

# TP-LINK®

## User Guide

### Archer T9UH

AC1900 High Gain Wireless Dual Band USB Adapter



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<http://www.tp-link.com>

## **FCC STATEMENT**



This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1) This device may not cause harmful interference.
- 2) This device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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 radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment has been SAR-evaluated for use in hand. SAR measurements are based on a 5mm spacing from the body and that compliance is achieved at that distance.

This device is restricted in indoor environment only.

### **CE Mark Warning**

# CE 1588 !

## RF Exposure Information

This device meets the EU requirements (1999/5/EC Article 3.1a) on the limitation of exposure of the general public to electromagnetic fields by way of health protection.

The device complies with RF specifications when the device used at 5 cm from your body.

Restricted to indoor use.

## Canadian Compliance Statement

This device complies with Industry Canada license-exempt RSSs. 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.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- 1) l'appareil ne doit pas produire de brouillage;
- 2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This radio transmitter (IC: 8853A-T9UH/ Model: Archer T9UH) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain indicated. Antenna types not included in this list (Appendix A), having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Le présent émetteur radio (IC: 8853A-T9UH/ Model: Archer T9UH) a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal. Les types d'antenne non inclus dans cette liste (Annexe A), et dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

## Caution:

- 1) The device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;
- 2) For devices with detachable antenna(s), the maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall be such that the equipment still complies with the e.i.r.p. limit;
- 3) For devices with detachable antenna(s), the maximum antenna gain permitted for devices in the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits specified for point-to-point and non-point-to-point operation as appropriate; and

The high-power radars are allocated as primary users (i.e. priority users) of the bands

5250-5350 MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

DFS (Dynamic Frequency Selection) products that operate in the bands 5250- 5350 MHz, 5470-5600MHz, and 5650-5725MHz.

### **Avertissement:**

- 1) Le dispositif fonctionnant dans la bande 5150-5250 MHz est réservé uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;
- 2) Le gain maximal d'antenne permis pour les dispositifs avec antenne(s) amovible(s) utilisant les bandes 5250-5350 MHz et 5470-5725 MHz doit se conformer à la limitation P.I.R.E.;
- 3) Le gain maximal d'antenne permis pour les dispositifs avec antenne(s) amovible(s) utilisant la bande 5725-5850 MHz doit se conformer à la limitation P.I.R.E spécifiée pour l'exploitation point à point et non point à point, selon le cas.

En outre, les utilisateurs devraient aussi être avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5250-5350 MHz et 5650-5850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

Les produits utilisant la technique d'atténuation DFS (sélection dynamique des fréquences) sur les bandes 5250- 5350 MHz, 5470-5600MHz et 5650-5725MHz.

### **Radiation Exposure Statement:**

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

### **Déclaration d'exposition aux radiations:**

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

### **Industry Canada Statement**

CAN ICES-3 (B)/NMB-3(B)

### **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。

減少電磁波影響，請妥適使用。

**於 5.25GHz 至 5.35GHz 區域內操作之無線設備的警告聲明**

工作頻率 5.250~5.350GHz 該頻段限於室內使用。

## BSMI Notice

### 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。



Продукт сертифіковано згідно с правилами системи УкрСЕПРО на відповідність вимогам нормативних документів та вимогам, що передбачені чинними законодавчими актами України.





## 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.

For EU/EFTA, this product can be used in the following countries:

AT	BE	BG	HR	CY	CZ	DK	EE
FI	FR	DE	GR	HU	IE	IT	LV
LT	LU	MT	NL	PL	RO	PT	SK
SI	ES	SE	GB	IS	LI	NO	CH

## Explanation of the symbols on the product label

Symbol	Explanation
	DC voltage
	<p>RECYCLING</p> <p>This product bears the selective sorting symbol for Waste electrical and electronic equipment (WEEE). This means that this product must be handled pursuant to European directive 2012/19/EU in order to be recycled or dismantled to minimize its impact on the environment.</p> <p>User has the choice to give his product to a competent recycling organization or to the retailer when he buys a new electrical or electronic equipment.</p>

## DECLARATION OF CONFORMITY

For the following equipment:

Product Description: **AC1900 High Gain Wireless Dual Band USB Adapter**

Model No.: **Archer T9UH**

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 2011/65/EU

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

**EN 300 328 V1.9.1**

**EN 301 893 V1.8.1**

**EN 301 489-1 V1.9.2 & EN 301 489-17 V2.2.1**

**EN 55022: 2010 + AC: 2011**

**EN 61000-3-2:2014**

**EN 61000-3-3:2013**

**EN 55024: 2010**

**EN 60950-1: 2006 + A11: 2009 + A1: 2010 + A12: 2011 +A2: 2013**

**EN 50566: 2013**

**EN 50581: 2012**

*The product carries the CE Mark:*

**CE 1588** 

Person responsible for making this declaration:



**Yang Hongliang**  
**Product Manager of International Business**

Date of issue: 2016-02-26



# CONTENTS

<b>Chapter 1</b>	<b>Product Overview</b> .....	<b>1</b>
1.1	Introduction .....	1
1.2	Features .....	1
1.3	LED Status .....	1
<b>Chapter 2</b>	<b>Connect to a Computer</b> .....	<b>2</b>
<b>Chapter 3</b>	<b>Windows</b> .....	<b>3</b>
3.1	Install Driver and Utility .....	3
3.2	Join a Wireless Network.....	5
3.3	Uninstall Driver.....	5
<b>Chapter 4</b>	<b>Mac OS X</b> .....	<b>6</b>
4.1	Install Driver and Utility .....	6
4.2	Join a Wireless Network.....	10
4.2.1	TP-LINK Utility.....	11
4.2.2	WPS (Wi-Fi Protected Setup).....	12
4.3	Management .....	15
4.3.1	Link Status .....	16
4.3.2	Profiles .....	16
4.4	Uninstall Driver and Utility .....	18
<b>Chapter 5</b>	<b>Linux</b> .....	<b>20</b>
<b>Appendix A:</b>	<b>Specifications</b> .....	<b>21</b>
<b>Appendix B:</b>	<b>Glossary</b> .....	<b>22</b>

# Chapter 1 Product Overview

## 1.1 Introduction

The TP-LINK Archer T9UH AC1900 High Gain Wireless Dual Band USB Adapter connects your notebook or desktop computer over Wi-Fi to an 11ac or other network for applications such as lag-free video streaming, online gaming, and secure Internet surfing.

## 1.2 Features

- Supports 802.11ac standard
- Seamlessly compatible with 802.11a/b/g/n/ac products
- USB 3.0 port
- Dual Band connections for lag-free HD video streaming and gaming
- Maximum speed of up to 1300Mbps for 5GHz network and up to 600Mbps for 2.4GHz network
- Supports ad-hoc and infrastructure mode
- Easy wireless security encryption at a push of the WPS button
- Supports 64/128 WEP, WPA/WPA2, WPA-PSK/WPA2-PSK(TKIP/AES), supports IEEE 802.1x
- Easy Wireless Configuration Utility (for Mac OS X 10.7 – 10.10 only)
- Supports Windows 10/8.1/8/7/XP 32/64bit, Mac OS X 10.7 - 10.10, Linux

## 1.3 LED Status

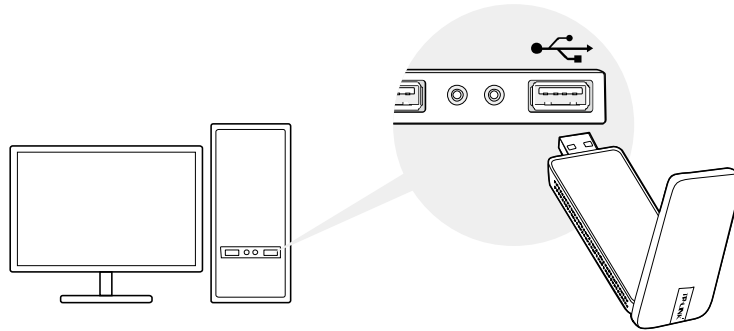
Status	Working Status
Off	The driver has not been installed. The adapter's radio has been disabled.
Flashing Slowly	The driver is installed but is not connected to the Internet.
Solid On	The adapter is connected to the Internet.

## Chapter 2 Connect to a Computer

Before you begin using your adapter, connect the adapter to your computer.

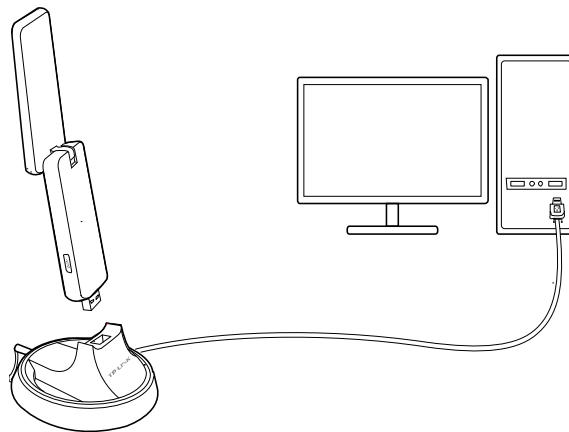
### Option 1: Directly

Insert the adapter into a USB port on your computer directly.



### Option 2: Via the USB Extension Cable

Connect the adapter and your computer with the provided USB extension cable.



#### **Note:**

- In Windows XP, a **Found New Hardware Wizard** window will appear when the adapter is detected. Please click **Cancel**.
- The adapter provides the best performance with a USB 3.0 port and is also compatible with a USB 2.0 or USB 1.1 port.

After connecting your adapter to the computer, please follow the instructions in the appropriate chapter for your operating system: [Windows](#), [Mac OS X](#), [Linux](#).

## Chapter 3 Windows

### 3.1 Install Driver

The Setup Wizard will guide you through the installation procedures. We use the procedures in Windows 7 as an example - the procedures may vary slightly for other versions of Windows.

1. Insert the resource CD into your CD drive and run the **Autorun.exe** from the pop-up AutoPlay window. Select **Archer T9UH** and click **Install Driver** to begin.



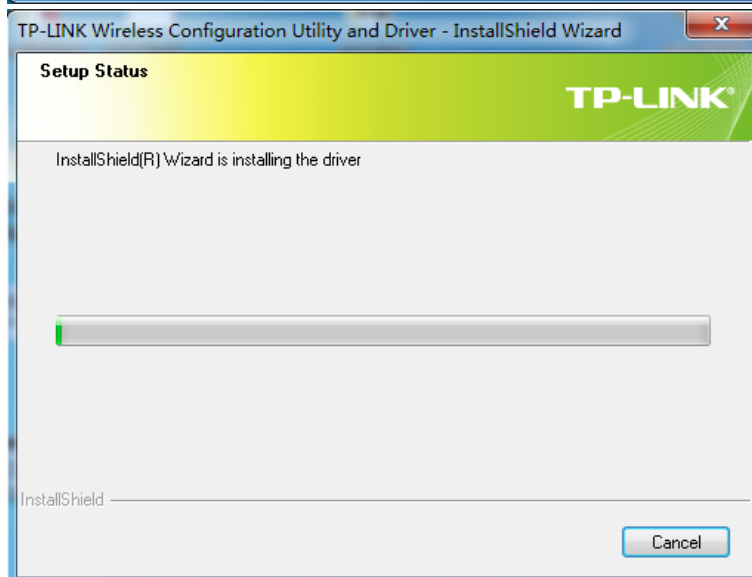
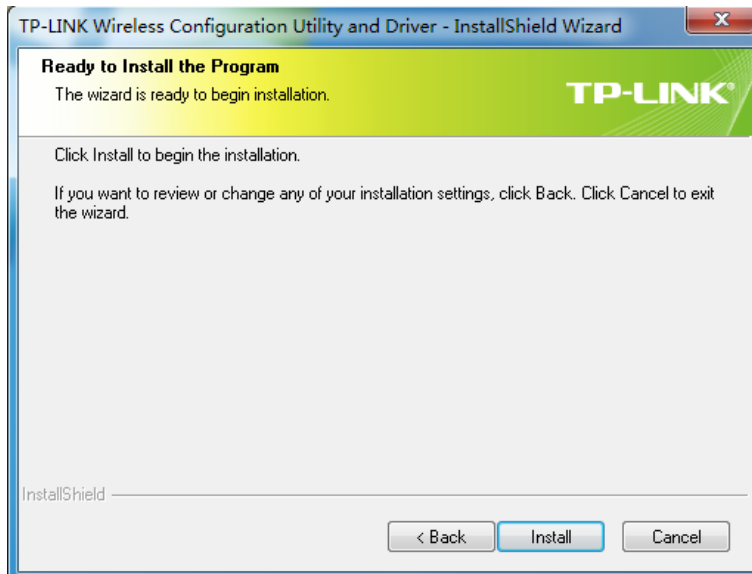
 **Note:**

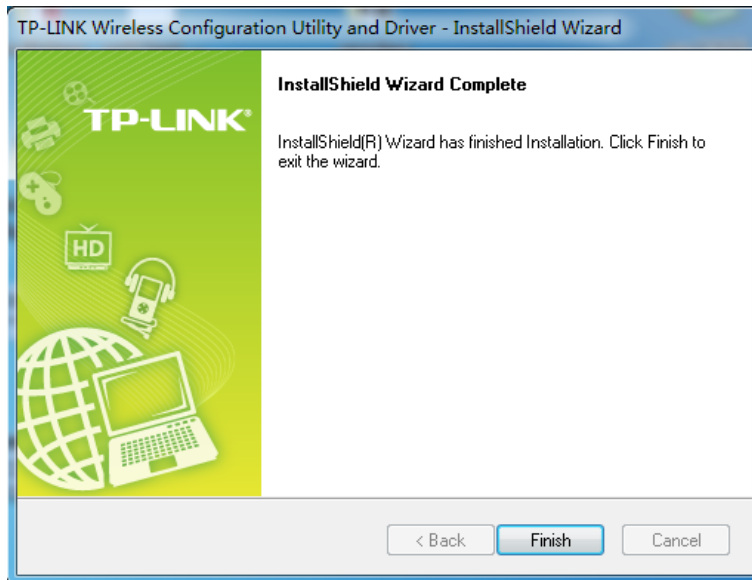
- The CD is included in the package. If your CD does not work or your computer doesn't support the CD, you can also download the driver from the TP-LINK website ([www.tp-link.com](http://www.tp-link.com)).
- In some operating systems, the CD screen will pop up automatically. Otherwise, run the CD manually.

2. The InstallShield Wizard window displays. Click **Next** to continue.






3. Click **Install**. After a few minutes, the installation completes. Click **Finish**.





### 3.2 Join a Wireless Network

You can use the Windows WLAN Autoconfig service (for Windows 10/8.1/8/7) and the Wireless Zero Configuration service (for Windows XP) to join a Wi-Fi network.

Click  or  or  (Network icon) on the taskbar. Select the Wi-Fi network you want to join, and click **Connect**. Enter your Wi-Fi password when prompted.

That's it, you are connected! The network icon will change to  or .

### 3.3 Uninstall Driver

The software uninstallation steps vary a bit in different systems, please follow the appropriate instructions for your Windows operating system: [Windows 8/8.1/10](#), [Windows XP/7](#).

- **Windows 8/8.1/10**

Go to **Start > Apps** or **All apps**, and find the **TP-LINK** application. Click **Uninstall - TP-LINK Archer T9UH Driver**, then follow the on-screen instructions to complete the uninstallation.

- **Windows XP/7**

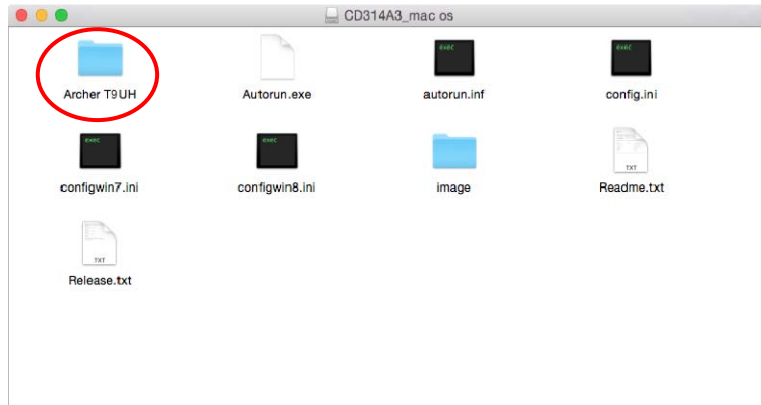
Go to **Start > All Programs > TP-LINK > Uninstall - TP-LINK Archer T9UH Driver**. Follow the on-screen instructions to complete the uninstallation.

## Chapter 4 Mac OS X

### 4.1 Install Driver and Utility

We take the procedures in Mac OS X 10.10 as an example - the procedures may vary slightly for other versions of Mac OS.

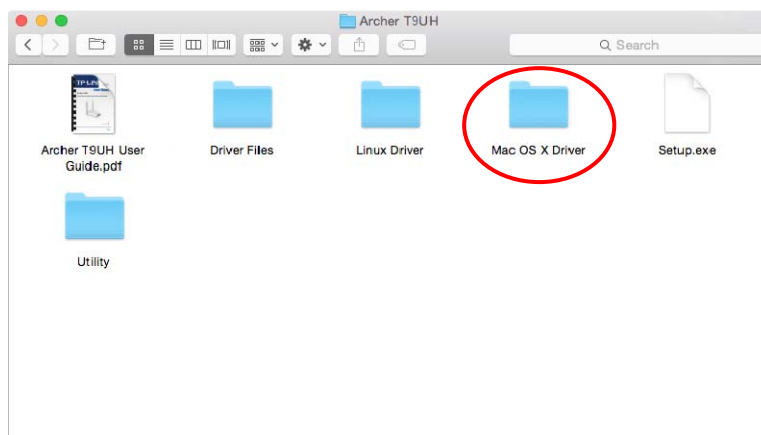
1. Insert the CD and run it manually. Open the **Archer T9UH** folder.



 **Note:**

The CD is included in the package. If your CD does not work or your computer doesn't support the CD, you can also download the driver and utility from the TP-LINK website ([www.tp-link.com](http://www.tp-link.com)).

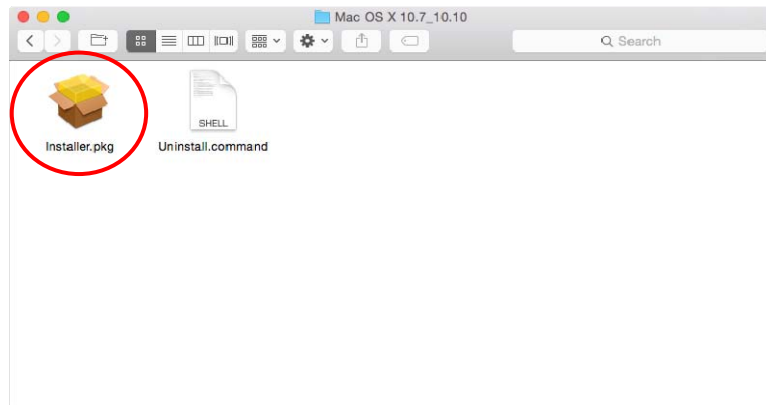
2. Open the **Mac OS X Driver** folder.



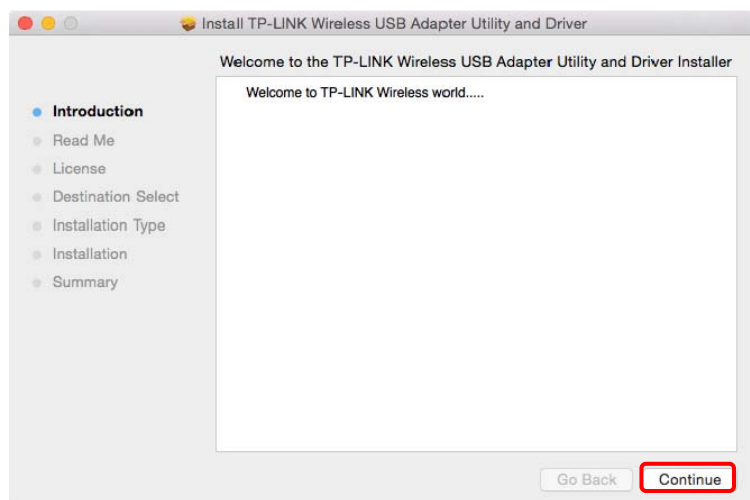
3. Double-click the **Mac OS X 10.7\_10.10.zip** file. It will be unzipped into the **Download** folder automatically.



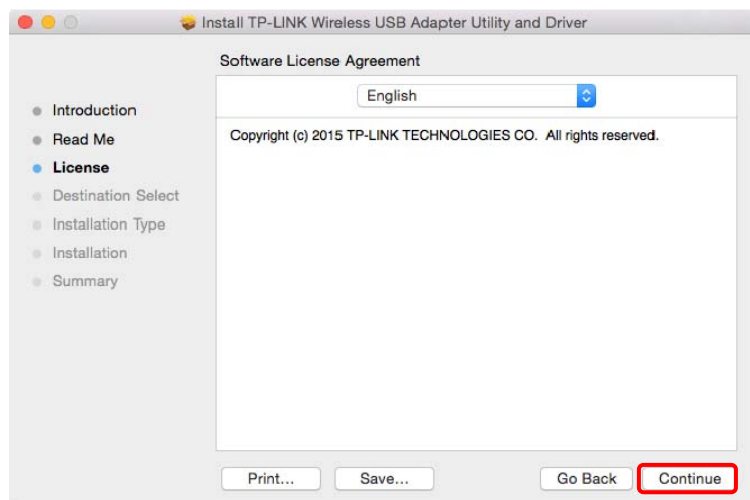
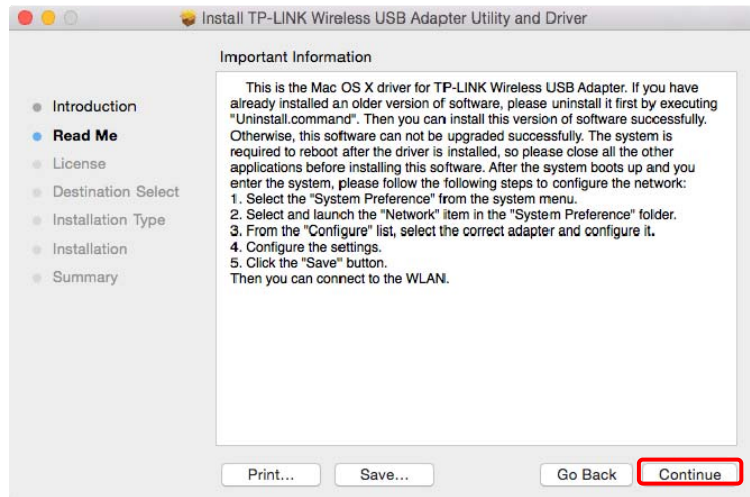
4. Open the **Mac OS X 10.7\_10.10** folder, double click the **Installer.pkg** file to open the installation wizard.



5. The **Install TP-LINK Wireless USB Adapter Utility and Driver Wizard** window will appear. Click **Continue** and follow the wizard to continue the installation.

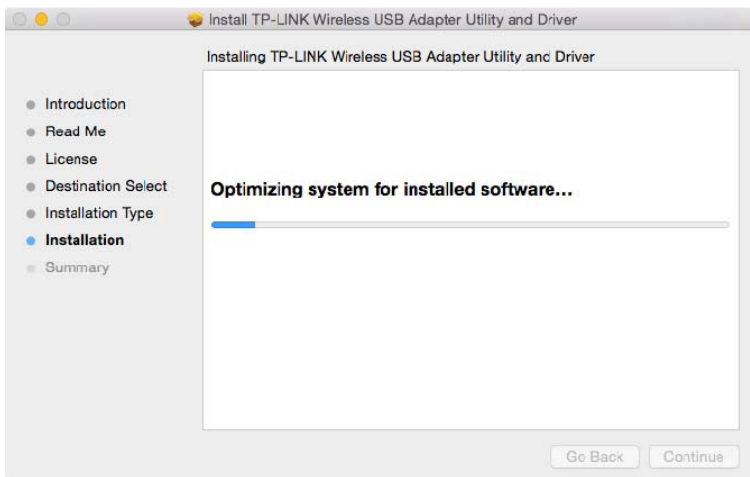
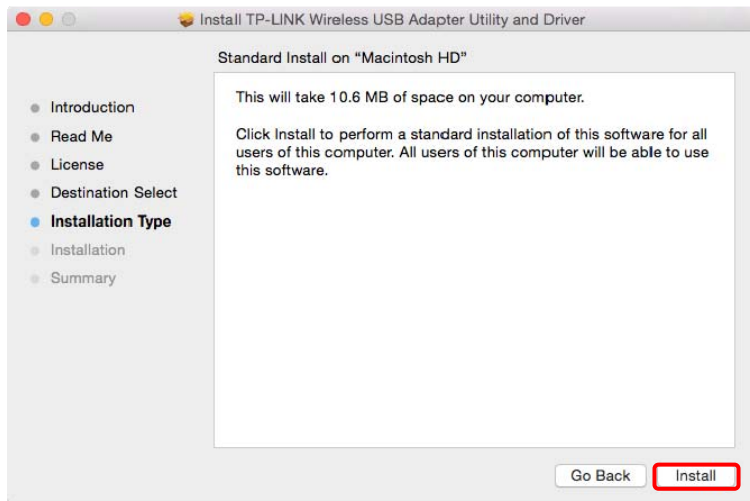
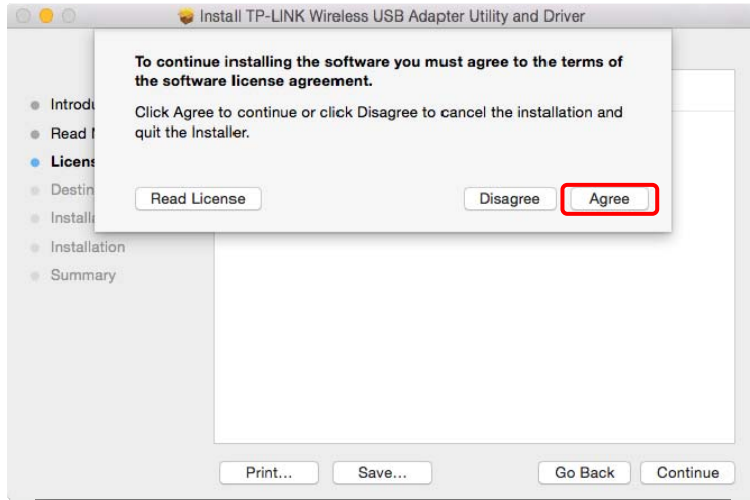


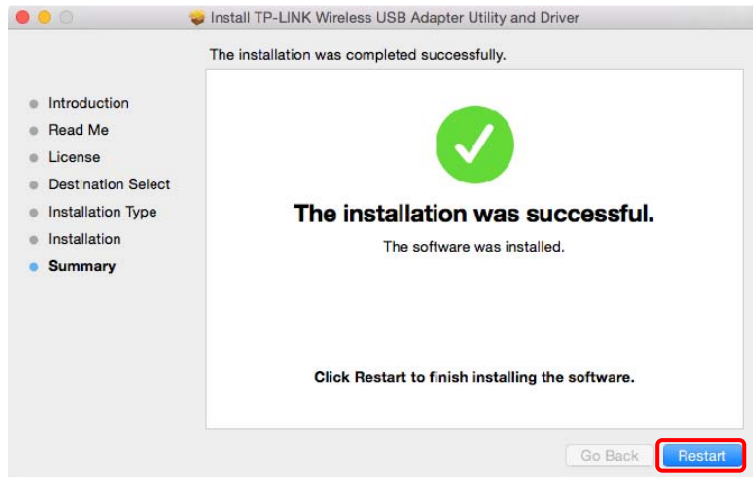




 **Note:**

The language of this utility is in accordance with the language of your computer by default, and any change of it is invalid.





6. After restarting the computer, the TP-LINK utility will pop up automatically. You can use the utility to join a Wi-Fi network with your adapter. For more guidance, please refer to [Join a Wireless Network](#).

 **Note:**

If the TP-LINK Utility does not pop up automatically, make sure the USB wireless network adapter is connected properly and the LED is on.

## 4.2 Join a Wireless Network

There are two options of using the adapter to join a Wi-Fi network.


**Option 1:** [TP-LINK Utility](#)

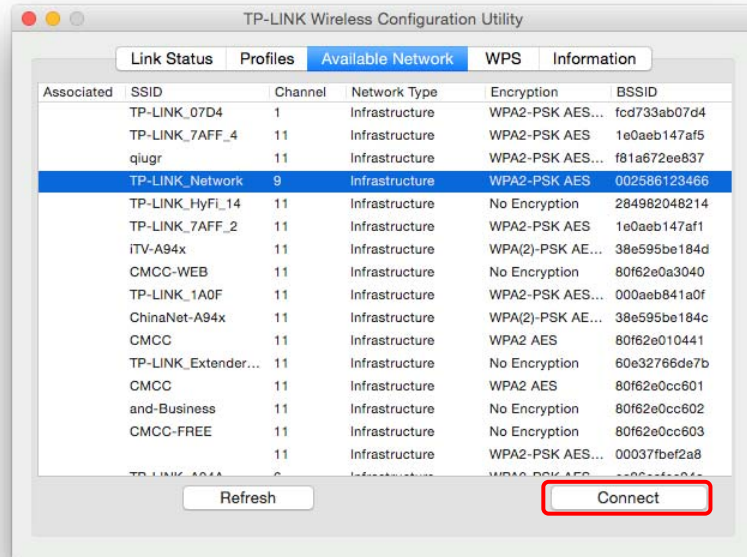
TP-LINK Utility lets you easily connect the adapter to a Wi-Fi network and manage the adapter.

**Option 2:** [WPS \(Wi-Fi Protected Setup\)](#)

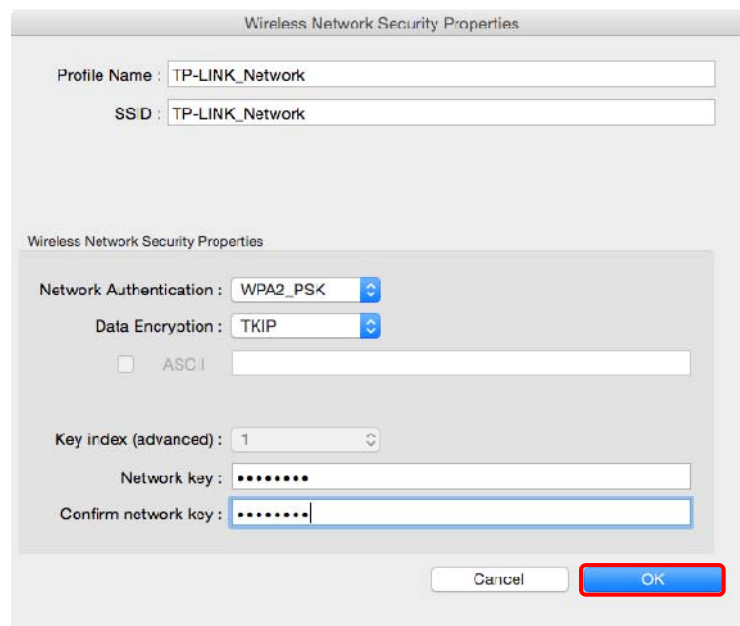
WPS (Wi-Fi Protected Setup) is a network security standard for easily adding computers and other devices to a home network. Use this method if your wireless router or access point supports WPS.


## 4.2.1 TP-LINK Utility

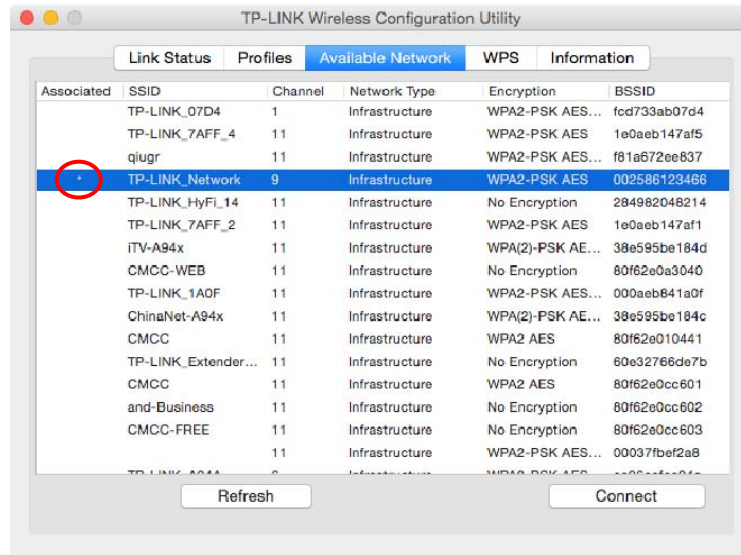
1. Double-click  (TP-LINK Utility icon) and select **Available Network** tab. Then select the network you want to join from the list and click **Connect**.



2. The wireless network security properties screen displays. If your network uses wireless security, you will be prompted to enter the Wi-Fi password of the network in the blank field next to **Network key**, and enter it again in the blank field next to **Confirm network key**. Click **OK**.



- After successfully connecting to your network, it will switch to **Link Status** screen automatically, which will show the network status. If you select **Available Network** tab, you will see a symbol  in front of your network's SSID, which indicates a successful connection.



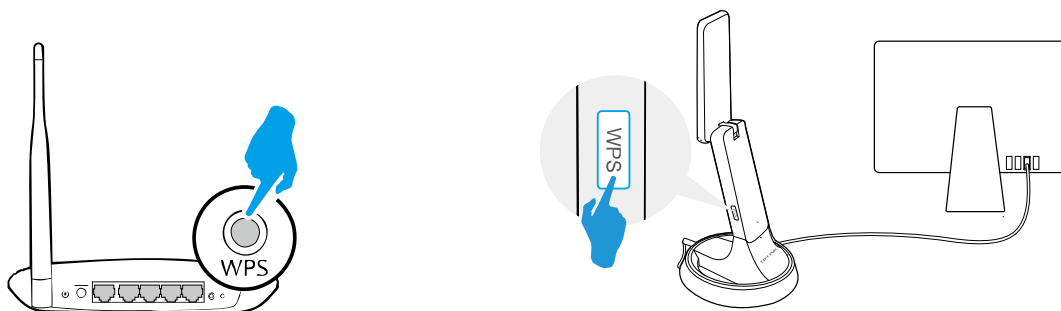
#### 4.2.2 WPS (Wi-Fi Protected Setup)

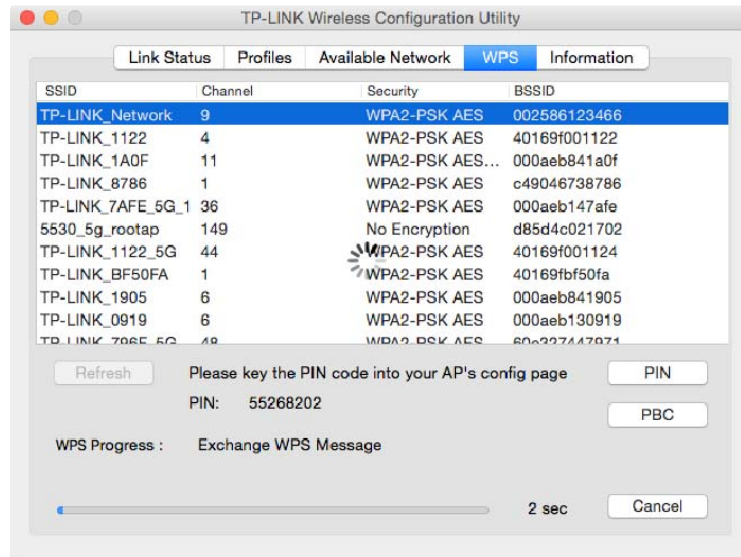
WPS can be activated via PBC (Push Button Configuration) and PIN. Please refer to [PBC](#) or [PIN](#) below.

##### ➤ PBC

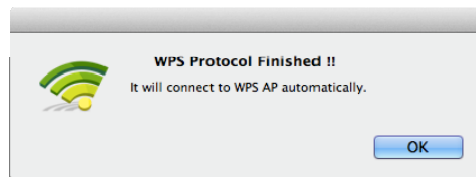
##### Option 1

- Press the **WPS/QSS** button on your router or AP. Within 2 minutes, press and hold the **WPS** button on the adapter until the following screen appears.



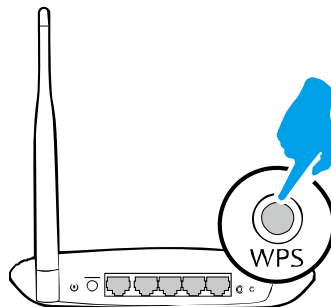


2. The following screen indicates a successful connection by WPS. Click **OK**.

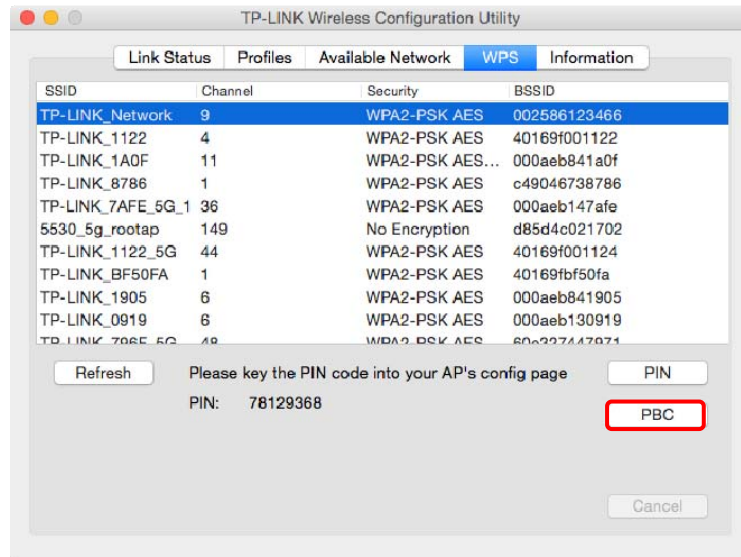


## Option 2

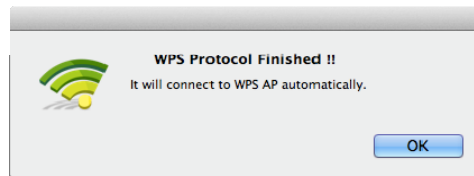
1. Press the **WPS/QSS** button on your router or AP.



2. Within 2 minutes, open TP-LINK Utility and click **WPS** tab. Click **PBC**.

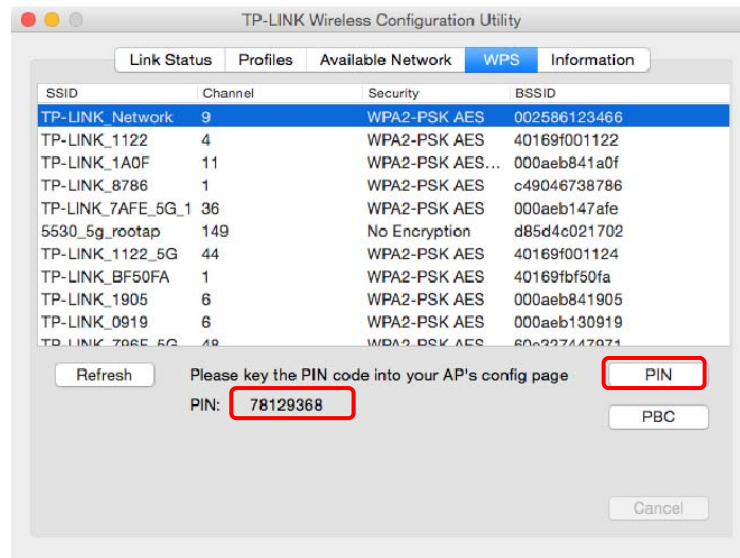


3. The following screen indicates a successful connection by WPS. Click **OK**.

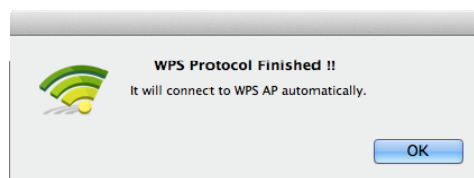


## ➤ PIN

1. Open TP-LINK Utility and click **WPS** tab. Mark down the PIN displayed on the screen, and click **PIN**.



2. Within 2 minutes, log in to the Web Management page of your router or AP. Go to its **WPS** page, enter the PIN of the adapter in the corresponding field and click **Connect**.
3. The following screen indicates a successful connection by WPS. Click **OK**.




## 4.3 Management

TP-LINK Utility provides you with an easy way to manage your adapter. It includes the following sections:

**Link Status** - View the information of the current Wi-Fi network connection and of the adapter.

**Profiles** - Save or manage various Wi-Fi network connection settings.

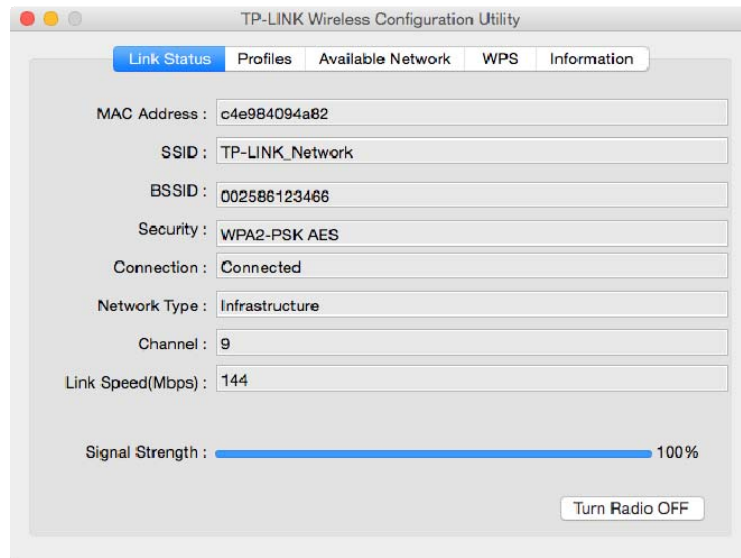
**Information** - View the utility version and the driver version of your adapter.

Double-click  (TP-LINK Utility icon) and click the **Link Status**, **Profiles** or **Information** tab to manage the corresponding section of your adapter.



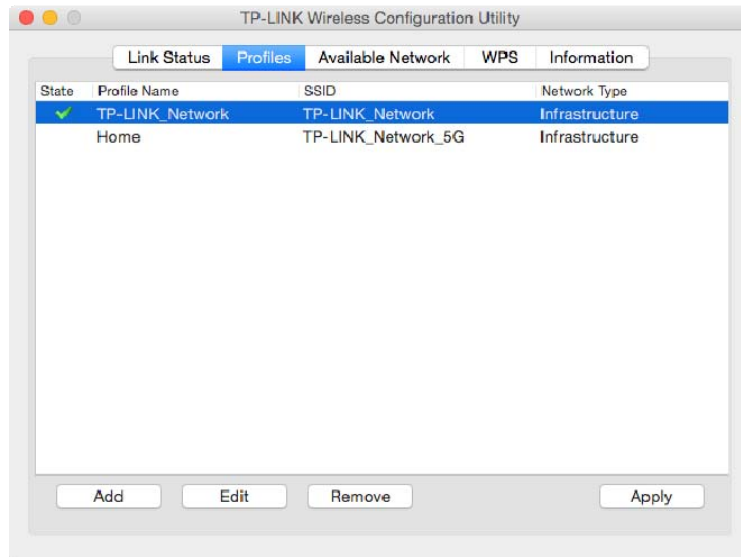
### 4.3.1 Link Status

You can view the signal strength of the Wi-Fi network, the MAC address of the adapter and other information of the link status as shown in the following figure.



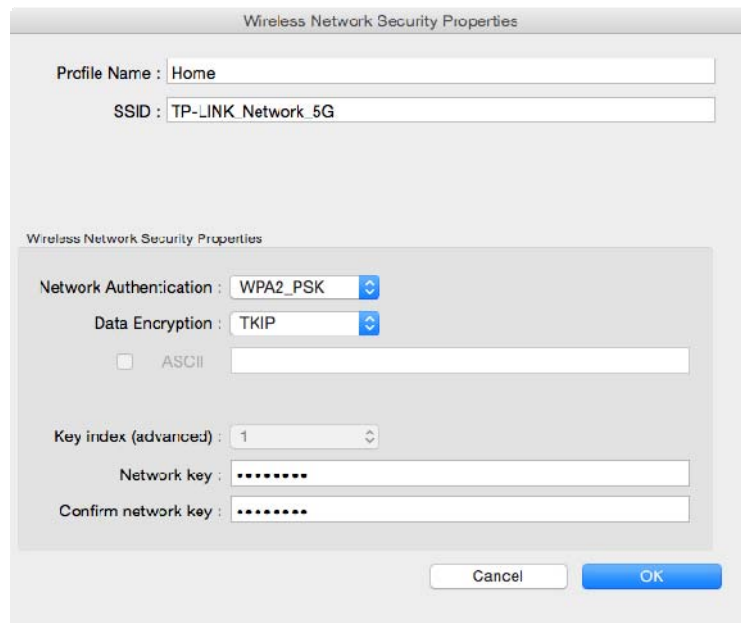
### 4.3.2 Profiles

The **Profiles** screen lets you save and manage different Wi-Fi network connection settings as profiles so that you can quickly and simply connect to your network. Moreover, you can join a hidden Wi-Fi network that does not broadcast its SSID by adding a profile, provided that you know its wireless settings, such as SSID, security type, and encryption type. For details, please refer to the instructions below: [To add a new profile](#), [To join a Wi-Fi network](#), [To manage an existing profile](#).



➤ **To add a new profile**

1. Click the **Add** button, and then a new window will open.
2. Complete the settings as shown in the following figure, and click **OK**.



**Profile Name** - Enter a name for your profile, such as Home, Office, Coffeehouse. Do not enter the profile name that already exists.

**SSID** - Enter the name of your Wi-Fi network.

### Wireless Network Security Properties:

Select or enter the corresponding wireless settings, including **Network Authentication**, **Data Encryption** and **Network key**, which should be the same as those of your Wi-Fi network. Then click **OK**.

#### ➤ To join a Wi-Fi network

If you want to join a Wi-Fi network that listed in the profile screen, select the profile and click **Apply** button in the bottom right corner.

#### ➤ To manage an existing profile

If you want to change the name or the wireless settings of an existing profile, select it and click the **Edit** button in the Profile screen, then you can edit the settings of this profile. If you want to delete a profile that you no longer use, select it and click the **Remove** button.

## 4.4 Uninstall Driver and Utility

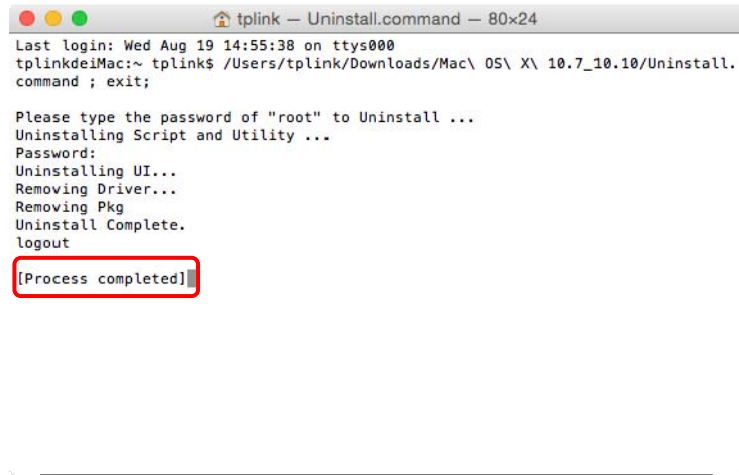
1. Insert the CD and run it manually.
2. Go to **Archer T9UH > Mac OS X Driver > Mac OS X 10.7\_10.10.zip > Uninstall.command**.
3. As shown in the figure below, a command window will pop up. Type the password of the root user to uninstall the software.



```
tplink -- Uninstall.command -- sudo -- 80x24
Last login: Wed Aug 19 11:33:50 on console
tplinkdeMac:~ tplink$ /Users/tplink/Downloads/Mac\ OS\ X\ 10.7_10.10/Uninstall.
command ; exit;

Please type the password of "root" to Uninstall ...
Uninstalling Script and Utility ...
Password:█
```

4. Wait till the **"Process completed"** shows up, then restart your computer to finish the uninstallation.



```
tplink -- Uninstall.command -- 80x24
Last login: Wed Aug 19 14:55:38 on ttys000
tplinkdeMac:~ tplink$ /Users/tplink/Downloads/Mac\ OS\ X\ 10.7_10.10/Uninstall.
command ; exit;

Please type the password of "root" to Uninstall ...
Uninstalling Script and Utility ...
Password:
Uninstalling UI...
Removing Driver...
Removing Pkg
Uninstall Complete.
logout

[Process completed]
```

 **Note:**

The CD is included in the package. If your CD does not work or your computer doesn't support the CD, you can also download the driver and utility from the TP-LINK website ([www.tp-link.com](http://www.tp-link.com)).

## Chapter 5 Linux

Visit the TP-LINK website at [www.tp-link.com](http://www.tp-link.com), and go to Archer T9UH's product page. Then find the compatible version of driver in the support page. Download and install the driver on your computer.

## Appendix A: Specifications

Normal	
Interface	USB 3.0 Interface
Standards	IEEE802.11a; IEEE802.11b; IEEE802.11g; IEEE802.11n; IEEE802.1x, IEEE802.11ac
Operating System	Windows XP, Windows 7, Windows 8, Windows 8.1, Windows 10 Mac OS X 10.7 - 10.10 Linux
Throughput	2.4GHz:600Mbps (Maximal) 5GHz: 1300Mbps (Maximal)
Data Security	WEP, WPA / WPA2, WPA-PSK / WPA2-PSK
Frequency*	2.4~2.4835GHz, 5.18~5.24GHz, 5.26~5.32GHz, 5.500~5.700GHz, 5.745~5.825GHz
Antenna	Four dual-band 2dBi antennas(I-PEX)

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

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

\* 2. Rules on the use of 5GHz band channels may vary according to different national laws.

## Appendix B: Glossary

- **802.11ac** - IEEE 802.11ac is a wireless computer networking standard of 802.11. This specification will enable multi-station WLAN throughput of at least 1 gigabit per second. This is accomplished by extending the air interface concepts embraced by 802.11n: wider RF bandwidth, more MIMO spatial streams, multi-user MIMO, and high-density modulation (up to 256 QAM).
- **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.
- **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.
- **802.11b** - 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.
- **802.11a** - Specification for wireless networking at 54 Mbps using OFDM modulation and operating in radio band at 5GHz.
- **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.
- **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.
- **SSID** - A **S**ervice **S**et **I**dentification 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 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.
- **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.