# PCI USB Card

G-2XC01 PCI Card with 2 USB Ports





Copyright © 2000 IOGEAR. All Rights Reserved.

Microsoft and Windows 98 are registered trademarks of Microsoft Corporation. IBM is a registered trademark of International Business Machines, Inc.

IOGEAR is a registered trademark of ATEN Technology, Inc.

IOGEAR makes no warranty of any kind with regards to the information presented in this document. All information furnished here is for informational purposes only and is subject to change without notice. IOGEAR assumes no responsibility for any inaccuracies or errors that may appear in this document.

# PCI USB Card Packing List

The complete IOGEAR PCI USB Card package consists of:

- · One G-2XC01 USB PCI Card
- · One Installation Diskette
- · One User Manual
- · One Quick-Start Setup Guide
- Warranty/Product Registration Form

#### Note:

Please check to make sure that all components are included and nothing is damaged. If you discover a problem, please contact your dealer. Before installing your PCI USB Card, read the manual thoroughly and follow the installation and operation procedures carefully in order to prevent any damage to the unit and/or any devices it connects to.

# PCI USB Card

Welcome	01
Features and Requirements	02
Installation	03
Connecting USB Devices	09
Adding USB Ports	10
Accessories	11
Troubleshooting	12
Technical Support	13
Limited Warranty	14
Specifications	14

## PCI USB Card Welcome

Thank you for purchasing the IOGEAR PCI USB interface card.

Universal Serial Bus (USB) connects more than computers and peripherals. It has the power to connect you with a whole new world of PC experiences.

IOGEAR's PCI USB Card is the solution for any PC user who has ever dreamed about an instant, no-hassle way to connect a new digital joystick, a scanner, a set of digital speakers, a digital camera or a PC telephone to their computer. You no longer have to hassle with installing add-in cards, setting DIP switches, and configuring those touchy IRQ settings.

With "hot-swapping" you don't even need to shut down and restart your PC to attach or remove a peripheral. Just plug it in and go! The PC automatically detects the peripheral and configures the necessary software. This feature is especially useful for users of multi-player games, as well as business and notebook PC users who want to share peripherals.

USB also lets you connect many peripherals at one time. IOGEAR specializes in USB hubs, special USB peripherals with additional ports that let you "daisychain" multiple devices together.

We hope you enjoy using your PCI USB Card, yet another high quality connectivity solution from IOGEAR.

## PCI USB Card Features and Requirements

### **Product Features**

- Adds two standard USB ports to your PC
- Easy Plug and Play installation
- 12 Mbps and 1.5 Mbps data transfer rate
- Auto detects the connection and speed of USB devices
- Supports up to 127 \* downstream USB devices (via USB hubs)
- Three year warranty

### Hardware Requirements

System

- IBM compatible computer or PCI-Based Macintosh
- One available PCI slot

## System Requirements

**Operating System** 

- Windows® 98 or higher
- MacOS xx or higher

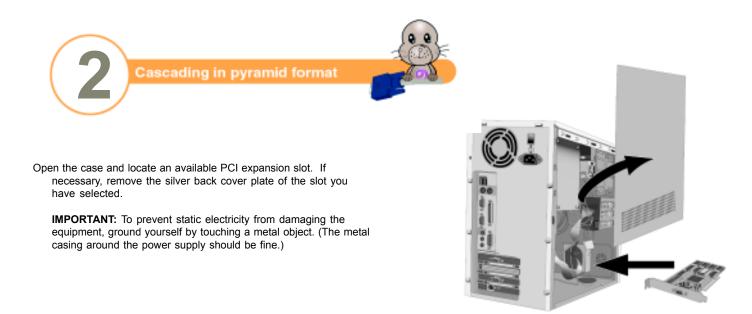
\* Note: The root hub counts as device 1.

## Installing the IOGEAR USB Card

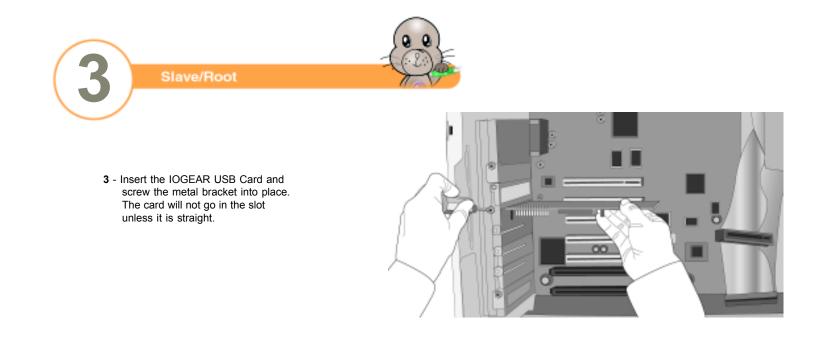
When installing the card, please take extra care to avoid touching the components or the edge connector of the board (the portion which is inserted into the PCI slot).

1 - Shut down your computer, turn the power OFF, and unplug it from the power outlet.





# MINIVI@w™ UITre Installation



# MIniView™ Ultre Installation



4 - Replace the cover to your computer and fasten the necessary screws. Turn your computer on. Your computer will automatically detect the new hardware. Continue with the software installation on the next page.

#### Installing the USB Software (Windows)

Once your IOGEAR USB Card is installed, you may need to install USB software so that your computer can properly communicate with the IOGEAR USB card.

1. Finding the Hardware

Upon rebooting your PC with the IOGEAR USB Card for the first time, Windows<sup>®</sup> 98 will automatically detect your new hardware and a dialog window will appear entitled "New Hardware Found".

#### 2 - Loading the drivers

7

Insert and select the Windows<sup>®</sup> 98 CD-ROM. Once you have inserted the CD-ROM into the CD drive, click "OK" button. This will start the software installation process.

Note: If the default path to the Windows<sup>®</sup> 98 directory on your CD-ROM is incorrect, a dialog box will appear asking you to select the correct the path to the directory.

ice Hadean Found 🛛 🕅				
3	The file 'openhoizes' on Windows 98 CD-RIDM connot be found. Inset Windows 98 CD-RION in the selected dive, and oliok OK.	OK Cancel		
	Copy files from:	Skip File Details . Broverse		

# New Hardware Found

÷

OPTi 82C861 PCI to USB Open Host Controller

Windows is installing the software for your new hardware.

#### 3 - Installing USB Devices

Once the Windows<sup>®</sup> 98 USB drivers are installed, attaching a USB device to one of the USB ports on the IOGEAR USB Card will cause Windows<sup>®</sup> to automatically detect the presence of any USB device. It will request the specific drivers for the peripheral you have just connected. Installation of device drivers is very similar to the USB driver installation for the IOGEAR USB Card. Please refer to your USB device's documentation for specific instructions.

You will be able to plug and unplug the USB device whenever you need it, and you can plug it into whichever port is free on the card.

If you add another IOGEAR USB Card to your PC you will need to rerun the installation of the USB drivers from the Windows<sup>®</sup> 98 CD-ROM. A separate installation has to be fully executed for each individual card installed in your computer.

#### Installing the USB Software (Mac)

Once your IOGEAR USB Card is installed, your computer will automatically detect the new hardware.

#### PCI USB Card Connecting USB Devices

#### Connecting USB Devices

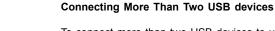
The IOGEAR USB Card includes two female "Type A" USB connectors on its back plate. You may connect your USB device to either or both ports.

Because USB provides power to the bus, many USB devices will operate without an additional AC power adapter. Connecting the USB device to the IOGEAR USB Card is all that is required.

#### Specific USB device drivers

Some USB products (e.g. keyboard, mice, hubs) function using class drivers which are a part of the USB drivers that you installed earlier. Other devices (e.g. scanners, cameras) may require their own device-specific driver. Please check with the manufacturer of your USB device to determine if a special driver is required. Verify that it is available for your operating system.

vpe



To connect more than two USB devices to your computer, you may expand your USB using a USB Hub. (See *Accessories*, p. 11.) Simply connect the USB Hub to the IOGEAR USB Card, then plug USB devices into the Hub. USB devices attached to a USB-compliant hub will work exactly as they do when connected directly to the USB Card.

Most free standing hubs provide four additional ports. If you need to connect a large number of USB devices to your computer, you may continue to expand your system by adding more USB hubs.

The next section explains hub connections in further detail.

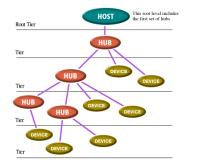


## PCI USB Card Adding USB Ports

#### **Adding Additional USB Ports**

You may daisy chain as many as four USB hubs in succession. Each time a hub is plugged into an existing hub on the bus, a new tier is created. USB is capable of a maximum of six tiers which includes the root hub inside the computer and the devices at the end.

**Note:** Hubs may be embedded in CPU cases, displays, keyboards, etc. A USB keyboard with a socket for connecting a mouse is a typical example.



#### Connectivity rules for USB networks

- Maximum of 127 devices (with the root hub being device 1).
- Bus-powered hubs cannot be connected to other bus-powered hubs, due to power limitations. A keyboard with an internal hub is a good example of a bus-powered hub.
- USB cables should be no longer than 5 meters in length for full speed (12.5 Mbps) devices and no longer than 3 meters for low speed (1.5 Mbps) devices.

# PCI USB Card Accessories

#### Accessories

USB is quickly taking the forefront as a replacement for older peripheral connections. Unfortunately, most PCs come equipped with one or two ports, even none at all. With IOGEAR's USB hubs, you will always have plenty of room to add al the devices you need.

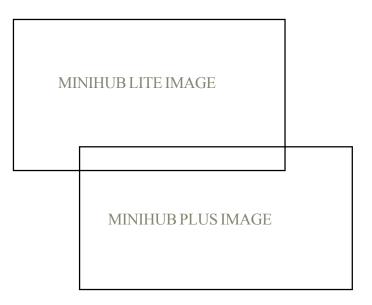
- Self powered
- Enhanced surge protection
- Works on all USB 1.1 compatible systems, PC and Mac
- Hubs can be chained for added expansion
- Compact design

#### Minihub Lite

2-Port USB Expansion Hub (G-UH102)

#### **Minihub Plus**

4-Port USB Expansion Hub (G-UH7144, G-UH124)



#### PCI USB Card Troubleshooting

#### Troubleshooting

#### **Plugging and Unplugging Devices**

The computer should be fully operational with the operating system completely finished booting before any modification occurs on the bus. When any change is made to the bus such as plugging or unplugging a hub or device, the bus will take a few moments to adapt to the change.

To avoid problems, USB hubs and devices should be left for a few seconds to stabilize before any additional changes are made.

#### **Power Problems**

Powered USB devices should be turned on *before* being plugged into the bus.

Bus-powered hubs cannot be connected to other bus-powered hubs. To extend the USB properly, connect only self-powered hubs or alternate self-powered and bus-powered hubs.

Be sure that cables do not exceed the maximum allowable length (5 meters in the case of full-speed devices and 3 meters in the case of low-speed devices). Exceeding the maximum cable length can result in data loss and/or power related problems.

#### **Driver Problems**

Some USB devices require their own unique driver. When purchasing USB devices, be sure to ask if a device specific driver is required. Refer to the manufacturers' web sites for drivers or driver uppdates.

# PCI USB Card Technical Support

#### **Technical Support**

If, after reading this manual, you are still having problems installing or using IOGEAR's PCI USB Card, please contact us. Updated drivers are available in the Downloads section of IOGEAR's website: http://www.iogear.com.

IOGEAR 16560 Aston Street Irvine, CA 92606

Phone: (949) 250-1260 Toll Free: (888) 999-2836 Fax: (949) 250-1262

Web-site: www.iogear.com E-mail: info@iogear.com



#### **Federal Communications Commission Statement**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



## PCI USB Card Limited Warranty

## **Limited Warranty**

IN NO EVENT SHALL THE DIRECT VENDOR'S LIABILITY FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THE PRODUCT, DISK OR IT'S DOCUMENTATION EXCEED THE PRICE PAID FOR THE PRODUCT.

The direct vendor makes no warranty or representation, expressed, implied, or statutory with respect to the contents or use of this documentation, and especially disclaims it's quality, performance, merchantability, or fitness for any particular purpose.

The direct vendor also reserves the right to revise or update the device or documentation without obligation to notify any individual or entity of such revisions, or updates. For further inquiries please contact your direct vendor.



# PCI USB Card

Adding the world of USB

Entire contents copyright © 2000 IOGEAR All rights reserved. Reproduction in whole or in part without permission is prohibited. MiniView™ is a trademark of IOGEAR. All other trademarks are the property of their respective owners.