



# **AT-AR256E v3**

4 Ports ADSL2/2+ Router

Quick Setup Guide

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## **SAFETY NOTICE**

- ✓ Do not open service or change any component.
- ✓ Only qualified technicians are allowed to service the equipment.
- ✓ Observe safety precautions to avoid electric shock
- ✓ Check voltage before connecting to the power supply.  
Connecting to the wrong voltage will damage the equipment.

## **LIMITATION OF LIABILITY AND DAMAGES**

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# ELECTRICAL SAFETY AND EMISSIONS STANDARDS

This product meets the following standards.

## U.S. Federal Communications Commission

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

This device may not cause harmful interference.

This device must accept any interference received, including interference that may cause undesired operation.

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 into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.


## Canadian Department of Communications


This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.


Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.


## CE Marking Warning


This is a Class B product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.


**Important:** Appendix A contains translated safety statements for installing this equipment. When you see the  go to Appendix A for the translated safety statement in your language.


**Wichtig:** Anhang A enthält übersetzte Sicherheitshinweise für die Installation dieses Geräts. Wenn Sie  sehen, schlagen Sie in Anhang A den übersetzten Sicherheitshinweis in Ihrer Sprache nach.


**Vigtigt:** Tillæg A indeholder oversatte sikkerhedsadvarsler, der vedrører installation af dette udstyr. Når De ser symbolet , skal De slå op i tillæg A og finde de oversatte sikkerhedsadvarsler i Deres eget sprog.


**Belangrijk:** Appendix A bevat vertaalde veiligheidsopmerkingen voor het installeren van deze apparatuur. Wanneer u de  ziet, raadpleeg Appendix A voor vertaalde veiligheidsinstructies in uw taal.


**Important :** L'annexe A contient les instructions de sécurité relatives à l'installation de cet équipement. Lorsque vous voyez le symbole , reportez-vous à l'annexe A pour consulter la traduction de ces instructions dans votre langue.


**Tärkeää:** Liite A sisältää tämän laitteen asentamiseen liittyvät käännetty turvaohjeet. Kun näet -symbolin, katso käännettyä turvaohjetta liitteestä A.

**Importante:** l'Appendice A contiene avvisi di sicurezza tradotti per l'installazione di questa apparecchiatura. Il simbolo , indica di consultare l'Appendice A per l'avviso di sicurezza nella propria lingua.

**Viktig:** Tillegg A inneholder oversatt sikkerhetsinformasjon for installering av dette utstyret. Når du ser , åpner du til Tillegg A for å finne den oversatte sikkerhetsinformasjonen på ønsket språk.

**Importante:** O Anexo A contém advertências de segurança traduzidas para instalar este equipamento. Quando vir o símbolo , leia a advertência de segurança traduzida no seu idioma no Anexo A.

**Importante:** El Apéndice A contiene mensajes de seguridad traducidos para la instalación de este equipo. Cuando vea el símbolo , vaya al Apéndice A para ver el mensaje de seguridad traducido a su idioma.

**Obs!** Bilaga A innehåller översatta säkerhetsmeddelanden avseende installationen av denna utrustning. När du ser , skall du gå till Bilaga A för att läsa det översatta säkerhetsmeddelandet på ditt språk.

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# Preface

## Purpose of This Guide

This guide is intended for customers and/or network administrators who are responsible for installing and maintaining the AT-AR256E v3 4 Ports ADSL2/2+ Router.

## How This Guide is Organized

This guide contains the following chapters and appendices:

- Chapter 1**     **Introduction**, describes the features, functions, LEDs, and ports on the equipment.  
**Chapter 2**     **Getting Started**, describes how to install and configure the equipment.

## Document Conventions

This guide uses several conventions that you should become familiar with before you begin to install the product:



**Note**

A note provides additional information. Please go to the Allied Telesis website <http://www.alliedtelesis.com> for the translated safety statement in your language.



**Warning**

A warning indicates that performing or omitting a specific action may result in bodily injury.



**Caution**

A caution indicates that performing or omitting a specific action may result in equipment damage or loss of data.

## Contacting Allied Telesis

This section provides Allied Telesis contact information for technical support as well as sales and corporate information.

### Online Support

You can request technical support online by accessing the Allied Telesis Knowledge Base: <http://www.alliedtelesis.com/kb/>. You can use the Knowledge Base to submit questions to our technical support staff and review answers to previously asked questions.

### Email and Telephone Support

For Technical Support via email or telephone, refer to the Support & Services section of the Allied Telesis web site: <http://www.alliedtelesis.com/support/>.

### Warranty

For product registration and warranty conditions please visit Allied Telesis website: <http://www.alliedtelesis.com/support/warranty/>

### Where to Find Web-based Guides

The installation and user guides for all Allied Telesis products are available in portable document format (PDF) on our web site at [www.alliedtelesis.com](http://www.alliedtelesis.com). You can view the documents online or download them onto a local workstation or server.

### Returning Products

Products for return or repair must first be assigned a return materials authorization (RMA) number. A product sent to Allied Telesis without an RMA number will be returned to the sender at the sender's expense.

To obtain an RMA number, contact Allied Telesis Technical Support through our web site: <http://www.alliedtelesis.com/support/>.

### Sales or Corporate Information

You can contact Allied Telesis for sales or corporate information through our web site: <http://www.alliedtelesis.com/>. To find the contact information for your country, select Contact Us -> Worldwide Contacts.

### Management Software Updates

New releases of management software for our managed products are available from either of the following Internet sites:

- Allied Telesis web site: <http://www.alliedtelesis.com/support/software/>
- Allied Telesis FTP server: <ftp://ftp.alliedtelesis.com/>

If you prefer to download new software from the Allied Telesis FTP server from your workstation's command prompt, you will need FTP client software and you must log in to the server. Enter "anonymous" for the user name and your email address for the password.

### Tell Us What You Think

If you have any comments or suggestions on how we might improve this or other Allied Telesis documents, please contact us at <http://www.alliedtelesis.com>.

# Chapter I: Introduction

Congratulations for the purchase of your router. This router provides advanced features that allow you to access the phone service and the Internet through a single wired connection.

## Requirements

Your computer must meet the following minimum requirements.

### Software

#### Operating System:

Any operating system can be used

#### Browser:

Internet Explorer 4.0 or higher version  
Netscape Navigator 3.02 or higher version  
Firefox 5.0 or higher version

### Hardware

233MHz processor  
CD-ROM Drive  
Ethernet network adapter

## Package Contents

Package contents include:

- Router
- Telephone cable
- Ethernet cable
- Power adaptor
- Documentation CD
- Quick Setup Guide

## Device Design

### Back Panel

The back panel provides ports to power up and connects the router to your network.

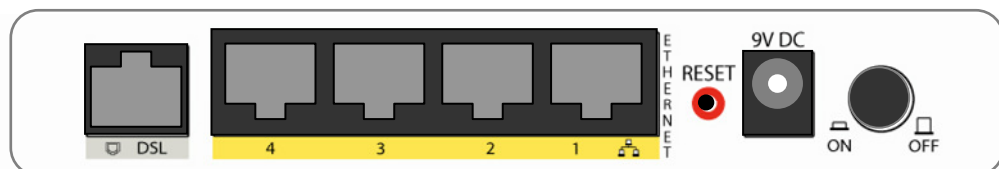


Figure 1: Back Panel

Label	Used for...
<b>DSL</b>	Connecting the telephone cable
<b>ETHERNET 1-4</b>	Connecting the Ethernet cables
<b>RESET</b>	Resetting the router. Press and hold for 10 seconds to reset.
<b>9V DC</b>	Connecting the power adaptor
<b>ON/OFF</b>	Switching the router on/off

## Front Panel

The LEDs on the front panel give you an idea about the power and connection status.

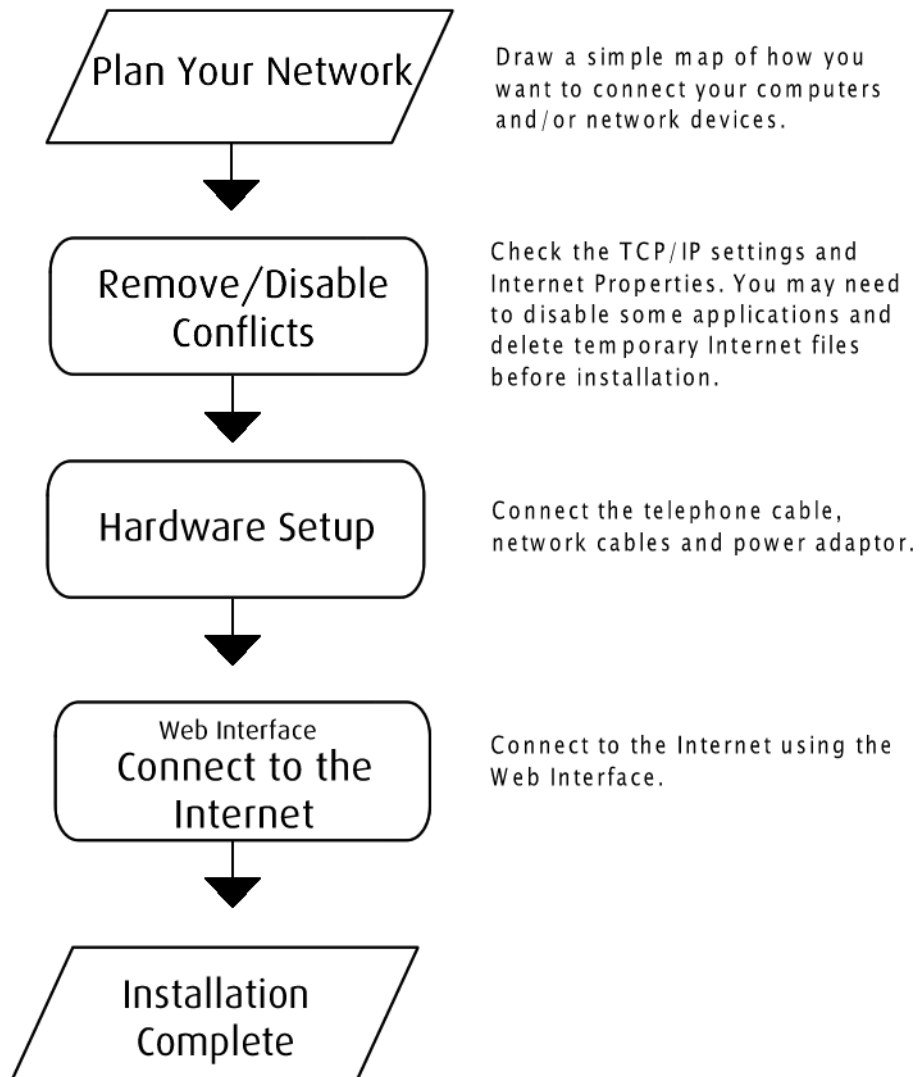


**Figure 2: LEDs on front panel**

Label	Action	Description
<b>POWER</b>	Off	No power is supplied to the device
	Steady light	Connected to a AC power supply
<b>ETHERNET</b>	Off	No Ethernet connection
	Steady light	Connected to an Ethernet port
	Blinking light	Transmitting/Receiving data
<b>DSL</b>	Blinking light	Establishing DSL signal
	Steady light	DSL signal is established
<b>INTERNET</b>	Off	No Internet connection
	Steady light	Connected to the Internet
	Blinking light	Transmitting/Receiving data

## Chapter 2: Getting Started

Setting up the router is easy. The flowchart below provides an outline of the steps you need to complete the installation. There are brief descriptions beside each step to help you along. Detailed instructions are provided in the subsequent pages.



**Figure 3: Installation Flow Chart**

## Planning Your Network

Before proceeding to setup your network, it is a good idea to draw out a network diagram to help identify the devices and plan out how to connect these devices. The illustration below is an example of a network diagram.

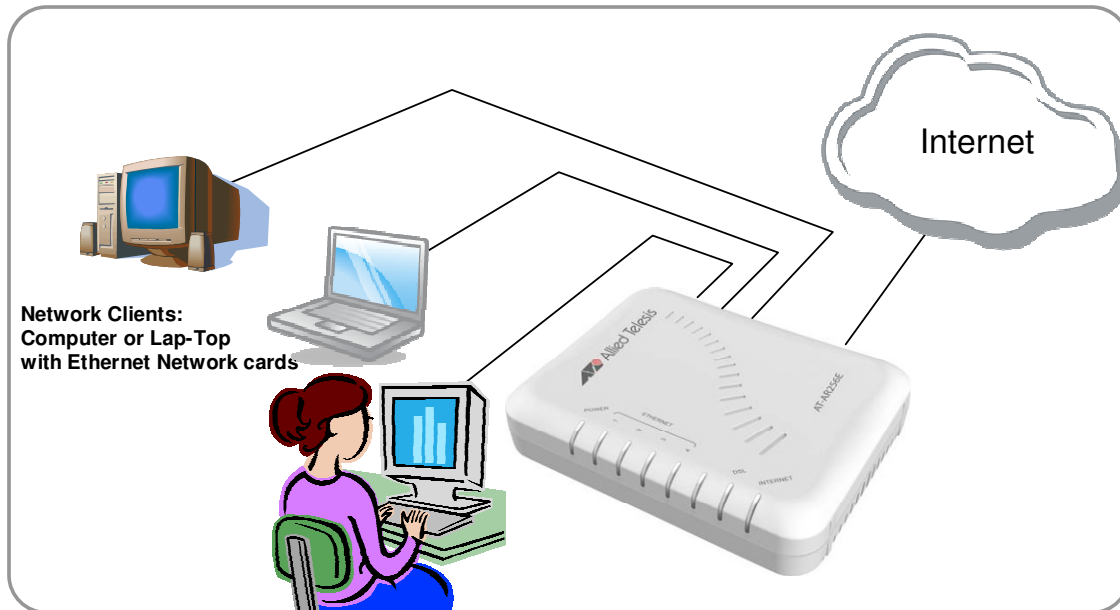


Figure 4: Sample network diagram

### To create a network diagram:

- For wired devices, identify which router port you want to use for each device.

## Remove or Avoid Conflicts

To ensure the router installation proceeds smoothly, you need to avoid or remove conflicts that may interfere with the installation. Probable conflicts may include:

- Internet sharing applications
- Proxy software
- Security software
- TCP/IP settings
- Internet properties
- Temporary Internet Files

### Internet Sharing, Proxy and Security Applications

Internet sharing, proxy software and firewall applications may interfere with the router installation. These should be removed or disabled before you install and configure the router.

If you have any of the following or similar applications installed on your computer, remove or disable them according to the manufacturer's instructions.

Internet Sharing Applications	Proxy Software	Security Software
Microsoft Internet Sharing	WinGate	Symantec
	WinProxy	Zone Alarm

## Configuring TCP/IP Settings

After connecting the device, you need to set the TCP/IP properties in your computer.

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**Note:** These instructions apply to connections made using the Ethernet port.

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### To set the TCP/IP properties:

1. Select **Start > Run**. This opens the **Run** dialog box.
2. Enter **control ncpa.cpl** then click **OK**. This opens the **Network Connections** in your computer.
3. Right-click on **LAN** then select **Properties**. This opens the **Local Area Connection Properties** dialog box.
4. Select **Internet Protocol (TCP/IP)** then click **Properties**. This opens the **Internet Protocol (TCP/IP)** dialog box.
5. Select **Obtain an IP address automatically**.
6. Click **OK** to close the **Internet Protocol (TCP/IP)** dialog box.
7. Click **OK** to close the **Local Area Connection Properties** dialog box.

## Configuring Internet Properties

### To set the Internet Properties:

1. Select **Start > Run**. This opens the **Run** dialog box.
2. Enter **control inetcp.cpl** then click **OK**. This opens the **Internet Properties** dialog box.
3. Click the **Connections** tab.
4. In the **Dial-up and Virtual Private Network settings** pane, select **Never dial a connection**.
5. Click **OK** to close the **Internet Properties** dialog box.

## Removing Temporary Internet Files

### To remove Temporary Internet Files:

1. Select **Start > Run**. This opens the **Run** dialog box.
  2. Enter **control** then click **OK**. This opens the **Control Panel**.
  3. Double-click **Internet Options**. This opens the Internet Options dialog box.
  4. In the **Temporary Internet Files** pane, click **Delete Cookies**.
  5. Click **Delete Files**.
- Click **OK** to close the Internet Properties dialog box.

## Hardware Setup

When installing the router, the common practice is to have the router, the main computer and phone jack in the same room. The room should also have enough electrical outlets to match your needs.

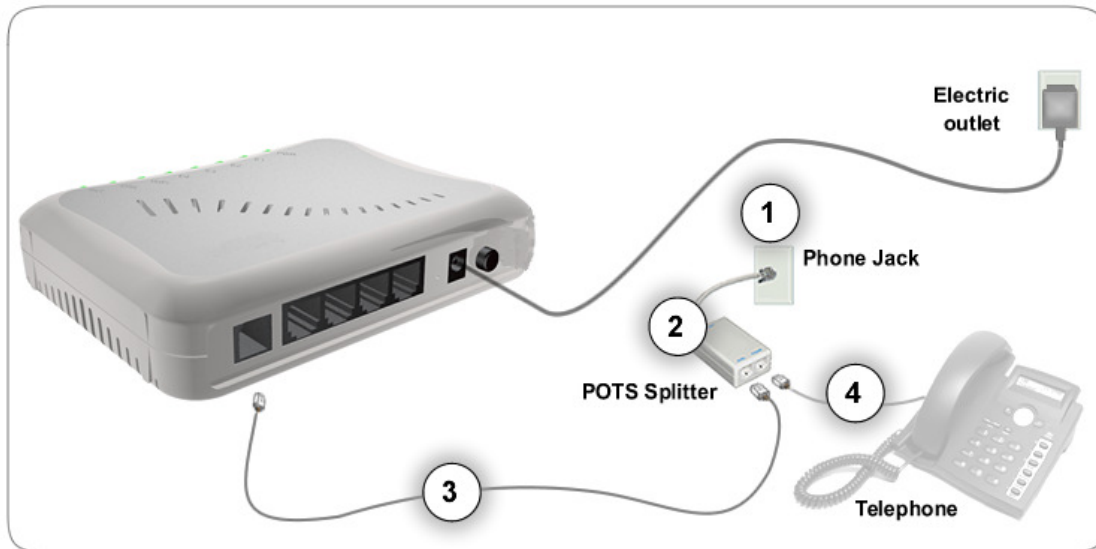
### Connecting the POTS Splitter

A phone line can carry phone call and Internet signals. When you enable the phone line for high speed Internet, the connection produces high-pitched tones when using the phone. Installing a Plain Old Telephone Service (POTS) splitter separates the two signals and eliminates the noise.

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**Note:** Consult your service provider on what type of POTS Splitter should be used.

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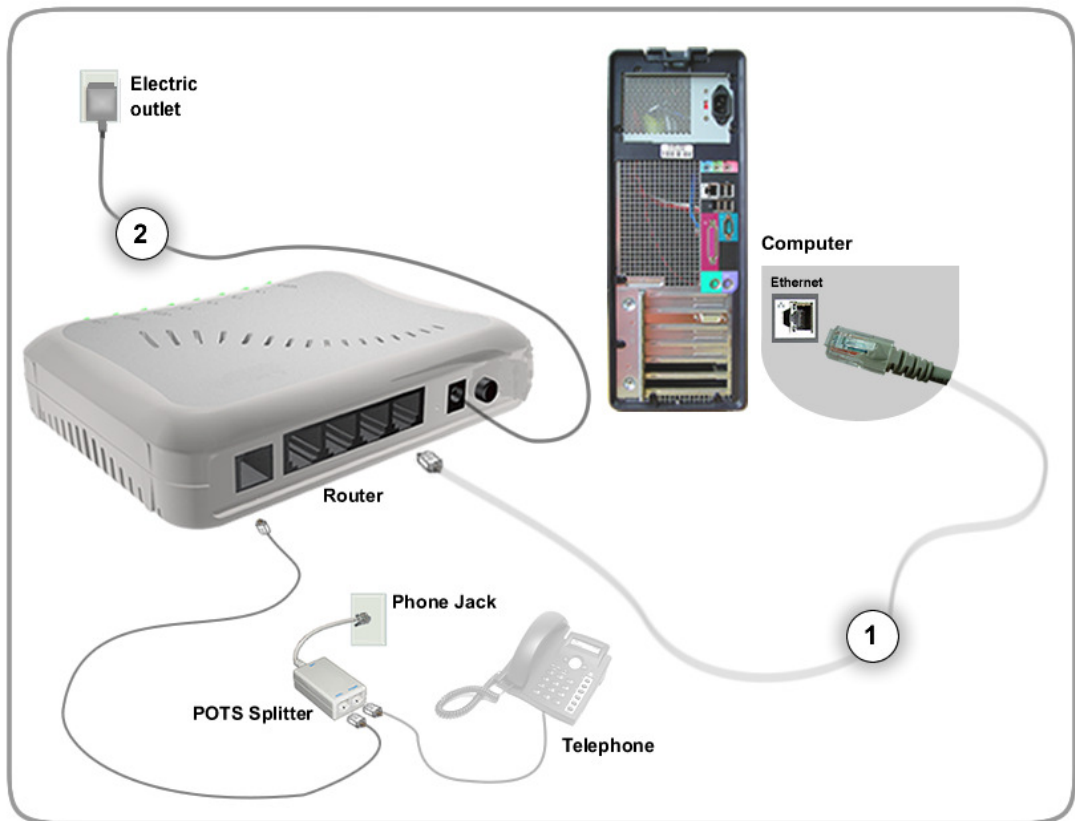
**Figure 5: The POTS Splitter separates the connection for the router and telephone**

#### To connect with the POTS Splitter:

1. Locate the phone jack in your house.
2. Insert the POTS Splitter into the phone jack.
3. Plug one end of the telephone cable from the POTS Splitter's **MODEM** port then plug the other end into the router's **DSL** port.
4. Plug one end of the telephone cable from the POTS Splitter's **PHONE** port then plug the other end into the telephone.

## Connecting the Computer

You need to connect the router to your computer before connecting other devices. The computer will be used to configure the router settings.



**Figure 6: Connecting the router to the computer**

### To connect the computer:

1. Plug one end of the Ethernet cable from the router's **ETHERNET** port then plug the other end into the Ethernet port in your computer.
2. Connect the power adaptor from the router's **9V DC** port into the electrical outlet.

## Connecting Other Ethernet Devices

Aside from the main computer, you can grow your network by adding devices with Ethernet ports. Connect these devices into the available Ethernet ports on your router.

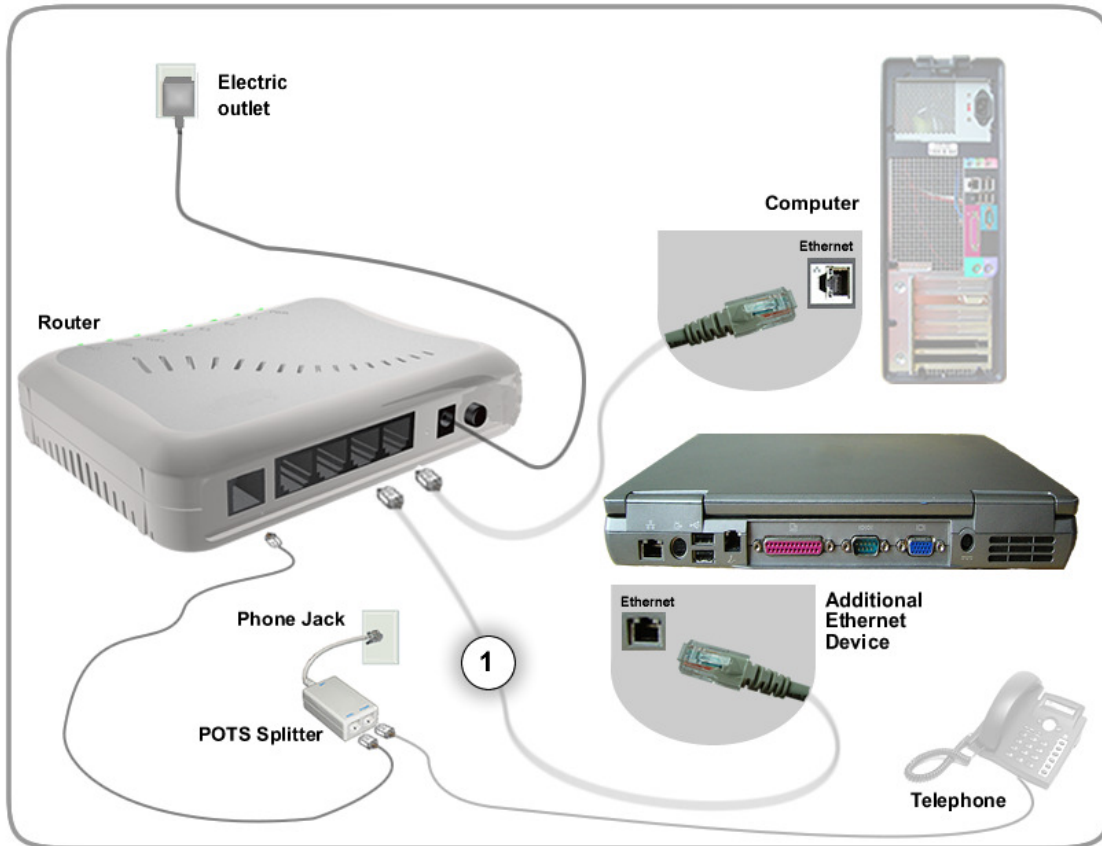


Figure 7: Connecting other devices

### To connect other devices:

6. Plug one end of the Ethernet cable from your computer's Ethernet port then plug the other end into the router's vacant **ETHERNET** port.
7. Use the Web User Interface to configure the settings for the newly added device.

## Connect to the Internet

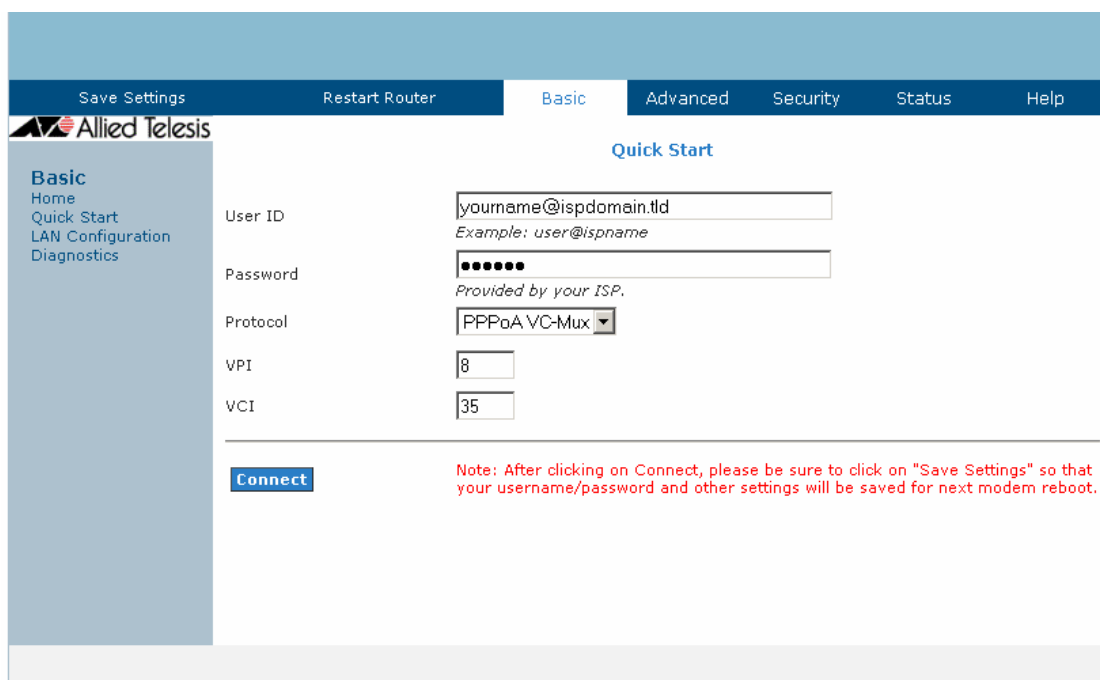
Connecting to the Internet is as easy as 1, 2, 3. Using Quick Start you'll be able to setup your Internet account inside the router smoothly, once the account is saved, the router will establish connection to the service provider giving you access to the Internet.

### Using Quick Start

After connecting the devices, you need to configure the router settings via the Web User Interface.

#### To open the Web User Interface:

1. Open your browser.
2. Enter **192.168.1.1** in the address field then press **Enter**. This opens the **Log In** page.
3. Enter the Username as **manager** and Password as **friend**.



The screenshot shows the 'Quick Start' configuration page in the router's web interface. At the top, there are navigation tabs: 'Save Settings', 'Restart Router', 'Basic' (selected), 'Advanced', 'Security', 'Status', and 'Help'. Below the tabs is the 'Allied Telesis' logo and the 'Quick Start' title. On the left, a sidebar menu lists 'Basic', 'Home', 'Quick Start' (highlighted), 'LAN Configuration', and 'Diagnostics'. The main content area contains the following fields:

- User ID:** A text input field containing 'youname@ispdomain.tld'. Below it, an example is shown: 'Example: user@ispname'.
- Password:** A text input field with masked characters (dots). Below it, a note says: 'Provided by your ISP.'
- Protocol:** A dropdown menu currently set to 'PPPoA VC-Mux'.
- VPI:** A text input field containing '8'.
- VCI:** A text input field containing '35'.

At the bottom left of the form area is a blue 'Connect' button. To the right of the button, a red note reads: 'Note: After clicking on Connect, please be sure to click on "Save Settings" so that your username/password and other settings will be saved for next modem reboot.'

Figure 8: Quick Start page

4. Enter the **User ID** and **Password** for your account after the connection scan. If you are not sure which option to select, contact your local Internet Service Provider.
5. Click **Connect**.  
The router will take about two minutes to save the settings and establish a connection with your Internet Service Provider.

At the end of the connection process, the router will display the Basic Home page showing a summary of the router status and account settings.

The screenshot shows the 'Basic Home' page of the router's web interface. The page is divided into several sections:

- Navigation:** Save Settings, Restart Router, Basic (selected), Advanced, Security, Status, Help.
- Left Sidebar:** Allied Telesis logo, Basic, Home, Quick Start, LAN Configuration, Diagnostics.
- Connection Information:**
  - DSL: UP
  - Downstream / Upstream (Kbps): 23278/1138
  - Internet: Connected
  - Connected Time: 0hr 0min 23sec
  - Connection Type: PPPoA
  - Username: [Redacted]
  - IP Address: 192.168.35.8
  - Default Gateway: 192.168.35.1
  - Primary DNS: 192.168.2.1
  - Secondary DNS: 165.21.100.88
- Router Information:**
  - System Uptime: 1 hours 46 minutes
  - Model: AT-AR256E v3
  - Firmware Version: 119.12a.1-006
  - Ethernet MAC address: 00:30:0A:96:D4:52
  - DSL MAC address: 00:30:0A:96:D4:53
  - NAT: Enabled
  - Firewall: Enabled
- Local Network:**
  - LAN IP Address: 192.168.1.1
  - DHCP: Enabled
  - DHCP Range: 192.168.1.2 - 192.168.1.254
  - Ethernet: Connected

A 'Disconnect' button is located below the Connection Information section.

**Figure 9: Basic Home page**

If the connection process has been successful, the Basic Home page will contain a “Disconnect” button and the word “Connected” besides the label “Internet” as shown in Figure 9. If the button label is “Connect” then the connection process has not been successful. Please verify with your Internet Service Provider the required connection parameters.