

## **Ripwave Wireless Broadband Access Card User's Guide**



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Proprietary

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### Safety

To optimize safety and expedite installation and service, read this document thoroughly. Follow all warnings, cautions, and instructions marked on the equipment and included in this document.

To aid in the prevention of injury and damage to property, cautionary symbols have been placed in this document to alert the reader to known potentially hazardous situations, or hazards to equipment or procedures. The symbols are placed before the information to which they apply. However, any situation that involves heavy equipment and electricity can become hazardous, and caution and safety should be practiced at all times when installing, servicing, or operating the equipment.

Caution Symbol - possible equipment or property damage



Warning Symbol - could cause personal injury or otherwise be hazardous to your health

Navini Networks, Inc., expressly requires that when using Navini electronic equipment always follow the basic safety precautions to reduce the risk of electrical shock, fire, and injury to people and/or property.

- 1. Follow all warnings and instructions that come with the equipment.
- 2. 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.
- 3. Do not allow any type of liquid to come in contact with the equipment. Unplug the equipment from the power source before cleaning. Use a damp cloth for cleaning. Do not use any soaps or liquid cleaners.
- 4. Follow all airport and FAA regulations when using the equipment on or near aircraft.
- 5. 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.
- 6. 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.
- 7. Do not disassemble the equipment. Removing covers exposes 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.
- 8. Do not expose the equipment to extreme hot or cold temperatures.

- 9. 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.

If this equipment causes interference to radio or television reception, which can be determined by turning the equipment off and on, the user should 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  $2.5 \text{ cm}(1^{"})$  from bystanders and  $1.0 \text{ cm}(0.39^{"})$  from the user. When in use, the antenna should be pointed vertically upward. When using the Desktop Antenna with the PC Card, a minimum distance of 20 centimeters (8 inches) is required from the user or bystander.

This product conforms with the Australian Standard for Human Exposure to Radiation at a distance of 2.5 cm. Closer contact, such as touching the aerial will result in radiation in excess of safe limits.

**Introduction** Congratulations! Your Ripwave Wireless Broadband Access Card is a user-friendly, easy-to-install device that helps you connect wirelessly to the Internet using the Network Interface Card (NIC) port on your 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 Card also provides portable Internet service. A computer with this Card 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.

This manual will guide you through the simple process of installing the Card and its monitoring software.

#### **Card Models**

Your Card comes in several models. The model indicates the frequency the Card will operate in (either 2.5-2.6 GHz, 3.4 GHz, or 3.5 GHz.) The frequency number appears on the Card's label. The various models are detailed in the table below.

Model	Frequency Range	<b>Operating Band</b>
2.5-2.6 GHz	2.500 GHz - 2.686 GHz	EBS/BRS
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)

The following table lists the minimum requirements your computer should meet before connecting to the Ripwave Card.

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

#### Physical Characteristics

The 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.

#### The Wireless Broadband Access Card



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. All models also have 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 Your Card

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

**Note:** The laptop should be used preferably on a desk when the Card is installed. Using the laptop with the Card close to the body, such as on the lap, is undesirable.

**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 Card.	Windows 2000 Screen Found New Hardware Navini Wireless-Modem
4.	The Welcome to the Found New Hardware Wizard dialog box appears. Click <b>Next</b> to continue.	Found New Hardware Wizard         Found New Hardware Wizard         Welcome to the Found New Mardware Wizard         This wizard helps you install a device driver for a hardware device.         To continue, click Next.

Installing Your Card,	Step	Action	Illustration
continued	5.	The Install Hardware Device Drivers box appears. Select 'Search for a suitable driver for my device (recommended).' Click <b>Next</b> to continue.	Windows 2000 Screen         Sund New Hardware Wizard         Install Hardware Device Drivers         A device driver is a software program that enables a hardware device to work with operating system.         Windows Will complete the installation for this device:         Windows Will complete the installation for this device:         Navini Wireless-Modem         A device driver is a software program that makes a hardware device work. Windows needs driver files and complete the installation click Next.         What do you want the wizard to do?         © Search for a suitable driver for my device (recommended)         O biplage a list of the known drivers for this devices to that I can choose a specific driver                           Ø         Navini Wireless-Modem         ©         ©         ©         ©         ©         ©         ©         ©         ©         ©
	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.	Where do you want Windows to search for driver files?         Where do you want Windows to search for driver files?         Where do you want Windows to search for driver files?         Search for driver files?         Wavini Windows to search for driver files?         Navini Windows to search for driver files?         Optional search locations that you specify.         Polepop files drivers         © Drillow drives         Optional search locations         Polepop files drives         Optional search locations         Optional search locations         Optional search locations         Optional search locations         Optio
	7.	The Driver Files Search Results box appears. Click <b>Next</b> to install the driver.	Windows 2000 Screen         Jourd New Hardware Wizard         Driver Files Search Results         The wizard has finished searching for driver files for your hardware device.         Windows found a driver for the following device:         Wavini Wizeless-Modem         Windows found a driver for this device. To install the driver Windows found, click Next.         Windows found a driver for this device. To install the driver Windows found, click Next.         Windows found, click Next.         @Windows found, click Next.

Installing Your Card,	
continued	

Step	Action	Illustration
8.	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.	<section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>
<b>*</b>	<i>Note:</i> 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.	
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.	Sector

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

#### Accessing the Internet

Removing Your Card Now that your Card is installed and your computer is on, you should be able to access the Internet (that is, assuming you have signed up with a Service Provider). To access the Internet, open the web browser that is installed on your computer, (for example, Netscape, Internet Explorer, etc.).

Before you store your PC in a computer case, you should remove the Card from the PC. 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.

To properly remove the Card from your computer, you must first stop the driver software. If you do not stop the driver software first, the following box will appear:



To safely remove the Card, click on the Card icon indicated in the following illustration. Depending on your computer's setup, this icon is probably located in the lower right-hand corner of your computer.



Removing Your Card, continued

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



#### Select Stop Navini Networks PCMCIA Adapter.



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



You can now pull the Card out of your computer. If the sound on your computer is turned on, you may hear a beep indicating the Card was unplugged.

#### **Indicator Light**

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



### Troubleshooting

If you experience difficulties with your Internet connection after you have installed the Card driver software, please review the Minimum Computing Requirements and Addendum 1. Ensure your computer meets those requirements. Also, review the installation procedures and ensure all steps were completed properly. If you are still experiencing difficulties, troubleshoot using the Navini Diagnostics (NavDiag) monitoring software or contact your Service Provider.

#### Installing Navini Diagnostics (NavDiag)

The NavDiag software assists you in solving connection problems and provides other valuable information. This software is provided on the Installation CD that came in your Card package. This section explains how to install this software.

**Note:** To install NavDiag on a Windows 2000, you must have administrative privileges. To check your account privileges, open your Control Panel. Double-click on the Users and Passwords symbol. You should see Administrator under the Users tab.

**Note:** The screenshots shown in the 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.

**Note:** 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 NavDiag,	•	
continued		

Step	Action	Illustration
1.	Before installing the NavDiag software, shut down all programs, including anti-virus software programs.	
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. Double-click on the icon for the file <b>navdiag_windows.exe*</b> . This will automatically start the installation of NavDiag.	Example
5.	The InstallAnywhere window appears. The progress bar indicates that InstallAnywhere has initialized.	Windows 2000 Screen InstallAnywhere InstallAnywhere is preparing to install 51% Created with InstallAnywhere. © 1998-2001 Zero G Software, Inc. www.ZeroG.com

Installing NavDiag,	Step	Action	Illustration
continued	6.	The Navini Diagnostics Language screen appears* (see Note above). Select a language, and click <b>OK</b> to continue. <i>Note:</i> 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).	Windows 2000 Screen   Internet at the speed of thought
	7.	The progress bar indicates the files are being installed.	Windows 2000 Screen

Installing NavDiag,	Step	Action	Illustration
continued	8.	The NavDiag Introduction screen appears. Click <b>Next</b> to continue.	Windows 2000 Screen         Modulon         Modulon         Anoose hosts Base         Base
	9.	The License Agreement screen appears. Read the Licensing Agreement. Select the <b>I Accept</b> option, and click <b>Next</b> to continue. If the License Agreement is not accepted, you cannot install the software. 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. The default installation folder provided by the software is shown in the illustration. The Choose Shortcut Folder screen appears. Accept the default and click <b>Next</b> to continue.	<image/>

Installing NavDiag,	Step	Action	Illustration
continued	12.	The Pre-Installation Summary screen appears. Review the contents for accuracy. Click <b>Install</b> to continue. For your installation and computer, this screen may have different information than what is shown in the illustration. The Installing screen will change as the application files are loaded.	<complex-block><complex-block><complex-block></complex-block></complex-block></complex-block>
	14.	At the Install Complete screen, click <b>Done</b> to close the window.	

#### Troubleshooting Using Navini Diagnostics

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



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



The following sections describe the various parts of the Connection Status screen.

#### The Icons

The icons that appear on the top right side of the screen represent the PC, the connection between the PC and the Modem, the Modem, the connection between the Modem and the Base Station, and the Base Station to which the Modem is communicating. Check marks over the connections indicate working connections.



The Icons, continued

The Signal

Strength and

An "X" is positioned over the corresponding icon indicates the connection between the PC and the Modem or between the Modem and the Base Station is interrupted.



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.

Signal Strength and Signal Quality are dynamic bar areas that indicate how well your Card is receiving signals from the Base Station.

# Signal Quality Bars

In particular, the Signal Strength bar area graphically represents the strength of the synchronization signal your Modem is receiving from BTS. The strength of the signal is represented by a group of colored bars. The higher the pile of bars goes, the stronger the signal is. 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) received by your Modem. 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 an excellent signal or an SNR greater than 21. Orange lines indicate a good signal or an SNR greater than or equal The Signal Strength and Signal Quality Bars, continued

How to Increase the Strength and Quality of the Signal

The History Graphs

to 13 but less than or equal to 21. Red lines indicate a weak signal or an SNR less than 13.

To increase the strength and quality of the signal, change the location of the PC in which the 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 you reposition your PC, watch the Signal Strength and Quality bars on the NavDiag screen. Place your PC in the location where you receive the most green signal strength and quality bars.

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 Card.



#### The Parameters

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.

TS Id	221	Active SW Version	4.2.3 (EN)
etwork ld	52	Standby SW Version	4.2.3 (EN)

The BTS ID indicates the BTS to which the Card is currently synchronized. The Network ID indicates the network in which the Card is operating. Active SW Version and Standby SW Version

The Parameters, continued indicate the version number of the software currently loaded in the "active side" and "standby side" of the 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.

The Screen Option Buttons

The Configuration Screen On the left-hand side of the screen, there are five screen option buttons: Connection Status, Configuration, Trend Analysis, Statistics, and About. Each of these screens provides unique capabilities.

The Configuration screen enables you to update your Card's software if directed to do so by your Service Provider. To access the Configuration screen, press the Configuration button.



If you must update your Card's software, your Service Provider will provide you with instructions regarding what to do.

At the bottom of the screen is an Allow Customer Satisfaction Reporting box. This box currently is not supported on the Card.

The Trend AnalysisThe Trend Analysis screen lets you view Card parameters that<br/>evolve over time. With this screen, you can select up to three<br/>parameters to plot. To view the Trend Analysis screen, press the<br/>Trend Analysis button.

The Trend Analysis Screen, continued

🐟 Navini Diagnostics		×
Session View		Help
Connection Status	Moden Id DXFFFF313 • Link Status	
Configuration	Trend Analysis	1
Trend Analysis	Parameters Absolute Sync Strength Processed Signal Strength	
Statistics	Antenna currently used by the Modem	
About	Plot Graph Clear	
NavDiag	<u> </u>	

By pressing the Plot Graph button, the following screen appears. 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.



#### The Statistics Screen

The Statistics screen lets you view the current value of selected parameters. These values are updated as they change over time. To view the Statistics screen, press the Statistics button.

🕸 Navini Diagnostics		
Session <u>V</u> iew		Help
Connection Status	Modern Id Link Status	× d × ĝ
<b>Ø</b>	Statistics	
Configuration	Absolute Sync Strength	-38 dBm
Trend Analysis	Active SW Version	4.2.0
	Antenna currently used by the Modem	Upright
Statistics	BTS Id	221
<b>*</b>	Battery Present	Not Installed
About	Battery Strength	0
	Estimated Distance From Modem to BTS	-80 meter
	Processed Signal Strength	-40 dBm
NavDiag	Received Sync Signal Strength	-38 dBm

#### The About Screen

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. To view the About screen, press the About button.



#### The Help Button

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.

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

**Note:** 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.

**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.

#### Uninstalling Navini Diagnostics Software

Uninstalling NavDiag	Step	Action	Illustration
Software, continued	1.	On your computer screen lower left corner, click on <b>Start</b> > <b>Programs</b> > <b>NavDiag</b> > <b>Uninstall</b> .	Windows Explorer     Microsoft Outlook     Microsoft PowerPoint     New office Document     Open Office Document     Outlook Kurges     Microsoft Word     Outlook     Search     Explore     Isource Kurges     Lininstal     Explore     Isource Kurges     Search     Microsoft Word     Outlook     Isource     Search     Search
	2.	The Install-Anywhere Uninstaller screen appears. Click <b>Uninstall</b> .	Windows 2000 Screen
	3.	The screen indicates the application files are uninstalled.	Windows 2000 Screen
	4.	The Uninstall Complete screen appears when finished. Click on <b>Quit</b> to close the Uninstall screen.	Windows 2000 Screen
	5.	Restart the PC to complete the uninstall process. This ensures the uninstall process completes successfully.	

#### Optional Desktop Antenna

An optional desktop antenna is available for the Ripwave Wireless Broadband Access Card. This antenna connects to the Card and then sits on a surface next to the laptop. The laptop should be used preferably on a desk when the Card is installed. Using the laptop with the Card close to the body, such as on the lap, is undesirable.



This antenna should be used if optimal reception cannot be obtained through the Card antenna. Following is a picture of the optional desktop antenna.

#### Connecting the Desktop Antenna

To connect the desktop antenna to the Card, you must first remove the antenna attached to the Card. To remove the antenna, turn the antenna down so that it is lying parallel with the Card. Grasp the base of the antenna near its connection point and 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 Card antenna is removed, connect the desktop antenna by inserting its connector into the port on the Card.

Connecting the Desktop Antenna, continued



Insert the antenna into the base unit.



## Disconnecting the Desktop Antenna

To disconnect the desktop antenna from the Card, hold the connector at its connection point and gently pull the connector out of the Card.

**Note:** 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 you years of trouble-free service. To ensure operation, read the following care and maintenance instructions.

- Keep the Card free of dust and moisture. If the Card gets wet, use a towel to dry it immediately.
- Handle the Card gently. Dropping it or mishandling it can cause damage to the metal/plastic shell or the electronic circuitry.
- Keep the 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 Card, use only an electrical contact cleaner that is non-conductible and a soft, damp, lintfree cloth. Do not use any chemicals or abrasives to clean the Card. Also use caution around the connection pins.
- 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 the Uninstall instructions in this Guide.

# Upgrading the Card

There are two different ways to upgrade the software that makes the 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. This method will normally be transparent to you; in other words, you should not experience any noticeable service interruption. You Service 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. This method is used only if the Card was not inserted and "on" during the OTA upgrade process. If you must upgrade your software using this method, your Service Provider will give you instructions on what to do. This method takes a minimal amount of time to complete.

**Note:** If you must upgrade the PC Card Driver to the latest driver, Windows will tell you that the current driver is the latest driver. Ignore this message, and force Windows to update the driver.

### **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>c</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

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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\iawin32.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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