Sensoray Model 627

### CompactPCI to PCI Adapter

Revised December 19, 2003

#### TABLE OF CONTENTS

LIMITED WARRANTY	
SPECIAL HANDLING INSTRUCTIONS	4
1. INTRODUCTION	5
2. SYSTEM REQUIREMENTS	5
3. SPECIFICATIONS	5
4. SOFTWARE	
4.1. INSTALLATION 4.2. OPERATION	
5. ADAPTER BOARD	
5.1. INSTALLATION	
6. TECHNICAL SUPPORT	7

# **Limited Warranty**

Sensoray Company, Incorporated (Sensoray) warrants the Model 627 hardware to be free from defects in material and workmanship and perform to applicable published Sensoray specifications for two years from the date of shipment to purchaser. Sensoray will, at its option, repair or replace equipment that proves to be defective during the warranty period. This warranty includes parts and labor.

The warranty provided herein does not cover equipment subjected to abuse, misuse, accident, alteration, neglect, or unauthorized repair or installation. Sensoray shall have the right of final determination as to the existence and cause of defect.

As for items repaired or replaced under warranty, the warranty shall continue in effect for the remainder of the original warranty period, or for ninety days following date of shipment by Sensoray of the repaired or replaced part, whichever period is longer.

A Return Material Authorization (RMA) number must be obtained from the factory and clearly marked on the outside of the package before any equipment will be accepted for warranty work. Sensoray will pay the shipping costs of returning to the owner parts that are covered by warranty. A restocking charge of 25% of the product purchase price will be charged for returning a product to stock.

Sensoray believes that the information in this manual is accurate. The document has been carefully reviewed for technical accuracy. In the event that technical or typographical errors exist, Sensoray reserves the right to make changes to subsequent editions of this document without prior notice to holders of this edition. The reader should consult Sensoray if errors are suspected. In no event shall Sensoray be liable for any damages arising out of or related to this document or the information contained in it.

EXCEPT AS SPECIFIED HEREIN, SENSORAY MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AND SPECIFICALLY DISCLAIMS ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. CUSTOMER'S RIGHT TO RECOVER DAMAGES CAUSED BY FAULT OR NEGLIGENCE ON THE PART OF SENSORAY SHALL BE LIMITED TO THE AMOUNT THERETOFORE PAID BY THE CUSTOMER. SENSORAY WILL NOT BE LIABLE FOR DAMAGES RESULTING FROM LOSS OF DATA, PROFITS, USE OF PRODUCTS, OR INCIDENTAL OR CONSEQUENTIAL DAMAGES, EVEN IF ADVISED OF THE POSSIBILITY THEROF.

## **Special Handling Instructions**

The Model 627 circuit board contains CMOS circuitry that is sensitive to Electrostatic Discharge (ESD).

Special care should be taken in handling, transporting, and installing the 627 to prevent ESD damage to the board. In particular:

- Do not remove the circuit board from its protective anti-static bag until you are ready to install the board into the enclosure.
- Handle the circuit board only at grounded, ESD protected stations.
- Remove power from the PCI bus before installing or removing the circuit board.

4

## **1. Introduction**

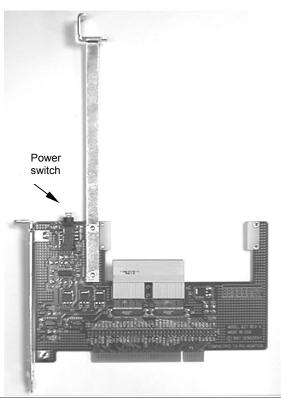
Sensoray's Model 627 CompactPCI to PCI Hot Swappable Bus Adapter allows testing CompactPCI (CPCI) boards using the desktop PC. It offers significant cost and time savings: there is no need for expensive CompactPCI enclosure and processor, and the boards under test could be replaced without having to power down the system (with the use of Sensoray's *HotSwap* software utility that comes with the adapter).

## 2. System Requirements

The Model 627 adapter requires one PCI, 32-bit, 33 MHz slot. Sensoray's *HotSwap* utility requires Windows 95, 2000, XP or Windows NT, and approximately 4 MB of hard drive space.

### 3. Specifications

Parameter	Specification
Bus	PCI, 32-bit, 33 MHz
Control	Single pushbutton illuminated switch
Mounting	Standard PC bracket
CompactPCI board mounting	Guide rails and a custom bracket
	accommodating standard CompactPCI
	ejector handle
Dimensions	$6\frac{1}{2} \times 4\frac{3}{4} \times \frac{3}{4}$ inches (not including the
	CompactPCI bracket)
Operating temperature	0°C to 70°C



Sensoray Model 627 Instruction Manual

### 4. Software

The Sensoray Model 627 adapter is supplied with Sensoray's *HotSwap* software utility that allows replacing the CPCI boards without having to reboot the PC.

#### 4.1. Installation

Run *setup.exe* from disk 1 of the disk set that comes with the adapter. Follow the on-line instructions of the installation program.

If both Windows 95 **and** NT are installed on the PC, the installation has to be run separately under each OS. It is recommended to select the same installation directory for the program files during both installations, to avoid unnecessary duplication.

### 4.2. Operation

After the PC is powered up with the CPCI board under test in the Model 627 adapter, start the *HotSwap* software utility. Click on the "Autodetect" button, until the board's parameters are displayed in VendorID and DeviceID fields. Click on the "Save config" button. (To view the board's PCI configuration space, select "View" from the menu bar). After the board's configuration space is saved, the adapter's power can be turned off. When the board is replaced, and the adapter's power is turned back on, click on "Reload config" and the board is ready for operation.

The *HotSwap* software utility stores the configuration data only for one board at a time, but it is possible to run several instances of this program if necessary.

## 5. Adapter board

#### 5.1. Installation

Power down the PC. Plug the Model 627 adapter into a PCI slot and secure the PC bracket with the screw. Plug in the board under test into the 627 adapter. Make sure the 627's power switch is on (depressed). Power up the PC.

#### 5.2. Operation

PCI boards, unlike ISA boards, do not have any hardwired configuration information (addresses, interrupts, etc.). Each PCI board is configured at the boot-up, and the configuration information is stored in the PCI interface. Once the board is removed from the PC (even if the bus isolation adapter is used to keep the PC running), the information stored on the board is lost, so it would normally not respond to any PCI bus accesses after it is placed back into the adapter. Hence, the use of special software is required that restores the configuration information after the board is powered back up. The *HotSwap* utility that comes with the Model 627 adapter saves and restores the configuration space of the PCI board. To be able to store this information initially, it requires the presence of the board (preferably known good) in the system at the boot-up.

# 6. Technical Support

For technical support contact Sensoray Company, Inc.

Tel: (503) 684-8005 Fax: (503) 684-8164 E-mail: support@sensoray.com http://www.sensoray.com