

User Guide

TL-WN827N

Wireless N USB Adapter



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FCC STATEMENT

FC

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.

FCC RF Radiation Exposure Statement

This device has been tested for compliance with FCC RF Exposure (SAR) limits in the typical laptop computer configuration and this device can be used in desktop or laptop computers with side mounted PCMCIA slots. This device cannot be used with handheld PDAs (personal digital assistants). This device and its antenna must not be co-located or operated in conjunction with any other antenna or transmitter.

CE Mark Warning

C€1588①

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.

National restrictions

This device is intended for home and office use in all EU countries (and other countries following the EU directive 1999/5/EC) without any limitation except for the countries mentioned below:

Country	Restriction	Reason/remark
Bulgaria		General authorization required for outdoor use and public service
France	Outdoor use limited to 10 mW e.i.r.p. within the band 2454-2483.5 MHz	Military Radiolocation use. Refarming of the 2.4 GHz band has been ongoing in recent years to allow current relaxed regulation. Full implementation planned 2012
Italy		If used outside of own premises, general authorization is required
Luxembourg	None	General authorization required for network and service supply(not for spectrum)
Norway	Implemented	This subsection does not apply for the geographical area within a radius of 20 km from the centre of Ny-Ålesund
Russian Federation		Only for indoor applications

Note: Please don't use the product outdoors in France.

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Package Contents

The following items should be found in your package:

- > One TL-WN827N Wireless N USB Adapter
- > One USB extension cable (for 100 meters)
- > One Resource CD for TL-WN827N Wireless N USB Adapter, including:
 - Drivers and Utility
 - User Guide
 - Other Helpful Information

Note:

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

Chapter 1 Introduction

1.1 Product Overview

Thank you for choosing the TL-WN827N Wireless N USB Adapter.

The adapter is a draft 802.11n client device; it is designed to provide a high-speed and unrivaled wireless performance for your computer. With a faster wireless connection, you can get a better Internet experience, such as downloading, gaming, video streaming and so on.

The TL-WN827N Wireless N USB Adapter complies with IEEE 802.11n (Draft 2.0), IEEE 802.11g, and IEEE 802.11b standards. It can interoperate with all the 802.11n/g/b devices. With the 802.11n technology, higher throughput improvements using MIMO (multiple input, multiple output antennas), the TL-WN827N's auto-sensing capability allows high packet transfer rate of up to 300Mbps for maximum throughput.

Additionally, the TL-WN827N adapter has good capability on anti-jamming and supports WEP, TKIP, AES, WPA and WPA2 encryption to prevent outside intrusion and protect your personal information from being exposed.

The adapter is easy to install and manage. The TL-WN827N supports WPS function, which can help you create a wireless connection immediately. Quick Setup Wizard is supported and detailed instructions are provided step by step in this user guide.

Featuring high performance transmission rates, simple installation and adaptability, as well as strong security, the TL-WN827N Wireless N USB Adapter is the perfect solution for small office and home needs.

1.2 Main Features

- Complies with IEEE802.11 Draft N standards
- Supports WPA data security, IEEE802.1x authentication, TKIP/AES encryption, 64/128-bit WEP encryption
- Supports wireless LAN data transfer rate of up to 300Mbps
- Provides USB interface
- Supports Ad-Hoc and Infrastructure modes
- > Supports roaming between access points when configured in Infrastructure mode
- > Eases configuration and provides monitoring information
- Supports Windows 2000, XP, Vista
- Internal Antenna

1.3 LED Status

The LED on the top of this card indicates Link/Act status. It blinks at green light when sending and receiving data.

Chapter 2 Installation Guide

2.1 Hardware Installation

- 1. Connect one end of the USB cable to the Adapter.
- 2. Connect the other end of the USB cable to the USB port on your computer. Because the Adapter gets its power from the host, there is no external power supply. The LED should light up when the Adapter is plugged in and the PC is on.

Note:

The Adapter can also be plugged into the USB port on your computer directly.

2.2 Software Installation

2.2.1 Overview

The Adapter's Setup Wizard will guide you through the installation of the Utility and drivers for Windows 2000, XP and Vista.

Before you install the software, please plug the adapter into your PC. After that, you will be prompted "Found New Hardware Wizard", click the **Cancel** button, and run the Setup Wizard program on the CD-ROM.

The Setup steps for Windows 2000, XP and Vista are very similar, so the following installation guide takes Windows XP for example.

2.2.2 Installation Guide

 Insert the Resource CD into your CD-ROM drive, click the Start button and choose Run. In the field that appears, enter F:\TL-WN827N\Setup.exe (if "F" is the letter of your CD-ROM drive), Figure 2-1 should then appear.

TL-WN827N Wireless Utility -	InstallShield Wizard							
Preparing Setup Please wait while the InstallShield Wizard prepares the setup.								
	TL-WN827N Wireless Utility Setup is preparing the InstallShield Wizard, which will guide you through the rest of the setup process. Please wait.							
I nsta IIShield	Canc	cel						

Figure 2-1 Preparing Setup

2. To continue, the following Figure 2-2 will appear within seconds. You can select the configuration tool here.

TL-WN827N Wireless Utilit	y - InstallShield Wizard	
Setup Type Select the setup type that bes	t suits your needs.	
land and a second	Select Configuration Tool.	
	 TP-LINK Configuration Tool Microsoft Zero Configuration Tool 	
InstallShield	< <u>B</u> ack <u>N</u> ext > Car	ncel

Figure 2-2 Setup Type

I. If you want to install the TL-WN827N Wireless Utility, please select the **TP-LINK Configuration Tool** and click **Next**.

- II. If you only want to use the **Microsoft Zero Configuration Tool** to configure the wireless connection, please select **Microsoft Zero Configuration Tool** and click **Next**.
- 3. After that, you will see the next screen as below. Click **Install** to continue.

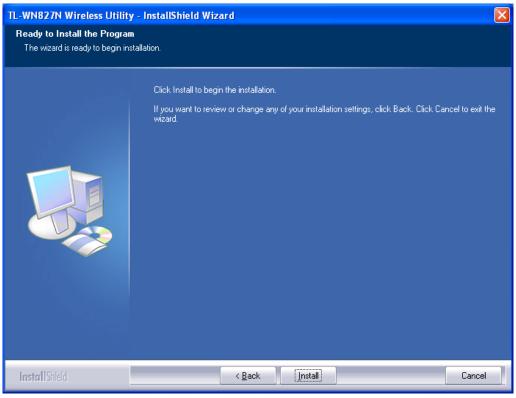


Figure 2-3 Ready to Install the Program

4. The following screen for installing will appear.

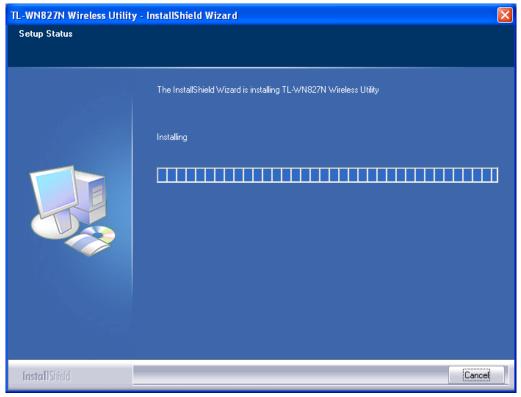


Figure 2-4 Setup Status

Note:

While files are copying, a warning box about Windows Logo testing (shown in Figure 2-5) may pop up, please click Continue Anyway to continue the installation for our drivers have been tested thoroughly and are able to work with the operating system.

Har dwa	re Installation
1	The software you are installing for this hardware: TP-LINK TL-WN827N 11N Wireless Adapter has not passed Windows Logo testing to verify its compatibility with this version of Windows. (Tell me why this testing is important) Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
	Continue Anyway STOP Installation

Figure 2-5 Windows XP Warning Box

5. After the files have been successfully copied, the screen in Figure 2-6 will appear. Click the Finish button to finish the wizard.

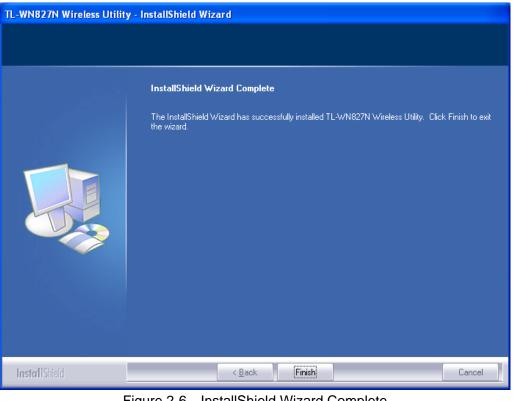


Figure 2-6 InstallShield Wizard Complete

After installing the driver successfully, you should see an icon, 11 or 11, appear in your system tray.

2.3 Uninstall Software

2.3.1 Uninstall the driver software from your PC

- 1. On the Windows taskbar, click the **Start** button, and then click **Control Panel**.
- 2. Double-click the **System** icon, click on the **Hardware** tab in the **System** window.
- 3. Click on the **Device Manager** button, double-click **Network Adapters,** and then right-click **TL-WN827N Wireless USB Adapter.**

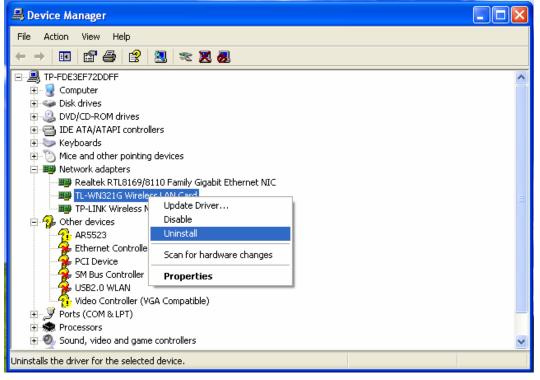


Figure 2-7 Device Manager

4. Click **Uninstall** shown in above Figure 2-7, the system will uninstall the driver software of the adapter from your PC.

2.3.2 Uninstall the utility software from your PC

1. On the Windows taskbar, click the **Start** button, point to **All programs→TP-LINK→TWCU**, and then click **Uninstall-TL-WN828N Wireless Utility.**

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	i Games	
Administr	🛅 Gigabyte Technology Corp	
	🛅 Kaspersky Internet Security 7.0	
🔊 Internet	i Microsoft Office Tools	
Internet Explorer	💼 TP-LINK	🕨 🛅 TWCU 🔸 🔣 TL-WN827N Wireless Utility
🔄 E-mail	🛅 Startup	🕨 🔤 Uninstall - TL-WN827N Wireless Utility
Outlook Express	im WinRAR	
C.N Command Prompt	🥶 Internet Explorer (32-bit)	
Command Prompt	🥶 Internet Explorer (64-bit)	
Windows Media Playe	Microsoft Access	
	Microsoft Excel	
SmartWindow	S Microsoft FrontPage	
20	💽 Microsoft Outlook	
Windows Messenger	Microsoft PowerPoint	
Tour Windows XP	W Microsoft Word	
	💓 MSN	
DLS1100.exe	🗐 Outlook Express	
	💫 Remote Assistance	
All Programs 🖒	Windows Media Player	
	Windows Messenger	
	Windows Movie Maker	ar an
	Spirent Communications	
🐉 start 🔰 🗁 🗠	m SmartBits Applications	L16_0 🦉 zero connect success

Figure 2-8 Uninstall the utility

2. Following the Install Shield Wizard to uninstall the utility software from your PC.

Chapter 3 Configuration

3.1 Configuration of Utility

TL-WN827N Wireless USB Adapter can be configured by its utility for Windows 2000, XP, Vista. This section will take the configuration in Windows XP for example and guide you to configure your wireless adapter for wireless connectivity with trustable data security encryption features. The configuration steps in Windows 2000 & XP & Vista are similar. For the configurations in Windows 2000 & Vista, please refer to the instructions in Windows XP.

After the Adapter's driver and utility has been installed, the adapter's tray icon, \mathbf{III} or \mathbf{III} , will appear in your system tray. It means the utility is running on your system. If the utility does not run, you can run the utility by clicking: **Start> Program> TP-LINK> TWCU> TL-WN827N Wireless Utility**. If the icon still does not appear, the driver or utility may be installed incorrectly or the adapter is unplugged, please try again.

Icon I means the connection has been established. Icon II means there is no connection.

Double-click the **1** icon and the configuration screen of the utility will appear. You can also run the utility by clicking: **Start> Program> TP-LINK> TWCU> TL-WN827N Wireless Utility**. The utility provides a complete and easy manage tools to:

- > Display current status information
- > Edit and add configured profiles
- > Display current diagnostics information

Note:

If your OS is Windows XP, you can use Windows XP to configure the wireless network settings. (To use this function, you must upgrade the OS with sp2).

If you want to use Windows XP to configure wireless network settings, just right-click the icon

at the bottom of the screen, and click **Use Zero Configuration as Configuration utility** to switch the utility.

3.1.1 Profile

Click the **Profile** tab of the utility and the **Profile** screen will appear as Figure 3-1. The **Profile** screen provides tools to:

- > Add a Profile
- > Edit a profile
- Delete a profile

> Activate a profile

Profile Network		and the second sec	•	× ×	
	Advanced	Statistics	WPS	Radio On/Off	About
	Profile List				
PROF1 TP-L	INK		6	Profile Name	>> PROF1
Constant Constant				SSIE) >> TP-LINK
				Network Type	e >> Infrastructure
				Authentication	n >> Open
				Encryption	n >> None
				Use 802.1:	< >> NO
				Tx Powe	r >> Auto
				Channe	el >> Auto
				Power Save Mode	∋>> CAM
				RTS Threshold	1 >> 2347



 To Add a new profile: Click the Add button on the Profile tab, the Profile configuration screen will appear as shown in Figure 3-2. Enter the Profile Name and choose the SSID from the pull-down list, then click OK to add it.

🐨 TL-WN827	N Wireless Utili	ity						
Profile	LL Network	Advanced) Statistics	Ø WPS	Radio On/Of	About		
-		– Profile List –						
Add	Edit		elete /	Activate.	Network ⁻ Authentica Encryp Use 80 Tx Po	SID >> tion >> tion >> 2.1x >> wer >> ode >> ode >>		
System C	Config Auth	. \ Encry.	8021X					
Pro	file Name >> PRO	F1		Networl	k Type >> Int	rastructure	•	
	SSID >>			· T×I	Power >>	Auto	•	
Po	wer Save Mode >>	🙆 САМ	PSM	Pre	amble >>	Auto	*	
	RTS Threshold		0		2347 23	17		
	Fragment Thre:	shold	256		2346 23	16		
			ок	c	Cancel			

Figure 3-2 Add a new profile

- Profile Name Identifies the configuration profile. This name must be unique. Profile names are not case-sensitive.
- SSID The IEEE 802.11 wireless network name. This field has a maximum limit of 32 characters.
- RTS Threshold Here you can specify the RTS (Request to Send) Threshold. The default value is 2347.

- Fragmentation Threshold This value is the maximum size determining whether packets will be fragmented. Setting the Fragmentation Threshold too low may result in poor network performance since excessive packages. 2346 is the default setting and is recommended.
- 2. **To edit a profile:** Highlight the desired profile name on **Profile List**, and click the **Edit** button, the **Profile** configuration screen will appear shown in Figure 3-3.

TL-WN827	N Wireless Util	ity					
Profile	LLL Network	Advanced	Statistics	Ø WPS	Radio On/Off	About	
		— Profile List —					
Add	TP-LIN Edit		elete 8021X	4 Activate	Network Type Authentication Encryption Use 802.1: Tx Powe	D >> TP-LINK e >> Infrastructu n >> Open n >> None x >> NO rr >> Auto el >> Auto e >> CAM d >> 2347	re
Pro	file Name >> PRO	F1		Networ	k Type >> Infras	structure 🔻	
	SSID >> TP-I	.INK	1	▼ T×	Tx Power >> Auto 👻		
Po	, wer Save Mode >>	🔵 САМ 🛛 (PSM	Pre	amble >> A	Auto 🔻	
	RTS Threshold		0		2347 2347		
	Fragment Thre	shold	256		2346 2346		
			ок		Cancel		

Figure 3-3 Edit a Profile-System Configuration

- > System Config: Here you can change the Profile Name and SSID.
- > Auth.\Encry.: Click the Auth.\Encry., you can skip to the following screen.

TL-WN827N Wireless N USB Adapter User Guide

🐨 TL-WN827	N Wireless Utilit	у					×
Profile	↓ ⊥ ↓ Network	Advanced	Statistics	Ø WPS	Radio On/Off	About	
		Profile List					
PROF1	TP-LINK Edit		ete	4 Activate	Network Typ Authenticatio Encryptio Use 802.1 T× Powe	D >> TP-LINK e >> Infrastructure n >> Open n >> None x >> NO rr >> Auto e >> CAM d >> 2347	-
	Authentication >		•	Encryption >:	> None T	802.1X	
V	/PA Preshared Key >	>					
	Wep Key ———						
	🙆 Key#1	Hexadecima	×			Show Passwor	d
	🙆 Key#2	Hexadecima					
	() Key#3	Hexadecima					
	Key#4	Hexadecima	ОК		Cancel		

Figure 3-4 Edit a Profile-Auth.\Encry.

- Authentication You can choose the Authentication Type from the pull-down list with three options, Open System, Shared-Key System or LEAP.
- > **802.1x** It enables when Authentication Type is setting to WPA.
- Encryption Displays which encryption type that the driver is using. When you select Open System, Shared-Key System as Network Authentication, there are two options: WEP and Disabled. If you select WPA-PSK as Network Authentication, there are TKIP and AES options instead of WEP and Disabled.
- Wep Key Key #1, Key #2, Key #3, Key #4, the Key groups. You can enter 10 hexadecimal digits (any combination of 0-9, a-f, A-F) or 5 ASCII characters for 64-bit (also called 40bits) encryption. You can enter 26 hexadecimal digits (any combination of 0-9, a-f, A-F) or 13 ASCII characters for 128-bit (also called 104bits) encryption.
- 3. **To delete a profile:** Highlight the desired profile name on **Profile List**, and click the **Delete** button.
- 4. To switch to another profile: Highlight the desired profile name on Profile List, and click the Activate button.

3.1.2 Network

Click the Network tab of the Utility and the Network screen with many available wireless network

choices will appear as Figure 3-5.

Profile	→ Network	Advanced	k Stat	istics	4	() VPS	Radio On/Off	About		
FIONIC	INCOUNT	Advanced	Stat	.130103	Y	VFD		ADOUL		
Sorted by >>	0	SSID	Char	nnel	-	Signal			Show dBm	
TP-LINK			6	b 9	- AP LI	st >> —	_			
				State of the second second		60%				
TP-LINK			6	Ъg		50%				
TP-LINK			6	bg		94%				-
TP-LINK			6 6	bg		24%				
TP-LINK			66	69	9	0%				
wangning			6	Ъg	9	60%				-
Wireless			11	Ьg		65%	-			
Rescan	Adv	to Profile	· Con	nect						

Figure 3-5 Network tab

- **Rescan:** Click the **Rescan** button to refresh the list at any time.
- Add to Profile: Highlight an SSID and click the Add to Profile button to add the network to the profile. The continued steps are similar to add a new profile, please refer to the 3.1.1 Profile: To Add a new profile.
- Connect: Highlight an SSID and click the Connect button to connect to an available network without adding it to the profile..

3.1.3 Advanced

Click the **Advanced** tab of the Utility and then you can choose the wireless mode on the following screen.

🐨 TL-WN827	/N Wireless Util	ity					E	×
Profile	≟ Network	Advanced	Statistics	Ø WPS	Radio On/Off	About		
	Wireless mod	le >> 802.11 B/ 802.11 B/ 802.11 B (802.11 B (G mix only	Apply	 Enable TX Burst Enable TCP Window Fast Roaming at Show Authenticatio 	-70 dBm		

Figure 3-6 Advanced

- Wireless mode You can choose the wireless mode from the pull-down list with the three options: 802.11B/G/N mix, 802.11B/G mix or 802.11B only.
- > Enable TX Burst It can translate more data when it enable.
- > Fast Roaming at Roaming will disable when Transmit Power is below some dBm if the

function is selected.

- Show Authentication Status Dialog- Click the checkbox to show the Authentication Status Dialog.
- > Apply Click the Apply button to save the current setting.

3.1.4 Statistics

Click the **Statistics** tab of the Utility and you will see the following screen displaying the receiving and transmitting statistical information. Click the **Reset Counter** button to reset the count of the statistics information.

Profile	Lee Network	Advanced	Statistics	Ø WPS	Radio On/Off	About	
Transr		ceive	Statistics				
	Frames Transmitte			_		558	2
	Frames Retransmit			-		555	
	Frames Fail To Rec	eive ACK After All R	etries	-		1	
RTS Frames Successfully Receive CTS				-		0	
RTS Frames Fail To Receive CTS			=		0		
	unter						

Figure 3-7 Statistics tab

3.1.5 WPS

Click the **WPS** tab of the Utility and you can configure the WPS function to joint an existing network quickly in the following screen.

Profile	Left Network	Advanced	Statistics	Ø WPS	Radio On/Off	About		
			WPS AP List				-	Deserve
ID :		pj		00-19-	58-60-2A-07	1	<u> </u>	Rescan Information
ID :	: TP-LINK_6AC256		5	00-1D-0F-32-15-DB		6		Pin Code
			WPS Profile List			>		nfig Mode
ExRegNW28	7000				٩		Reg	gistrar 💽
							-	Detail
1							>	Connect
IN Code Connec	tion:	<u>P</u> IN		Pro	ogress >> 0%		-	Disconnect
PBC Connection: PBC			WPS status is disco	onnected				

Figure 3-8 WPS tab

If the wireless Access Point supports Wi-Fi Protected Setup (WPS), you can establish a wireless connection between this card and the Access Point device using either Push Button Configuration

- 14 -

(PBC) method or PIN method. It is recommended that you choose the simplest method that your AP device supports.

Note:

To build a successful connection by WPS, you should also do the corresponding configuration of the Access Point for WPS function meanwhile.

I. PBC Method

If your Access Point is equipped with a push-button for Wi-Fi Protected Setup, you can connect the adapter to the Access Point by PBC method. Please click the **PBC** button on the screen as Figure 3-8 and press the push button on your Access Point device to build the connection.

II. PIN Method

If your Access Point supports Wi-Fi Protected Setup (WPS) and the PIN method, you can add the adapter to the network by the following two ways:

1) Enter a PIN from my Access Point

Choose the **Config Mode** as **Registrar** and enter the PIN of AP into the field under the **Pin Code** as Figure 3-8 shown. And then click **PIN** button to start the wireless connection without doing any configuration for AP.

Note:

The default PIN code of the AP always can be found in its label or User Guide.

2) Enter the PIN into my Access Point

Choose the **Config Mode** as **Enrollee** and click the **PIN** button on the screen as Figure 3-9. Meanwhile, enter the PIN code of the adapter into the configuration utility of the AP. For the detailed instructions of the AP configuration, please refer to the User Guide of the AP.

Profile Netw	L vork	Advanced	Statistics	Ø WPS	Radio On/Off	About			
			WPS AP List				2		
ID :		pj		00-19-	5B-60-2A-07	1	^	Rescar	
ID:		TP-LINK_6AC256		00-1D-0F-32-15-DB 6		~	Pin Co	de Renew	
			WPS Profile List				>	-Config Mode	Contraction of the local division of the loc
								Enrollee	-
								Enrollee Registrar	
								Connec	t
PIN Code Connection: <u>P</u> IN		<u>P</u> IN	Progress >> 0%					Disconne	ect
BC Connection:		PBC	WPS status is discor	nnected				Delete	10

Figure 3-9 WPS - enrollee mode

Note:

The PIN code of the adapter is displayed on the WPS configuration screen as Figure 3-9 (the default PIN code for this adapter is 70921984 as Figure 3-9 shown)

3.1.6 Radio On/Off

You can turn on/off the wireless radio by clicking the icon $\widehat{\mathbf{x}}$ of the Utility. The green icon will turn to red \mathbf{k} when the wireless radio is turned off.

3.1.7 About

Click the **About** tab of the Utility and you will see the following screen with some information about this adapter.

TL-WN827	N Wireless Uti	lity					
Profile	LLL Network	Advanced	Statistics	Ø WPS	Radio On/Off	f About	
		Copyright (c) 20	007, Tp-link Techno	logies co., It	d. All Rights Reserved	1.	
		Utility Version >>	2.0.4.0		Date >>	01-16-2008	
		Driver Version >>	1.0.5.0		Date >>	11-16-2007	
		EEPROM Version >>	0.1	Firr	nware Version >>	0.5	
		Phy_Address >>	> 00-0C-43-2	8-70-00			
			http	://www.tp-li	ink.com		

Figure 3-10 About

- > **Utility Version -** The version of this utility.
- > Utility Date The creation date of this utility.
- > Driver Version The version of the wireless network adapter driver.
- > Driver Date The creation date of the wireless network adapter driver.
- **Firmware Version -**The version of the adapter firmware.
- **EEPROM Version -** The version of this EEPROM.
- > **Phy_Address -** The MAC address of the wireless network adapter.

Note:

For more help information, you can click the **http://www.tp-link.com** button on the screen to connect to website of our company.

3.1.8 An example for application

Suppose you have an installed and using AP, the SSID is TPLINK and it adopts 64-bit encryption with the key 0123456789. To establish a connection with this AP, please follow these steps below:

1. Launch TL-WN827N Wireless Utility.

- 2. Click the **Profile** tab of the utility and click the **Add** button on the screen that appears.
- 3. The Profile configuration screen will appear, please enter *Test* for the Profile Name, *TPLINK* for the SSID, select *Infrastructure* for the Network Mode, select *WEP* for the Data Encryption and enter *0123456789* for Network key.
- 4. Click **OK** to save this profile.
- 5. Highlight the profile named *Test* on the profile list and click **Activate** on the Profile screen. The utility will establish a connection with this AP by configured profile.

3.2 Configure with Windows XP Wireless Zero Configuration

1. Right click the icon 11 on the bottom of the desktop first and you will see Figure 4. Double click the **Use Zero Configuration as Configuration utility** option to enable Wireless Zero Configuration function.

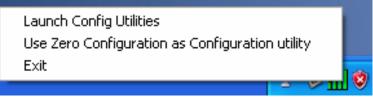


Figure 3-11 Use Zero Configuration as Configuration utility

2. After that, double click the icon \square , and the following Figure 3-12 will appear with some available wireless network choices. You can highlight a network and then click **Connect** to add to a network.

^(e)) Wireless Network Connect	ion	×
Network Tasks	Choose a wireless network	
💋 Refresh network list	Click an item in the list below to connect to a wireless network in range or to get m information.	ore
Set up a wireless network for a home or small office	((Q)) TP-LINK	_
and the second s	Unsecured wireless network	0000
Related Tasks	((Q)) TP-LINK	
i) Learn about wireless	Unsecured wireless network	
networking	((Q)) TP-LINK	
Change the order of preferred networks		•880) -
🏈 Change advanced	((Q)) wsp	
settings	Unsecured wireless network	• ODD -
	((Q)) ¹²³	
	((Q)) Wireless	
	Unsecured wireless network	• 888 🖌 🗸
		Connect

Figure 3-12 Choose a wireless network

Note:

If you have not installed SP2 for Windows XP, the screen above will not be available.

3. During the connection, you will see the screen as Figure 3-13 shown.

Network Tasks	Choose a wireless network	
💋 Refresh network list	Click an item in the list below to connect to a wireless n information.	etwork in range or to get more
Set up a wireless network for a home or small office	((op)) TP-LINK	Acquiring network ☆ address
	Unsecured wireless network	00000
Related Tasks	((Q)) TP-LINK	
 Learn about wireless 	Unsecured wireless network	
networking	((Q)) TP-LINK	
Change the order of preferred networks	Gecurity-enabled wireless network	0000
孕 Change advanced	((Q)) ^{wsp}	
settings	Unsecured wireless network	0000
	((Q)) ¹²³	
	Unsecured wireless network	0000
	((Q)) Wireless	
	Unsecured wireless network	0000

Figure 3-13 Acquiring network address

4. If the connection is finished, the icon will display like the next screen shown.



Figure 3-14 Finish

Chapter 4 Example for Application

4.1 Configuration of PSP XLink Online game

Please ensure the software and hardware environments are well established before configuring. For hardware, at least a PC, a TL-WN827N Wireless N USB Adapter and a PSP device are needed. For software, the TL-WN827N Adapter driver should be properly installed.

Please operate as follows:

- **Step 1.** Connect the website of X-LINK <u>http://www.teamxlink.co.uk</u> to register, and download the latest software of X-LINK Kai.
- Step 2. Install the X-LINK Kai software, click Start > Program > XLink Kai > Configure Kai, then set as Figure 4-1.

🧏 XLink Kai Cor	figuration Tool 🛛 🛛 🔀
UI kaiUI.exe Launch UI Character Set System Defa	Default Profiles Select a profile, the template will be applied over your settings. Select a profile
Configuration Items Kai Port 30000 Kai Deep Port 30000 Enable PAT XBox Homebrew Follow PSP SSID Auto Open Chat	PSSDK Winpcap Network Adapter P-LINK TL-WN820N_821N 11 Show dangerous NICs Default XT ag (Username) Default Password Default Password Close Engine After Never Close Engine when UI Closes Allow Remote UI Connections Help OK 7.3.1.7

Figure 4-1

- **Step 3.** After completing the settings, please click **Start > Program > XLink Kai > Start Kai** to connect to XLink Kai.
- Step 4. Open the wireless mode of the PSP device, then start an internet game.

Step 5. Right-click "My Computer", and select Management. In the prompt page, click Device Manager, then right-click "TL-WN827N 11N wireless adapter "and select Properties. Then set the value of "PSP Xlink Mode" as Enable following the red marked instruction in the figure.

J File Action View Window Help	TPJ INK TI WN827 11N Wireless Adapter Properties
	on the right. Property: Value: Property: Value: Property: Value: Prome Aggregation IEEEB02.11h Local Administration MAC Ne Max Service Period Length Network Type Power Saving Mode Power Saving Mode Parable Enable Enable Enable Enable Enable Enable Enable Enable Enable Enable Enable Enable Enable Enable Enable Enable Enable

Step 6. Click Start > Control Panel > Network.

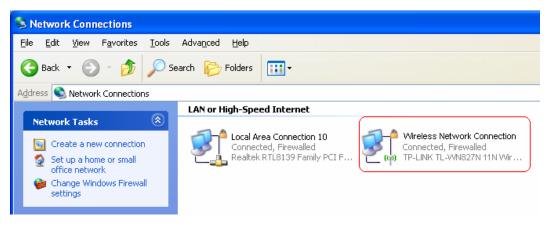


Figure 4-2

Step 7. Right-click Wireless Network Connection icon *Step*, and select Properties. In the following prompt page, highlight Internet Protocol(TCP/IP) and click Properties

This connection use:	s the following items:					
🗹 🐨 Realtek EAI	PPkt Protocol	^				
AEGIS Protocol (IEEE 802.1x) v3.4.5.0						
🗹 🍞 Internet Pro	tocol (TCP/IP)	~				
<						
l <u>n</u> stall	<u>U</u> ninstall	Properties				
Description						
Allows your compu network.	iter to access resources on a	a Microsoft				

Figure 4-3

Step 8. In the prompt page shown below, select **Use the Following IP Address**, and set the IP and Subnet mask. After completing setting, click **OK**.

Internet Protocol (TCP/IP) Proper	rties 🛛 🖓 🔀
General	
You can get IP settings assigned autom this capability. Otherwise, you need to a the appropriate IP settings.	
O Dbtain an IP address automatically	,
Use the following IP address: —	102 102 2 00
<u>I</u> P address:	192.168.3.86
S <u>u</u> bnet mask:	255.255.255.0
<u>D</u> efault gateway:	
O <u>Ob</u> tain DNS server address autom	atically
• Use the following DNS server add	resses:
Preferred DNS server:	
Alternate DNS server:	· · ·
	Ad <u>v</u> anced
	OK Cancel

Figure 4-4

Step 9. Launch TL-WN827N Wireless Utility, then highlight the Network Name (SSID) beginning with "PSP" in the "Network" page, and click **Connect.**

TL-WN827N Wireless N USB Adapter User Guide

Profile	LL Network	Advanced	Sta	tistics		Ø WPS	Radio On/Off	About	
Sorted by >>	0	SSID	Cha	nnel) Signal ist >> —		Show dBm	
chenyancheny	an		Юз	69(9	94%			
TP-LINK			6	b <mark>9</mark>	9	60%	-		
PSP_AULJM05	5500_L_MHP2Q	000	106	bg	Q	100%	-		

Figure 4-5

Step 10. Check whether your PSP device is detected in the Diagnostics mode of Kai as Figure

4-6 shown: Click the icon \checkmark first and then click the folder $\textcircled{\mbox{\mbox{1}}}$.

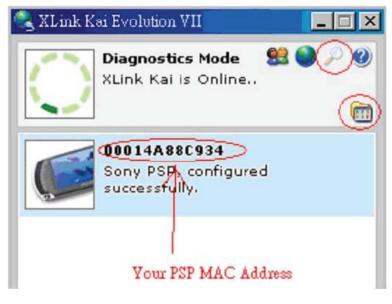


Figure 4-6

Step 11. Click the icon on the right top corner to enter the Arena Mode, highlight the arena of your wanted game, and then join or start a new game.

TL-WN827N Wireless N USB Adapter User Guide



Figure 4-7

Appendix A: Glossary

802.11n - 802.11n builds upon previous 802.11 standards by adding MIMO (multiple-input multiple-output). MIMO uses multiple transmitter and receiver antennas to allow for increased data throughput via spatial multiplexing and increased range by exploiting the spatial diversity, perhaps through coding schemes like Alamouti coding. The Enhanced Wireless Consortium (EWC) [3] was formed to help accelerate the IEEE 802.11n development process and promote a technology specification for interoperability of next-generation wireless local area networking (WLAN) products

802.11b - The 802.11b standard specifies a wireless networking at 11 Mbps using direct-sequence spread-spectrum (DSSS) technology and operating in the unlicensed radio spectrum at 2.4GHz, and WEP encryption for security. 802.11b networks are also referred to as Wi-Fi networks.

802.11g - Specification for wireless networking at 54 Mbps using direct-sequence spread-spectrum (DSSS) technology, using OFDM modulation and operating in the unlicensed radio spectrum at 2.4GHz, and backward compatibility with IEEE 802.11b devices, and WEP encryption for security.

Ad-hoc Network - An ad-hoc network is a group of computers, each with a wireless adapter, connected as an independent 802.11 wireless LAN. Ad-hoc wireless computers operate on a peer-to-peer basis, communicating directly with each other without the use of an access point. Ad-hoc mode is also referred to as an Independent Basic Service Set (IBSS) or as peer-to-peer mode, and is useful at a departmental scale or SOHO operation.

DSSS (Direct-Sequence Spread Spectrum) - DSSS generates a redundant bit pattern for all data transmitted. This bit pattern is called a chip (or chipping code). Even if one or more bits in the chip are damaged during transmission, statistical techniques embedded in the receiver can recover the original data without the need for retransmission. To an unintended receiver, DSSS appears as low power wideband noise and is rejected (ignored) by most narrowband receivers. However, to an intended receiver (i.e. another wireless LAN endpoint), the DSSS signal is recognized as the only valid signal, and interference is inherently rejected (ignored).

FHSS (Frequency Hopping Spread Spectrum) - FHSS continuously changes (hops) the carrier frequency of a conventional carrier several times per second according to a pseudo-random set of channels. Because a fixed frequency is not used, and only the transmitter and receiver know the hop patterns, interception of FHSS is extremely difficult.

Infrastructure Network - An infrastructure network is a group of computers or other devices, each with a wireless adapter, connected as an 802.11 wireless LAN. In infrastructure mode, the wireless devices communicate with each other and to a wired network by first going through an access point. An infrastructure wireless network connected to a wired network is referred to as a Basic Service Set (BSS). A set of two or more BSS in a single network is referred to as an Extended Service Set (ESS). Infrastructure mode is useful at a corporation scale, or when it is necessary to connect the wired and wireless networks.

Spread Spectrum - Spread Spectrum technology is a wideband radio frequency technique

developed by the military for use in reliable, secure, mission-critical communications systems. It is designed to trade off bandwidth efficiency for reliability, integrity, and security. In other words, more bandwidth is consumed than in the case of narrowband transmission, but the trade off produces a signal that is, in effect, louder and thus easier to detect, provided that the receiver knows the parameters of the spread-spectrum signal being broadcast. If a receiver is not tuned to the right frequency, a spread-spectrum signal looks like background noise. There are two main alternatives, Direct Sequence Spread Spectrum (DSSS) and Frequency Hopping Spread Spectrum (FHSS).

SSID - A Service Set Identification is a thirty-two character (maximum) alphanumeric key identifying a wireless local area network. For the wireless devices in a network to communicate with each other, all devices must be configured with the same SSID. This is typically the configuration parameter for a wireless PC card. It corresponds to the ESSID in the wireless Access Point and to the wireless network name.

WEP (Wired Equivalent Privacy) - A data privacy mechanism based on a 64-bit or 128-bit shared key algorithm, as described in the IEEE 802.11 standard.

Wi-Fi - A trade name for the 802.11b wireless networking standard, given by the Wireless Ethernet Compatibility Alliance (WECA, see http://www.wi-fi.net), an industry standards group promoting interoperability among 802.11b devices.

WLAN (Wireless Local Area Network) - A group of computers and associated devices communicate with each other wirelessly, which network serving users are limited in a local area.

WPA (**W**i-Fi **P**rotected **A**ccess) - A wireless security protocol use TKIP (Temporal Key Integrity Protocol) encryption, which can be used in conjunction with a RADIUS server.

Appendix B: Specifications

General					
Interface	A-type USB 2.0 Connector				
Standards	IEEE 802.11n (Draft 2.0), IEEE 802.11g, IEEE 802.11b				
Operating System	Windows 2000, XP, Vista				
Transmission Distance	In door up to 100m, out door up to 300m (depending on the environment).				
Safety & Emission	FCC, CE				
Frequency	2.4 ~ 2.4835 GHz				
	300M -68dBm				
Sensitivity	54M -68dBm				
	11M -83dBm				
Spread Spectrum	Direct Sequence Spread Spectrum (DSSS)				
Wireless					
Radio Data Rate	Up to 300Mbps				
Modulation	11n OFDM, 11g OFDM , 11b CCK/DSSS				
Media Access Protocol	CSMA/CA with ACK				
Transmit Power	Typical 15dBm, 18dBm(Max)				
Data Security	WPA, 64/128 bit WEP, TKIP/AES, IEEE 802.1X authentication				

Physical Environmental	
Working Temperature	0°C∼40°C (32°F∼104°F)
Storage Temperature	-40°C~70°C (-40°F~158°F)
Humidity	10% \sim 90% RH, Non-condensing

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http://golfingnear.com Email search by domain

http://emailbydomain.com Auto manuals search

http://auto.somanuals.com TV manuals search

http://tv.somanuals.com