# **User Manual**

(WUA-0605)



Digital Data Communications GmbH. <a href="http://www.level1.com">http://www.level1.com</a>

#### Certification

FCC CE

#### **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.

To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example- use only shielded interface cables when connecting to computer or peripheral devices)

#### **FCC Radiation Exposure Statement**

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

#### Caution!

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

The following items should be found in your package:

- ► WUA-0605
- ► Quick Installation Guide
- ► EU Declaration of Conformity
- ► Resource CD (User Manual, QIG, Driver)

Make sure that the package contains above items. If any of the above items is missing or damaged, please contact the store you bought this product from.

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### Introduction

#### **Product Overview**

With the recent developments in wireless home networking, the newest technology is now available to end users at an affordable price. Compared to the older 802.11g standard, the LevelOne N Wireless USB Adapter uses the 802.11n standard to offer fast speeds of up to 300 Mbps.

#### Stream and share files wirelessly

The LevelOne N Wireless USB Adapter offers users a simple way to connect to their local network for quickly accessing and sharing the Internet, transfer files, videos, music or photos.

#### Simple and Advanced Security

With Wi-Fi Protected Setup (WPS), applying advanced encryption to the wireless signal can be done with a push of a button. For work or entertainment, the N Wireless USB Adapter is a reliable and secure solution for any notebook or desktop computer that needs wireless connectivity.

\* Network speeds vary according to network equipment, network set-up and environmental influencing factors.

#### **Main Features**

- Provides wireless speeds of up to 300Mbps on 2.4 GHz frequency band
- Compatible with IEEE 802.11b/g/n wireless standards
- Effortless wireless security with a simple push of the WPS button
- Supports WEP, WPA and WPA2 encryption with IEEE 802.1x for high level security
- · Compact, lightweight design
- Supports Linux, Windows XP/Vista/7/8/10, macOS 10.6/7/8/9/10/11/12/13/14

#### **Standards**

- IEEE 802.1X Port-based Network Access Control (PNAC)
- IEEE 802.11b, IEEE 802.11g, IEEE 802.11n Wireless Networking

### **Working Environment**

#### Temperature :

0° to 45° C (operating)

-10° to 70° C (storage)

#### **Humidity**:

10% to 90 % non-condensing (operating)

5% to 95% non-condensing (storage)

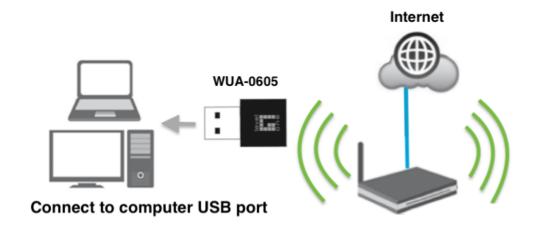
### **Hardware Requirements**

- Available USB 1.1 or USB 2.0 slot
- CD-ROM drive

### **Hardware and Driver Installation**

### Insert the Wireless USB Adapter

Plug the USB Wireless Adapter into an available USB port on your computer, then clicks the following steps to install;

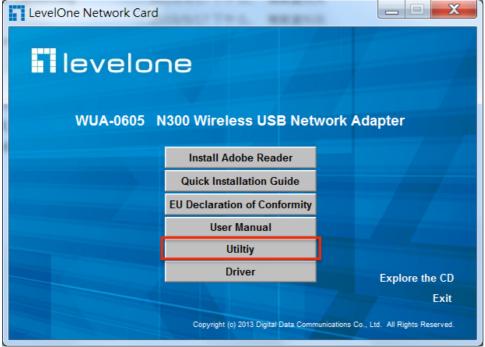


#### Driver and Software Installation

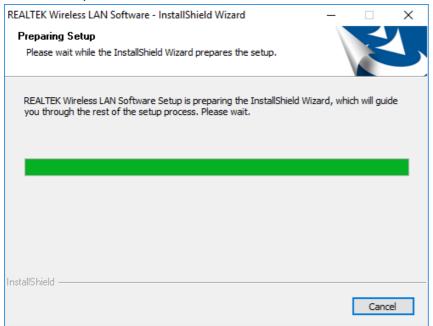
You can also access the optical disk F:\ (if 'F' is your CD-ROM drive), double-click "setup. exe " for installation;

The following is the step-by-step instructions in Windows 10. The steps and screens are similar for the other Windows operating systems.

▶ Please click "Utility" button to continue.(Other operating systems, please click the Driver option.)



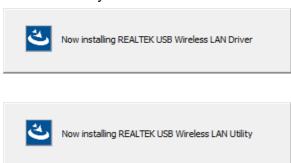
#### ► Start Setup



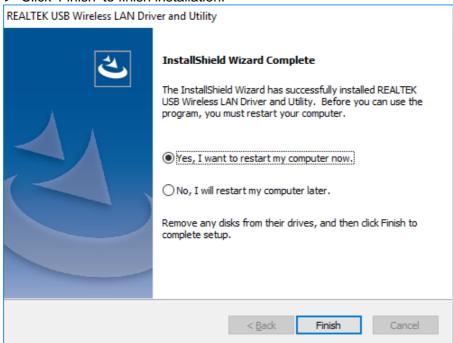
#### ► Click "Next" button to continue.



► Automatically start the installation default "install drivers and utilities";



#### ► Click 'Finish' to finish installation.

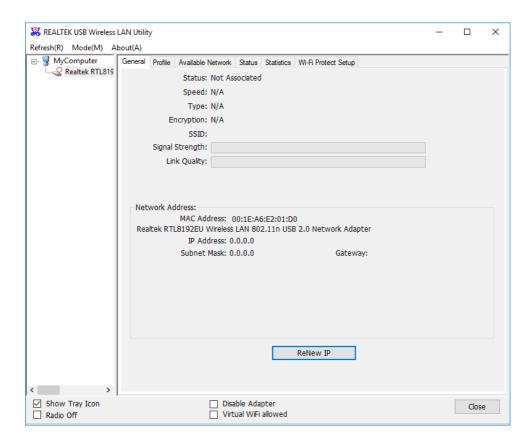


#### ► Wireless LAN Utility icon will appear on the desktop



### **System configuration**

The General tab (refer to the following picture) displays current basic wireless connection information.



#### **General Information**

- ► Status: Wireless network Associated, Ad-hoc Mode or Not Associated.
- ▶ Speed: The data Tx rate and Rx rate of the current connection.
- ▶ Type: The type of the current wireless connection , Infrastructures or ad hoc.
- ► Encryption: Current encryption.
- ▶ SSID: The unique name of the wireless network to which the wireless adapter is connecting.
- ▶ Signal Strength: The signal quality of the current connection.
- ▶ Link Quality: The link quality of the current wireless connection.

#### **Network Address**

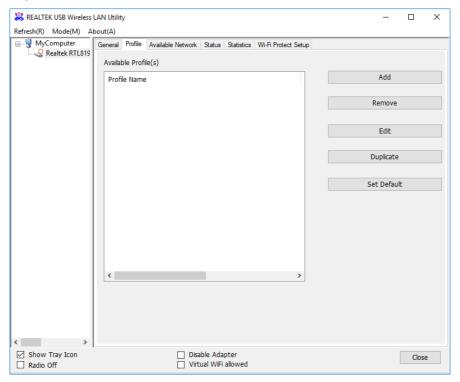
- ► MAC Address: The MAC Address of the Adapter.
- ▶ IP Address: The IP Address of the Adapter.
- ► Subnet Mask: The Subnet Mask of the Adapter.
- ► Gateway: The Default Gateway address of the Adapter.

#### **Others**

- ► ReNew IP : Require the upper router to re-issue the ip address.
- ▶ Show Tray Icon: Show USB Wireless LAN Utility icon in the windows taskbar notification area.

#### Profile

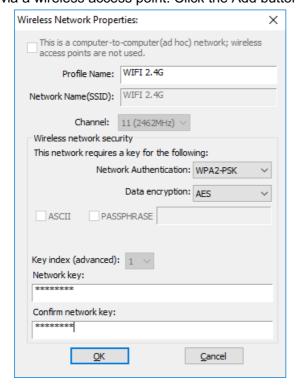
Using the Profile tab (refer to the following picture), you can add, remove, edit, duplicate, and set default a profile.



#### Add

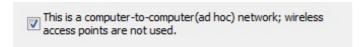
► Create a new Infrastructure mode profile

If you want your wireless computers to communicate with other computers on your wired network via a wireless access point. Click the Add button to create a new infrastructure profile.



When the Network Info dialog box appears (the former picture), enter a name for the new profile. Enter the Network SSID. Choose the Network Authentication Mode and Data encryption from the drop-down menu and import the network key. Then click OK button.

#### ► Create a new ad-hoc mode profile



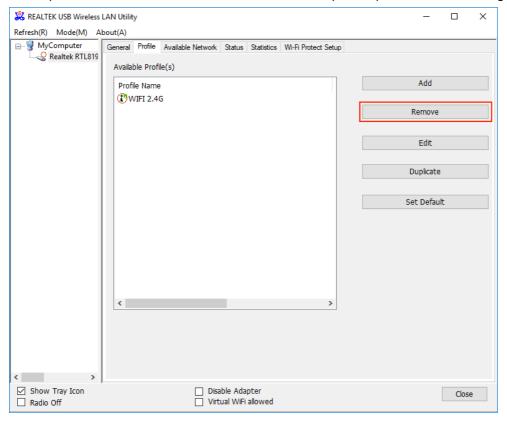
If you want your wireless computers communicate with each other directly, click the Add button to create a new ad-hoc profile. Then, mark

and select the correct operating channel for your network from the Channel drop-down menu.

Choose the Network Authentication Mode and Data encryption from the drop-down menu. And import the network key. Then click OK button.

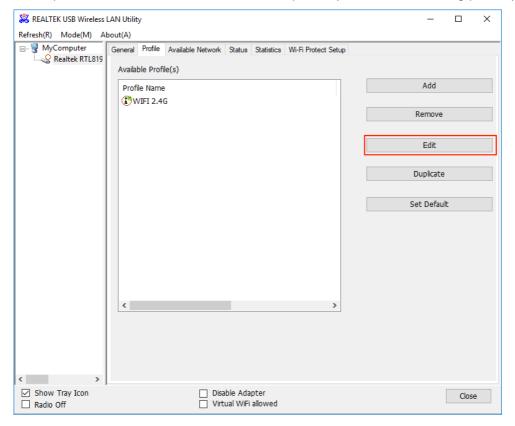
#### Remove

Select a profile and click Remove button to delete this profile (refer to the following picture).

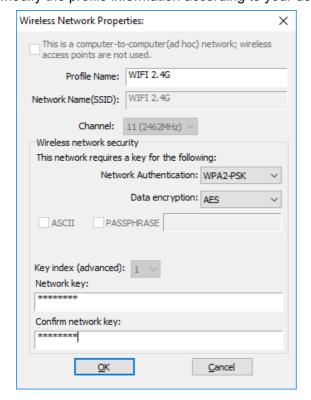


#### Edit

Select a profile and click Edit button to edit this profile (refer to the following picture).

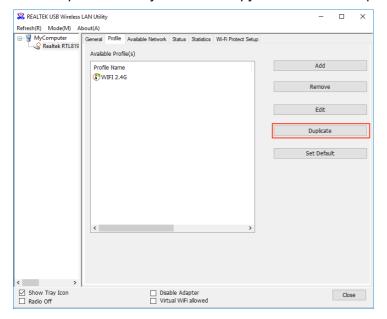


Modify the profile information according to your demand.

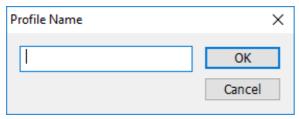


#### Duplicate

Select a profile which you want to copy and then click Duplicate(refer to the following picture).

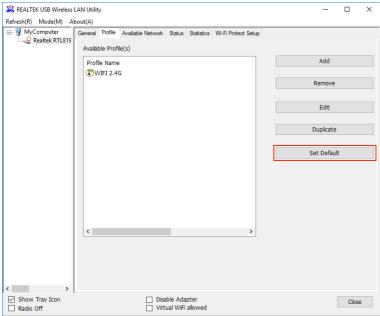


Import the new profile name in the popup window blank (refer to the following picture).



#### Set default

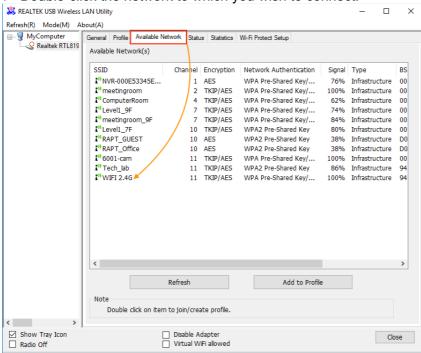
When you want to make one profile as a default wireless connection, you should select the profile and click Set default button. The wireless adapter will use this profile to connect to wireless network automatically when the utility running next time.



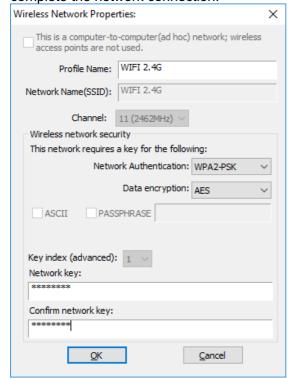
#### Available Network

The Available Network tab displays a list of infrastructure and ad-hoc networks for available wireless connection (refer to the following picture).

▶ Double-click the network to which you wish to connect.

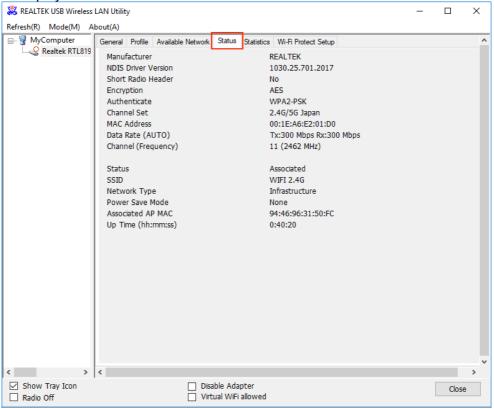


▶ Refer to the picture to choose the Authorization modes and Encryption modes in the drop-down box, key in password the wireless network to which you wish to connect. Click the OK button to complete the network connection.



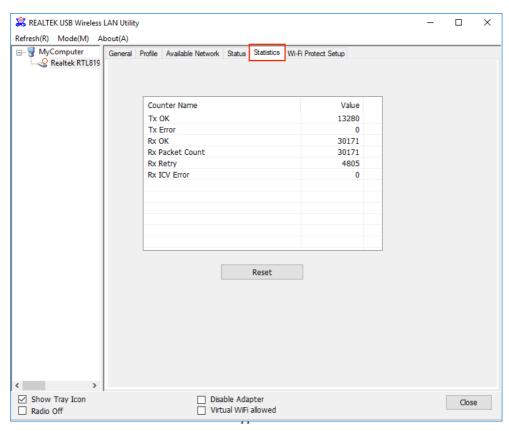
#### Status

The Status tab displays the detailed information of current device and wireless connection



#### Statistics

The Statistics tab display the stat. value of current wireless connection Tx and Rx, you can click Reset button to reset value and restart to count.

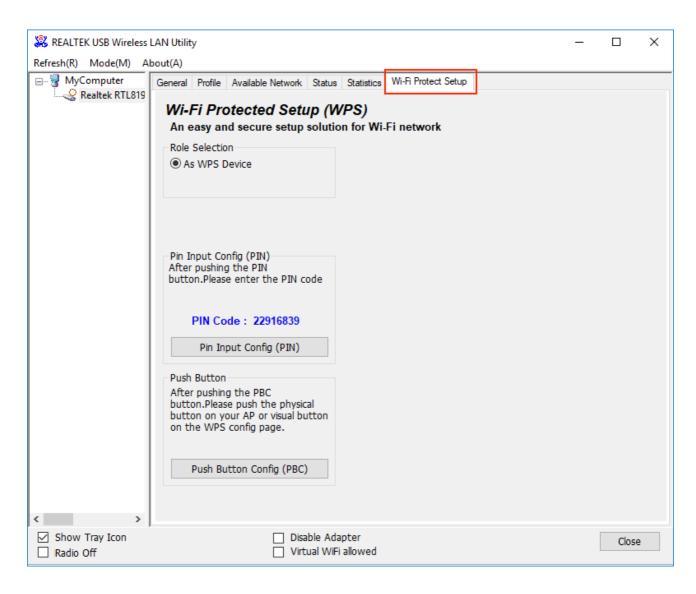


#### Wi-Fi Protect Setup

Wi-Fi Protect Setup (WPS) function can let you create a safety network easily. You can through 'PIN Input Config (PIN)' or 'Push Button (PBC)'to encrypt your network. This USB adapter also provides WPS button, you only need to push the WPS button in this USB adapter and the router which support WPS function, then the router will be encrypted to WPA2-AES mode automatically.

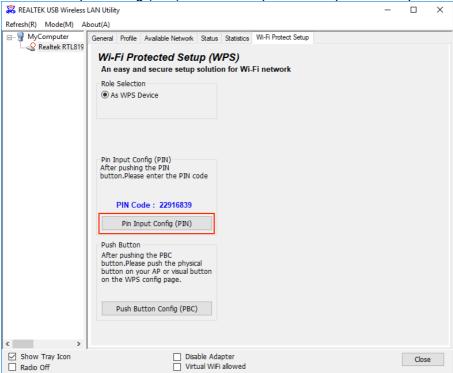
#### Note:

- ▶ The status of WPS in the router must be enabled
- ▶ If you have configured encryption mode in your router, then when you use this WPS function, please configure encryption mode to NONE, then it will be encrypted to WPA2-AES mode automatically. If you don't want to change your encryption mode, then when you use this function, the router will be encrypted to the mode that you have configured.

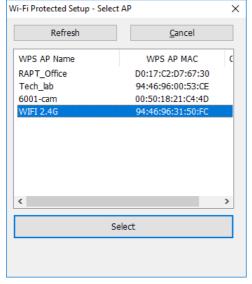


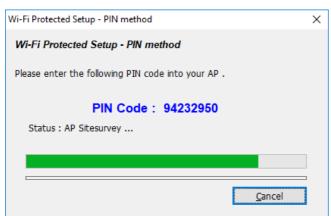
Method 1 : PIN Input Config (PIN)

► Click the 'PIN Input Config (PIN)' in the Wi-Fi protect setup of the adapter.

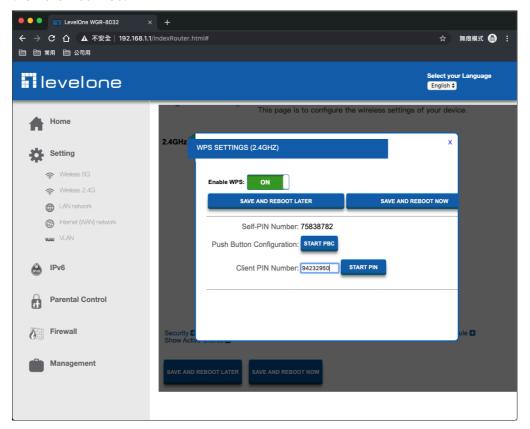


► Select the AP that you want to connect in the pop-up window, and then click 'Select'.

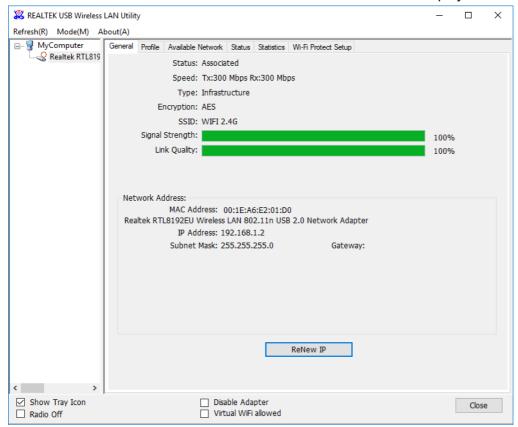




▶ Input the PIN code of the adapter's WPS page into the wireless router's WPS configure page, then click 'connect'.

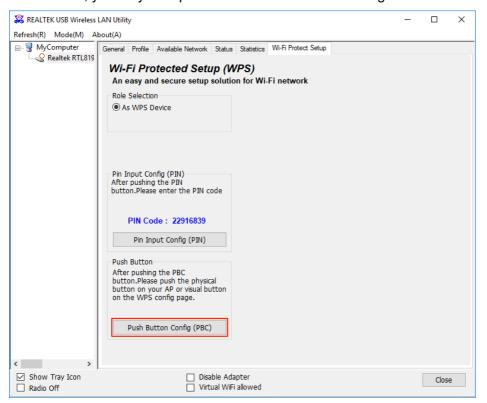


▶ Confirm whether there is related information such as successful display link

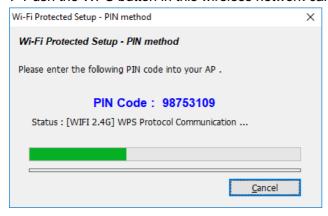


### Method 2: Push Button (PBC)

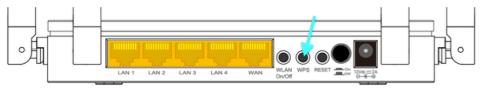
WPS can connect the wireless adapter and the router in a safe way. If you have a router which has WPS button, you may set up a safe network via the following methods.



▶ Push the WPS button in this wireless network card for about 3-6 seconds

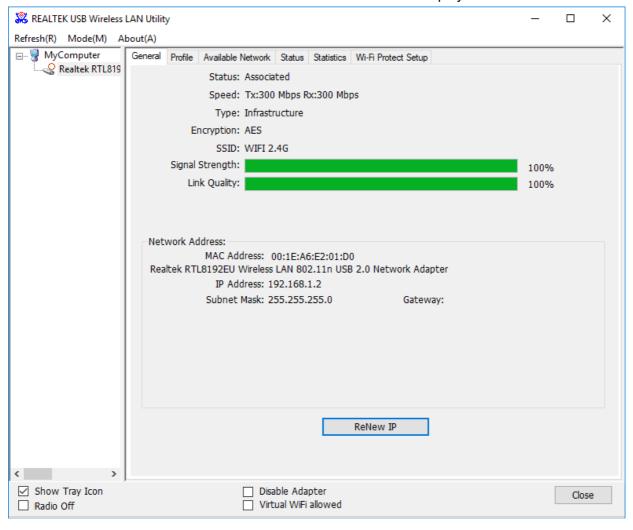


▶ Push the WPS button in the Wireless Router until the WPS LED flashes



- ▶ The safe connection will be established automatically, please wait
- ▶ The connection between the adapter and the router will be established automatically.

#### ► Confirm whether there is related information such as successful display link



### **Troubleshooting**

This chapter provides solutions to problems that may occur during the installation and operation of the USB Wireless Adapter. Read the descriptions below to solve your problems.

#### 1. The USB Wireless Adapter does not work properly?

Reinsert the USB Wireless Adapter into your PC's USB slot. Right click My Computer and select Properties. Select the device manager and click on the Network Adapter. You will find the Adapter if it is installed successfully. If you see the yellow exclamation mark, the resources are conflicting. You will see the status of the Adapter. If there is a yellow question mark, please check the following: Make sure that your PC has a free IRQ (Interrupt ReQuest, a hardware interrupt on a PC.) Make sure that you have inserted the right adapter and installed the proper driver. If the Adapter does not function after attempting the above steps, remove the adapter and do the following: Uninstall the driver software from your PC.

Restart your PC and repeat the hardware and software installation as specified in this User Guide.

## 2. I cannot communicate with the other computers linked via Ethernet in the Infrastructure Configuration?

Make sure that the PC to which the Adapter is associated is powered on.

Make sure that your Adapter is configured on the same channel and with the same security options as with the other computers in the Infrastructure configuration.

### 3. What should I do when the computer with the Adapter installed is unable to connect to the wireless network and/or the Internet?

Check that the LED indicators for the broadband modem are indicating normal activity. If not, there may be a problem with the broadband connection. Check that the LED indicators on the wireless router are functioning properly. If not, check that The AC power and Ethernet cables are firmly connected. Check that the IP address, subnet mask, gateway, and DNS settings are correctly entered for the network. In Infrastructure mode, make sure the same Service Set Identifier (SSID) is specified on the settings for the wireless clients and access points. In Ad-Hoc mode, both wireless clients will need to have the same SSID. Please note that it might be necessary to set up one client to establish a BSS (Basic Service Set) and wait briefly before setting up other clients. This prevents several clients from trying to establish a BSS at the same time, which can result in multiple singular BSSs being established, rather than a single BSS with multiple clients associated to it. Check that the Network Connection for the wireless client is configured properly. If Security is enabled, make sure that the correct encryption keys are entered on both the Adapter and the access point.