TP-LINK®

User Guide

TL-WN723N

150Mbps Mini Wireless N USB Adapter



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http://www.tp-link.com

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.

Note: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

FCC RF Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

"To comply with FCC RF exposure compliance requirements, this grant is applicable to only Mobile Configurations. The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter."

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.

Canadian Compliance Statement

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

(1)This device may not cause interference, and

(2)This device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil est conforme aux norms CNR exemptes de licence d'Industrie Canada. Le fonctionnement est soumis aux deux conditions suivantes:

(1)cet appareil ne doit pas provoquer d'interférences et

(2)cet appareil doit accepter toute interférence, y compris celles susceptibles de provoquer un fonctionnement non souhaité de l'appareil.

Industry Canada Statement

Complies with the Canadian ICES-003 Class B specifications.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

This device complies with RSS 210 of Industry Canada. This Class B device meets all the requirements of the Canadian interference-causing equipment regulations.

Cet appareil numérique de la Classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

Korea Warning Statements

당해 무선설비는 운용중 전파혼신 가능성이 있음.

NCC Notice

注意!

依據 低功率電波輻射性電機管理辦法

第十二條 經型式認證合格之低功率射頻電機,非經許可,公司、商號或使用者均不得擅自變更頻 率、加大功率或變更原設計之特性或功能。

第十四條 低功率射頻電機之使用不得影響飛航安全及干擾合法通行; 經發現有干擾現象時, 應立 即停用, 並改善至無干擾時方得繼續使用。前項合法通信, 指依電信規定作業之無線電信。低功率 射頻電機需忍受合法通信或工業、科學以及醫療用電波輻射性電機設備之干擾。

安全諮詢及注意事項

- ●請使用原裝電源供應器或只能按照本產品注明的電源類型使用本產品。
- ●清潔本產品之前請先拔掉電源線。請勿使用液體、噴霧清潔劑或濕布進行清潔。
- ●注意防潮,請勿將水或其他液體潑灑到本產品上。
- ●插槽與開口供通風使用,以確保本產品的操作可靠並防止過熱,請勿堵塞或覆蓋開口。
- ●請勿將本產品置放於靠近熱源的地方。除非有正常的通風,否則不可放在密閉位置中。
- ●請不要私自打開機殼,不要嘗試自行維修本產品,請由授權的專業人士進行此項工作。



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Safety Information

- When product has power button, the power button is one of the way to shut off the product; when there is no power button, the only way to completely shut off power is to disconnect the product or the power adapter from the power source.
- Don't disassemble the product, or make repairs yourself. You run the risk of electric shock and voiding the limited warranty. If you need service, please contact us.
- Avoid water and wet locations.

This product can be used in the following countries:

AT	BG	BY	СА	CZ	DE	DK	EE
ES	FI	FR	GB	GR	HU	IE	IT
LT	LV	MT	NL	NO	PL	PT	RO
RU	SE	SK	TR	UA			

DECLARATION OF CONFORMITY

For the following equipment:

Product Description: 150Mbps Mini Wireless N USB Adapter

Model No.: TL-WN723N

Trademark: TP-LINK

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

Directives 1999/5/EC, Directives 2006/95/EC, Directives 1999/519/EC, Directives 2011/65/EU

The above product is in conformity with the following standards or other normative documents: ETSI EN 300 328 V1.7.1: 2006 ETSI EN 301 489-1 V1.9.2:2011 & ETSI EN 301 489-17 V2.2.1:2012 EN 60950-1:2006+A11: 2009+A1:2010+A12:2011

EN 62311:2008

The product carries the CE Mark:

CE1588

Person responsible for marking this declaration:

Yang Hongliang Product Manager of International Business

Date of issue: 2013

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Package Contents

Please verify that all the package contents below are available.

- > One TL-WN723N 150Mbps Mini Wireless N USB Adapter
- > Quick Installation Guide
- > One resource CD for TL-WN723N, including:
 - TP-LINK Wireless Configuration Utility (TWCU) and Drivers
 - User Guide
 - Other helpful information

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

P Note:

The 'adapter' mentioned in this User Guide stands for TL-WN723N 150Mbps Mini Wireless N USB Adapter without any explanations.

Chapter 1 Product Overview

1.1 Introduction

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

With the 802.11n technology, the TL-WN723N's auto-sensing capability allows high packet transfer rate of up to 150Mbps for maximum throughput. It has good capability on anti-jamming, and it can also interoperate with other wireless (802.11b/g) products. The adapter supports WEP, WPA and WPA2 encryption to prevent outside intrusion and protect your personal information from being exposed.

The adapter is easy to install and manage with the Quick Setup Wizard guiding you step-by-step through the installation process and the TP-LINK Wireless Configuration Utility instructing you to quickly set up a wireless connection.

With unmatched wireless performance, reception, and security protection, the TL-WN723N is the best choice for easily adding or upgrading wireless connectivity to your desktop.

1.2 Features

- Complies with IEEE 802.11n, IEEE 802.11g, IEEE 802.11b, IEEE 802.11x, IEEE 802.11e, IEEE 802.11i standards
- Supports WEP, WPA/WPA2, WPA/WPA2-PSK data security, TKIP/AES encryption, 802.1x Authentication
- Supports high rate of up to 150Mbps for maximum throughput, supports automatically adjust to lower speeds due to distance or other operating limitations
- Provides USB 2.0 interface
- > Supports Ad Hoc and Infrastructure modes
- Good capability on anti-jamming
- > Supports roaming between access points when configured under Infrastructure mode
- > Easy to configure and provides monitoring information
- Supports Windows XP, Windows Vista, Windows 7 and Windows 8

1.3 Hardware Overview

LED status:

Status	Working Status
Off	The driver has not been installed; The adapter's radio has been disabled.
Flashing Slowly	The driver has been installed but no data is being transmitted or received.
Flashing Quickly	Data is being transmitted or received.

Chapter 2 Installation

2.1 Hardware Installation

Plug the Adapter directly to the USB port on your computer.

P Note:

The prompted Found New Hardware Wizard screen will pop up when the adapter is installed correctly. Click **Cancel**.

2.2 Software Installation

The adapter's Setup Wizard will guide you through the installation procedures for Windows XP, Windows Vista, Windows 7, and Windows 8. The procedures in different systems are quite similar, therefore here takes the procedures in Windows 7 for example.

 Insert the Resource CD into your CD-ROM drive, and the window below will appear. Select model TL-WN723N. There will be a menu including: Install Driver&Utility and User Guide. Click Install Driver&Utility to begin.



Figure 2-1

2. Select the language for the installation from the drop-down list and click **OK**. The **InstallShield Wizard** window will appear. Click **Next** to continue.

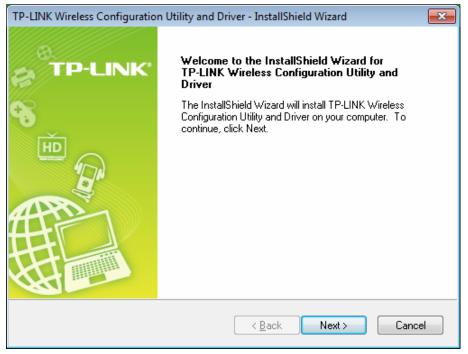


Figure 2-2

 Choose a setup type. It is recommended to select Install TP-LINK Wireless Configuration Utility and Driver. Selecting Install Driver Only will only install driver. Click Next to continue.

TP-LINK Wireless Configuration Utility and Driver - Insta	IIShield Wizard
Setup Type Select the setup type that best suits your needs.	TP-LINK
Click the type of setup you prefer. Install Driver Only Install TP-LINK Wireless Configuration Utility and Driver	Description Choose this option to install TP-LINK Wireless Configuration
	Utility and driver. This is the recommended option.
InstallShield ————————————————————————————————————	< <u>N</u> ext > Cancel

Figure 2-3

4. Click **Change** to specify the destination location for the software or you can leave it default. Click **Next** in the screen below to continue.

TP-LINK Wi	reless Configuration Utility and Driver - InstallShield Wiza	rd 💌
	Pestination Location e folder where setup will install files.	TP-LINK
	Install TP-LINK Wireless Configuration Utility and Driver to: C:\\TP-LINK Wireless Configuration Utility	<u>C</u> hange
InstallShield -	< <u>B</u> ack Nex	t > Cancel

Figure 2-4

5. Click **Install** to continue the setup.

TP-LINK Wireless Configuration Utility and Driver - InstallShield Wizard	
Ready to Install the Program The wizard is ready to begin installation.	P-LINK
Click Install to begin the installation.	
If you want to review or change any of your installation settings, click Back. C the wizard.	lick Cancel to exit;
InstallShield	
< <u>B</u> ack Install	Cancel

Figure 2-5

6. The utility and drivers will install. This may take 1~2 minutes.

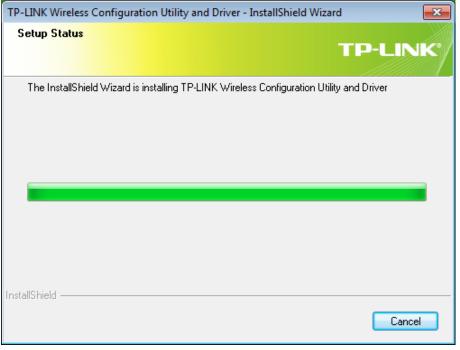


Figure 2-6

7. After all the steps above, you will see the screen below. Click **Finish** to complete the setup.

TP-LINK Wireless Configuration	n Utility and Driver - InstallShield Wizard
TP-LINK Wireless Configuration	n Utility and Driver - InstallShield Wizard InstallShield Wizard Complete InstallShield(R) Wizard has finished Installation. Click Finish to exit the wizard.
	< Back Finish Cancel

Figure 2-7

8. After installation, the utility configuration page will automatically pop up as shown in the following figure and the icon 🏼 will appear in your system tray. To connect to a network, please refer to <u>Chapter 3 Connect to a Wireless Network</u>.

TP-LIN	к				=	×
Status	WPS	Network	Profile	Advanced		
Network Name	e(SSID) 👻	Secur	ty 👻	Channel 🔻	Signal 🥆	
TP-LINK_7DB	C8B	None		2 (2.4G)	at l	Â
TP-LINK_Netv	vork1	WPA2-	Personal	13 (2.4G)	.ail	
TP-LINK_1309	969	None		6 (2.4G)	.etil	E
TP-LINK_0123	345	None		10 (2.4G)	line.	
TP-LINK_1309	919	None		7 (2.4G)	line.	
TP-LINK_1043	3C2	WPA/V	/PA2-Personal	11 (2.4G)	100	
TPLINK_DATA	TRANS	WPA-P	ersonal	11 (2.4G)	100	
ChinaNet-gvZZ	Z	WPA2-	Personal	1 (2.4G)	100	Ŧ
					Rescan	

Figure 2-8

Chapter 3 Connect to a Wireless Network

With both the hardware and software successfully installed into your computer, you can quickly connect to a wireless network using one of the following methods.

Method One:

To connect using TWCU

TL-WN723N uses the TP-LINK Wireless Configuration Utility as the management software. The utility provides you an easy interface to connect to a network and to change any settings related to the wireless adapter.

Method Two:

To connect using WPS

By this method, you can connect to your network quickly on the condition that your router or access point supports WPS as is called by some other brands.

Method Three:

To connect using Windows built-in wireless utility

Windows users may use the built-in wireless utility to connect to a wireless network. For specific operations, please go to <u>To connect using Windows built-in wireless utility</u>.

3.1 To connect using TWCU

 After installation, the utility configuration page will automatically pop up on the screen. If the utility page does not pop up, you can also launch the utility by double-clicking on the screen icon on your desktop or the screen icon in your system tray.

						F	×
Status	WPS	Netwo	ork	Profile	Advanced		
Network Name(S	SID) 👻		Security	~	Channel 👻	Signal 🤜	
TP-LINK_7CA928	6		None		4 (2.4G)	ani.	^
TP-LINK_Network	k1	8	WPA2-Pers	onal	13 (2.4G)	-10	
TP-LINK_130969			None		6 (2.4G)	-01	=
TP-LINK_BF1340	>	6	WPA/WPA2	2-Enterprise	e 4 (2.4G)		
TP-LINK_130919			None		7 (2.4G)		
TP-LINK_1043C2	!	8	WPA/WPA2	2-Personal	11 (2.4G)	-10	
TPLINK_DATA_T	RANS	8	WPA-Perso	nal	11 (2.4G)		
TP-LINK_D94F73	}	6	WEP		7 (2.4G)	-01	-
						Rescan	1
			Eiguro 2				

Figure 3-1

2. The Network page will display all wireless networks that are available in your area. To

connect to a network, simply highlight the wireless network name and click **Connect**. **SSID** (Service Set Identifier) is the name of the wireless network. The adapter will automatically connect to your target network next time if you tick **Connect automatically**.

Т	P-LIN Reliable Choice	К				=	X
	Status	WPS	Network	Profile	Advanced		
	Network Nam	ne(SSID) 🤝	Secu	rity 👻	Channel 👻	Signal 🤻	
	TP-LINK_7CA	4926	None		4 (2.4G)	at l	^
	TP-LINK_Net	work1	WPA2	-Personal	9 (2.4G)	.etfl	
			Connec	tautomatically	Conne	ect	=
	TP-LINK_130	969	None		6 (2.4G)		
	TP-LINK_BF1	134C	🔒 WPAA	NPA2-Enterprise	e 4 (2.4G)	.etf	
	TP-LINK_130	919	None		7 (2.4G)	100	
	TP-LINK_104	3C2	WPA/	WPA2-Personal	11 (2.4G)	100	
	TPLINK_DAT	A_TRANS	WPA-F	Personal	11 (2.4G)	100	-
						Rescan	

Figure 3-2

3. You will be prompted different windows when you choose wireless network of different security types.

1) Wireless network of WPA/WPA2-Personal

If you selected a wireless network of the security type WPA/WPA2-Personal, you will be prompted to enter the password in the security key field, as shown in Figure 3-3. Or you can push the **WPS** button on your Router (if it features the WPS function) to quickly build a connection without entering the security key (password).

Please input the pa	ssword:
Security Key:	*****
Security Key.	
	Show characters
()	You can also connect by pushing the button on the router.
	OK Cancel

Figure 3-3

Note:

The security key (password) can be found on the configuration page of your Router or Access Point.

2) Wireless network of WPA/WPA2-Enterprise

If you selected a wireless network of the security type WPA/WPA2-Enterprise, you will be prompted to choose a type of authentication, either **Certificate** or **Password**. With **Certificate** as your authentication, you need to select one specific certificate from the drop-down list, as shown in Figure 3-4. With **Password** as your authentication, you should enter the right user name and password in the corresponding field, as shown in Figure 3-7.

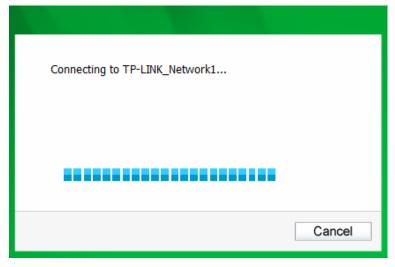
Authentication:	Certificate
Certificate:	wifi-user WiFi-Intermediate-CA-
	OK Cancel
	Figure 3-4
Authentication: User Name: Password:	Password user ******** Show characters

Figure 3-5

3) Wireless network of None

If you selected a wireless network of **None** (that is, no security is set.), you can get directly connected to this network without any further configuration.

4. Please wait a few minutes for the connection process.





5. You have now successfully connected to your network. Click **Close** to enjoy the Internet.

Connected to TP-LINK_Network1	
	Class
	Close

Figure 3-7

6. To view more information about the network currently connected, click **Status** in the tools section and the page will display information such as the network type, link quality and wireless mode.

TL-WN723N 150Mbps Mini Wireless N USB Adapter

Image: Status Image: Network Image: Profile Image: Advanced Profile Name: TP-LINK_Network1 Advanced Network Name(SSID): TP-LINK_Network1 Image: TP-LINK_Network1 Network Type: Infrastructure Rate: 150Mbps Channel: 9 (2.4G) Encryption Type: AES AP MAC: 94-0C-6D-2F-3C-BE Wireless Mode: 802.11n IP Address: 192.168.0.111 Signal Strength: 96% Excellen	Status W Profile Name:	VPS Network	Profile	Advanced
Profile Name:TP-LINK_Network1Network Name(SSID):TP-LINK_Network1Network Type:InfrastructureRate:150MbpsChannel:9 (2.4G)Encryption Type:AESAP MAC:94-0C-6D-2F-3C-BEIP Address:192.168.0.111	Profile Name:		Profile	Advanced
Network Name(SSID):TP-LINK_Network1Network Type:InfrastructureRate:150MbpsChannel:9 (2.4G)Encryption Type:AESAP MAC:94-0C-6D-2F-3C-BEWireless Mode:802.11nIP Address:192.168.0.111		TD UNIC Natural d		
Network Type:InfrastructureRate:150MbpsChannel:9 (2.4G)Encryption Type:AESAP MAC:94-0C-6D-2F-3C-BEWireless Mode:802.11nIP Address:192.168.0.111	Network Name(SSI	TP-LINK_INETWORKT		
Channel:9 (2.4G)Encryption Type: AESAP MAC:94-0C-6D-2F-3C-BEWireless Mode: 802.11nIP Address:192.168.0.111		ID): TP-LINK_Network1		
AP MAC: 94-0C-6D-2F-3C-BE Wireless Mode: 802.11n IP Address: 192.168.0.111	Network Type:	Infrastructure	Rate:	150Mbps
IP Address: 192.168.0.111	Channel:	9 (2.4G)	Encryption	Type: AES
	AP MAC:	94-0C-6D-2F-3C-BE	Wireless N	Mode: 802.11n
Signal Strength: 96% Excellen	IP Address:	192.168.0.111		
	Signal Strength:			96% Excellen

Figure 3-8

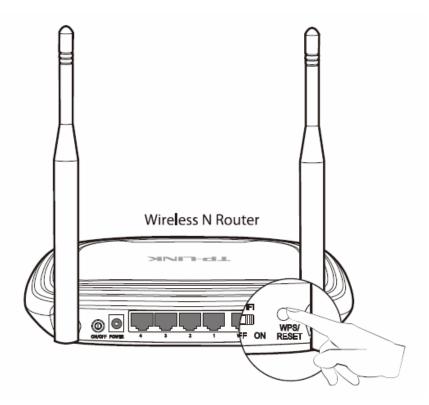
3.2 To connect using WPS

WPS (Wi-Fi Protected Setup) function allows you to add a new wireless device to an existing network quickly.

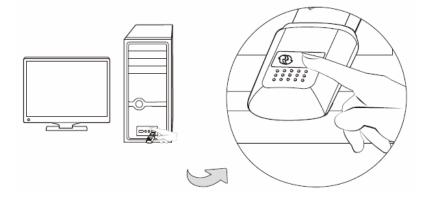
If the wireless router supports WPS, you can establish a wireless connection between wireless card and router using either Push Button Configuration (PBC) method or PIN method. Three WPS connection methods are listed in the following parts.

3.2.1 PBC (Push Button Configuration) method

1. Press the WPS button on the back panel of the router. Here takes router TL-WR841ND for example.



2. Push the WPS button on the Adapter.



Or open TWCU and click **WPS** tab. Select **Push the button on my access point or wireless router** and then click **Connect**.

TL-WN723N 150Mbps Mini Wireless N USB Adapter

	к				- *
	WPS				
Status	WPS	Network	Profile	Advanced	
● Push the ◎ Enter the	ose a method to e button on my acce e PIN of my acce	tion will guide you th join a wireless netw ccess point or wirele ss point or wireless ce into my access p	iork: ess router. router.	g your wireless network outer.	Connect

Figure 3-9

3. The adapter will be connecting to the target network.

Configuring the wireless network.	
(((WPS)))	
Searching for an available network	
	Cancel



4. When the following window appears, you have successfully connected to the network.

Configuring the wireless network.
(((WPS)))
Successfully connected to the network by WPS!
ОК

Figure 3-11

3.2.2 PIN method

There are two ways to configure the WPS by PIN method:

- 1) Enter the PIN from your AP device.
- 2) Enter a PIN into your AP device.

Following are detailed configuration procedures of each way.

3.2.2.1. Enter the PIN from your AP device

 Open TWCU and click WPS tab. Select Enter the PIN of my access point or wireless router. In the empty field beside PIN, enter the PIN labeled on the bottom of the router (here takes 13492564 for example). If you have generated a new PIN code for your router, please enter the new one instead. Click Connect to continue.

TP-LIN	к				- x
-	wps		Q	and a state	
Status	WPS	Network	Profile	Advanced	
○ Push the	ose a method to e button on my ac	tion will guide you th join a wireless netw ccess point or wireless	rork: ess router.	g your wireless network	ς
PIN: 1349	2564				
© Enter the	Enter the PIN of this device into my access point or wireless router				
	Connect				

Figure 3-12

2. The adapter will be connecting to the target network.





3. When Figure 3-11 appears, you have successfully connected to the network.

3.2.2.2. Enter a PIN into your AP device

1. Open TWCU and click **WPS** tab. Select **Enter the PIN of this device into my access point or wireless router**. In the field beside PIN, you will see the PIN value of the adapter which is randomly generated. Click **Connect** to continue.

TP-LIN	к				- x
	wps				
Status	WPS	Network	Profile	Advanced	
Please cho Push the Enter the Enter the	This application will guide you through configuring your wireless network. Please choose a method to join a wireless network: Push the button on my access point or wireless router. Enter the PIN of my access point or wireless router. PIN: 99059705				

Figure 3-14

 Open your router's Web-based Utility and click WPS link on the left of the main menu. Then click Add device and the following figure will appear. Enter the PIN value of the adapter in the empty field beside PIN and then click Connect.

Add A New Device
 Enter the new device's PIN. PIN: 99059705
 Press the button of the new device in two minutes.
Back Connect



 When Connect successfully appears on the screen, the WPS configuration is complete. Or you can view the adapter's utility page to see whether the connection has been successful as shown in Figure 3-17.

Add A New Device
 Enter the new device's PIN. PIN: 99059705 Press the button of the new device in two minutes.
Connect successfully!
Back Connect

Figure 3-16



Figure 3-17

3.3 To connect using Windows built-in wireless utility

3.3.1 In Windows XP

Windows XP users may use the built-in wireless utility. Follow the steps below.

1. Right-click on the utility icon in your system tray (lower-right corner). Select **Switch to Windows wireless configuration tool**.

Open	
Radio OFF	
Switch to Windows wireless configuration tool	
Switch to SoftAP mode	
About	
Exit	
	-X & B



Or double-click the utility icon to load the utility configuration page. Click **Advanced** in the tools section and then select **Use Windows wireless configuration tool** in the figure shown below. Click **OK** when Figure 3-20 appears to continue.

	-LINK					- ×
		WPS				
St	atus	WPS	Network	Profile	Advanced	
5	Vireless netwo	NK Wireless C prk adapter sv se a wireless	onfiguration Utility	_	ws wireless configura	

Figure 3-19

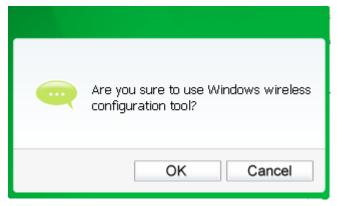


Figure 3-20

2. Right-click on the wireless computer icon in your system tray (lower-right corner). Select **View Available Wireless Networks**.





3. The utility will display any available wireless networks in your area. Click on a network (displayed using the SSID) and click the **Connect** button.

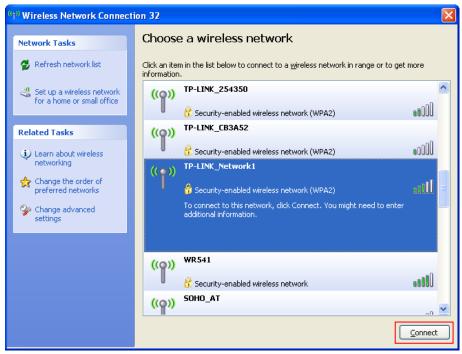


Figure 3-22

4. If the network is security-enabled, you will be prompted to enter the key as shown below. If not, you will connect to the network directly without entering a key.

Wireless Network Connection				
The network 'TP-LINK_Network1' requires a network key (also called a WEP key or WPA key). A network key helps prevent unknown intruders from connecting to this network.				
Type the key, and then click Connect.				
Network <u>k</u> ey:	•••••			
C <u>o</u> nfirm network key:	•••••			
	<u>Connect</u> Cancel			

Figure 3-23

3.3.2 In Windows Vista

Windows Vista users may use the built-in wireless utility. Follow the steps below.

1. Open the wireless utility by right-clicking on the wireless computer icon in your system tray as shown in the figure below. Select **Connect to a network**.





2. The utility will display any available wireless networks in your area. Highlight the wireless network you would like to connect and then click **Connect**.

(c) •	😨 Conn	ect to a network		
	Select a	network to conr	pect to	
	Select a			
	Sho	All	•	47
	Dial-up	and VPN		· · ·
	Wireless	Network Connection	6	• E
	2	TP-LINK_Network1	Security-enabled network	lter-
	2	TP-LINK_1B0F28	Security-enabled network	lter.
	<u>.</u>	Infra_KeyTest	Security-enabled network	- 1111-
		onnection or network work and Sharing Cen	ter	
	<u>e per rec</u>			
				Connect Cancel

Figure 3-25

3. If the network you would like to connect is security-enabled, enter the same security key or passphrase that is on your router. If the network to be connected is not secure, the connection will be built without entering a key.

			- • 🔀
\bigcirc	😰 Co	nnect to a network	
		the network security key or passphrase for TP-LINK_Network1	
	The pe	rson who setup the network can give you the key or passphrase.	
	<u>S</u> ecurity	y key or passphrase:	
	•••••	•••••	
	🔲 <u>D</u> isp	lay characters	
	đ	If you have a <u>USB flash drive</u> with network settings for TP-LINK_Network1, insert it now.	
		Connect	Cancel

Figure 3-26

4. You have now successfully connected to the network.

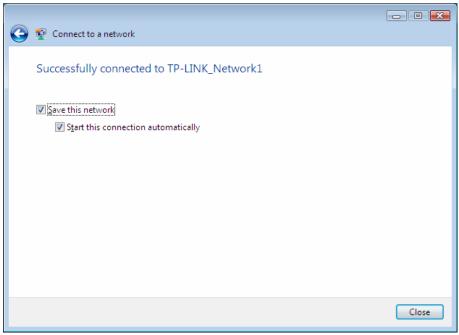


Figure 3-27

3.3.3 In Windows 7

Windows 7 users may use the built-in wireless utility. Follow the steps below.

1. Left-click the wireless icon in your system tray (lower-right corner). The utility will display any available wireless networks in your area. Highlight the wireless network (displayed using the SSID) to be connected and then click **Connect**.



Figure 3-28

2. If the network you would like to connect is security-enabled, enter the same security key or passphrase that is on your router. Or push the WPS button on the router or access point (You will be prompted to push the button on the window if WPS function is supported as shown in the figure below). If the network to be connected is not secure, the connection will be built without entering a key.

😨 Connect to a Networ	×						
Type the network							
Security key:	Security key:						
	Hide characters						
S a b							
OK Cancel							



3. You have now successfully connected to the network.

Dial-up and VPN	*	
Wireless Network Connection 6	^	
TP-LINK_Network1 Connected	all	_
NetworkProfile~	31	-
B19DDE_ZLP	.ul	-
8877A7	.ul	
1B0F28	.ul	
Infra_KeyTest	ыI	
TP-LINK_1B0F28	.ull	
TP-LINK_B19DDE_ZLP	.all	
TP-LINK_8877A7	31	Ŧ
Open Network and Sharing Cen	ter	
	12 AM 9/2011	

Figure 3-30

3.3.4 In Windows 8

Windows 8 users may use the built-in wireless utility. Follow the steps below.

1. Click the icon at the bottom of your screen, and a network list will appear at the right side of your screen. Select your target network, and then click Connect.

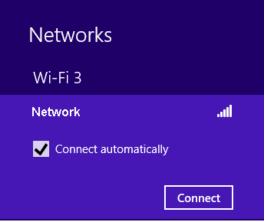


Figure 3-31

If the network is unencrypted, you will directly connect to it.
 If the network is encrypted, enter the password (network security key) and then click Next to continue.

Networks	
Network	.atl
Enter the network security ke	y
You can also by pushing th on the router	e button
Next	Cancel
Figure 3-32	

Note:

You can also push the WPS/QSS button on your router as hinted "You can also connect by pushing the button on the router". Then click **Next** to continue.

3. When Connected appears behind the SSID (as shown below), you have successfully connected to the target network.

Networks	
Wi-Fi 3	
Network	Connected ,
	Disconnect

Figure 3-33

Note:

If the adapter is connected to the network for the first time, you will be asked whether to turn on sharing or connect to devices. Please select "Yes, ..." or "No, ..." according to your Internet environment.

Networks	
Network	atl
Do you want to turn on sha between PCs and connect t	
	o devices
on this network? No, don't turn on sharing	
on this network?	or
on this network? No, don't turn on sharing connect to devices	or s

Figure 3-34

Chapter 4 Management

This section will show you how to configure your TL-WN723N adapter using the TP-LINK Wireless Configuration Utility (TWCU).

The TL-WN723N adapter uses the TP-LINK Wireless Configuration Utility as the management software. The utility provides users with an easy interface to change any settings related to the adapter. Double-clicking on the *clicking* icon on your desktop will start the utility.

4.1 Profile

Your wireless networks may vary in different places like home, office or coffee shop. With **Profile** management, you can easily save and manage various networks to be connected, saving you the trouble of having to repeat the same configurations. Click **Profile** in the tools section, the following page will appear.

Status	WPS	Network	Profile	Advanced	
Profile Name	SSID		Network Type	Security	Connected

Figure 4-1

4.1.1 Add a profile

To add a profile, click the **Add** button on the bottom of the screen. Then the configuration window will appear.

Profile Name:	Home
SSID:	TP-LINK_Network1 -
Network Type:	
Security Type:	WPA-PSK/WPA2-PSK -
Encryption Type:	TKIP/AES
Security Key:	*********
Start this connection	tion automatically.
	Save Cancel



Profile Name:	Office
SSID:	TP-LINK_BF134C
Network Type:	Infrastructure ○ ad hoc
Security Type:	WPAMPA2
Encryption Type:	TKIP/AES
Authentication:	Certificate
Certificate:	wifi-user WiFi-Intermediate-CA-: 🗸
🗹 Start this connec	tion automatically.
	Save Cancel

Figure 4-3

The following items can be found on the screen.

- Profile Name: Enter a name for your profile (e.g. Home, Office, CoffeeShop). The same name is not allowed. Please also note that no space is allowed between words.
- > **SSID:** Select the target network from the drop-down list.
- Network Type: Select the network type. If you are connecting to a wireless router or access point, select Infrastructure. If you are connecting to another wireless client such as an adapter, select ad-hoc.
- Security Type: Select the security type from the list. Three options are available: WPA-PSK/WPA2-PSK, WEP and None. The security type should be the same as on your router or access point, otherwise, you will not be able to build a successful connection.

WPA-PSK/WPA2-PSK uses a passphrase or key to authenticate your wireless connection. The key must be the exact same key entered on your wireless router or access point. None stands for no security. It is recommended to enable WPA-PSK/WPA2-PSK on your wireless router or access point before configuring your wireless adapter.

Encryption Type: From the drop-down menu, select the encryption type that is the same as on your router or access point.

- Security Key: Enter the passphrase exactly as it is on your wireless router or access point. Click the Show characters box to see the passphrase. Unchecking it will hide it.
- Start this connection automatically: check this box to automatically connect to this network next time.
- > Save: Click Save to save your settings.

Complete the above settings, the Profile page should look like the following figure. To connect to a desired network, just highlight the network you would like to connect to and click the **Connect** button on the bottom of the window.

					- x
	WPS			100 A	
Status	WPS	Network	Profile	Advanced	
Profile Name	SSID		Network Type	Security	Connected
Home		_Network1	Infrastructure	WPA-PSK/WPA	
Office CoffeeShop	TP-LINK_ TP-LINK_		Infrastructure Infrastructure	WPA/WPA2	No No
	_				
		Add	Modify	Remove	Connect

Figure 4-4

4.1.2 Modify a profile

You may edit an existing profile by clicking the **Modify** button from the Profile page. For instance, you may like to change the profile name from Home to Home1 or you may want to specify another SSID for profile Home. After all the changes, click **Save** to make the changes take effect.

Profile Name:	Home
SSID:	TP-LINK_Network1
Network Type:	Infrastructure
Security Type:	None
Encryption Type:	None
Start this connect	ction automatically.

Figure 4-5

4.1.3 Delete a profile

To delete an existing profile, highlight the profile name and click **Remove** on the bottom of the screen or press the Delete button on your keyboard. When the following figure appears, click **OK** to continue.

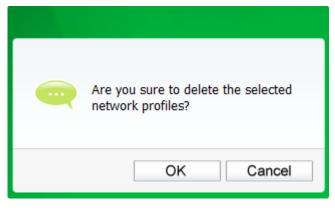


Figure 4-6

4.2 Advanced

The following configurations can be made on the **Advanced** page:

1) To select wireless configuration tool.

Here you can decide which tool to use, either the TP-LINK Configuration Utility or the Windows wireless configuration tool. This option is available only in Windows XP.

 To switch to another wireless network adapter. Here you can switch to another adapter installed in your computer. The adapters successfully installed in your computer will be listed in the drop-down menu if the adapters are supported by this utility.

3) To switch to SoftAP mode.

Once enabled, the adapter will be able to work as an AP.

4) To change the power save mode. The default option is **OFF**.

D-LIN eliable Choice	ĸ				
4	WPS				
Status	WPS	Network	Profile	Advanced	
) Use TF	-LINK Wireless C		🔵 Use Windo	ws wireless configuratio	on tool
Please ch		witch	Wireless Netwo	rk Connection TL-WN72	25N_TL·
SoftAP mo					
© ON		OFF			
ON (e mode	OFF			

Figure 4-7

4.3 About

The About screen gives you some information about the Driver and Utility versions of the adapter. Right-click on the **mill** icon in your system tray and select **About** from the list.



Figure 4-8

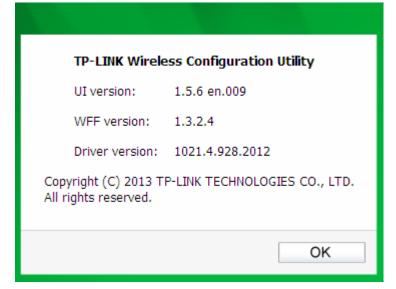


Figure 4-9

Chapter 5 AP Mode

In Soft AP mode, the adapter will work as an AP. Suppose that only one computer in your house can access the Internet for various reasons like only one WLAN port is available on your wired broadband router, however, other wireless-capable devices also want to share the Internet. Then the adapter can be configured as an AP under the Soft AP mode, saving you the trouble of having to get a separate access point or a router.

With this feature, a computer can use a single physical wireless adapter to connect as a client to a hardware access point while at the same time acting as a software AP allowing other wireless-capable devices to connect to it.

To switch to this mode, right-click on the utility icon in your system tray and select **Switch to SoftAP mode**.

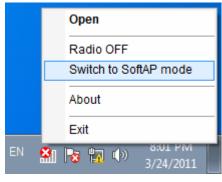


Figure 5-1

Or from the **Advanced** page of the utility, tick **ON** under the SoftAP mode as shown in the following figure. Click **OK** when prompted to confirm the setting.

TP-LIN The Reliable Choice	<				
	WPS		¢.		
Status	WPS	Network	Profile	Advanced	
	ess configuratior -LINK Wireless C	n tool			
	twork adapter sv oose a wireless	vitch			
SoftAP mod	e		mode	ou sure to turn on the ?	SOTTAP
ON Power Save	mode	OFF		OK	Cancel
		OFF			

Figure 5-2

The Soft AP icon should then appear beside Advanced icon in the utility.

TL-WN723N 150Mbps Mini Wireless N USB Adapter

TP-LIN	К				
Status	WPS	Network	Profile	Advance	d Soft AP
SoftAP mo	de:	ON	OFF		
Internet Co	nnecting Share(ICS	S): Local Area	a Connection 2	•	
SSID:		SoftAP			
Security Ty	/pe:	WPA2-PS	K	•	
Encryption	Туре:	AES		•	
Security Ke	ey:	12345678		She	ow characters
IP Address	c	192.168.1	37.1		
					Apply

Figure 5-3

- > **Soft AP mode:** Select to enable or disable the function.
- Internet Connecting Share(ICS): Specify a connection through which devices connected to your AP can access the Internet.
- SSID: Enter the name for your soft AP (for example, Jone) so that others can know which AP is yours when trying to connect to it. The default name (SSID) is "SoftAP".
- Security Type: The security type here is set to be WPA2-PSK which is based on 802.11i and uses Advanced Encryption Standard instead of TKIP. It was designed to improve the security features of WEP. WPA2-PSK uses a passphrase or key to authenticate your wireless connection. You needn't make any configuration here.
- > **Encryption Type:** The encryption type here is set to be AES.
- Security Key: Enter the Key in the field to make your AP security enabled. It is recommended that you specify another key instead of the default key 12345678. Only by entering the corresponding key can other computers establish a successful connection with your AP.
- > **IP Address:** Here displays the IP address of the SoftAP.

Chapter 6 Uninstall Software

6.1 In Windows XP/Vista/7

The software uninstall steps are similar in Windows XP, Windows Vista, and Windows 7, here we just take Windows 7 for example.

6.1.1 Uninstall the utility software from your PC

1. On the Windows taskbar, click the **Start** button, click **All programs→TP-LINK**, and then click **Uninstall-TP-LINK Wireless Configuration Utility**.

 Default Programs Desktop Gadget Gallery Internet Explorer 	
 Windows DVD Maker Windows Fax and Scan Windows Media Center Windows Media Player Windows Update XPS Viewer Accessories Games 	english Documents Pictures Music
Maintenance Startup TP-LINK	Games Computer
TP-LINK Wireless Configuration Utility Uninstall - TP-LINK TL-WN725N_TL-WN Uninstall - TP-LINK Wireless Configurat UltraISO	
1 Back	Default Programs Help and Support
Search programs and files	Shut down 🕨

Figure 6-1 Uninstall Utility

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

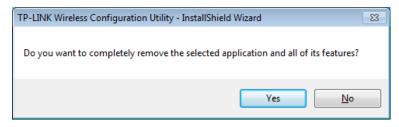


Figure 6-2

3. Click **Finish** when the figure below appears.

TP-LINK Wireless Configuration Utility - InstallShield Wizard		
	Uninstall Complete InstallShield Wizard has finished uninstalling TP-LINK Wireless Configuration Utility. Yes, I want to restart my computer now No, I will restart my computer later. Remove any disks from their drives, and then click Finish to complete setup.	
	< <u>B</u> ack Finish Cancel	

Figure 6-3

6.1.2 Uninstall the driver software from your PC

1. On the Windows taskbar, click the **Start** button, click **All programs→TP-LINK**, and then click **Uninstall- TL-LINK TL-WN725N_ TL-WN723N Driver**.

WinRAR Accessories Coupons	
DAEMON Tools Lite Games	English
HP	
🌗 Maintenance	Documents
Je Microsoft Office	Pictures
Microsoft Silverlight	
Snagit 9	Music
Startup TP-LINK	
TP-LINK Wireless Configuration Utili	Games
Uninstall - TP-LINK TL-WN725N_TL-W	N723N Driver
Uninstall - TP-LINK Wireless Configu	
=	Control Panel
	Devices and Printers
	Default Programs
-	Help and Support
4 Back	Run
Search programs and files	Shut down 🕨
📀 💕 🕥 🚞	🔹 📝 🛛

Figure 6-4 Uninstall Driver

2. Following the steps, then the system will uninstall the driver software of the adapter from your PC.

6.2 In Windows 8

6.2.1 Uninstall the utility software from your PC

1. Enter the **Metro** interface, right-click any blank place in the Metro interface, then **App Bar** will appear below the Metro interface, click **All apps**. Find the **TP-LINK** application, and click **Uninstall- TP-LINK Wireless Configuration Utility.**



Figure 6-5

2. Click Yes to start uninstalling the utility software from your PC.



Figure 6-6

3. It may take a few minutes to undergo the whole un-installation process.

TP-LINK Wireless Configuration Utility - InstallShield Wizard	x
Setup Status	
InstallShield Wizard is removing the TP-LINK Wireless Configuration Utility	
	1
InstallShield	
Cancel	

Figure 6-7

4. Click **Finish** when the figure below appears.

TP-LINK Wireless Configuration Utility - InstallShield Wizard		
	Uninstall Complete InstallShield Wizard has finished uninstalling TP-LINK Wireless Configuration Utility.	
	< Back Finish Cancel	

Figure 6-8

6.2.2 Uninstall the driver software from your PC

1. Enter the **Metro** interface, right-click any blank place in the Metro interface, then **App Bar** will appear below the Metro interface, click **All apps**. Find the **TP-LINK** application, and click **Uninstall-TP-LINK TL-WN725N_TL-WN723N Driver**.



2. Click **Yes** to start uninstalling the driver software from your PC.

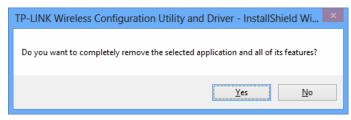


Figure 6-10

3. It may take a few minutes to undergo the whole un-installation process.

TP-LINK Wireless Configuration Utility and Driver - InstallShield Wizard
Setup Status TP-LINK
InstallShield(R) Wizard is removing the driver
InstallShieldCancel



4. Click **Finish** when the figure below appears.



Figure 6-12

Appendix A: Specifications

Normal	
Interface	USB 2.0 Interface
Standards	IEEE 802.11n, IEEE 802.11g, IEEE 802.11b, IEEE 802.1x,
	IEEE 802.11e, IEEE 802.11i
Operating System	Windows XP, Windows Vista, Windows 7, Windows 8
Throughput	150Mbps (Maximal)
	11b: 1/2/5.5/11Mbps
Radio Data Rate	11g: 6/9/12/18/24/36/48/54Mbps
	11n: Up to 150Mbps
	11b:CCK,QPSK,BPSK
Modulation	11g:OFDM
	11n: QPSK, BPSK, 16-QAM, 64-QAM
Media Access Protocol	CSMA/CA with ACK
Data Security	62/128-bit WEP, WPA/WPA2, WPA-PSK/WPA2-PSK
Frequency*	2.4 ~ 2.4835GHz
Spread Spectrum	Direct Sequence Spread Spectrum (DSSS)
Safety & Emissions	FCC, CE

Environmental and Physical	
Working Temperature	0°C~40°C (32°F~104°F)
Working Humidity	10% ~ 90% RH, Non-condensing
Storage Temperature	-40℃~70℃(-40°F~158°F)
Storage Humidity	5% ~ 90% RH, Non-condensing

* Only 2.412GHz \sim 2.462GHz is allowed to be used in USA, which means only channel 1 \sim 11 is available for American users to choose.

Appendix B: Glossary

- 802.11b The 802.11b standard specifies a wireless product 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.
- 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) 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.
- 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 of 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. See also Wireless Network Name and ESSID.
- WEP (Wired Equivalent Privacy) A data privacy mechanism based on a 64-bit or 128-bit or 152-bit shared key algorithm, as described in the IEEE 802.11 standard. To gain access to a WEP network, you must know the key. The key is a string of characters that you create. When using WEP, you must determine the level of encryption. The type of encryption determines the key length. 128-bit encryption requires a longer key than 64-bit encryption. Keys are defined by entering in a string in HEX (hexadecimal using characters 0-9, A-F) or ASCII (American Standard Code for Information Interchange alphanumeric characters) format. ASCII format is provided so you can enter a string that is easier to remember. The ASCII string is converted to HEX for use over the network. Four keys can be defined so that you can change keys easily.
- Wi-Fi A trademark of the Wi-Fi Alliance and the brand name for products using the IEEE 802.11 family of standards.
- 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 (Wi-Fi Protected Access) A wireless security protocol uses TKIP (Temporal Key Integrity Protocol) encryption, which can be used in conjunction with a RADIUS server.