

TP-LINK®

User Guide

TD-8811/TD-8811B

External ADSL2+ 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.

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.

Package contents

The following contents should be found in your box:

- One TD-8811/TD-8811B External ADSL2+ ROUTER
- > One AC power Adapter for TD-8811/8811B External ADSL2+ ROUTER
- ➤ One Resource CD for TD-8811/TD-8811B External ADSL2+ ROUTER, including:
 - This User Guide
 - Quick installation Guide Program
 - Other Helpful Information
 - USB driver
- Quick installation Guide
- ➤ One RJ45 cable
- ➤ Two RJ11 cable
- One ADSL splitter (only available for TD-8811)
- One USB cable

Note:

If any of the above items are damaged or missing, please contact the retailer from whom you purchased the TD-8811/TD-8811B External ADSL2+ ROUTER for assistance.

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Chapter 1. Product Overview

The TP-LINK TD-8811/TD-8811B External ADSL2+ ROUTER is the latest product designed and manufactured by TP-LINK TECHNOLOGIES CO., LTD. With TP-LINK's excellent circuit design and high quality production, we guarantee its high performance, great stability and easy to use.

The TD-8811/TD-8811B is a complete plug-and-play solution. With standard Ethernet interface, it can be directly connected to any 10M/100M Ethernet devices, support Auto-MDI/MDIX.

The TD-8811/TD-8811B not only uses html (web mode through Ethernet port) to configure the router but also uses external utility software, too. You can download it from our website (http://www.tp-link.com).

1.1 Product main specification

- > High speed and asymmetrical data transmit mode, provides safe and exclusive bandwidth
- Supports All ADSL2+ industrial standards
- Compatible with all mainstream DSLAM (CO)
- Firmware upgradeable
- Provides integrated access of internet and route function which face to SOHO users
- Advanced DMT modulation and demodulation
- > Real-time Configuration and device monitoring
- Quick response semi-conductive surge protection circuit, provides reliable ESD and surge-protect function

1.2 Supporting protocol

- G.992.1 (G.dmt) Annex A/B
- G.992.2 (G.lite) Annex A/B
- ANSI T1.413
- G.992.3 (ADSL2) Annex A/B compliant
- G.992.5 (ADSL2+) Annex A/B compliant
- ADSL dual latency (fast path and interleaved path)
- I.432 ATM physical layer compliant
- -Supports RFC2364 (PPPoA)
- -Supports RFC2516 (PPPoE)
- -Supports RFC1483 (EoA) (Bridged *and route)
- -Supports RFC1577 (IPoA)

Note:

- 1) TD-8811 supports Annex A, TD-8811B supports Annex B
- 2) "*" Needs the third-party software.

1.3 Transmit data-rate

Max download data-rate: 24Mbps

Max upload data-rate: 1Mbps

Max line length: 6Km

1.4 ATM property

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

1.5 System support

- Support PVC
- > Support NAT, DHCP and so on
- ➤ Support IEEE 802.3、IEEE 802.3u
- Support 10Base-T/100BASE-TX full-duplex or half duplex Ethernet
- Support Auto-MDIX
- Support USB 1.1 device interface

1.6 Working environment

➤ Operating temperature: 0 °C~40 °C

➤ Storage temperature: -40 °C~70 °C

➤ Humidity: 10%~90% (non-condensing)

1.7 Electric parameter

Adaptor power Output: 9VAC/0.8A, 50Hz or 60 Hz

> Power consumption: 4W Maximum

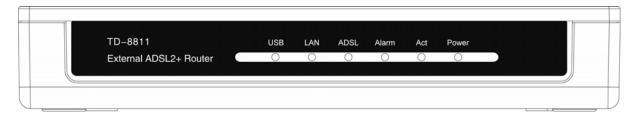
Chapter 2. Hardware Installation Guide

The TD-8811/TD-8811B maintains three separate interfaces, one Ethernet, one USB interface and one ADSL interface. The Router should not be located where it will be exposed to moisture or excessive heat. Place the Router in a location where it can be safely connected to the various devices as well as to a power source.

2.1 System requirement

Confirm your computer has been installed with networking interface card (NIC) before connecting ADSL2+ ROUTER to your computer, with the operating system supporting the TCP/IP protocol.

2.2 LED explanation

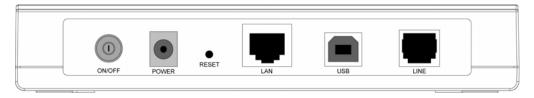


The front panel of ADSL2+ ROUTER includes one power indicator (RED) and five function indicators (GREEN), as explained in chart 1-1:

Indicator	Description	Status	Function Details
Power	Power	On	Power OK
Power		Off	Power fail
		On	There is data transmitting or receiving on WAN
Act	Data		port
		Off	No data is transmitting or receiving on WAN port
		On	There is a mistake when ADSL is transmitting
Alarm	Mistake		data or receiving data
		Off	ADSL works normally
	ADSL status	Slow flash	Self-detecting when power up
ADSL		Quick flash	Connecting to the telecom network
		On	Connection to telecom network is OK
		On	LAN port works normally
LAN	Ethernet	Off	Connection on LAN port is abnormal
		Flash	Data is transmitting or receiving on LAN port
	USB status	On	Connection to telecom network is OK
USB		Off	Connection on USB port is abnormal
		Flash	Data is transmitting or receiving

Chart 1-1

2.3 Rear-panel



- > **ON/OFF**: Turn on/off the ADSL2+ Router's power.
- POWER (9VAC/0.8A input): please do not use any unknown power adapter, otherwise your ADSL2+ Router may be damaged.
- > RESET (reset default): Press the reset button, then turn on the Router's power (keep the button pressed) for at least three seconds, it will restore the settings to the default factory configuration.
- > LAN: Connect with your computer's NIC.
- > **USB**: Connect with your computer's USB interface
- ➤ LINE (WAN): Connect to the MODEM Port of Splitter or connect the telephone line.

2.4 Hardware installation procedures

The procedure to install the Router can be described in the following steps:

First Step: Connect the MODEM port of Splitter with the LINE port of the TD-8811/TD-8811B ADSL2+ ROUTER by telephone line.

Second Step: Connect category 5 cable with RJ45 jacks to ADSL2+ Router's LAN port and your computer's NIC. Or connect USB cable to ADSL2+ Router's USB port and your computer's USB interface.

Third Step: Plug one end of the AC Power Adapter into the Power jack on the Ethernet ADSL2+ Router and the other end to a standard electrical outlet.

Last Step: Check the line connection to see if everything is ready. Power up finally.

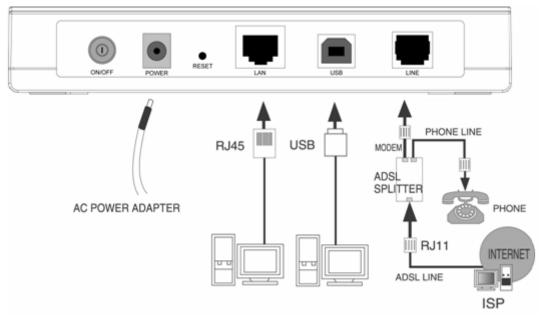


Figure 2-1

Chapter 3. System Configuration

3.1 Computer Configuration

- 1. Connect the cable according to Chapter 2, turn on the power.
- 2. Change the IP address of your PC (Figure 3-1): Open TCP/IP Properties of the LAN card in your PC, enter the IP address as 192.168.1.* (* is any value between 2 to 254, Network mask is 255.255.255.0, Gateway is 192.168.1.1, DNS address is the value provided by ISP).

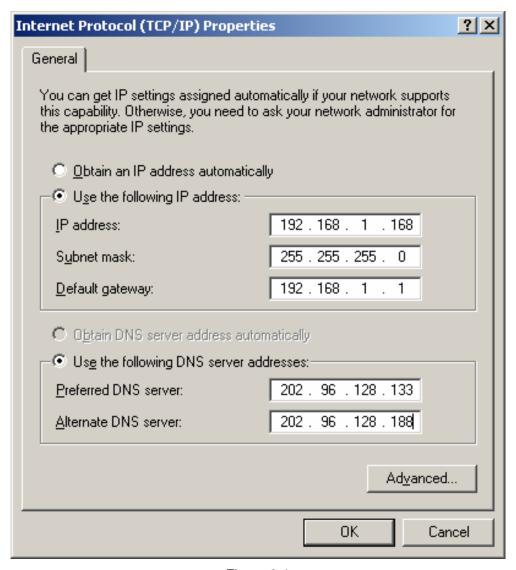


Figure 3-1

Note:

- Users of Windows 98 can open TCP/IP Properties according to the following: Right-click (Mouse) Network Neighbor -> Choose Properties -> Double-click TCP/IP PCI Fast Ethernet Adapter.
- The users of Windows 2000/NT/XP can do the following: Right-press Network Neighbor
 ->Choose Properties->Right-press Local Connection ->Choose Properties->Double- click
 Internet Protocol (TCP/IP).
- 3) The words may be different with this guide in fact.

You can check whether your configuration is successful through **PING** command. Enter "**Ping** 192.168.1.1".

If the screen looks like the following, the connection between your computer and TD-8811/8811B is OK now.

```
Pinging 192.168.1.1 with 32 bytes of data:

Reply from 192.168.1.1: bytes=32 time=1ms TTL=254

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 = 1ms, Average = 0ms
```

Figure 3-2

If the screen looks like the following, the connection fails. Repeat the previous steps again.

```
C:\Documents and Settings\Administrator>ping 192.168.1.1

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 3-3

3.2 Login

Startup Internet Explorer, and enter 192.168.1.1, then enter default user name(admin) password(admin), When ADSL2+ connection is OK, you will see the Figure 3-4.



Figure 3-4

You will then see the Figure 3-5. This screen displays some information about the device such as link rate.

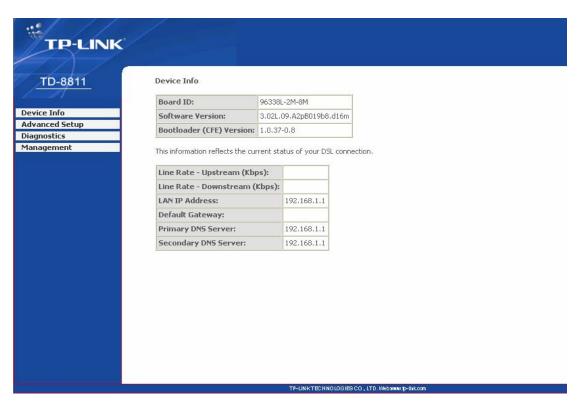


Figure 3-5

Default user name and password both are "admin"; if you want to change them, please go to

"Management" → "Access control" → "Passwords". (Figure 3-6)

TP-LINK	
TD-B811 Device Info Advanced Setup Diagnostics Management Settings System Log SNMP Agent Access Control Services IP Addresses Passwords Update Software Save/Reboot	Access Control Passwords Access to your DSL router is controlled through three user accounts: admin, support, and user. The user name "admin" has unrestricted access to change and view configuration of your DSL Router. The user name "support" is used to allow an ISP technician to access your DSL Router for maintenance and to run diagnostics. The user name "user" can access the DSL Router, view configuration settings and statistics, as well as, update the router's software. Use the fields below to enter up to 16 characters and click "Apply" to change or create passwords. Note: Password cannot contain a space. Username: Old Password: New Password: Confirm Password: Save/Apply
	TP-LINKTECHNOLOGIES CO., LTO. (VRED NAMO ID-INK.com

Figure 3-6

3.3 Web Setup

Choose "Advanced Setup"→"WAN", you will enter the page of Wide Area Network (WAN) Setup, you will see the Figure 3-7.

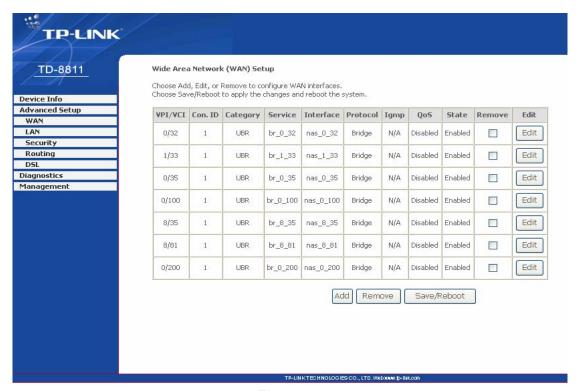


Figure 3-7

There are 7 PVC links in the **WAN** setup page, choose the right PVC according to your needs, and then click the **edit** button, you will enter the page of ATM PVC Configuration (See Figure 3-8).

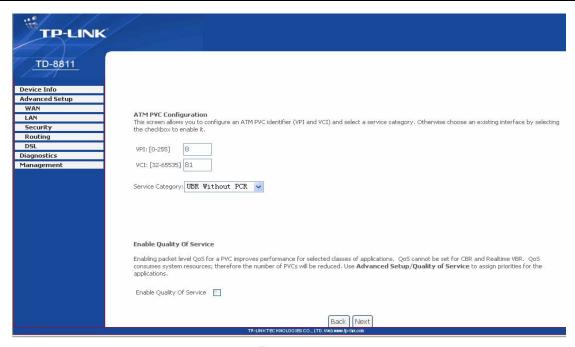


Figure 3-8

Enter **VPI/VCI** value and service category which is provided by your ISP, click **next** to enter the next step. You will see the Figure 3-9.

Note:

The type of network protocol selected may be different in different areas, there are five types (Figure 3-9), so you should ask your ISP to acquire the local type of network protocol and Encapsulation mode.

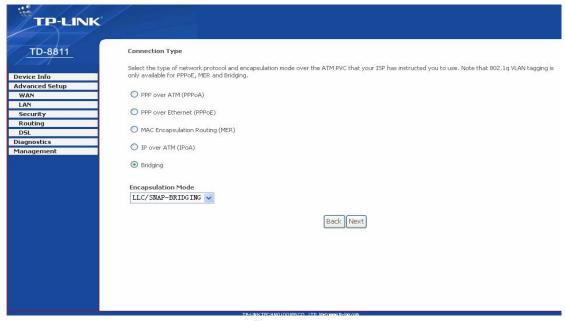


Figure 3-9

After choosing the proper protocol, enter the correct parameters supported by your ISP. Enable the configurations, then you can surf on the Internet.

PPP over ATM (PPPoA)

If you select the protocol of PPP over ATM (PPPoA), you will see the Figure 3-10, enter the value

of user name and password which is provided by your ISP, after selecting other functions (often using the default setup), click the **next** button.

TP-LINK	
TD-8811	PPP Username and Password
F	PPP usually requires that you have a user name and password to establish your connection. In the boxes below, enter the user name and password that
Device Info	your ISP has provided to you.
Advanced Setup	
WAN	
LAN	PPP Username:
NAME AND ADDRESS OF THE OWNER, WHEN PERSON O	rrr osenialie.
Security	PPP Password:
Routing	Authentication Method: AUTO
DSL	Authentication Method: AUTO
Diagnostics	
Management	Dial on demand (with idle timeout timer)
(1)	To design make a control of the cont
	PPP IP extension
	PAR TA EXTERISION
	Use Static IP Address
	_ osciolar nadios
	Back Next
	Dack
(1)	
The second secon	TP-LINKTECHNOLOGIES CO., LTD. Webawwith-link.com

Figure 3-10

After that, the Figure 3-11 will appear. Turn on the selected functions according to your demands. Clicking the **next** button to enter the next step, you will see the Figure 3-12, finally click **save** to complete the configuration.

11.5				
TP-LINK				
TD-8811				
<u> </u>	Enable IGMP Multica	st, and WAN Service		
Device Info	Enable IGMP Multicast			
Advanced Setup	Enable WAN Service	▽		
LAN				
Security	Service Name	br_8_81		
Routing				
DSL Diagnostics			2012	
Management			Back Next	
		TR-UNKTECHNOU	OGIES CO., LTD. (Nebwww.to-llak.com	

Figure 3-11

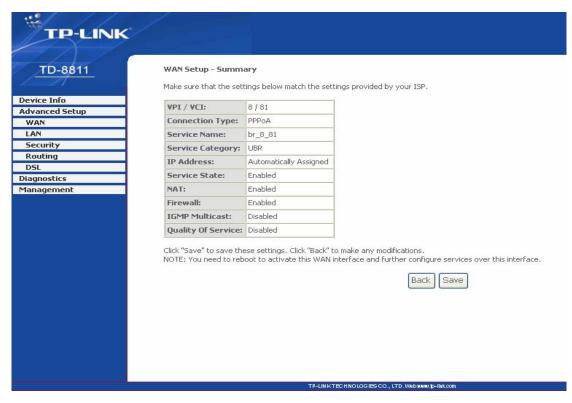


Figure 3-12

> PPP over Ethernet (PPPoE)

If you select the protocol of PPP over Ethernet (PPPoE), you will see the Figure 3-13, enter the value of user name and password which is provided by your ISP, after selecting other functions (often using the default setup), click the **next** button.

TP-LINK	
TD-8811 Device Info Advanced Setup WAN	PPP Username and Password PPP usually requires that you have a user name and password to establish your connection. In the boxes below, enter the user name and password that your ISP has provided to you.
LAN Security Routing DSL Diagnostics Management	PPP Username: PPP Password: PPPoE Service Name: Authentication Method: Dial on demand (with idle timeout timer) PPP IP extension Use Static IP Address
	Back Next

Figure 3-13

You will see the Figure 3-14. Then turn on the selected functions according to your needs. Clicking the **next** button to enter the next step, you will see the Figure 3-15, finally click **save** to complete the configuration.



Figure 3-14

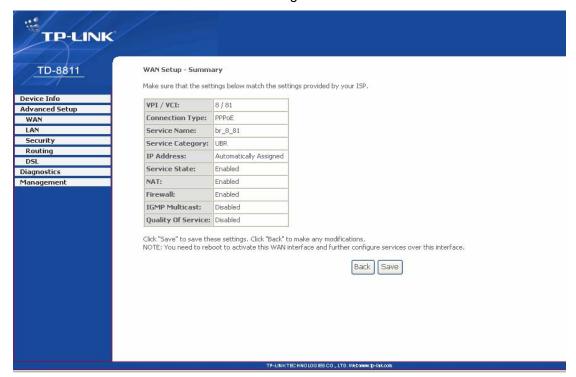


Figure 3-15

> MAC Encapsulation Routing (MER)

If you select the protocol of MAC Encapsulation Routing (MER), you will see the page (Figure 3-16). Enter the parameter and the way which is provided by your ISP, then click the **next** button.

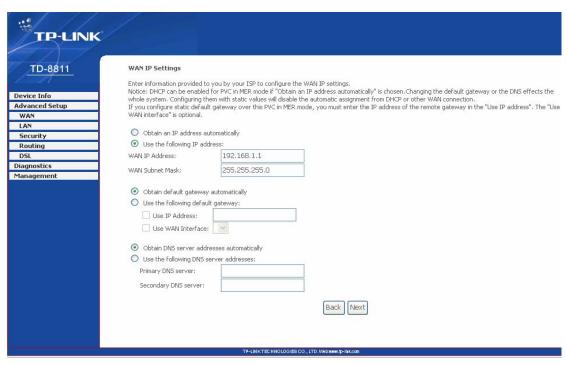


Figure 3-16

After that, Figure 3-17 will be available. You can select the functions according to your needs. Clicking the **next** button to enter the next step, you will see the Figure 3-18, finally click **save** to complete the configuration.

TP-LINK	
Device Info Advanced Setup WAN LAN Security Routing DSL Diagnostics Management	Network Address Translation Settings Network Address Translation (NAT) allows you to share one Wide Area Network (WAN) IP address for multiple computers on your Local Area Network (LAN) Enable NAT Enable Firewall Enable IGMP Multicast, and WAN Service Enable IGMP Multicast Enable WAN Service Service Name: br_8_81 Back Next
	TF-LINKTECHNOLOGIESCO_, LTO. Web www.tp-flik.com

Figure 3-17

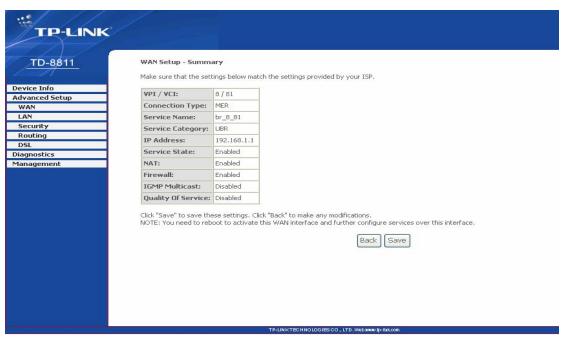


Figure 3-18

> IP over ATM (IPoA)

If you select the protocol of IP over ATM (IPoA), the Figure 3-19 will display, enter the parameter and the way which is provided by your ISP, then click the **next** button.

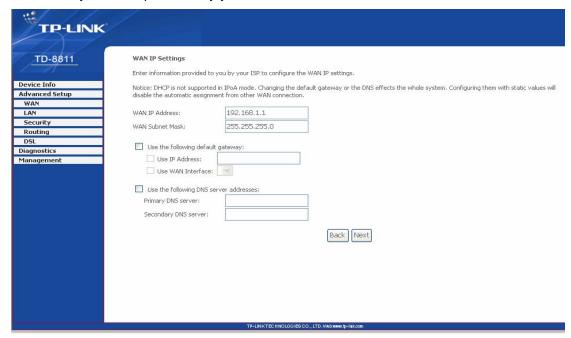


Figure 3-19

You will see the page (Figure 3-20), then turn on the selected functions according to your needs. Clicking the **next** button to enter the next step, you will see the Figure 3-21, finally click **save** to complete the configuration.

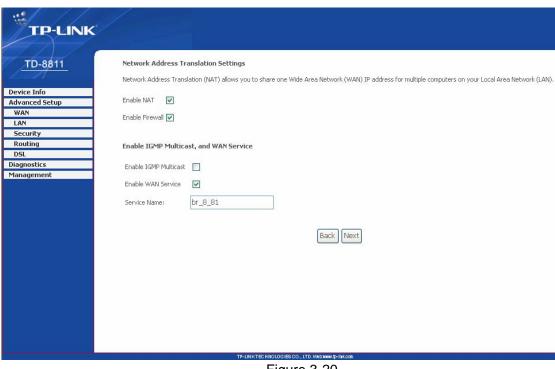


Figure 3-20

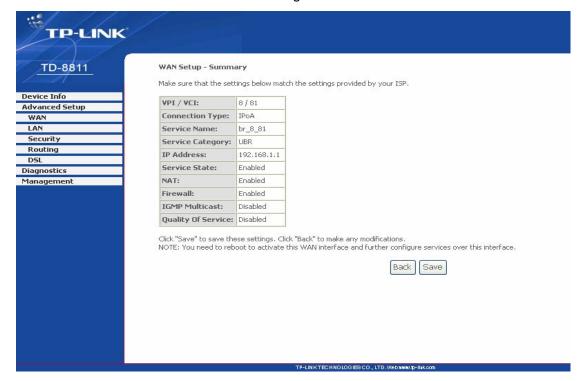


Figure 3-21

> Bridging

If you select the Bridging protocol, you just open the bridge service function options, you will see the Figure 3-22, then click the **next** button, you will see the Figure 3-23, press **save** to complete the configuration finally.



Figure 3-22

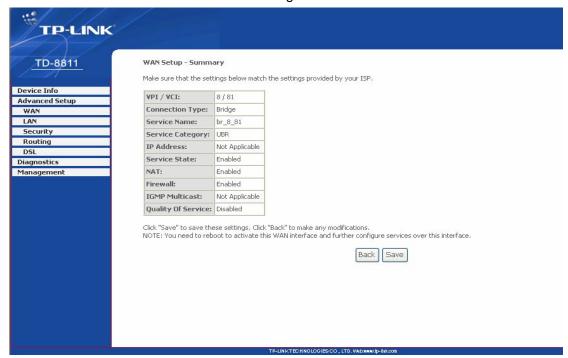


Figure 3-23

Note:

After you complete the settings, the new settings must be saved and the Router must be restarted for the settings to take effect. Please press the **Save/Reboot** button on the Figure 3-24 to restart.

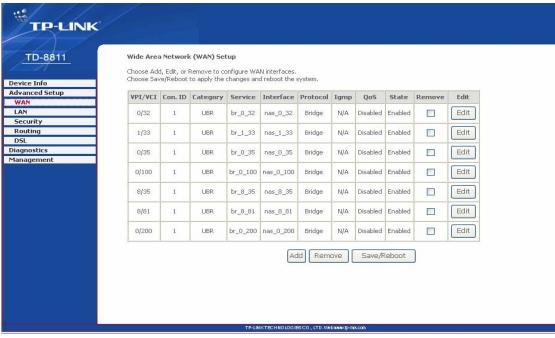


Figure 3-24

Note:

All of the above setting is under windows XP OS.

3.4 Software Dial

If TD-8811/TD-8811B CPE work in bridged (RFC 1483 Bridged) mode when it connects Internet. You must install dial software on your PC. There are some software working on Windows in market, example for EnterNet3000, RASPPPoE and WinPeET.

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

- The users of Windows XP can click the "start->All Programs->Accessories-> Communications->New connection wizard", then click Next to enter the setting page.
- Please select the "connect to the internet", and then click the Next button to enter the next page and select the "set up my connection manually", click Next to enter the next page.
- Please select the "connect using a broadband connection that requires user name and password", click Next to type the name of your ISP in the current page, and then click Next.
- > Type an **ISP account name** and **password**, if you have forgotten an existing account name or password, please connect with your ISP, click **Next**.
- > To create the connection and close this wizard, click **finish** to add a shortcut to this connection to your desktop.

When you assess the internet by ADSL, double-click this shortcut of dial connection in your desktop, type the account name and password, then click **connect** to connect the Internet.

3.5 USB Configuration

If you use the USB interface, First, you must install the USB's drive to the computer. You can obtain the drives from the provided CD or download from our website. (http://www.tp-link.com)

USB Drive installation procedures

If the hardware is installed before the computer is Power On. Please turn on the computer and enter the operating system, Then the operating system will identify the device. If the hardware is installed after the computer is Power On, the desktop will display the information about finding the new hardware.

Then you will see the Figure 3-25 require install software for USB Device, select 'Install from a list or specific location (Advanced)' and Clicking the **next** button to enter the next step, then Figure 3-26 will display.



Figure 3-25



Figure 3-26

Select the 'search removable media(floppy, CD-ROM···)' and click the **next** button, then Figure 3-27 is available. The driver will be searched and installed.

Note:

You must insert the CD first.

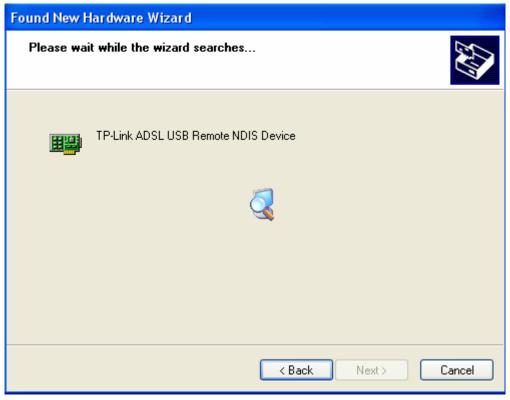


Figure 3-27

After that, you will see the Figure 3-28. The installation completes, click **Finish** to close the installation.

Please refer to <u>chapter 3.1</u> to finish the IP configuration for USB connect. Then you could use the USB device.



Figure 3-28

Note:

- 1) All of the above settings are under windows XP.
- 2) If you want to pull out the USB device you must disconnect the network of USB first.

Chapter 4: Advantage management setup

In order to satisfy our customer's needs, we offer an excellent Web management interface. Feel free to utilize the Advantage application and online software upgrades. The functions of the Web management interface are as follows:

- Upgrade software
- ➤ Modify the default IP address of the port of LAN(192.168.1.1)
- Modify the login password
- Configure DHCP
- > Check the information of IP and the operation status
- Configure the NAT function
- Configure the DNS parameters
- Configure RIP(Routing Information Protocol)
- Configure IP route
- Configure Security rule
- Configure DSL parameter

Note:

If you want to acquire further details, please access our website (<u>www.tp-link.com</u>) and consult the User Guide of TD-8811/TD-8811B.

Appendix A: FQA

1. What related parameters are required to acquire ISP when you want to access the internet by ADSL2+ ROUTER?

- 1) Dial user: Connection protocol, User name, Password, Value of VPI/VCI, Encapsulation mode of AAL5 and so on.
- 2) Static IP user: Connection protocol, WAN IP Address, Subnet Mask, Gateway, Value of VPI/VCI, Encapsulation mode of AAL5 and so on.

2. About Connection protocol, VCI/VPI, Encapsulation mode of AAL5

- 1) This product supports the PPP protocol over ATM (PPPoA), PPP over Ethernet (PPPoE), MAC Encapsulation Routing (MER), IP over ATM (IPoA) and Bridging. You may be used with any one of the five protocols above. Because the ISP in different areas supports different protocol, you must choose the protocol which is supported by your ISP.
- 2) The VPI is the English abbreviation of the Virtual Path Identifier, the VCI is the English abbreviation of the Virtual Channel Identifier, the value of VCI/VPI must be compatible with the value that provided by ISP.
- 3) Encapsulation mode of AAL5 include: LLC/SNAP and VC_MAX(often using LLC/SNAP).

3. The LAN's and the NIC's LED both are bright, but why the configuration interface is inaccessible?

- 1) Use the order of **ping 192.168.1.1** to check the Accuracy of connection.
- 2) Check the Accuracy of working NIC.
- 3) Whatever the setup of the IP address on your computer (if you close the DHCP function, you can't obtain the IP address automatically, must specify the IP address of your computer manually).
- 4) Run the winipcfg order in the windows 95/98(run the ipconfig order in the windows 2000) to check whether setup the IP address, subnet mask, default gateway by DHCP.
- Resume the ADSL2+ Router's default configuration if necessary.

4. Have completed all configurations, but can't dial through computer

- 1) Check the indicator of ADSL2+, it should be working normally.
- 2) Check the accuracy of parameter of value of VPI/VCI, Encapsulation mode of AAL5 and so on, whether you need to install the software of dial the number, such as Winpoet, Enternet.
- 3) This product has the PPP dial procedure inside, so you will not need to use the dial software if your protocol is PPPoA or PPPoE, ADSL2+ Router will connect automatically.
- You can check whether your ADSL2+ ROUTER succeeds in connection with PING command.

Appendix B: Default Configuration

USER NAME	admin
PASSWORD	admin
IP ADDRESS	192.168.1.1
VPI/VCI	0/32,1/33,0/35,0/100,0/200,8/35,8/81

Appendix C: Contact Information

For more help with the installation or operation of the TP-LINK TD-8811/TD-8811B External ADSL2+ ROUTER, please contact us.

Website: http://www.tp-link.com