



GPRS with WLAN PC Card

W10

User's Manual

Version 1.0
April 2003





Notice I

Copyright Statement

This manual cannot be reproduced in any form or by any means or used to make any derivative such as translation, transformation, or adaptation without the prior written permission of BenQ Corporation.

BenQ Corporation reserves the right to change this manual and the specifications to improve products without prior notice. So you can get the most recent software and user documentation for all BenQ Wireless LAN products on our web site.

<http://www.BenQ.com>

Trademarks

Copyright © 2003 BenQ Corporation. All rights reserved.
Contents subject to change without prior notice. BenQ is a registered trademark of BenQ Corporation. All other trademarks belong to their respective proprietors.



Notice II FCC Warning

Federal Communication Commission Interference 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 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.

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

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.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This device complies with FCC RF Exposure limits set forth for an uncontrolled environment, under 47 CFR 2.1093 paragraph (d)(2).

BenQ declares that 56W10 (Wireless PCMCIA Card) (FCC ID: JVP56W10) is limited in CH1~CH11 by specified firmware controlled in USA.

Table of Contents

Chapter 1. Introduction	1
1.1. Product Kit	2
1.2. System Requirements.....	2
1.3. Mechanical Description.....	2
Chapter 2. Installation	4
2.1. Installing your SIM card to W10	4
2.2. Removing your SIM card from W10.....	6
2.3. Driver Installation	7
2.4. Using and Removing your W10 from your laptop	13
Chapter 3. W10 Wireless Settings.....	14
3.1. UI Functions.....	14
3.1.1. System Tray.....	14
3.1.2. Main Function Bar	15
3.1.2.1. Network Configuration	15
3.1.2.1.1. GSM connection.....	錯誤! 尚未定義書籤。
3.1.2.1.2. GPRS connection.....	16
3.1.2.1.2.1 GPRS Connection setting	17
3.1.2.1.3. WLAN.....	18
3.1.2.2. Phone	22
3.1.2.3. Short Message Service (SMS)	24
3.1.2.4. Phone Book.....	26
3.1.2.5. Setting	28
Chapter 4. TroubleShooting	33

Chapter 1. Introduction

Thank you for purchasing a BENQ W10 GPRS with WLAN PC Card. The W10 offers GSM/GPRS tri-band 900/1800/1900 MHz and IEEE 802.11b WLAN 2.4GHz connectivity in a single PC Card, ensuring that you can connect quickly and easily to the Internet wherever you are in more than 160 countries on five continents. The W10 provides both data and voice communications, giving you the freedom to send and receive e-mail and make voice calls with same device, and even simultaneously. The W10 also includes a phone book, and SMS capabilities, providing the full functionality of a cell phone on your laptop. The W10's specially designed user-friendly utility helps you easily manage all functions. With the W10, you can save thousands of messages and phone numbers on your laptop. The W10 is the best solution for enterprises, SOHO users, and households that need to expand their networking environments easily and that need to access the Internet anytime, anywhere. With the W10, no matter where you are, you can stay in touch with customers and other important people by phone or e-mail.

In addition to allowing you to enjoy the wonders of wireless networking, the W10 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.



1.1. Product Kit

Before installation, make sure that you have the following items:

- ◆ W10 GPRS with Wireless LAN PC Card
- ◆ Hands-Free
- ◆ Software CD containing user manual and utility
- ◆ Quick Start Guide
- ◆ Warranty card

1.2. System Requirements

Before using your W10, please check that you have the following required items:

- ◆ Notebook PC with PCMCIA Type II slot and CD-ROM drive
- ◆ Microsoft Windows 2000/XP operating system (recommend), Windows 98 SE/ ME.

1.3. Mechanical Description

Top panel of the PCMCIA

The following table provides an overview of each LED activity:

**Ear Phone
Jack**



WLAN LED

SIM card holder

GPRS LED

	WLAN LED	GPRS LED	
Color	Blue	Blue	Red
Power On	Stable On	Off	On
Signal Searching	Slow flash	Fast flash	Off
No Signal	Off	Off	On
Data	RF activity	On	On



Ring Tone	NA	On/switching flash
-----------	----	--------------------

Chapter 2. Installation

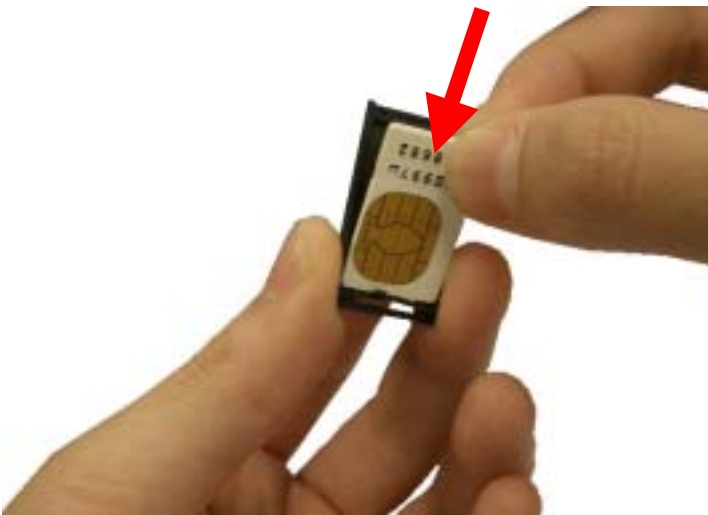
2.1. Installing your SIM card to W10

To successfully use your W10, you have to insert your SIM card supplied by your network operator.

1. Push the SIM card holder out and slide it in the direction shown.



2. Place your SIM card to the W10 SIM card holder in the direction shown. Note that the gold contact part of the SIM card faces outside.





3. Please make sure the SIM card is firmly fixed in the SIM card holder as below shows.



4. Insert the SIM card holder (with the SIM card inside) back to W10 in the direction shown. Then, you are ready to use full functions of W10.



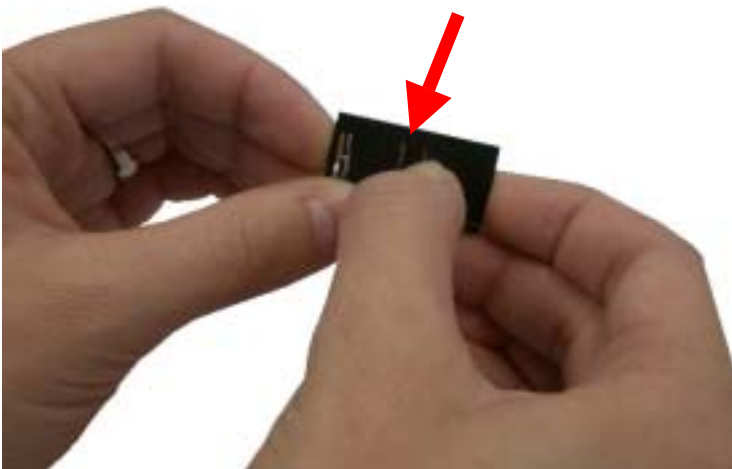
2.2. Removing your SIM card from W10

Please follow the instructions below to remove your SIM card from W10 after using it.

- 1. Push the SIM card holder out and slide it in the direction shown.**

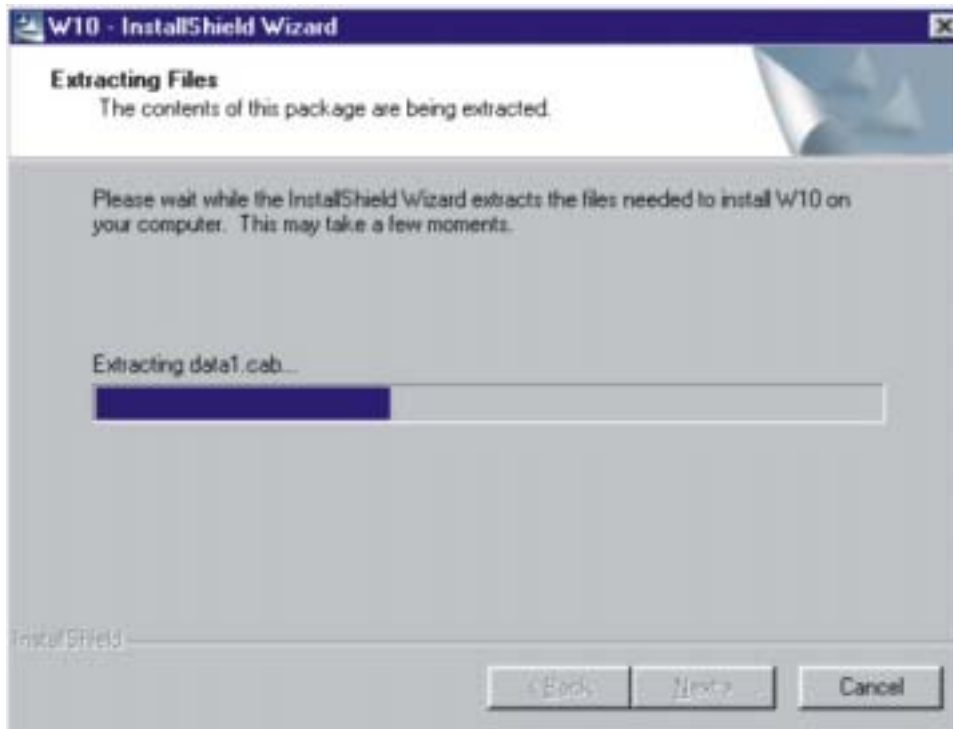


- 2. Use your fingers to bend the middle part of the W10 SIM card holder as the follow picture shows in order to remove your SIM card from the holder.**



2.3. Driver Installation

Insert W10 driver CD into your notebook and browse the CD for W10 setup.exe. Then double click to install.

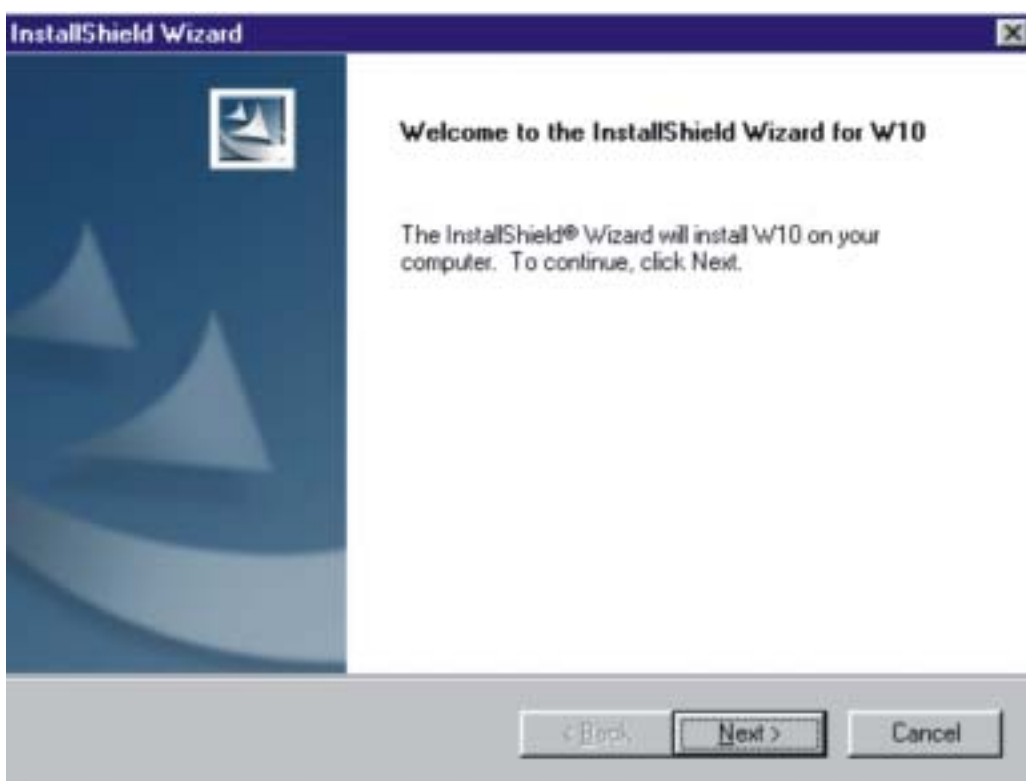
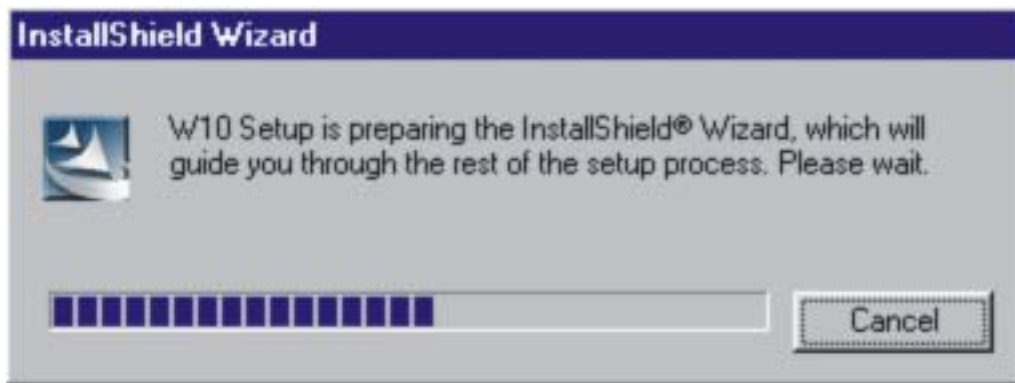


Select a **setup language** you wish to install and press **OK** button.

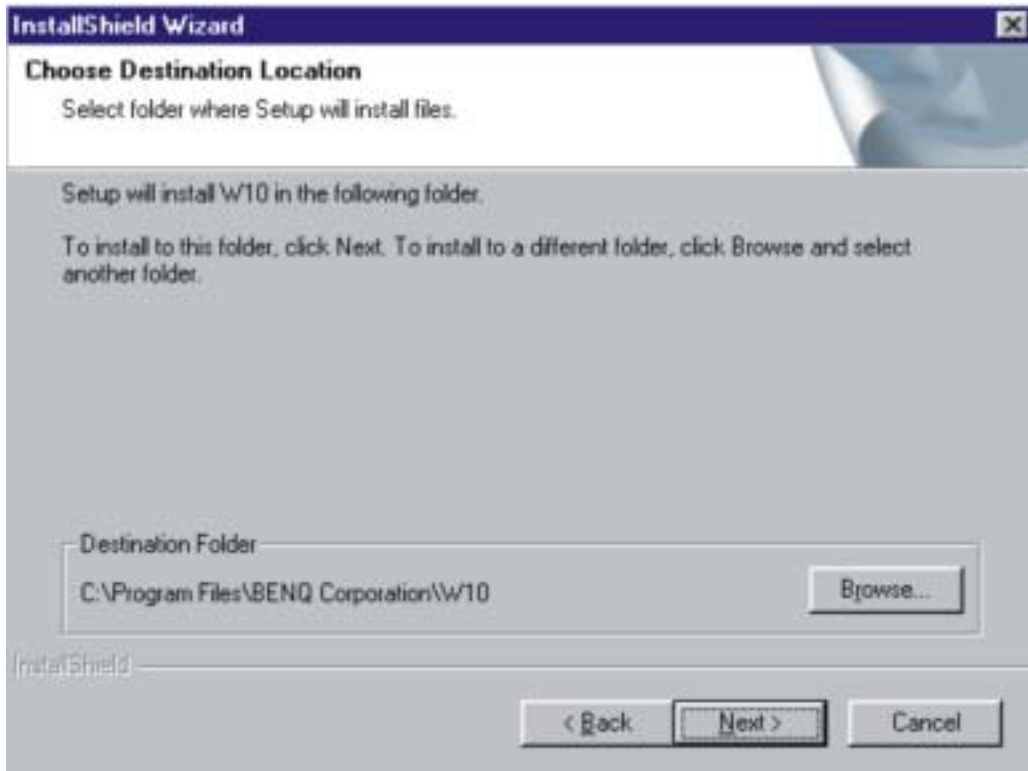




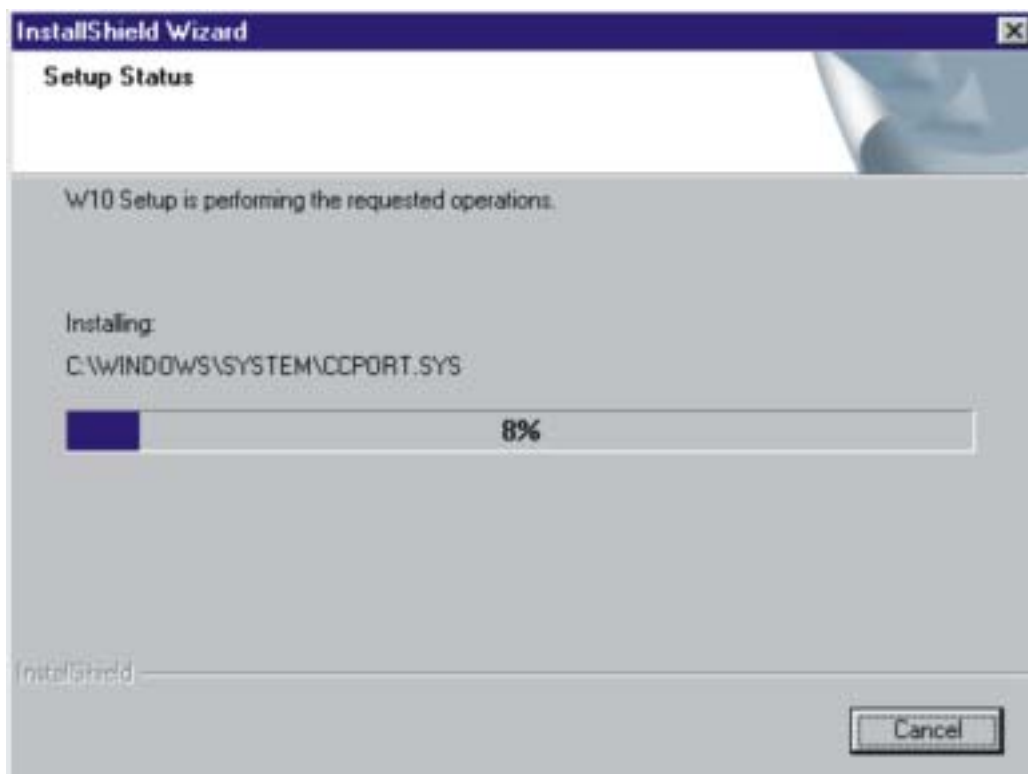
The W10 driver is activated to prepare the InstallShield Wizard. Please wait while copying files.



Select a location to install W10 files. The default location is C:\Program Files\BENQ Corporation\w10. To install W10 files to this folder, click **Next**. If you want to install to another folder, click **Browse** and select another folder.



Please wait while installing files.

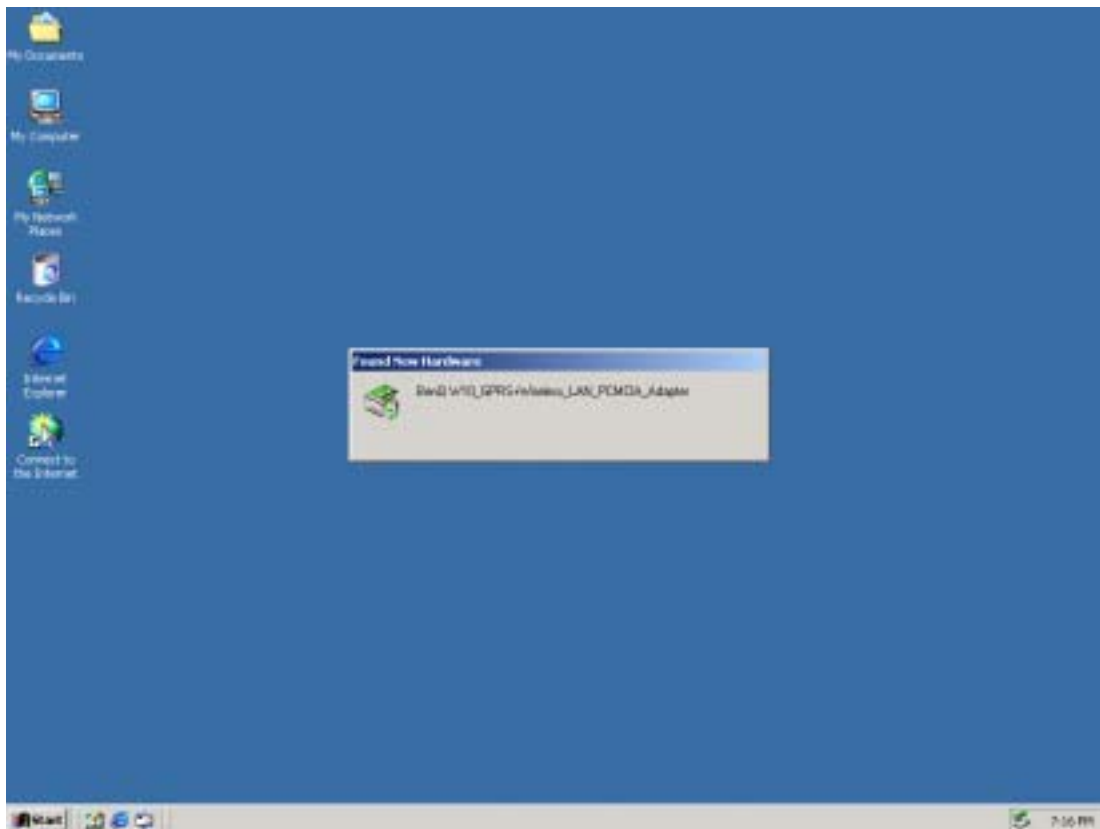




Press **Yes** and restart your computer.



After installing the W10 driver, please insert W10 PCMCIA Adapter into your notebook. The system will show “Found New Hardware” message and start the hardware configuration. (If your Operating System is Windows XP, the system will ask if you are willing to continue the installation. Please click “Start to install”.)



The system will then show a warning message as follows. W10 has been tested in stringent conditions. Please feel free and comfortable to click “Yes” to continue the installation.



W10 provides dual module functions and the system will continue to find a new hardware “GPRS+Wireless LAN Modem Primary”, please feel free to

continue the installation. (If your Operating System is Windows XP, the system will ask again if you are willing to continue the installation. Please click “Yes” to start the installation process.) The system will then show a warning message as follows. The reason is the same as described above. Please feel comfortable to click “Yes” to continue the installation.



The same message will appear again when finding the next new hardware “GPRS+Wireless LAN Modem Secondary (1201)”. Please repeat all the procedure illustrated above and click “Yes” to continue the installation.





The W10 installation is now completed and after finishing all these steps, you are able to find the W10 Wireless Settings utility icon (as circled below) on the system tool bar. This means the installation is done successfully.



Now you may start to enjoy your W10.

2.4. Using and Removing your W10 from your laptop

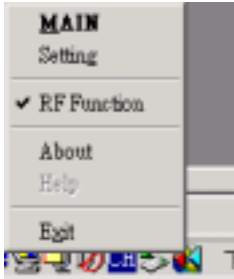
W10 has smart function “Plug & Play”. Once you plug your W10 into the laptop, you can start using W10 right away. If you finish using W10, you may just directly remove and no need to stop it. While you remove the card, Windows will pop-up a warning saying that you didn’t remove your properly. Please feel comfortable and select “OK”. (If you are using WinXP, there is no such warning.)

Warning:

DO NOT remove W10 while it is still operating any tasks. Please only remove it, while it completes all the tasks.

Chapter 3. W10 Wireless Settings

As illustrated below, you are able to launch W10 Wireless Settings utility by clicking the icon on the tool bar.

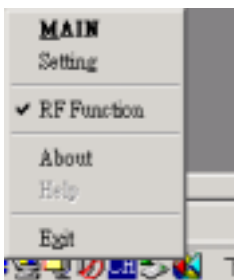


3.1. UI Functions

The UI functions are implemented in individual dialog box.

3.1.1. System Tray

When the 56W10 PC Card is inserted into PCMCIA slot, a small icon is shown on the system tray to indicate the card insertion. After you click that icon with right-button of mouse, a menu will be shown. “Main” is for the function selection region, “Setting” is for settings of all cell phone supplemental functions. “Exit” means that user quits using W10 user applications and he tries or remove the card from slot. “About” is for the software version of each functions. When there is a either one network (WLAN or GSM) available, an icon will come up with triangle in the system tray. When there are both WLAN and GSM networks available, the icon in the system tray will show 2 triangles.



3.1.2. Main Function Bar

When the Main Function Bar appears on the screen, users can have 5 choices.

1. WLAN/GPRS/GSM Network Configuration
2. Phone
3. Short Messages Service (SMS)
4. Phone Book
5. Phone Setting

When the mouse pointer crosses over the button, the color of button will be changed to show which function has been selected. These functions could not operate at the same time except the phone wizard.



3.1.2.1. Network Configuration

When users choose network configuration, a dialog box will be shown. User can edit some profiles for their favorite operators. They only need to be set up once and users can use the profile record to quickly access network configuration next time. There are modem settings for GSM/GPRS modems and Wireless LAN configurations. The setting items are directly from Windows settings. Users can get information of signal strength, ISP dial-up telephone number, and IP address allocated for GSM/GPRS data service. Wireless LAN control panel includes connection state, configuration, and site survey function.



3.1.2.1.1. GPRS connection



When users choose network configuration, the submenu will pop up. Left click the mouse on the GPRS item and the GPRS control panel will pop up. The current profile name and status of the GPRS configuration is displayed in this screen.

• Profile

New (Setup a new connection)

When you setup a new GPRS profile, one new GPRS setup menu will pop up. Please kindly check with your operator about GPRS setup.

Edit

Edit an existing setting you select in the dialup profile list.

Delete

Delete an existing setting you select in the dialup profile list.

• Status

In this page, the Internet connection status will be shown up in this page.



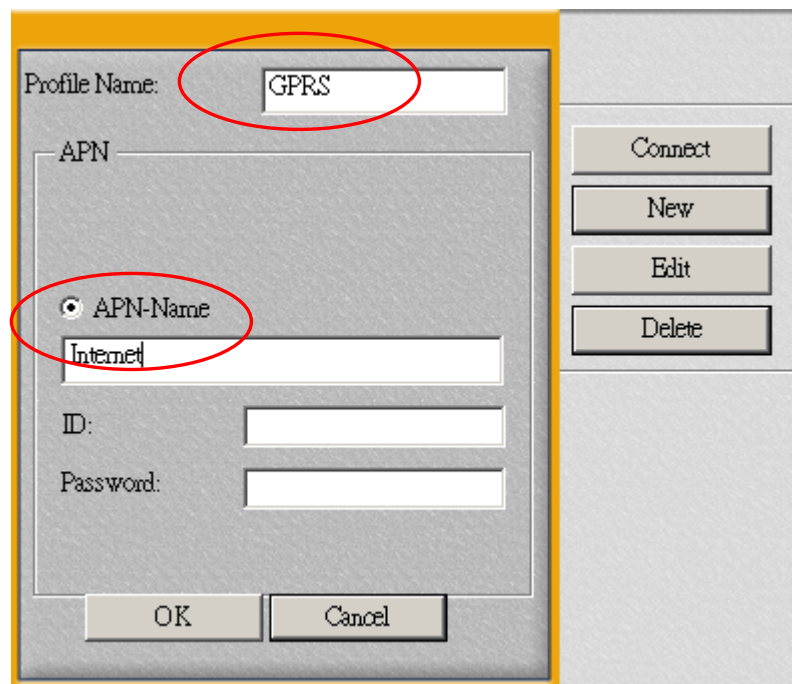
3.1.2.1.2.1 GPRS Connection setting

Please select networking-> GPRS to bring up the GPRS Connection panel.



• First time User

1. If this is the first time you using W10 connecting GPRS , you need to create one new connection profile. Please press “New” in the control panel of GPRS connection.
2. After selecting “New”, the sub-menu will pop-up. (Please inquire the operator of your SIM card provider about the GPRS configuration.)



- a. Name your GPRS connection at the Profile Name.
- b. Input the APN number provided by your GPRS operator, for example you may put “internet” at this box. And then select “OK” to confirm the settings..
- c. ID/ Password

Please input your ID and Password, if requested by your operator.

3. After complete the setting, the new profile name will show up at the Profile name list dialogue box.
4. Select the profile name from the list and push “Connect” to connect to GPRS network.
5. If the connect to GPRS network successfully, the status of GPRS connection will be



shown on the system tray.

3.1.2.1.3. WLAN



When users choose network configuration, the submenu will pop up. Left click the mouse on the WLAN item and the WLAN control panel will pop up.

• Status

- Network Adapter

You can select from a list of network adapter in this field. kindly select BenQ W10 WLAN PC Card



supporting
(Please
GPRS with

- State

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.

- **Network Adapter**

You can see the current operation mode, Infrastructure or Ad-Hoc mode.

- **Channel**

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

- **Tx Rate**

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

- **Security**

This field tells if you have opened your WEP security.

- **IP Address**

The field shows the IP Address of the current Internet adapter.

- **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 description should be placed in this field.

- **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. As a result, the Link Quality is a very good indicator of receiving and transmitting errors over the radio.

- **Configuration**

In this page, you can configure your WLAN settings.

- **New**

In the beginning, there is no default settings. A new WLAN setting profile can be set up by press “New”



and one configuration menu will pop up.

- **Modify**

You could modify the existing WLAN setting profile by pressing the button. The configuration menu of the existing profile will pop up.

- **Remove**

You may remove your existing profile anytime.

- **Active**

You may select different setting profile based on the different situations, or in environments. After selecting, please press active to activate the profile or it will not effective.

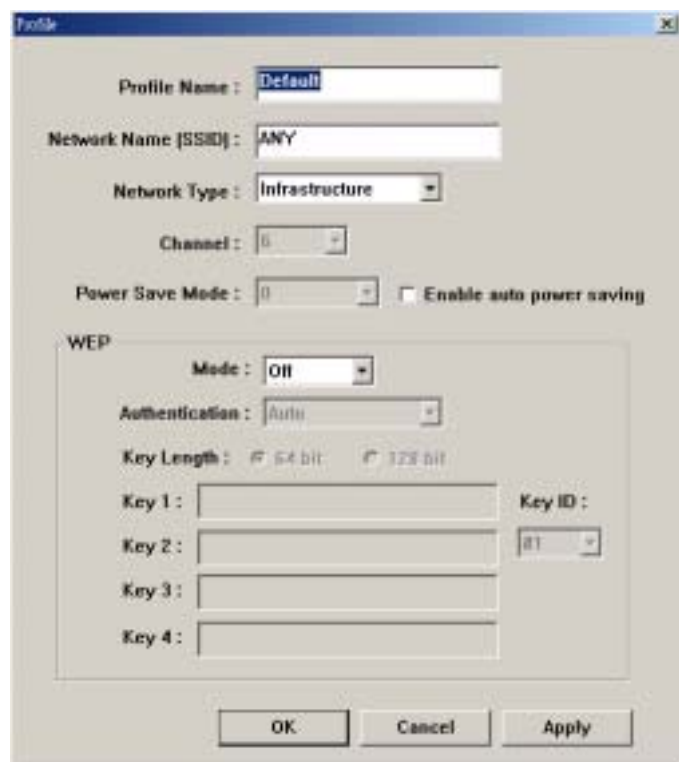
Configuration menu

Profile Name

After selecting the profile, a profile menu will pop up. In this “Profile Name” field, please name you setting profile, ex WLAN_home, WLAN_office, and etc.

SSID (Network Name)

This field shows the network name or called SSID, which your W10 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: “Infrastructure” and “Ad-Hoc”.

Channel

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



connection. In “Ad-Hoc” mode, please select your channel responding to other WLAN adapters you would like to associate with. This is a non-compliant mode, which will allow W10 cards to talk to one another without an AP regardless any SSID.

WEP

Mode:

You could active or inactive your WEP security function by selecting “On” or “Off”.

Key Length:

According to WEP function select, this page allows the entry of four keys for 64-bit or 128-bit encryption key. 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.

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.

Key ID:

You may select one from the 4 keys you have entered to match with the AP’s WEP key.

Apply:

This button becomes active only when one of the fields has been modified. Press this button to apply the changed values to the driver and saves them to the registry.

- **Site Survey**

- **Rescan**

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

- **Join**

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



3.1.2.2. Phone

When user click phone service button in the W10 main menu bar, a phone-shaped dialog box will be popped up. Users can use the keypad on this dialog as they use a normal mobile phone. Or they can use keyboards on their notebook or PC to enter numbers or do other operations. Users can easily access phone book records for the numbers they want dial. They also can retrieve call records from this scenario, which facilitate quick redial or reply.



Phone (Use it as using a normal mobile phone)

Out calling: Users can either key-in the phone number on the keyboard and press “Enter” to make a call or use mouse to click the number keypads on the phone-shaped dialog box to dial and then click the “Send/Answer” key



to make a call.

Incoming call: Users can press “Enter” or use mouse to click the “Send/Answer” key



on the phone-shaped dialog box to answer the incoming call.

Phone book



Users can press the left soft key to access the Phone book. The Phone book contact list menu will pop up and users can either search or edit the Phone book.



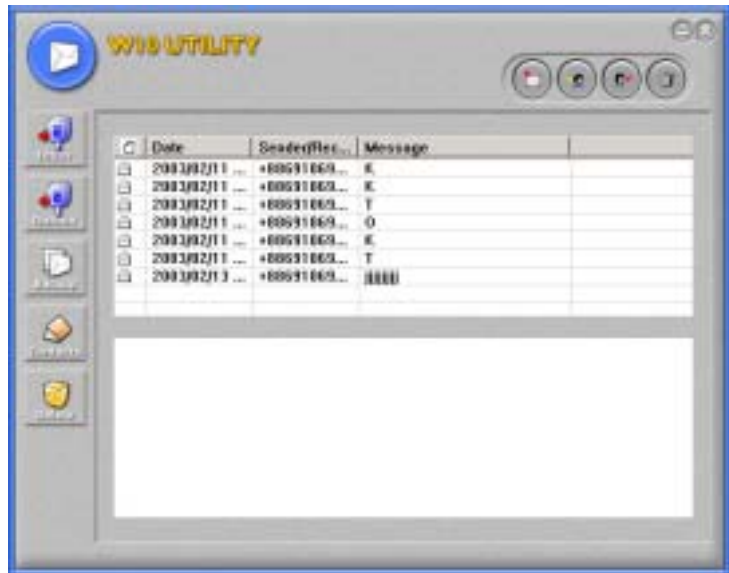
Adjusting the Ringing Volume

Users can press the “volume adjust” key to adjust the ringing volume.



3.1.2.3. Short Message Service (SMS)

When users choose “Short Message” service, a Microsoft Outlook-shaped dialog box will be popped. A full view for all received or sent short messages. If users click some message item, you can see the content in the below area. Users can edit, save, delete, reply, and create messages in this scenario.



I. Inbox: Reading received messages.

Click the “Inbox” button and all the messages in the inbox will be listed on the message dialogue box.



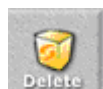
II. Outbox: Reading sent messages.

Click the “Outbox” button and all the messages in the outbox will be listed on the message dialogue box.



III. Backup: Backing up messages.

Click the “Backup” button and all the messages stored in the backup will be listed on the message dialogue box.



IV. Delete: Reading deleted messages.


All the deleted messages will be stored here.



I. Create New Short Message:

Click this button and the following frame appears, fill in the recipient's phone number in the "Tel No" column and enter the message text you desire

to send. Then, click the "Send Message"  button to send the message.

In addition, users can click the "Phone book"  button to view phone book.



II. Forward Short Message:

Click this button to forward short messages.



III. Reply Short Message:

Click this button to reply short messages.



IV. Delete Short Message:

Click this button to delete short messages.

3.1.2.4. Phone Book

When users choose “Phone Book”, a full view of all phone book records are shown in the dialog box. Users can create new records, edit or delete records. Users can search records for names too. It’s convenient for users to dial a number, send a short message from the phone book scenario. When users select one record on the list, and choose to send a short message, the “Short Message” service dialog will be popped up for sending messages.



I. View or Add SIM Record:



With this item users can view or add phone records to SIM card.

II. View or Add PC Record:



With this item users can view or add phone records to PC.



II. View Call Logs:

This menu contains lists of the calls you missed, sent and received.



Phone Book Tool Bar:



1. Make a Call:

Users can select a number from the phone book record list and press the “Make a Call” key to make a call.



2. Send SMS:

Users can select a number from the phone book record list and press the “Send SMS” key to send a short message.



3. New:

Press this key to add a new record to the phone book list.



4. Edit:

Users can select a record from the phone book list and press the “Edit” key to revise the content of the record.



5. Delete:

Users can select a record from the phone book list and press the “Delete” key to delete the record.

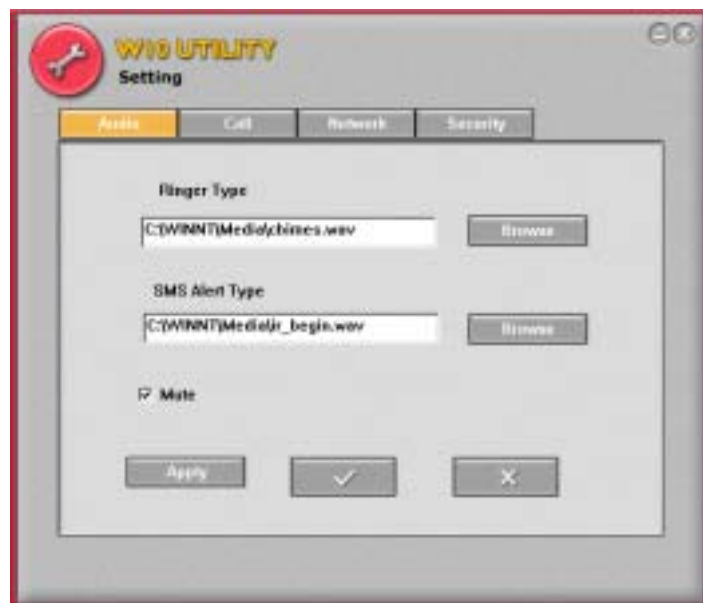


6. Find:

Press this key and a dialogue box will be popped up, users can search for the record from all range (SIM page, PC page, Record page) by entering names or numbers.

3.1.2.5. Setting

The settings are phone related settings, which include audio setting, call related setting, network setting, and security related settings. Users can reach all dialog by click the tab.



- **Audio Setting**
 - **Ringer type selection**

Users can customize their favorite ringers sound types. (The Host must have multimedia capability or a sound output device built-in)

- **SMS alert selection**

Users can customize their favorite alert sound types. (The Host must have multimedia capability or a sound output device built-in)

- **Call Setting**

Users can query, activate, or cancel “Call Divert”, “Call Waiting”, “Call Barring”





settings.

- **Call divert (Call Forward)**

Users can choose from the following Call Divert modes as needed.

Forward Unconditional:

Diverts incoming calls to a designated phone number at all time.

When Busy:

Incoming calls are sent to a designated number when user's phone is busy.

No Reply:

When an incoming call is not replied, it will be send to a designated phone number.

Not Reachable:

When user's phone is off or located outside the network service area, incoming calls will be sent to a designated number.

- **Call waiting**

When users are speaking over their phones and another call comes in, an incoming call number and a call-waiting message will appear to remind them. Choose to activate, deactivate or check the status of this feature.

- **Call Barring**

Users can choose from the following Call Barring modes as needed.

All Outgoing:

Bars all outgoing calls from your phone.

Int'l:

Bars all outgoing international calls from your phone.

Int'l except Home Country:

Stops all outgoing international calls except local calls and those to your home country.

All Incoming:

Bars all incoming calls to your phone.

Incoming when Roaming:

Stops incoming calls to your phone when roaming (when you are traveling abroad).

- Network password change

In “Call Barring” setting, a network password is needed. So, network password is managed in the dialog box. Any status changed due to operation will be shown on the “Status” area near the bottom of this dialog box.

• Network Setting

- Current registered operator name
- Network registration style

User can select “Automatic” way when searching the GSM network, or select “Customization” to select a specific operator from a neighboring available operators.



• Security Setting

- PIN1 check

PIN (Personal Identification Number) is a password provided by your network operator. Once activated, your PIN protects your SIM card from being used by unauthorized people, even if it is inserted in another phone, unless the correct PIN is given when the phone is switched on.



- Phone lock

Your phone can be locked to prevent calls being made by unauthorized people, unless the correct handset lock code is entered when your phone is switched on. Your phone remains locked if a wrong code is entered, even if your SIM card is removed and replaced with another one. Only emergency calls can be made when your phone is locked.

You must enter your phone lock code every time you power on your phone when the phone lock is on (there is no limitation on the number of wrong attempts when you enter

the phone code).

You can set the phone lock in the same way you set PIN check in Set PIN1.

- **SIM lock**

With this SIM lock feature, you can prevent unauthorized use of your phone with an unknown SIM card.

When you have the SIM lock activated your phone will only work with the SIM card used to enable the lock. If a new SIM card has been inserted into your phone, "Insert Correct SIM"



will pop up after you power on and enter the PIN. Press the left soft key and the SIM lock code will be requested.

If the incorrect code is entered when a new SIM card has been inserted into your phone, "Insert Correct SIM" will be displayed again, and the phone will not be enabled until the correct SIM lock code is entered.

If the correct code is entered the SIM card will be recognized and you can use the phone as normal. The next time your phone is switched on with this newly recognized SIM card, you will not be asked to enter the SIM lock code again.

Your phone can recognize up to 3 different SIM cards.

To activate the SIM lock you need to key in and save a number only you know as the SIM lock code. (There is no factory preset SIM lock code). The length of the code must be set between 8 to 12 digits.

To deactivate the SIM lock you also need to enter the SIM lock code that you previously saved in your phone memory.

To change the SIM lock code you must firstly deactivate the SIM lock and then enter the new code you want when activating the SIM lock again.

- **Fixed dial number setting**

Enables/disables the fixed dialling feature. You will be prompted to enter PIN2 when you enable/disable fix dialling.

Fixed dial list

Before you can use fixed dialling, you must set up a fixed dialling list in this option. Enter PIN2 and add numbers to your fixed dial list. Add names and numbers in the same way you would a phone book entry.

You can then add, edit and delete entries of your fixed-dial numbers.

When you have fixed dialling activated your phone can only be used to call numbers on the fixed dial list.



Change PIN2

To increase your phone's security you can change the preset PIN2 to a number only you know.

Chapter 4. TroubleShooting

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 W10 PC Card from the PCMCIA 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 W10 PC Card from the PCMCIA slot and re-insert the device again to connect back online.

Question 3

What if the users lost connection due to distance, but still unable to connect to each other after move both devices closer under Peer-to-Peer (Ad-hoc) mode?

Answer 3

Please remove the BenQ W10 PC Card from the PCMCIA slot and re-insert the device again, and then it will connect the devices back on line.

Question 4

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 4

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.