

# TP-LINK®

## User Guide

**TD-8610**

**ADSL2+ Modem**



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## FCC STATEMENT



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.

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

- 1) This device may not cause harmful interference.
- 2) This device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## CE Mark 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.

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## Package Contents

The following items should be found in your package:

- One TD-8610 External ADSL2+ MODEM
- One AC power Adapter for TD-8610 External ADSL2+ MODEM
- One RJ45 cable
- Two RJ11 cables
- One ADSL splitter
- One Resource CD for TD-8610 External ADSL2+ MODEM, including:
  - This User Guide
  - Other Helpful Information

 **Note:**

Make sure that the package contains the above items. If any of the listed items are damaged or missing, please contact with your distributor.

# Chapter 1. Introduction

Thank you for choosing the TD-8610 External ADSL2+ Modem.

## 1.1 Product Overview

With the excellent design of circuit and high quality production, we guarantee ADSL2+ MODEM a high performance, very good stability and easy to use.

TD-8610 is a complete plug-and-play solution. With standard Ethernet interface, it can be directly connected to any 10M/100M Ethernet devices, supporting Auto-MDIX.

TD-8610 not only uses html (web mode through Ethernet port) to configure the MODEM but also use external utility software too. You can download it from our website (<http://www.tp-link.com>).

## 1.2 Main features

- High speed and asymmetry data transmit mode, adapt to wide-band internet access
- Point to point connection, provide safe and exclusive bandwidth
- Support All ADSL industrial standards
- Advanced DMT modulation and demodulation
- Firmware upgradeable
- Compatible with all mainstream DSLAM (CO)
- Real-time Configuration and device monitoring
- Quick response semi-conductive surge protect circuit, provides reliable ESD and surge-protect function
- Supports ADSL dual latency (fast path and interleaved path)

## 1.3 Supporting protocols

- ANSI T1.413
- G.992.1 (G.dmt) - Annex A
- G.992.2 (G.lite) - Annex A
- G.992.3 (ADSL2) - Annex A compliant
- G.992.5 (ADSL2+) - Annex A compliant
- I.432 ATM physical layer compliant
- Supports RFC2516 (PPPoE) \*
- Supports RFC1483 (EoA) (Bridged)

 **Note:**

“\*”Need third-party software.

## 1.4 Transmit data-rate

- Max download data-rate: 24Mbps
- Max upload data-rate: 1Mbps
- Max line length: 6Km

## 1.5 ATM property

- AAL0, AAL5, OAM, RM, and raw cell types supported
- Direct hardware support for 4 Receive VCs, with additional RX VCs and TX VCs supported in software
- Full 24-bit Virtual Path Identifier (VPI) and Virtual Circuit Identifier (VCI)

## 1.6 System support

- Support PVC
- Support IEEE 802.3、IEEE 802.3u
- Support 10Base-T/100BASE-TX full-duplex or half duplex Ethernet
- Support Auto-MDIX

## 1.7 Working environment

- Operating temperature: 0°C~40 °C
- Storage temperature: -40°C~70 °C
- Humidity: 10%~90%

## 1.8 Conventions

The Modem or TD-8610 mentioned in this User Guide stands for TD-8610 External ADSL2+ Modem without any explanations.

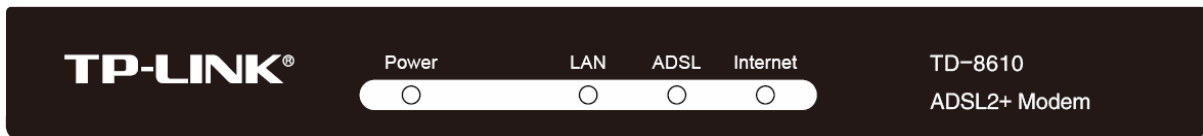
Parameters provided in the pictures are just references for setting up the product, which may differ from the actual situation. You can set the parameters according to your demand.

## Chapter 2. Hardware Installation Guide

### 2.1 System requirement

Confirm your computer has been installed with networking interface card (NIC) before connecting ADSL MODEM to your computer, with operating system supporting the TCP/IP protocol.

### 2.2 LED explanation

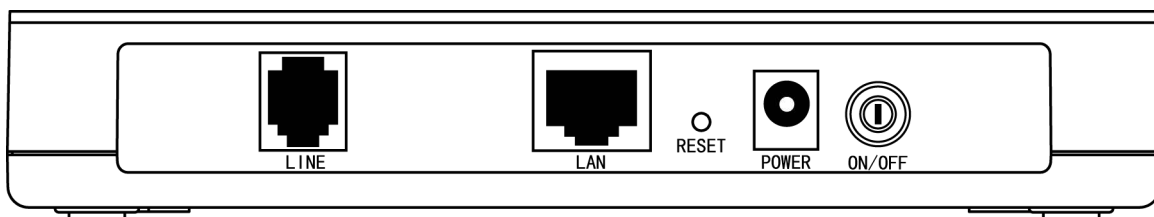


The panel of ADSL MODEM includes one power button, one power indicator and four function indicators, and these five indicators are explained as chart 1-1:

Name	Status	Indication
Power	On	Power is on.
	Off	Power is off.
LAN	On	There is a successful connection on the LAN port but no activity.
	Flash	Data is being transferred over the LAN port
	Off	There is no connection on the LAN port or the connection is abnormal.
ADSL	On	The LINE port is linked up.
	Flash	The ADSL negotiation is in progress.
	Off	The LINE port is linked down.
Internet	Flash	There is data transmitting or receiving through the Internet.
	Off	No data transmitting or receiving through the Internet.

Chart 1-1

### 2.3 Rear-panel



- **LINE (WAN):** Connect to the MODEM port of Splitter or connect to the telephone line.



- **LAN:** Connect with your computer's NIC.
- **RESET (reset default):** When the device is working, please press the RESET button and keep on for five seconds, then release it for the modem to reboot to its factory default settings.
- **POWER:** please do not use any unknown power adaptor, otherwise that may cause damage to your ADSL MODEM.
- **ON/OFF:** Turn on/off the ADSL modem's power.

## 2.4 Hardware installation procedures

**First Step:** Connect the MODEM of Splitter with the LINE port of the TD-8610 ADSL2+ MODEM by telephone line. While you need to use a telephone, please attach telephone line into the phone of Splitter.

**Second Step:** Connect category 5 cable with RJ45 jacks to ADSL MODEM's LAN port and your computer's NIC.

**Third Step:** Link power adapter into the power jack of ADSL MODEM.

**Last Step:** Check the line connection to see if everything is ready. Then power up.

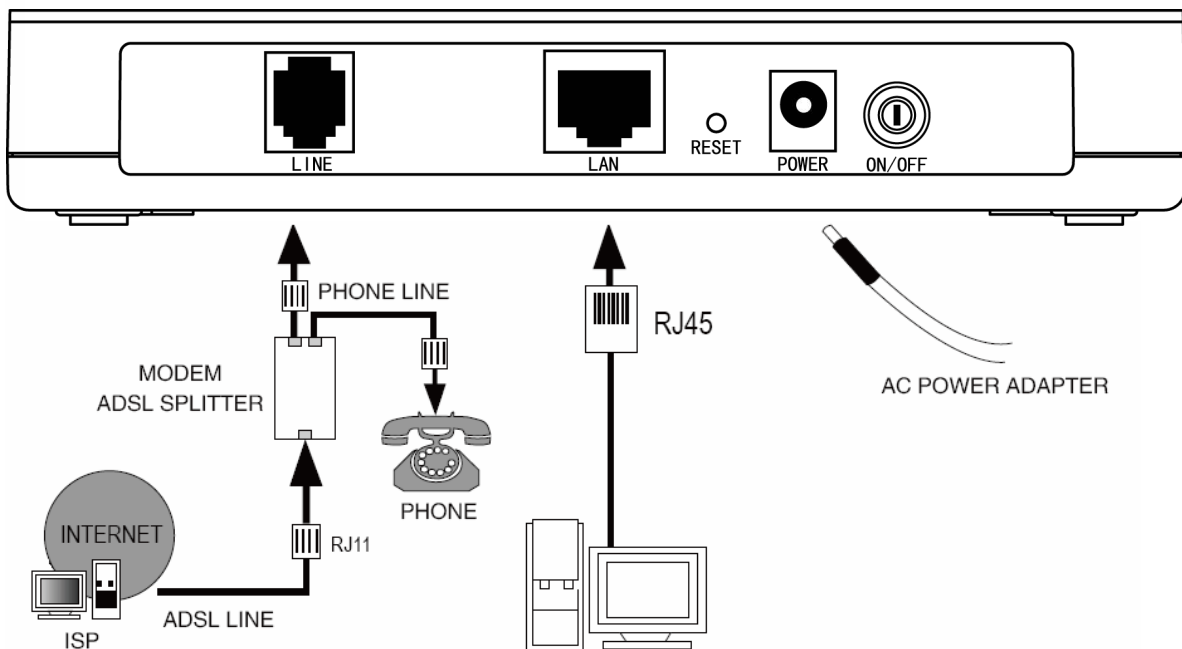


Figure 2-1

## Chapter 3. How to use

### 3.1 Computer Configuration

#### 1. Configure TCP/IP component

- 1) On the Windows taskbar, click the **Start** button, and then click **Control Panel**.
- 2) Click the **Network and Internet Connections** icon, and then click on the **Network Connections** tab in the appearing window.
- 3) Right click the icon that showed below, select Properties on the prompt page.

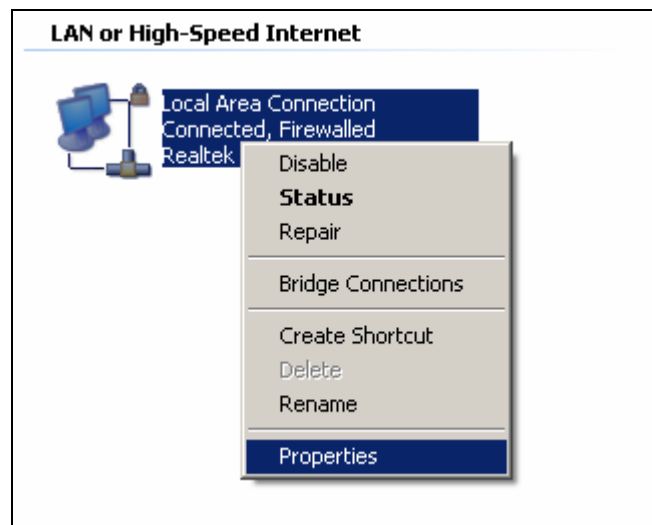


Figure 3-1

- 4) In the prompt page that showed below, double click on the **Internet Protocol (TCP/IP)**.

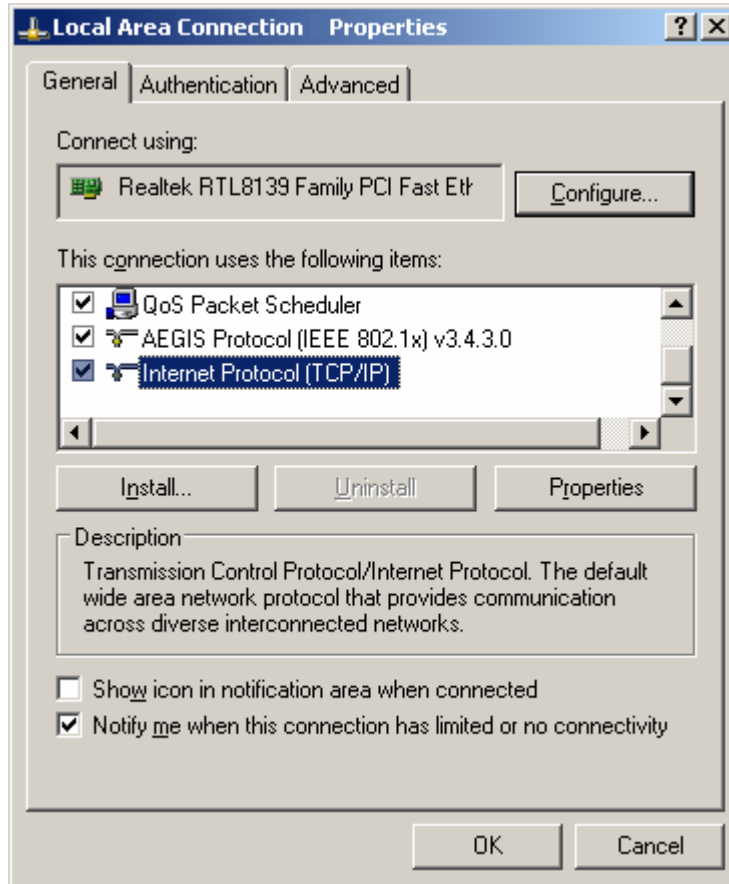


Figure 3-2

- 5) The following **TCP/IP Properties** window will display and the **IP Address** tab is open on this window by default.
- 6) Select **Use the following IP address**. And the following items will be available. If the Modem's IP address is 192.168.1.1, specify **IP address** as 192.168.1.x (x is from 2 to 254), and the **Subnet mask** as 255.255.255.0.

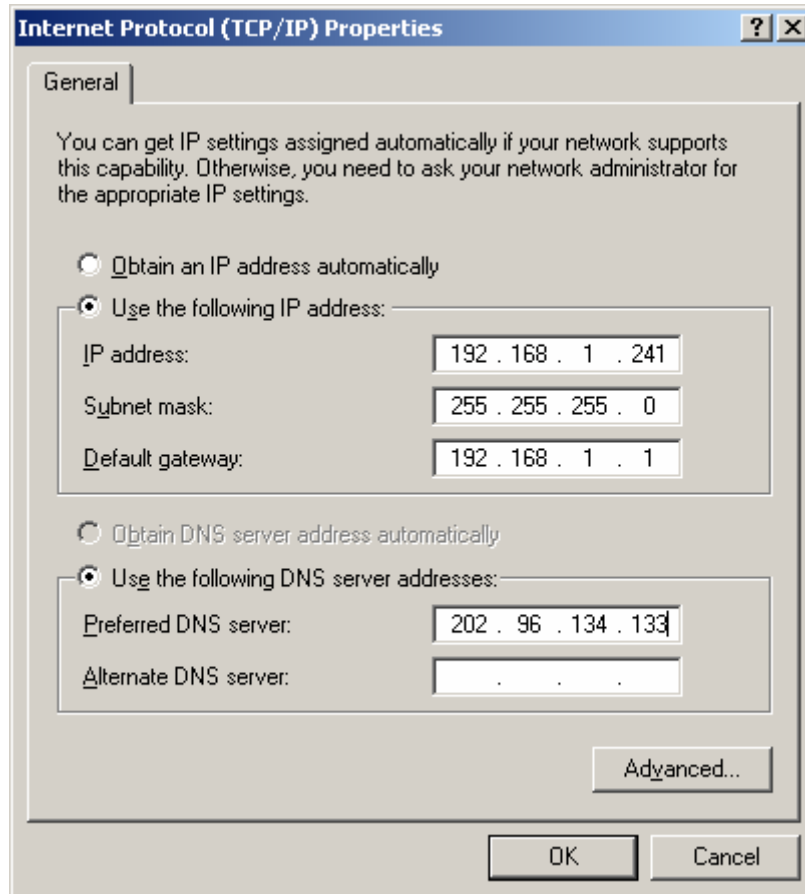


Figure 3-3

Now: Click **OK** to save your settings

**Note:**

Users of Windows 98 can open **TCP/IP Properties** according to the following: Right-click (Mouse) **Network Neighbor** → Choose **Properties** → Double-click **TCP/IP**.

Users of Windows 2000/NT/XP can do the following: Right-click **Network Neighbor** → Choose **Properties** → Right-click **Local Connection** → Choose **Properties** → Double-click **Internet Protocol (TCP/IP)**.

**Remarks:** you can check whether your configuration is successful through **PING** command. Enter **Ping 192.168.1.1**

If the screen looks like the following, you have been successful.

```
Pinging 192.168.1.1 with 32 bytes of data:

Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

Figure 3-4

If the screen looks like the following, the connection has failed. Please try again.

```
Pinging 192.168.1.1 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

Figure 3-5

### 3.2 Login

Startup Internet Explorer, and enter 192.168.1.1; then enter user name (admin), password (admin), you will see the page (Figure 3-6). When ADSL connection is OK, you will see some information such as link rate.

The screenshot shows the web interface for the TP-LINK TD-8610 modem. On the left is a navigation menu with 'Device Info' selected. The main content area is divided into two sections:

**TP-LINK TD-8610**

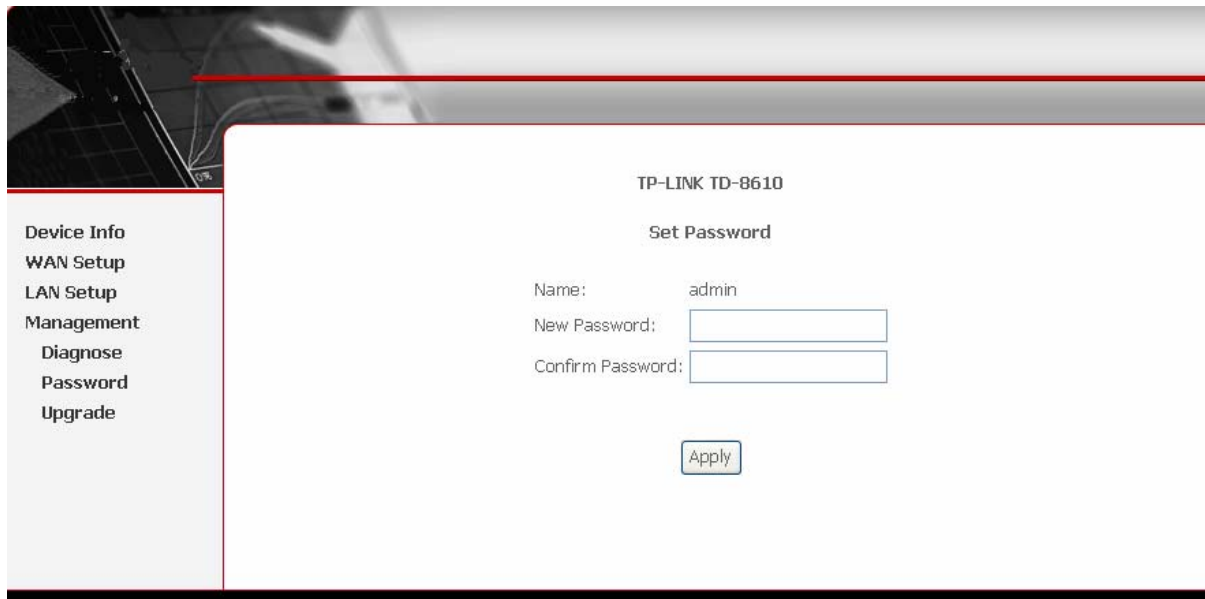
Version:	BCM6338 2.04B.02-A2p8019b8.d16m
Firmware:	TD-8610.w
Hardware:	TD-8610 v5.0
Serial Number:	
MAC address:	02:10:18:01:00:01

**ADSL Statistics**

Status:	Idle	
Channel:		
Mode:		
	Downstream	Upstream
Rate (Kbps):		
SNR Margin (dB):		
Attenuation (dB):		
Super Frames:		
Super Frame Errors:		

Figure 3-6

The default user name and its password is admin; if you want to change it, please go to "Management→Password". (Figure 3-7)



The screenshot displays the web management interface for a TP-LINK TD-8610 ADSL2+ modem. On the left side, there is a vertical navigation menu with the following items: Device Info, WAN Setup, LAN Setup, Management, Diagnose, Password, and Upgrade. The 'Management' menu item is currently selected. The main content area is titled 'TP-LINK TD-8610' and 'Set Password'. It contains three input fields: 'Name:' with the value 'admin', 'New Password:', and 'Confirm Password:'. Below these fields is an 'Apply' button.

Figure 3-7

### 3.3 Setup

- 1) Choose ATM PVCs Configuration (see Figure 3-8).
- 2) Enter the **VPI/VCI** value which is provided by your ISP. Click **Save** to finish the configuration. You can press **Next** to add **VPI/VCI** value.

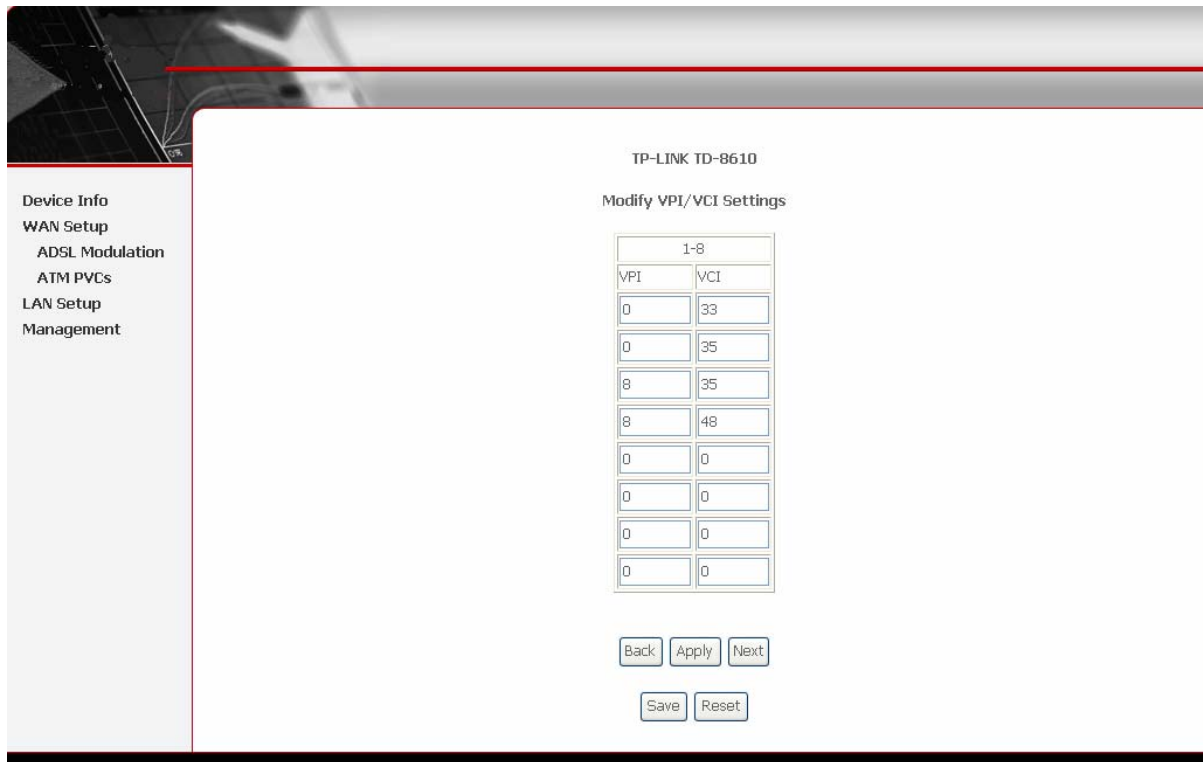


Figure 3-8

### 3.4 Software Dial

TD-8610 works in bridged (RFC 1483 Bridged) mode to connect to the Internet. You need to install dial software on your PC. There is some software working on WINDOWS in market, example for EnterNet3000, RASPPPoE and WinPeET.

#### ***How do I set up the connection in the windows XP?***

- The users of Windows XP can click the “**Start→All Programs→Accessories→Communications→New connection wizard**”, and then click **Next** to enter the configuration page.
- Select the “**connect to the Internet**”, and then click the **Next** button to enter the next page. Select the “**set up my connection manually**”, and click **Next** to enter the next page.
- Select the “**connect using a broadband connection that requires user name and password**”. Click **Next** to type the name of your ISP in the current page, and then click **Next**.
- Enter an **ISP account name** and **password**, and click **Next**. If you have forgotten an existing account name or password, please connect with your ISP.
- To create the connection and close this wizard, click **Finish** to add a shortcut to this connection to your desktop.

- When you want to access the Internet by ADSL, double-click this shortcut of dial connection on your desktop. Enter the account name and password, and click **Connect** to connect the Internet.

### ***How do I set up the connection in the Windows Vista?***

- Users of Windows Vista can do as follows: Right-press **Network**→Choose **Properties**, then you can see Figure 3-9.

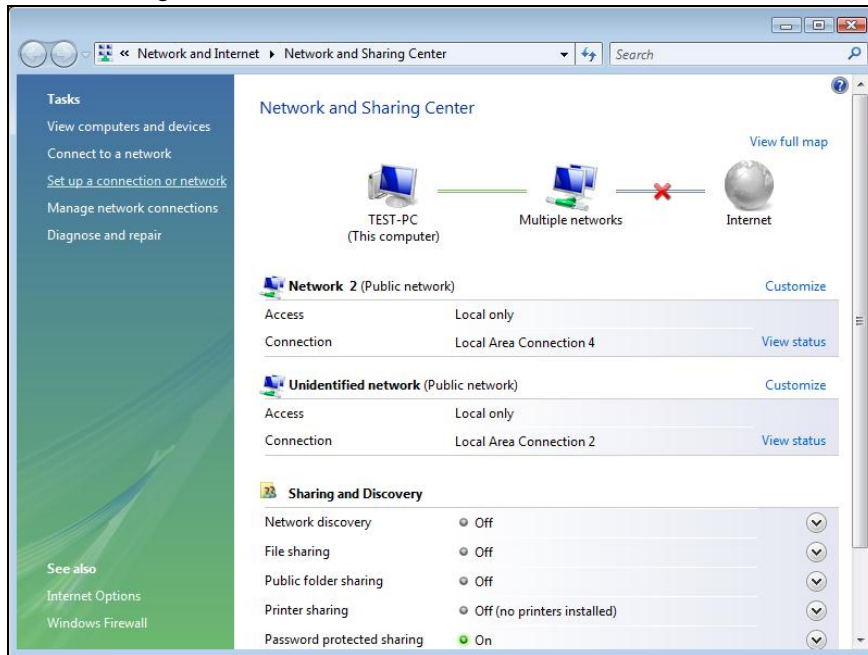


Figure 3-9

- Click “**Set up a connection or network**” in the left of this page. And choose “**Set up a dial-up connection**” in the new page; click **Next**. After that, you will see Figure 3-10; click “**Set up a connection anyway**” to enter next page.



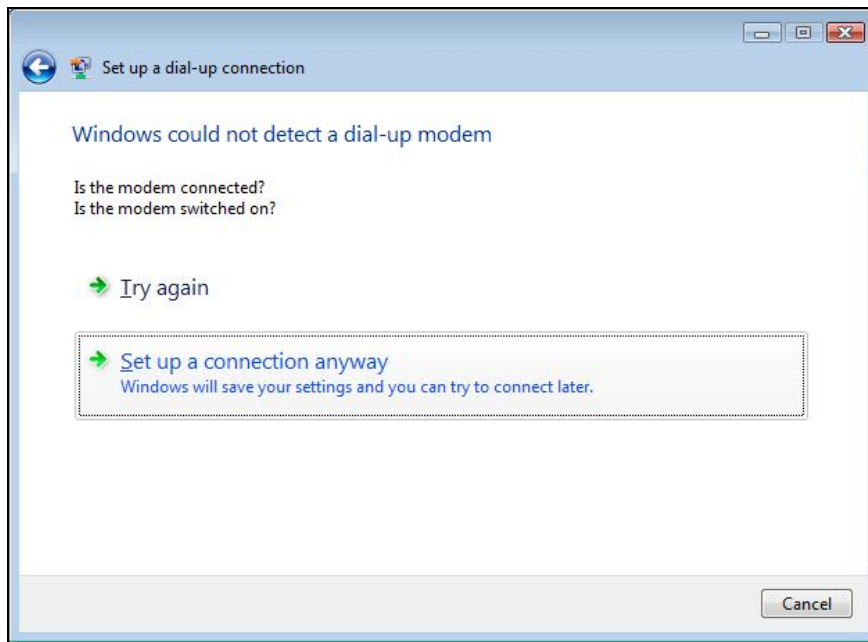


Figure 3-10

- Type the **Dial-up phone number**, the **User name** and **password** supplied by your ISP in the new page. If you have forgotten an existing user name or password, please consult your ISP. Click **Create** to create the dial-up connection.
- Click **Close** to finish the setup.
- To connect to the Internet next time, click the **Start** button; click **Connect to**, and then click the connection you just created.

## Appendix A: Default Configuration

USER NAME	admin
PASSWORD	admin
IP ADDRESS	192.168.1.1
VPI/VCI	0/33, 0/35, 8/35, 8/48