



Navini  
NETWORKS®

# Ripwave Wireless Broadband Access (PC) Card User's Guide

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Part Number 40-00292-00  
Revision A, Version 1.0, PV1.2  
May 25, 2005

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# TABLE OF CONTENTS

|   |           |
|---|-----------|
| <i>PERMISSIONS, TRADEMARKS &amp; DISTRIBUTION</i> .....       | 3         |
| <i>SAFETY</i> .....   | 4         |
| <i>REGULATORY INFORMATION</i> .....                           | 5         |
| <br>  |           |
| <b>INTRODUCTION</b> .....                                     | <b>6</b>  |
| <b>PACKAGE INVENTORY</b> .....                                | <b>6</b>  |
| <b>RIPWAVE MODELS</b> .....                                   | <b>6</b>  |
| <b>MINIMUM COMPUTING REQUIREMENTS</b> .....                   | <b>7</b>  |
| <b>PHYSICAL CHARACTERISTICS</b> .....                         | <b>7</b>  |
| <b>INSTALLING THE PC CARD ON WINDOWS 2000</b> .....           | <b>8</b>  |
| <b>ACCESSING THE INTERNET</b> .....                           | <b>11</b> |
| <b>DISCONNECTING THE PC CARD</b> .....                        | <b>11</b> |
| <b>INDICATOR LIGHT</b> .....                                  | <b>13</b> |
| <b>TROUBLESHOOTING</b> .....                                  | <b>13</b> |
| <b>INSTALLING NAVINI DIAGNOSTICS (NAVDIAG) SOFTWARE</b> ..... | <b>13</b> |
| <b>USING NAVINI DIAGNOSTICS</b> .....                         | <b>18</b> |
| <b>UNINSTALLING NAVINI DIAGNOSTICS SOFTWARE</b> .....         | <b>23</b> |
| <b>UPGRADING THE PC CARD</b> .....                            | <b>26</b> |
| <b>ADDENDUM 1: PC CARD - PC TROUBLESHOOTING</b> .....         | <b>27</b> |
| <b>ADDENDUM 2: END USER SOFTWARE LICENSE AGREEMENT</b> .....  | <b>31</b> |

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## Safety

When using a Ripwave Wireless Broadband Access Card, always follow basic safety precautions to reduce the risk of electrical shock, fire, and injury to people and/or property. Follow all warnings and instructions that come with the equipment.

1. Do not use the equipment while you are in a bathtub, shower, pool, or spa. Exposure of the equipment to water could cause severe electrical shock or serious damage to the equipment.
2. Do not immerse the equipment in any type of liquid. Use a damp, lint-free cloth and if needed, an electrical contact cleaner that is non-conductible to clean the Modem card. Unplug the Modem card from the PC before cleaning. Do not use chemicals or abrasive to clean the Modem card. Also, use caution around the connection pins.
3. Follow all airport and FAA regulations when using the equipment on or near aircraft.
4. Do not use the Ripwave Wireless Broadband Access Card near medical equipment, life support equipment, or any equipment that may be susceptible to any form of radio interference. In such areas, the Card must be powered off.
5. The driver or operator of any vehicle should not operate the Ripwave Wireless Broadband Access Card while in control of a vehicle. Doing so will detract from the driver or operator's control and operation of the vehicle.
6. Do not disassemble the equipment. Removing covers may expose dangerous voltages or other risks and also voids the warranty. Incorrect reassembly can cause equipment damage or electrical shock. Only an authorized repair technician should service this product.
7. Do not expose the equipment to extreme hot or cold temperatures.
8. Do not use the equipment under the following conditions:
  - When the equipment has been exposed to water or moisture.
  - When the equipment has been damaged.
  - When the equipment does not operate properly or shows a distinct change in performance.

## Regulatory Information

This Ripwave Wireless Broadband Access Card has been tested with a typical laptop computer with a side loading PCMCIA bay. This PC Card must not be co-located or operated in conjunction with any antenna (other than the one furnished by Navini and included in the package) or transmitter. Use of this device in any other configuration may exceed the FCC, ETSI, or other regulatory bodies RF Exposure compliance limit.

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 or 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:

- 1) Reorient or relocate the receiving antenna,
- 2) Increase the separation between the equipment and the receiver,
- 3) Consult the dealer or an experienced radio technician for additional suggestions.

FCC guidelines stipulate that the antenna should be more than 2.5 cm (1") from bystanders and 1.0 cm (0.39") from the user. When in use, the antenna should be pointed vertically upward. When using the Remote Desktop Antenna with the PC Card, a minimum distance of 20 centimeters (8 inches) is required from the user or bystander.

SAR, or Specific Absorption Rate, is the measurement for the rate at which electromagnetic energy is absorbed by the human body during exposure. The FCC states the body SAR limit be: 1.6 W/kg. The highest reported SAR value for the PC card is 1.01 W/kg.

## Introduction

Congratulations! The Ripwave Wireless Broadband Access Card, or PC Card for short, is a user-friendly, easy-to-install device that helps you connect wirelessly to the Internet using the Network Interface Card (NIC) port on a laptop computer. It provides complete broadband Internet access to residential and small office/home office (SOHO) users without the necessity of professional hardware installation.

The PC Card allows you to have portable Internet or other wireless access service. A computer with this device can be moved from room to room, location to location, or even city to city as long as there is coverage and appropriate reception in the area.

## Package Inventory

Please verify the contents of your PC Card package. If you do not find all of these items in your package, notify the supplier from whom you obtained the package.

- The Ripwave Wireless Broadband Access Card
- External antenna
- Installation CD containing:
  - PC driver software
  - Navini Diagnostics application
  - User's Guide
- Printed copy of the Quick Installation Guide

## Ripwave Models

Your PC Card operates in one of the following frequency ranges: 2.5-2.6, 3.4, or 3.5 GHz. The frequency number appears on the Card's label.

### Operating Frequencies:

| Model       | Frequency Range       | Operating Band |
|-------------|-----------------------|----------------|
| 2.5-2.6 GHz | 2.500 GHz - 2.686 GHz | MMDS/ITFS      |
| 3.4 GHz     | 3.410 GHz - 3.525 GHz | WLL            |
| 3.5 GHz     | 3.475 GHz - 3.600 GHz | WLL            |

## Minimum Computing Requirements

(See, also, Addendum 1)

|                                      |   |
|--------------------------------------|---|
| <b>Operating System<sup>1</sup>:</b> | Windows 98SE, Windows 2000, Windows ME, or Windows XP. It is assumed the latest Windows service pack is installed on the Operating System.<br><br><b>Note:</b> The PC Card is not supported on MacIntosh systems or Linux/Unix systems. |
| <b>CPU:</b>                          | Pentium level or higher   |
| <b>RAM:</b>                          | 32 MB or the Operating System minimum, whichever is greater   |
| <b>Hard Drive:</b>                   | 50 MB free disk space for the optional Navini Diagnostics software  |
| <b>Monitor:</b>                      | 256 colors, 800 x 600 resolution  |

NOTE<sup>1</sup>: If you are going to upgrade your Operating System after loading the Navini Diagnostics software, you must first uninstall Navini Diagnostics prior to upgrading the OS. Otherwise, the Wireless Modem Card will continue to operate, but the Navini Diagnostics will not work. See [Uninstall](#) instructions in this Guide.

This manual will guide you through the simple process of installing the PC Card and driver software, which have been developed to optimize the ease and convenience for you, our valued customer.

If you experience any difficulties with your card, refer to the Troubleshooting sections of this guide. If further assistance is needed, please contact your Service Provider or the vendor from whom you obtained your PC Card.

## Physical Characteristics

The PC Card fits into a standard Type II PC network interface card (NIC) slot. A 68-pin connector resides on the end of the card that is inserted into the slot.

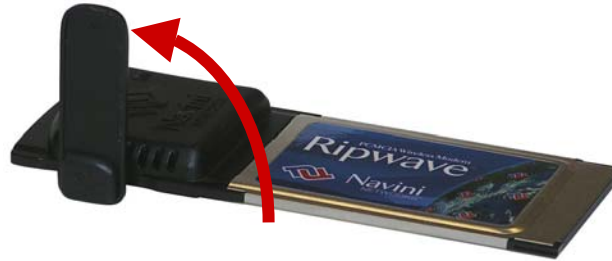
### PC Card



Physical Characteristics, continued

Depending on which model you have, one or two internal inverted-F antennas reside inside the card. The 2.5-2.6 GHz model has one internal inverted F antenna while the 3.4 and 3.5 GHz models have two internal inverted F antennas. There is also an external antenna.

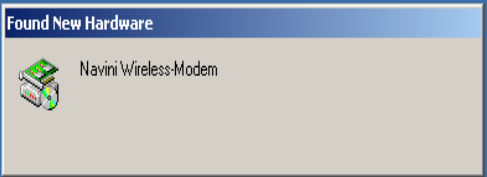
Following is a picture of the external antenna in the upright position. To raise the antenna to its upright position, raise the antenna counterclockwise. Do not turn the antenna beyond its upright position.



## Installing the PC Card on Windows 2000




The following instructions explain how to install a PC Card and its driver software. Please read all instructions before attempting the installation.

**Note:** The screenshots shown in these instructions were taken from a laptop operating with Windows 2000. If you have a Windows 98, XP, or ME operating system, the screens you see may vary from the screens shown in the instructions.

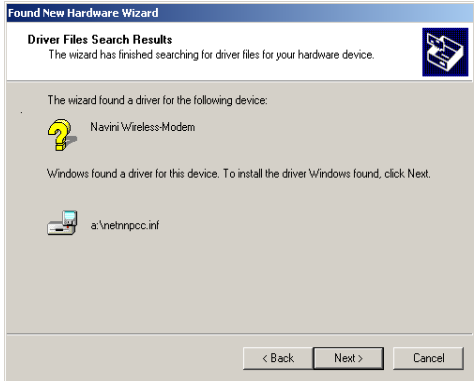

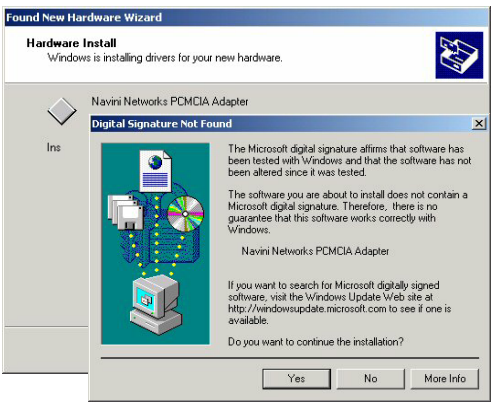
| Step | Action   | Illustration   |
|------|--|--|
| 1.   | Insert the card into the Type II card slot on your computer. Be sure to insert the end that has the 68-pin connector into the card slot. |  |
| 2.   | Raise the antenna to the upright position.   |  |
| 3.   | The Found New Hardware box appears indicating the PC sees the PC Card.   | <p style="text-align: center;">Windows 2000 Screen</p>  |



Installing the PC Card, continued


| <b>Step</b> | <b>Action</b>  | <b>Illustration</b>   |
|-------------|--|---|
| 4.          | The Welcome to the Found New Hardware Wizard dialog box appears. Click <b>Next</b> to continue.  | <p style="text-align: center;"><b>Windows 2000 Screen</b></p>    |
| 5.          | The Install Hardware Device Drivers box appears. Select 'Search for a suitable driver for my device (recommended)'. Click <b>Next</b> to continue. | <p style="text-align: center;"><b>Windows 2000 Screen</b></p>   |
| 6.          | The Locate Driver Files box appears. Select 'CD ROM.' Insert the Installation CD into the computer's CD-ROM drive. Click <b>Next</b> to continue.  | <p style="text-align: center;"><b>Windows 2000 Screen</b></p>  |

Installing the PC Card, continued

| Step | Action  | Illustration  |
|------|---|---|
| 7.   | <p>The Driver Files Search Results box appears. Click <b>Next</b> to install the driver.</p>  | <p style="text-align: center;"><b>Windows 2000 Screen</b></p>  <p>The wizard has finished searching for driver files for your hardware device.</p> <p>The wizard found a driver for the following device:</p> <p>Navini Wireless-Modem</p> <p>Windows found a driver for this device. To install the driver Windows found, click Next.</p> <p>a:\netnppcc.inf</p> <p>&lt; Back   Next &gt;   Cancel</p>  |
| 8.   | <p>The Hardware Install box appears, along with a Digital Signature Not Found box. Click <b>Yes</b> on the Digital Signature Not Found box, and then click <b>Yes</b> on the Hardware Install box. If the sound is turned up on your computer, two beeps are heard.</p> <p> <b>Note:</b> Windows 98, XP, or ME systems may show a screen stating the PCMCIA Adapter* has not passed Windows Logo testing and asking if you want to continue installation. Select the option that continues the installation.</p> | <p style="text-align: center;"><b>Windows 2000 Screen</b></p>  <p>Windows is installing drivers for your new hardware.</p> <p>Navini Networks PCMCIA Adapter</p> <p><b>Digital Signature Not Found</b></p> <p>The Microsoft digital signature affirms that software has been tested with Windows and that the software has not been altered since it was tested.</p> <p>The software you are about to install does not contain a Microsoft digital signature. Therefore, there is no guarantee that this software works correctly with Windows.</p> <p>Navini Networks PCMCIA Adapter</p> <p>If you want to search for Microsoft digitally signed software, visit the Windows Update Web site at <a href="http://windowsupdate.microsoft.com">http://windowsupdate.microsoft.com</a> to see if one is available.</p> <p>Do you want to continue the installation?</p> <p>Yes   No   More Info</p> |

\*PCMCIA is a generic name for any NIC type device.

Installing the PC Card, continued

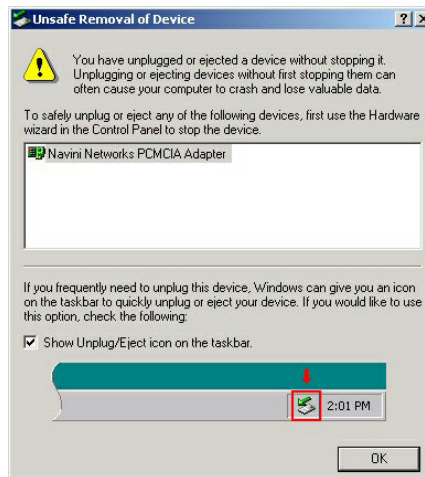
| Step | Action  | Illustration (using LED Modem)  |
|------|---|---|
| 9.   | After the files are copied, a Completing the Found New Hardware Wizard box appears indicating the driver installation is complete. Click <b>Finish</b> to close the Wizard. |  |

## Accessing the Internet

Assuming you have service from a Service Provider, you should be able to surf the Internet once your PC Card is installed, and the computer is powered on! To access the Internet, open the web browser that is installed on your computer, i.e., Netscape, Internet Explorer, etc.

## Disconnecting the PC Card

Before you pull the PC Card out of the computer card slot, you must first stop the driver software. If you do not stop the driver software first, the following box will appear:



To safely disconnect the PC Card, click on the Card icon indicated in the following illustration. This icon is located in the lower right-hand corner of the computer.



Disconnecting the PC Card, continued

Once you click on the icon indicated, a list with one or more elements will appear. This list is dependent on the devices currently installed on the PC. For example:



Select **Stop Navini Networks PCMCIA Adapter**.



Next, the Stop a Hardware Device dialog box appears. Click **OK**.



You can now unplug the Card. The computer will beep indicating the Card was unplugged. If the sound on your computer is turned on you will hear one beep.

**Note:** Remove the PC Card from the PC before storing the PC in a computer case. Also, turn the antenna to its original down position. Leaving the card in the PC or the antenna in the upright position while storing the PC in a computer case may damage the card or the antenna.

## Indicator Light

An indicator light on the top of the PC Card's black encasement provides information about the Card's operation. When the light is solid, the Card is trying to synchronize with a BTS. When the light blinks, the Card has acquired synchronization with a Base Station.

Indicator Light



## Troubleshooting

If you experience difficulties with your Internet connection after you have installed the PC Card driver software, please review the Minimum Computing Requirements and Addendum 1 in this User Guide to ensure your computer meets those requirements. Next, go back over the installation procedures and ensure all steps were completed properly.

## Installing Navini Diagnostics (NavDiag) Software

Assuming the computer requirements are met and the installation steps were completed as required, you may need to install the Navini Diagnostics software. The Navini Diagnostics software assists in solving connection problems. This software is provided on the Installation CD that came in your PC Card package.

The Navini Diagnostics software enables you to troubleshoot signal issues, network connections, and power problems. Two important types of information it provides are signal strength and quality of the incoming signal. It can also provide information about the connectivity to the Service Provider's network.

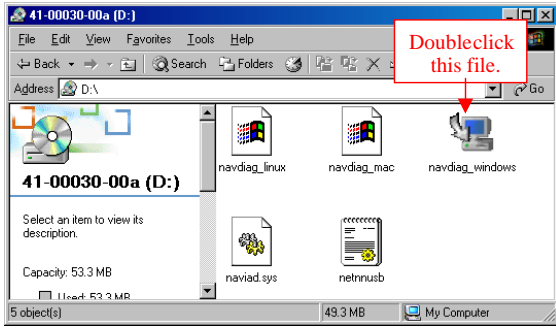
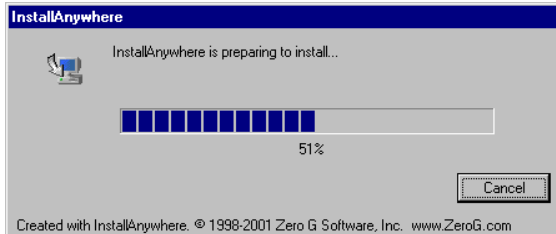
**Before you install your NavDiag software, please note:**

For Windows 2000 you must be logged into an account having Administrative privileges in order to install the Navini Diagnostics software. For Windows 98SE Operating Systems (OS), the Windows OS CD may be required to complete the installation. If prompted, insert the OS CD into the drive and accept the defaults.

Installing Navini Diagnostics (NavDiag) Software, continued

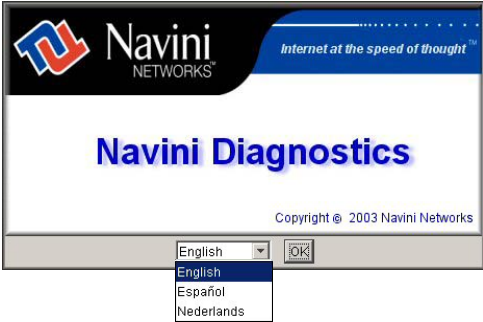
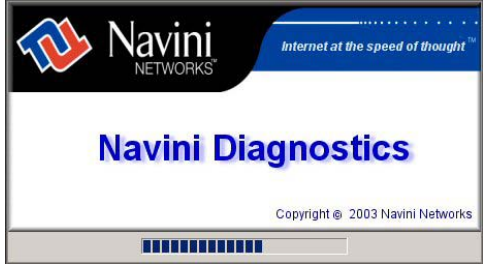
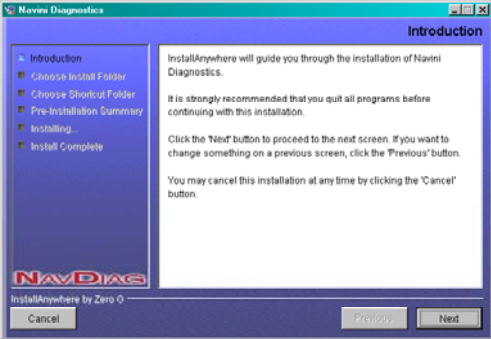
If you are going to upgrade your PC Operating System after loading the Navini Diagnostics software, you must first uninstall NavDiag prior to upgrading the OS. Otherwise, NavDiag will not work. See [Uninstall](#) instructions in this Guide.

**Note:** The screenshots shown in these instructions were taken from a laptop with Windows 2000. If you have a Windows 98, XP, or ME operating system, the screens you see may vary from the screens shown in the instructions.

| Step | Action  | Illustration  |
|------|---|---|
| 1.   | Shut down all programs, including anti-virus software programs, before installing the NavDiag software.                               |   |
| 2.   | Insert the Installation CD into the CD-ROM drive.   |   |
| 3.   | Open the CD by clicking on the <b>My Computer</b> icon. Double-click on the folder named Navini_Diagnostics.                          |   |
| 4.   | Double-click on the icon for the file <b>navdiag_windows.exe*</b> .<br><br>This will automatically start the installation of NavDiag. | <p style="text-align: center;">Example</p>              |
| 5.   | The InstallAnywhere window appears. The progress bar indicates that InstallAnywhere has initialized.                                  | <p style="text-align: center;">Windows 2000 Screen</p>  |

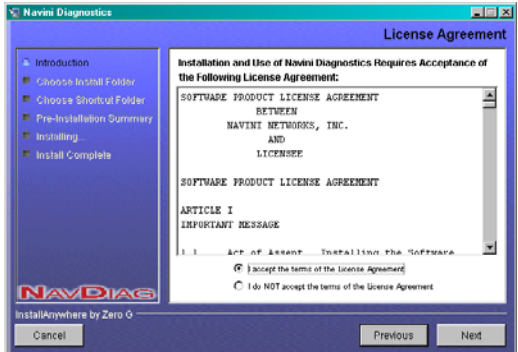

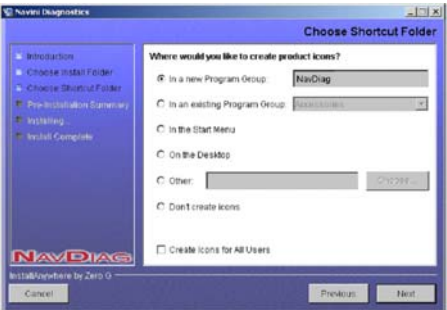
Installing Navini Diagnostics (NavDiag) Software, continued

**\*NOTE:** In step 6, your version of NavDiag may automatically attempt to match the language set on your PC under Regional Options. The language selection affects how NavDiag displays its screens. If you receive an error message concerning the language, click OK and NavDiag will default to English. At this time, NavDiag supports three languages: 1. English (U.S.), 2.Spanish (Spain), and 3. Dutch (Holland).

| Step | Action  | Illustration   |
|------|---|--|
| 6.   | The Navini Diagnostics Language screen appears* (see Note above). Select a language, and click <b>OK</b> to continue. | <p style="text-align: center;">Windows 2000 Screen</p>    |
| 7.   | The progress bar indicates the files are being installed.   | <p style="text-align: center;">Windows 2000 Screen</p>  |
| 8.   | The NavDiag Introduction screen appears. Click <b>Next</b> to continue.   | <p style="text-align: center;">Windows 2000 Screen</p>  |

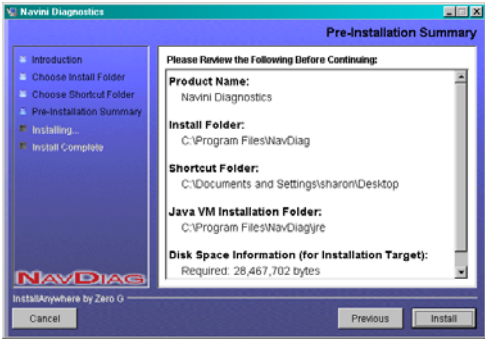




Installing Navini Diagnostics (NavDiag) Software, continued

| Step | Action   | Illustration   |
|------|--|--|
| 9.   | <p>The License Agreement screen appears. Read the Licensing Agreement. Select the <b>I Accept</b> option, and click <b>Next</b> to continue.</p> <p>If the License Agreement is not accepted, you cannot install the software.</p>                 | <p>Windows 2000 Screen</p>    |
| 10.  | <p>The Choose Install Folder screen appears. Enter the name of the folder where you wish to install the software. Click <b>Next</b> to continue.</p> <p>The default installation folder provided by the software is shown in the illustration.</p> | <p>Windows 2000 Screen</p>   |
| 11.  | <p>The Choose Shortcut Folder screen appears. Accept the default and click <b>Next</b> to continue.</p>  | <p>Windows 2000 Screen</p>  |



Installing the Navini Diagnostics (NavDiag) Software, continued

| Step | Action  | Illustration  |
|------|---|---|
| 12.  | <p>The Pre-Installation Summary screen appears. Review the contents for accuracy. Click <b>Install</b> to continue.</p> <p>For your installation and computer, this screen may have different information than what is shown in the illustration.</p> | <p style="text-align: center;"><b>Windows 2000 Screen</b></p>    |
| 13.  | <p>The Installing screen will change as the application files are loaded.</p>   | <p style="text-align: center;"><b>Windows 2000 Screen</b></p>   |
| 14.  | <p>At the Install Complete screen, click <b>Done</b> to close the window.</p>   | <p style="text-align: center;"><b>Windows 2000 Screen</b></p>  |

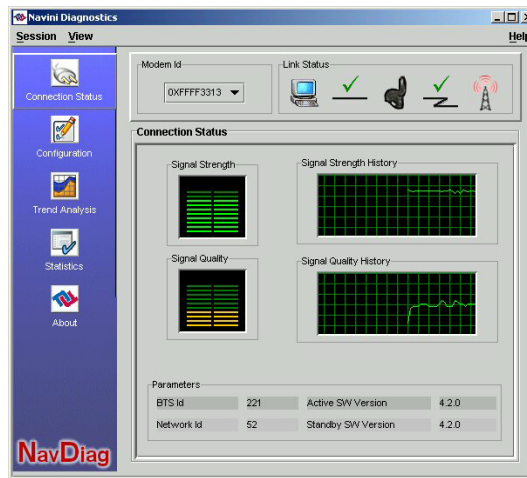
## Using Navini Diagnostics

To open the Navini Diagnostics software application, double-click on the Navini Diagnostics icon on your desktop.



Navini Diagnostics.Ink

The Connection Status screen will open and display data if the Card is in use. The screen will refresh live data every second.



Looking from left to right, the icons represent the PC, the connection between the PC and the PC Card or Desktop Modem (pictured), the PC Card or Modem, the connection between the Card and the Base Station, and the Base Station with which the Card is communicating. Check marks over the connections indicate working connections.



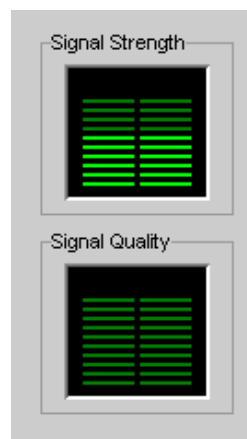
If the connection between the PC and the Card or between the Card and the Base Station is interrupted, an "X" is positioned over the corresponding icon.



Using Navini Diagnostics,  
continued

The Signal Strength and Signal Quality are dynamic bar areas that indicate how well your PC Card is receiving signals from the Base Station. In particular, the Signal Strength bar area graphically represents the strength of the Absolute BTS Synchronization Signal received by the PC Card.

The strength of the signal is represented by a group of colored bars. The higher the pile of bars goes, the stronger the signal. The color of the bars also gives an indication of the strength of the signal. Green lines indicate an excellent signal. Orange lines indicate a good signal, while red lines indicate a weak signal.



The Signal Quality bar area graphically represents the Signal-to-Noise Ratio (SNR) of the downlink access code channel (ACC) received by the PC Card. Again, the quality of the signal is represented by a group of colored bars. The higher the pile of bars goes, the better the SNR of the signal. The color of the bars also gives an indication of the quality of the signal. Green lines indicate high quality signal. Orange lines indicate a good quality signal while red lines indicate a low quality signal.

To increase the strength and quality of the signal, change the location of the PC in which the PC Card is inserted. Try moving it closer to a window, to a higher location, away from other wireless devices (microwave ovens, cordless phones), and away from metal objects (shelves, file cabinets). As the PC is repositioned, observe the Signal Strength and Quality bars. Position the Card for maximum signal strength and quality.

Using Navini Diagnostics,  
continued

The History graphs plot the change in signal strength and signal quality over time. The graphs cover the last minute and are updated every second. Read the graphs from right to left. The right side of the graph represents the most recent status of your PC Card.



At the bottom of the Connection Status screen are four parameters. These parameters are BTS ID, Network ID, Active SW Version, and Standby SW Version. The BTS ID and Network ID indicate the BTS to which the PC Card is currently synchronized and the network in which the PC Card is operating. Active SW Version and Standby SW Version indicate the version number of the software currently loaded in the “active side” and “standby side” of the PC Card’s flash memory. The two letters in parenthesis following the release number indicate the type of software load. JD indicates Joint Detection while EN indicates Enhanced Nulling.

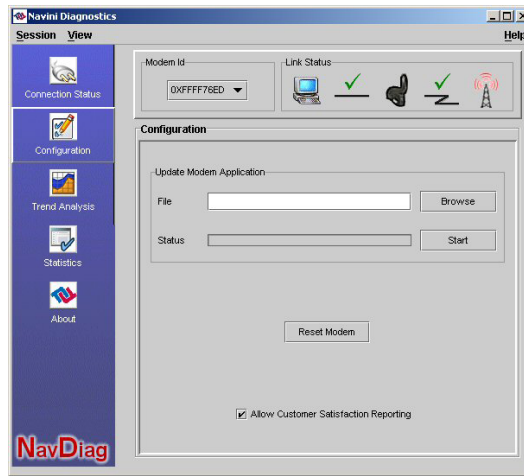
| Parameters |     |                    |            |
|------------|-----|--------------------|------------|
| BTS Id     | 221 | Active SW Version  | 4.2.3 (EN) |
| Network Id | 52  | Standby SW Version | 4.2.3 (EN) |

On the left-hand side of the screen are five screen options:

- Connection Status
- Configuration
- Trend Analysis
- Statistics
- About

Using Navini Diagnostics,  
continued

The following screen appears when you select Configuration. This screen enables you to update your Card's software, if directed to do so by your Service Provider.



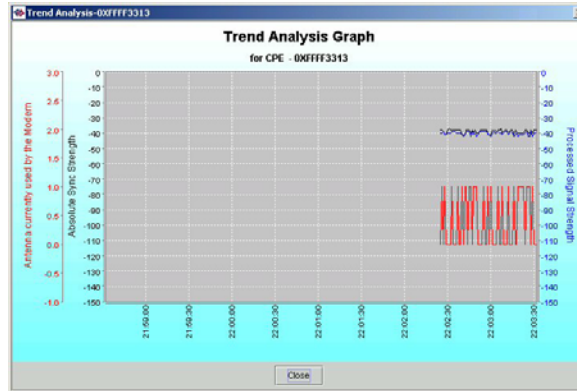
The “Allow Customer Satisfaction Reporting” feature is not currently supported in the PC card.

The Trend Analysis screen enables you to view Card parameters that evolve over time. With this screen, you can select up to three parameters to plot.

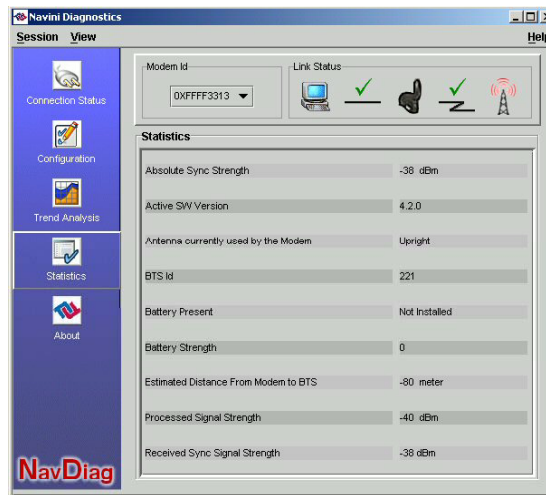


By pressing the Plot Graph button, the following screen will appear. This screen displays the value of the selected parameters over the last five minutes, updated once every second. The graphic scrolls from right to left.

## Using Navini Diagnostics, continued



To view the Statistics screen, press the Statistics button. The Statistics screen enables you to view the current value of selected parameters, which are updated as they change over time.



The About screen provides vital information such as the version of the Navini Diagnostics software currently installed on your computer. It also provides a website address and telephone number where you can contact your Service Provider. An example of the About screen follows.

Using Navini Diagnostics, continued



A Help button appears on the top right corner of all the NavDiag windows. The Help button gives you two options. The first option, On NavDiag, provides help text on the functionality of the NavDiag program. The second option, About NavDiag, is equivalent to clicking on the About icon.

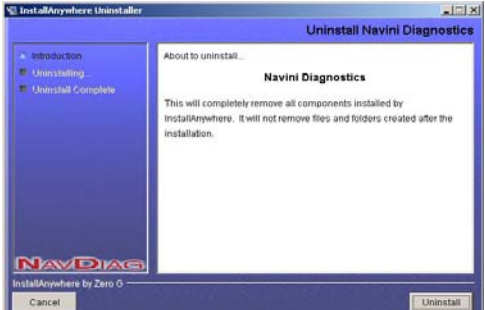

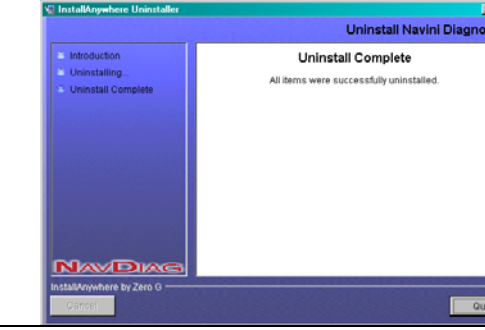
## Uninstalling Navini Diagnostics Software

If for some reason you need to uninstall the NavDiag software, e.g., to upgrade your Operating System software, follow the procedure below.

**Note:** The screenshots shown in these instructions were taken from a laptop with Windows 2000. If you have a Windows 98, XP, or ME operating system, the screens you see may vary from the screens shown in the instructions.

| Step | Action  | Illustration   |
|------|---|--|
| 1.   | On your computer screen lower left corner, click on <b>Start &gt; Programs &gt; NavDiag &gt; Uninstall.</b> | <p style="text-align: center;">Windows 2000 Screen</p> |

Uninstalling NavDiag Software, continued

| Step | Action   | Illustration   |
|------|--|--|
| 2.   | The Install-Anywhere Uninstaller screen appears. Click <b>Uninstall</b> .                                    | <p style="text-align: center;">Windows 2000 Screen</p>   |
| 3.   | The screen will indicate the application files are uninstalled.  | <p style="text-align: center;">Windows 2000 Screen</p>   |
| 4.   | The Uninstall Complete screen appears when finished. Click on <b>Quit</b> to close the Uninstall screen.     | <p style="text-align: center;">Windows 2000 Screen</p>  |
| 5.   | Restart the PC to complete the uninstall process. This will ensure it functions properly after uninstalling. |  |

## Optional Desktop Antenna

An optional desktop antenna is available for the Ripwave Wireless Broadband Access Card. This antenna connects to the PC Card and then sits on a surface next to the laptop. This antenna should be used if optimal reception can not be obtained through the PC Card antenna. Following is a picture of the optional desktop antenna.



## Optional Desktop Antenna, continued



To connect the desktop antenna to the PC Card, you must first remove the antenna attached to the PC Card. To remove the antenna, grasp the base of the antenna near its connection point and then firmly pull the antenna away from the card. Do not grasp the top or middle of the antenna as it may break when you try to pull the antenna away. Once the PC Card antenna is removed, connect the desktop antenna by inserting its connector into the port on the PC Card. If a desktop antenna is required for optimal reception, avoid frequently connecting and disconnecting the desktop antenna from the PC Card as frequent connection/disconnection may cause the connector on the desktop antenna to break.

## Care and Maintenance

The Ripwave Wireless Broadband Access Card is designed to give years of trouble-free service. To ensure operation, read the following care and maintenance instructions.

- Keep the PC Card free of dust and moisture. If the Card gets wet, use a towel to dry it immediately.
- Handle the PC Card gently. Dropping it or mishandling it can cause damage to the metal/plastic shell or the electronic circuitry.
- Keep the PC Card away from high temperatures. Heat can cause damage to the metal/plastic shell or the electronic circuitry.
- To clean the external areas of the PC Card, use only an electrical contact cleaner that is non-conductible and a soft, damp, lint-free cloth. Do not use any chemicals or abrasives to clean the Card. Also use caution around the connection pins.

Care and Maintenance,  
continued

- If there is a problem with the Card, do not attempt to repair it yourself. Report the problem to your Service Provider.
- Do not apply adhesive labels to the Card. This may cause the card to become jammed inside the card slot.
- The PC Card should fit easily into the PC slot. Do not force the card into the PC slot. Forcing the card into the slot may cause damage to the connector pins.
- If you are going to upgrade your computer Operating System after loading the NavDiag software, you must first uninstall NavDiag prior to upgrading the OS. Otherwise, NavDiag will not work. See Uninstall instructions in this Guide.

## Upgrading the PC Card

There are two different ways to upgrade the software that makes the PC Card work. Your Service Provider may perform an over-the-air (OTA) upgrade, where the up-to-date software files are transferred wirelessly from a Base Station to your Card; or the Provider may provide a downloadable web file or CD-ROM with software that is installed on your PC and used to upgrade the Card software.

The latter method is used only if the PC Card was not inserted and “on” during the OTA upgrade process. The OTA upgrade is normally transparent to the user; in other words, there should be no noticeable service interruption. The web or CD upgrade comes with instructions and takes a minimal amount of time to complete.

## ADDENDUM 1: PC Card - PC Troubleshooting

- For Use With the Ripwave Wireless Broadband Access Card & Navini Diagnostics Software -

### PC Operating Systems

Prior to installing the Navini Diagnostics (NavDiag) software, please check to ensure that the PC Operating System meets the criteria given in the table below. If these criteria are not met, unpredictable problems may occur as a result of installation. It is recommended that the user have the latest Windows<sup>®</sup> updates installed prior to installing the NavDiag software.

| Operating System   | PC Card Interface | Notes |
|--------------------|-------------------|-------|
| Win98, 2nd edition | Supported         | 1     |
| WinME              | Supported         | 1     |
| Win 2000           | Supported         | 1, 3  |
| Win XP             | Supported         | 2, 3  |

Note 1: Internet Explorer 3.0 or higher is required

Note 2: Requires Service Pack 1

Note 3: To load the NavDiag software, the user **MUST** have Administrative privileges.

### Results of Correct NavDiag Installation

Experienced PC users can check the results of the Navini Diagnostics installation by looking at the log file that is created during the installation process. The log file is named "Ripwave\_Diagnostics\_InstallLog.log." It is located under **c:\Program Files\Navini Diagnostics**.

-----

Install Begin: Tue Jul 20 12:15:22 CDT 2004

Install End: Tue Jul 20 12:15:30 CDT 2004

Created with Zero G's InstallAnywhere 4.5.3 Enterprise Build 1394

Summary

-----

Installation: Successful with warnings.

2 SUCCESSES

1 WARNINGS

0 NONFATAL ERRORS

0 FATAL ERRORS

Action Notes:

None.

## Install Log Detail:

Check Disk Space: C:\Program Files\NavDiag  
Status: SUCCESSFUL

Additional Notes: NOTE - Required Disk Space: 29,363,315; Free Disk Space: 30,806,179,840

Install Directory: C:\Program Files\NavDiag\  
Status: SUCCESSFUL

Get Registry Entry: Key: HKEY\_LOCAL\_MACHINE\SOFTWARE\Navini Networks\NavDiag, ValueName:  
InstallDirectory

Status: WARNING

Additional Notes: WARNING - Win32Exception

Make Registry Entry: Key: HKEY\_LOCAL\_MACHINE\SOFTWARE\Navini Networks, Value Name: , Value  
Data:

Status: SUCCESSFUL

Make Registry Entry: Key: HKEY\_LOCAL\_MACHINE\SOFTWARE\Navini Networks\NavDiag, Value Name:  
, Value Data:

Status: SUCCESSFUL

Make Registry Entry: Key: HKEY\_LOCAL\_MACHINE\SOFTWARE\Navini Networks\NavDiag, Value Name:  
InstallDirectory, Value Data: C:\Program Files\NavDiag

Status: SUCCESSFUL

Install Directory: C:\Program Files\NavDiag\Uninstall\  
Status: SUCCESSFUL

Install Uninstaller: Navini Diagnostics (Install All Uninstaller Components)  
Status: SUCCESSFUL

Install Directory: C:\Program Files\NavDiag\jre  
Status: SUCCESSFUL

Install File: C:\Program Files\NavDiag\Uninstall\Uninstall NavDiag.exe  
Status: SUCCESSFUL

Install File: C:\Program Files\NavDiag\Uninstall\Uninstall NavDiag.lax  
Status: SUCCESSFUL

Install Directory: C:\Program Files\NavDiag\Uninstall\resource\  
Status: SUCCESSFUL

Install File: C:\Program Files\NavDiag\Uninstall\resource\jwin32.dll  
Status: SUCCESSFUL

Install File: C:\Program Files\NavDiag\Uninstall\resource\remove.exe  
Status: SUCCESSFUL

Make Registry Entry: Key:  
HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall\Navini Diagnostics,  
Value Name: DisplayName, Value Data: Navini Diagnostics

Status: SUCCESSFUL

Make Registry Entry: Key:  
HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall\Navini Diagnostics,  
Value Name: UninstallString, Value Data: "C:\Program Files\NavDiag\Uninstall\Uninstall NavDiag.exe"  
Status: SUCCESSFUL

Install Uninstaller: Navini Diagnostics (Install All Uninstaller Components)  
Status: SUCCESSFUL

Create LaunchAnywhere: Navini Diagnostics.exe (Install All LaunchAnywhere Java Executable Components)  
Status: SUCCESSFUL

Install File: C:\Program Files\NavDiag\Navini Diagnostics.exe  
Status: SUCCESSFUL

Install File: C:\Program Files\NavDiag\Navini Diagnostics.lax  
Status: SUCCESSFUL

Create LaunchAnywhere: Navini Diagnostics.exe (Install All LaunchAnywhere Java Executable Components)  
Status: SUCCESSFUL

Install Directory: C:\Program Files\NavDiag\data\  
Status: SUCCESSFUL

Install Directory: C:\Program Files\NavDiag\data\images\  
Status: SUCCESSFUL

Install File: C:\Program Files\NavDiag\data\images\billboard.gif  
Status: SUCCESSFUL

Install File: C:\Program Files\NavDiag\data\images\splash.gif  
Status: SUCCESSFUL

Install File: C:\Program Files\NavDiag\data\images\buttonbar.gif  
Status: SUCCESSFUL

Install File: C:\Program Files\NavDiag\data\images\about2.gif  
Status: SUCCESSFUL

Install File: C:\Program Files\NavDiag\data\images\about1.gif  
Status: SUCCESSFUL

Install File: C:\Program Files\NavDiag\data\images\about.gif  
Status: SUCCESSFUL

Install File: C:\Program Files\NavDiag\data\images\uninstall.gif  
Status: SUCCESSFUL

Install Directory: C:\Program Files\NavDiag\data\log\  
Status: SUCCESSFUL

Install Directory: C:\Program Files\NavDiag\data\lib\  
Status: SUCCESSFUL

Install File: C:\Program Files\NavDiag\data\lib\ctl.jar  
Status: SUCCESSFUL

Install File: C:\Program Files\NavDiag\data\lib\navDiag.jar  
Status: SUCCESSFUL

Install File: C:\Program Files\NavDiag\data\lib\jfreechart-0.9.13.jar  
Status: SUCCESSFUL

Install File: C:\Program Files\NavDiag\data\lib\jcommon-0.8.8.jar  
Status: SUCCESSFUL

Install File: C:\Program Files\NavDiag\data\lib\log4j.jar  
Status: SUCCESSFUL

Install Directory: C:\Program Files\NavDiag\data\doc\  
Status: SUCCESSFUL

Install Directory: C:\Program Files\NavDiag\config\  
Status: SUCCESSFUL

Install File: C:\Program Files\NavDiag\config\NavDiag.lcf  
Status: SUCCESSFUL

Install Directory: C:\Documents and Settings\luis\Start Menu\Programs\NavDiag\  
Status: SUCCESSFUL

Create Shortcut: C:\Documents and Settings\luis\Start Menu\Programs\NavDiag\Navini Diagnostics.lnk  
Status: SUCCESSFUL

Create Shortcut: C:\Documents and Settings\luis\Start Menu\Programs\NavDiag\Uninstall.lnk  
Status: SUCCESSFUL

Install Directory: C:\Documents and Settings\luis\Desktop\  
Status: SUCCESSFUL  
Additional Notes: NOTE - Directory already existed

Create Shortcut: C:\Documents and Settings\luis\Desktop\Navini Diagnostics.lnk  
Status: SUCCESSFUL

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**between  
Navini Networks, Inc.  
and  
Buyer**

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