

# TP-LINK®

## User Guide

### TD-8840T

### ADSL2+ Modem Router



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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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## DECLARATION OF CONFORMITY

For the following equipment:

Product Description: ADSL2+ Modem Router

Model No.: **TD-8840T**

Trademark: **TP-LINK**

We declare under our own responsibility that the above products satisfy all the technical regulations applicable to the product within the scope of Council Directives:

Directives 2004 / 108 / EC, Directives 2006 / 95 / EC, Directives 2011/65/EU

The above product is in conformity with the following standards or other normative documents:

**EN 55022:2010**

**EN 55024:2010**

**EN 61000-3-2:2006+A1:2009+A2:2009**

**EN 61000-3-3:2008**

**EN60950-1:2006+A11: 2009+A1:2010+A12:2011**

*The product carries the CE Mark:*



Person is responsible for marking this declaration:

A handwritten signature in black ink, appearing to read 'Yang Hongliang', is written over a light gray rectangular background.

**Yang Hongliang**

**Product Manager of International Business**

Date of issue: 2012

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# Package Contents

The following contents should be found in your package:

- One TD-8840T ADSL2+ Modem Router
- One Power Adapter for TD-8840T ADSL2+ Modem Router
- Quick Installation Guide
- One RJ45 cable
- Two RJ11 cables
- One ADSL splitter
- One Resource CD for TD-8840T ADSL2+ Modem Router, 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 your distributor.

# Chapter 1. Product Overview

Thank you for choosing the TD-8840T ADSL2+ Modem Router.

## 1.1 Overview of the Modem Router

The device is designed to provide a simple and cost-effective ADSL Internet connection for a private Ethernet network.

The TD-8840T ADSL2+ Modem Router connects to an Ethernet LAN or computers via standard Ethernet ports. The ADSL connection is made using ordinary telephone line with standard connectors. Multiple workstations can be networked and connected to the Internet using a single Wide Area Network (WAN) interface and single global IP address. The advanced security enhancements, **IP/MAC Filter**, **Application Filter** and **URL Filter** can help to protect your network from potentially devastating intrusions by malicious agents from the outside of your network.

**Quick Start** of the Web-based Utility is supplied and friendly help messages are provided for the configuration. Network and Router management is done through the Web-based Utility which can be accessed through local Ethernet using any web browser.

### ADSL

The TD-8840T ADSL2+ Modem Router supports full-rate ADSL2+ connectivity conforming to the ITU and ANSI specifications. In addition to the basic DMT physical layer functions, the ADSL2+ PHY supports dual latency ADSL2+ framing (fast and interleaved) and the I.432 ATM Physical Layer.



## 1.2 Main Features

- 4 10/100M RJ45 LAN ports (Auto MDI/MDIX), 1 RJ11 port.
- Downstream data rates up to 24Mbps, upstream data rates up to 3.5Mbps (With Annex M enabled) .
- Supports long transfers, the max line length can reach to 6.5Km.
- Supports remote configuration and management through SNMP and CWMP.
- Supports PPPoE, it allows connecting the internet on demand and disconnecting from the Internet when idle.
- Quick response semi-conductive surge protection circuit, provides reliable ESD and surge-protect function.
- High speed and asymmetrical data transmit mode, provides safe and exclusive bandwidth.
- Supports All ADSL industrial standards.
- Compatible with all mainstreams DSLAM (CO).
- Provides integrated access of internet and route function which face to SOHO user.
- Real-time Configuration and device monitoring.
- Supports Multiple PVC (Permanent Virtual Circuit).
- Built-in DHCP server.
- Built-in firewall, supports IP/MAC filter, Application filter and URL filter.
- Supports Virtual Server, DMZ host and IP Address Mapping.
- Supports Dynamic DNS, UPnP and Static Routing.
- Supports system log and flow Statistics.
- Supports firmware upgrade and Web management.

## 1.3 Panel Layout

### 1.3.1 The Front Panel

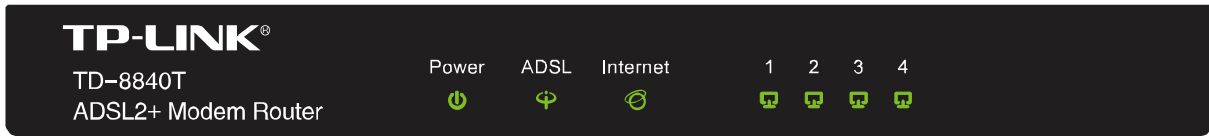


Figure 1-1

The Router's LEDs are located on the front panel (View from left to right). They indicate the device's working status. For details, please refer to LED Explanation.

#### LED Explanation:

Name	Status	Indication
Power	On	Power is on.
	Off	Power is off.
ADSL	On	The ADSL port is linked up.
	Flash	The ADSL negotiation is in progress.
	Off	The ADSL port is linked down.
Internet	On	A successful PPP connection has been built.
	Flash	Data is being transferred over the Internet.
	Off	There is no successful PPP connection or the Router works on Bridge mode.
1~4 (LAN)	On	There is a successful connection on the corresponding 1~4 (LAN) port but no activity.
	Off	There is no connection on the corresponding 1~4 (LAN) port or the connection is abnormal.
	Flash	Data is being transferred over the 1~4 (LAN) port

### 1.3.2 The Back Panel

The Router's ports, where the cables are connected, and RESET button are located on the back

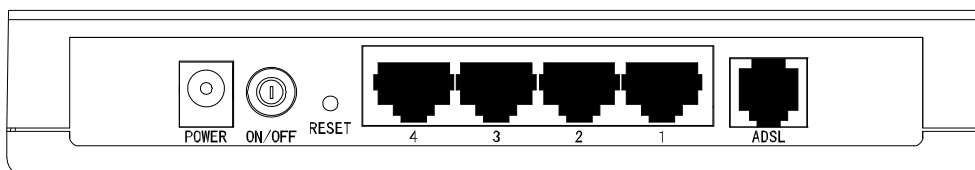


Figure 1-2

- **POWER:** The Power socket is where the power adapter connects to.
- **ON/OFF:** The switch for the power.
- **RESET:** There are two ways to reset the Router's factory defaults.
  - Method one:** With the Router powered on, use a pin to press and hold the Reset button for at least 5 seconds. And the Router will reboot to its factory default settings.
  - Method two:** Restore the default setting from “Maintenance-SysRestart” of the Router's Web-based Utility.
- **LAN (4~1):** Through the port, you can connect the Router to your PC or the other Ethernet network devices.
- **ADSL:** Through the port, you can connect the Router to the splitter or to the Internet directly.

# Chapter 2. Connecting the Modem Router

## 2.1 Installation Environment

- The Product should not be located where it will be exposed to moisture or excessive heat.
- Place the Router in a location where it can be connected to the various devices as well as to a power source.
- Make sure the cables and power cord are placed safely out of the way so they do not create a tripping hazard.
- The Router can be placed on a shelf or desktop.
- Keep away from the strong electromagnetic radiation and the device of electromagnetic sensitive.

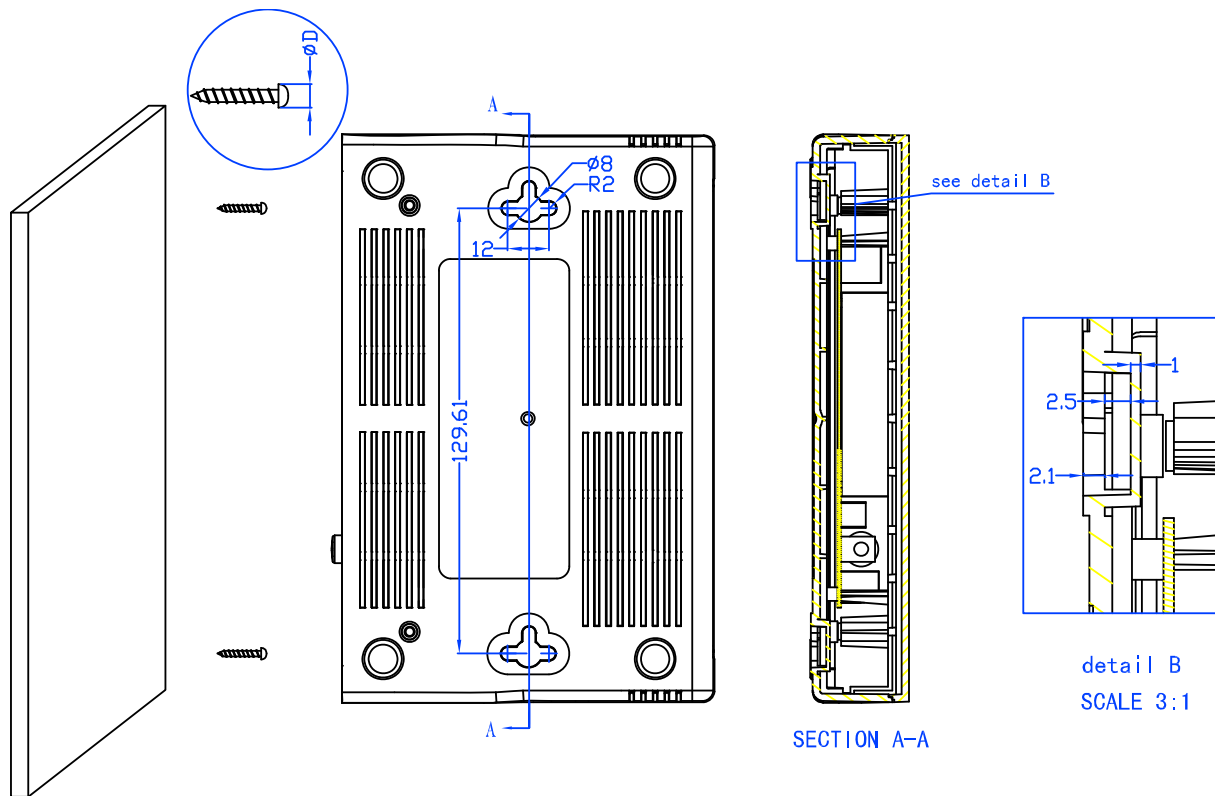


Figure 2-1

**Note:**

The diameter of the screw,  $2.0\text{mm} < D < 8.0\text{mm}$ , and the distance of two screws is  $129.61\text{mm}$ . The screw that project from the wall need around  $4\text{mm}$  based, and the length of the screw need to be at least  $20\text{mm}$  to withstand the weight of the product.

## 2.2 Connecting the Modem Router

Before installing the device, please make sure your broadband service provided by your ISP is available. If there is any problem, please contact your ISP. Before cable connection, cut off the power supply and keep your hands dry. You can follow the steps below to install it.

**Step 1:** Connect the ADSL Line.

**Method one:** Plug one end of the twisted-pair ADSL cable into the ADSL port on the rear panel of , and insert the other end into the wall socket.

**Method two:** You can use a separate splitter. External splitter can divide the data and voice, and then you can access the Internet and make calls at the same time. The external splitter has three ports:

- LINE: Connect to the wall jack
- PHONE: Connect to the phone sets
- MODEM: Connect to the ADSL port of

Plug one end of the twisted-pair ADSL cable into the ADSL port on the rear panel of . Connect the other end to the MODEM port of the external splitter.

**Step 2:** Connect the Ethernet cable. Attach one end of a network cable to your computer's Ethernet port or a regular hub/switch port, and the other end to the LAN port on the Modem Router.

**Step 3:** Power on the computers and LAN devices.

**Step 4:** Attach the power adapter. Connect the power adapter to the power connector on the rear of the device and plug in the adapter to a electrical outlet or power extension. The electrical outlet shall be installed near the device and shall be easily accessible.

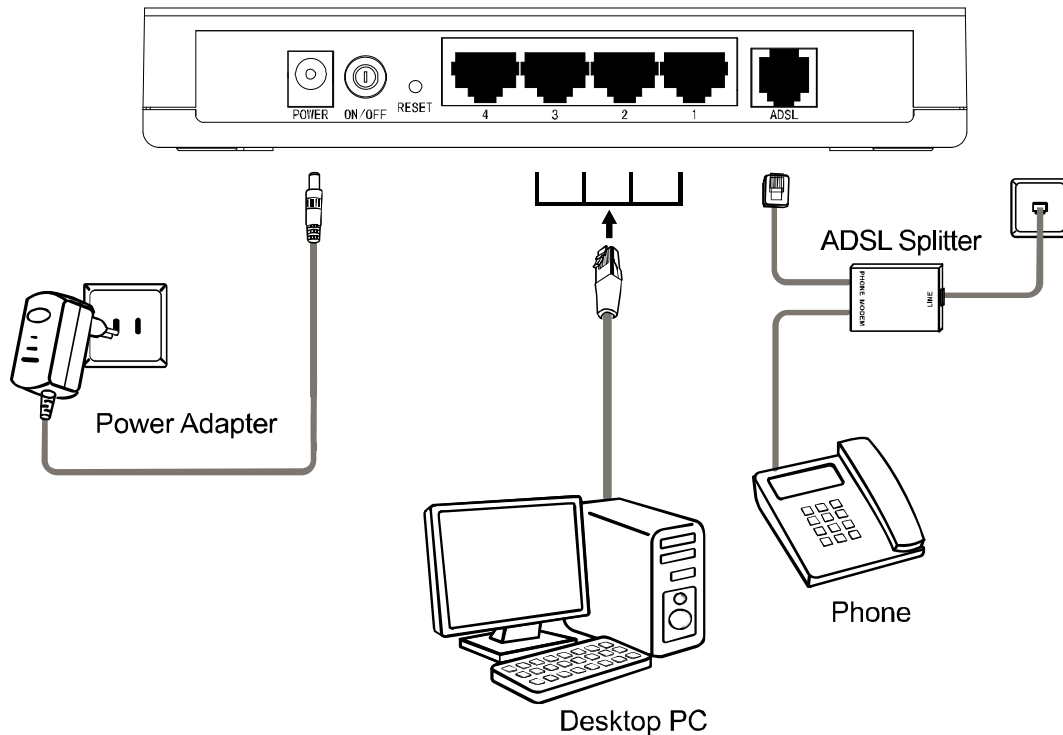


Figure 2-2

## Chapter 3. Quick Installation Guide

### 3.1 Configuring the PC

After you directly connect your PC to the Modem Router or connect your adapter to a Hub/Switch which has connected to the Modem Router, you need to configure your PC's IP address. Follow the steps below to configure it.

**Step 1:** Click the **Start** menu on your desktop, right click **My Network Places**, and then select **Properties** (shown in Figure 3-1).

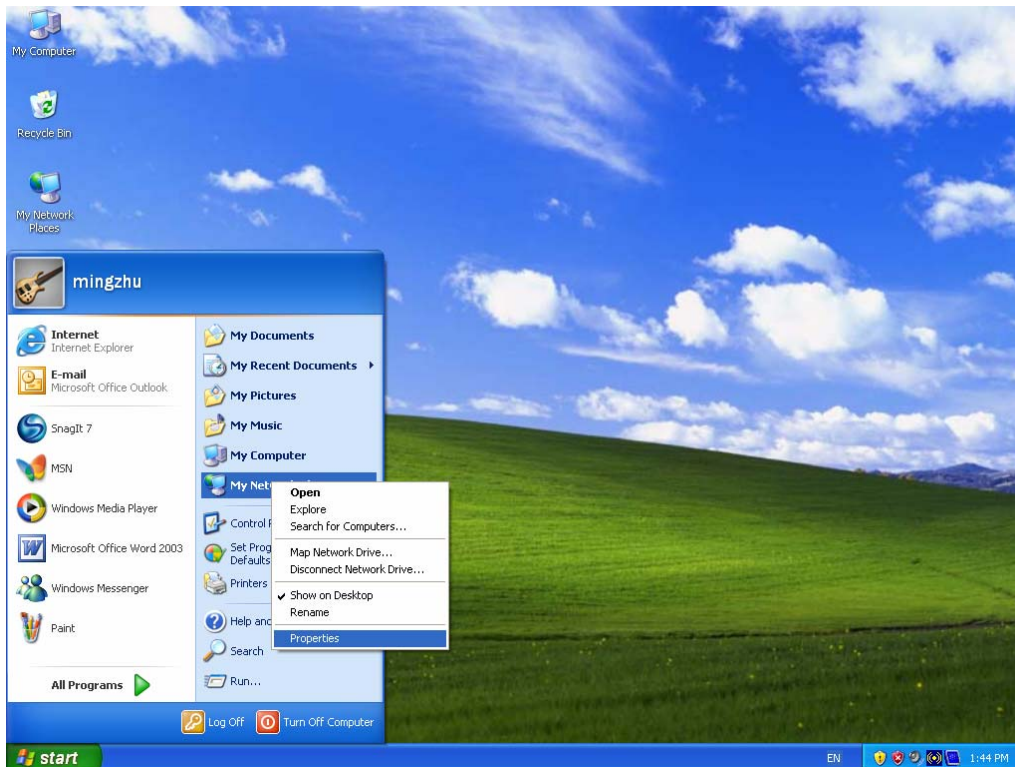


Figure 3-1

**Step 2:** Right click **Local Area Connection (LAN)**, and then select **Properties**.

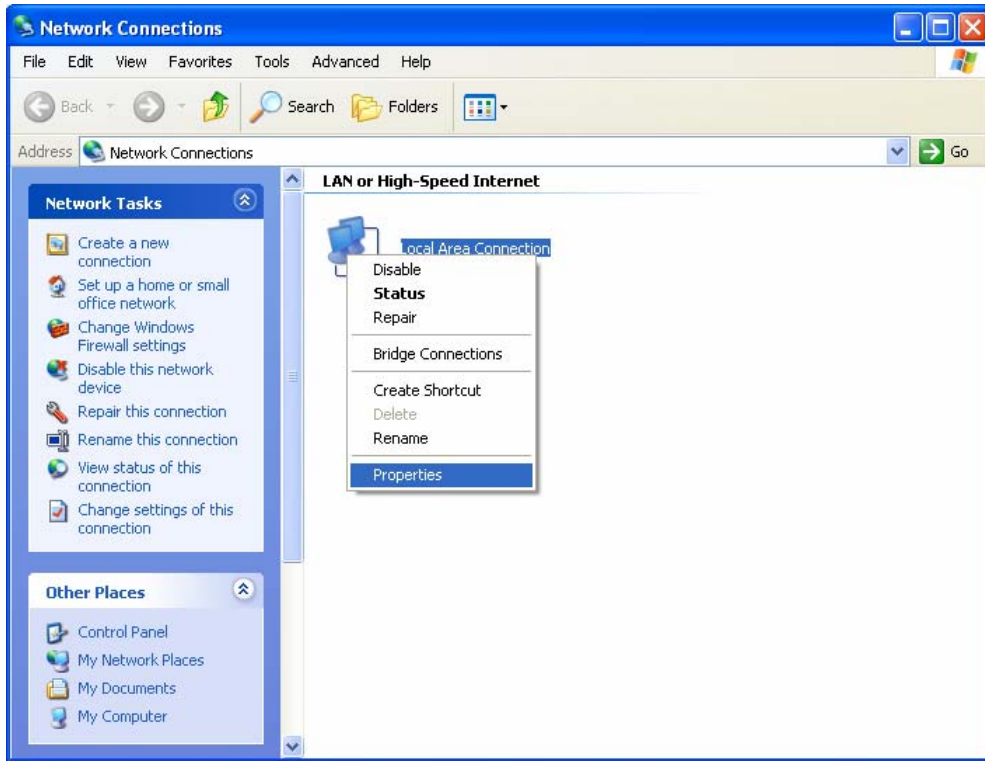


Figure 3-2

**Step 3:** Select **General** tab, highlight **Internet Protocol (TCP/IP)**, and then click the **Properties** button.

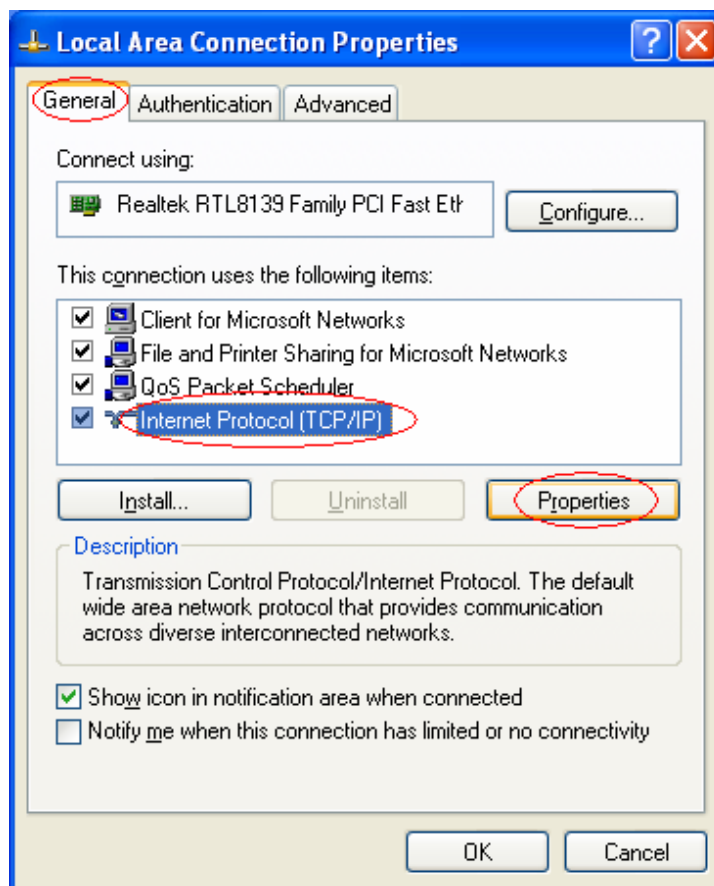


Figure 3-3

**Step 4:** Configure the IP address as Figure 3-4 shows. After that, click **OK**.

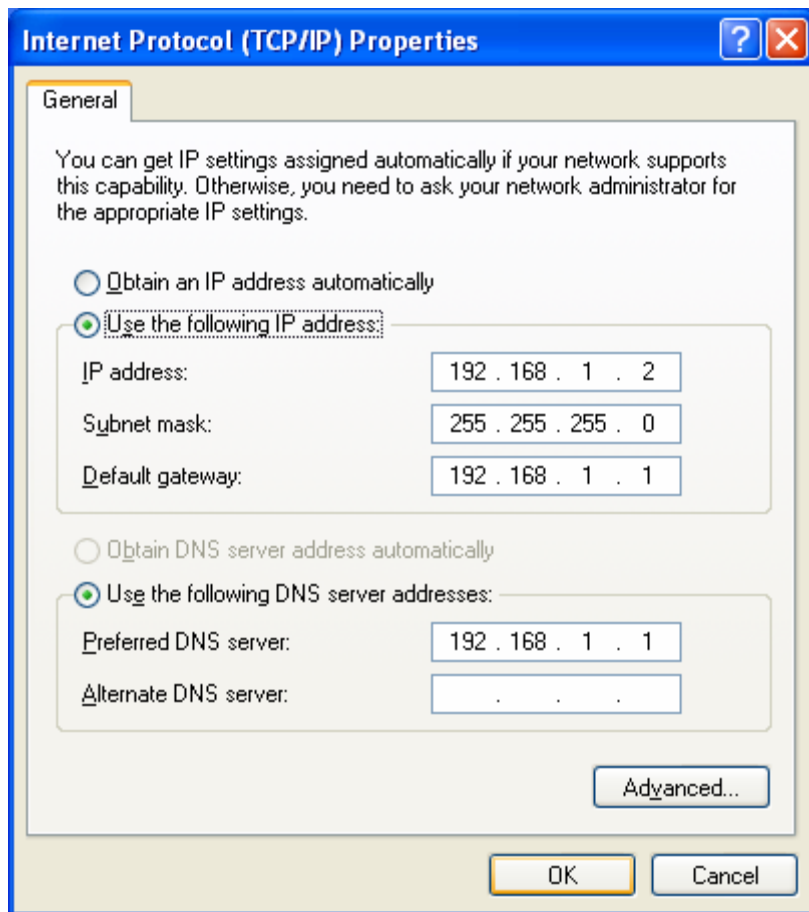


Figure 3-4

**Note:**

You can configure the PC to get an IP address automatically, select “Obtain an IP address automatically” and “Obtain DNS server address automatically” in the screen above.

Now, you can run the Ping command in the command prompt to verify the network connection. Please click the **Start** menu on your desktop, select **run** tab, type **cmd** or **command** in the field and press **Enter**. Type **ping 192.168.1.1** on the next screen, and then press **Enter**.

If the result displayed is similar to the screen below, the connection between your PC and the Modem Router has been established.

```
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 3-5



If the result displayed is similar to the screen shown below, it means that your PC has not connected to the Modem Router.

```
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 3-6

You can check it following the steps below:

**1) Is the connection between your PC and the Modem Router correct?**

The LEDs of LAN port which you link to the device and the LEDs on your PC's adapter should be lit.

**2) Is the TCP/IP configuration for your PC correct?**

If the Router's IP address is 192.168.1.1, your PC's IP address must be within the range of 192.168.1.2 ~ 192.168.1.254.

## 3.2 Login

Once your host PC is properly configured, please proceed as follows to use the Web-based Utility: Start your web browser and type the private IP address of the Router in the URL field: **192.168.1.1**.

1. To access the configuration utility, open a web-browser and type the default address `http://192.168.1.1` in the address field of the browser.



Figure 3-7

After a moment, a login window will appear, similar to the Figure 3-8. Enter **admin** for the User Name and Password, both in lower case letters. Then click the **OK** button or press the **Enter** key.

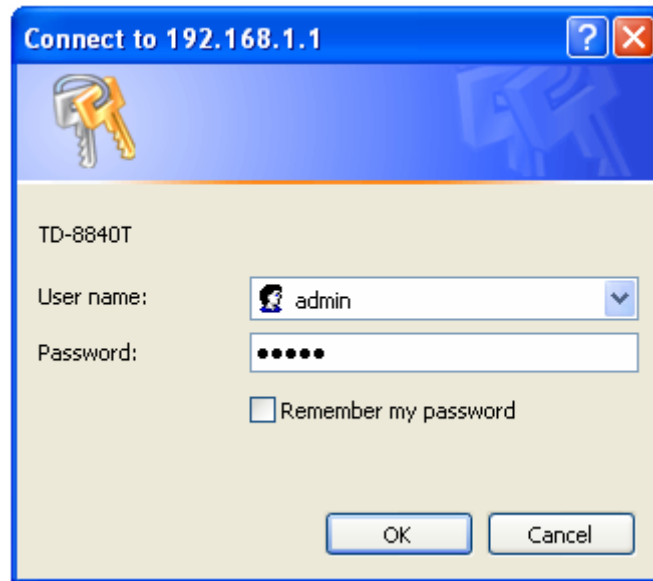


Figure 3-8

 **Note:**

- 1) Do not mix up the user name and password with your ADSL account user name and password which are needed for PPP connections.
- 2) If the above screen does not pop up, it means that your Web-browser has been set to a proxy. Go to **Tools** menu→**Internet Options**→**Connections**→**LAN Settings**, in the screen that appears, cancel the Using Proxy checkbox, and click **OK** to finish it.
2. After your successful login, you will see the Login screen as shown in Figure 3-9. Click **Quick Setup** menu to access **Quick Setup Wizard**.

Status	Basic Status																																																																																	
Quick Setup	<div style="border: 1px solid #ccc; padding: 5px;"> <p><b>Device Information</b></p> <p>Firmware version: 0.7.0 0.11 v0007.0 Build 120713 Rel.45664n                      Hardware version: TD-8840T v4 00000000                      System up time: 0 day(s) 01:19:33</p> <hr/> <p><b>DSL</b></p> <p>Line Status: DSL Disconnected                      DSL Modulation Type: Multimode                      Annex Type: Annex A/JV/L/M</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th></th> <th>Upstream</th> <th>Downstream</th> </tr> </thead> <tbody> <tr> <td>Current Rate (Kbps)</td> <td>0</td> <td>0</td> </tr> <tr> <td>Max Rate (Kbps)</td> <td>0</td> <td>0</td> </tr> <tr> <td>SNR Margin (db)</td> <td>0</td> <td>0</td> </tr> <tr> <td>Line Attenuation (db)</td> <td>0</td> <td>0</td> </tr> <tr> <td>Errors (Pkts)</td> <td>0</td> <td>0</td> </tr> </tbody> </table> <hr/> <p><b>WAN</b></p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Name</th> <th>Connection Type</th> <th>VPI/VCI</th> <th>IP/Mask</th> <th>Gateway</th> <th>DNS</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>br_1_32_0</td> <td>Bridge</td> <td>1/32</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td>DSL Disconnected</td> </tr> <tr> <td>br_0_33_1</td> <td>Bridge</td> <td>0/33</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td>DSL Disconnected</td> </tr> <tr> <td>br_0_35_2</td> <td>Bridge</td> <td>0/35</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td>DSL Disconnected</td> </tr> <tr> <td>br_0_100_3</td> <td>Bridge</td> <td>0/100</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td>DSL Disconnected</td> </tr> <tr> <td>br_8_35_4</td> <td>Bridge</td> <td>8/35</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td>DSL Disconnected</td> </tr> <tr> <td>br_8_48_5</td> <td>Bridge</td> <td>8/48</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td>DSL Disconnected</td> </tr> <tr> <td>br_0_38_6</td> <td>Bridge</td> <td>0/38</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td>DSL Disconnected</td> </tr> <tr> <td>pppoe_8_35_7</td> <td>PPPoE</td> <td>8/35</td> <td>0.0.0.0/0</td> <td>0.0.0.0</td> <td>0.0.0.0 0.0.0.0</td> <td>DSL Disconnected</td> </tr> </tbody> </table> <hr/> <p><b>LAN</b></p> <p>MAC Address: 00:AA:BB:01:23:45                      IP Address: 192.168.1.1                      Subnet Mask: 255.255.255.0                      DHCP: Enabled</p> </div>		Upstream	Downstream	Current Rate (Kbps)	0	0	Max Rate (Kbps)	0	0	SNR Margin (db)	0	0	Line Attenuation (db)	0	0	Errors (Pkts)	0	0	Name	Connection Type	VPI/VCI	IP/Mask	Gateway	DNS	Status	br_1_32_0	Bridge	1/32	N/A	N/A	N/A	DSL Disconnected	br_0_33_1	Bridge	0/33	N/A	N/A	N/A	DSL Disconnected	br_0_35_2	Bridge	0/35	N/A	N/A	N/A	DSL Disconnected	br_0_100_3	Bridge	0/100	N/A	N/A	N/A	DSL Disconnected	br_8_35_4	Bridge	8/35	N/A	N/A	N/A	DSL Disconnected	br_8_48_5	Bridge	8/48	N/A	N/A	N/A	DSL Disconnected	br_0_38_6	Bridge	0/38	N/A	N/A	N/A	DSL Disconnected	pppoe_8_35_7	PPPoE	8/35	0.0.0.0/0	0.0.0.0	0.0.0.0 0.0.0.0	DSL Disconnected
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br_1_32_0		Bridge	1/32	N/A	N/A	N/A	DSL Disconnected																																																																											
br_0_33_1		Bridge	0/33	N/A	N/A	N/A	DSL Disconnected																																																																											
br_0_35_2		Bridge	0/35	N/A	N/A	N/A	DSL Disconnected																																																																											
br_0_100_3		Bridge	0/100	N/A	N/A	N/A	DSL Disconnected																																																																											
br_8_35_4	Bridge	8/35	N/A	N/A	N/A	DSL Disconnected																																																																												
br_8_48_5	Bridge	8/48	N/A	N/A	N/A	DSL Disconnected																																																																												
br_0_38_6	Bridge	0/38	N/A	N/A	N/A	DSL Disconnected																																																																												
pppoe_8_35_7	PPPoE	8/35	0.0.0.0/0	0.0.0.0	0.0.0.0 0.0.0.0	DSL Disconnected																																																																												
Network																																																																																		
DHCP Server																																																																																		
Route Settings																																																																																		
Forwarding																																																																																		
Parent Control																																																																																		
Firewall																																																																																		
Bandwidth Control																																																																																		
IP & MAC Binding																																																																																		
Dynamic DNS																																																																																		
Diagnostic																																																																																		
System Tools																																																																																		

Figure 3-9

3. Change the VPI or VCI values which are used to define a unique path for your connection. If you have been given specific settings for this to configuration, type in the correct values assigned by your ISP. Click Next.

Quick Setup - DSL

Please enter the VPI/VCI provided by your ISP(Internet Service Provider).

**VPI:**  (Range: 0-255)  
**VCI:**  (Range: 1-65535)

Figure 3-10

4. Here we select PPPoE WAN Link Type for example, enter the Username, Password and Confirm Password given by your ISP, and then click Next.

**Quick Setup - PPPoE**

Please enter ADSL Username and Password. If you forget them, please consult your ISP.

**Username:**

**Password:**

**Confirm Password:**

[Previous](#) [Next](#)

Figure 3-11

- On this page, please confirm all parameters. Click **Previous** to modify or click the **Save** button to make the configuration take effect.

**Quick Setup - Save**

The setup is completed. Please confirm all parameters below. Click BACK to modify or click the SAVE button to make the configuration take effect.

Parameters Summary:

**DSL PVC:** 8/35

**Connection Type:** PPPoE

**PPPoE Username:** tpink

**PPPoE Password:** \*\*\*\*\*

[Previous](#) [Save](#)

Figure 3-12

- You will see the **Complete** screen below, click **Finish** to complete these settings.

**Quick Setup - Complete**

Setup Status:

**WAN Connection Configuring...** Success

**Gateway and DNS Configuring...** Success

Setup has completed. Please click FINISH to exit.

Note: If the Modem Router still can not connect to the Internet, please click "Network > WAN Settings" menu on the left to confirm the WAN connection type and mode on the WAN Settings page.

[Finish](#)

Figure 3-13

## Chapter 4. Configuring the Modem Router

This chapter will show each Web page's key function and the configuration way.

### 4.1 Login

After your successful login, you will see the fifteen main menus on the left of the Web-based utility. On the right, there are the corresponding explanations and instructions.

<b>Status</b>
Quick Setup
Network
DHCP Server
Route Settings
Forwarding
Parent Control
Firewall
Bandwidth Control
IP & MAC Binding
Dynamic DNS
Diagnostic
System Tools

The detailed explanations for each Web page's key function are listed below.

### 4.2 Status

Choose "**Status**", you can see the corresponding information about **Device Information**, **DSL**, **WAN** and **LAN**.

Basic Status						
<b>Device Information</b>						
Firmware version: 0.7.0 0.11 v0007.0 Build 120713 Rel.45664n						
Hardware version: TD-8840T v4 00000000						
System up time: 0 day(s) 01:19:33						
<b>DSL</b>						
Line Status: DSL Disconnected						
DSL Modulation Type: Multimode						
Annex Type: Annex A/V/J/L/M						
	Upstream			Downstream		
Current Rate (Kbps)	0			0		
Max Rate (Kbps)	0			0		
SNR Margin (db)	0			0		
Line Attenuation (db)	0			0		
Errors (Pkts)	0			0		
<b>WAN</b>						
Name	Connection Type	VPI/VCI	IP/Mask	Gateway	DNS	Status
br_1_32_0	Bridge	1/32	N/A	N/A	N/A	DSL Disconnected
br_0_33_1	Bridge	0/33	N/A	N/A	N/A	DSL Disconnected
br_0_35_2	Bridge	0/35	N/A	N/A	N/A	DSL Disconnected
br_0_100_3	Bridge	0/100	N/A	N/A	N/A	DSL Disconnected
br_8_35_4	Bridge	8/35	N/A	N/A	N/A	DSL Disconnected
br_8_48_5	Bridge	8/48	N/A	N/A	N/A	DSL Disconnected
br_0_38_6	Bridge	0/38	N/A	N/A	N/A	DSL Disconnected
pppoe_8_35_7	PPPoE	8/35	0.0.0.0 /0	0.0.0.0	0.0.0.0 0.0.0.0	DSL Disconnected
<b>LAN</b>						
MAC Address: 00:AA:BB:01:23:45						
IP Address: 192.168.1.1						
Subnet Mask: 255.255.255.0						
DHCP: Enabled						

Figure 4-1

### 4.3 Quick Setup

Please refer to Section [3.2 Login](#).

### 4.4 Network

Choose “**Network**”, there are many submenus under the main menu. Click any one of them, and you will be able to configure the corresponding function.

<b>Network</b>
WAN Settings
Interface Grouping
LAN Settings
MAC Clone
ALG Settings
DSL Settings

### 4.4.1 WAN Settings

Choose “**Network**”→“**WAN Settings**”, and you will see the WAN Port Information Table in the screen similar to Figure 4-2, which describes the WAN port settings and the relevant manipulation to each interface. There are five different configurations for the connection types, which are Static IP, Dynamic IP, PPPoE, IPoA, and Bridge. You can select the corresponding types according to your needs.

WAN Interface								
This page is for choosing the type of WAN interface. Choose Add, or Edit to configure a WAN interface.								
Name	Type	VPI/VCI	IP/MASK	Gateway	DNS	Status	Connect	Edit
br_1_32_0	Bridge	1/32	N/A	N/A	N/A	DSL Disconnected	<a href="#">Connect</a>	<a href="#">View Delete</a>
br_0_33_1	Bridge	0/33	N/A	N/A	N/A	DSL Disconnected	<a href="#">Connect</a>	<a href="#">View Delete</a>
br_0_35_2	Bridge	0/35	N/A	N/A	N/A	DSL Disconnected	<a href="#">Connect</a>	<a href="#">View Delete</a>
br_0_100_3	Bridge	0/100	N/A	N/A	N/A	DSL Disconnected	<a href="#">Connect</a>	<a href="#">View Delete</a>
br_8_35_4	Bridge	8/35	N/A	N/A	N/A	DSL Disconnected	<a href="#">Connect</a>	<a href="#">View Delete</a>
br_8_48_5	Bridge	8/48	N/A	N/A	N/A	DSL Disconnected	<a href="#">Connect</a>	<a href="#">View Delete</a>
br_0_38_6	Bridge	0/38	N/A	N/A	N/A	DSL Disconnected	<a href="#">Connect</a>	<a href="#">View Delete</a>
<input type="button" value="Add"/> <input type="button" value="Refresh"/>								

Figure 4-2

Click **Add** to add a new entry, you can configure the parameters for ATM and WAN Service in the next screen (shown in Figure 4-3).

**WAN Configuration**

---

WAN port can be set on this page.

**ATM Configuration**

VPI(0-255):

VCI(1-65535):

Notice: The current PVC has a plurality of connection, the following parameters prohibiting to modifying!

---

Hide ▲

Notice: Do not change the parameters below unless necessary!

Encapsulation Mode:

ATM QoS Type:

PCR:  Frames/s

SCR:  Frames/s

MBS:  Frames/s

---

**WAN Service Setup**

WAN Connection Type:

PPP Username:

PPP Password:

Confirm Password:

Choose the right connection type according to your needs:

- Connect on demand. The connection will be automatically on when there is Internet access  
Max Idle Time:  minutes (0 means remain active at all time)
- Connect automatically. The connection will be automatically on after startup or disconnection
- Connect manually, user connects manually  
Max Idle Time:  minutes (0 means remain active at all time)

Authentication Method:

Default Gateway:

---

Hide ▲

Service Name:  (do not change unless necessary)

Server Name:  (do not change unless necessary)

MTU(bytes):  (1480 as default, do not change unless necessary)

Enable Fullcone NAT

Enable SPI Firewall

Enable IGMP Proxy

Use IP address specified by ISP

Echo request interval:  (0~120 seconds, 0 means no request)

Set DNS server manually

---

Figure 4-3

#### 4.4.1.1 Static IP

Select this option if your ISP provides static IP information to you. You should set static IP address, IP subnet mask, and gateway address in the screen below.



WAN Configuration

WAN port can be set on this page.

**ATM Configuration**

VPI(0-255):

VCI(1-65535):

Notice: The current PVC has a plurality of connection, the following parameters prohibiting to modifying!

---

Hide ▲

Notice: Do not change the parameters below unless necessary!

Encapsulation Mode:

ATM QoS Type:

PCR:  Frames/s

SCR:  Frames/s

MBS:  Frames/s

---

**WAN Service Setup**

WAN Connection Type:

IP Address:

Subnet Mask:

Gateway:  (Optional)

DNS Server:  (Optional)

Secondary DNS server:  (Optional)

Default Gateway:

---

Hide ▲

MTU(bytes):  (1500 as default, do not change unless necessary)

Enable NAT

Enable Fullcone NAT

Enable SPI Firewall

Enable IGMP Proxy

Figure 4-4

#### ATM Configuration:

- **VPI (0~255):** Identifies the virtual path between endpoints in an ATM network. The valid range is from 0 to 255. Please input the value provided by your ISP.
- **VCI (1~65535):** Identifies the virtual channel endpoints in an ATM network. The valid range is from 1 to 65535 (1 to 31 is reserved for well-known protocols). Please input the value provided by your ISP.

Click **Advanced**, advanced selections of ATM Configuration can be shown.

- **Encapsulation Mode:** Select the encapsulation mode for the Static IP Address. Here you can leave it default.
- **ATM Qos Type:** Select ATM Qos Type provided by ISP, and the type is UBR by default.

#### WAN Service Setup:

- **IP Address:** Enter the IP address in dotted-decimal notation provided by your ISP.
- **Subnet Mask:** Enter the subnet Mask in dotted-decimal notation provided by your ISP, usually is 255.255.255.0.
- **Default Gateway (Optional):** Enter the gateway IP address in dotted-decimal notation provided by your ISP.
- **DNS Server/ Secondary DNS Server:** Here you can set DNS Server (at least one) manually. The Route will use this DNS Server for priority.

- **Default Gateway:** select a WAN Interface from the drop-down list as the IPv4 default gateway.
- **MTU (bytes):** Maximum Transmission Unit Size. Check this box then you can change the MTU size. The default **MTU** value is 1500 Bytes. It is not recommended that you change the default value unless required by your ISP.
- **Enable NAT:** This technology translates the IP addresses of a local area network to a different IP address for the Internet. If this Modem Router is hosting your network's connection to the Internet, please select the check box. If another Router exists in your network, you don't need to select the option.
- **Enable Fullcone NAT:** It is a type of NAT, if not enabled, the default NAT will act.
- **Enable SPI Firewall:** A SPI firewall enhances network's security. Select the option to use a firewall, or else without a firewall.
- **Enable IGMP Proxy:** IGMP (Internet Group Management Protocol) is used to manage multicasting on TCP/IP networks. Some ISPs use IGMP to perform remote configuration for client devices, such as the Modem Router. The default value is disabled, and if you are not sure, please contact your ISP or just leave it.

Click the **Save** button to save the settings.

#### 4.4.1.2 Dynamic IP

Select this option, the Modem Router will be able to obtain IP network information dynamically from a DHCP server provided by your ISP.

WAN Configuration

WAN port can be set on this page.

**ATM Configuration**

VPI(0-255):

VCI(1-65535):

Notice: The current PVC has a plurality of connection, the following parameters prohibiting to modifying!

---

Notice: Do not change the parameters below unless necessary! Hide ▲

Encapsulation Mode:

ATM QoS Type:

PCR:  Frames/s

SCR:  Frames/s

MBS:  Frames/s

---

**WAN Service Setup**

WAN Connection Type:

IP Address:

Subnet Mask:

Gateway:

Default Gateway:

---

MTU(bytes):  (1500 as default, do not change unless necessary) Hide ▲

Enable NAT

Enable Fullcone NAT

Enable SPI Firewall

Enable IGMP Proxy

Get IP with Unicast  (It is usually not required.)

Set DNS server manually

Host Name:

Figure 4-5

Click **Advanced**, advanced selections for WAN Service Setup can be shown.

- **MTU (bytes):** Maximum Transmission Unit Size. Check this box then you can change the MTU size. The default **MTU** value is 1500 Bytes. It is not recommended that you change the default value unless required by your ISP.
- **Enable NAT:** This technology translates the IP addresses of a local area network to a different IP address for the Internet. If this Modem Router is hosting your network's connection to the Internet, please select the check box. If another Router exists in your network, you don't need to select the option.
- **Enable Fullcone NAT:** It is a type of NAT, if not enabled, the default NAT will act.
- **Enable SPI Firewall:** A SPI firewall enhances network's security. Select the option to use a firewall, or else without a firewall.
- **Enable IGMP Proxy:** IGMP (Internet Group Management Protocol) is used to manage multicasting on TCP/IP networks. Some ISPs use IGMP to perform remote configuration for client devices, such as the Modem Router. The default value is disabled, and if you are not sure, please contact your ISP or just leave it.
- **Get IP Unicast:** This is disabled by default. The minority of DHCP Server of ISP will not support to enable this. When the Route is connected right but IP cannot get, you can select this box.

- **Primary DNS Server/ Secondary DNS Server:** Choose “Set DNS Server manually”, you can set DNS Server (at least one) manually here. The Route will use this DNS Server for priority.

Click the **Save** button to save the settings.

#### 4.4.1.3 PPPoE

If your ISP provides a **PPPoE** connection and you need to use an ATM Interface, choose **PPPoE** in the drop-down list, and then the screen will be displayed as below.

WAN Configuration

---

WAN port can be set on this page.

**ATM Configuration**

VPI(0-255):

VCI(1-65535):

Notice: The current PVC has a plurality of connection, the following parameters prohibiting to modifying!

---

Hide ▾

Notice: Do not change the parameters below unless necessary!

**Encapsulation Mode:**

**ATM QoS Type:**

**PCR:**  Frames/s

**SCR:**  Frames/s

**MBS:**  Frames/s

---

**WAN Service Setup**

**WAN Connection Type:**

**PPP Username:**

**PPP Password:**

**Confirm Password:**

Choose the right connection type according to your needs:

Connect on demand. The connection will be automatically on when there is Internet access  
Max Idle Time:  minutes (0 means remain active at all time)

Connect automatically. The connection will be automatically on after startup or disconnection

Connect manually, user connects manually  
Max Idle Time:  minutes (0 means remain active at all time)

**Authentication Method:**

**Default Gateway:**

---

Hide ▾

**Service Name:**  (do not change unless necessary)

**Server Name:**  (do not change unless necessary)

**MTU(bytes):**  (1480 as default, do not change unless necessary)

**Enable Fullcone NAT:**

**Enable SPI Firewall:**

**Enable IGMP Proxy:**

**Use IP address specified by ISP:**

**Echo request interval:**  (0~120 seconds, 0 means no request)

**Set DNS server manually:**

---

Figure 4-6

- **PPP Username/Password/Confirm Password:** Enter the User Name, Password and Confirm Password provided by your ISP. These fields are case-sensitive.
- **Authentication Method:** Select the **Authentication Method** from the drop-down list, the default method is **AUTO\_AUTH**, and you can leave it as a default setting.

- **Choose the right connection type according to your needs:** For PPPoE connection, you can select **Connect on demand** or **Connect automatically** or **Connect manually**. Connect on demand is dependent on the traffic. If there is no traffic (or **Idle** for a pre-specified period of time), the connection will tear down automatically. And once there is traffic send or receive, the connection will be automatically on.

Click **Advanced**, advanced selections for WAN Service Setup can be shown.

- **Service Name/Server Name:** Enter the Service Name and Server Name if it was provided by your ISP. You can leave them blank, if the ISP doesn't provide them.

#### 4.4.1.4 PPPoA

If your ISP provides a **PPPoA** connection and you need to use an ATM Interface, choose **PPPoA** in the drop-down list, and then the screen will be displayed as below.

The configuration is similar to **PPPoE**. Please refer to the section [4.4.1.3 PPPoE](#) to configure this part.

WAN Configuration

---

WAN port can be set on this page.

**ATM Configuration**

VPI(0-255):

VCI(1-65535):

Hide ▾

---

Notice: Do not change the parameters below unless necessary!

**Encapsulation Mode:**  ▾

**ATM QoS Type:**  ▾

**PCR:**  Frames/s

**SCR:**  Frames/s

**MBS:**  Frames/s

---

**WAN Service Setup**

**WAN Connection Type:**  ▾

**PPP Username:**

**PPP Password:**

**Confirm Password:**

Choose the right connection type according to your needs:

Connect on demand. The connection will be automatically on when there is Internet access  
Max Idle Time:  minutes (0 means remain active at all time)

Connect automatically. The connection will be automatically on after startup or disconnection

Connect manually. User connects manually  
Max Idle Time:  minutes (0 means remain active at all time)

**Authentication Method:**  ▾

**Default Gateway:**  ▾

Hide ▾

---

**MTU(bytes):**  (1480 as default, do not change unless necessary)

**Enable SPI Firewall**

**Enable IGMP Proxy**

**Use IP address specified by ISP**

**Echo request interval:**  (0~120 seconds, 0 means no request)

**Set DNS server manually**

Figure 4-7

#### 4.4.1.5 IPoA

If your ISP provides an IPoA connection, select **IPoA** option for the **WAN service type** on the screen.

WAN Configuration

---

WAN port can be set on this page.

**ATM Configuration**

VPI(0-255):

VCI(1-65535):

---

Hide ▾

Notice: Do not change the parameters below unless necessary!

**Encapsulation Mode:** LLC ▾

**ATM QoS Type:** UBR ▾

**PCR:**  Frames/s

**SCR:**  Frames/s

**MBS:**  Frames/s

---

**WAN Service Setup**

**WAN Connection Type:** IPoA ▾

**IP Address:**

**Subnet Mask:**

**GateWay:**

**DNS Server:**  (Optional)

**Secondary DNS server:**  (Optional)

**Default Gateway:** Current Connection ▾

---

Hide ▾

**MTU(bytes):**  (1500 as default, do not change unless necessary)

**Enable NAT:**

**Enable SPI Firewall:**

**Enable IGMP Proxy:**

---

Figure 4-8

- **IP Address/Subnet Mask:** Enter the IP Address and Subnet Mask provided by ISP. If you forget, you can ask your ISP.
- **DNS Server/Secondary DNS Server:** Type in your preferred DNS server.
- **Default Gateway:** select a WAN Interface from the drop-down list as the IPv4 default gateway.

#### 4.4.1.6 Bridge

If you select this type of connection, the modem can be configured to act as a bridging device between your LAN and your ISP. Bridges are devices that enable two or more networks to communicate as if they are two segments of the same physical LAN.

**WAN Configuration**

WAN port can be set on this page.

**ATM Configuration**

VPI(0-255):

VCI(1-65535):

Notice: Do not change the parameters below unless necessary! Hide ▾

**Encapsulation Mode:**  ▾

**ATM QoS Type:**  ▾

**PCR:**  Frames/s

**SCR:**  Frames/s

**MBS:**  Frames/s

---

**WAN Service Setup**

**WAN Connection Type:**  ▾

Figure 4-9

**Note:**

After you finish the Internet configuration, please click **Save** to make the settings take effect.

### 4.4.2 Interface Grouping

Choose “**Network**”→“**Interface Grouping**”, you can view all the current groups on this page (shown in Figure 4-10).

**Interface Grouping**

This page displays all the current groups. Please click the Add or Delete button to configure the groups.

Note: It is not allowed to disable the VLAN with Ethernet Connection enabled.

VLAN:  Enable  Disable

Grouping	Delete	WAN	LAN
Default		br_1_32_0	LAN4
		br_0_33_1	LAN3
		br_0_35_2	LAN2
		br_0_100_3	LAN1
		br_8_35_4	
		br_8_48_5	
		br_0_38_6	

Figure 4-10

- **VLAN:** Enable or disable this function. Virtual LAN (VLAN) is a group of devices on one or more LANs that are configured so that they can communicate as if they were attached to the same LAN, when in fact they are located on a number of different LAN segments. Because VLANs are based on logical instead of physical connections, it is very flexible for user/host management, bandwidth allocation and resource optimization. If you want to active this function, this function must be enabled.

To support this feature, you must create mapping groups with appropriate LAN and WAN interfaces using the **Add** button. The **Remove** button will remove the grouping and add the ungrouped interfaces to the Default group. Only the default group has IP interface.

Click the **Add** button. You can add a new interface group in the next screen. For example, you want LAN1 and LAN3 to be a group called Group 1 over br\_0\_35\_0 WAN interface, you can refer to the following figure.

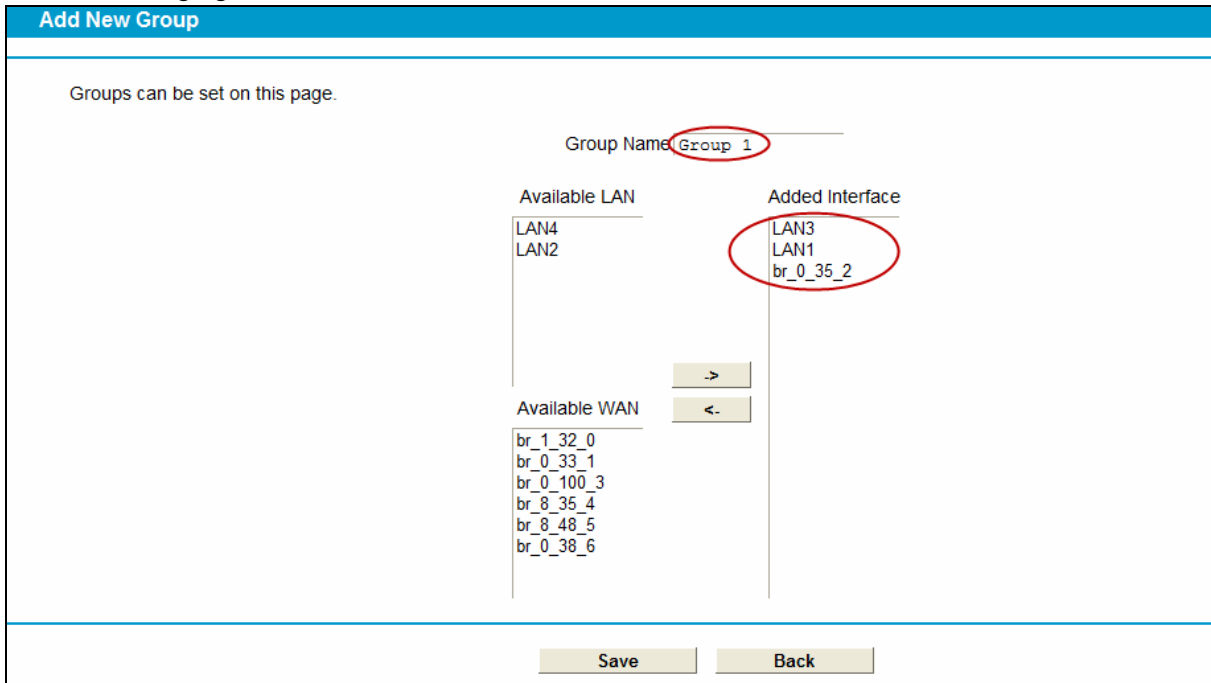


Figure 4-11

Click **Save** to make the entry effective immediately

### 4.4.3 LAN Settings

Choose “**Network**”→“**LAN Settings**” menu, and you will see the LAN screen (shown in Figure 4-12). Please configure the parameters for LAN ports according to the descriptions below.

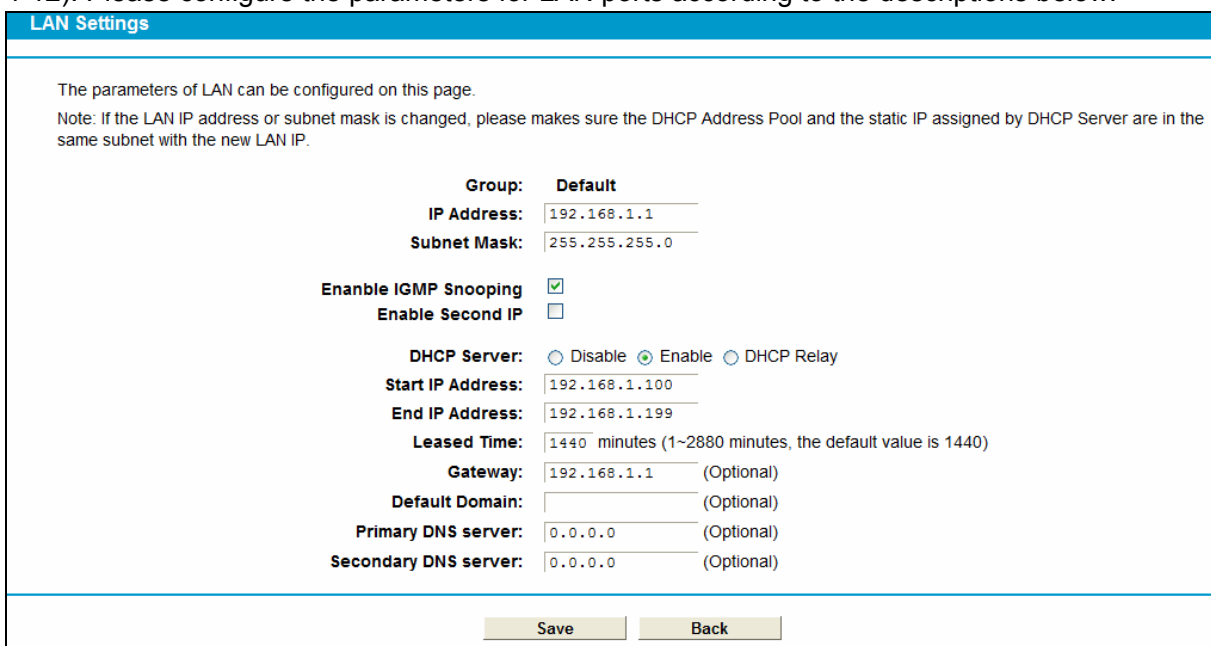


Figure 4-12



- **IP Address:** You can configure the Modem Router's IP Address and Subnet Mask for LAN Interface.
  - **IP Address:** Enter the Modem Router's local IP Address, then you can access to the Web-based Utility via the IP Address, the default value is 192.168.1.1.
  - **Subnet Mask:** Enter the Modem Router's Subnet Mask, the default value is 255.255.255.0.
- **Enable IGMP Snooping:** If you select the option, please choose the IGMP Mode: Standard Mode or Blocking Mode.
- **Enable Second IP:** You can configure the Modem Router's second IP Address and Subnet Mask for LAN Interface through which you can also access to the Web-based Utility as the default IP Address and Subnet Mask.
- **DHCP Server:** These settings allow you to configure the Modem Router's Dynamic Host Configuration Protocol (DHCP) server function. The DHCP server is enabled by default for the Modem Router's Ethernet LAN interface. DHCP service will supply IP settings to computers which are configured to automatically obtain IP settings that are connected to the Modem Router though the Ethernet port. When the Modem Router is set for DHCP, it becomes the default gateway for DHCP client connected to it. Keep in mind that if you change the IP address of the Modem Router, you must change the range of IP addresses in the pool used for DHCP on the LAN.
  - **Start IP Address:** Enter a value for the DHCP server to start with when issuing IP addresses. Because the default IP address for the Modem Router is 192.168.1.1, the default Start IP Address is **192.168.1.100**, and the Start IP Address must be 192.168.1.100 or greater, but smaller than 192.168.1.254.
  - **End IP Address:** Enter a value for the DHCP server to end with when issuing IP addresses. The End IP Address must be smaller than 192.168.1.254. The default End IP Address is **192.168.1.254**.
  - **Leased Time:** The Leased Time is the amount of time in which a network user will be allowed connection to the Modem Router with their current dynamic IP address. Enter the amount of time, in hours, then the user will be "leased" this dynamic IP address. After the dynamic IP address has expired, the user will be automatically assigned a new dynamic IP address. The default is **1440** minutes.

The detailed configuration about DHCP server, please refer to section [4.5 DHCP Server](#).

#### 4.4.4 MAC Clone

Choose menu "**Advanced Setup**"→"**MAC Clone**", you can configure the MAC address of the WAN Interface as shown below.

You can select corresponding WAN Interface from the drop-down list and click **Clone** button to clone your current PC MAC, and then click **Save**.

**MAC Clone**

The MAC address of WAN can be set on this page.

WAN Connection	MAC Address	Operation
Current PC's MAC	40:61:86:E5:B2:DC	MAC Clone To <input type="text"/>

Note: Only the PCs in LAN can use this function. MAC clone may cause reconnection. After MAC Clone, the bridge connections sharing the same VPI/VCI with other connections may not work. To make sure other connections can work well, we suggest that you avoid cloning the same MAC address to them.

Figure 4-13

**Note:**

Only the WAN Ports can use MAC Address Clone function. All the clone MAC addresses must not be the same with each other.

### 4.4.5 ALG Settings

Choose menu “**Advanced Setup**”→“**ALG Settings**”, and then you can configure the basic security in the screen as shown in Figure 4-14.

**Application Layer Gateway Settings**

This page allows you to enable or disable gateway of application layer.

**Virtual Private Network(VPN)**

**PPTP Pass-through:**  Enable  Disable

**L2TP Pass-through:**  Enable  Disable

**IPSec Pass-through:**  Enable  Disable

**Application Layer Gateway(ALG)**

**FTP ALG:**  Enable  Disable

**TFTP ALG:**  Enable  Disable

Figure 4-14

- **Virtual Private Network (VPN)** - VPN Passthrough must be enabled if you want to allow VPN tunnels using VPN protocols to pass through the Modem Router.
  - **PPTP Pass-through** - Point-to-Point Tunneling Protocol (PPTP) allows the Point-to-Point Protocol (PPP) to be tunneled through an IP network. To allow PPTP tunnels to pass through the Modem Router, click **Enable**.
  - **L2TP Pass-through** - Layer Two Tunneling Protocol (L2TP) is the method used to enable Point-to-Point sessions via the Internet on the Layer Two level. To allow L2TP tunnels to pass through the Modem Router, click **Enable**.
  - **IPSec Pass-through** - Internet Protocol security (IPSec) is a suite of protocols for ensuring private, secure communications over Internet Protocol (IP) networks, through the use of cryptographic security services. To allow IPSec tunnels to pass through the Modem Router, click **Enable**.
- **Application Layer Gateway (ALG)** - It is recommended to enable Application Layer Gateway (ALG) because ALG allows customized Network Address Translation (NAT) traversal filters to be plugged into the gateway to support address and port translation for certain application

layer "control/data" protocols such as FTP, TFTP etc.

- **FTP ALG** - To allow FTP clients and servers to transfer data across NAT, click **Enable**.
- **TFTP ALG** - To allow TFTP clients and servers to transfer data across NAT, click **Enable**.

Click the **Save** button to save your settings.

#### 4.4.6 DSL Settings

Choose "**Advanced Setup**"→"**DSL Settings**", you can select the DSL Modulation Type and Annex Type in the next screen. The DSL feature can be selected when you meet the physical connection problem. Please check the proper settings with your Internet service provider.

Figure 4-15

- **DSL Modulation Type:** Select the DSL operation Modulation Type which your DSL connection uses.
- **Annex Type:** Select the DSL operation Annex Type which your DSL connection uses.

Click the **Save** button to save your settings.

### 4.5 DHCP Server

Choose "**DHCP Server**", you can see the next submenus:



Click any of them, and you will be able to configure the corresponding function.

#### 4.5.1 DHCP Settings

Choose menu "**DHCP Server**"→"**DHCP Settings**", you can configure the DHCP Server on the page as shown in Figure 4-16. The Modem Router is set up by default as a DHCP (Dynamic Host Configuration Protocol) server, which provides the TCP/IP configuration for all the PC(s) that are connected to the Modem Router on the LAN.

DHCP Settings

This page allows you to set DHCP server which provides TCP/IP configuration for all the PCs connected to the Modem Router in the LAN.

<b>Groups:</b>	Default
<b>IP Address:</b>	192.168.1.1
<b>Subnet Mask:</b>	255.255.255.0
<b>DHCP Server:</b>	<input type="radio"/> Disable <input checked="" type="radio"/> Enable <input type="radio"/> DHCP Relay

<b>Start IP Address:</b>	<input type="text" value="192.168.1.100"/>
<b>End IP Address:</b>	<input type="text" value="192.168.1.199"/>
<b>Address Lease Time:</b>	<input type="text" value="1440"/> minutes (1~2880 minutes, the default value is 120)
<b>Default Gateway:</b>	<input type="text" value="192.168.1.1"/> (optional)
<b>Default Domain:</b>	<input type="text"/> (optional)
<b>Primary DNS:</b>	<input type="text" value="0.0.0.0"/> (optional)
<b>Secondary DNS:</b>	<input type="text" value="0.0.0.0"/> (optional)

Figure 4-16

- **Start IP Address:** Enter a value for the DHCP server to start with when issuing IP addresses. Because the default IP address for the Modem Router is 192.168.1.1, the default Start IP Address is **192.168.1.100**, and the Start IP Address must be 192.168.1.100 or greater, but smaller than 192.168.1.254.
- **End IP Address:** Enter a value for the DHCP server to end with when issuing IP addresses. The End IP Address must be smaller than 192.168.1.254. The default End IP Address is **192.168.1.254**.
- **Address Lease Time:** The Leased Time is the amount of time in which a network user will be allowed connection to the Modem Router with their current dynamic IP address. Enter the amount of time, in hours, then the user will be “leased” this dynamic IP address. After the dynamic IP address has expired, the user will be automatically assigned a new dynamic IP address. The default is **24** hours.
- **Default Gateway** - (Optional.) It is suggested to input the IP address of the LAN port of the Modem Router. The default value is 192.168.1.1.
- **Default Domain** - (Optional.) Input the domain name of your network.
- **Primary DNS** - (Optional.) Input the DNS IP address provided by your ISP or consult your ISP.
- **Secondary DNS** - (Optional.) Input the IP address of another DNS server if your ISP provides two DNS servers.
- **DHCP Relay:** Select **Relay**, then you will see the next screen, and the Modem Router will work as a DHCP Relay. A DHCP relay is a computer that forwards DHCP data between computers that request IP addresses and the DHCP server that assigns the addresses. Each of the device's interfaces can be configured as a DHCP relay. If it is enabled, the DHCP requests from local PCs will forward to the DHCP server runs on WAN side. To have this function working properly, please run on router mode only, disable the DHCP server on the LAN port, and make sure the routing table has the correct routing entry.

<b>Groups:</b>	Default
<b>IP Address:</b>	192.168.1.1
<b>Subnet Mask:</b>	255.255.255.0
<b>DHPC Server:</b>	<input type="radio"/> Disable <input type="radio"/> Enable <input checked="" type="radio"/> DHCP Relay
<b>Remote Server's IP Address:</b>	<input type="text" value="0.0.0.0"/>
<small>Note: You have to disable NAT of the WAN connections. Or the DHCP Relay may not take effect!</small>	
<input type="button" value="Save"/>	

**Note:**

- 1) To use the DHCP server function of the Modem Router, you must configure all computers on the LAN as "Obtain an IP Address automatically".
- 2) You have to disable NAT of the WAN connections, or the DHCP Relay may not take effect.
- 3) If you select **Disabled**, the DHCP function will not take effect.

Click the **Save** button to save your settings.

### 4.5.2 Clients List

Choose menu **"DHCP Server" → "Clients List"**, you can view the information about the clients attached to the Modem Router in the screen as shown in Figure 4-17.

DHCP Clients List				
This page displays the information of DHCP clients.				
ID	Client Name	MAC Address	IP Address	Valid Time
1	tplink13488	40:61:86:E5:B2:DC	192.168.1.100	23:42:05
<input type="button" value="Refresh"/>				

Figure 4-17

- **Client Name:** The name of the DHCP client
- **MAC Address:** The MAC address of the DHCP client
- **IP Address:** The IP address that the Modem Router has allocated to the DHCP client
- **Valid Time:** The time of the DHCP client leased. After the dynamic IP address has expired, a new dynamic IP address will be automatically assigned to the user.

You cannot change any of the values on this page. To update this page and to show the current attached devices, click the **Refresh** button.

### 4.5.3 Address Reservation

Choose menu **"DHCP Server" → "Address Reservation"**, you can view and add a reserved address for clients via the next screen (shown in Figure 4-18). When you specify a reserved IP address for a PC on the LAN, that PC will always receive the same IP address each time when it accesses the DHCP server. Reserved IP addresses should be assigned to the servers that require permanent IP settings.

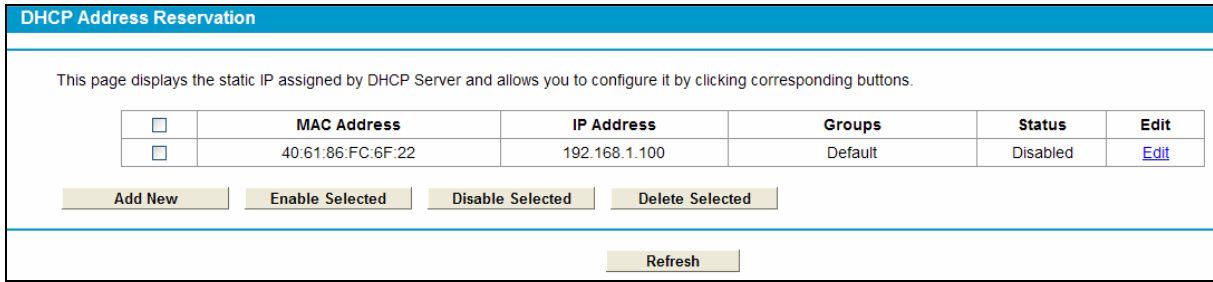


Figure 4-18

- **MAC Address:** The MAC address of the PC for which you want to reserve an IP address.
- **IP Address:** The IP address reserved for the PC by the Modem Router.
- **Status:** The status of this entry either **Enabled** or **Disabled**.

**To Reserve an IP address:**

1. Click the **Add New** button. Then Figure 4-19 will pop up.
2. Enter the MAC address (in XX:XX:XX:XX:XX:XX format.) and IP address (in dotted-decimal notation) of the computer for which you want to reserve an IP address.
3. Click the **Save** button.

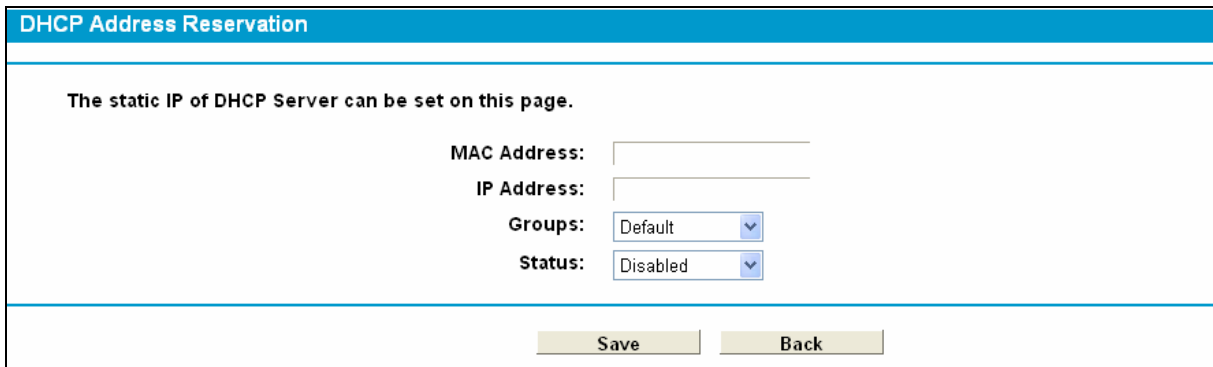


Figure 4-19

**To modify or delete an existing entry:**

1. Click the **Edit** in the entry you want to modify. If you want to delete the entry, click the **Delete**.
2. Modify the information.
3. Click the **Save** button.

Click the **Enable/Disable Selected** button to make selected entries enabled/disabled.

Click the **Delete Selected** button to selected entries.

**4.5.4 Conditional Pool**

Choose menu “**DHCP Server**”→“**Conditional Pool**”, you can see the next screen (shown in Figure 4-20). This page displays vendor class settings and allows you to set parameters for vendor class by clicking corresponding buttons.

This page displays vendor class settings and allows you to set parameters for vendor class by clicking corresponding buttons.

<input type="checkbox"/>	Vendor ID	Start IP Address/ End IP Address	Facility	Groups	Status	Edit
<p style="text-align: center;"> <input type="button" value="Add New"/> <input type="button" value="Enable Selected"/> <input type="button" value="Disable Selected"/> <input type="button" value="Delete Selected"/> </p> <p style="text-align: center;"> <input type="button" value="Refresh"/> </p>						

Figure 4-20

**To add a vendor class:**

1. Click the **Add New** button. Then Figure 4-21 will pop up.
2. Enter parameters for the vendor class.

Click the **Save** button.

The vendor class IP range can be set on this page.

**Facility:**   
**Vendor ID:**   
**Start IP Address:**   
**End IP Address:**   
**Default Gateway:**   
**Device Type:** PC   
**Add Option:** Option 241   
**Option Value:**   
**Groups:** Default   
**Status:** Disabled

Figure 4-21

**To modify or delete an existing entry:**

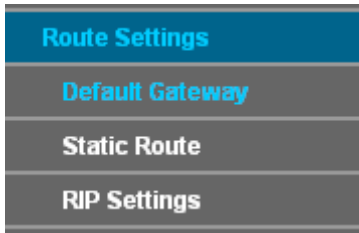
4. Click the **Edit** in the entry you want to modify. If you want to delete the entry, click the **Delete**.
5. Modify the information.
6. Click the **Save** button.

Click the **Enable/Disable Selected** button to make selected entries enabled/disabled.

Click the **Delete Selected** button to selected entries.

## 4.6 Route Settings

Choose “**Route Settings**”, it includes three menus: **Default Gateway**, **Static Route** and **RIP Settings**. The detailed descriptions are provided below.



#### 4.6.1 Default Gateway

Choose “**Route Settings**”→“**Default Gateway**”, you can see the Default Gateway screen. You can select a WAN Interface from the drop-down list as the system default gateway.

 A screenshot of the "Default Gateway Setting" screen. It has a blue header with the title. Below the header, it says "Select a preferred WAN interface as the system default gateway." There is a label "Select WAN Interface:" followed by a dropdown menu showing "No available interface." and a button labeled "Add Interface". At the bottom center, there is a "Save" button.

Figure 4-22

Click the **Add Interface** button, you can add WAN Interfaces.

Click the **Save** button to save your settings.

#### 4.6.2 Static Route

Choose “**Route Settings**”→ “**Static Route**”. You can see the Static Route screen, this screen allows you to configure the static routes (shown in Figure 4-23). A static route is a pre-determined path that network information must travel to reach a specific host or network.

 A screenshot of the "Static Route" screen. It has a blue header with the title. Below the header, it says "This page displays static route table. Click relevant button to configure it." There is a table with the following data:
 

<input type="checkbox"/>	Destination IP Address	Subnet Mask	Gateway	Status	Edit
<input type="checkbox"/>	202.96.134.210	255.255.255.0	172.30.74.1	Enabled	<a href="#">Edit</a>

 Below the table, there are four buttons: "Add New", "Enable Selected", "Disable Selected", and "Delete Selected". At the bottom center, there is a "Refresh" button.

Figure 4-23

**To add static routing entries:**

1. Click the **Add New** button in Figure 4-23, and you will see the screen as shown in Figure 4-24.



Figure 4-24

2. Enter the following data:
  - **Destination IP Address:** The **Destination IP Address** is the address of the network or host that you want to assign to a static route.
  - **Subnet Mask:** The **Subnet Mask** determines which portion of an IP Address is the network portion, and which portion is the host portion.
  - **Gateway:** Here you should type the Gateway address correctly, and the option for **Interface** will adopt the default Gateway address for the Static Route.
  - **Interface:** Select the Interface name in the text box, or else, the default Use Interface will be adopted for the Static Route.
  - **Status:** Select **Enabled** or **disabled** from the drop-down list.
3. Click **Save** to save your settings as shown in Figure 4-24.

**To modify or delete an existing entry:**

1. Find the desired entry in the table.
2. Click **Edit** as desired on the **Edit** column.

Click the **Enable/ Disabled Selected** button to make selected entries enabled/ disabled.

Click the **Delete Selected** button to delete selected entries.

**4.6.3 RIP Settings**

Choose “**Route Settings**”→“**RIP Settings**”, you can see the RIP (Routing Information Protocol) screen which allows you to configure the RIP.

Figure 4-25

**Note:**

RIP cannot be configured on the WAN Interface which has NAT enabled (such as PPPoE).

## 4.7 Forwarding

<b>Forwarding</b>
Virtual Servers
Port Triggering
DMZ
UPnP

There are four submenus under the Forwarding menu: **Virtual Servers**, **Port Triggering**, **DMZ** and **UPnP**. Click any of them, and you will be able to configure the corresponding function.

### 4.7.1 Virtual Servers

Choose menu “**Forwarding**” → “**Virtual Servers**”, and then you can view and add virtual servers in the next screen (shown in Figure 4-26). Virtual servers can be used for setting up public services on your LAN. A virtual server is defined as a service port, and all requests from Internet to this service port will be redirected to the computer specified by the server IP. Any PC that was used for a virtual server must have a static or reserved IP address because its IP address may change when using the DHCP function.

Virtual Server						
Virtual server defines the mapping from WAN service port to LAN server. All requests from the Internet to this service port will be redirected to the computer specified by the server IP.						
<input type="checkbox"/>	Service Port	IP Address	Protocol	Status	WAN	Edit
<input type="checkbox"/>	21	192.168.1.100	TCP or UDP	Enabled	pppoe_8_35_2	<a href="#">Edit</a>
<input type="button" value="Add New"/> <input type="button" value="Enable Selected"/> <input type="button" value="Disable Selected"/> <input type="button" value="Delete Selected"/>						
<input type="button" value="Refresh"/>						

Figure 4-26

- **Service Port:** The numbers of External Service Ports. You can enter a service port or a range of service ports (the format is XXX – YYY; XXX is the Start port and YYY is the End port).
- **IP Address:** The IP address of the PC running the service application.
- **Protocol:** The protocol used for this application, either **TCP**, **UDP**, or **All** (all protocols supported by the Modem Router).
- **Status:** The status of this entry, "Enabled" means the virtual server entry is enabled.
- **Edit:** To modify or delete an existing entry.

#### To setup a virtual server entry:

1. Click the **Add New** button. (pop-up Figure 4-27)
2. Select the service you want to use from the **Common Service Port** list. If the **Common Service Port** menu does not list the service that you want to use, enter the number of the service port or service port range in the **Service Port** field.
3. Select the service you want to use from the **Use Interface** list.
4. Enter the IP address of the computer running the service application in the **IP Address** field.

5. Select the protocol used for this application in the **Protocol** drop-down list, either **TCP**, **UDP**, or **All**.
6. Select the **Enabled** option in the **Status** drop-down list.

Click the **Save** button.

**Virtual Server**

Virtual server defines the mapping from WAN service port to LAN server. All requests from the Internet to this service port will be redirected to the computer specified by the server IP.  
Note: Virtual Server setup is supported only when there is available interface.

**Use Interface:**

**Service Port:**  (XX-XX or XX)

**IP Address:**

**Protocol:**

**Status:**

**Common Service Port:**

Figure 4-27

 **Note:**

It is possible that you have a computer or server that has more than one type of available service. If so, select another service, and type the same IP address for that computer or server.

**To modify or delete an existing entry:**

1. Find the desired entry in the table.
2. Click **Edit** as desired on the **Edit** column.

Click the **Enable/ Disabled Selected** button to make selected entries enabled/ disabled.

Click the **Delete Selected** button to delete selected entries.

 **Note:**

If you set the service port of the virtual server as 80, you must set the Web management port on **System Tools** → **Remote Management** page to be any other value except 80 such as 8080. Otherwise there will be a conflict to disable the virtual server.

## 4.7.2 Port Triggering

Choose menu "**Forwarding**" → "**Port Triggering**", you can view and add port triggering in the next screen (shown in Figure 4-28). Some applications require multiple connections, like Internet games, video conferencing, Internet telephoning and so on. Port Triggering is used for some of these applications that cannot work with a pure NAT Modem Router.

Port Trigger						
Some applications require multiple connections, such as Internet games, video conferences, Internet callings and so on. Due to firewall, these applications cannot work with a pure NAT Router. Port Triggering can help some of these applications deal with this problem.						
<input type="checkbox"/>	Trigger Port	Trigger Protocol	Open Port	Open Protocol	Status	Edit
<input type="checkbox"/>	6112	TCP or UDP	6112	TCP or UDP	Enable	<a href="#">Edit</a>
<input type="button" value="Add New"/>		<input type="button" value="Enable Selected"/>		<input type="button" value="Disable Selected"/>		<input type="button" value="Delete Selected"/>
<input type="button" value="Refresh"/>						

Figure 4-28

**To add a new rule, follow the steps below.**

1. Click the **Add New** button, the next screen will pop-up as shown in Figure 4-29.
2. Select a common application from the **Common Service Port** drop-down list, then the **Trigger Port** field and the **Open Ports** field will be automatically filled. If the **Common Service Port** do not have the application you need, enter the **Trigger Port** and the **Open Ports** manually.
3. Select the protocol used for Trigger Port from the **Trigger Protocol** drop-down list, either **TCP**, **UDP**, or **All**.
4. Select the protocol used for Incoming Ports from the **Incoming Protocol** drop-down list, either **TCP** or **UDP**, or **All**.
5. Select **Enable** in **Status** field.
6. Click the **Save** button to save the new rule.

Port Trigger	
Some applications require multiple connections, such as Internet games, video conferences, Internet callings and so on. Due to firewall, these applications cannot work with a pure NAT Router. Port Triggering can help some of these applications deal with this problem.	
Note: Port Triggering is supported only when there is available interface.	
<b>Use Interface:</b>	pppoe_8_35_2
<b>Trigger Port:</b>	
<b>Trigger Protocol:</b>	ALL
<b>Open Port:</b>	
<b>Open Protocol:</b>	ALL
<b>Status:</b>	Enabled
<b>Common Service Port:</b>	---Please Select---
<input type="button" value="Save"/> <input type="button" value="Back"/>	

Figure 4-29

- **Trigger Port:** The port for outgoing traffic. An outgoing connection using this port will trigger this rule.
- **Trigger Protocol:** The protocol used for Trigger Ports, either **TCP**, **UDP**, or **All** (all protocols supported by the Modem Router).
- **Open Port:** The port or port range used by the remote system when it responds to the outgoing request. A response using one of these ports will be forwarded to the PC which triggered this rule. You can input at most 5 groups of ports (or port sections). Every group of ports must be separated with ",", for example, 2000-2038, 2046, 2050-2051, 2085, 3010-3030.

- **Open Protocol:** The protocol used for **Incoming Port**, either **TCP**, **UDP**, or **ALL** (all protocols supported by the Modem Router).
- **Status:** The status of this entry, Enabled means the Port Triggering entry is enabled.
- **Modify:** To modify or delete an existing entry.
- **Common Service Port:** Some popular applications already listed in the drop-down list of **Open Protocol**.

#### To modify or delete an existing entry:

1. Find the desired entry in the table.
2. Click **Edit** as desired on the **Edit** column.

Click the **Enable/ Disabled Selected** button to make selected entries enabled/ disabled.

Click the **Delete Selected** button to delete selected entries.

#### Once the Modem Router is configured, the operation is as follows:

1. A local host makes an outgoing connection to an external host using a destination port number defined in the **Trigger Port** field.
2. The Modem Router records this connection, opens the incoming port or ports associated with this entry in the **Port Triggering** table, and associates them with the local host.
3. When necessary, the external host will be able to connect to the local host using one of the ports defined in the **Incoming Ports** field.



#### Note:

1. When the trigger connection is released, the corresponding opened ports will be closed.
2. Each rule can only be used by one host on the LAN at a time. The trigger connection of other hosts on the LAN will be refused.
3. **Open Ports** ranges cannot overlap each other.

### 4.7.3 DMZ

Choose menu “**Forwarding**→**DMZ**”, and then you can view and configure DMZ host in the screen (shown in Figure 4-30).The DMZ host feature allows one local host to be exposed to the Internet for a special-purpose service such as Internet gaming or videoconferencing. The Modem Router forwards packets of all services to the DMZ host. Any PC whose port is being forwarded must have its DHCP client function disabled and should have a new static IP Address assigned to it because its IP Address may be changed when using the DHCP function.

DMZ	
The DMZ host feature allows one local host to be exposed to the Internet for bidirectional communication.	
<b>DMZ Status:</b>	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
<b>DMZ Host IP Address:</b>	<input type="text" value="0.0.0.0"/>
<input type="button" value="Save"/>	

Figure 4-30

**To assign a computer or server to be a DMZ server:**

1. Click the **Enable** button.
2. Enter the IP address of a local PC that is set to be DMZ host in the **DMZ Host IP Address** field.
3. Click the **Save** button.

**4.7.4 UPnP**

Choose menu “**Forwarding**→**UPnP**”, and then you can view the information about **UPnP** in the screen (shown in Figure 4-31). The **Universal Plug and Play (UPnP)** feature allows the devices, such as Internet computers, to access the local host resources or devices as needed. UPnP devices can be automatically discovered by the UPnP service application on the LAN.

ID	App Description	External Port	Protocol	Internal Port	IP Address	Status
Refresh						

Figure 4-31

- **Current UPnP Status:** UPnP can be enabled or disabled by clicking the **Enable** or **Disable** button. This feature is enabled by default.
- **Current UPnP Settings List:** This table displays the current UPnP information.
  - **App Description:** The description about the application which initiates the UPnP request.
  - **External Port:** The port which the Modem Router opened for the application.
  - **Protocol:** The type of protocol which is opened.
  - **Internal Port:** The port which the Modem Router opened for local host.
  - **IP Address:** The IP address of the local host which initiates the UPnP request.
  - **Status:** Either Enabled or Disabled. "Enabled" means that the port is still active; otherwise, the port is inactive.

Click the **Enable** button to enable UPnP.

Click the **Disable** button to disable UPnP.

Click the **Refresh** button to update the Current UPnP Settings List.

**4.8 Parent Control**

Choose menu “**Parent Control**”, and you can configure the parent control in the screen as shown in Figure 4-32. The Parent Control function can be used to control the internet activities of the child, limit the child to access certain websites and restrict the time of surfing.

**Parent Control**

Parental Control function can be used to control the Internet activities of the child, limit the child to access specified websites in specified time.

Enable Parental Control

MAC Address Of Parental PC:

MAC Address of Current PC: 50:E5:49:C8:E2:7A [Copy to Above](#)

---

MAC Address - 1:

MAC Address - 2:

MAC Address - 3:

MAC Address - 4:

MAC Address in current LAN: 50:e5:49:c8:e2:7a

---

Apply To:

Start Time:

End Time:

Time	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00
Sun.															
Mon.															
Tues.															
Wed.															
Thur.															
Fri.															
Sat.															

---

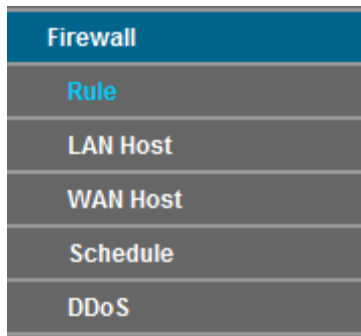
Add URL:

(It will not take effect until you save it.)

Figure 4-32

- **Enable Parental Control:** Check the box if you want this function to take effect. This function is disabled by default.
  - **MAC Address of Parental PC:** In this field, enter the MAC address of the controlling PC, or you can make use of the **Copy To Above** button below.
  - **MAC Address of Current PC:** This field displays the MAC address of the PC that is managing this Modem Router. If the MAC Address of your adapter is registered, you can click the Copy To Above button to fill this address to the MAC Address of Parental PC field above.
  - **Add URL:** Here you can input the net addresses which the child is allowed to access.
- Click the **Save** button to save your settings.

## 4.9 Firewall



There are five submenus under the Firewall menu: **Rule**, **LAN Host**, **WAN Host**, **Schedule** and **DDoS**. Click any of them, and you will be able to configure the corresponding function.

### 4.9.1 Rule

Choose menu "Firewall" → "Rule", and then you can view and set the rules in the screen as shown in Figure 4-33.

 The screenshot shows the "Firewall Rules" configuration page. It includes a "Save" button, a "Default Filtering Rules" section with radio buttons for "Allow" and "Deny", and a table with columns: Description, Lan Host, Target, Schedul, Pass, Status, and Edit. Below the table are buttons for "Add New", "Enable Selected", "Disable Selected", and "Delete Selected".
 

The router can restrict the internet behavior of lan host. You can enable or disable this function on this page, and set default rules. Furthermore, you can set flexible combination rules by selecting proper "Lan Host", "Wan Host" and "Schedule" to construct the integrated and powerful internet control rules.

Enable Firewall

Default Filtering Rules:

**Allow** the packets not specified by any filtering rules to pass through the device

**Deny** the packets not specified by any filtering rules to pass through the device

Note: The modem router will first try to match the packet with the enabled filtering rules one by one in the list and apply the first matching rule. If the packet is not specified by any filtering rules in the list, then the Default Filtering Rule will take effect.

<input type="checkbox"/>	Description	Lan Host	Target	Schedul	Pass	Status	Edit
<input type="button" value="Add New"/> <input type="button" value="Enable Selected"/> <input type="button" value="Disable Selected"/> <input type="button" value="Delete Selected"/>							

Figure 4-33

- **Enable Firewall:** Select the check box to enable the Firewall function, so the Default Filtering Rules can take effect.
- **Description:** Here displays the description of the rule and this name is unique.
- **LAN Host:** Here displays the host selected in the corresponding rule.
- **Target:** Here displays the target selected in the corresponding rule.
- **Schedule:** Here displays the schedule selected in the corresponding rule.
- **Status:** Here displays the status of the rule, enabled or not.
- **Edit:** Here you can edit or delete an existing rule.
- **Add New:** Click the **Add New** button to add a new rule entry.
- **Enable Selected:** Click the **Enable Selected** button to enable the selected rules in the list.
- **Disable Selected:** Click the **Disable Selected** button to disable the selected rules in the list.



➤ **Delete Selected:** Click the **Delete Selected** button to delete the selected entries in the table.

**The methods to add a new rule:**

1. Click the **Add New** button and the next screen will pop up as shown in Figure 4-34.
2. Give a name (e.g. Rule\_1) for the rule in the **Description** field.
3. Select a host from the **LAN Host** drop-down list or choose “**Add LAN Host**”.
4. Select a target from the **WAN Host** drop-down list or choose “**Add WAN Host**”.
5. Select a schedule from the **Schedule** drop-down list or choose “**Add Schedule**”.
6. In the **Action** field, select **Deny** or **Allow** to deny or allow your entry.
7. In the **Status** field, select **Enabled** or **Disabled** to enable or disable your entry.
8. In the **Direction** field, select **IN** or **OUT** from the drop-down list for the direction.
9. In the **Protocol** field, here are four options, All, TCP, UDP, and ICMP. Select one of them from the drop-down list for the target.
10. Click the **Save** button.

Figure 4-34

### 4.9.2 LAN Host

Choose menu “**Firewall**” → “**LAN Host**”, and then you can view and set a Host list in the screen as shown in Figure 4-35.

	Description	Address Info	Edit
<input type="checkbox"/>	Host_1	192.168.1.88	<a href="#">Edit</a>

Figure 4-35

- **Description:** Here displays the description of the host and this description is unique.
- **Address Info:** Here displays the information about the host. It can be IP or MAC.
- **Edit:** To modify an existing entry.

To add a new entry, please follow the steps below.

1. Click the **Add New** button.
2. In the **Mode** field, select IP Address or MAC Address.
  - If you select IP Address, please follow the steps below:
    - 1) In **Description** field, create a unique description for the host (e.g. Host\_1).
    - 2) In **IP Address** field, enter the IP address.
  - If you select MAC Address, please follow the steps below:
    - 1) In **Description** field, create a unique description for the host (e.g. Host\_1).
    - 2) In **MAC Address** field, enter the MAC address.
3. Click the **Save** button to complete the settings.

Click the **Delete Selected** button to delete the selected entries in the table.

### 4.9.3 WAN Host

Choose menu “**Firewall**” → “**WAN Host**”, and then you can view and set a Host list in the screen as shown in Figure 4-36.

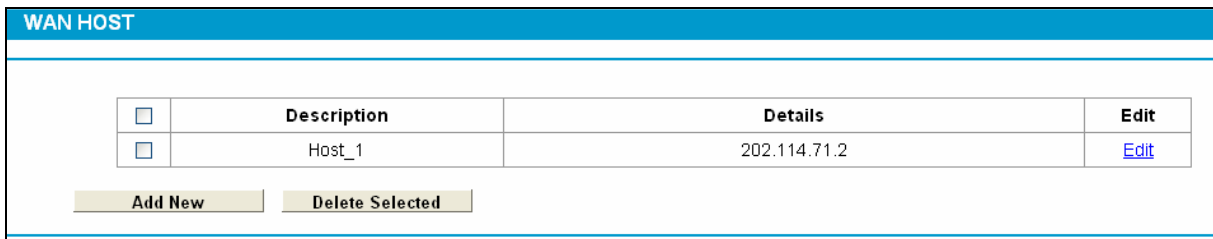


Figure 4-36

- **Description:** Here displays the description about the WAN and this description is unique.
- **Details:** The details can be IP address, port, or domain name.
- **Edit:** To modify an existing entry.

To add a new entry, please follow the steps below.

1. Click the **Add New** button.
2. In Mode field, select **IP Address**, **MAC Address** or **URL Address**.

If you select **IP Address**, the screen shown is Figure 4-37.

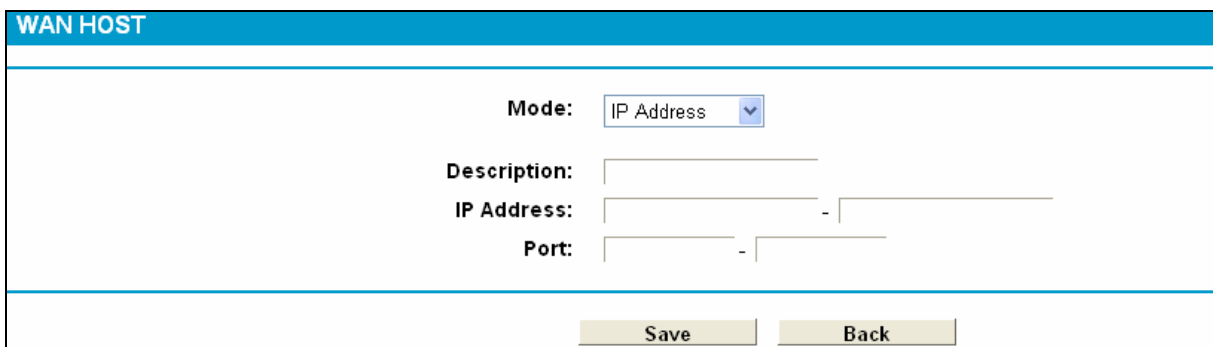


Figure 4-37

- 1) In **Description** field, create a unique description for the host (e.g. Host\_1).
- 2) In **IP Address** field, enter the IP address.

If you select **MAC Address**, the screen shown is Figure 4-38.

WAN HOST

Mode: MAC Address

Description:

MAC Address:

Save Back

Figure 4-38

- 1) In **Description** field, create a unique description for the host (e.g. Host\_1).
- 2) In **MAC Address** field, enter the MAC address.

If you select **URL Address**, the screen shown is Figure 4-39.

WAN Host

Mode: URL Address

Description:

Add URL Address:  Add

<input type="checkbox"/>	<b>Detail</b>
--------------------------	---------------

Delete (It won't take effect until you save it)

Save Back

Figure 4-39

- 1) In **Description** field, create a unique description for the host (e.g. Host\_1).
- 2) Enter the URL address in the **Add URL Address** field, and then click the **Add** button. The URL address will be shown in the **Detail** table. If you click the **Delete** button, the existing URL address in the **Detail** table can be deleted.
3. Click the **Save** button to complete the settings.

#### 4.9.4 Schedule

Choose menu “**Firewall**” → “**Schedule**”, and then you can view and set a Schedule list in the next screen as shown in Figure 4-40.

Task Schedule

<input type="checkbox"/>	Description	Edit
<input type="checkbox"/>	Schedule_1	<a href="#">Edit</a>

Add New Delete Selected

Figure 4-40

- **Description:** Here displays the description of the schedule and this description is unique.
- **Edit:** Here you can modify an existing schedule.

To add a new schedule, follow the steps below:

1. Click **Add New** button and the next screen will pop-up as shown in Figure 4-41.
2. In **Description** field, create a unique description for the schedule (e.g. Schedule\_1).
3. In **Apply To** field, select the day or days you need.
4. In time field, you can select all day-24 hours or you may enter the **Start Time** and **Stop Time** in the corresponding field.
5. Click **Save** to complete the settings.

Click the **Clear Schedule** button to clear your settings in the table.

Schedule can be set on this page.

Description:

Apply To:

Start Time:

End Time:

Time	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	1:00	2:00
Sun.															
Mon.															
Tues.															
Wed.															
Thur.															
Fri.															
Sat.															

Figure 4-41

Click the **Delete Selected** button to delete the selected entries in the table.

#### 4.9.5 DDoS

Choose menu **Firewall** → **DDoS**, and then you can protect the Modem Router from being attacked by TCP-SYN Flood, UDP Flood and ICMP-Flood in the screen as shown in Figure 4-42.

**DDoS**

---

DDoS Parameters can be set on this page.

DoS Protection:  Enable  Disable  
 (Note: DoS Protection will not take effect only when the Traffic Statistics is enabled.)

Enable ICMP-Flood Attack Filtering  
**ICMP-Flood Packets Threshold (5~3600):**  packets/second

Enable UDP-Flood Attack Filtering  
**UDP-Flood Packets Threshold (5~3600):**  packets/second

Enable TCP-SYN-Flood Attack Filtering  
**TCP-SYN-Flood Packets Threshold (5~3600):**  packets/second

Forbid ping packets from LAN port

---

Figure 4-42

- **DoS protection** - Denial of Service protection. Check the Enable or Disable button to enable or disable the DoS protection function. Only when it is enabled, will the flood filters be enabled.

 **Note:**

Dos Protection will take effect only when the **Traffic Statistics** in “**System Tool → Traffic Statistics**” is enabled.

- **Enable ICMP-Flood Attack Filtering** - Enable or Disable the ICMP-Flood Attack Filtering.
- **ICMP-Flood Packets Threshold (5~3600)** - The default value is 50. Enter a value between 5 ~ 3600. When the current ICMP-Flood Packets number is beyond the set value, the Router will startup the blocking function immediately.
- **Enable UDP-Flood Filtering** - Enable or Disable the UDP-Flood Filtering.
- **UDP-Flood Packets Threshold (5~3600)** - The default value is 500. Enter a value between 5 ~ 3600. When the current UPD-Flood Packets number is beyond the set value, the Router will startup the blocking function immediately.
- **Enable TCP-SYN-Flood Attack Filtering** - Enable or Disable the TCP-SYN-Flood Attack Filtering.
- **TCP-SYN-Flood Packets Threshold (5~3600)** - The default value is 50. Enter a value between 5 ~ 3600. When the current TCP-SYN-Flood Packets numbers is beyond the set value, the Router will startup the blocking function immediately.
- **Forbid ping packet from LAN port** - Enable or Disable Forbid ping packet from LAN port. The default setting is disabled. If enabled, the ping packet from LAN cannot access the Router. This function can be used to defend against some viruses.

Click the **Save** button to save the settings.

Click the **Blocked DoS Host List** button to display the DoS host table by blocking.

## 4.10 Bandwidth Control

Choose menu “**Bandwidth Control**”, and then you can configure the Upstream Bandwidth and Downstream Bandwidth in the next screen. The values you configure should be less than 100000Kbps. For optimal control of the bandwidth, please select the right Line Type and ask your ISP for the total bandwidth of the egress and ingress.

**Bandwidth Control**

Bandwidth control enables you to control bandwidth for computers in LAN. This page allows you to enable or disable Bandwidth Control, and set control rules. Only when the Bandwidth Control is enabled can the rules take effect.

Note: For optimal control of the bandwidth, please configure the right Line Type and bandwidth. If you are not sure about these information, please ask your ISP for help.

Enable bandwidth control

Line Type:  ADSL  Other

Total Upstream Bandwidth:  Kbps

Total Downstream Bandwidth:  Kbps

Bandwidth Control Rules

<input type="checkbox"/>	Description	Priority	Upstream Bandwidth (Kbps)		Downstream Bandwidth (Kbps)		Status	Edit
			Min	Max	Min	Max		
<input type="button" value="Add New"/> <input type="button" value="Enable Selected"/> <input type="button" value="Disable Selected"/> <input type="button" value="Delete Selected"/>								

Figure 4-43

- **Enable Bandwidth Control:** Check this box so that the Bandwidth Control settings can take effect.
- **Line Type:** Select the right type for you network connection. If you don't know how to choose, please ask your ISP for the information.
- **Total Upstream Bandwidth** - The upload speed through the WAN port.
- **Total Downstream Bandwidth** - The download speed through the WAN port.

Bandwidth Control Rules:

- **Description:** This is the information about the rules such as address range.
- **Upstream bandwidth:** This field displays the max and mix upload bandwidth through the WAN port, the default is 0.
- **Downstream bandwidth:** This field displays the max and mix download bandwidth through the WAN port, the default is 0.
- **Edit:** Click **Edit** to modify the rule.

**To add/modify a Bandwidth Control rule, follow the steps below.**

1. Click **Add New** shown in Figure 4-43, you will see a new screen shown in Figure 4-44.
2. Enter the information like the screen shown below.

**Bandwidth Control Configuration**

Enable

IP Range:  --

Port Range:  --

Protocol: ALL

Priority: 5

	Min Rate(Kbps)	Max Rate(Kbps)
Upstream:	<input type="text"/>	<input type="text"/>
Downstream:	<input type="text"/>	<input type="text"/>

Figure 4-44

3. Click the **Save** button.

## 4.11 IP&MAC Binding

**IP & MAC Binding**

Binding Settings

ARP List

There are two submenus under the IP &MAC Binding menu: **Binding Settings** and **ARP List**. Click any of them, and you will be able to scan or configure the corresponding function. The detailed explanations for each submenu are provided below.

### 4.11.1 Binding Settings

This page displays the **IP & MAC Binding Setting** table; you can operate it in accord with your desire (shown in Figure 4-45).

**Binding Settings**

This page displays the ARP List. Please click corresponding button to configure IP-MAC Binding entries.

ARP Binding  Enable  Disable

<input type="checkbox"/>	MAC Address	IP Address	Status	Edit
<input type="checkbox"/>	40:61:86:FC:74:29	192.168.1.100	Bound	<a href="#">Edit</a>

Figure 4-45

- **MAC Address:** The MAC address of the controlled computer in the LAN.
- **IP Address:** The assigned IP address of the controlled computer in the LAN.
- **Bound:** Check this option to enable ARP binding for a specific device.
- **Edit:** To modify or delete an existing entry.

When you want to add or modify an IP & MAC Binding entry, you can click the **Add New** button or **Edit** button, and then you will go to the next page. This page is used for adding or modifying an IP & MAC Binding entry (shown in Figure 4-46).

**Binding Settings**

This page allows you to set IP-MAC Binding entries.

MAC Address:

IP Address:

Bind

Figure 4-46

**To add IP & MAC Binding entries, follow the steps below.**

1. Click the **Add New** button as shown in Figure 4-45.
2. Enter the MAC Address and IP Address.
3. Select the Bind checkbox.
4. Click the **Save** button to save it.

**To modify or delete an existing entry, follow the steps below.**

1. Find the desired entry in the table.
2. Click **Edit** as desired on the **Edit** column.

Click the **Enable/ Disable Selected** button to make selected entries enabled or disabled.

Click the **Delete Selected** button to delete selected entries.

#### 4.11.2 ARP List

To manage the computer, you could observe the computers in the LAN by checking the relationship of MAC address and IP address on the ARP list, and you could also configure the items on the ARP list. This page displays the ARP List; it shows all the existing IP & MAC Binding entries (shown in Figure 4-47).

**ARP List**

<input type="checkbox"/>	MAC Address	IP Address	Status
<input type="checkbox"/>	40:61:86:E5:B2:DC	192.168.1.100	Loaded

Figure 4-47

- **MAC Address:** The MAC address of the controlled computer in the LAN.
- **IP Address:** The assigned IP address of the controlled computer in the LAN.
- **Status:** Indicates whether or not the MAC and IP addresses are bound.



- **Load:** Load the item to the IP & MAC Binding list.

Click the **Load Selected** button to load selected items to the IP & MAC Binding list.

Click the **Refresh** button to refresh all items.

## 4.12 Dynamic DNS

Choose menu “**Dynamic DNS**”, and you can configure the Dynamic DNS function.

The Modem Router offers the **DDNS** (Dynamic Domain Name System) feature, which allows the hosting of a website, FTP server, or e-mail server with a fixed domain name (named by yourself) and a dynamic IP address, and then your friends can connect to your server by entering your domain name no matter what your IP address is. Before using this feature, you need to sign up for DDNS service providers such as [www.dyndns.org](http://www.dyndns.org). The Dynamic DNS client service provider will give you a password or key.

Figure 4-48

- **Service Provider:** This field displays the service provider of DDNS.
- **Domain Name:** Enter the Domain name you received from dynamic DNS service provider.
- **Username & Password:** Type the “User Name” and “Password” for your DDNS account.
- **Enable DDNS:** Activate the DDNS function or not.
- **Login/ Logout:** Login to or logout of the DDNS service.

## 4.13 Diagnostic

Choose “**Diagnostic**”, you can view the test results for the connectivity of the physical layer and protocol layer for both LAN and WAN sides in the screen. Select the desired type and click the start button.

The router's internet connection status can be tested on this page. Please select the desired type and click the start button.

Diagnostics Type  Start

- Test internet surfing
- Test WAN interface connection

Figure 4-49

## 4.14 System Tools

<b>System Tools</b>
System Log
Time Settings
Manage Control
CWMP Settings
SNMP Settings
Backup & Restore
Factory Defaults
Firmware Upgrade
Reboot
Statistics

Choose menu “**System Tools**”, and you can see the submenus under the main menu: **System Log**, **Time Settings**, **Manage Control**, **CWMP Settings**, **SNMP Settings**, **Backup & Restore**, **Factory Defaults**, **Firmware Upgrade**, **Reboot** and **Statistics**. Click any of them, and you will be able to configure the corresponding function. The detailed explanations for each submenu are provided below.

### 4.14.1 System Log

Choose menu “**System Tools**” → “**System Log**”, and then you can view the logs of the Modem Router.

Figure 4-50

- **Log Type:** By selecting the log type, only logs of this type will be shown.
- **Log Level:** By selecting the log level, only logs of this level will be shown.
- **Refresh:** Refresh the page to show the latest log list.
- **Clear Log:** All the logs will be deleted from the Modem Router permanently, not just from the page.
- **Save Log:** Click to save all the logs in a txt file.
- **Log Settings:** Click to set the logs in the screen (shown in Figure 4-51).

Figure 4-51

- **Save Locally:** If **Save Locally** is selected, events will be recorded in the local memory.
- **Minimum Level:** Select the Minimum level in the drop-down list, for the Minimum Level, all logged events above or equal to the selected level will be displayed.
- **Save Remotely:** If **Save Remotely** is selected, events will be sent to the specified IP address and UDP port of the remote system log server.

Click the **Save** button to save your settings.

#### 4.14.2 Time Settings

Choose menu “**System Tools**” → “**Time Settings**”, and then you can configure the time on the following screen.

Time Settings

---

The system time of Modem Router can be set on this page. You can set the time manually or get standard GMT from the Internet.

**Time Zone:** (GMT) Greenwich Mean Time;Dublin, Edinburgh, London, Lisbon ▼

**Date:** 1970 Year | 1 Month | 1 Day

**Time:** 23 Hour | 1 Minute | 22 Second

**NTP Server Prior 1:**

**NTP Server Prior 2:**

(Only when the Internet connection is on.)

---

Figure 4-52

- **Time Zone:** Select your local time zone from this pull down list.
- **Date:** Enter your local date in MM/DD/YY into the right blanks.
- **Time:** Enter your local time in HH/MM/SS into the right blanks.
- **NTP Server 1 / NTP Server 2:** Enter the address or domain of the **NTP Server 1** or **NTP Server 2**, and then the Modem Router will get the time from the NTP Server preferentially. In addition, the Modem Router built-in some common NTP Servers, so it can get time automatically once it connects the Internet.

**To set time manually:**

1. Select your local time zone.
2. Enter the **Date** in Year/Month/Day format.
3. Enter the **Time** in Hour/Minute/Second format.
4. Click **Save**.

**To set time automatically:**

1. Select your local time zone.
2. Enter the address or domain of the **NTP Server 1** or **NTP Server 2**.
3. Click the **Get GMT** button to get system time from Internet if you have connected to the Internet.

**4.14.3 Manage Control**

Choose “**System Tools**” → “**Manage Control**”, you can see the screen (shown in Figure 4-51)

Manage Control		
<b>Current User Status</b>		
<b>User Type:</b>	Admin	
<b>User Name:</b>	admin	
<b>Host IP Address:</b>	192.168.1.121	
<b>Host MAC Address:</b>	40:61:86:E5:B2:DC	
<b>Account Management</b>		
<b>Old Password:</b>	<input type="text"/>	
<b>New User Name:</b>	<input type="text"/>	
<b>New Password:</b>	<input type="text"/>	
<b>Confirm Password:</b>	<input type="text"/>	
<b>Service Configuration</b>		
	<b>HTTP Service</b>	<b>Host(IP/MAC)</b>
<b>Local Management</b>	Port <input type="text" value="80"/>	<input type="text"/>
<b>Remote Management</b>	Enable <input type="checkbox"/> Port <input type="text" value="80"/>	<input type="text"/>
<input type="button" value="Save"/>		

Figure 4-53

- **Current User Status:** This box displays the information about **User Type**, **User Name**, **Host IP Address** and **Host MAC Address**.
- **Account Management:** Here you can set the account user information about **Old Password**, **New User Name**, **New Password** and **Confirm Password**.
- **Service Configuration:** Here you can modify the port of the Modem Router’s web management interface and limit the hosts which can login this Modem Router’s web management interface.

#### 4.14.4 CWMP Settings

Choose “**System Tools**” → “**CWMP Settings**”, you can configure the CWMP function in the screen.

The Modem Router offers CWMP feature. The function supports TR-069 protocol which collects information, diagnoses the devices and configures the devices automatically via ACS (Auto-Configuration Server).

**CWMP Settings**

WAN Management Protocol (TR-069) allows a Auto-Configuration Server (ACS) to perform auto-configuration, provision, collection, and diagnostics to this device. Select the desired values and click "Save/Apply" to configure the TR-069 client options.

**CWMP:**  Enable  Disable

**Inform:**  Enable  Disable

**Inform Interval:**

**ACS URL:**

**ACS User Name:**

**ACS Password:**

**Interface used by TR-069 client:**

**Display SOAP messages on serial console:**  Enable  Disable

Connection Request Authentication

**Connection Request User Name:**

**Connection Request Password:**

**Connection Request Path:**

**Connection Request Port:**

**Connection Request URL:**

Figure 4-54

- **CWMP:** Select enable the CWMP function.
- **Inform:** Enable or disable the function. If enabled, the information will be informed to ACS server periodically.
- **Inform Interval:** Enter the interval time here.
- **ACS URL:** Enter the website of ACS which is provided by your ISP.
- **ACS User Name/Password:** Enter the User Name and password to login the ACS server.
- **Interface used by TR-069 client:** Select the interface used by TR-069 client.
- **Display SOAP messages on serial console:** Enable or disable this function.
- **Connection Request User Name/Password:** Enter the User Name and Password that provided the ACS server to login the Modem Router.
- **Connection Request Path:** Enter the path that connects to the ACS server.
- **Connection Request Port:** Enter the port that connects to the ACS server.
- **Connection Request URL:** Enter the URL that connects to the ACS server.

#### 4.14.5 SNMP Settings

Choose "Management" → "SNMP Agent", you can see the SNMP-Configuration screen as shown below.

**SNMP** (Simple Network Management Protocol) has been widely applied in the computer networks currently, which is used for ensuring the transmission of the management information between any two nodes. In this way, network administrators can easily search and modify the information on any node on the network. Meanwhile, they can locate faults promptly and implement the fault diagnosis, capacity planning and report generating.

**SNMP Settings**

Simple Network Management Protocol (SNMP) allows a management application to retrieve statistics and status from the SNMP agent in this device. Select the desired values and click "Apply" to configure the SNMP options.

**SNMP Agent:**  Disable  Enable

Save

Figure 4-55

An **SNMP Agent** is an application running on the Modem Router that performs the operational role of receiving and processing SNMP messages, sending responses to the SNMP manager, and sending traps when an event occurs. So a router contains SNMP "agent" software can be monitored and/or controlled by SNMP Manager using SNMP messages.

#### 4.14.6 Backup & Restore

Choose menu "**System Tools**" → "**Backup & Restore**", and then you can save the current configuration of the Modem Router as a backup file and restore the configuration via a backup file as shown in Figure 4-56.

**Backup and Restore**

Click the Backup button to save all configuration settings to your local computer as a file. We suggest you back up your configuration files first before modifying settings or upgrading firmware.

Backup

You can restore your settings by loading configuration files.

**Configuration File:**  Browse... Restore

**Notice:**

1. The current configuration will be covered with the uploading configuration file. Wrong process will lead the device unmanaged.
2. The restoring process lasts for 20 seconds and the Router will restart automatically then. Keep the power of the Router on during the process, in case of any damage.

Figure 4-56

- Click the **Backup** button to save all configuration settings as a backup file in your local computer.
- To upgrade the Modem Router 's configuration, follow these instructions.
  - Click the **Browse** button to find the configuration file which you want to restore.
  - Click the **Restore** button to update the configuration with the file whose path is the one you have input or selected in the blank.

#### Note:

The current configuration will be covered with the uploading configuration file. Wrong process will lead the device unmanaged. The restoring process lasts for 20 seconds and the Modem Router will restart automatically then. Keep the power of the Modem Router on during the process, in case of any damage.

#### 4.14.7 Factory Defaults

Choose menu "**System Tools**" → "**Factory Defaults**", and then and you can restore the configurations of the Modem Router to factory defaults on the following screen

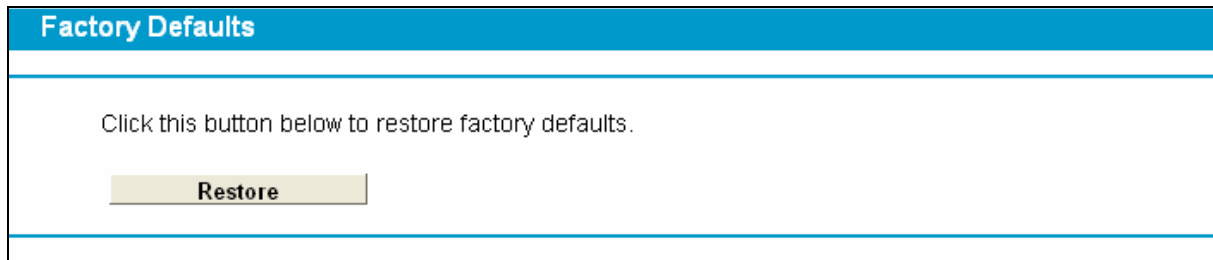


Figure 4-57

Click the **Restore** button to reset all configuration settings to their default values.

- The default **User Name**: admin
- The default **Password**: admin
- The default **Subnet Mask**: 255.255.255.0

 **Note:**

All changed settings will be lost when defaults are restored.

#### 4.14.8 Firmware Upgrade

Choose menu “**System Tools** → **Firmware Upgrade**”, and then you can update the latest version of firmware for the Modem Router on the following screen.

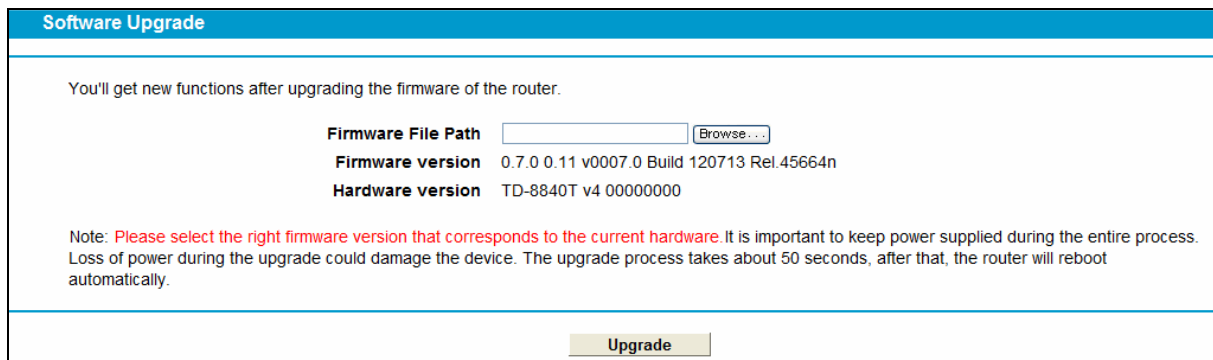


Figure 4-58

- **Firmware Version:** Displays the current firmware version.
- **Hardware Version:** Displays the current hardware version. The hardware version of the upgrade file must accord with the Modem Router’s current hardware version.

**To upgrade the Modem Router's firmware, follow these instructions below:**

- 1) Download a most recent firmware upgrade file from our website ([www.tp-link.com](http://www.tp-link.com)).
- 2) Enter or select the path name where you save the downloaded file on the computer into the **File Name** blank.
- 3) Click the **Upgrade** button.
- 4) The Modem Router will reboot while the upgrading has been finished.

 **Note:**

- 1) New firmware versions are posted at <http://www.tp-link.com> and can be downloaded for free.



There is no need to upgrade the firmware unless the new firmware has a new feature you want to use. However, when experiencing problems caused by the Modem Router rather than the configuration, you can try to upgrade the firmware.

- 2) When you upgrade the Modem Router's firmware, you may lose its current configurations, so before upgrading the firmware please write down some of your customized settings to avoid losing important settings.
- 3) Do not turn off the Modem Router or press the Reset button while the firmware is being upgraded. Loss of power during the upgrade could damage the Modem Router.
- 4) The firmware version must correspond to the hardware.
- 5) The upgrade process takes a few moments and the Modem Router restarts automatically when the upgrade is complete.

#### 4.14.9 Reboot

Choose menu “**System Tools**” → “**Reboot**”, and then you can click the **Reboot** button to reboot the Modem Router via the next screen.

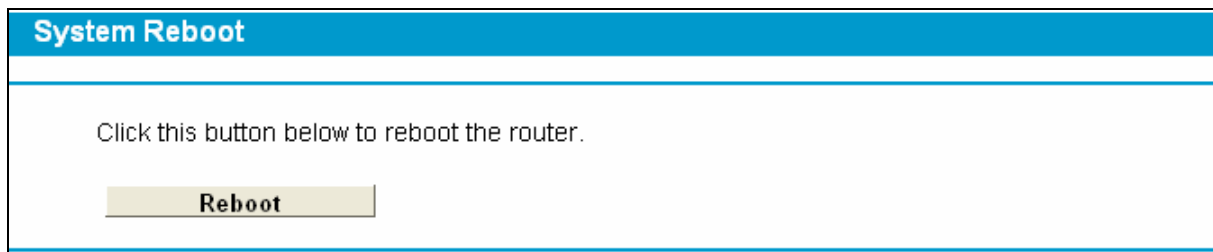


Figure 4-59

Some settings of the Modem Router will take effect only after rebooting, which include

- Change the LAN IP Address (system will reboot automatically).
- Change the DHCP Settings.
- Change the Wireless configurations.
- Change the Web Management Port.
- Upgrade the firmware of the Modem Router (system will reboot automatically).
- Restore the Modem Router's settings to factory defaults (system will reboot automatically).
- Update the configuration with the file (system will reboot automatically).

#### 4.14.10 Statistics

Choose menu “**System Tools**” → “**Statistics**”, and then you can view the statistics of the Modem Router, including total traffic and current traffic of the last Packets Statistic Interval.

Figure 4-60

- **Statistics Status:** Enable or Disable. The default value is disabled. To enable it, click the **Enable**. If it is disabled, the function of DoS protection in Security settings will be disabled.
- **Statistics Interval (5-60):** The default value is 10. Select a value between 5 and 60 seconds in the drop-down list. The Packets Statistic interval indicates the time section of the packets statistic.

Click **Reset All** to reset the values of all the entries to zero.

Click **Delete All** to delete all entries in the table.

Click the **Refresh** button to refresh immediately.

Statistics Table:

<b>IP/MAC Address</b>		The IP and MAC address are displayed with related statistics.
<b>Total</b>	<b>Packets</b>	The total number of packets received and transmitted by the Modem Router.
	<b>Bytes</b>	The total number of bytes received and transmitted by the Modem Router.
<b>Current</b>	<b>Packets</b>	The total number of packets received and transmitted in the last Packets Statistic interval seconds.
	<b>Bytes</b>	The total number of bytes received and transmitted in the last Packets Statistic interval seconds.
	<b>ICMP Tx</b>	The number of the ICMP packets transmitted to WAN per second at the specified Packets Statistics interval. It is shown like “current transmitting rate / Max transmitting rate”.
	<b>UDP Tx</b>	The number of UDP packets transmitted to the WAN per second at the specified Packets Statistics interval. It is shown like “current transmitting rate / Max transmitting rate”.
	<b>SYN Tx</b>	The number of TCP SYN packets transmitted to the WAN per second at the specified Packets Statistics interval. It is shown like “current transmitting rate / Max transmitting rate”.
<b>Operation</b>	<b>Reset</b>	Reset the value of the entry to zero.
	<b>Delete</b>	Delete the existing entry in the table.

## Appendix A: Specifications

General	
Standards and Protocols	ANSI T1.413, ITU G.992.1, ITU G.992.2, ITU G.992.3, ITU G.992.5, IEEE 802.11b, IEEE 802.11g, IEEE 802.11n, IEEE 802.3, IEEE 802.3u, TCP/IP, PPPoA, PPPoE, SNTP, HTTP, DHCP, ICMP, NAT
Safety & Emission	FCC, CE
Ports	Four 10/100M Auto-Negotiation RJ45 ports (Auto MDI/MDIX) One RJ11 port
LEDs	⏻ Power, 📶 ADSL, 🌐 Internet, 🖥️ 1,2,3,4(LAN),
Network Medium	10Base-T: UTP category 3, 4, 5 cable 100Base-TX: UTP category-5 Max line length: 6.5Km
Data Rates	Downstream: Up to 24Mbps Upstream: Up to 3.5Mbps (With Annex M enabled)
System Requirement	Internet Explorer 5.0 or later, Netscape Navigator 6.0 or later Win 9x/ ME/ 2000/ XP/ Vista/ 7
Physical and Environment	
Working Temperature	0°C ~ 40°C
Working Humidity	10% ~ 90% RH (non-condensing)
Storage Temperature	-40°C ~ 70°C
Storage Humidity	5% ~ 90% RH (non-condensing)

# Appendix B: Troubleshooting

## T1. How do I restore my Modem Router’s configuration to its factory default settings?

With the Modem Router powered on, press and hold the **RESET** button on the rear panel for 8 to 10 seconds before releasing it.

 **Note:**

Once the Modem Router is reset, the current configuration settings will be lost and you will need to re-configure the router.

## T2. What can I do if I don’t know or forget my password?

- 1) Restore the Modem Router’s configuration to its factory default settings. If you don’t know how to do that, please refer to **T1**.
- 2) Use the default user name and password: **admin, admin**.
- 3) Try to configure your Modem Router once again by following the instructions in [4.1 Login](#).

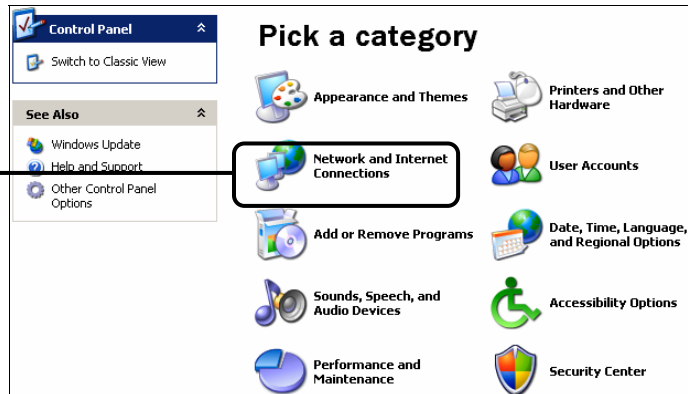
## T3. What can I do if I cannot access the web-based configuration page?

- 1) Configure your computer’s IP Address.

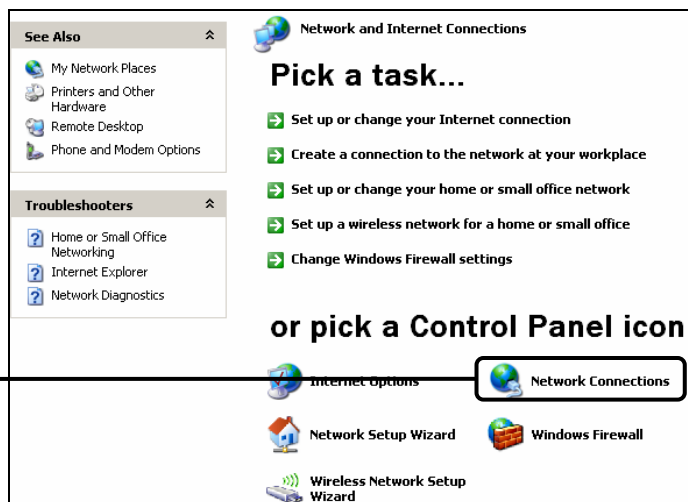
### For Windows XP OS

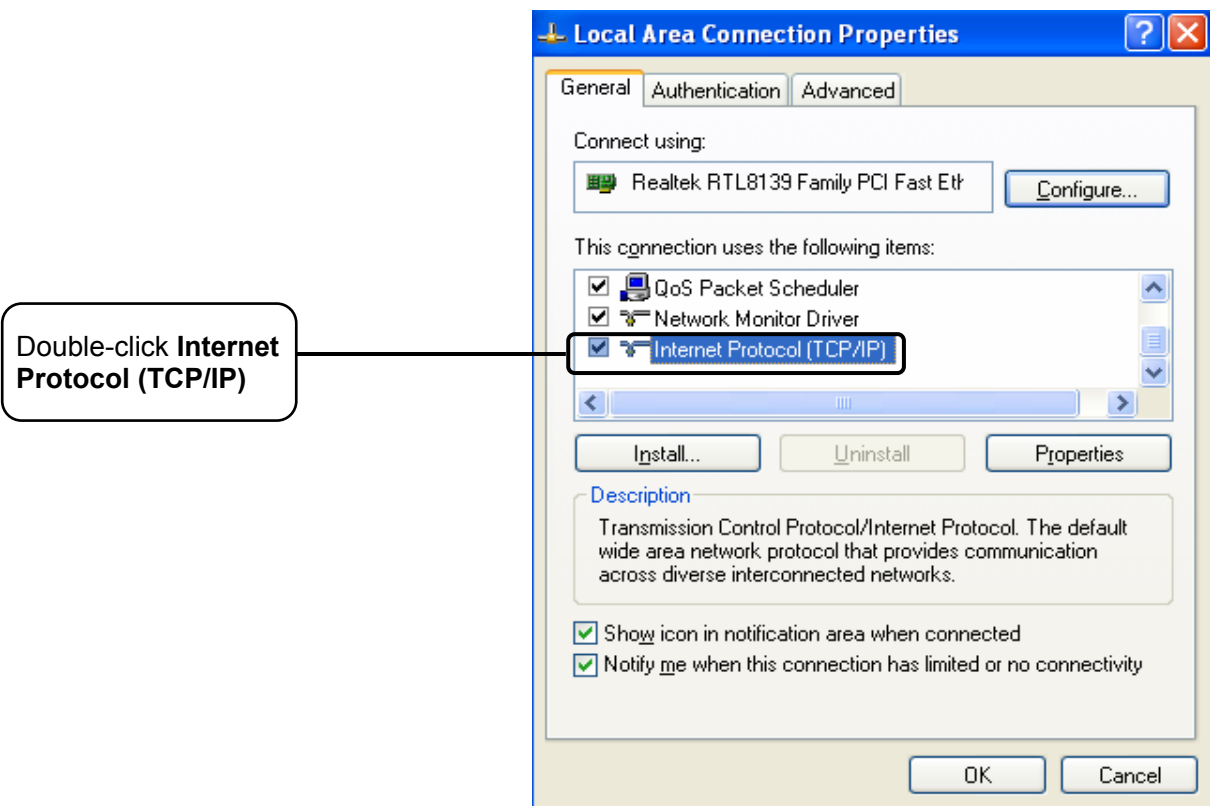
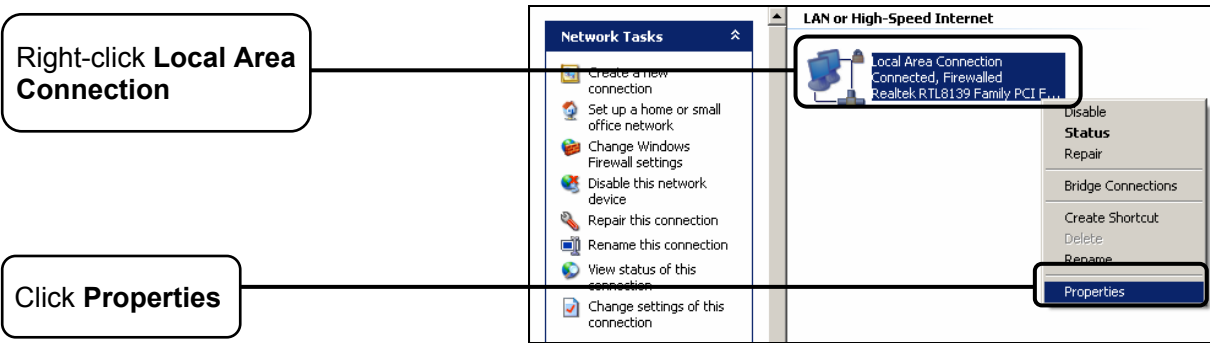
Go to **Start > Control Panel**, you will then see the following page.

Click **Network and Internet Connections**



Click **Network Connections**





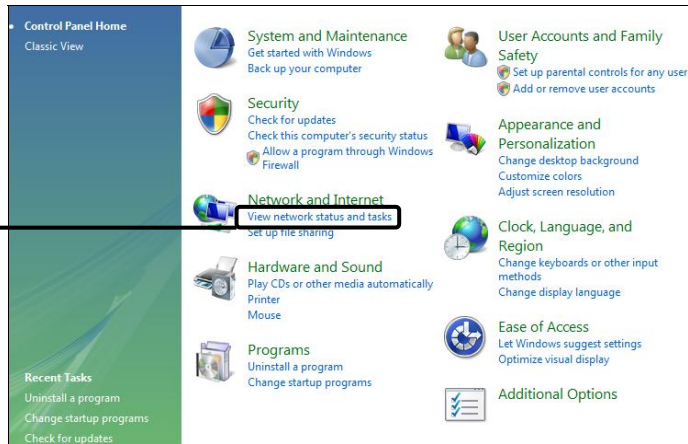
The screenshot shows the 'Internet Protocol (TCP/IP) Properties' dialog box. It has a 'General' tab selected. The text inside reads: 'You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.' There are two radio button options: 'Obtain an IP address automatically' (which is selected) and 'Use the following IP address:'. Below the second option are input fields for 'IP address:', 'Subnet mask:', and 'Default gateway:'. There are also two more radio button options: 'Obtain DNS server address automatically' (which is selected) and 'Use the following DNS server addresses:'. Below the second option are input fields for 'Preferred DNS server:' and 'Alternate DNS server:'. At the bottom right, there is an 'Advanced...' button. At the very bottom, there are 'OK' and 'Cancel' buttons. Three callout boxes with lines pointing to the selected radio buttons and the 'OK' button contain the following text: 'Select Obtain an IP address automatically', 'Select Obtain DNS server address automatically', and 'Click OK'.

The screenshot shows the 'Local Area Connection Properties' dialog box. It has three tabs: 'General', 'Authentication', and 'Advanced'. The 'General' tab is selected. Under 'Connect using:', there is a dropdown menu showing 'Realtek RTL8139 Family PCI Fast Eth' and a 'Configure...' button. Below that, it says 'This connection uses the following items:' followed by a list box containing three items: 'QoS Packet Scheduler', 'Network Monitor Driver', and 'Internet Protocol (TCP/IP)'. The 'Internet Protocol (TCP/IP)' item is highlighted. Below the list box are 'Install...', 'Uninstall', and 'Properties' buttons. A 'Description' section follows, containing the text: 'Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.' At the bottom, there are two checked checkboxes: 'Show icon in notification area when connected' and 'Notify me when this connection has limited or no connectivity'. At the very bottom, there are 'OK' and 'Cancel' buttons. A callout box with a line pointing to the 'OK' button contains the text: 'Click OK'.

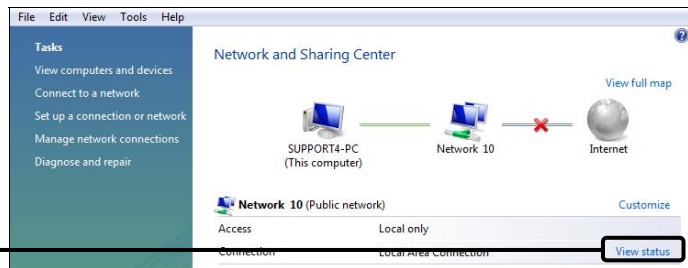
**For Windows Vista OS**

Go to **Start > Settings > Control Panel**, and then you will see the following page.

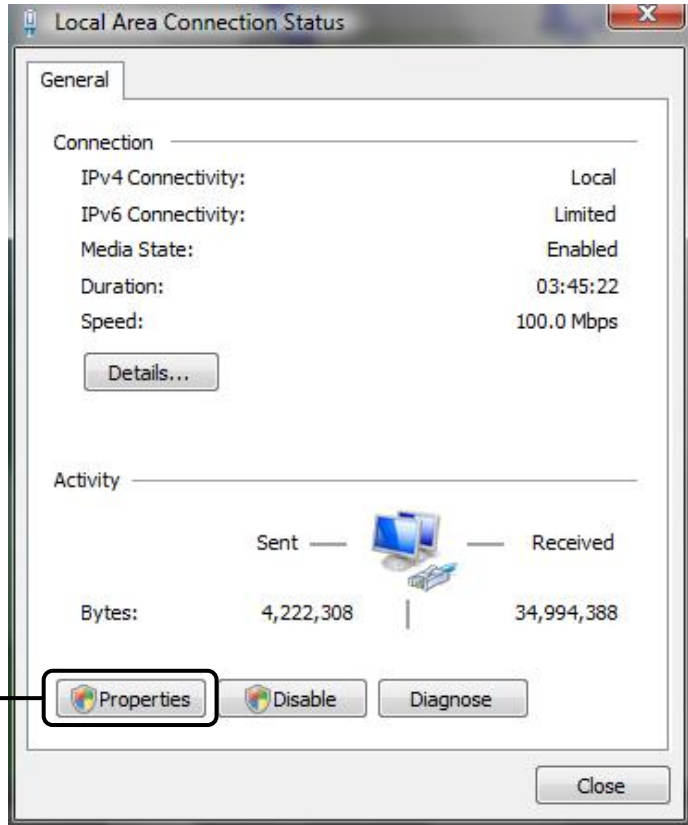
Click **View network status and tasks**



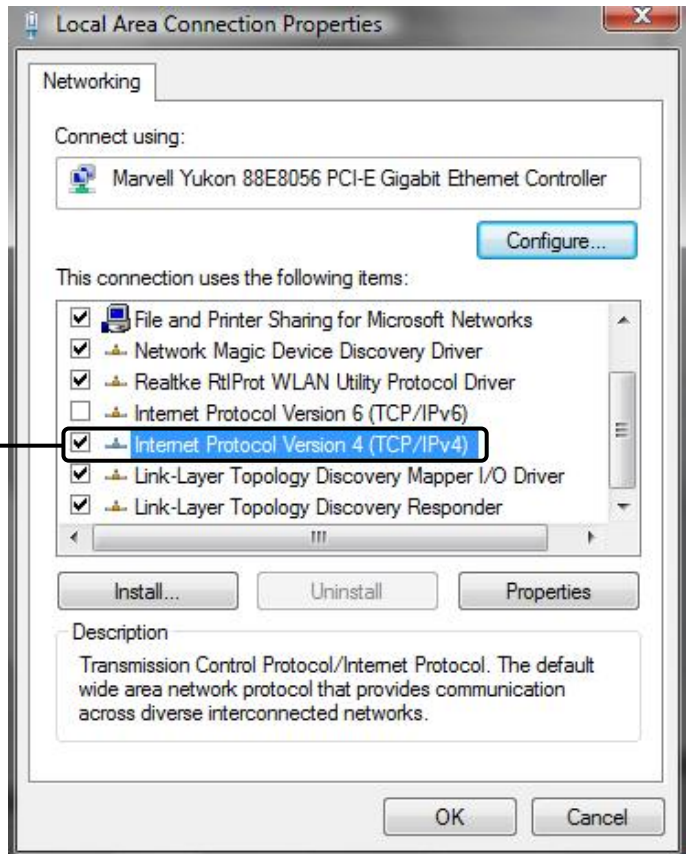
Click **View status**



Click **Properties**



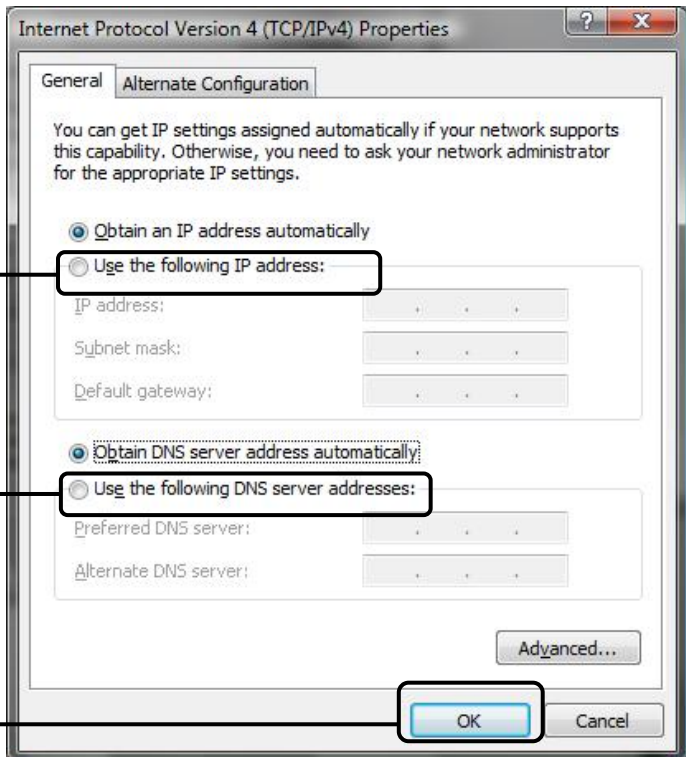
Double-click **Internet Protocol Version 4 (TCP/IPv4)**



Select **Obtain an IP address automatically**

Select **Obtain DNS server address automatically**

Click **OK**

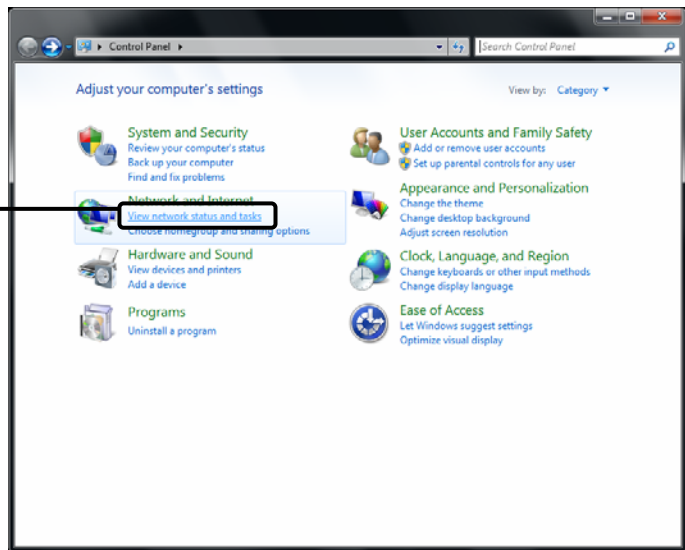




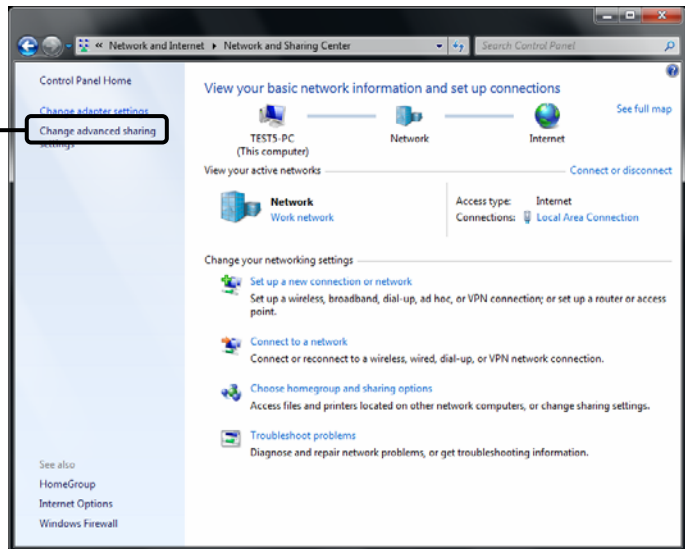
**For Windows 7 OS**

Go to **Start > Settings > Control Panel**, and then you will see the following page.

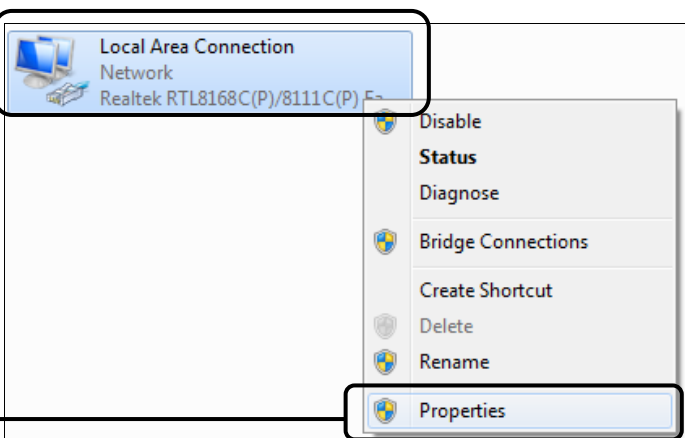
Click **View network status and tasks**



Click **Change adapter settings**

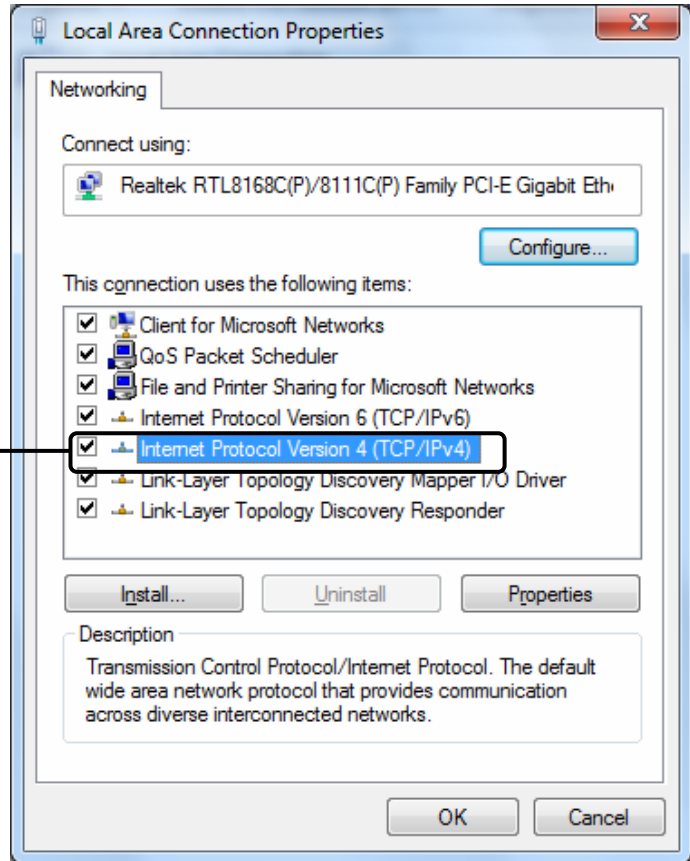


Right-click **Local Area Connection**



Click **Properties**

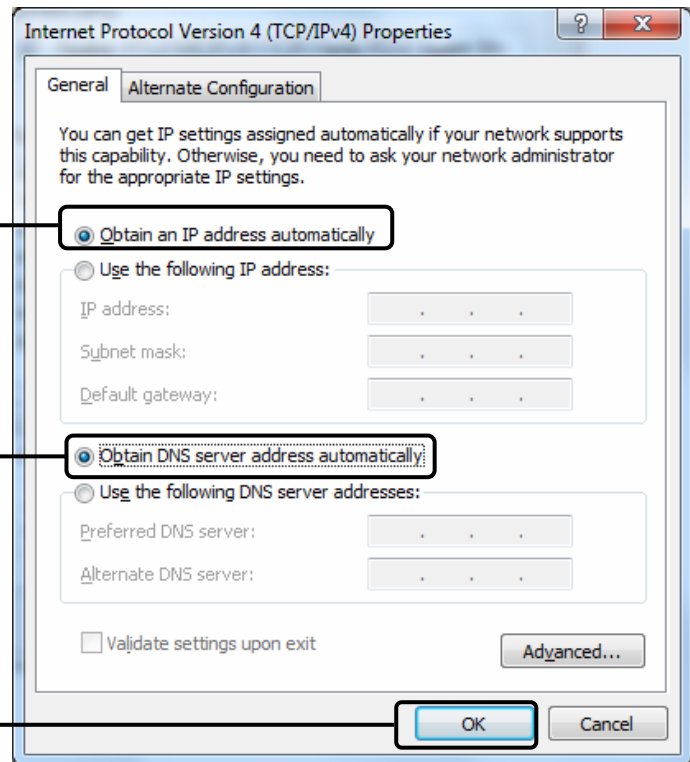
Double-click **Internet Protocol Version 4 (TCP/IPv4)**



Select **Obtain an IP address automatically**

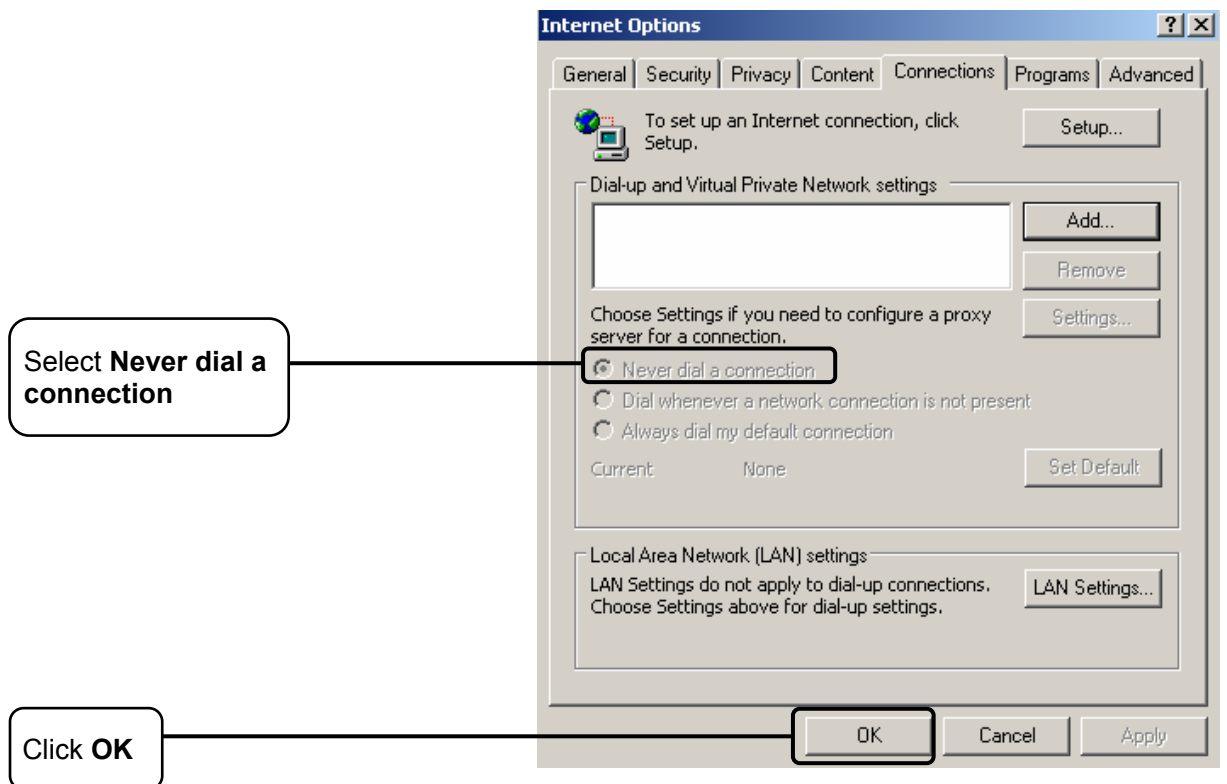
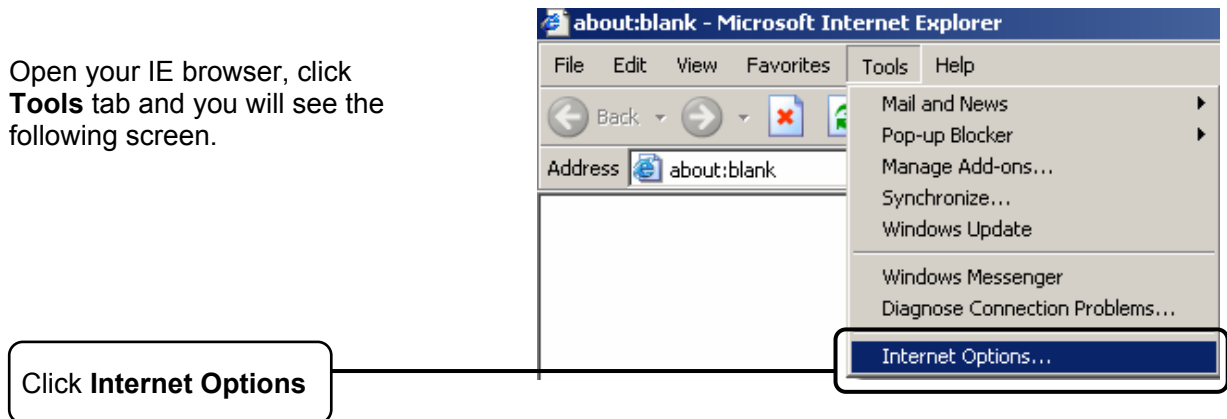
Select **Obtain DNS server address automatically**

Click **OK**



## 2) Configure your IE browser

Open your IE browser, click **Tools** tab and you will see the following screen.



Now, try to log on to the Web-based configuration page again after the above settings have been configured. If you still cannot access the configuration page, please restore your Modem Router's factory default settings and reconfigure your Modem Router following the instructions in [4.1 Login](#). Please feel free to contact our Technical Support if the problem still exists.

#### T4. What can I do if I cannot access the Internet?

- 1) Check to see if all the connectors are connected well, including the telephone line, Ethernet cables and power adapter.
- 2) Check to see if you can log on to the web management page of the Modem Router. If you can, try the following steps. If you cannot, please set your computer referring to **T3** then try to see if you can access the Internet. If the problem persists, please go to the next step.

- 3) Consult your ISP and make sure all the VPI/VCI, Connection Type, account username and password are correct. If there are any mistakes, please correct the settings and try again.
- 4) If you still cannot access the Internet, please restore your Modem Router to its factory default settings and reconfigure your Modem Router by following the instructions in [4.1 Login](#).
- 5) Please feel free to contact our Technical Support if the problem still exists.

 **Note:**

For more details about Troubleshooting and Technical Support contact information, please log on to our Technical Support Website: <http://www.tp-link.com/en/support>

# Appendix C: Technical Support

## Technical Support

- For more troubleshooting help, go to:  
**[www.tp-link.com/support/faq.asp](http://www.tp-link.com/support/faq.asp)**
- To download the latest Firmware, Driver, Utility and User Guide, go to:  
**[www.tp-link.com/support/download.asp](http://www.tp-link.com/support/download.asp)**
- For all other technical support, please contact us by using the following details:

### Global

Tel: +86 755 26504400  
E-mail: [support@tp-link.com](mailto:support@tp-link.com)  
Service time: 24hrs, 7 days a week

### UK

Tel: +44 (0) 845 147 0017  
E-mail: [support.uk@tp-link.com](mailto:support.uk@tp-link.com)  
Service time: 24hrs, 7 days a week

### Turkey

Tel: 444 19 25 (Turkish Service)  
E-mail: [support.tr@tp-link.com](mailto:support.tr@tp-link.com)  
Service time: 9:00 AM to 9:00 PM  
7 days a week

### Ukraine

Tel: 0-800-505-508  
E-mail: [support.ua@tp-link.com](mailto:support.ua@tp-link.com)  
Service time: Monday to Friday  
14:00 PM to 22:00 PM

### Brazil

Toll Free: 0800-770-4337 (Portuguese Service)  
E-mail: [suporte.br@tp-link.com](mailto:suporte.br@tp-link.com)  
Service time: Monday to Saturday  
08:00 AM to 08:00 PM

### France

Tel: +33 (0) 820 800 860 (French service)  
Email: [support.fr@tp-link.com](mailto:support.fr@tp-link.com)  
Fee: 0.118 EUR/min from France  
Service time: Monday to Friday 9:00 AM to 6:00 PM (Except French Bank holidays)

### Russian Federation

Tel: 8 (499) 754-55-60  
8 (800) 250-55-60 (toll-free call from any RF region)  
E-mail: [support.ru@tp-link.com](mailto:support.ru@tp-link.com)  
Service time: From 10:00 to 18:00 (Moscow time)  
\*Except weekends and holidays in Russian Federation

### Switzerland

Tel: +41 (0) 848 800998 (German Service)  
E-mail: [support.ch@tp-link.com](mailto:support.ch@tp-link.com)  
Fee: 4-8 Rp/min, depending on rate of different time  
Service time: Monday to Friday 9:00 AM to 6:00 PM. GMT+ 1 or GMT+ 2 (Daylight Saving Time)

### Singapore

Tel: +65 62840493  
E-mail: [support.sg@tp-link.com](mailto:support.sg@tp-link.com)  
Service time: 24hrs, 7 days a week

### USA/Canada

Toll Free: +1 866 225 8139  
E-mail: [support.usa@tp-link.com](mailto:support.usa@tp-link.com)  
Service time: 24hrs, 7 days a week

### Australia / New Zealand

Tel: AU 1300 87 5465  
NZ 0800 87 5465  
E-mail: [support@tp-link.com.au](mailto:support@tp-link.com.au)  
Service time: 24hrs, 7 days a week

### Italy

Tel: +39 0230519020  
E-mail: [support.it@tp-link.com](mailto:support.it@tp-link.com)  
Service time: Monday to Friday  
9:00 AM to 1:00 PM, 2:00 PM to 6:00 PM

### Indonesia

Tel: (+62) 021 6259 135  
E-mail : [support.id@tp-link.com](mailto:support.id@tp-link.com)  
Service time : Monday to Friday  
9:00 -12:00; 13:00 -18:00  
\*Except public holidays

### Malaysia

Tel: 1300 88 875465 (1300 88TPLINK)  
Email: [support.my@tp-link.com](mailto:support.my@tp-link.com)  
Service time: 24hrs, 7 days a week

### Poland

Tel: +48 (0) 801 080 618 / +48 22 7217563 (if calls from mobile phone)  
E-mail: [support.pl@tp-link.com](mailto:support.pl@tp-link.com)  
Service time: Monday to Friday  
9:00 AM to 5:00 PM. GMT+1 or GMT+2 (Daylight Saving Time)

### Germany / Austria

Tel: +49 1805 875465 (German Service)  
+49 1805 TPLINK  
E-mail: [support.de@tp-link.com](mailto:support.de@tp-link.com)  
Fee: 0.14 EUR/min from the German fixed phone network and up to 0.42 EUR/min from mobile phone  
Service time: Monday to Friday 9:00 AM to 6:00 PM. GMT+ 1 or GMT+ 2 (Daylight Saving Time in Germany)  
\*Except bank holidays in Hesse