

Wireless 802.11b/g/n/a/ac USB Adapter

User Manual

Chapter 1. Introduction

Thank you for purchasing the wireless 802.11b/g/n/a/ac USB adapter! This adapter is mini size design and you are able to plug it into the USB port. Excepting common wireless standards 802.11b/g/n, this wireless adapter is also 802.11ac compatible - data transfer rate is 150/433Mbps.

1.1 Product Features

- ◆ Complies with IEEE 802.11ac , IEEE 802.11a,IEEE 802.11n, IEEE 802.11g and IEEE 802.11b standards
- ◆ Provides USB2.0 connector
- ◆ Provides 150/433Mbps receiving rate and 150/433Mbps sending rate
- ◆ Supports 20MHz/40MHz/80MHz frequency width
- ◆ Auto-detects and changes the network transmission rate
- ◆ Provides two work modes: Infrastructure and Ad-Hoc
- ◆ Supports 64/128-bit WEP, WPA, WPA2 encryption methods and 802.1x security authentication standard
- ◆ Supports WPS (Wi-Fi Protected Setup) encryption method to free you from remembering long passwords
- ◆ Easy-to-install, plug and play
- ◆ Supports Windows VISTA/Win7/Win8/Win8.1/Win10/Linux/Macintosh

1.2 Package contents

The following contents should be found in your box:

- ◆ One Wireless 802.11b/g/n/a/ac USB adapter
- ◆ One CD (include driver/utility/user manual)

Note: If any of the listed contents are damaged or missing, please contact the retailer from whom you purchased the product for assistance.

CHAPTER 2: Quick Installation Guide

2.1 Driver Installation

Please follow the following instructions to install your new

wireless USB Adapter:

2.1.1

Insert the USB wireless network card into an empty USB 2.0 port of your computer when computer is switched on. Never use force to insert the card, if you feel it's stuck, flip the card over and try again.

2.1.2

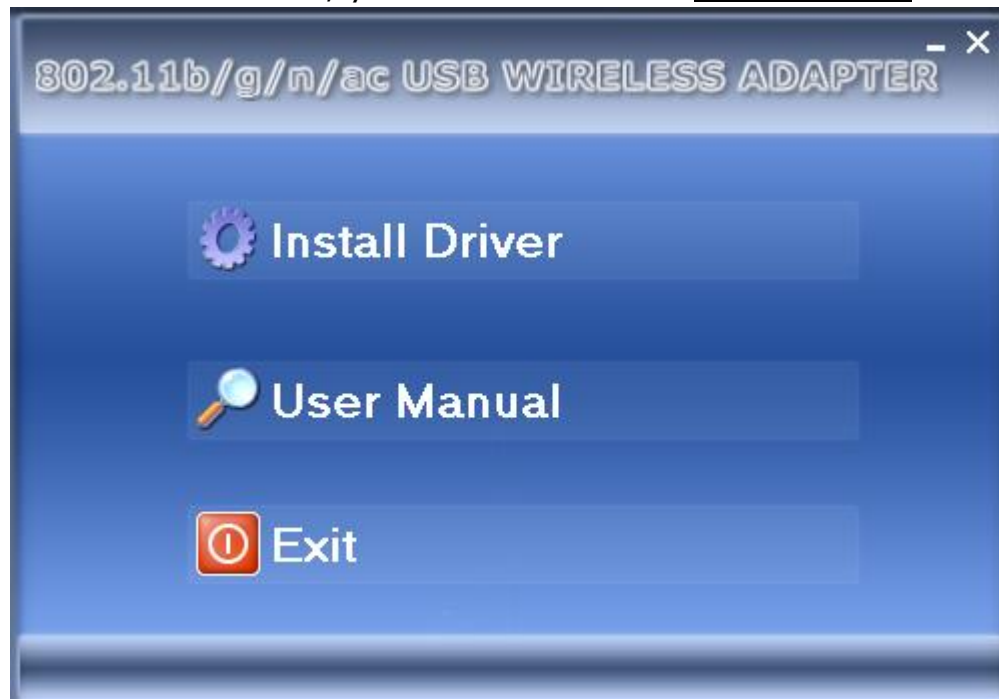
The following message will appear on your computer, click '**Cancel / Close**'.

Under Windows Vista and Windows 7



2.1.3

Insert the driver CD into your CD-ROM. You can see autorun screen below. if not, you can double click '**autorun.exe**' on CD.



Click '**Install Driver**' to start the installation procedure

2.1.4

Once the installation is finished the computer will be asked to

reboot. you can click '**Finish**' and reboot the computer to finish the installation of driver files.



2.1.5

A new icon will appear near the clock of system tray:



Left-click the icon will launch wireless network configuration utility, and you can right-click the icon to show the quick menu of configuration utility. This icon also uses different color to show the status of wireless connection:



Wireless connection is established, good signal reception.



Wireless connection is established, weak signal reception.



Connection is not established yet.



Wireless network card is not detected.

For detailed instructions of wireless network configuration utility, please see next chapter.

2.2 Connect to Wireless Access Point

To use wireless network, you have to connect to a wireless access point first. You can either use Client utility (comes with network card driver), or Windows Zero Config utility (comes with Windows operating system).

2.2.1 Using Client Utility

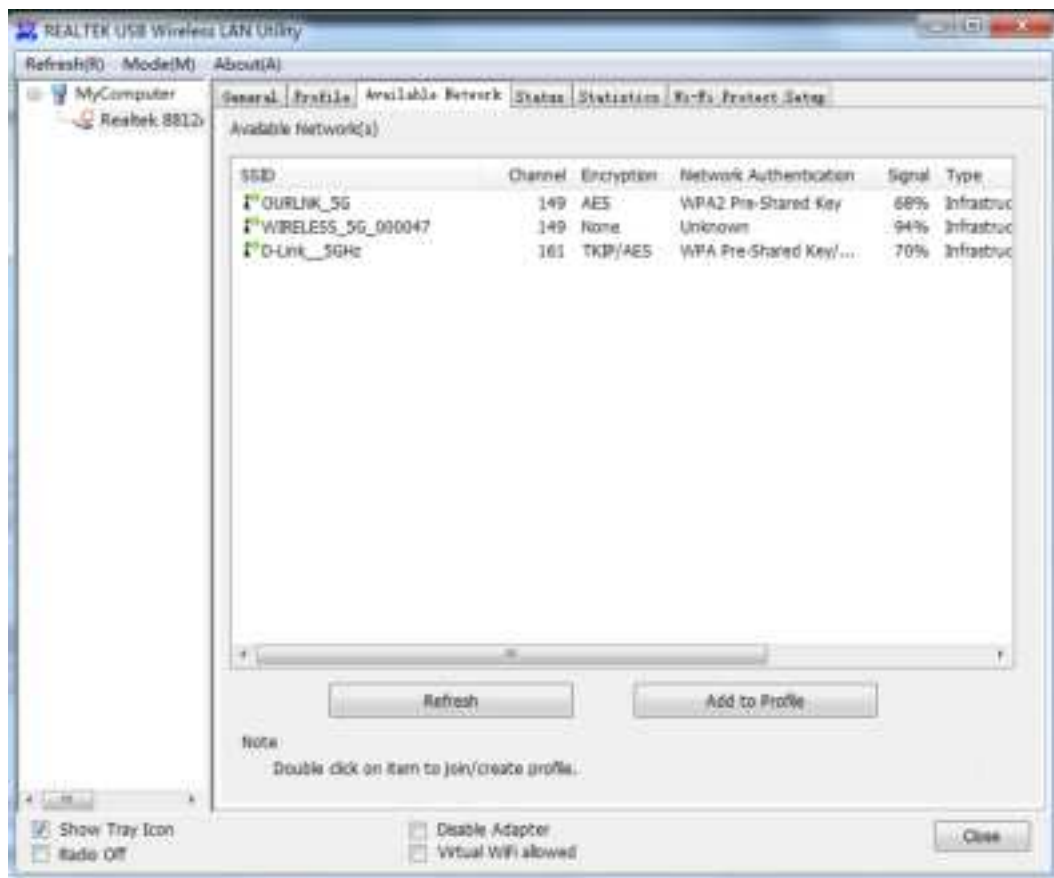
Please follow the following instructions to use Client configuration utility to connect to wireless access point.

1. Left-click the Client configuration utility icon located at lower-right corner of computer desktop, and configuration menu will appear:

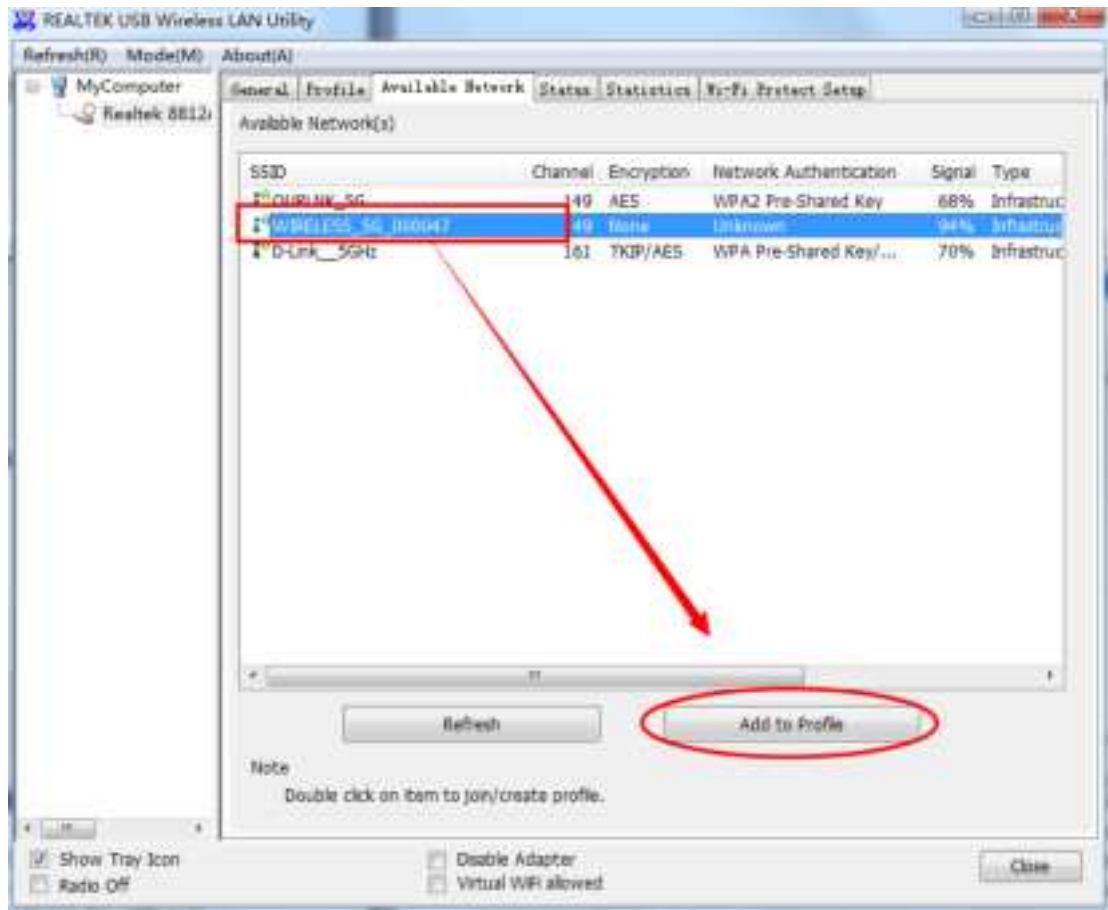


HERE!

2. Wireless utility will appear. Click '**Available Network**' menu to search for wireless access points nearby.



3. Please wait for a while, and all wireless access points which can be reached by this wireless network card will be displayed here.



If the wireless access point you wish to connect does not appear here, you can click '**Refresh**' button to scan for wireless access points again; if the wireless access point you're looking for still not appear, try to move the computer closer.

When the access point you're looking for is on the list, left-click it and then double click it or click '**Add to Profile**'.

4. If a password (Network Key) is required to access the wireless access point, please input it in '**Network key**' (and input it again in '**Confirm network key**' for confirmation). Click '**OK**' when password is properly inputted.

Wireless Network Properties:

☐ This is a computer-to-computer(ad hoc) network; wireless access points are not used.

Profile Name: WIRELESS_5G_000047

Network Name(SSID): WIRELESS_5G_000047

Channel: 149 (5745MHz)

Wireless network security

This network requires a key for the following:

Network Authentication: WPA-PSK

Data encryption: AES

☐ ASCII ☐ PASSPHRASE

Key index (advanced): 1

Network key:

Confirm network key:

OK Cancel

5. Network card will attempt to connect to access point now, this may require few seconds to minutes, please be patient. When the '**Status**' become '**Associated**', your computer is connected to access point you selected. Click '**Close**' to close configuration menu.

REALTEK USB Wireless LAN Utility

Refresh(R) Mode(M) About(A)

MyComputer
Realtek 8812G

General Available Networks Status Statistics Wi-Fi Protect Setup

Status: Associated

Speed: Tx:867 Mbps Rx:867 Mbps

Type: Infrastructure

Encryption: AES

SSID: WIRELESS_5G_000047

Signal Strength: 100%

Link Quality: 99%

Network Address:
MAC Address: 88:8E:4C:00:F5:63
Realtek 8812AU Wireless LAN 802.11ac USB NIC #2
IP Address: 192.168.1.3
Subnet Mask: 255.255.255.0 Gateway: 0.0.0.0

Refresh IP

Show Tray Icon
Radio Off

Disable Adapter
Virtual WiFi allowed

Close

NOTE: If you connected to an access point but the connection has been dropped soon, please check security settings and re-check password spelling.

2.2.2 Using WPS Connect

Wi-Fi Protected Setup (WPS) is the latest wireless network technology which makes wireless network setup become very simple. If you have WPS-enabled wireless access point, and you want to establish a secure connection to it, you don't have to configure the wireless access point and setup data encryption by yourself. All you have to do is to go to the WPS setup page of this wireless card, click a button, and then press a specific button or enter a set of 8-digit code on the wireless access point you wish to establish a secure connection - just three simple steps!

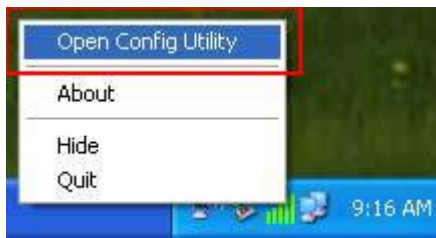
For older wireless access points, it's possible to perform a firmware upgrade to become a WPS-enabled access point. Since they may not have a hardware button to press for WPS setup, you can use an alternative WPS setup method - input the pin code. Every WPS-compatible wireless network card support pin code configuration method; you can just input the code to wireless access point, and the wireless access point and wireless network card will do the rest for you.

This wireless network card is compatible with WPS. To use this function, the wireless access point you wish to connect to must support WPS function too. Now, please follow the following instructions to establish secure connection between WPS-enabled wireless access point and your wireless network card.

This wireless network card supports 2 kinds of WPS: PIN code and Push-Button.

Please follow the following instructions to setup WPS:

1. Right-click Client configuration utility icon, and click '**Open Config Utility**'.

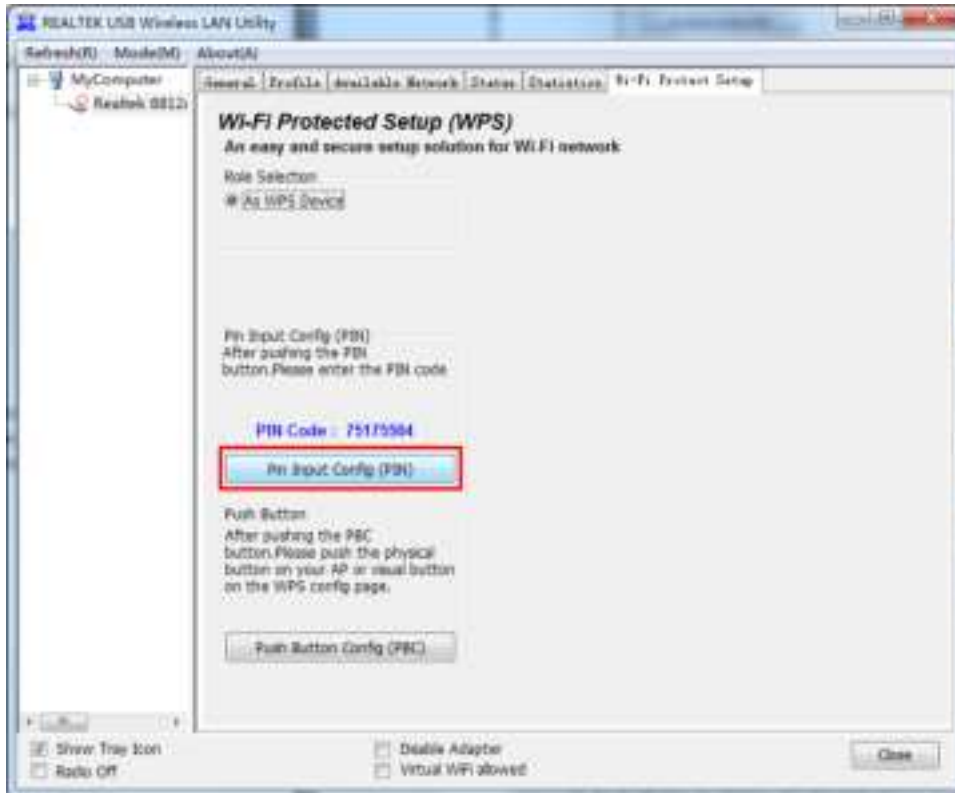


2. Click '**Wi-Fi Protect Setup**' menu.
3. You can use PIN code or Push-Button configuration, and WPS-compatible wireless access point must use the same type of WPS. For instructions on setup each type of WPS, see next 2 chapters for detailed instructions.

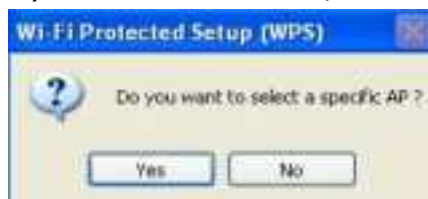


PIN Code

To use PIN Code, please click '**Pin Input Config (PIN)**' button:



You'll be prompted to select an access point you wish to connect. If you know its SSID, click '**Yes**', otherwise click '**No**'.



If you select '**Yes**', a list of all WPS-compatible AP nearby will be displayed; you can click '**Refresh**' to rescan, then select an AP and click '**Select**' button.



If you select '**No**', wireless network card will prompt you to enter 8-digit PIN code into your AP, without selecting an AP in advance.

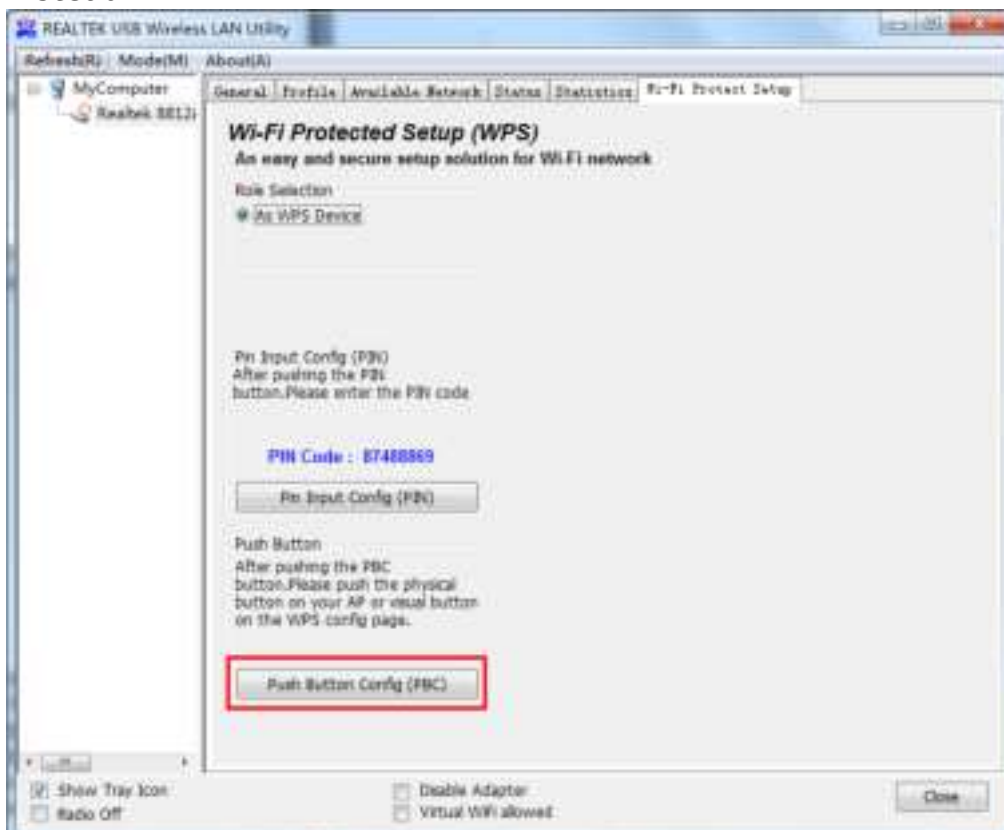
After you select '**Yes**' or '**No**' in previous step, network card will attempt to connect to WPS-compatible AP, and an 8-digit number will appear. Please input this number to AP's configuration menu within 2 minutes, and network card will establish secure connection with AP automatically.

To stop this procedure before connection is established, click '**Cancel**'.

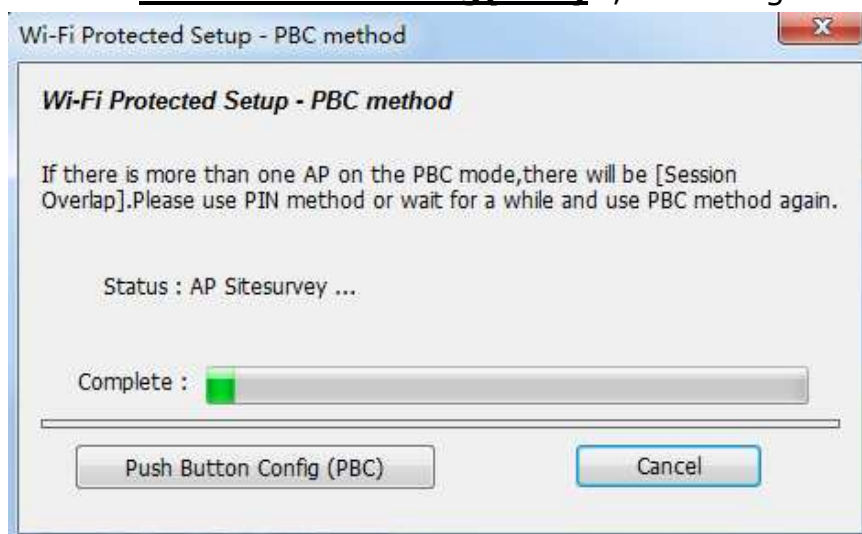


Push Button

To use Push-Button WPS configuration, please click '**Push Button Config (PBC)**' button. This is the easiest way to establish secure connection by WPS, but if there're more than one WPS-compatible AP using Push-Button config, please use PIN Code instead.



Click "**Push Button Config(PBC)**", a message box will appear:



Please activate Push-Button function on wireless access point now, and wireless network card will establish secure connection with access point within one minute.

CHAPTER 3: Troubleshooting

If you encounter any problem when you're using this wireless network card, don't panic! Before you call your dealer of purchase for help, please check this troubleshooting table, the solution of your problem could be very simple, and you can solve the problem by yourself !

Scenario	Solution
I can't find any wireless access point / wireless device in ' <u>Site Survey</u> ' function.	<ol style="list-style-type: none"> 1. Click 'Refresh' for few more times and see if you can find any wireless access point or wireless device. 2. Please move closer to any known wireless access point. 3. Ad hoc' function must be enabled for the wireless device you wish to establish a direct wireless link. 4. Please adjust the position of network card (you may have to move your computer if you're using a notebook computer) and click 'Refresh' button for few more times. If you can find the wireless access point or wireless device you want to connect by doing this, try to move closer to the place where the wireless access point or wireless device is located.
Nothing happens when I click ' <u>Open Config</u> '	<ol style="list-style-type: none"> 1. Please make sure the wireless network card is inserted into your computer's USB port. 2. Reboot the computer and try again.

<u>Utility'</u>	<ol style="list-style-type: none"> 3. Remove the card and insert it into another USB port. 4. Remove the driver and re-install. 5. Contact the dealer of purchase for help.
I can not establish connection with a certain wireless access point	<ol style="list-style-type: none"> 1. Click '<u>Add to Profile</u>' for few more times. 2. If the SSID of access point you wish to connect is hidden (nothing displayed in 'SSID' field in '<u>Site Survey</u>' function), you have to input correct SSID of the access point you wish to connect. Please contact the owner of access point to ask for correct SSID. 3. You have to input correct passphrase / security key to connect an access point with encryption. Please contact the owner of access point to ask for correct passphrase / security key. 4. The access point you wish to connect only allows network cards with specific MAC address to establish connection. Please go to '<u>Status</u>' menu and write the value of 'MAC Address' down, then present this value to the owner of access point so he / she can add the MAC address of your network card to his / her access point's list.
The network is slow / having problem when transferring large files	<ol style="list-style-type: none"> 1. Move closer to the place where access point is located. 2. There could be too much people using the same radio channel. Ask the owner of the access point to change the channel number. <p>Please try one or more solutions listed above.</p>

FCC Statement

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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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

NOTE: 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.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

The SAR limit of USA (FCC) is 1.6 W/kg averaged over one gram of tissue.

Device types 0611 (FCC ID:2AUHL-0611) has also been tested against this SAR limit. The highest reported SAR values for body-worn accessory are 0.218 W/kg test distance of SAR was 5mm.