Wireless LAN Mini PCI

AWL-200

User Manual

Version 1.1
Oct. 2002

BENQ Corporation
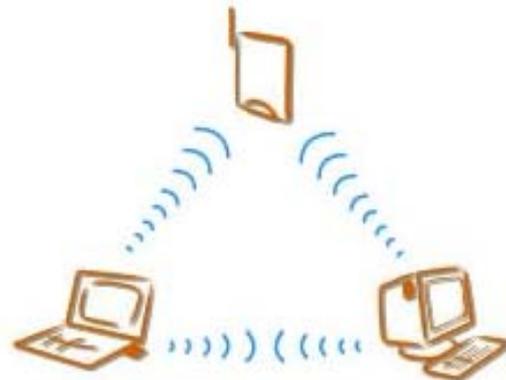
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Notice I

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FCC Warning

The AWL200 compiles 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.

Note:

The AWL200 has been tested and found to comply with the limits for a Class B digital device and a low power transmitter, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential environment. 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.

Table of Contents

Chapter 1. Introduction

Thank you for purchasing a BENQ AWL200 Wireless LAN PC Card. The AWL200 Wireless LAN PC Card lets you connect to your network and the Internet without needing to be tethered to a fixed location by a physical cable, while still getting the same data transfer rates as with traditional Ethernet. In addition to allowing you to enjoy the wonders of wireless networking, the AWL200 provides two operating modes—ad -hoc mode (peer-to-peer) and infrastructure mode (station-to-AP)—to meet to your varying needs at different purposes.

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Chapter 2. Installation

1. Insert AWL200 Mini-PCI into your PC, and then Windows will show the dialog – **Add New Hardware Wizard**.

2. Select **Search for the best driver for your device. (Recommended).** and press **Next** button.

3. Select **Specify a location** and browse the BenQ Wireless LAN CD to find AWL200. For example, if your CD-ROM has a drive D and you want to install the English version of driver, the location is D:\AWL200\English.

4. Windows has found AWL200 Mini-PCI. Press **Next** button.
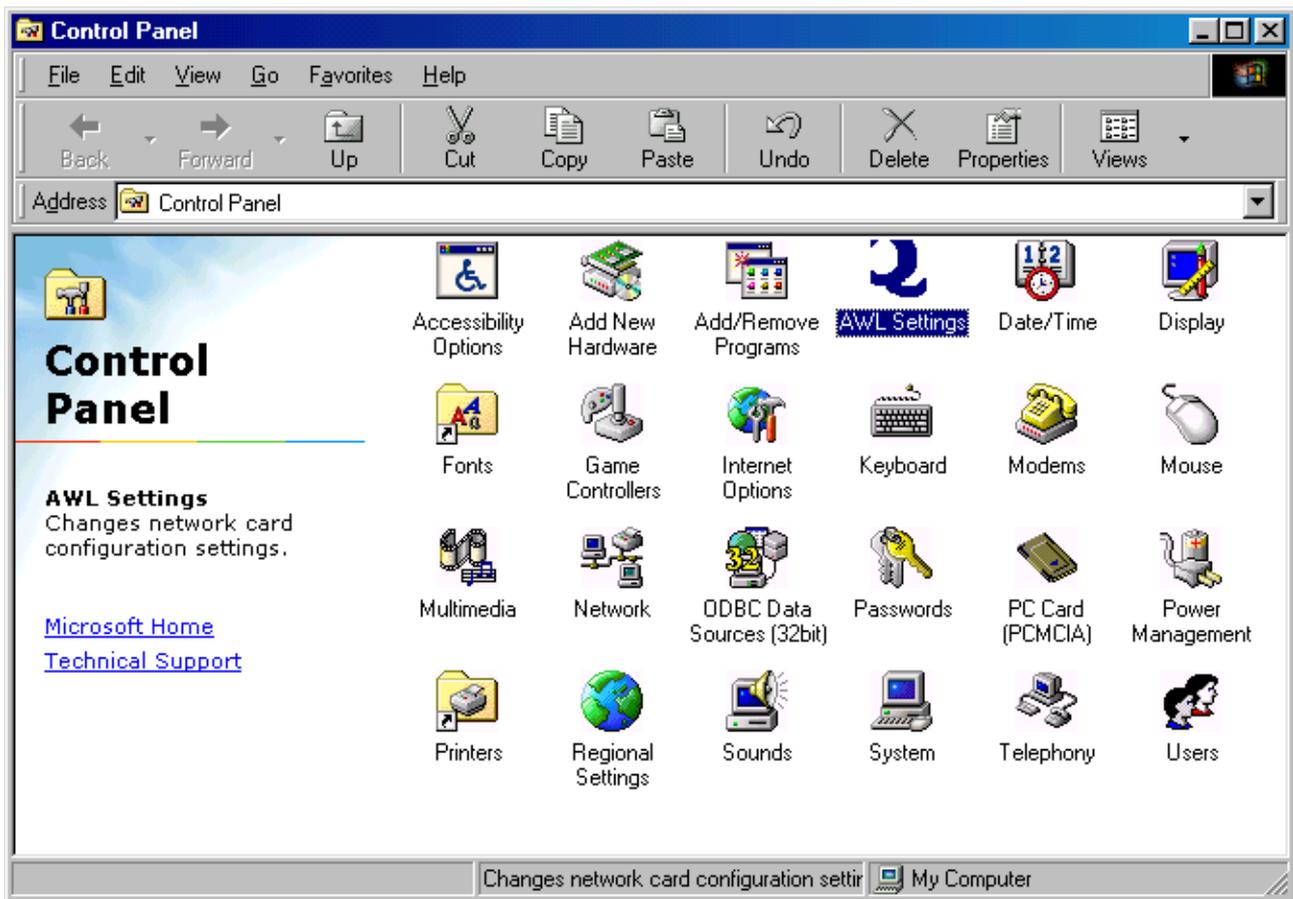
5. Please wait while coping files.

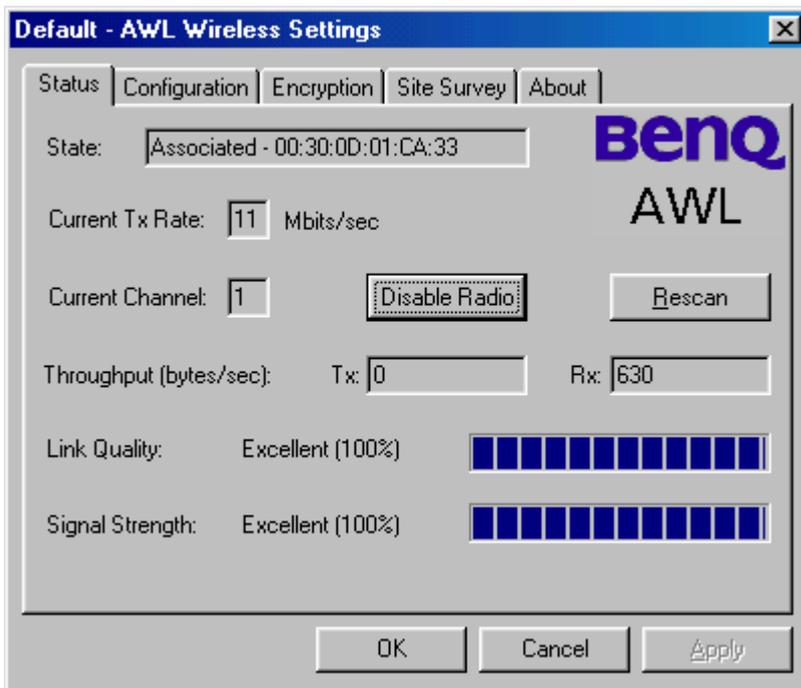6. Press **Finish**.

Press **Yes** and restart your computer.

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Chapter 3. AWL200 Wireless Settings

You can launch AWL200 Wireless Settings utility by clicking the icon or from Control Panel.

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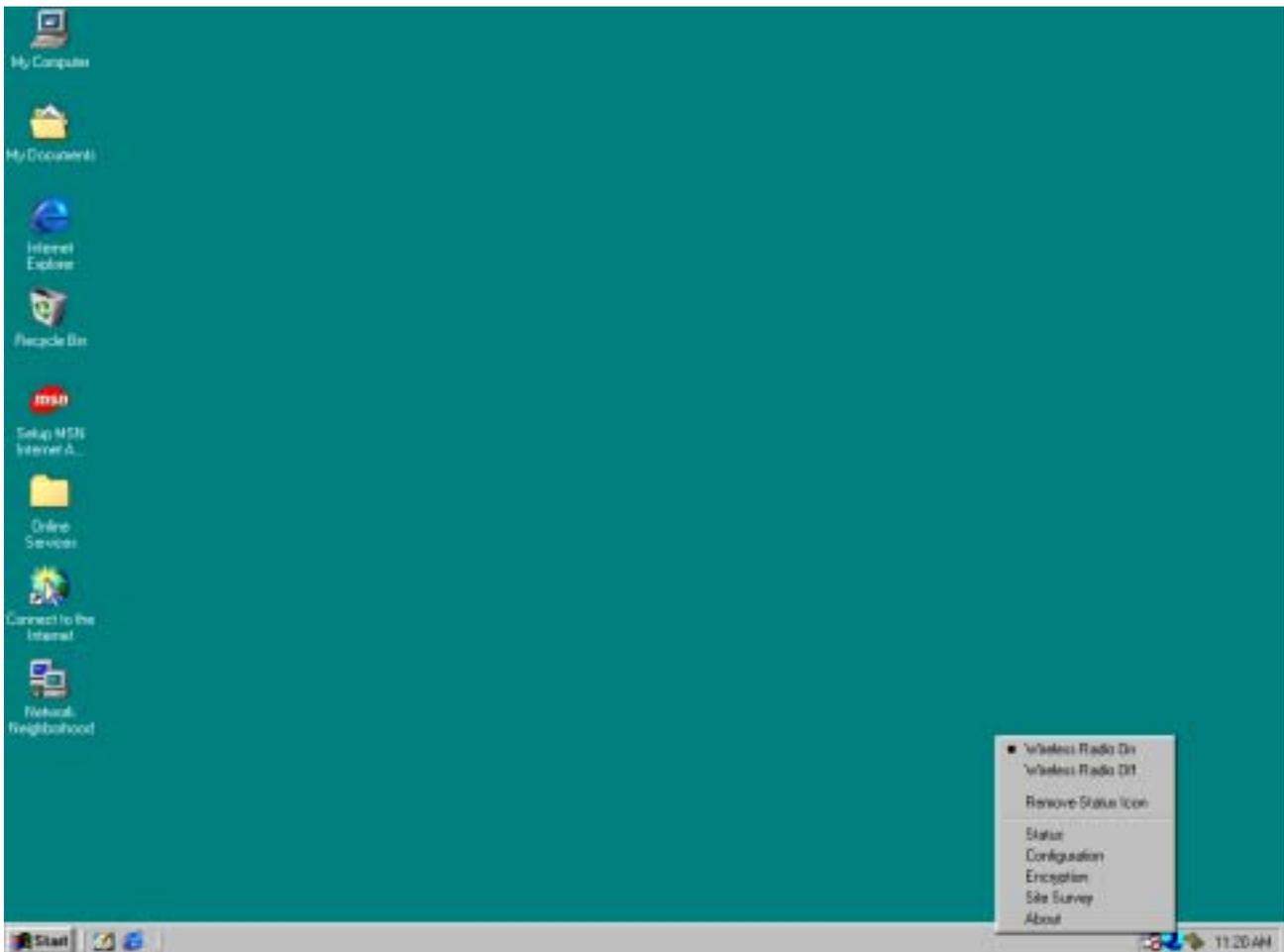
3.1 Status

Status

The current state of the driver is displayed in this screen. If the state reveals "Associated," it means that the normal flow of operation is in Infrastructure mode. This shows that the PC is already connected to access point and BSSID is also shown in the form of hex digits. At the same time, the networking is available for the device.

In "Scanning" state, it means that the node cannot detect the SSID to an access point within range and is searching for an available access point. Also, if the driver failed to initiate for some unknown reasons, this field will display an error message.

Rescan

The driver will restart and beginning its Connection Procedure if the **Rescan** button is pressed. In general, the connection procedure will be different according to the Mode of the driver.

Enable / Disable Radio

This button is used to enable or disable the radio of AWL200.

Current Tx Rate

This field shows the current transmit rate, which is being used for an active connection.

Current Channel

This field shows the current radio channel, which is being used for an active connection.

Throughput

The instantaneous wireless Receive and Transmit throughput are displayed in bytes per second in this field. Every two seconds, these values are updated.

Link Quality

This field reveals the quality of the current connection. Only when the node is in Infrastructure Mode does the Link Quality bar graph become active. The bar graph displays the link quality between the node and its Access Point. Over the bar graph, a label summarizes the quality of the link, which can take on one of the following values:

"Not Applicable"
"Poor"
"Fair"
"Good"
"Excellent"

When the Link Quality becomes "Poor," the driver will start to look for a better Access Point. As a result, the Link Quality is a very good indicator of receiving and transmitting errors over the radio.

Signal Strength

The Signal Strength bar graph only becomes active, when the node is in Infrastructure Mode. This bar graph shows normalized signal strength as reported by the radio, averaged over all frames over 100 bytes long, which are received from the Access Point.

Status information about the radio link is displayed in this tab. Detailed

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description should be placed in this field.

3.2 Configuration
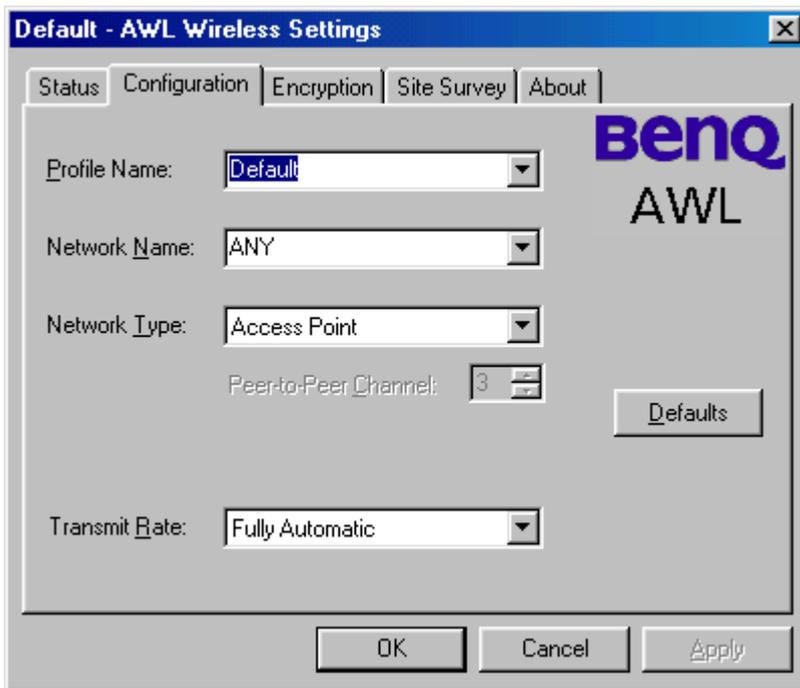
NOTE

Several fields illustrated as following are offered by the Configuration Tab. Operating parameters of the driver can be viewed or changed here. Under the circumstances, changes to any of the parameters in this panel can be applied to the driver without the need to reboot the PC.

Defaults: It restores each field in the panel to its default value by pressing this button. However, before the default values are saved or loaded to the driver and registry, the **Apply** button or **OK** button must be pressed.

Apply: Only when one of the fields has been modified does this button become active. Press this button to apply the changed values to the driver and saves them to the registry for the next time when the PC boots up.

Profile Name

These settings will be stored by the given name.

Network Name

This field shows the network name or called SSID, which your AWL200 will be associated with. If "ANY" is the name showed, it means any network name could be associated with.

Network Type

You can select from a list of supporting network types in this field. The network types displayed will have two values as following: "Access Point" and "Peer-to-Peer".

Access Point (Infrastructure)

This is an operation mode, which requires the existence of an 802.11 Access Point. Owing to the existence of the Access Point, all communication is done via the Access Point, which relays packets to other wireless Clients in the BSS as well as to nodes on a wired network such as Ethernet.

Peer-to-Peer (Ad Hoc)

This is a non-compliant mode, which will allow AWL200 cards to talk to one another without an AP.

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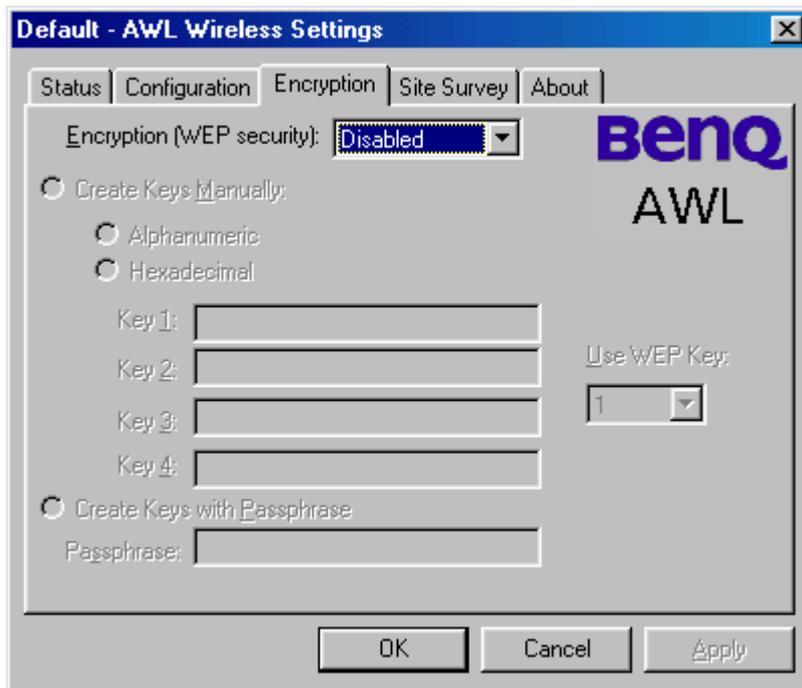
3.3 Encryption

According to WEP function select, this page allows the entry of four keys for 64-bit and 128-bit encryption. Each key must consist of hex digits to be written to the driver and registry. This means that only digit number 0-9 and letters A-F are valid entries. Therefore, if entered incorrectly, the program will not write keys to a driver. You can also use Alphanumeric or Passphrase to create keys.

- **Key 1 – Key 4**

    When you want to enter the keys manually, you may use these four fields. If you wish this node to match keys in a different vendor's product, this may be necessary.

- **Apply**

    You may also update the driver with the four keys displayed in Key field by pressing this button. The keys are also written to the registry for permanent storage. This button clears all the bytes in the four keys. It's very useful when you wish to start over or enter manually.
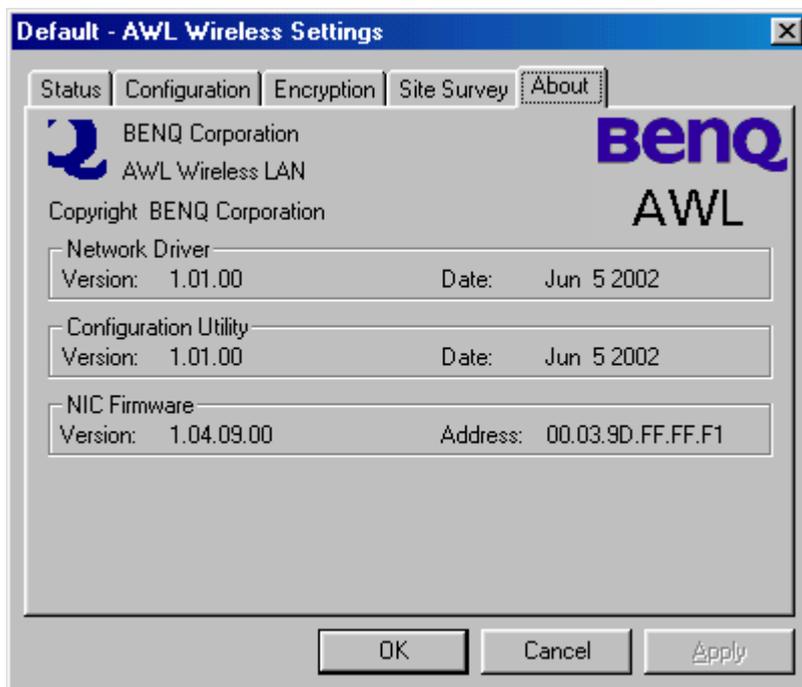
3.4 Site Survey
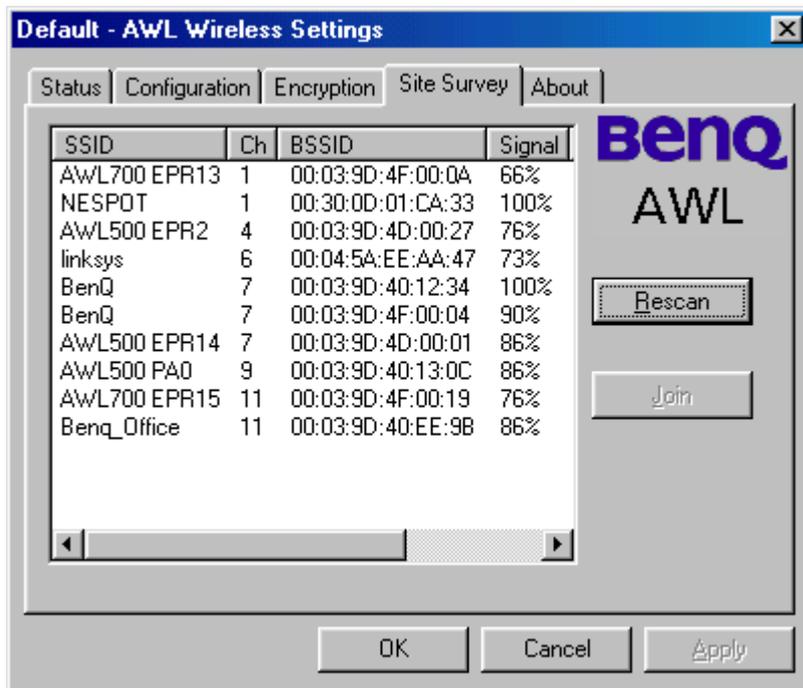
Rescan

This button will scan all available Access Points in your neighborhood and then list their SSID, channel, BSSID, signal, WEP state and network type, respectively.

Join

Select the SSID you want to be associated with, and then press this Join button to join this network.

3.5 About

You may learn the product version including the detail of Network Driver, Configuration Utility, and NIC firmware version from this "About" tab. When users wish to report their problems to our technical support, they must have this version number.

Chapter 4. Trouble Shooting

Question 1

What should the users do when the signal icon **Cable Disconnected** appeared right after pressing the **ReScan** or **Disable Radio** button under **Peer-to-Peer (Ad-hoc)** mode?

Answer 1

Please remove the BenQ AWL200 from the MINI-PCI slot and re-insert the device again, and then it will connect the user back on line.

Question 2

What if the user's PC is unable to connect to the other PC right after switching the network type from access point mode to Peer-to-Peer mode?

Answer 2

Please make sure the SSID for both PC are the same and the IP address are in the same subnet. If both SSID and IP address are checked and the same, but the PC is still in disconnection mode, then please remove the BenQ AWL200 from the MINI-PCI slot and re-insert the device again to connect back online.

Question 3

What if the user is unable to alliance with the new association after moving from one AP service set to another under the Access Point (Infrastructure) mode?

Answer 3

Please ensure that the SSID is the same for both APs and PC. If the SSID is correct, then please press the **ReScan** button in the **Status** menu, and then it should create new association for the device with the AP.