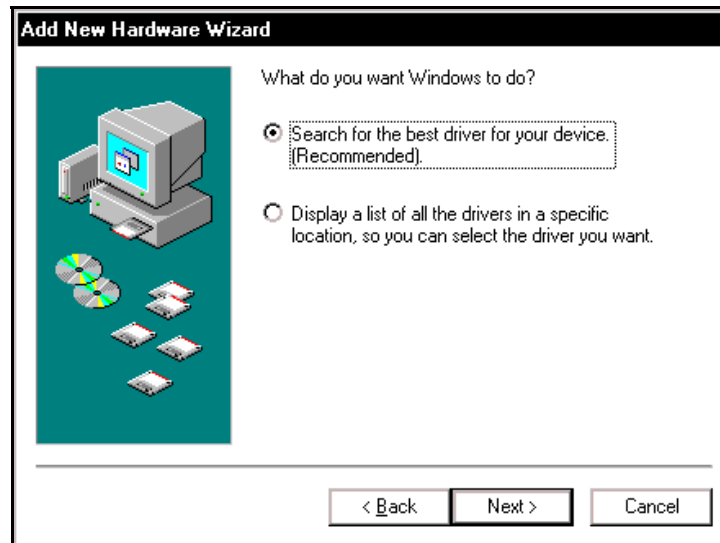
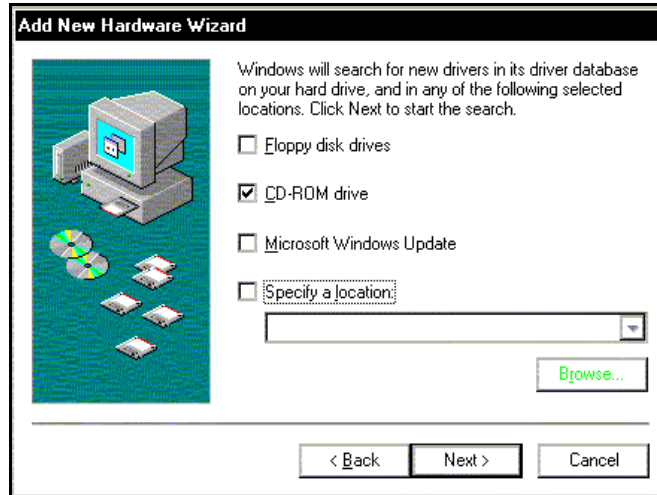


Figure 6. Windows 98 SE



3. **Windows 98 SE:** Select **CD-ROM drive** (Figure 7). Click **Next**. Windows will search for the driver.

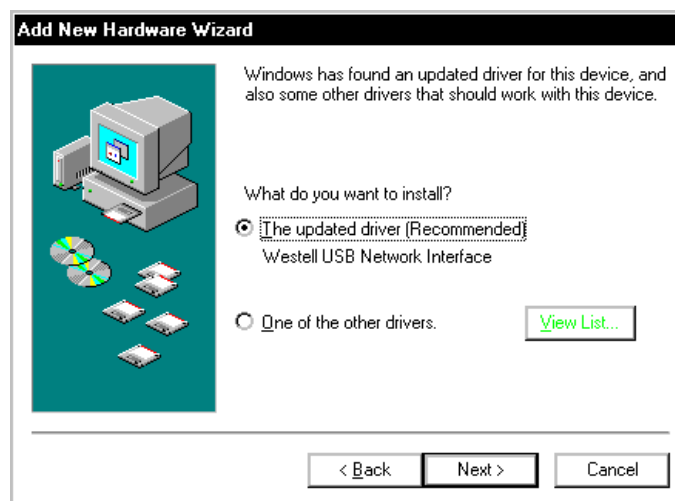


**Figure 7. Windows 98 SE**



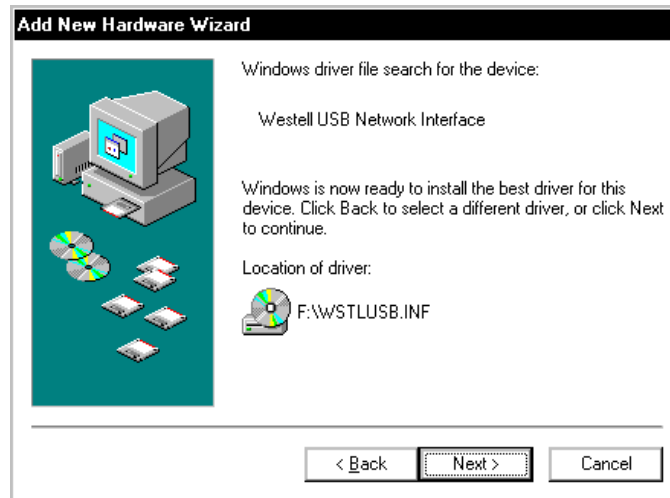
**Note:** If Figure 7 does not appear at this step, and Figure 8 appears with the text ‘USB Composite device’, ‘C:\Windows\Inf\USB.Inf’, do not continue. Click **Back** to Step 3 and specify the location of the Westell CD-ROM.

4. **Windows 98 SE:** Select **The updated driver (Recommended) Westell USB Network Interface** (Figure 8). Click **Next**.



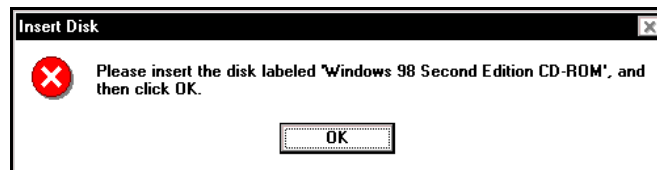
**Figure 8. Windows 98 SE**

5. **Windows 98 SE:** Windows will display the location of the driver (Figure 9). The drive “letter” may vary. Click Next.



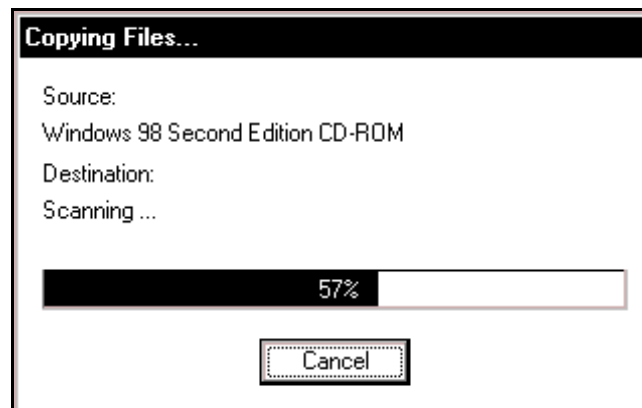
**Figure 9. Windows 98 SE**

6. **Windows 98 SE:** Remove the Westell CD from the CD-ROM Drive. Next, insert the Windows operating system CD into the CD-ROM Drive (Figure 10). Click **OK**.



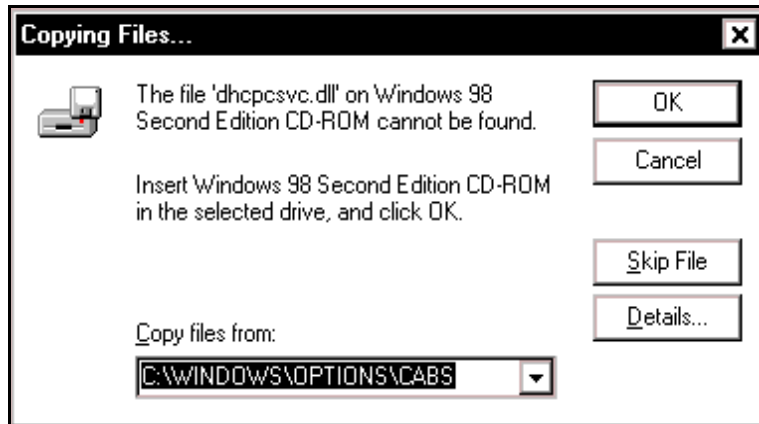
**Figure 10. Windows 98 SE**

7. **Windows 98 SE:** The system will begin copying files (Figure 11).



**Figure 11. Windows 98 SE**

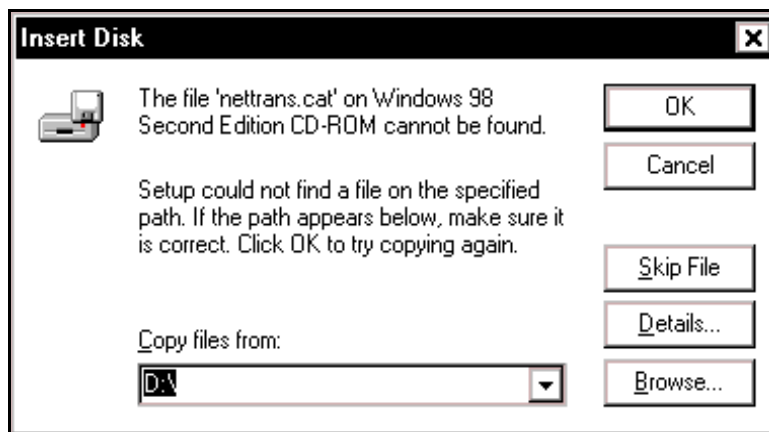
- Windows 98 SE:** Figure 12 may pop up, depending on how Windows 98 SE was installed on the computer. The installation of the Westell Router requires files that are supplied by Microsoft for Windows 98 SE. If Figure 13 pops up, insert the Windows 98 SE Operating System CD into the computers CD-ROM drive, wait a moment for the CD to be recognized by the system, and then click on **OK**. The system should find the required files on the Windows 98 SE CD-ROM and automatically complete the installation.



**Figure 12. Windows 98 SE**

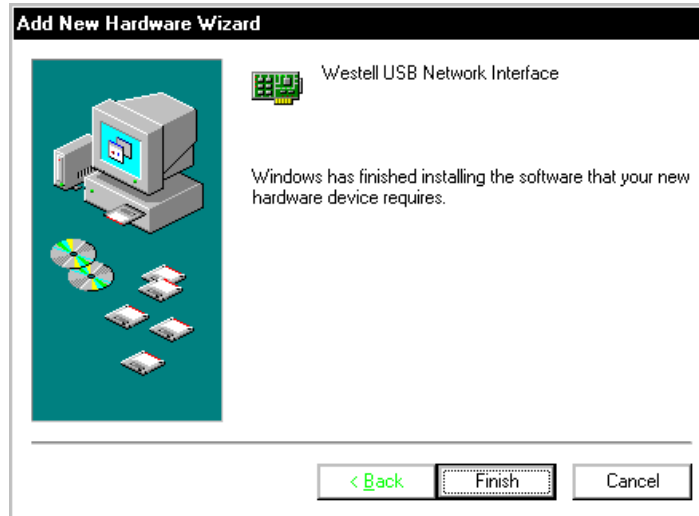
If the Operating System CD is not available, or if Figure 12 pops up again, you will have to manually specify the location of the files. The required files may be stored on your hard drive. A common location for these files is "C:\Windows\Options\Cabs." Try specifying this path or the path to your CD-ROM drive (usually "D:\") by clicking the **Browse...** button in the **Insert Disk** screen (Figure 13). When you have specified the correct path, click on **OK**. The system will begin copying the files.

**NOTE:** It is very important that the Windows 98 SE files be installed. Do not click on **Cancel** or **Skip File** in the dialogs, doing so will result in an improper installation and the Router will not function correctly.



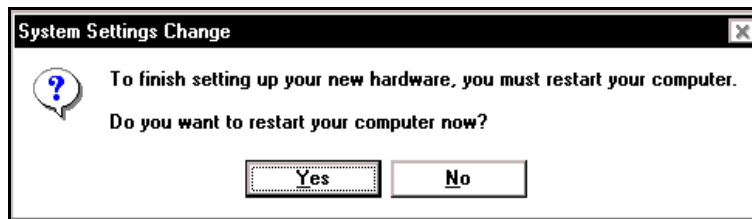
**Figure 13. Windows 98 SE**

9. **Windows 98 SE:** The window below confirms that the PC has finished loading the drivers (Figure 14). Click **Finish**.



**Figure 14. Windows 98 SE**

10. **Windows 98 SE:** Click **Yes** to restart your computer (Figure 15).



**Figure 15. Windows 98 SE**

Congratulations! You have completed the software installation for the USB drivers. After you have finished installing the USB drivers, you must return to section 6.4.4 (Installation via USB) to complete the installation instructions.

### 7.3 Installing the USB Drivers for Windows ME



**IMPORTANT:** Confirm that the CD-ROM provided with the Router kit is inserted in the appropriate drive before continuing this installation.

1. **Windows ME:** After you connect the Router to your PC, the **Found New Hardware** window will appear (Figure 16). After a brief delay, the **Add New Hardware Wizard** will appear (Figure 17). Select **Automatic search for a better driver (Recommended)**. Click **Next**.



Figure 16. Windows ME

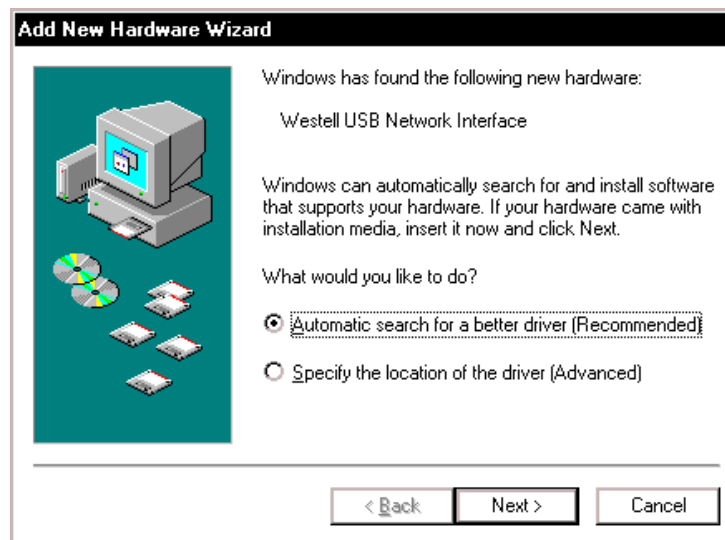
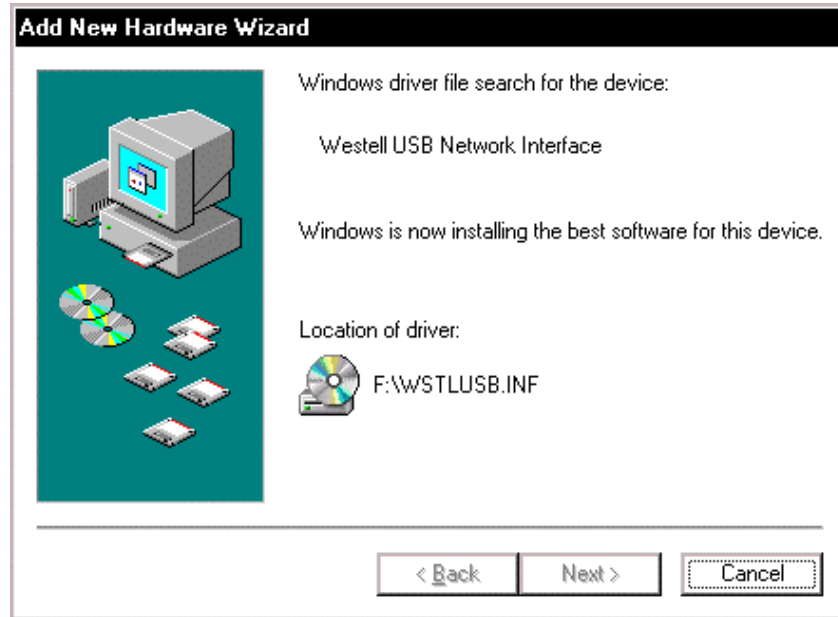


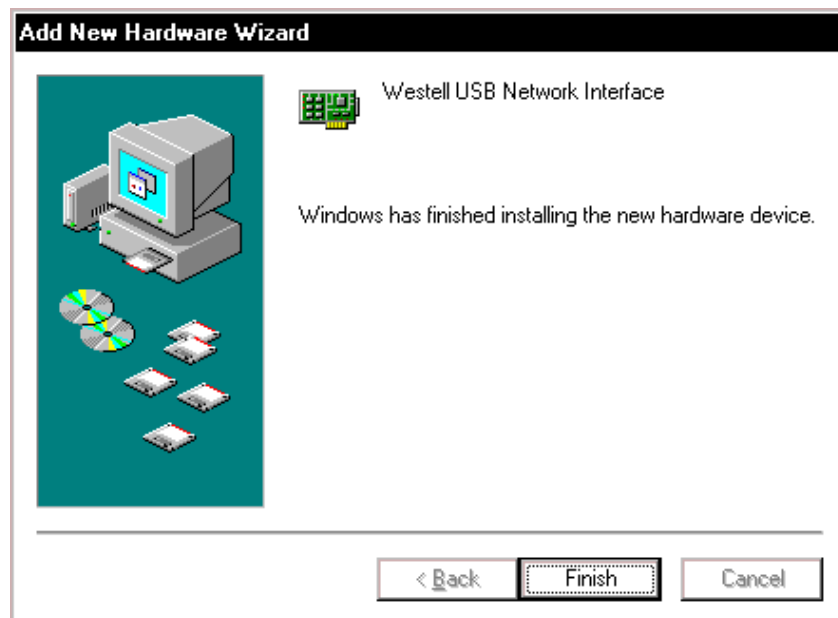
Figure 17. Windows ME

2. **Windows ME:** Windows will display the location of the driver (Figure 18). Click **Next**.



**Figure 18. Windows ME**

3. **Windows ME:** The window below confirms that the PC has finished loading the drivers (Figure 19). Click **Finish**.



**Figure 19. Windows ME**

4. **Windows ME:** When the **System Settings Change** screen appears, the USB drivers are installed properly (Figure 20). Click **Yes**.

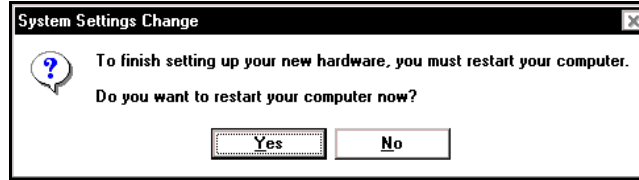


Figure 20. Windows ME

Congratulations! You have completed the software installation for the USB drivers. After you have finished installing the USB drivers, you must return to section 6.4.4 (Installation via USB) to complete the installation instructions.

## 7.4 Installing the USB Driver for Windows 2000



**IMPORTANT:** Confirm that the CD-ROM provided with the Router kit is inserted in the appropriate drive before continuing this installation.

1. **Windows 2000:** After you connect the Router to your PC, the **Found New Hardware** window will appear (Figure 21). After a brief delay, the **Found New Hardware Wizard** will appear (Figure 22). Click **Next**.

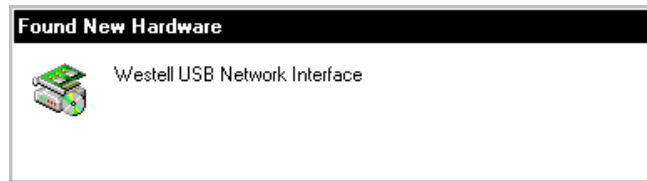
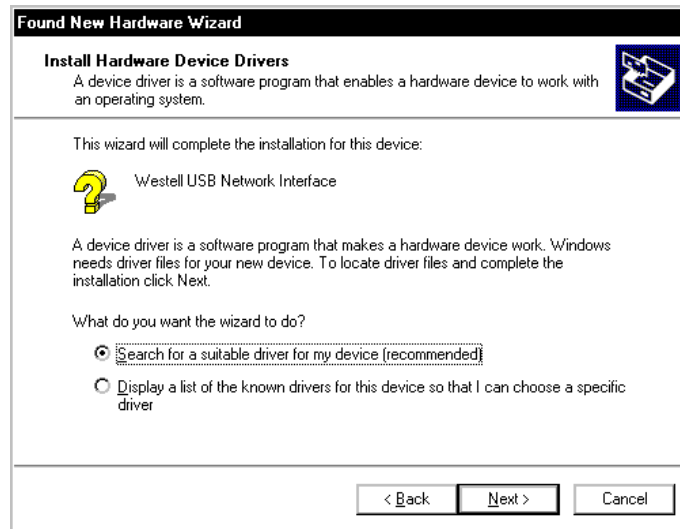


Figure 21. Windows 2000



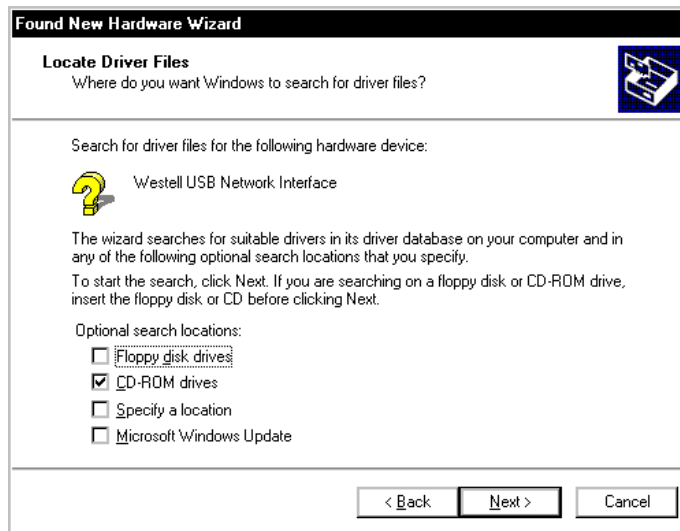
Figure 22. Windows 2000

2. **Windows 2000:** The **Install Hardware Device Drivers** window appears. Select **Search for a suitable driver for my device (recommended)**. See Figure 23. Click **Next**.



**Figure 23. Windows 2000**

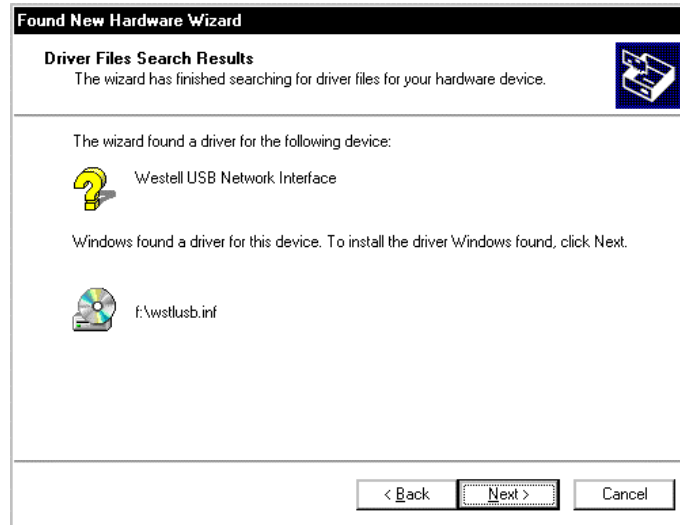
3. **Windows 2000:** The **Locate Driver Files** window appears. Select **CD-ROM drives** (Figure 24). Click **Next**.



**Figure 24. Windows 2000**



4. **Windows 2000:** The **Driver Files Search Results** window appears (Figure 25). **Note:** The drive “letter” may vary. Click **Next**.



**Figure 25. Windows 2000**

5. **Windows 2000:** The window below confirms that the PC has finished loading the drivers (Figure 26). Click **Finish**.



**Figure 26. Windows 2000**

6. **Windows 2000:** When the **System Settings Change** screen appears, the USB drivers are installed properly (Figure 27). Click **Yes**.

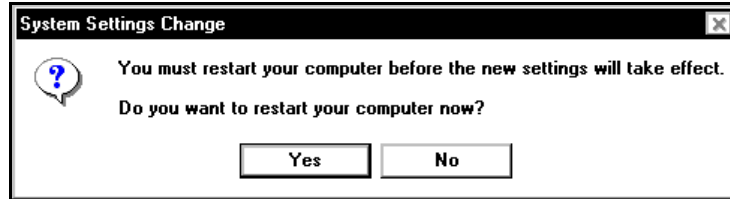


Figure 27. Windows 2000

Congratulations! You have completed the software installation for the USB drivers. After you have finished installing the USB drivers, you must return to section 6.4.4 (Installation via USB) to complete the installation instructions.

## 7.5 Installing the USB Driver for Windows XP



**IMPORTANT:** Confirm that the CD-ROM provided with the Router kit is inserted in the appropriate drive before continuing this installation.

1. **Windows XP:** After you connect the Router to your PC, the following screen will appear. (Figure 28). Select **Install the software automatically (Recommended)**. Click **Next**.

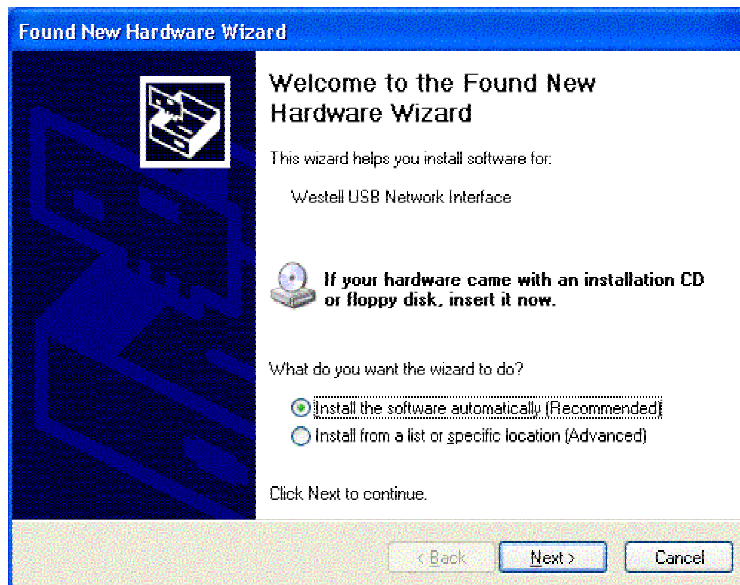
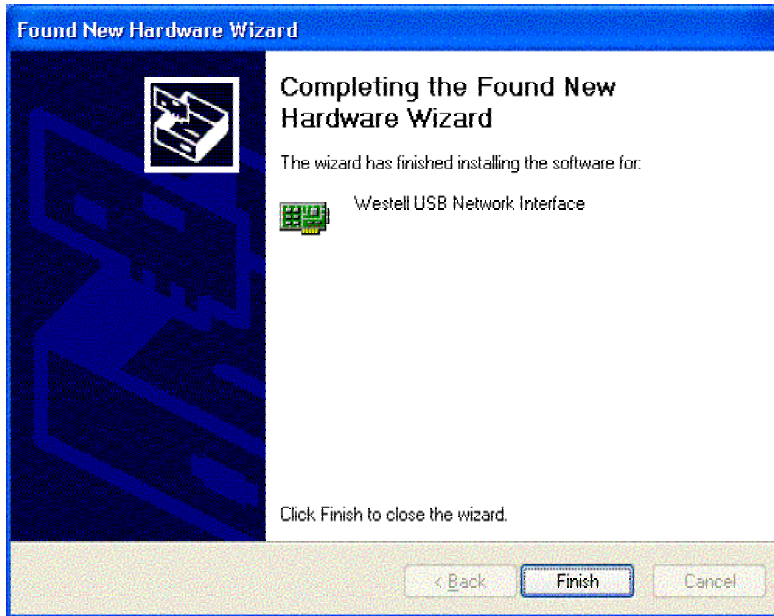


Figure 28. Windows XP

2. **Windows XP:** The window below confirms that the PC has finished loading the drivers (Figure 29). Click **Finish**.



**Figure 29. Windows XP**

Congratulations! You have completed the software installation for the USB drivers. After you have finished installing the USB drivers, you must return to section 6.4.4 (Installation via USB) to complete the installation instructions.



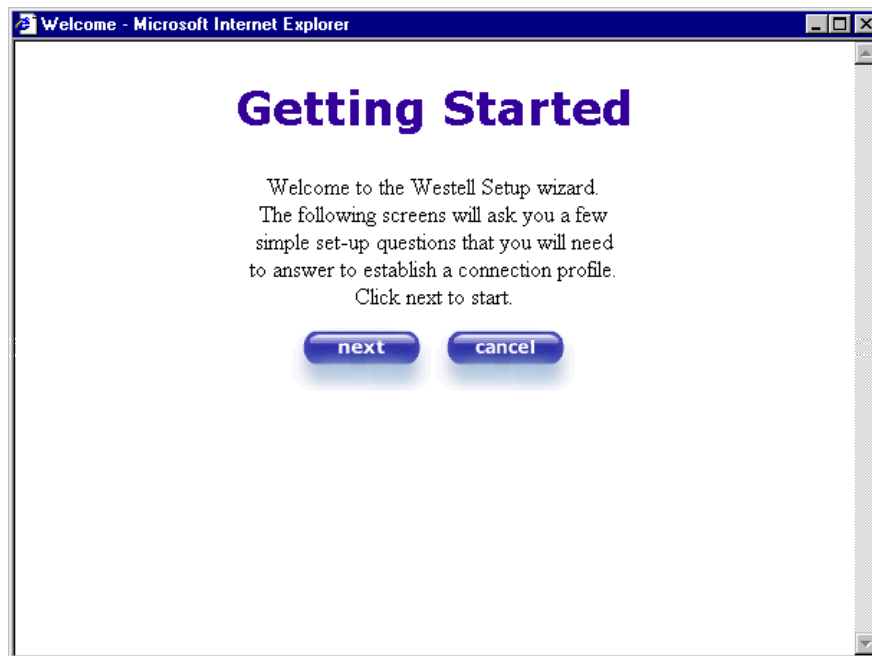
## 8. CONFIGURING THE ROUTER FOR INTERNET CONNECTION

To browse the Internet using the Router, you must set up your account profile, confirm your DSL sync, and establish a PPP session with your Internet Service Provider (ISP). Refer to the Internet service provider's installation manual to install the software required for your Internet connection.

NOTE: Internet service provider subscriber software and connection requirements may vary. Consult your Internet service provider for installation instructions.

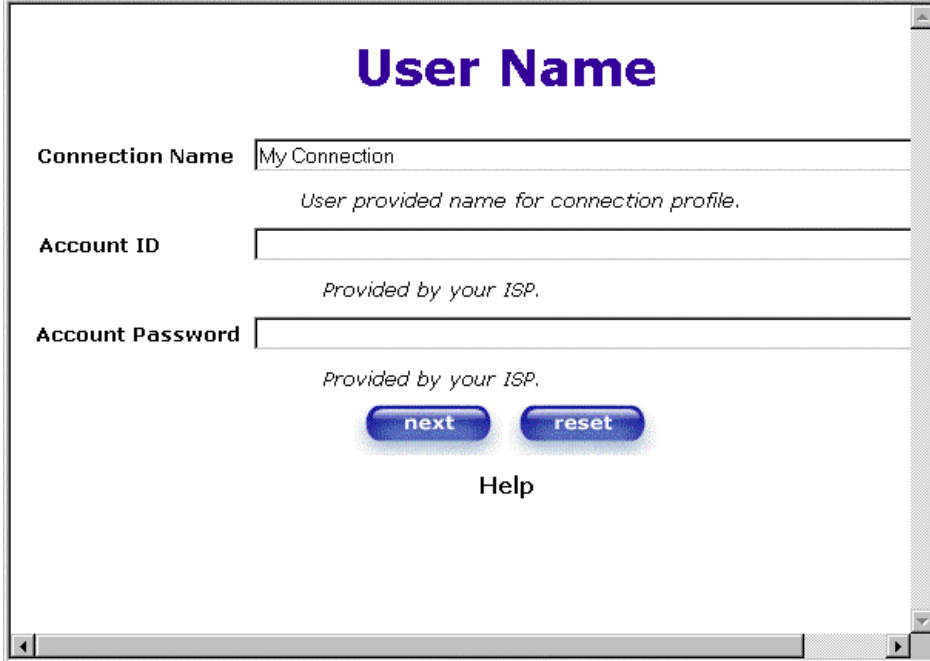
### 8.1 Setting Up an Account Profile

After connecting the Router, bring up your Web browser and type either **http://dslrouter** or **http://192.168.1.1** in the browser's address window, and then press 'Enter' on your keyboard. The **Getting Started** screen will appear. Click on **next**.



If you clicked **next** in the **Getting Started** screen, the following screen will be displayed. This screen will allow you to set up your account profile.

**NOTE:** Before you set up your account profile, you must obtain your **Account ID**, **Account Password**, and **VPI/VCI** values from your Internet service provider. You will use this information when you set up your account parameters. If you are at a screen and need help, click the **Help** button to learn more about the functions in that screen.



**User Name**

**Connection Name**   
*User provided name for connection profile.*

**Account ID**   
*Provided by your ISP.*

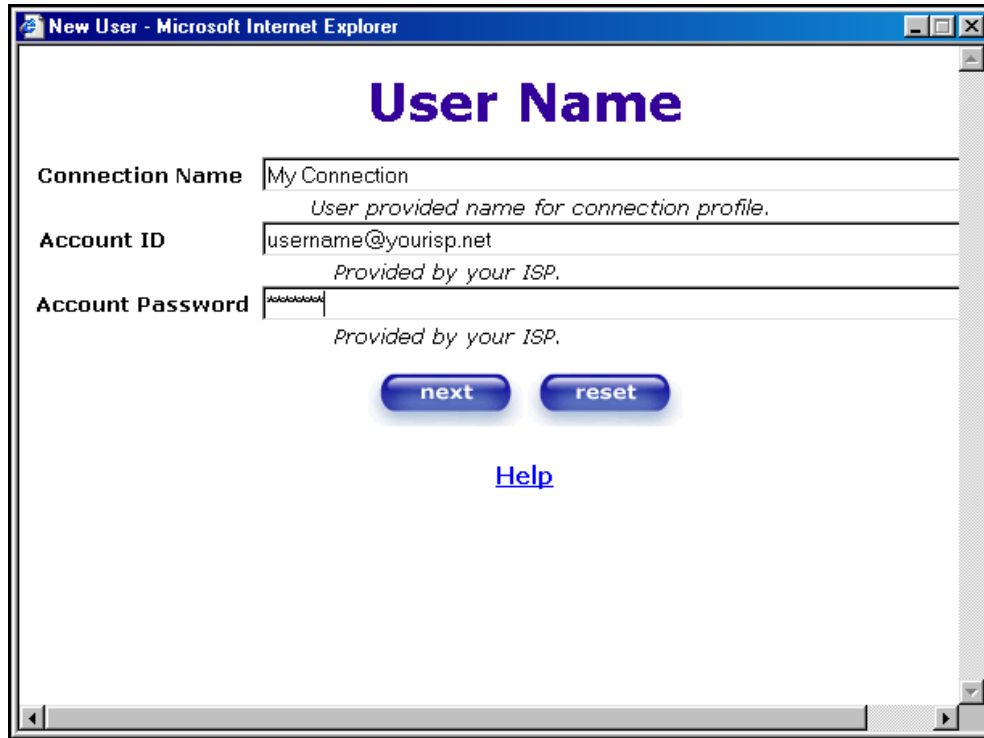
**Account Password**   
*Provided by your ISP.*

[Help](#)

Type in your account parameters. (Account parameters are required before connecting to the Internet.)  
Account Parameters include:

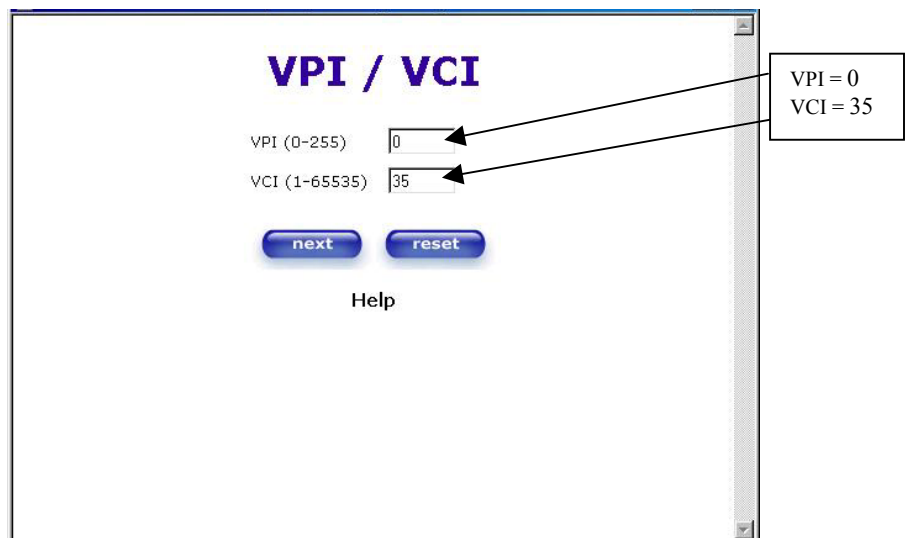
- **Connection Name**-the Connection Name is a word or phrase that you use to identify your account. (You may enter up 64 characters in this field.)
- **Account ID**-the Account ID is provided by your Internet Service Provider. (You may enter up 255 characters in this field.)
- **Account Password**-the Account Password is provided by your Internet Service Provider. (You may enter up 255 characters in this field.)

After you type your account parameters at the **User Name** screen, the **Account ID** will be displayed, however, the **Password** will be masked for security, as shown below. Click **next** if you want your account parameters to take effect. Click **reset** if you do not want the account parameters to take effect or if you want to retype the parameters.



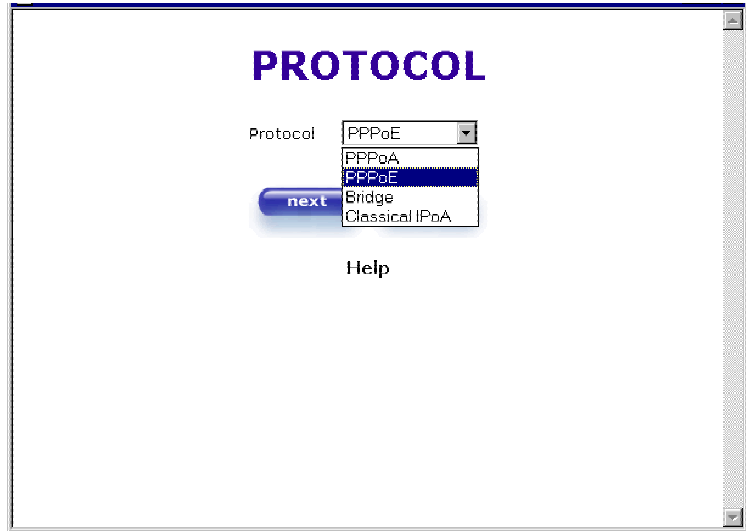
Type the VPI and VCI values (**0** for VPI and **35** for VCI default) you obtained from your Internet service provider. The actual VPI/VCI values may vary according to your ISP. Click on **next**.

NOTE: Depending on your Internet Service Provider, the VPI/VCI screen may come pre-configured and it will be displayed here. In this case, you should not change any values in this screen. Click on **next** to go to the **PROTOCOL** screen.

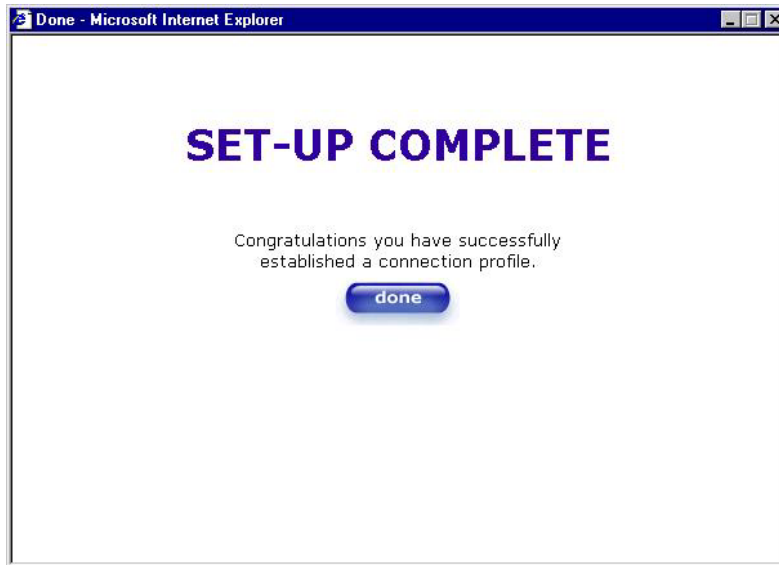


Select the Protocol type that you obtained from your Internet service provider. Click on **next**.

NOTE: Depending on your Internet Service Provider, the **PROTOCOL** screen may come pre-configured and it will be displayed here. In this case, you will need to click on **next** to go to the **SET-UP COMPLETE** screen.

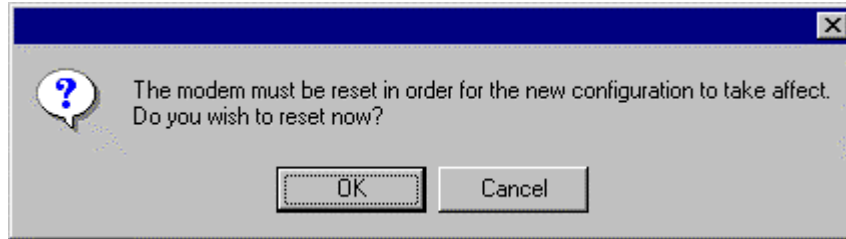


When the **SET-UP COMPLETE** screen appears, you have successfully completed your Account Profile setup. Click **done**.

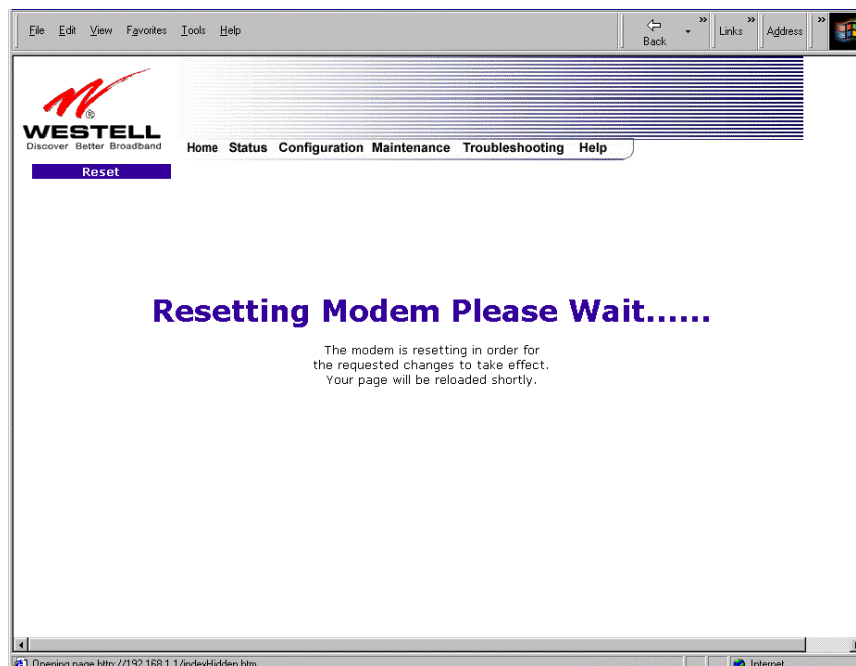


If you changed the **VPI/VCI** settings and clicked **done** in the **SET-UP COMPLETE** screen, the following pop-up screen will appear. Click **OK**.

**NOTE:** The following pop-up will appear only if you have changed the **VPI**, **VCI**, or **Protocol** values in the preceding screens. If you did not change any of these values, this pop-up screen will not appear and the Router will not be reset. If your Router's connection setting is set to "Always On" and you have changes any of these values, the Router will reset automatically. For instructions on editing your connection settings, see section 11.2.



If you clicked **OK** in the pop-up, the following screen will be displayed. The Router will be reset and the new configuration will take effect. Next, proceed to section 8.2 to confirm your DSL sync.

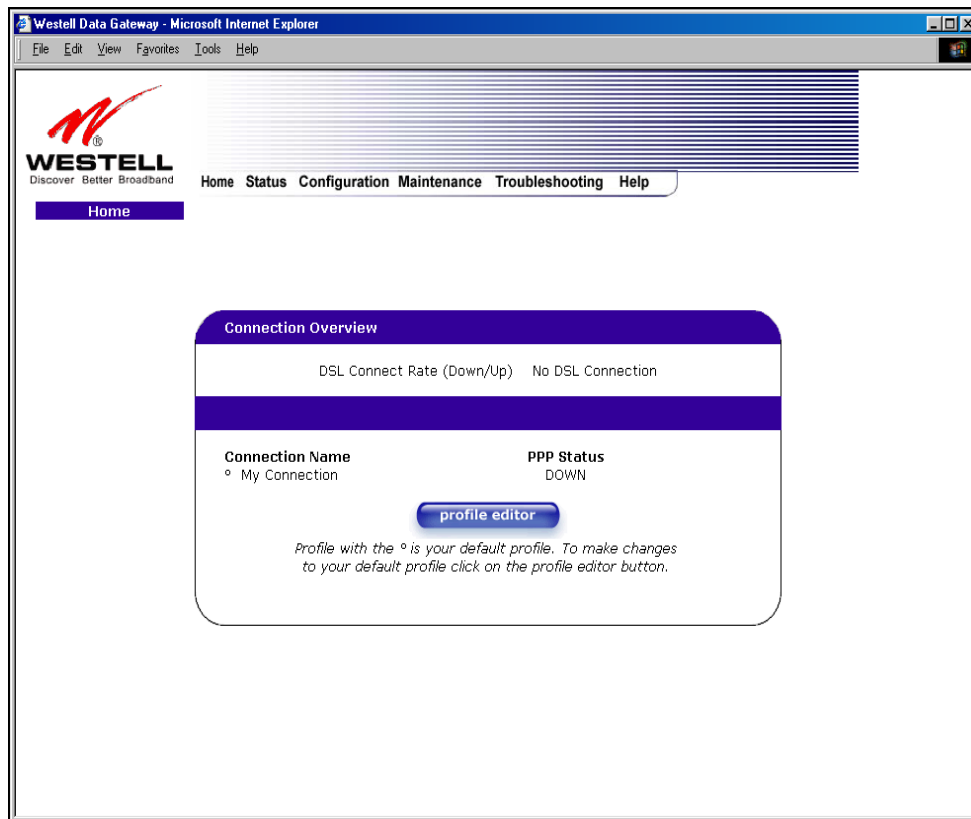




## 8.2 Confirming a DSL Sync

Remember, you must have active DSL service before the Router can synchronize with your ISP's equipment. To determine if the Router has a DSL sync, view the DSL Connection Rate in the **Connection Overview** section (see the following Home page). If the status reads **No DSL Connection**, check the DSL physical connection, explained in section 6 (INSTALLING THE HARDWARE) of this User Guide.

NOTE: If no DSL sync is established, the **connection** button will not be displayed in the following screen. To determine if the DSL sync is established, check the Router's DSL LED. If the DSL LED is not solid green, you do not have a DSL sync established. Contact your ISP for further instructions.

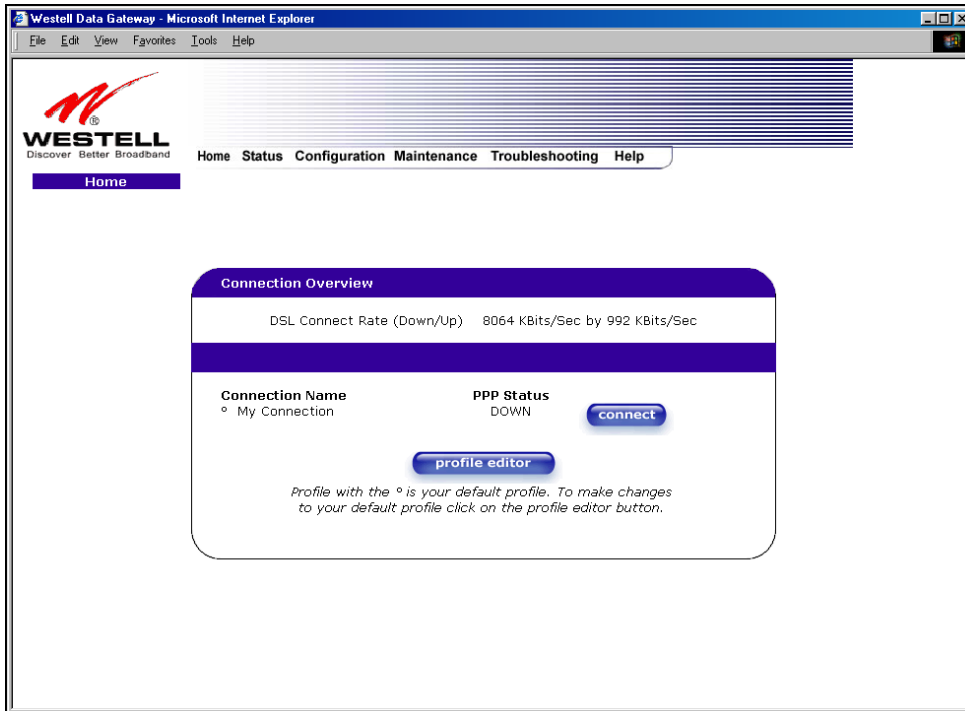




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The following screen shows the DSL connection rate with values that indicate a successful DSL SYNC has been established. The connection rate values represent the transmission speed of your DSL line. (The Router may take time to report these values.) Click the **Connect** button to establish a PPP session.

NOTE: The Router will handle transmission rates up to 8 Mbps. Your actual DSL rates may vary depending on your Internet service provider.

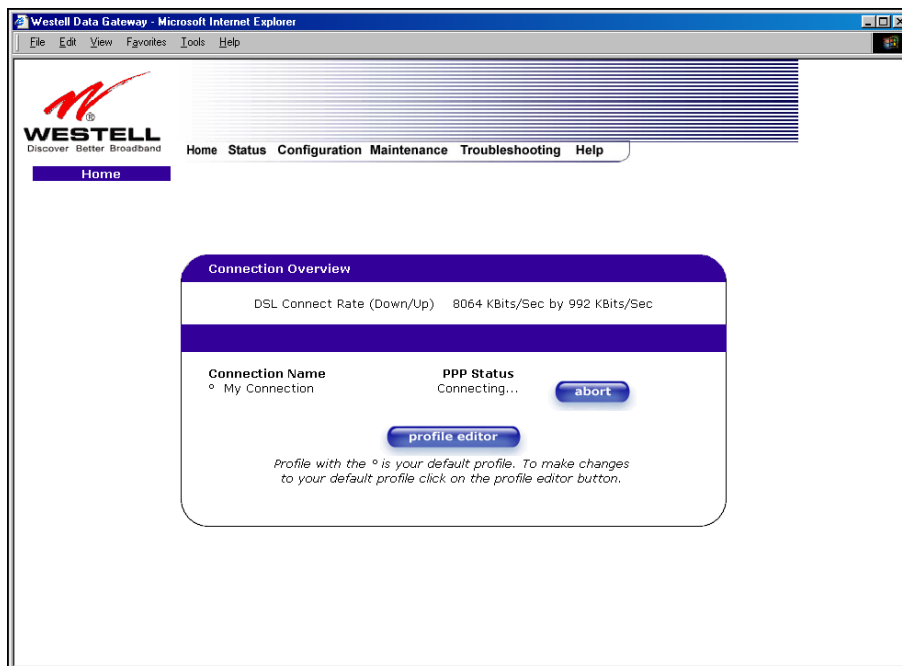


### 8.3 Establishing a PPP Session

View the **PPP Status** at the Home page. If the PPP Status displays **DOWN**, click the **Connect** button to establish a PPP session.

NOTE: Whenever the PPP Status displays **DOWN**, you do not have a PPP session established. If your Router's connection setting is set to "Always On" or "On Demand," after a brief delay, the PPP session will be established automatically and the PPP Status will display **UP**. If the connection setting is set to "Manual," you must click on the **Connect** button to establish a PPP session. Once the PPP session has been established (PPP Status displays **UP**), you may proceed with your Router's configuration. Section 11.2 provides instructions on editing the connection settings. (Refer to the 'Edit My Connection' screen.) The Router's factory default connection setting is "Manual."

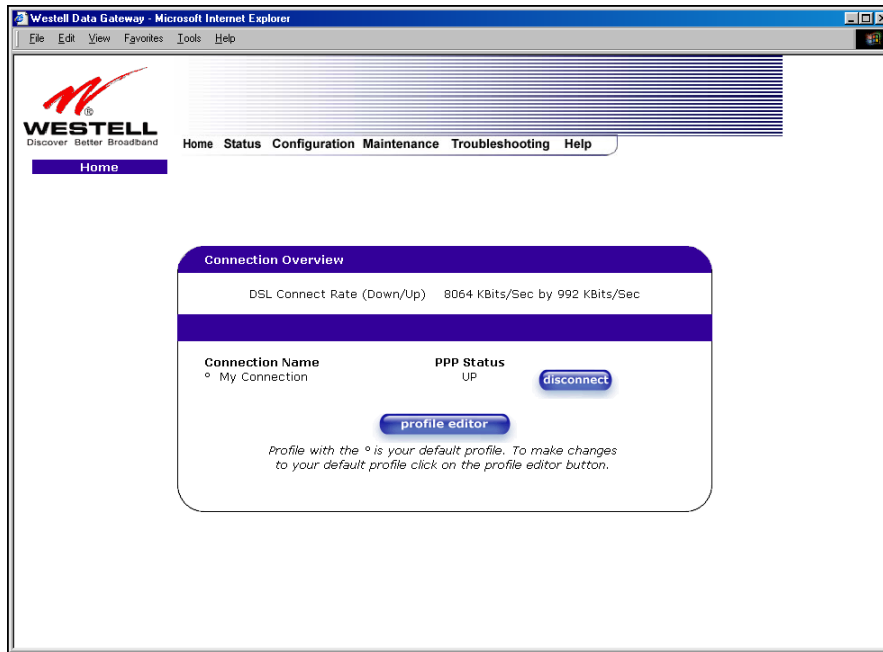
If you click the **Connect** button, the following screen will appear briefly. The **PPP Status** in the **Connection Overview** window allows you to view the state of your ISP connection. When the **PPP Status** displays **Connecting...**, this means that you are establishing a PPP session.



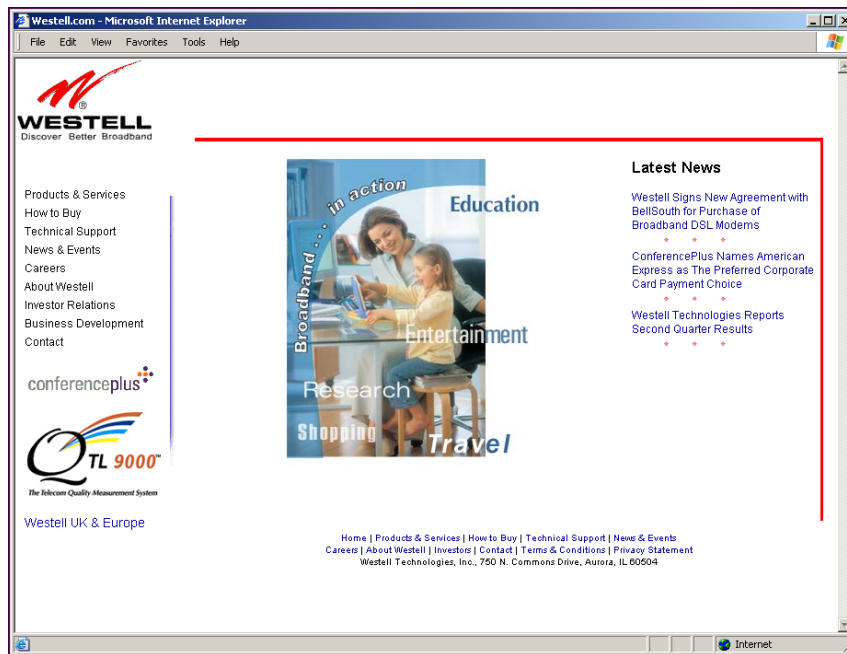


## User Guide

After a PPP session has been established, the **PPP Status** will display **UP**, and you may now browse the Internet.



For example, to visit Westell's home page, type **http://www.westell.com** in your browser's address window, and then press 'Enter' on your keyboard.

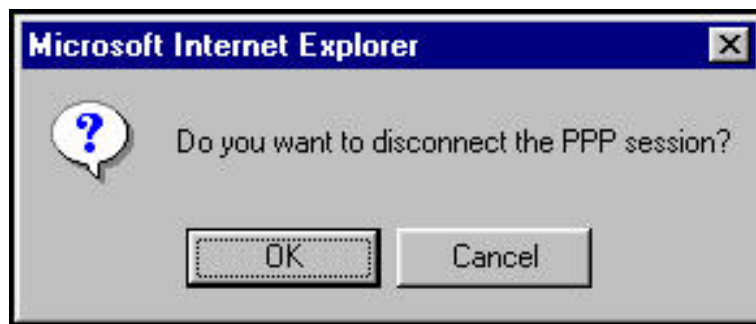


When you are ready to return to the Router's interface, type **http://192.168.1.1** in your browser's address window, and then press 'Enter' on your keyboard.

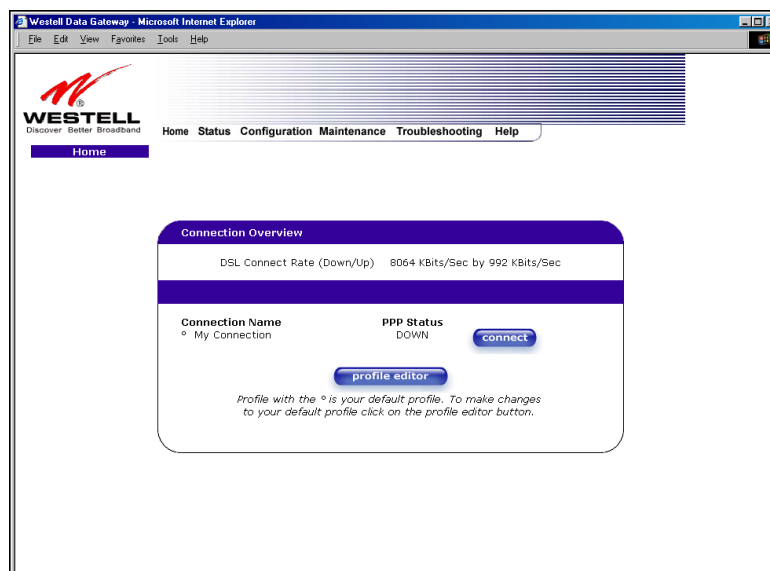
## 8.4 Disconnecting a PPP Session

If you have finished browsing the Internet and want to disconnect from your Internet service provider, click on the **Disconnect** button in the **Connection Overview** screen (the preceding screen). The following pop-up screen will appear. Click on **OK** to disconnect the PPP session.

Warning: If you disconnect the PPP session, this will disconnect the Router from the Internet, and all users will be disconnected until the PPP session is re-established.



If you clicked the **Disconnect** button in the preceding **Connection Overview** screen, the **PPP Status** should display **DOWN**. This means that you no longer have a PPP session (no IP connection to your Internet service provider). However, your DSL session will not be affected. When you are ready to end your DSL session, simply power down the Router via the power switch on the Router's rear panel.



When you are ready to establish a PPP session, click on the **connect** button. (If you powered down the Router, you must first power up the Router and log on to your account profile before you establish a PPP session.)

NOTE: When you are ready to exit the Router's interface, click the **X** (close) in the upper-right corner of the window. Closing the window will not affect your PPP Status (your PPP session will not be disconnected). You must click on the **disconnect** button to disconnect your PPP session. When you are ready to restore this interface, you must launch your Internet browser and type **http://dslrouter/** or type **http://192.168.1.1/** in the browser's address window and press 'Enter' on your keyboard.

## 9. SETTING UP MACINTOSH OS X

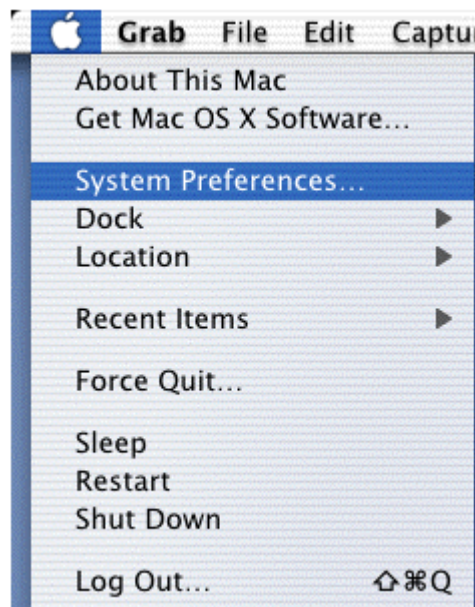
This section provides instructions on how to use Macintosh Operating System 10 with the Router. Follow the instructions in this section to create a new network configuration for Macintosh OS X.



**NOTE:** Macintosh computers must use the Modem Ethernet installation. Refer to section 6 (INSTALLING THE HARDWARE).

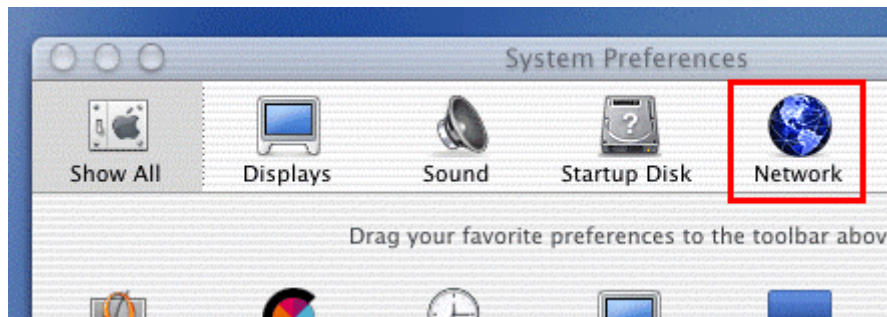
### Open the System Preference Screen

After you have connected the Westell Router to the Ethernet port of your Macintosh, the screen below will appear. Click on the “**Apple**” icon in the upper-right corner of the screen and select **System Preferences**.



### Choose the Network Preferences

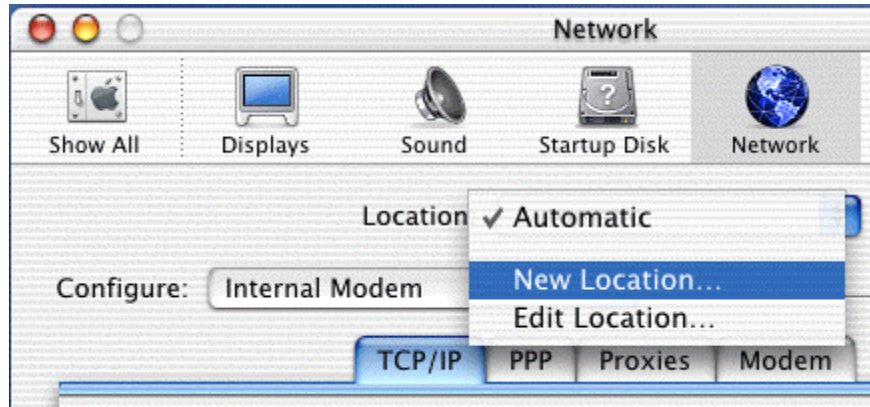
After selecting **System Preferences...**, from the previous screen, the **System Preferences** screen will be displayed. From the **System Preferences** screen, click on the **Network** icon.





## Create a New Location

After selecting the **Network** icon at the **System Preferences** screen, the **Network** screen will be displayed. Select **New Location** from the **Location** field.



## Name the New Location

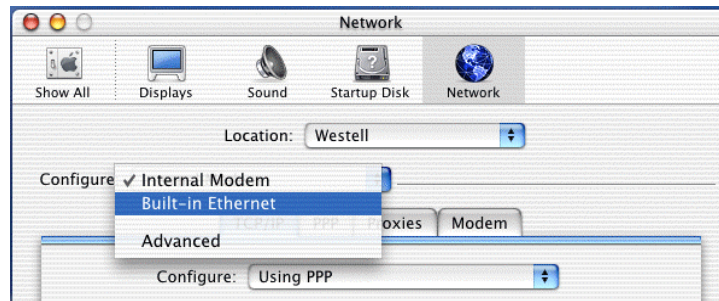
After selecting **New Location** from the **Network** screen, the following screen will be displayed. In the field labeled **Name your new location:**, change the text from “Untitled” to “Westell.” Click **OK**.



## Select the Ethernet Configuration

After clicking on **OK** in the preceding screen, the **Network** screen will be displayed. The **Network** screen shows the settings for the newly created location. From the **Configure** field in the **Network** screen, select **Built-in Ethernet**. Click on **Save**.

**NOTE:** Default settings for the Built-in Ethernet configuration are sufficient to operate the Router.

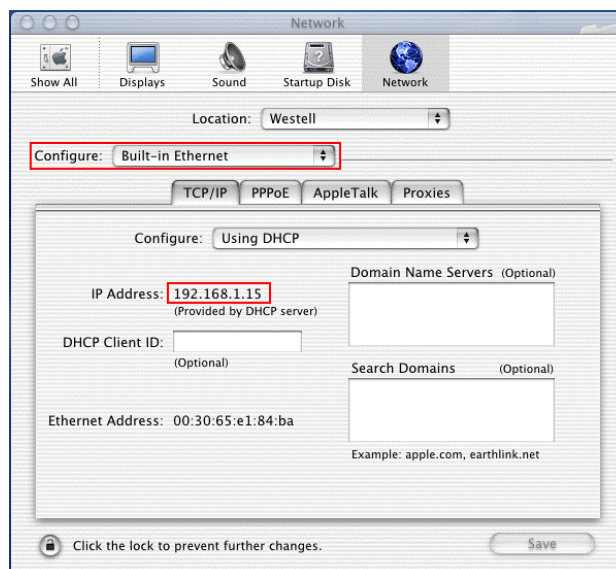


## Check the IP Connection

To verify that the computer is communicating with the Router, follow the instructions below.

1. Go to the “**Apple**” icon in the upper-right corner of the screen and select **System Preferences**.
2. From the **System Preferences** screen, click on the **Network** icon. The **Network** screen will be displayed.
3. From the **Configure** field in the **Network** screen, select **Built-in Ethernet**.
4. View the IP address field. An IP address that begins with **192.168.1** should be displayed.

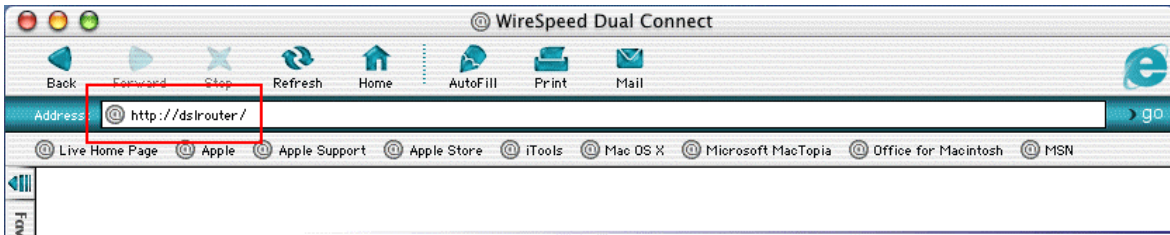
**NOTE:** The DHCP server provides this IP address. If this IP address is not displayed, check the Router’s wiring connection to the PC. If necessary, refer to section 5 for hardware installation instructions.



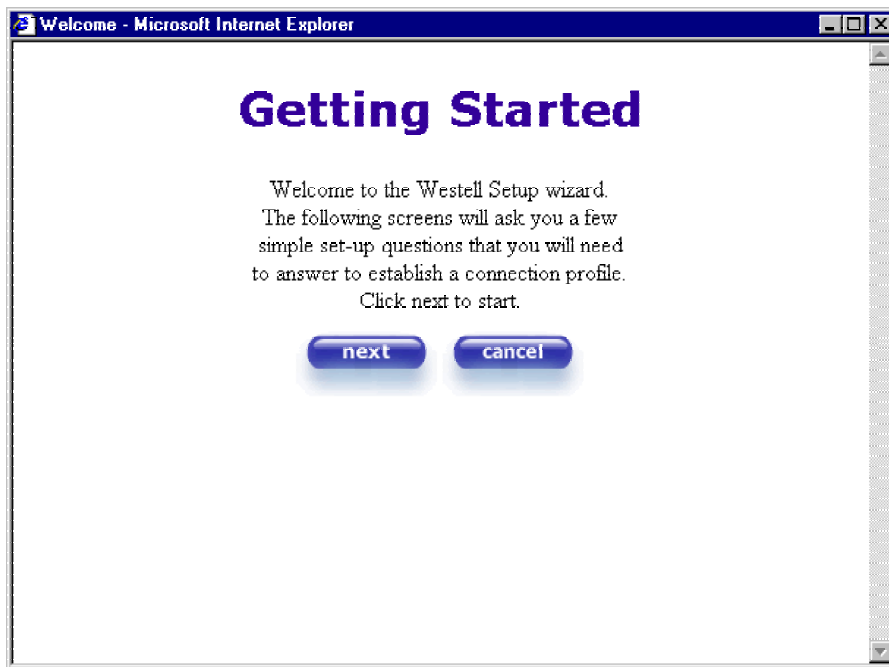


## Create a User Account

In the address window of your Internet Explorer web browser, type **http://dslrouter/**, and then press 'Enter' on your keyboard.



The **Getting Started** screen will be displayed. You may now begin your Account Setup. Refer to section 8 of this User Guide to configure your Westell Router for Internet connection.





**WESTELL**

*User Guide*

**The following sections explain the advanced features of your Westell Router.**

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## 10. SETTING UP ADVANCED CONFIGURATION

Advanced Configuration instructions are explained in Section 11 through Section 17. If you want to set up advanced features for the Router, follow the instructions provided in sections 11 through 17.

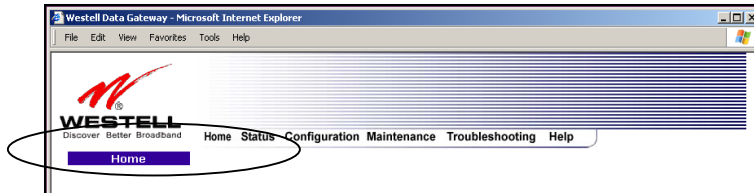
**STOP! The following sections assume that you have active DSL and Internet service.**

The Router allows you to make changes to advanced features of your Router such as account profiles, routing configurations, and firewall settings. The following sections explain each feature and show you how to make changes to the Router's settings. A menu is displayed at the top of each screen and will allow you to navigate you to the various configuration options of your Router. If you are at a screen and need help, click on the **Help** button to learn more about that screen.

Please note that for Models 328W10 and 328W11, the menu options displayed will vary according to the WAN configuration you have chosen to use, DSLATM PORT or ETHERNET PORT1. However, all menu options are displayed when the Router is enabled for DSLATM PORT. Instructions on enabling and disabling DSLATM PORT and ETHERNET PORT 1 are explained in section 13.6.2 VC Configuration. This document was created with the Router's DSLATM PORT enabled. The sections explained throughout this document will indicate when a menu item is unavailable.

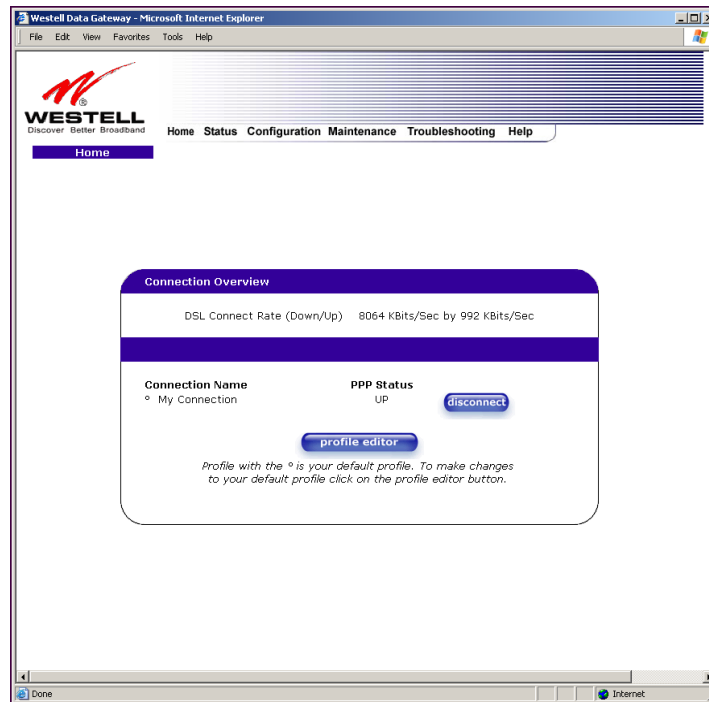
## 11. HOME

As you navigate through the various screens of the Router, the name of the active page you have selected will appear in the upper-left corner of the screen, as shown below. Please note that the actual values may differ from the values displayed in the screens.



If you have set up your account profile and established your PPP session as discussed in section 8, the following settings will be displayed when you click on your **Home** page. Click on **profile editor** to edit your connection profile.

**NOTE:** If you have created multiple account profiles, select the option button for the active account profile.

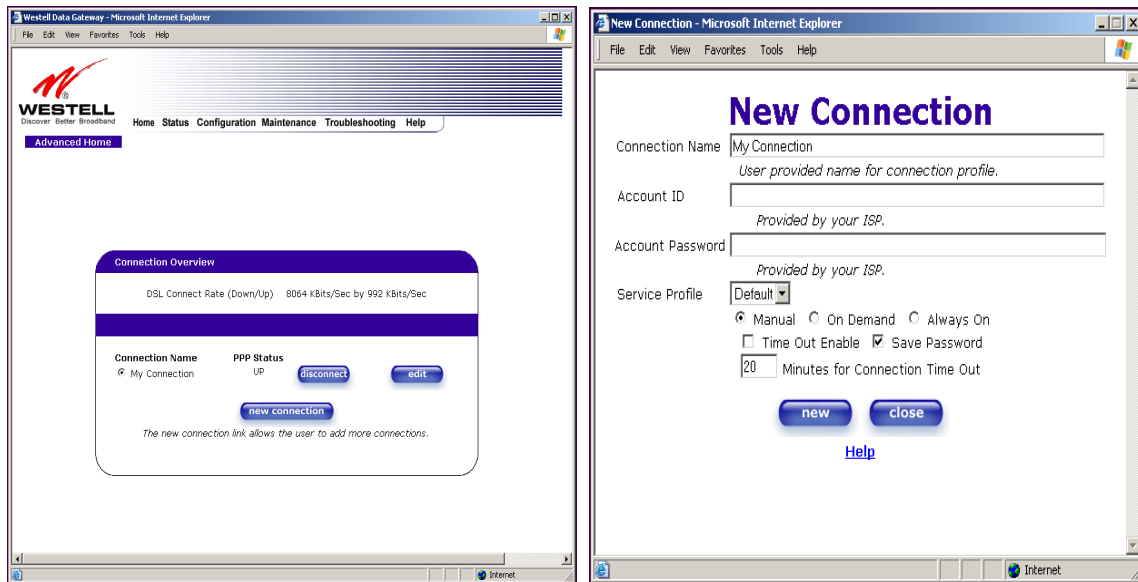


Connection Overview	Displays your DSL connection rate.
Connection Name	This Connection Name is from the connection profile that you established in section 8.
PPP Status	UP = PPP session established DOWN = No PPP session established.
Connect/Disconnect	CONNECT = Establish a PPP session DISCONNECT = Disconnect a PPP session
Profile Editor	This allows you to make changes to the profile that you created in section 8.

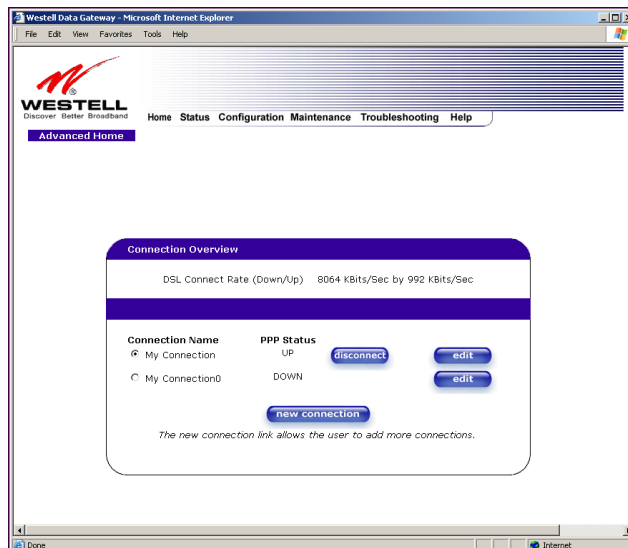
## 11.1 Adding Account Profiles

If you select the **Profile Editor** button from your **Home** page, the **Advanced Home** screen will appear, as shown below. Click on the **new connection** button in the **Advanced Home** screen. The **New Connection** screen will appear. Enter your account profile information and click on **New**. Next, click on **OK** in the pop-up screen to save your new connection. If you do not want to add a connection profile, click on **Close** in the **New Connection** screen.

**NOTE:** NAT Profiles allow you to create specific service settings. A NAT Profile may be associated with a certain connection setting, or NAT services. This allows you to customize the profile for specific users. You may store up to eight unique user profiles in your Router. Details on the **New Connection** screen are located at the end of this section.

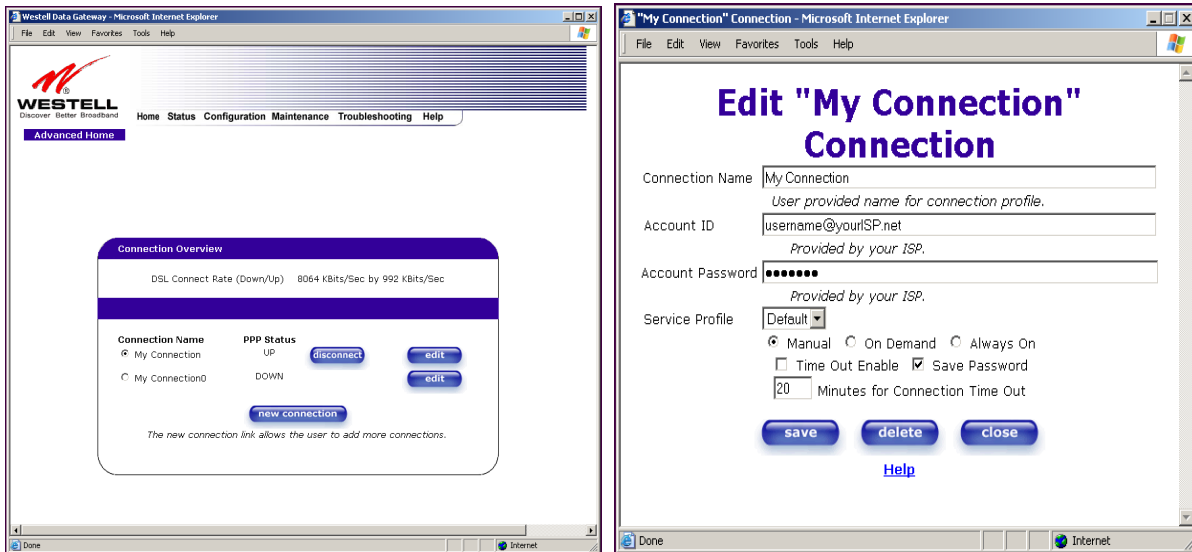


If you clicked **OK** in the pop-up screen, the following screen will be displayed. This screen enables you to edit a connection profile. Select a profile name from the **Connection Name** field, and click the adjacent **edit** button.



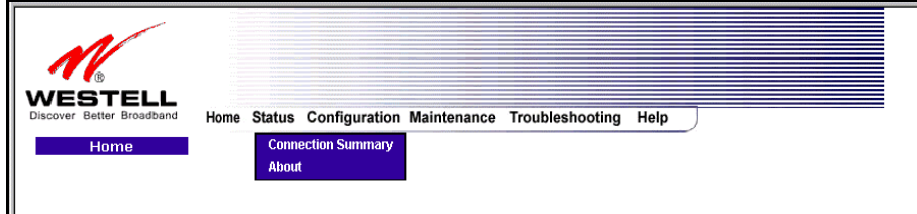
## 11.2 Editing Account Profiles

If you clicked **Edit** in the preceding screen, the **Edit “My Connection”** screen will appear. To change your existing connection profile, follow the steps in the **Edit “My Connection”** screen. When you have finished editing your profile, click **save** and then click **OK** in the pop-up screen. Click **delete** if you want to delete your connection profile. Click **close** if you do not want to edit your connection profile.



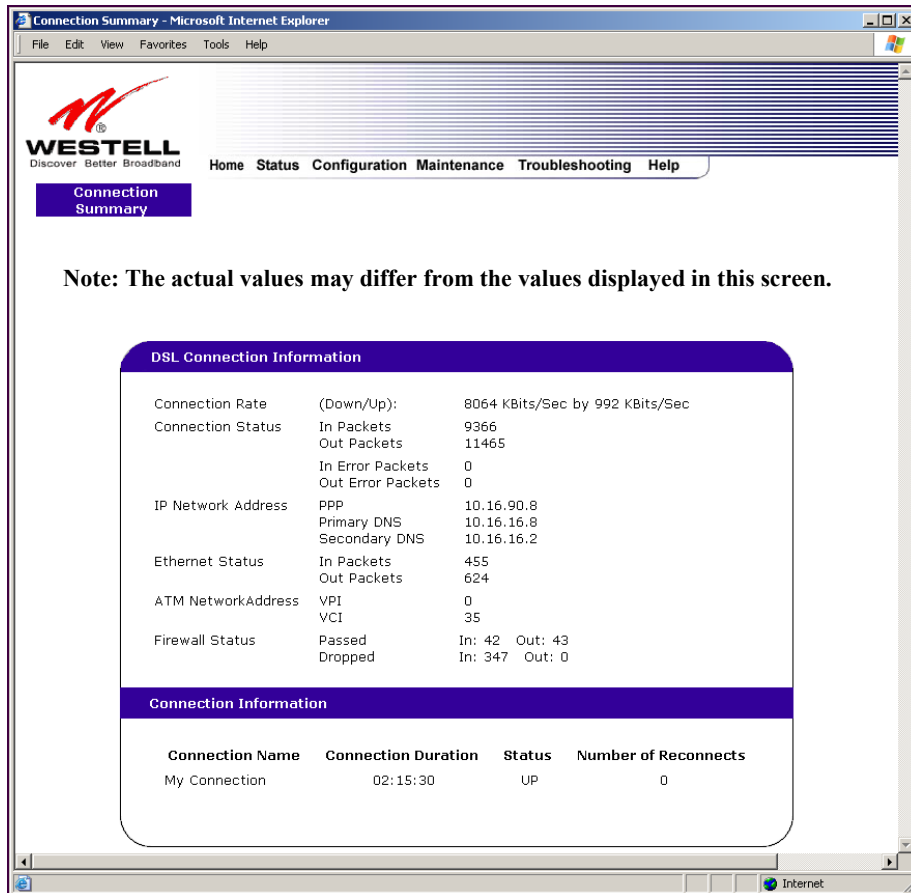
Connection Name	This field allows you to enter a new connection name of your choice (up to 64 characters).
Account ID	The account ID that you used in section 8 if you are connecting to the same Service Provider. If you have multiple Service Providers, you can enter this information at this time.
Account Password	The account password that you used in section 8 if you are connecting to the same Service Provider. If you have multiple Service Providers, you can enter this information at this time.
Service Profile	Westell recommends that you use the Default parameter.
Manual	Factory default = MANUAL Selecting this feature allows you to manually establish your PPP session.
On Demand	Selecting this feature allows the Router to automatically re-establish your PPP session on demand anytime your PC requests Internet activity (for example, browsing the Internet, email, etc.). When you have traffic, it may cause a delay.
Always On	Selecting this feature allows the Router to automatically establish a PPP session when you log on, or if the PPP session goes down.
Time Out Enable	Factory Default = DISABLED Selecting this feature allows you to enable the timeout parameter of your PPP session, which is set to a factory default of 20 minutes.
Save Password	Selecting this feature allows you to save the password for your new connection profile in the Router so that you will not have to re-enter it in case of a re-boot.
Minutes for Connection Time Out	This option allows you to specify the number of minutes that you want a PPP session to stay active before it is disconnected due to inactivity. (This feature works if you have selected the Time Out Enable feature explained above.)

## 12. STATUS



### 12.1 Connection Summary

The following settings will be displayed if you select **Connection Summary** from the **Status** menu.

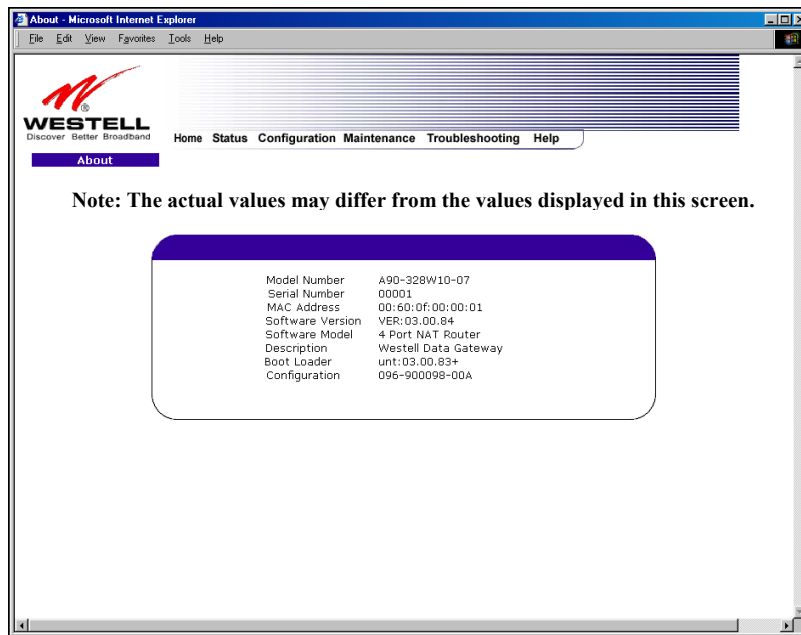


DSL Connection Information	
Connection Rate	This field will indicate if you have a DSL signal and the DSL rate at which you are connected.
Connection Status	This field will show how much information was received (IN) or sent (OUT) in packets.
IP Network Address	PPP = An IP address identifies your device on the Internet Primary DNS = Provided by your Service Provider

	Secondary DNS = Provided by your Service Provider
Ethernet Status	This field will display your Ethernet information that was received (IN) or sent (OUT) in packets on your Ethernet port.
ATM Network Address	This field will display your VPI and VCI values, which are provided by your ISP.
Firewall Status	This field will display your firewall traffic in packets. Passed: Monitors information traffic that was successfully received (IN) or transmitted (OUT) in packets. Dropped: Monitors information traffic that was not successfully received (IN) or transmitted (OUT) due to your firewall settings.
<b>PPP Connection Information</b>	
Connection Name	This is from the connection profile that you established in section 8.
Connection Duration	This field will display how long your PPP session has been connected.
Status	This field will display the status of your PPP session. UP=Connected DOWN=Disconnected
Number of Reconnects	This field will display the number of attempts that were made to establish a PPP session.

## 12.2 About

The following settings will be displayed if you select **About** from the **Status** menu.

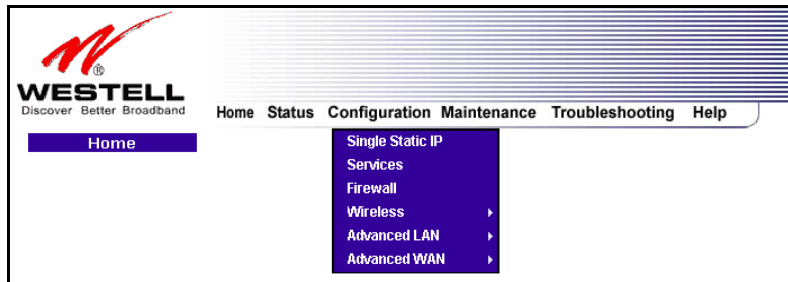


Model Number	The Router manufacturer's model number.
Serial Number	The Router manufacturer's serial number.
MAC Address	Media Access Controller (MAC) i.e., hardware address of this device.
Software Version	Version of Application Software.
Software Model	The Router application type.
Description	Product description.
Boot Loader	Version of boot loader software
Configuration	Westell proprietary configuration of this device.



## 13. CONFIGURATION

NOTE: If you are using Model 7400 or 7401, the “Wireless” menu options will not be displayed in the **Configuration** menu.



### 13.1 Single Static IP – Single IP Address PassThrough

The following settings will be displayed if you select **Single Static IP** from the **Configuration** menu. The Single Static IP Configuration screen allows you to select the device on your LAN that will share your Single Static IP. Before you begin this section, configure your PC settings to obtain an IP address from your Router automatically. (Refer to your Windows Help screen for instructions.)

NOTE: Single Static IP (SSI) allows the user to share the WAN assigned IP address with one device on the LAN. By doing this, the device with the SSI becomes visible on the Internet. Network Address Translation (NAT) and Firewall rules do not apply to the device configured for SSI. If you are using Bridge (Routed Bridge) protocol, **Single Static IP** configuration will not be available.

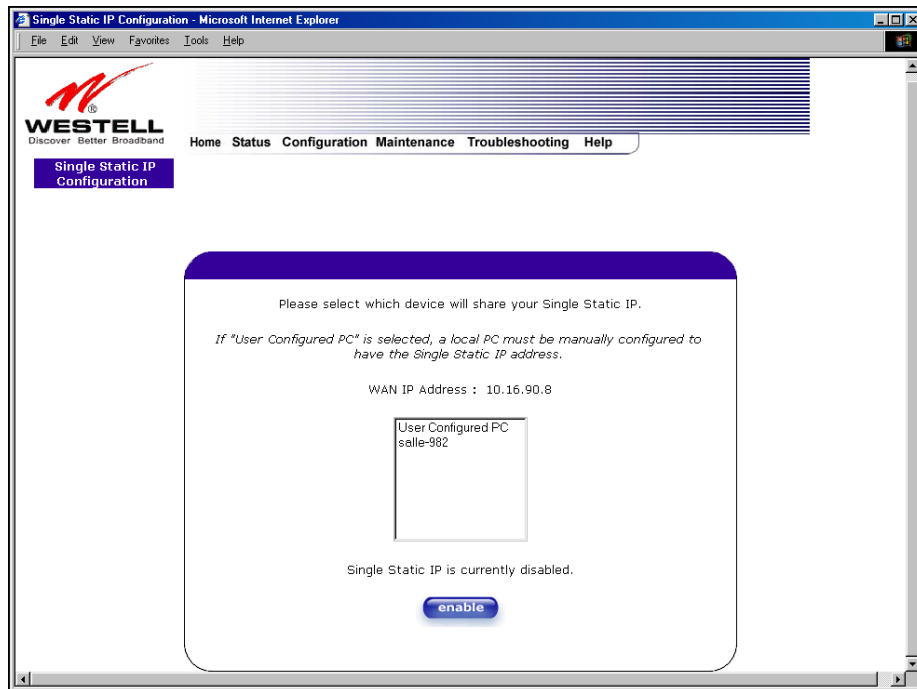
**STOP:** Static NAT must be disabled before you can enable **Single Static IP**. To disable Static NAT, select **Services** from the **Configuration** menu. Next, click on the **static NAT** button. Select the device from the **Static NAT Device** drop-down menu and click on **disable**. Return to Single Static IP Configuration by selecting **Single Static IP Configuration** from the **Configuration** menu.



### 13.1.1 Enabling Single Static IP – Single IP Address PassThrough (Applicable for PPPoE Connections Only)

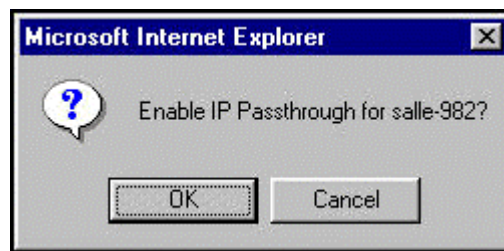
To enable Single Static IP, select a device that will share your Single Static IP from the options listed in the window. Click on **enable**.

NOTE: The Single Static IP Configuration screen allows you to select the device on your LAN that will share your Single Static IP.

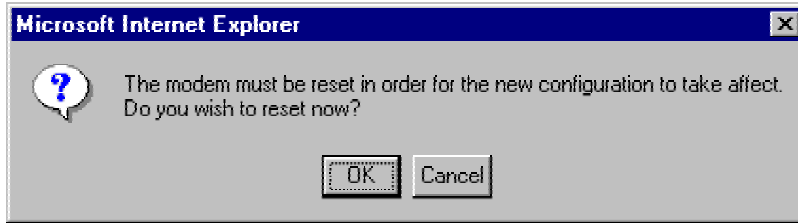


If you select a device and clicked on **enable**, the following pop-up screen will appear. Click on **OK** to enable this device for Single Static IP. Click on **Cancel** if you do not want to enable Single Static IP.

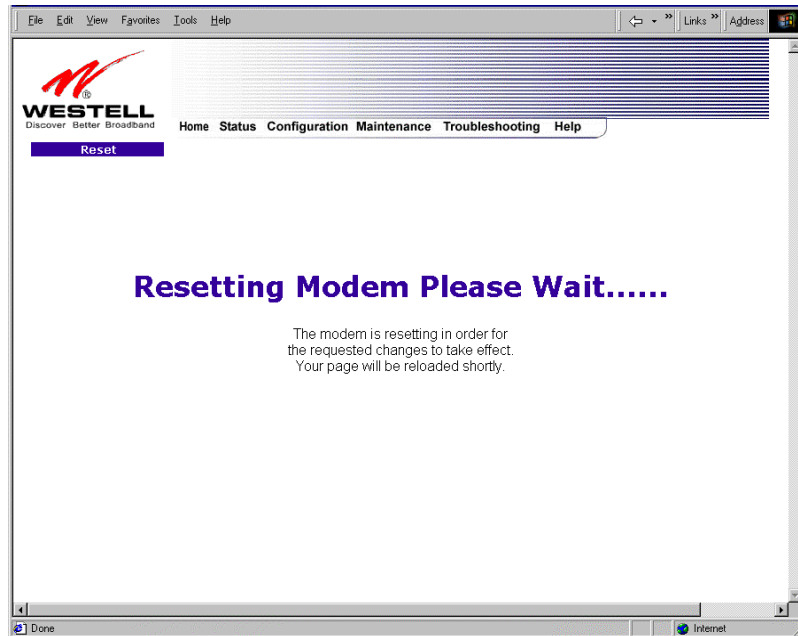
NOTE: The actual device name may differ from the name displayed in this screen.



If you clicked **OK** in the preceding pop-up screen, the following pop-up screen will appear. The Router must be reset to allow the new configuration to take effect. Click on **OK**.



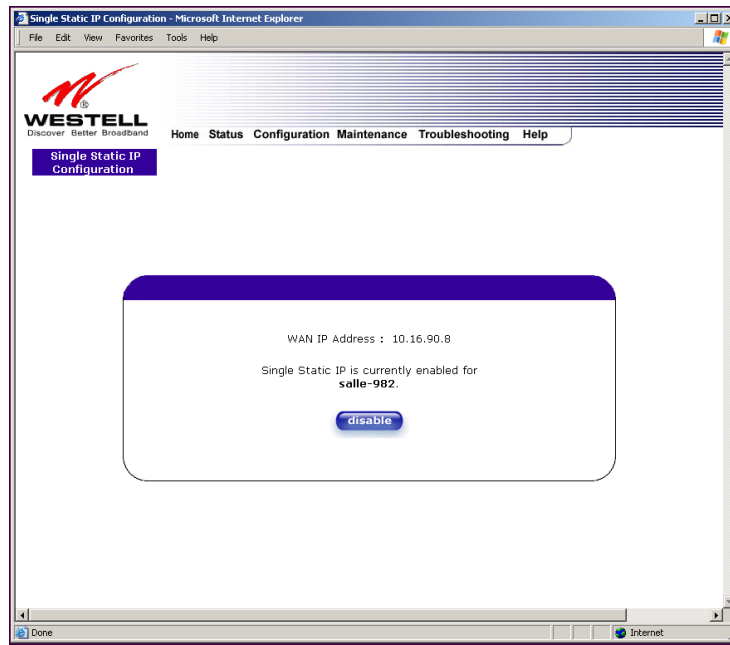
If you clicked **OK** in the preceding screen, the following screen will be displayed. The Router will be reset and the new configuration will take effect.





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After a brief delay, the home page will be displayed. Confirm that you have a DSL sync and that your PPP session displays **UP**. (Click on the **connect** button to establish a PPP session). Next, select **Single Static IP** from the **Configuration** menu to confirm that Single Static IP is **enabled**, as shown in the following screen.



**STOP! After you enable Single Static IP, you must reboot your computer.**

**NOTE:** If you chose to enable **User Configured PC**, wait for the Router to reset and then manually enter the WAN IP, Gateway, and Subnet mask addresses you obtained from your Internet service provider into a PC.