

TD-8841 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.

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

CE Mark Warning

CE

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.

SAFETY NOTICES

Caution: Do not use this product near water, for example, in a wet basement or near a swimming pool.

Avoid using this product during an electrical storm. There may be a remote risk of electric shock from lightning.

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Package contents

The following contents should be found in your box:

- > One TD-8841 External ADSL2+ ROUTER
- > One AC power Adapter for TD-8841 External ADSL2+ ROUTER
- > One Resource CD for TD-8841 External ADSL2+ ROUTER, including:
 - This Guide
 - Quick installation Guide Program
 - Other Helpful Information
 - USB driver
- > Quick installation Guide
- > One RJ45 cable
- > Two RJ11 cable
- > One ADSL splitter
- > One USB cable

PNote:

If any of the above items are damaged or missing, please contact the retailer from whom you purchased the TD-8841 External ADSL2+ ROUTER for assistance.

Chapter 1. Product Overview

TP-LINK® TD-8841 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 the ADSL2+ ROUTER's high performance, great stability and easy to use.

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.

The TD-8841 is a complete plug-and-play solution. With standard Ethernet interface, it can be directly connected to any 10M/100M Ethernet devices, support Auto-MDIX.

The TD-8841 not only uses html (web mode through Ethernet port) to configure the ROUTER but also uses external utility software. You can download it from our website (<u>http://www.tp-link.com</u>).

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 user
- > 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/C
- > G.992.2 (G.lite) Annex A/B/C
- > ANSI T1.413
- > G.992.3 (ADSL2) Annex A/B/C/M and Annex L (RE-DSL) compliant
- > G.992.5 (ADSL2+) Annex A/B/C and Annex L (RE-DSL) 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 Router)
- Supports RFC1577 (IPoA)

Note: "*" 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 $^{\circ}$ C ~70 $^{\circ}$ C
- > Humidity: 10%~90% (non-condensing)

1.7 Electric parameter

- > Adaptor power Output: 9VAC/0.8A, 50Hz or 60 Hz
- > Power consumption: 6W Maximum

Chapter 2. Hardware Installation Guide

The TD-8841 maintains six separate interfaces, four 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 eight function indicators (GREEN), as explained in following chart:

Indicator	Description	Status	Function Details
PWR	Dowor	On	Power OK
PVK	Power	Off	Power fail
		Slow flash	Self-detecting when power up
ADSL	ADSL status	Quick flash	Connecting to the telecom network
		On	Connection to telecom network OK
ALARM	Mistake	On	There is mistake when ADSL transmitting data or receiving data
		Off	ADSL normal
	Data	On	There is data transmitting or receiving on WAN port
ACT	Dala	Off	No data transmitting or receiving on WAN port
		On	Connection to telecom network OK
USB	USB status	Off	Connect on USB port abnormal
		Flash	Data transmitting or receiving
		On	LAN port normal
LAN(1~4)	Ethernet	Off	Connection on LAN port abnormal
		Flash	Data transmitting or receiving on LAN port

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 adaptor, otherwise your ADSL2+ ROUTER may be damaged.

- RESET(reset default): First press the reset button of ROUTER, then turn on the ROUTER's power for at least three seconds. It will resume the default manufacturer's setup.
- > 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 Connecting the telephone line.

2.4 Hardware installation procedures

The procedure to install the Router can be described in general terms in the following steps and shown as Figure 2-1:

First Step: Connecting the MODEM port of Splitter with the LINE port of the TD-8841 ADSL2+ ROUTER by telephone line. While you need to use a telephone, please attach telephone line into the phone of Splitter.

Second Step: Connect category 5 cable with RJ45 jacks to 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

The default IP address of the ADSL2+ ROUTER is 192.168.1.1, and the default Subnet Mask is 255.255.255.0. These values can be seen from the LAN, and can be changed as your desire. As an example, we use the default values for description in this guide.

- 1. Connect the cable according to Chapter 2, turn on the power.
- 2. Connect the local PCs to the ADSL2+ ROUTER's LAN port. There are then two means to configure the IP address for your PCs.
- > Configure the IP address manually
 - 1) Set up the TCP/IP Protocol for your PC(s).
 - Configure the network parameters. The IP address is 192.168.1.xxx ("xxx" is from 2 to 254), Subnet Mask is 255.255.255.0, and Gateway is 192.168.1.1 (The ADSL2+ ROUTER's default IP address).
- > Obtain an IP address automatically
 - Set up the TCP/IP Protocol in "Obtain an IP address automatically" mode on your PC(s).
 - 2) Power off the ADSL2+ ROUTER and PC(s). Then turn on it, and restart the PC(s). The built-in DHCP server will assign IP addresses for the PC(s).

Note: If you need instructions as to how to do this, please refer to <u>Appendix B: Configuring</u> the PCs.

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

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

```
Pinging 192.168.1.1 with 32 bytes of data:
Reply from 192.168.1.1 : bytes=32 time<1ms TTL=128
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
```

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

```
Pinging 192.168.1.1 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.
Ping statistics for 192.168.1.1:
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

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 3-1.

Connect to 19	2.168.1.1	? 🔀
R		
DSL Router		
<u>U</u> ser name:	🖸 admin	~
Password:	••••	
	Remember my pas	ssword

Figure 3-1

You will then see the Figure 3-2. You will see some information such as link rate and so on.



Device Info

Board ID:	96338L-2M-8M
Software Version:	3.02L.09.A2pB019b8.d16m
Bootloader (CFE) Version:	1.0.37-0.8

This information reflects the current status of your DSL connection.

Line Rate - Upstream (Kbps):	
Line Rate - Downstream (Kbps):	
LAN IP Address:	192.168.1.1
Default Gateway:	
Primary DNS Server:	192.168.1.1
Secondary DNS Server:	192.168.1.1



Default value of user name and password is "admin"; if you want to change them, please go to "Management" \rightarrow "Access control" \rightarrow "Passwords" changing them. (Figure 3-3)

	/	
TP-LINK		
TD-8841	Access Control Passwords	
	Access to your DSL router is control	ed through three user accounts: admin, support, and user.
Device Info	The user name "admin" has unrestric	ted access to change and view configuration of your DSL Router.
Advanced Setup		
Diagnostics	The user name "support" is used to a	allow an ISP technician to access your DSL Router for maintenance and to run diagnostics.
Management	The user name "user" can access the	DSL Router, view configuration settings and statistics, as well as, update the router's software.
Settings		
System Log	Use the fields below to enter up to 1	6 characters and click "Apply" to change or create passwords. Note: Password cannot contain a space.
Access Control		
Services	Username:	
IP Addresses	Old Password:	
Passwords	New Password:	
Update Software	New Password.	
Save/Reboot	Confirm Password:	
		Save/Apply

Figure 3-3

3.3 Web Setup

Choose "Advanced Setup"→"WAN", you will enter the page of Wide Area Network (WAN) Setup, you will see the Figure 3-4.

TD-8841	Choose Add	d, Edit, or	k (WAN) 5e Remove to ci to apply the	onfigure WA							
lvanced Setup 👘	VPI/VCI	Con. ID	Category	Service	Interface	Protocol	Igmp	Qo5	State	Remove	Edit
YAN AN Security	0/32	1	UBR	br_0_32	nas_0_32	Bridge	N/A	Disabled	Enabled		Edit
touting	1/33	1	UBR	br_1_33	nas_1_33	Bridge	N/A	Disabled	Enabled		Edit
agnostics	0/35	1	UBR	br_0_35	nas_0_35	Bridge	N/A	Disabled	Enabled		Edit
anagement	0/100	1	UBR	br_0_100	nas_0_100	Bridge	N/A	Disabled	Enabled		Edit
	8/35	1	UBR	br_8_35	nas_8_35	Bridge	N/A	Disabled	Enabled		Edit
	8/81	1	UBR	br_8_81	nas_8_81	Bridge	N/A	Disabled	Enabled		Edit
	0/200	1	UBR	br_0_200	nas_0_200	Bridge	N/A	Disabled	Enabled		Edit
					A	dd) Rem	ove	Save/F	Reboot]	



There are 7 PVC links in the **WAN** setup page, choose the fit PVC according to your needs, and then click the **edit** button, you will enter the page of ATM PVC Configuration (See Figure 3-5).

TP-LINK	./
LE-CINK	
TD-8841	
10-0041	
Device Info	
Advanced Setup	
WAN	
LAN	ATM PVC Configuration This screen allows you to configure an ATM PVC identifier (VPI and VCI) and select a service category. Otherwise choose an existing interface by selecting
Security	This screen allows you to compute an ATM PVC identifier (VPI and VCI) and select a service category. Otherwise choose an existing interface by selecting the checkbox to enable it.
Routing	
DSL	VPI: [0-255] 0
Diagnostics	
Management	VCI: [32-65535] 32
	Service Category: UBR Without PCR 💙
	Enable Quality Of Service
	Enabling packet level QoS for a PVC improves performance for selected classes of applications. QoS cannot be set for CBR and Realtime VBR. QoS
	consumes system resources; therefore the number of PVCs will be reduced. Use Advanced Setup/Quality of Service to assign priorities for the applications.
	Enable Quality Of Service
	Back Next
	DOCK TRAC

Figure 3-5

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 3-6.

P Note:

The type of network protocol selected may be different in different areas, there are five types (Figure 3-7), So you should ask your ISP to acquire the local type of network protocol and Encapsulation mode.

TP-LINK	
TD-8841	Connection Type
	Select the type of network protocol and encapsulation mode over the ATM PVC that your ISP has instructed you to use. Note that 802.1q VLAN tagging is
Device Info	only available for PPPoE, MER and Bridging.
Advanced Setup	
WAN	O PPP over ATM (PPPoA)
LAN	
Security	O PPP over Ethernet (PPPoE)
Routing	O MAC Encapsulation Routing (MER)
DSL	 MAC Encapsulation Routing (MER)
Diagnostics	O IP over ATM (IPOA)
Management	
	Bridging
	Encapsulation Mode
	LLC/SNAP-BRIDGING
	LLC/ SRIT DILLOTRY V
	Back Next
	TP-LNKTECHNOLOGIES CO., LTD. Webwwwtp-llukcom

Figure 3-6

After choosing the proper protocol, enter the correct parameters supported by your ISP. Enable the configurations, then you will go to Internet.

> PPP over ATM (PPPoA)

If you select the protocol of PPP over ATM (PPPoA), you will see the Figure 3-7, enter the value of user name and password which is provided by your ISP, after selecting the other function(often using the default setup), click the **next** button.

TP-LINK	
TD-8841	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
Device Info	your ISP has provided to you.
Advanced Setup	
WAN	
LAN	PPP Username:
Security	PPP Password:
Routing	Authentication Method:
DSL	Autoentication Method:
Diagnostics Management	Dial on demand (with idle timeout timer)
	PPP IP extension Use Static IP Address
	Back Next
θ_{e}	TP-LINK TECHNOLOGIES CO., LTD. Webwww.tp-link.com

Figure 3-7

You will see the Figure 3-8. Then turn on the selected functions according to your demands. Clicking the **next** button to enter the next step, you will see the Figure 3-9, finally click **save** to complete the configuration.

TP-LINK	/	
<u>TD-8841</u>	Enable IGMP Multica	st, and WAN Service
Device Info	Enable IGMP Multicast	
Advanced Setup	Enable WAN Service	
WAN	Enable WAIN Service	
LAN	Service Name	br_0_32
Security		
Routing DSL		
Diagnostics		
Management		Back Next
		TP-LINKTECHNOLOGIES CO., LTD. Webwww.tp-link.com

Figure 3-8

P-LINK		
PEINK		
8841 WAN Setup - Summa	ry	
Make sure that the setti	ngs below match the sett	gs provided by your ISP.
lo l		
Setup	0 / 32	
Connection Type:	PPPoA	
	br_0_32	
Service Category:	UBR	
IP Address:	Automatically Assigned	
	Enabled	
5	Enabled	
	Enabled	
IGMP Multicast:	Disabled	
Quality Of Service:	Disabled	
Click "Save" to save the	se settings. Click "Back" ti	make any modifications. erface and further configure services over this interface. Back Save

Figure 3-9

> PPP over Ethernet (PPPoE)

If you select the protocol of PPP over Ethernet (PPPoE), you will see the Figure 3-10, enter the value of user name and password which is provided by your ISP, after selecting the other function(often using the default setup), click the **next** button.

TP-LINK	
IP-LINK	
<u>TD-8841</u>	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.
Device Info Advanced Setup WAN	
LAN Security	PPP Username:
Routing DSL	PPPoE Service Name:
Diagnostics Management	Authentication Method: AUTO
	Dial on demand (with idle timeout timer)
	PPP IP extension
	Use Static IP Address
	Back Next
	TP-LINK TECH NOLOGIES CO., LTD. Mebwww.p-link.com

Figure 3-10

You will see the Figure 3-11. Then turn on the selected functions according to your needs. Clicking the **next** button to enter the next step, you will see the Figure 3-12, finally click **save** to complete the configuration.

e IGMP Multicast, and WAN Service		
e IGMP Multicast 📃		
e WAN Service 🔽		
e Name br_0_32		
	Back Next	
	TP-LINK	TP-LINKTECHNOLOGIES.CO.,LTD. Webwww.tp-link.com

Figure 3-11

vPI / VCI: 0 / 32 Connection Type: PPPoE Service Name: br_0_32 Service Category: UBR IP Address: Automatically Assigned stics Service State:	Info ced Setup rity ing stics	VPI / VCI: Connection Type: Service Name: Service Category: IP Address: Service State: NAT:	0 / 32 PPPoE br_0_32 UBR Automatically Assigned Enabled	ngs provided by you	r ISP.		
Connection Type: PPPoE Service Name: br_0_32 Service Category: UBR Ing IP Address: Automatically Assigned Service State: Enabled NAT: Enabled Firewall: Enabled IGMP Multicast: Disabled Quality Of Service: Disabled Click "Save" to save these settings, Click "back" to make any modifications,	iced Setup wity ing ostics	Connection Type: Service Name: Service Category: IP Address: Service State: NAT:	PPPoE br_0_32 UBR Automatically Assigned Enabled				
Connection Type: PPPoE Service Name: br_0_32 Service Category: UBR Ing IP Address: Automatically Assigned Service State: Enabled NAT: Enabled Firewall: Enabled IGMP Multicast: Disabled Quality Of Service: Disabled Click "Save" to save these settings, Click "back" to make any modifications,	irity irity ostics gement	Connection Type: Service Name: Service Category: IP Address: Service State: NAT:	PPPoE br_0_32 UBR Automatically Assigned Enabled				
Service Name: br_0_32 Service Category: UBR IP Address: Automatically Assigned Service State: Enabled NAT: Enabled IGMP Multicast: Disabled Quality Of Service: Disabled Click "Save" to save these settings. Click "Back" to make any modifications.	g tics	Service Name: Service Category: IP Address: Service State: NAT:	br_0_32 UBR Automatically Assigned Enabled				
Y Service Category: UBR. IP Address: Automatically Assigned Service State: Enabled NAT: Enabled Firewall: Enabled IGMP Multicast: Disabled Quality Of Service: Disabled Click "Save" to save these settings. Click "Back" to make any modifications.	ics	Service Category: IP Address: Service State: NAT:	UBR Automatically Assigned Enabled				
IP Address: Automatically Assigned Service State: Enabled NAT: Enabled Firewall: Enabled IGMP Multicast: Disabled Quality Of Service: Disabled Click "Save" to save these settings. Click "Back" to make any modifications.	cs	IP Address: Service State: NAT:	Automatically Assigned Enabled				
IP Address: Automatically Assigned service State: Enabled NAT: Enabled Firewall: Enabled IGMP Multicast: Disabled Quality Of Service: Disabled Click "Save" to save these settings. Click "Back" to make any modifications.	cs	Service State: NAT:	Enabled				
NAT: Enabled Firewall: Enabled IGMP Multicast: Disabled Quality Of Service: Disabled Click "Save" to save these settings. Click "Back" to make any modifications.	2005-00-00-00-00-00-00-00-00-00-00-00-00-	NAT:					
NAT: Enabled Firewall: Enabled IGMP Multicast: Disabled Quality Of Service: Disabled Click "Save" to save these settings, Click "Back" to make any modifications.	200000000000000000000000000000000000000		Enabled				
IGMP Multicast: Disabled Quality Of Service: Disabled Click "Save" to save these settings. Click "Back" to make any modifications.		Firemall					
Quality Of Service: Disabled Click "Save" to save these settings. Click "Back" to make any modifications.		TH CWOIL	Enabled				
Click "Save" to save these settings. Click "Back" to make any modifications.		IGMP Multicast:	Disabled				
Click "Save" to save these settings, Click "Back" to make any modifications. NOTE: You need to reboot to activate this WAN interface and further configure services over this interface.		Quality Of Service:	Disabled				
Back	i	Click "Save" to save the NOTE: You need to reb	ese settings, Click "Back" (oot to activate this WAN	terface and further (configure serv	_	nterface.

Figure 3-12

> MAC Encapsulation Routing (MER)

If you select the protocol of MAC Encapsulation Routing (MER), you will see the page (Figure 3-13) Enter the parameter and the way which is provided by your ISP, then click the **next** button.

TP-LINK	
TD-8841 Device Info Advanced Setup WAN LAN Security Routing DSL Diagnostics Management	WAN IP Settings Exter information provided to you by your ISP to configure the WAN IP settings. Notice: DPCP can be enabled for PVC in MER mode if "Obtain an IP address automatically" is chosen. Changing the default gateway or the DNS effects the wAN interface" is optional. • Obtain an IP address automatically. • Obtain default gateway automatically. • Use the following Default gateway: • Use the following Default gateway: • Use the following Default gateway: • Use the following DNS server addresses: Primary DNS server: • Data In DNS server: • Data In DNS server:

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.

TP-LINK	
Device Info Advanced Setup WAN LAN Security Routing DSI. 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 WAN Service Service Name: br_0_32 Back Next
	TP-LINKTECHNOLOGIESCO, LTO, Webwev/p-link.com

Figure 3-14

AN Service Name: br_0_32 Security Service Category: UBR Balanostics IP Address: Automatically Assigned agnostics Service State: Enabled NAT: Enabled IGMP Multicast: Disabled Quality Of Service: Disabled Click "Save" to save these settings. Click "Back" to make any modifications.	Setup VPI / VEI: 0 / 32 Connection Type: MER. Service Name: br_0_32 Service Category: UBR IP Address: Automatically Assigned Service State: Enabled IT: Enabled Firewall: Enabled IGMP Multicast: Disabled Quality Of Service: Disabled	<u>TD-8841</u>	WAN Setup - Summ	ary tings below match the set	igs provided by your ISP.	6	
avanced Setup MER LAN Service Name: br_0_32 Security Service Category: UBR Routing IP Address: Automatically Assigned Service State: Enabled IGMP Multicast: Disabled Quality Of Service: Disabled Click "Save" to save these settings. Click "Back" to make any modifications.	Setup Connection Type: MER Service Name: br_0_32 Service Category: UBR IP Address: Automatically Assigned Service State: Enabled NAT: Enabled Firewall: Enabled Quality Of Service Disabled Quality Of Service Disabled Click "Save" to save these settings. Click "Back" to make any modifications. NOTE: You need to rebot to activate this WAN interface and further configure services over this interface.		VPT / VCT:	0/32			
AN Service Name: br_0_32 security UBR souting IP Address: Automatically Assigned spl. Service State: Enabled NAT: Enabled IGMP Multicast: Disabled Quality Of Service: Disabled Click "Save" to save these settings. Click "Back" to make any modifications.	Service Name: br_0_32 Service Category: UBR IP Address: Automatically Assigned Service State: Enabled NAT: Enabled Firewall: Enabled IGMP Multicast: Disabled Quality Of Service: Disabled Quality Of Service: Disabled Click "Save" to save these settings. Click "Back" to make any modifications. NOTE: You need to reboot to activate this WAN interface and further configure services over this interface.						
ecurity outing Service Category: UBR IP Address: Automatically Assigned Service State: Enabled NAT: Enabled Firewall: Enabled IGMP Multicast: Disabled Quality Of Service: Disabled Click "Save" to save these settings. Click "Back" to make any modifications.	Service Category: UBR IP Address: Automatically Assigned Service State: Enabled NAT: Enabled Firewall: Enabled IGMP Multicast: Disabled Quality Of Service: Disabled Click "Save" to save these settings. Click "Back" to make any modifications. NOTE: You need to rebot to activate this WAN interface and further configure services over this interface.						
touting Service Category, Back JP Address: Automatically Assigned Sagnostics Service State: anagement Enabled Firewall: Enabled IGMP Multicast: Disabled Quality Of Service: Disabled Click "Save" to save these settings. Click "Back" to make any modifications.	s ent IP Address: Automatically Assigned Service State: Enabled NAT: Enabled IGMP Multicast: Disabled Quality Of Service: Disabled Click "Save" to save these settings. Click "Back" to make any modifications. NOTE: You need to reboot to activate this WAN interface and further configure services over this interface.	CAN BE AN A REAL PROPERTY OF					
DSL IP Address: Automatically Assigned agnostics Service State: Enabled NAT: Enabled IGMP Multicast: Disabled Quality Of Service: Disabled	s ent Service State: Enabled NAT: Enabled Firewall: Enabled IGMP Multicast: Disabled Quality Of Service: Disabled Click "Save" to save these settings. Click "Back" to make any modifications. NOTE: You need to reboot to activate this WAN interface and further configure services over this interface.						
Adjustics anagement NAT: Enabled Firewall: Enabled IGMP Multicast: Disabled Quality Of Service: Disabled Click "Save" to save these settings. Click "Back" to make any modifications.	Some NAT: Enabled Firewall: Enabled IGMP Multicast: Disabled Quality Of Service: Disabled Click "Save" to save these settings. Click "Back" to make any modifications. NOTE: You need to reboot to activate this WAN interface and further configure services over this interface.		IP Address:				
Firewall: Enabled IGMP Multicast: Disabled Quality Of Service: Disabled Click "Save" to save these settings. Click "Back" to make any modifications.	Firewall: Enabled IGMP Multicast: Disabled Quality Of Service: Disabled Click "Save" to save these settings. Click "Back" to make any modifications. NOTE: You need to reboot to activate this WAN interface and further configure services over this interface.		Service State:	Enabled			
IGMP Multicast: Disabled Quality Of Service: Disabled Click "Save" to save these settings. Click "Back" to make any modifications.	IGMP Multicast: Disabled Quality Of Service: Disabled Click "Save" to save these settings. Click "Back" to make any modifications. NOTE: You need to reboot to activate this WAN interface and further configure services over this interface.	nagement	NAT:	Enabled			
Quality Of Service: Disabled Click "Save" to save these settings. Click "Back" to make any modifications.	Quality Of Service: Disabled Click "Save" to save these settings. Click "Back" to make any modifications. NOTE: You need to reboot to activate this WAN interface and further configure services over this interface.		Firewall:	Enabled			
Click "Save" to save these settings. Click "Back" to make any modifications.	Click "Save" to save these settings. Click "Back" to make any modifications. NOTE: You need to reboot to activate this WAN interface and further configure services over this interface.		IGMP Multicast:	Disabled			
Click "Save" to save these settings. Click "Back" to make any modifications.	Click "Save" to save these settings. Click "Back" to make any modifications. NOTE: You need to reboot to activate this WAN interface and further configure services over this interface.		Quality Of Service	Disabled			
Back			Click "Save" to save the NOTE: You need to reb	ese settings, Click "Back" (loot to activate this WAN	erface and further config		nterface.

Figure 3-15

> IP over ATM (IPoA)

If you select the protocol of IP over ATM (IPoA), you will see the Figure 3-16, enter the parameter and the way which is provided by your ISP, then click the **next** button.

TP-LINK	
TD-8841	WAN IP Settings
	Enter information provided to you by your ISP to configure the WAN IP settings.
Device Info Advanced Setup	Notice: DHCP is not supported in IPoA mode. Changing the default gateway or the DNS effects the whole system. Configuring them with static values will disable the automatic assignment from other WAN connection.
WAN	usable die automatic assignment nom odner www.comection.
LAN	WAN IP Address: 198.168.1.1
Security	WAN Subnet Mask: 255.255.0
Routing DSL	
Diagnostics	Use the following default gateway:
Management	Use IP Address: 192.168.1.1.145
	🗌 Use WAN Interface: 💌
	Use the following DNS server addresses: Primary DNS server: 192.168.1.1
	Secondary DNS server: 192,168.1.1
	Back
0.1	TP-LINKTECHNOLOGIES CO., LTD. Webwert-Filin.com

Figure 3-16

You will see the page (Figure 3-17), then turn on the selected functions according to your needs. Clicking the **next** button to enter the next step, you will see the Figure 3-18, finally click **save** to complete the configuration.

TP-LINK	
TD-8841	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).
Device Info Advanced Setup	Enable NAT
WAN	Enable Firewall
Security Routing	Enable IGMP Multicast, and WAN Service
DSL	Enable Jump Multicast, and WAY Service
Diagnostics	Enable IGMP Multicast
Management	Enable WAN Service
	Service Name: br_0_32
	Back Next

Figure 3-17

P-LINK		
	WAN Setup - Summ	ary
	Make sure that the set	tings below ma
	unt duet	0.100
	VPI / VCI:	0/32
_	Connection Type:	IPoA
_	Service Name:	br_0_32
	Service Category:	UBR
	IP Address:	192.168.1.1
	Service State:	Enabled
	NAT:	Enabled
	Firewall:	Enabled
	IGMP Multicast:	Disabled
	Quality Of Service:	Disabled
	Click "Save" to save the NOTE: You need to reb	

Figure 3-18

> Bridging

If you select the Bridging protocol, you just open the bridge service function options, you will see the Figure 3-19, then click the **next** button, you will see the Figure 3-20, finally press **save** to complete the configuration.

TP-LINK			
Thomas			
TD-8841 Unse	elect the check box below to disable tl	his WAN service	
Device Info			
Advanced Setup Enab	ble Bridge Service: 🔽		
WAN	vice Name: br_0_32		
LAN			
Security			
Routing			
DSL		Back	
Diagnostics		Back	
Management			

Figure 3-19

TP-LINKTECHNOLOGIES CO., LTD. Web www.tp-link.c

Sel / /		
TP-LINK		
TD-8841	WAN Setup - Summa	arv
10-0041		
	Make sure that the set	ings below matc
Device Info	VPI / VCI:	0/32
Advanced Setup	- Charles Management	180 Sciences
WAN	Connection Type:	Bridge
LAN	Service Name:	br_0_32
Security	Service Category:	UBR
Routing DSL	IP Address:	Not Applicable
Diagnostics	Service State:	Enabled
Management	NAT:	Enabled
	Firewall:	Enabled
	IGMP Multicast:	Not Applicable
	Quality Of Service:	
	Quality of Service:	Disabled
	Click "Save" to save the NOTE: You need to reb	

Figure 3-20

P Note:

After you complete the settings, the new settings must be saved and the Router must be restarted for the settings to go into effect. Please press the Save/Reboot button to restart, referring to the Figure 3-21.

TD-8841	Choose Ad	d, Edit, or		onfigure WA	N interfaces. d reboot the						
Advanced Setup	VPI/VCI	Con. ID	Category	Service	Interface	Protocol	Igmp	005	State	Remove	Edit
WAN LAN Security	0/32	1	UBR	br_0_32	nas_0_32	Bridge	N/A	Disabled	Enabled		Edit
Routing	1/33	1	UBR	br_1_33	nas_1_33	Bridge	N/A	Disabled	Enabled		Edit
Diagnostics	0/35	1	UBR	br_0_35	nas_0_35	Bridge	N/A	Disabled	Enabled		Edit
Management	0/100	1	UBR	br_0_100	nas_0_100	Bridge	N/A	Disabled	Enabled		Edit
	8/35	1	UBR	br_8_35	nas_8_35	Bridge	N/A	Disabled	Enabled		Edit
	8/81	1	UBR	br_8_81	nas_8_81	Bridge	N/A	Disabled	Enabled		Edit
	0/200	1	UBR	br_0_200	nas_0_200	Bridge	N/A	Disabled	Enabled		Edit
					A	dd Rem	ove	Save/F	leboot]	



3.4 Software Dial

If TD-8841 CPE work in bridged (RFC 1483 Bridged) mode when it connects Internet. You must to install dial software on your PC. There are some software working on WINDOWS in market, example for EnterNet3000、RASPPPoE、WinPeET.

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

- Users of Windows XP can click the "start->All Programs->Accessories-> Communications->New connection wizard", then click Next to enter the setting page.
- Please you 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.

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

> Users of Windows Vista can do as following: Right-press Network->Choose Properties,

then you can see Figure 3-22.

~~~			
Vetwork and Inte	rnet 🕨 Network and Sharing Cente	er 👻 🍫 Search	٩
Tasks View computers and devices Connect to a network <u>Set up a connection or network</u> Manage network connections Diagnose and repair	Network and Sharing Ce I I I I I I I I I I I I I I I I I I I	Multiple networks	View full map = Original for the second sec
	Network 2 (Public netwo	rk)	Customize
	Access	Local only	E
. //	Connection	Local Area Connection 4	View status
	Unidentified network (Pu	ublic network)	Customize
1111	Access	Local only	
All it	Connection	Local Area Connection 2	View status
	3 Sharing and Discovery		
	Network discovery	● Off	$\odot$
See also	File sharing	© Off	
	Public folder sharing	© Off	$\odot$
Internet Options	Printer sharing	Off (no printers installed)	
Windows Firewall	Password protected sharing	On On	

Figure 3-22

Click "Set up a connection or network" in the right of this page. And choose "Set up a dial-up connection" in the new page, click Next. After that, you will see Figure 3-23, click "Set up a connection anyway" to enter next page.

-		
0	Yet up a dial-up connection	
	Windows could not detect a dial-up modem	
	Is the modem connected? Is the modem switched on?	
	→ <u>I</u> ry again	
	<ul> <li>Set up a connection anyway</li> <li>Windows will save your settings and you can try to connect later.</li> </ul>	
	<u> </u>	
		Cancel

Figure 3-23

Type the Dial-up phone number, the User name and password supplied by your ISP in the new page, if you have forgotten an existing user name or password, please connect with your ISP. Click Create to create the dial-up connection.

- Click **Close** to finish the setup.
- To connect to the Internet next time, click the Start button, click Connect to, and then click the connection you just created.

# 3.5 USB Configuration

If you use the USB interface, First of all you must install the USB's drive to the using

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 into the windows 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 of found the new hardware.

Then You will see the Figure 3-24 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. You will see the Figure 3-25.

Found New Hardware Wizard			
	Welcome to the Found New Hardware Wizard		
	This wizard helps you install software for:		
	TP-Link ADSL USB Remote NDIS Device		
	<ul> <li>If your hardware came with an installation CD or floppy disk, insert it now.</li> <li>What do you want the wizard to do?</li> <li>Install the software automatically (Recommended)</li> <li>Install from a list or specific location (Advanced)</li> <li>Click Next to continue.</li> </ul>		
	< Back Next > Cancel		

Figure 3-24

Found New Hardware Wizard			
Please choose your search and installation options.			
<ul> <li>Search for the best driver in these locations.</li> </ul>			
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.			
Search removable media (floppy, CD-ROM)			
Include this location in the search:			
E:\Documents and Settings\zff\Desktop\tp-adsl-usb 💉 Browse			
O Don't search. I will choose the driver to install.			
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.			
< Back Next > Cancel			

Figure 3-25

Select the 'search removable media(floppy, CD-ROM····)'. and click the **next** button You will see the Figure 3-26. The driver will be search and installed.

# Prote: You must insert the CD first.

Found New Hardware Wizard			
Please wai	it while the wizard searches		
<b>E</b>	TP-Link ADSL USB Remote NDIS Device		
	<pre></pre>		

Figure 3-26

Waiting and you will see the Figure 3-27. The driver has finished installation, click **Finish** to close the installation.

Please reference to chapter 3.1 to finish the IP configuration of USB network connect. Then you could use the USB device.



Figure 3-27

Users of Windows Vista will see the Figure 3-28. Click the "Locate and install driver software (recommended)" to install driver software for your USB Network Interface.



Figure 3-28

After that you will enter the next page shown as Figure 3-29. Click "Don't search online".



Figure 3-29

Then Figure 3-30 will be displayed. Click **Next** to search and install the driver from your CD.

Prote: You must insert the CD first.



Figure 3-30

When Windows find the driver automatically, it will pop up Figure 3-31. Select "**Install this driver anyway**" to continue the installation.



Figure 3-31

Then please wait a second and you will see Figure 3-32 which indicates that the installation has been finished. Finally, click **Close** to finish it completely.



Figure 3-32

You can see following figure at the bottom of the screen.



**Note:** If you want cut off 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 (www.tp-link.com) and consult the advantage user guide of TD-8841.

# **Chapter 5. 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

- 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. Why the LAN's and the NIC's LED both bright, but 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/Vista) to check whether setup the IP address, subnet mask, default gateway by DHCP.
- 5) Resume the ADSL2+ ROUTER default configuration if necessary.

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

- 1) Check the indicator of ADSL2+, it should be working in normally.
- 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.

4) You can check whether your ADSL2+ ROUTER succeeds in connection with **PING** command.

# **Appendix A: 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 B: Configuring the PCs**

In this section, we'll introduce how to install and configure the TCP/IP correctly in Windows 2000/XP. First make sure your Ethernet Adapter is working, refer to the adapter's manual if needed.

#### 1. Install TCP/IP component

- 1) Right-press Network Neighbor and Choose Properties.
- 2) Right click the icon that showed below, select Properties on the prompt page.

LAN or High-Spee	d Internet	
	ea Connection ed, Firewalled Disable <b>Status</b> Repair	
	Bridge Connections	
	Create Shortcut Delete Rename	
	Properties	

Figure B-1

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

🚣 Local Area Connection Properties 🔋 🙁			
General Authentication Advanced			
Connect using:			
Realtek RTL8139 Family PCI Fast Etł			
This connection uses the following items:			
Construction			
Install         Uninstall         Properties           Description         Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.			
☐ Show icon in notification area when connected ✓ Notify me when this connection has limited or no connectivity			
OK Cancel			

Figure B-2

4) The following **TCP/IP Properties** window will display and the **IP Address** tab is open on this window by default.

Now you have two ways to configure the **TCP/IP** protocol below:

#### > Setting IP address automatically

Select **Obtain an IP address automatically**, Choose **Obtain DNS server automatically**, as shown in the Figure below:

Internet Protocol (TCP/IP) Propertie	s	? X			
General Alternate Configuration					
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.					
Obtain an IP address automatically	,				
$\square^{\bigcirc}$ Use the following IP address: —					
[P address:					
S <u>u</u> bnet mask:					
Default gateway:					
© Distain DNS server address automatically					
C Use the following DNS server add					
Preferred DNS server:					
Alternate DNS server:					
	Advance	:d			
	ОК С	ancel			

Figure B-3

- > Setting IP address manually
- 1 Select Use the following IP address radio button. And the following items available
- 2 If the router's LAN IP address is 192.168.1.1, type IP address is 192.168.1.x (x is from 2 to 254), and **Subnet mask** is 255.255.255.0.
- 3 Type the router's LAN IP address (the default IP is 192.168.1.1) into the **Default gateway** field.
- 4 Select Use the following DNS server addresses radio button. In the Preferred DNS Server field you can type the DNS server IP address, which has been provided by your ISP.

	TD-8841	External	ADSL2+	Router	User	Guide
Internet Protocol (TCP/IP	) Properties		? ×	1		
General						
You can get IP settings as: this capability. Otherwise, y the appropriate IP settings.	you need to ask you					
O <u>O</u> btain an IP address	automatically					
─● Use the following IP	address:					
IP address:	192	. 168 . 1 . 241				
S <u>u</u> bnet mask:	255	. 255 . 255 . 0				
Default gateway:	192	. 168 . 1 . 1				
C Obtain DNS server a	ddress automatically	,				
	IS server addresses	:				
Preferred DNS server:	202	. 96 . 134 . 133				
<u>A</u> lternate DNS server:						
		Ady	anced			
		OK	Cancel			

D 0044

Figure B-4

#### **Please note:**

The configuration under Windows 98/Vista is a little different from that of Windows 2000/XP.

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.

Users of Windows Vista can do following: Right-press Network->Choose Properties, then you can see Figure B-5.



Figure B-5

Click "Manage network connections" in the right of this page. Then do as following: Right-press Local Area Connection ->Choose Properties->Double click Internet Protocol Version 4 (TCP/IPv4).

# **Appendix C: Contact Information**

For help with the installation or operation of the TP-LINK TD-8841 External ADSL2+ ROUTER, please contact us.

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