Installing and Using Your Broadband Wireless Modem

3G Modem Model AN User's Guide

IPWIRELESS, INC.

3G Modem User's Guide

Model AN

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Safety Instructions

Before using your new modem, please follow and adhere to all warnings, safety, and operating instructions on the modem and in this guide. The safety guidelines in this chapter will help protect your modem from potential damage and ensure your personal safety. Make sure to save this guide−it contains important operating instructions and Beta Trial Contact Information.

RF Safety Information

To comply with FCC radio frequency exposure guidelines set forth in 47CFR1.1307 and 1.1310 a minimum separation distance of 20 cm (8 inches) is required between the Model AN modem and all persons.

FCC Radio Frequency 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 when the modem 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 instruction manual, may cause harmful interference in which case the user will be required to correct the interference at his own expense.

Electronic Emission Notice

This device complies with Part 15 of the FCC rules. Operation is subject to the following condition:

1. This device may not cause harmful interference

When Using Your Modem

The following guidelines should be observed when using the modem:

- Air vents are included on the back, top, and bottom of your modem for the purpose of providing air ventilation. Make sure these air vents are clear of any obstructions.
- Do not expose the modem to:
  - water or excessive moisture
  - extreme hot or cold temperatures
  - open flames
  - direct sunlight for more than 15 minutes

- Do not allow objects to fall on, or liquids to spill on the modem.
- Connect the AC adapter only to designated power sources as marked on the product.
- To reduce the risk of damage, remove the electrical cord from the outlet by pulling the AC adapter rather than the cord.
- Make sure the electric cord is located so that it will not be subjected to damage.
- To reduce the risk of electric shock, unplug the AC adapter from the power source before attempting to clean the modem. Once unplugged, use a soft cloth slightly moistened with water to clean only the outside surface of the modem.
- Danger - Never alter the AC cord or plug. If the plug will not fit into the outlet, have a proper outlet installed by a qualified technician.
- Do not attempt to disassemble the modem; doing so will void the warranty. The modem does not contain consumer serviceable components. Service should be performed only by an IPW Wireless Employee during the Beta Trial. Note that the Modems remain Property of IPWireless of San Bruno, CA . www.ipwireless.com

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Chapter 1

Getting Started

Congratulations on the being a part of the IPW Broadband Wireless Modem Trial. Your modem is designed to give you the highest performance combined with real ease of use; it's easy to set up and easy to use. Your feedback during this test is invaluable. IPW will set standards of documentation and follow-up for you to follow during this important Engineering Trial.

Introduction

The Broadband Wireless Modem is a portable, wireless, cellular device that provides high-speed access to the Internet and high-bandwidth web browsing. Your new modem is designed with the latest third generation TD-CDMA (Time Division-Code Division Multiple Access) cellular communication technology commonly referred to as 3G technology. *Coverage may be limited during trial.*

To better understand how IPWireless (IPW) has harnessed the power of 3G technology, consider the transfer data speeds used by conventional telephone-based modems today. These modems transmit and receive data at as maximum of 56000 bits per second (56Kbps). Your new modem accomplishes the same task at an astonishing speed of 1 million bits per second (1Mbps) and operates within the 2.5-2.7 frequency band.

In addition to speed and portability, the Broadband Wireless Modem is a plug-and-play device that is USB (universal serial bus) compatible and doesn't require an outdoor antenna, telephone jack, or additional wiring of your home or office. Regardless of the application, your new modem is an ideal solution for either home or office use.

Required Equipment

Review the following list for items you'll need to install and use your modem:

- IBM-compatible computer with the following configuration:
  - Operating System: Windows 98 or Windows 2000
  - CD-ROM drive
  - USB connector
  - Internet browser software (included on the installation CD)
- Registration software (included on the installation CD)
- Phillips Head screwdriver
- 120V AC power outlet

Package Contents

In addition to this Quick Guide, the following items are included in the package with your modem:

- **Computer Interface Cable**

  A USB computer interface cable is included with your modem. This cable is used to connect the modem to your computer. If needed, refer to the manual that came with your computer for location of the USB connector.

- **AC/DC Power Adapter**

  The AC/DC power adapter provides power to the modem. The power adapter plugs into a 120V AC power outlet while the cable plugs into the power jack on the back of the modem. Do not use any other type of power adapter other than the one provided with your modem.

- **Cradle**

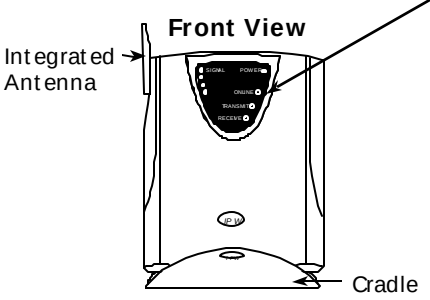
  The cradle provides support and enables proper air ventilation for the modem. The cradle can be installed in either a desktop arrangement or mounted on a wall using hardware appropriate for the installation surface. To ensure the modem operates properly, always mount the modem in the cradle using either the desktop or wall arrangement.

- **Installation CD**

  The installation CD includes the IPWireless PC Software, Internet browser software, Adobe Acrobat Reader, and a PDF version of this guide. If your computer is already installed with a browser software or Adobe Acrobat Reader, disable these options during the CD installation process.

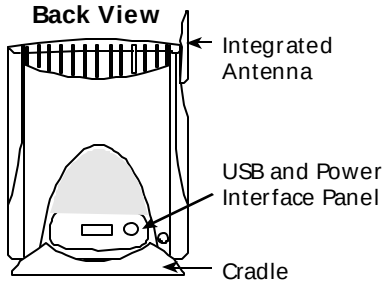
Key Areas on Your Modem

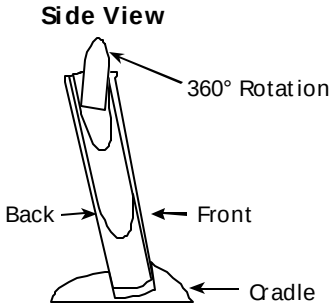
The figure below identifies key areas on the Broadband Wireless Modem. Please review the information before you begin the installation.



Status Window

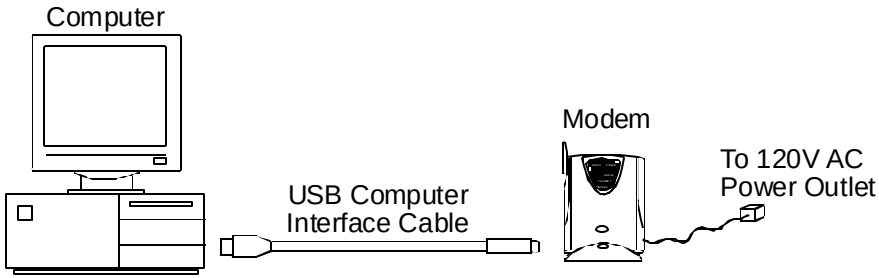
- SIGNAL (4 amber LEDs): Indicates quality of received signal.
- POWER (1 red LED): Power indicator. Power is on when lit.
- ONLINE (1 green LED): Connection status indicator. Modem is in connected mode when lit.
- TRANSMIT (1 amber LED): Transmit activity indicator. Modem is transmitting data when lit.
- RECEIVE (1 amber LED): Receive activity indicator. Modem is receiving data when lit.





Installation Overview

The figure below shows an example of the installation when installing the modem in either the desktop arrangement or mounted on a wall or other type of supporting structure.



Technical Support

If you need assistance with installing or using your modem, contact IPW Support in any of the following ways:

Telephone:	**(336) 370 1424**
Email:	**support@ipwireless.com**
Fax:	**(336) 370 9112**
Mail:	**IPWireless Customer Support 301 S. Elm Street Greensboro, NC 27402**

Chapter 2

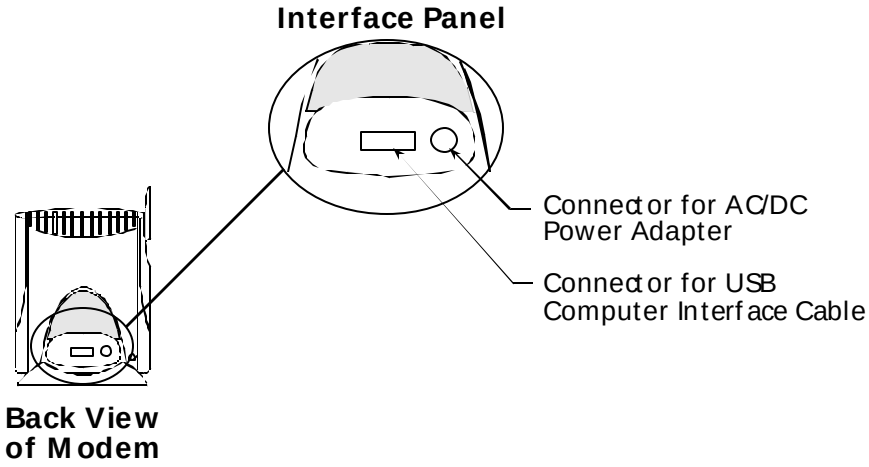
Installation and Registration

This chapter explains how to install and use your modem. You'll find instructions that explain how to:

- Connect the AC/DC power adapter.
- Place the modem in an area that provides the best radio signal.
- Connect the computer interface cable.
- Install the modem in either the desktop or wall arrangement using the provided cradle and mounting hardware.
- Install the contents of the CD on your computer. As part of the installation, you'll also register your modem on the IPW web site. The installation process will automatically select IPWireless as your Internet service provider and also select the Bronze service plan.
- Use the IPW software and modem to connect to the Internet.

To Connect the AC/DC Power Adapter

1. Plug the AC/DC power adapter in the power jack on the back of the modem as shown in the following figure.



Note: When connecting your modem to a power source in the next step, you may want to consider using a power surge protector. A power surge protector is designed to protect electronic devices from electrical surges that may damage your computer or modem. If you don't have a power surge protector, contact your local computer or electronics retailer for further details.

2. Plug the AC/DC power adapter into a 120V AC power outlet.

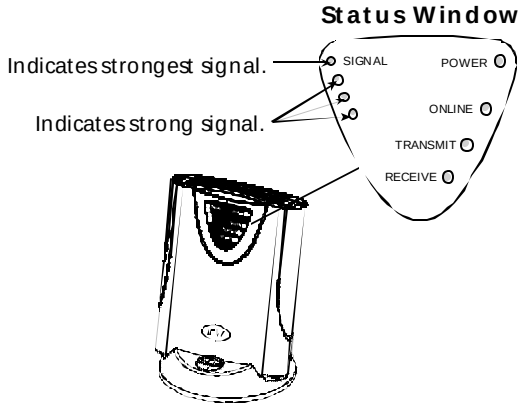
   The modem will perform a short self-test and then begin searching for network coverage.

3. Continue with the next section to determine where to place your modem for the best radio signal.

To Find the Best Radio Signal

1. Adjust the position of the modem to achieve a strong radio signal.

2. Observe the SIGNAL indicators on the front of the modem to help you determine when the modem has located a strong radio signal. The indicators will be lit when a radio signal is received. Refer to the following figure.



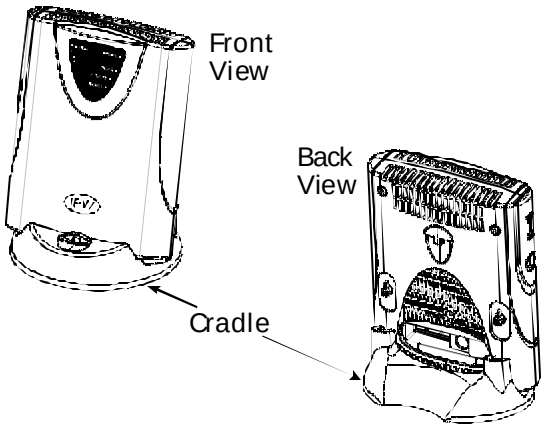
The number of illuminated indicator lights indicate signal strength.

To Install the Computer Interface Cable

1. Connect the 20-pin connector on the interface cable in the USB connector on the back of the modem. See the figure on page 6 for location of the connector.
2. Connect the other end of the interface cable in the USB port on your computer. If needed, refer to the manual that came with your computer for location of the USB connector.

To Install the Modem and Cradle

1. Use the following steps to install the modem and cradle in a desktop arrangement. If you plan to mount the modem and cradle on a wall, skip this step and continue with step 2.
   a. Place the cradle near the computer and then sit the modem in the cradle. Refer to the following figure.



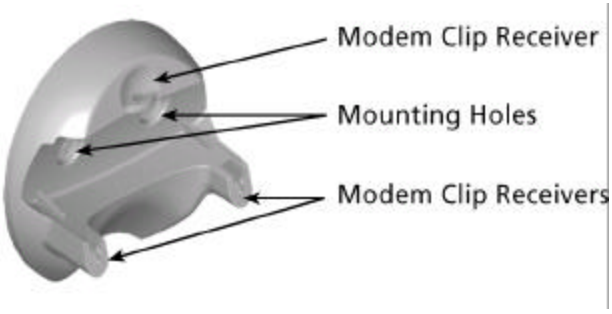
b. Check that there is enough space (six inches minimum) around the modem for proper air ventilation. Objects should not obstruct the air vents on the back and top of the modem.

c. Continue with the instructions in the paragraph “CD Installation”.

2. Complete the following steps to install the cradle and modem.

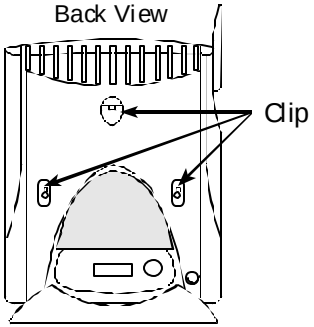
a. Mount the cradle on a wall or other type of supporting structure using hardware that is appropriate for the mounting surface.

Refer to the following figure for location of the two mounting holes on the front of the cradle.



b. Install the modem on the cradle by inserting the three clips on the back of the modem in the clip receivers on the cradle.

Refer to the figure above for location of the clip receivers and the following figure for location of three clips on the modem.



CD Installation

Before you can begin using your modem, you'll first need to install the contents of the CD.

The CD includes the items listed below.

- IPWireless PC Software
- Adobe Acrobat Reader
- Internet Explorer
- Netscape Navigator

The IPWireless PC Software is used with your modem to access the Internet.

The installation process allows you to choose which software items will install on your computer. If your computer is not installed with internet browser software, make sure to include either Internet Explorer or Netscape Navigator in the installation.

Some of the documents included on the CD are in PDF (portable document format) format. Viewing and printing these documents require that your computer also be installed with Adobe Acrobat Reader.

Following installation of the CD, your computer will have the following entries added to the Start->Programs menu bar.

- IPWireless Software
  - Connect To The Internet
  - IPWireless Driver Installation Help
  - IPWireless Help System
  - IPWireless Home Web page
  - IPWireless Registration Web page
  - Quick Installation Guide

At the end of the installation process, the newly installed IPWireless PC Software can be invoked in order to perform user registration. This IPWireless PC Software will communicate with the IPWireless 3G Modem and connect you to the IPWireless registration web page using your selected internet browser.

The IPWireless PC Software will automatically select IPWireless as your Internet service provider.

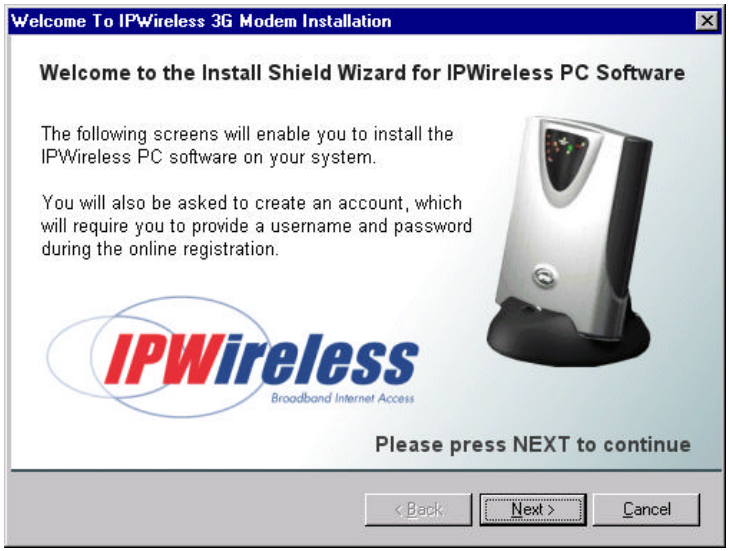
To Install the CD

1. Insert the CD in the CD-ROM drive on your computer.

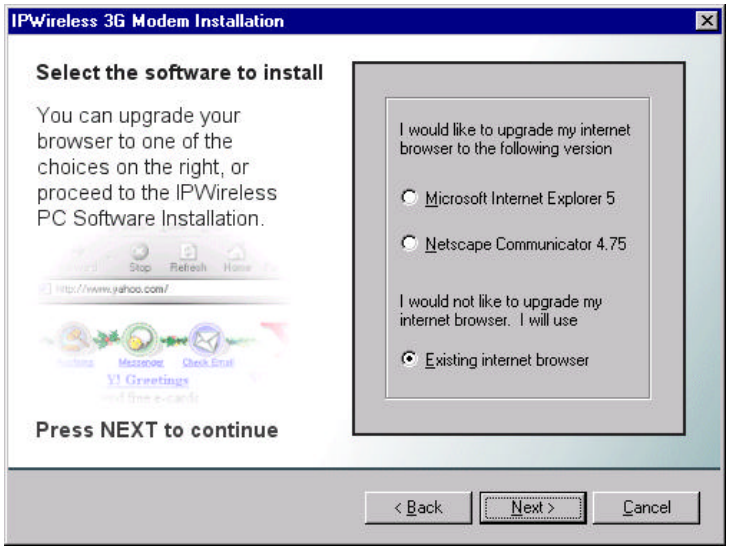
   The Windows operating system should automatically detect the CD and start the installation program. If the installation program does not automatically start, use Windows Explorer to view the contents of the CD and then double-click the “Setup.exe” program to begin the installation.

2. Follow the on-screen prompts to install the CD.

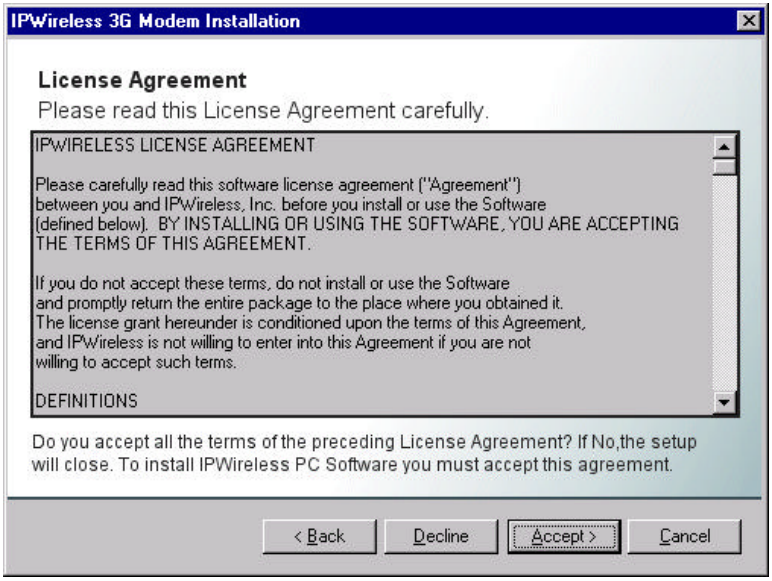
   The screens are shown on the following pages with additional explanations where necessary.



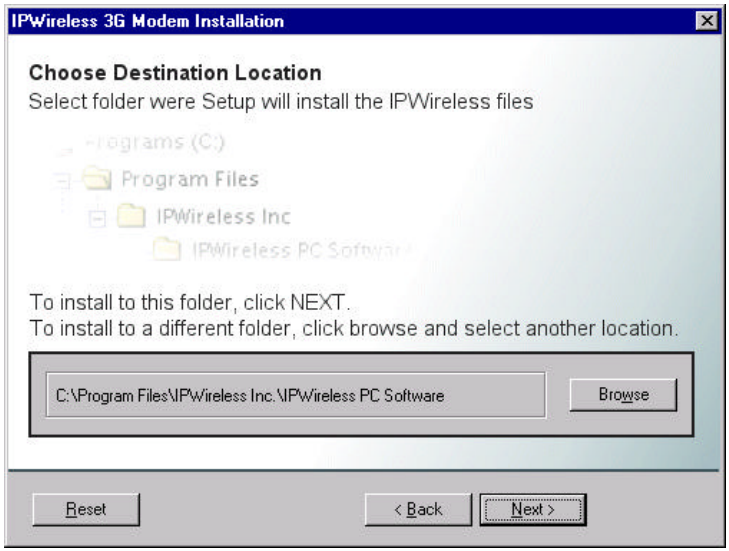
If your computer does not have Internet browser software installed, make sure to include either Internet Explorer or Netscape Navigator in the installation, otherwise you may use your existing browser



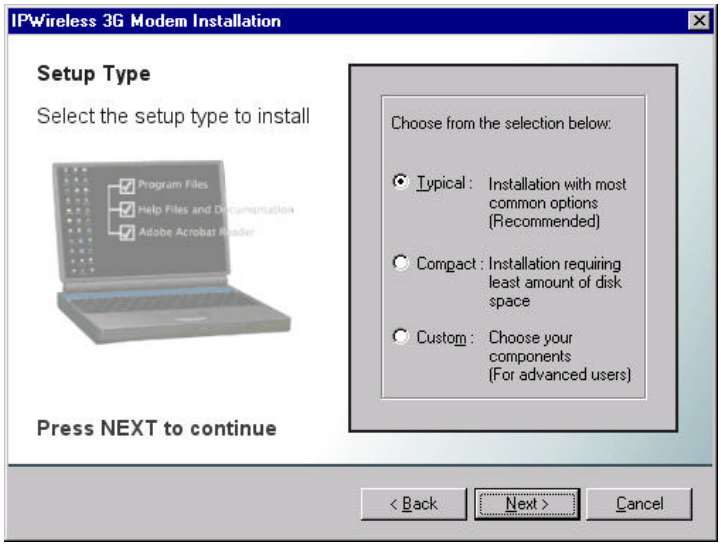
The use of the IPWireless 3G Modem is subject to agreeing to the Licence Agreement, which can be viewed in the display window. The installation of the IPWireless PC Software will only proceed if you accept the License Agreement.



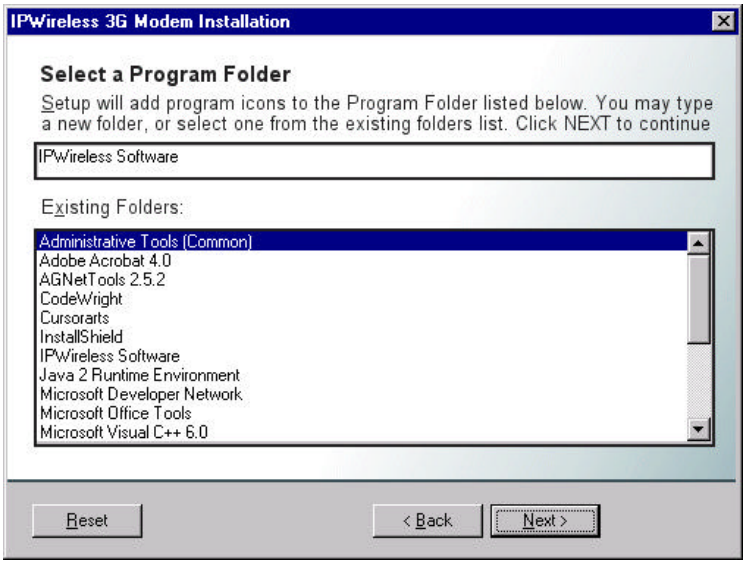
Unless you indicate a different drive, files are installed in the following location on your hard drive: C:\Program Files\IPWireless Inc.\IPWireless PC Software



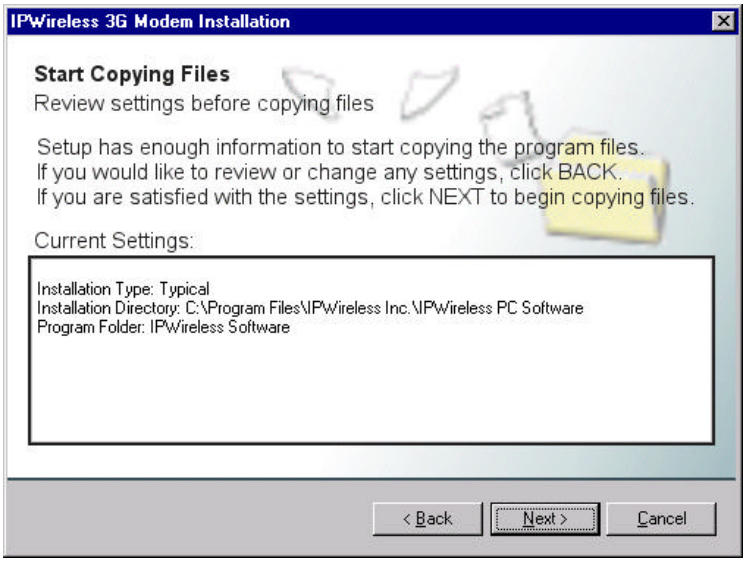
The files that will be installed are based upon the setup type that you select. The default setup type is Typical. This will install all the necessary software required for you to use the IPWireless 3G Modem.



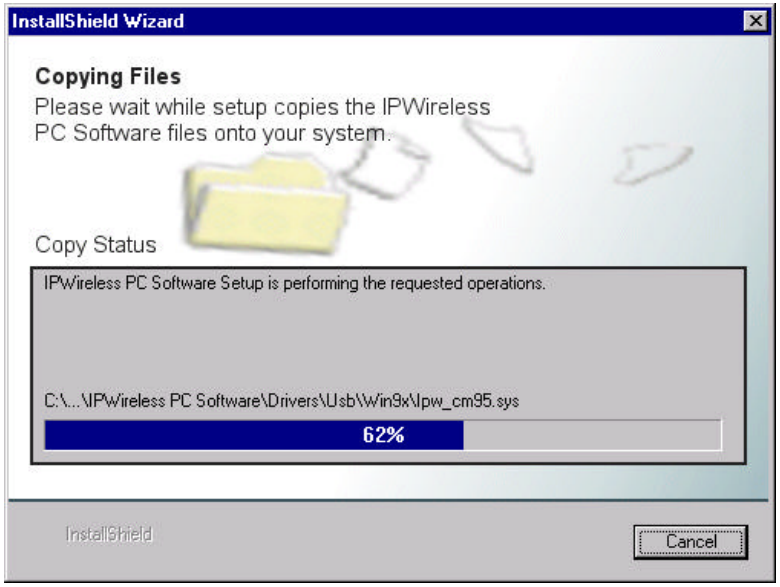
The IPWireless PC Software and other items you selected will install on your computer in the selected program folder. An icon also installs on your desktop for easy access to the Internet and IPWireless PC Software.



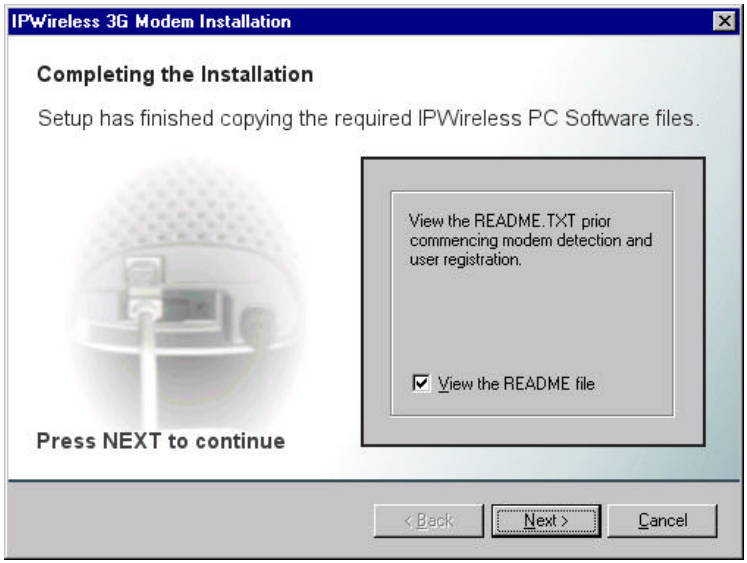
The options that have been selected during installation will be displayed before any files are copied from the installation CD. To confirm the information press Next.



All the options for installing have now been made and the InstallShield will copy the necessary files to your computer



The software has now been copied to your PC. The installation will now proceed with the modem detection, configuration and user registration.

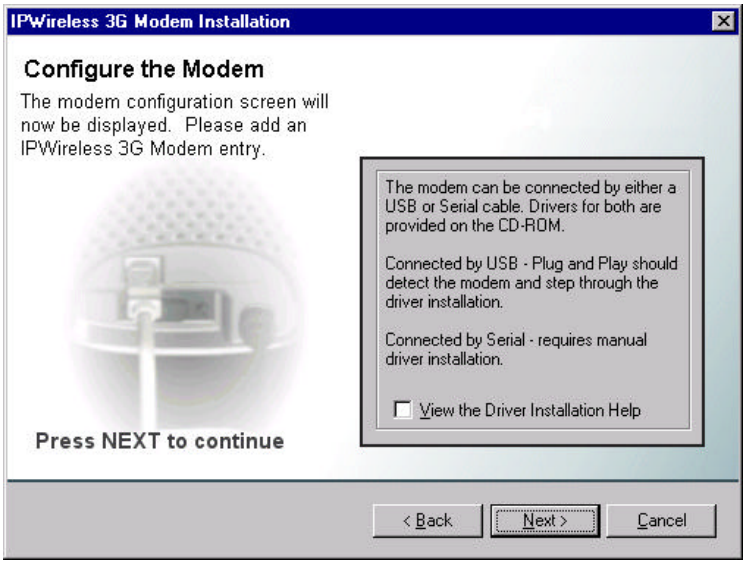


If the installation fails to detect an IPWireless 3G Modem installed, it will present the following screen and will ask for a modem entry to be created. Without the modem entry your PC will not be able to communicate with the IPWireless 3G Modem.

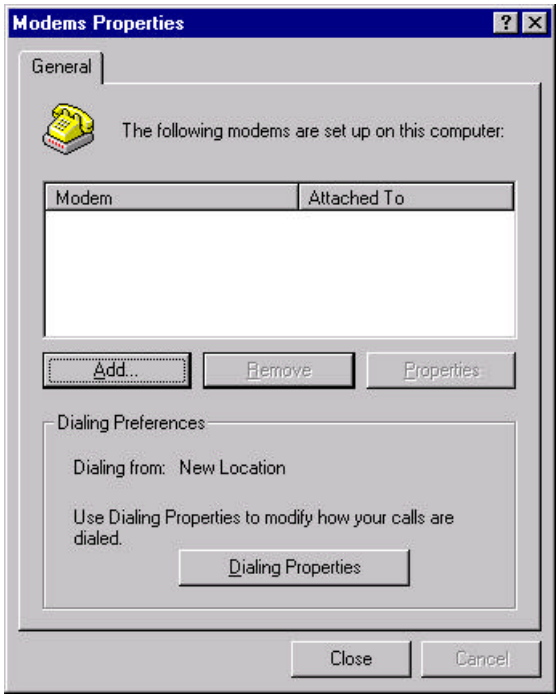
The method of creating the modem entry is dependant upon the type of cable you use to connect your PC to the IPWireless 3G Modem.

If connected via a USB Cable, then your PC operating system should detect that new hardware has been added and lead you through the new hardware installation. All necessary PC driver files are provided on the CD-ROM.

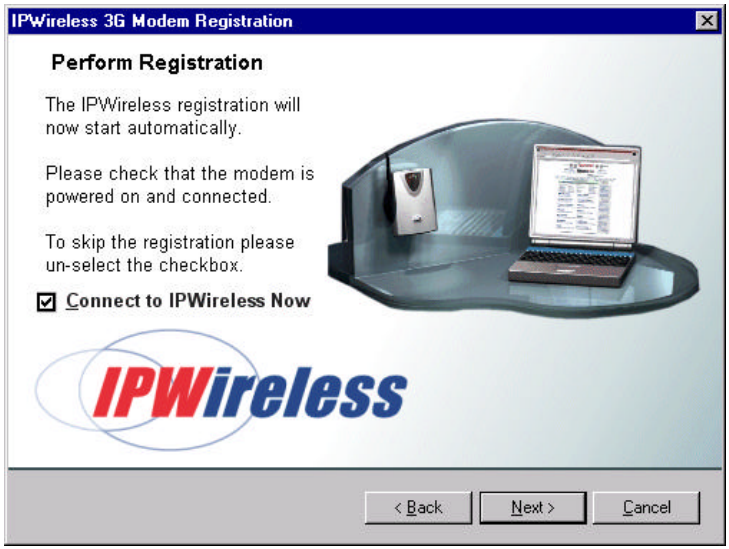
If connected via a Serial Cable, then you will need to create add a new modem entry (using the modem driver file on the CD-ROM) and associate it with the PC COM port that the serial cable is plugged in to.



The following screen to add the IPWireless 3G Modem will be displayed.



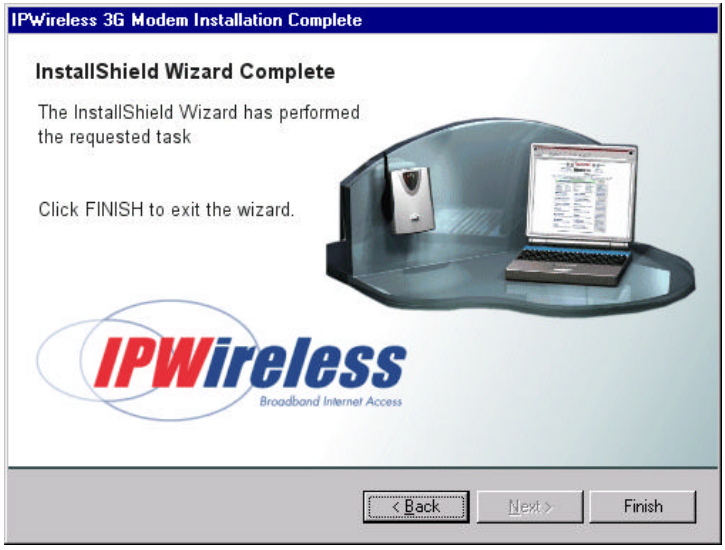
At the end of the CD installation, the InstallShield software will ask if you wish to connect to IPWireless, this will use the newly installed PC Software application which will start and the Network screen will be displayed which shows the default access user name and password settings used for the registration process on the IPWireless web site.



The application will automatically attempt to make a connection, your Internet browser will automatically start and display the New Customer Registration web page on the IPWireless Registration web site. The registration instructions in described in the following section.

If a connection cannot be made, the IPWireless PC Software will timeout and display a message indicating the connection attempt has failed. In this case, you will have the option of trying to connect again. If a message appears stating the installation was unsuccessful, exit the software by clicking the Windows close icon (x) in the upper right hand area of the screen. Finish the installation procedure and then re-start the software and then click Connect.

See Appendix A for additional information.



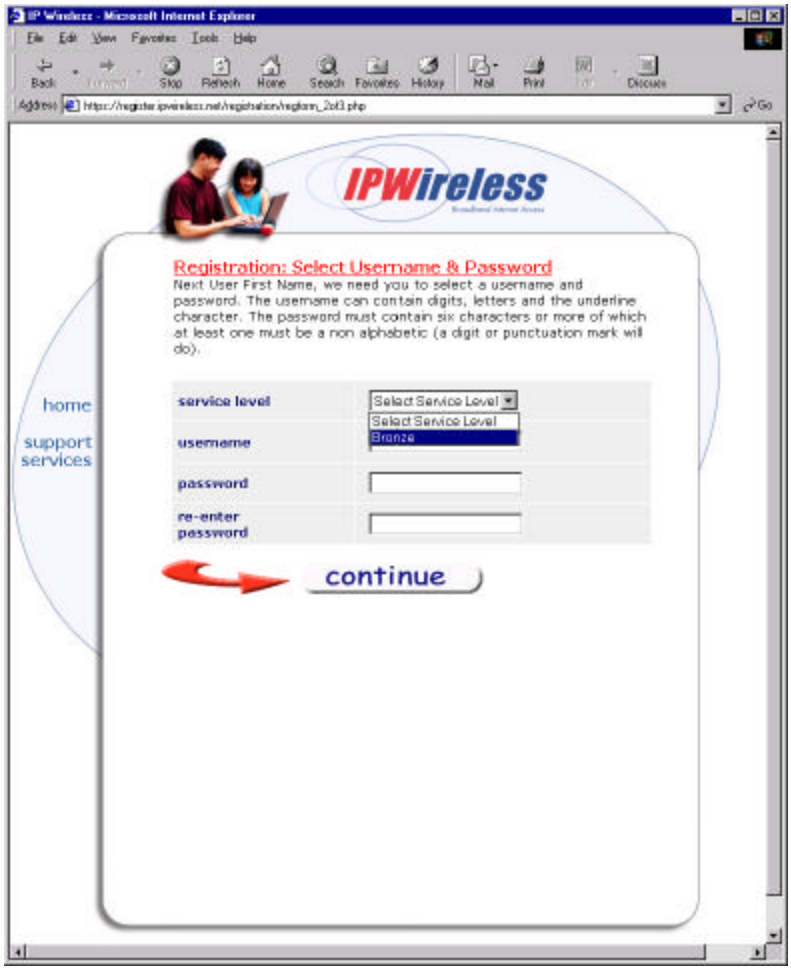
IPWireless Registration

To register with IPWireless you will need to create a new account. The IPWireless PC Software will detect that no account exist on the PC and will connect to the IPWireless Registration web page

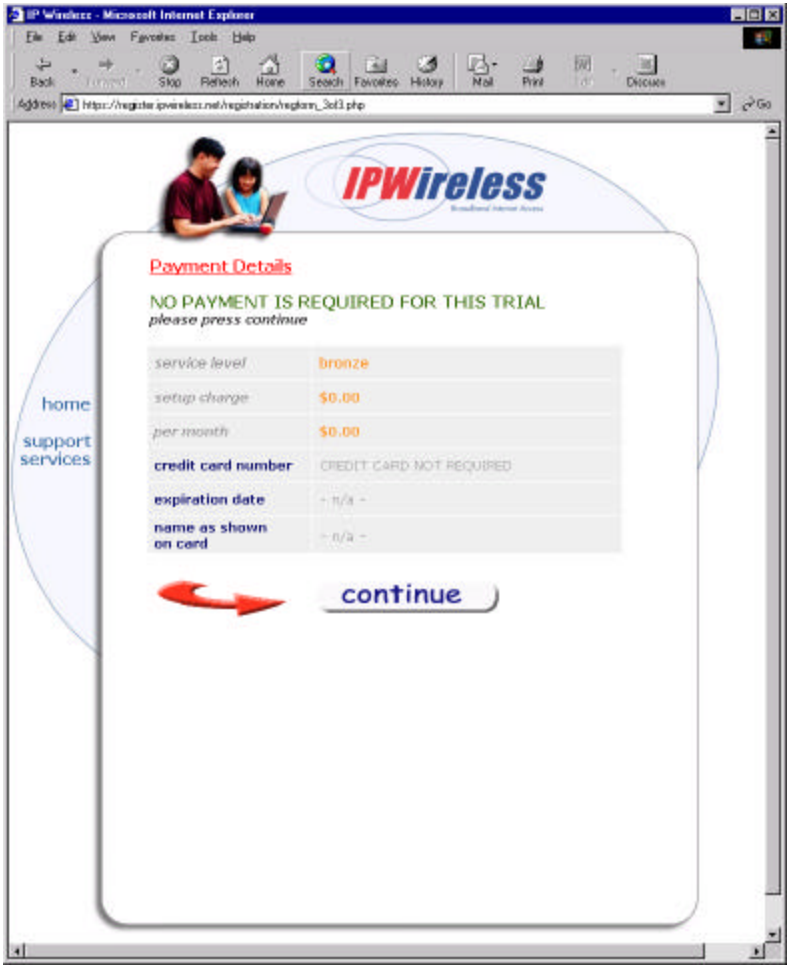
To create a new account, click **Register Now** and proceed to the contact detail registration page.

When you have finished entering your personal details, click **Continue** to display the Registration: Select Username & Password web page

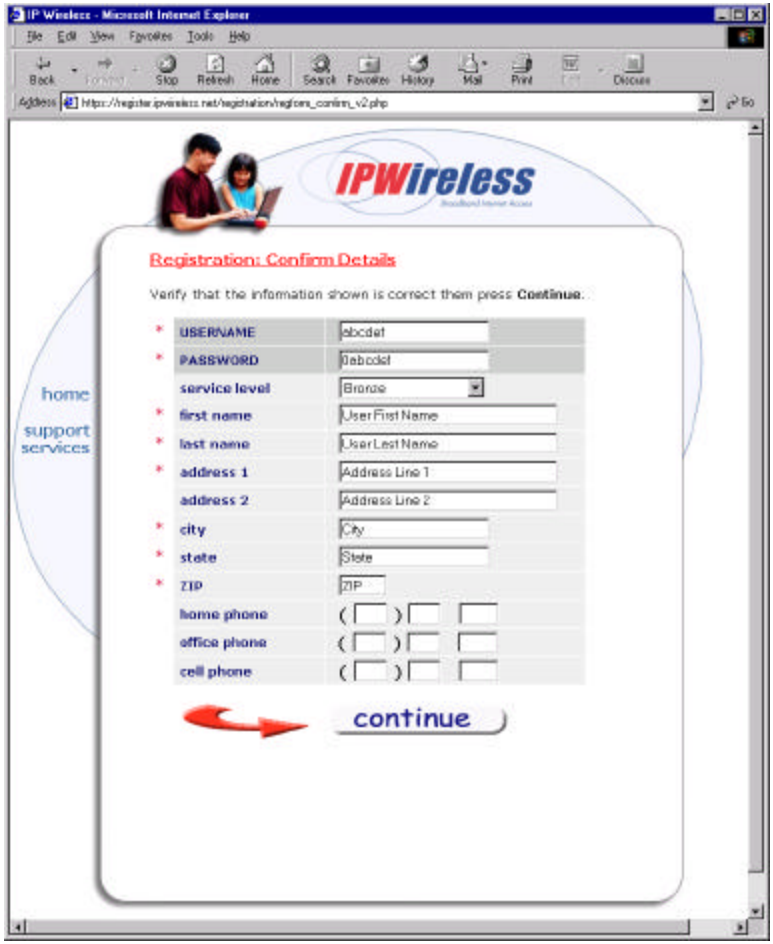
The required service level must also be selected. The trial only supports the bronze service.



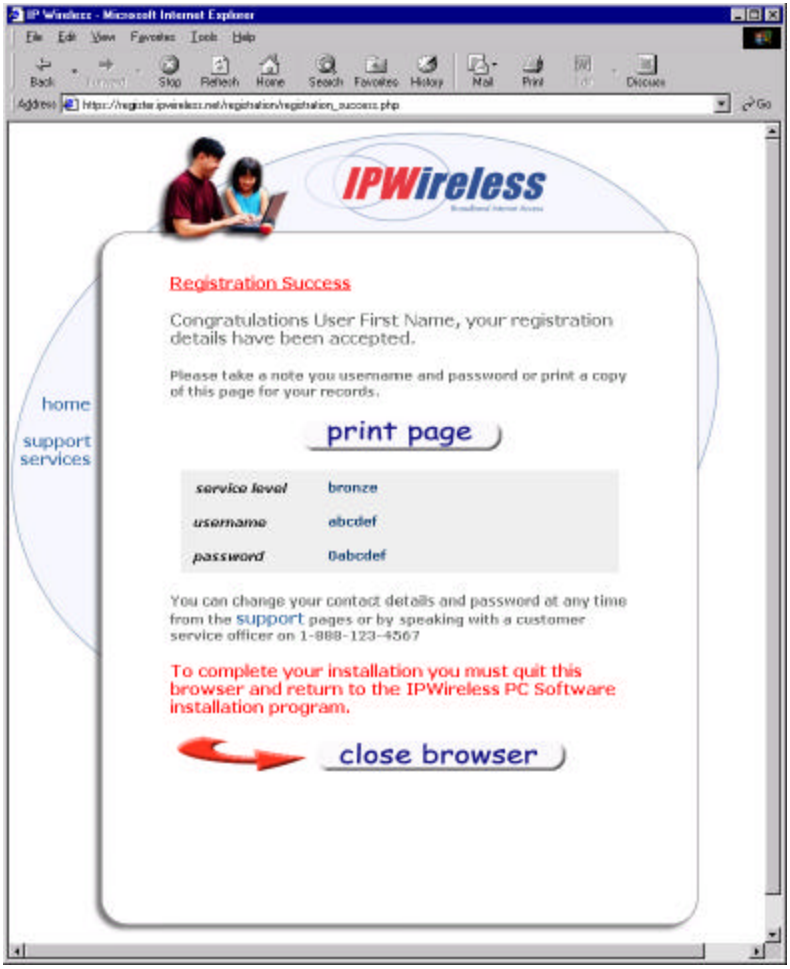
Select a service plan and then provide a user name and password for your new account. When you finish, click **Continue** to display the Payment Details web page. (Not Applicable during Beta Trial)



Trial users do not need to enter any information on the Payment Details page. Pressing **Continue** will take you to the Registration : Confirm Details web page.



Verify the information provided earlier is correct. When you finish, click **Continue** to display the Registration Success web page.



The registration process is now complete. Either print the web page showing your user name and password or record the information for later use.

Close your browser software and return to the CD installation. Click **Finish** to exit the installation program.

To Remove the Installed software

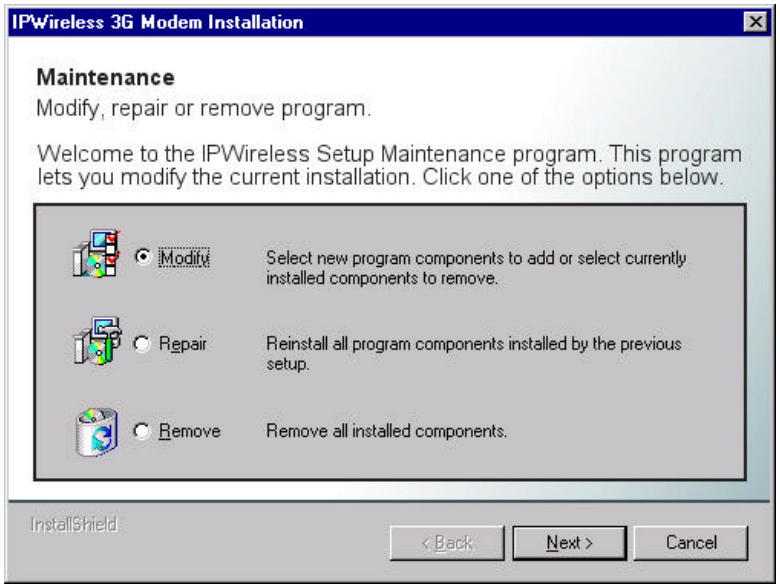
3. Insert the CD in the CD-ROM drive on your computer.

   The Windows operating system should automatically detect the CD and start the installation program. If the installation program does not automatically start, use Windows Explorer to view the contents of the CD and then double-click the “Setup.exe” program to begin the installation.

4. Follow the on-screen prompts to remove the CD.

   Select the Remove option and then press Next>.

   Note: The operation to remove the IPWireless PC Software will NOT result in your registered username and password being removed, thus allowing you to re-install the software at a later time and not have to re-register.



To Upgrade the Installed software

To perform an upgrade of the IPWireless PC Software, perform a removal of the Installed Software and then re-install the IPWireless PC Software.

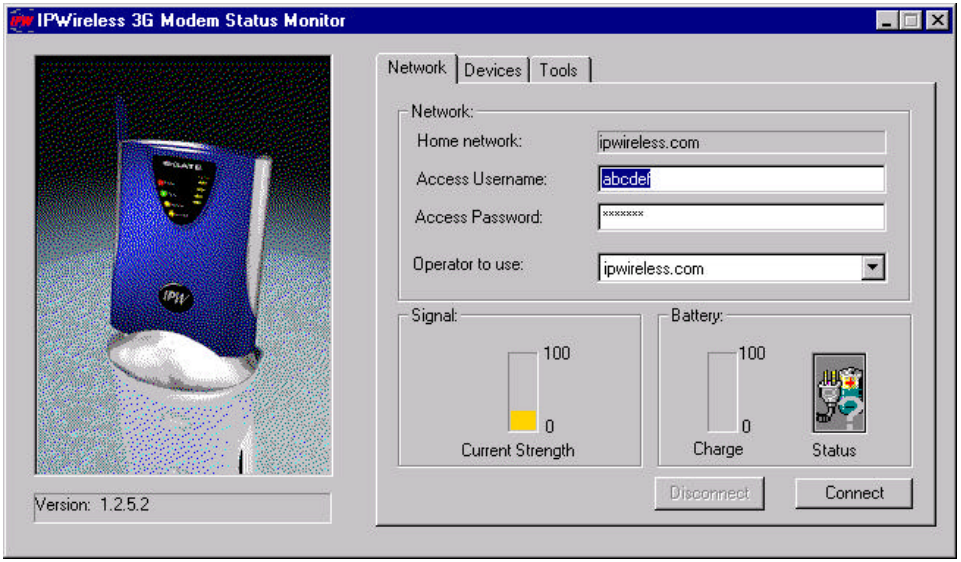
Chapter 3

Using the IPWireless PC Software

The IPWireless PC Software is used in conjunction with your modem to access and connect to the IPWireless network, the Internet. The connection process is somewhat similar to using a phone line modem. Beyond this similarity, your new modem is faster when handling data transmissions to and from the Internet.

The icon labeled “Connect to the Internet” on your desktop is used to start the IPWireless PC Software. Once the software is running you can connect to the Internet or download software upgrades for your modem and IPWireless PC Software from the IPWireless web site

The following screen appears after double-clicking the “Connect to the Internet” icon. The paragraphs following the screen example below explain how to use the software.



The software provides three tabs labeled Network, Devices, and Tools that display associated screens when clicked.

The Network screen shown in the previous figure includes three main group boxes labeled Network, Signal, and Tools and a button labeled Connect. The following paragraphs provide a description for each of these items.

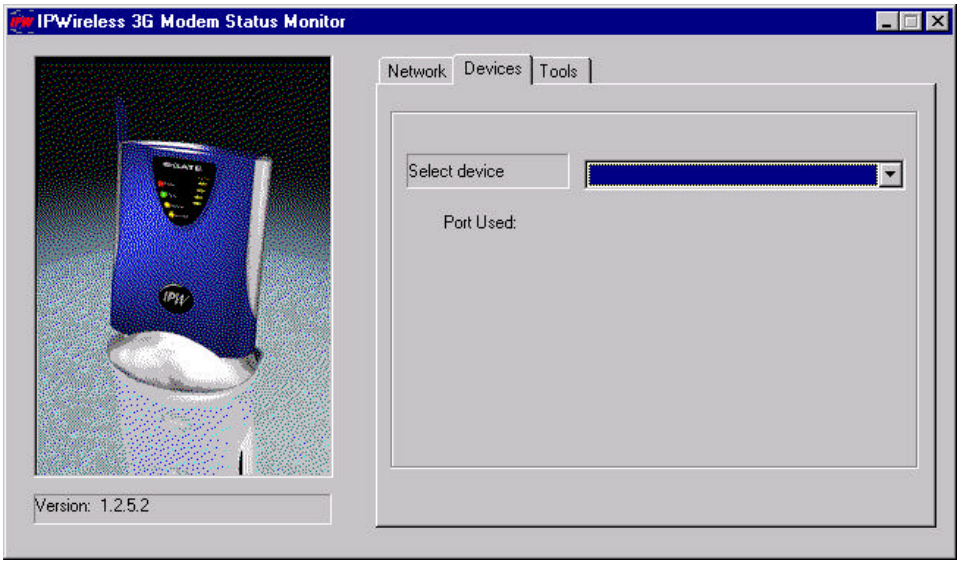
Network: The Network group box shows the information you provided during the registration process. The list box labeled “PLMN to use” provides a list of cellular base stations you can select if the modem loses communication with the Home Network. PLMN refers to public land mobile network and is a group of cellular base stations that the modem uses to access and communicate with the IPW Network and Internet. (Only IPW RQ during Trial Phase)

Signal: The Signal group box shows the level of the radio signal strength currently used by the modem. Zero indicates poor signal strength while one hundred indicates a strong signal.

Battery: This feature is not currently available.

Connect: Click this button to connect to the IPWireless network and Internet.

When the tab labeled Devices is clicked, a screen similar to the following appears.



Select device: If your computer is installed with either an external phone line modem or an onboard modem card, you can use the “Select device” list box to choose which modem you want to connect to the Internet with.

Clicking the tab labeled Tools displays the screen shown in the following example.

Check WWW for software upgrade: Click this button to go to the IPWireless web site and download software upgrades for the IPWireless PC Software.

Upgrade Modem: Click this button to go to the IPWireless web site and download software upgrade for your 3G Modem.

When you want to disconnect from the IPWireless Network or Internet, click the Windows close icon in the upper right corner of the IPWireless PC Software screens. This will close your online session and exit the software.

Appendix A

Tips and Troubleshooting

This chapter includes information on the care and cleaning of your modem and troubleshooting.

Care and Cleaning

- Do not block the modem's vents.
- Do not let liquid get on or into the modem.
- If the modem will not be used for a long period of time (a day or more), make sure to turn it off.

To clean the case of the modem:

- Remove power from your modem.
- Disconnect the modem's power plug from the back of the modem. (Pull the plug, not the cord.)
- Wipe the surfaces lightly with a clean, soft cloth slightly dampened with water.

Do not use aerosol sprays, solvents, or abrasives when cleaning your modem. These items may damage the finish of the case.

Troubleshooting

If you have a problem with your modem and nothing presented in this manual solves it, consult the Technical Support information earlier in this manual for instructions on how to contact IPWireless Technical Support. Do not attempt to repair the modem yourself. Any damage you may cause to the modem will not be covered by the limited warranty on your modem.

Please make sure that your PC operating system is compatible with the approved operating systems that are supported by IPWireless (refer to the release notes),

Solutions to common problems related to your modem are as follows:

- The 3G Modem power indicator lights do not come on.

  Plug the modem into another outlet to check the power. Check that the AC/DC power adapter is securely connected to the modem. If the modem indicator lights are still not working, your modem may have been damaged. Contact IPWireless Technical Support for assistance.

- Power indicator is on but signal strength indicators are not lit.

  The modem may not be within the coverage area of the IPWireless network. Try moving the modem to another area to receive the best signal strength.

- Power indicator and one or two signal strength indicators are lit.

  The modem may not be optimally positioned to receive the best signal strength. Try moving position and orientation of the modem to maximize the number of illuminated signal indicators.

- The modem disconnects unexpectedly.

  Try connecting to the Internet again. Also check for loose connections between the modem and computer or the modem and the AC/DC power adapter. If the connections seem secure, you may have had a bad connection. Please try again.

User Equipment (general)

- 3G Modem power indicator does not come on.

  Plug the 3G Modem into another outlet to check the power. Check that the DC power jack is securely connected into the 3G Modem. If the power indicator light on the 3G Modem is still not working contact IPWireless Technical Support for assistance.

- 3G Modem Power indicator is on but no signal strength indicators are illuminated

Following power up, allow about 30 seconds for the 3G Modem to communicate with a local base station, at which point there should be some indication of signal strength. If no signal strength is shown, and particularly if this is the first time you have tried to use the equipment and have never seen any signal strength indicators illuminated, then it is probable that the 3G Modem may not be within the coverage area of the IPWireless network. Try moving the 3G Modem nearer to a window and change its orientation to see if the signal strength is appears. The 3G Modem should be fully functional provided that at least one signal strength indicator is illuminated.

- 3G Modem Power indicator is on, adequate signal strength is shown, and the PCDialler status bar indicates that the 3G Modem is communicating, but PCDialler reports errors when connection to the network is attempted.

Connection to the IPWireless network involves a number of activities and checks that may result in the connection not being established successfully.

Firstly, check that the ISP username and password that you are using are the ones that were agreed with the ISP, including case sensitivity.

The IPWireless server does not allow a second connection to the network with the same IPWireless username and password at the same time. On rare occasions, the server will not receive the message that tells it that the previous session has terminated, and there is a timeout of a few minutes before the server will accept a subsequent connection. If you recently had a successful connection, then try waiting for a few minutes before retrying.

User Equipment (Connected via USB interface)

- 3G Modem Power indicator is on, adequate signal strength is shown, but PCDialler status bar reports “Modem not responding”

Make sure the PCDialler software is not running on the PC.

Ensure that the 3G Modem is connected to the PC via the USB cable provided, and confirm that the cable is not damaged in any way.

Check that the USB interface to the 3G Modem is functional by performing the following steps, otherwise contact IPWireless Technical Support for assistance.

Click the PC Start Button and choose “Settings/Control Panel”.

Double click the “System” icon and select the “Device Manager” option.

Double-click the USB Root Hub entry in the list and then click on the “Power” tab.

A list of the USB devices connected to the PC should now be displayed, together with the current consumption of the device.

Confirm that there is an entry for the IPWireless 3G Modem, and that the current consumption is in the range of 50mA to 500mA.

If no entry exists for the IPWireless 3G Modem , there is a fault with the USB cable or the 3G Modem itself.

Check that the modem is correct setup to use the USB COM port

1. Click the PC Start Button and choose “Settings/Control Panel”.
2. Double click the "Modem" icon from the Control Panel on the PC.
3. Confirm that an entry exists in the list of modems, called “IPWireless 3G Modem”
4. Verify that the “IPWireless 3G Modem” is attached to the COM port associated with your USB cable.
5. Under Windows 98, you will need to click on the “Properties” for the IPWireless Modem in order to view the COM port settings.

Start the PCDialler application (either via the shortcut on the desktop, or via the start button (Start/Programs/IPWireless Software/Connect to the Internet)

Remove and restore power to the 3G Modem. Check the status bar, at the bottom of the PCDialler main screen. Allow 30 seconds, and you should see a status line of the form “Modem version: +CGMR Vx.x.x”.

If the status bar instead still reports “Modem not responding”, terminate the PCDialler application, remove the USB cable and then delete the modem entry from the list of modems. If possible, remove any other unrelated modem entries in the list. Plug the USB cable back in, and the PC Plug & Play functionality should then operate to allow you to recreate the modem entry. Again, power cycle the 3G Modem and restart the PCDialler application.

If the 3G Modem still refuses to communicate with the PCDialler, then contact IPWireless Technical Support for assistance.

User Equipment (Connected via Serial Interface)

- 3G Modem Power indicator is on, adequate signal strength is shown, but PCDialler status bar reports “Modem not responding”

Make sure the PCDialler software is not running on the PC.

Ensure that the 3G Modem is connected to the PC COM port via the serial cable provided, and confirm that the cable is not damaged in any way.

Check that you do not have any other applications running on the PC that may have already attached to the COM port to which the 3G Modem is connected.

Check that you have a valid modem driver.

1. Click the PC Start Button and choose “Settings/Control Panel”.
2. Double click the "Modem" icon from the Control Panel on the PC.
3. Confirm that an entry exists in the list of modems, called “IPWireless 3G Modem”
4. Verify that the “IPWireless 3G Modem” is attached to the COM port associated with your serial cable.
5. Under Windows 98, you will need to click on the “Properties” for the IPWireless Modem in order to view the COM port settings.

Start the PCDialler application (either via the shortcut on the desktop, or via the start button (Start/Programs/IPWireless Software/Connect to the Internet))

Remove and restore power to the 3G Modem

Check the status bar, at the bottom of the PCDialler main screen. Allow 30 seconds, and you should see a status line of the form “Modem version: +CGMR Vx.x.x”.

If the status bar instead still reports “Modem not responding”, terminate the PCDialler application, remove the PC serial cable and then delete the modem entry from the list of modems. If possible, remove any other unrelated modem entries in the list. Plug the serial cable back in, and then manually install the IPWireless modem file (.inf file). This file is present on the installation disk and also usually to be found in the <drive>:\Program Files\IPWireless Inc\IPWireless PC Software directory. To install the modem, click on the “Add…” button on the Modem Control Panel screen and follow the instructions to browse for the file. Again, power cycle the 3G Modem and restart the PCDialler application.

If the 3G Modem still refuses to communicate, try rebooting the PC and then restart the PCDialler application. The reboot is suggested because occasionally, the COM port that the PCDialler and the 3G Modem are using can become “locked up” and cannot be freed until the PC is rebooted.

If the status bar still reports “Modem not responding”, then contact IPWireless Technical Support for assistance.

Other Issues

- Unable to connect to the IPWireless Network

The 3G Modem may not be able to successfully establish or maintain contact with the IPWireless server for a number of reasons

- The 3G Modem may be out of range of the nearest base station – try the measures described above to improve the signal strength

- If you see the error message, “IPW Access denied because access username and/or password is invalid”, then the network no longer recognises the IPWireless access identifiers that you gave yourself when you registered. Contact IPWireless Technical Support for assistance.

- If you see the error message, “ISP Access denied because access username and/or password is invalid”, then you are attempting to gain access to your ISP provider with an invalid ID. These parameters are held as a “phonebook entry”. In order to view and modify these parameters, start up your browser and click on “Tools/Internet Options/Connections” (for Internet Explorer) to view the phonebook entries, and highlight the ‘ipwireless’ entry. Click on the Settings button to view the ISP username and password and modify if necessary. Also click on the “Properties” button and examine the phone number. This must be set to *99#. If the phone number is set differently, you may see the error message, “Disconnection or failed connection. The port was disconnected by the remote computer”. If you continue to have problems accessing the network, please contact IPWireless Technical Support.

- If you see the error message, “No answer” when a connection to the network is attempted, this may be because the network thinks the user already has an active connection. If this is not the case, it may also occur if the network failed to see the termination message from the previous session (and so thinks the previous session is still active). In this situation, the network should detect that the session is no longer active within a couple of hours, so try

Registration fails because the PC does not accept “Cookies”

When you register with IPWireless, you provide an IPWireless username and password that the IPWireless network uses to identity you when you subsequently connect. For your convenience, these attributes are stored within the PC so that you do not need to enter them manually. This is achieved by the registration server sending your PC a small file, called a cookie, which contains the information. In order for the registration process to complete successfully, you must configure your browser application (Internet Explorer or Netscape) to accept cookies. Once registration has completed, you may disable receipt of cookies again, if desired.

Within Internet Explorer, select Tools / Internet Options / Security from the main menu and then select the Custom Level button for the “Internet zone”. Scroll down the list of options and click on the button to “enable cookies that are stored on your computer”. For Internet explorer, this is in fact the default setting.

Netscape Navigator has similar settings for the control of cookies. Refer to the Help system on the browser for details.

- Check WWW for Software Upgrade" fails to download the upgrade file

The IPWireless system allows the 3G Modem and the PCDialler to have its application software upgraded with the minimum of user interaction. The purpose of the upgrade is typically to supply additional functionality and to provide bug fixes. Subscribers would normally be notified of the existence of an upgrade by checking the IPWireless web site (see the release notes for the actual web site address). One change that could be made to the 3G Modem would be to indicate to the user directly, perhaps by means of a flashing LED, that a new upgrade was available. This change would, of course, be provided in a software upgrade!

If the download of the software upgrade aborts before the progress indicator has even appeared, this may be because a more recent load is not available on the IPWireless server. Alternatively, it may be that the IPWireless server is temporarily unavailable. Try checking for the download in a day or two.

If the download aborts before the progress indicator reaches completion, then it is likely that the wireless link to the base station has been lost. Try using the web browser to check if a connection to the IPWireless server still exists. If it does, then repeat the WWW software upgrade procedure again. If not, close down the PCDialler application, and restart it, then reconnect to the IPWireless server and try the download again.

- Unable to save downloaded upgrade file to disk

The file that is downloaded from the IPWireless server when the “check WWW for Software Upgrade” button is pressed, is a compressed, self-extracting WinZip™ file. This .exe file is written to the “Upgrade” directory under the IPWireless PC Software directory. If, for any reason, you do not have write access to the Upgrade directory, then the PCDialler application will be unable to save the file. Use Windows Explorer to highlight the <drive>:\Program Files\IPWireless Inc\IPWireless PC Software\Upgrade directory (this may be different if you specified an alternate location during installation), then right click on the directory icon to examine the properties. Make sure that the read-only attribute is not highlighted.

Check that you have sufficient disk space available to store the downloaded file and the files that are automatically unzipped from this downloaded file. You should typically allow 10Mbyte.

- “Upgrade Modem” fails to complete successfully

Once the new software upgrade has been received over the air from the IPWireless server and stored on the hard disk of the PC, it must now be transferred to the 3G Modem. This is achieved by clicking on the “Upgrade Modem” button. Note that the 3G Modem is unable to receive a new software load from the PC whilst an active connection to the IPWireless still exists, so if an active session is in progress, go to the main screen and click on the Disconnect button before performing the upgrade

When the download to the 3G Modem commences, there is an initial pause of about half a minute whilst the non-volatile memory inside the 3G Modem is erased, ready for the new load. During this time, the 3G Modem Tx LED may be illuminated. This behaviour is normal.

The download can take a considerable time to complete (up to 45 minutes if the serial cable is used, and about half an hour for the USB cable). The software image is downloaded to the 3G Modem as a sequence of software "records", and each record must be saved in the 3G Modem non-volatile memory before the next record is transferred. If the procedure aborts before the transfer to the 3G Modem is complete, this may be due to a temporary source of electrical interference that may have disrupted the 3G Modem. Remove and restore power to the 3G Modem and repeat the Upgrade 3G Modem procedure. If the transfer fails again, take a note of the 3G Modem version number (reported on the status bar of the PC Dialler) and then contact IPWireless technical support.

Appendix B

Technical Specifications

Physical	
Height (antenna down)	150 mm (5.91 inches)
Width	130 mm (5.122 inches)
Depth	30 mm (1.182 inches)
Weight	250 grams (8.825 ounces)

Indicators	
Signal (4)	amber
Power	red
Online	green
Transmit	amber
Receive	amber

Power	
AC/DC Power Adapter:	
Current	3.60A
AC input voltage	100V-240V
DC output voltage	6.0V
Cable	2m length (6.56 ft.)

Environmental

Temperature:

Normal ..... +15°C to +35°C (59°F to 95°F)

Extreme (short periods) ..... -10°C to +55°C (14°F to 131°F)

Storage ..... -20°C to +65°C (-4°F to 149°F)

Relative humidity:

Operating ..... 25% to 75%

Extreme ..... 25% to 75%

Maximum vibration:

Operating ..... 5 Hz to 20Hz: 0.96 m2/s3 at 5 to 20 Hz

Extreme ..... 20 Hz to 500 Hz: 0.96 m2/s3 at 20 Hz, ... thereafter –3dB/Octave

Integral Antenna

Frequency of operation ..... 2.5 to 2.686 GHz

Impedance: ..... 50 ohms nominal

Omni-directional gain: ..... 2 dBi

Polarization: ..... vertical or horizontal

Input return loss: ..... -10dB nominal across band

Maximum power: ..... 22 dBm

VSWR: 1.7

Size:

Length: ..... 65 mm (2.56 inches)

Width: ..... 20 mm (.81 inches)

Depth: ..... 5 mm (.198 inches)

http://www.ipwireless.com/
San Bruno CA
All Materials, Modems, Parts, Information, Surveys, Property of Company
Part No. IPW-0029 March, 2001