



ICP SATA/PATA Adapter

**SATA/PATA Adapter for ICP RAID Controllers
with SATA Ports**

Hardware Installation and User Guide

Version 1.0

June 2003

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The ICP SATA/PATA Adapter

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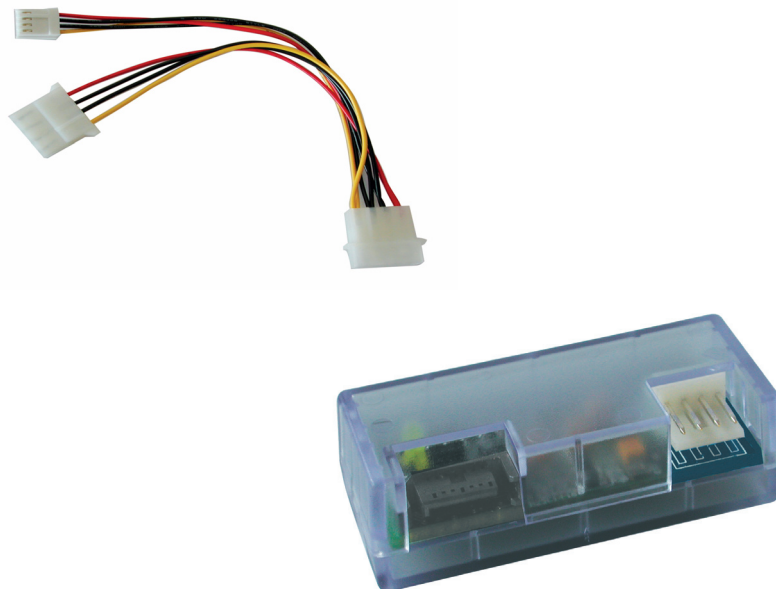
1.1 Product Description

The ICP SATA/PATA Adapter is a plug-in adapter for PATA hard disk drives (parallel ATA, sometimes called UDMA or IDE hard disk drives). It contains a so-called I/O translator which translates the PATA signals of a hard disk drive into SATA (Serial ATA).

Note: The ICP SATA/PATA Adapter is designed for the connection to an ICP SATA RAID Controller alone. It supports only PATA hard disk drives and no other PATA devices like CD-ROM drives or CD-RW drives.

1.2 Scope of Delivery

Together with the ICP SATA/PATA Adapter you receive a so called Y-power cable which allows to supply both the ICP SATA/PATA Adapter and an appropriate PATA hard disk with power from your computers power supply using a standard 4-pin power connection.




Regulatory and Certification Information 2

2.1 Product Regulatory Compliance Markings

Note: This adapter is intended for use in UL Listed computers or equivalent, that have instructions detailing installation.

The ICP SATA/PATA Adapter, when correctly integrated per this guide, complies with the following safety and electromagnetic compatibility (EMC) regulations.

Marking	Description
	CE mark for European Union

2.1.0.1 CE Declaration of Conformity (Europe)

We, ICP vortex Computersysteme GmbH, declare under our sole responsibility that the product:

ICP SATA/PATA Adapter

is in conformity with all applicable essential requirements necessary for CE marking, following the provisions of the European Council Directive 89/336/EEC (EMC Directive) and Council Directive 73/23/EEC (Safety/Low Voltage Directive).

The product is properly CE marked demonstrating this conformity and is for distribution within all member states of the EU with no restrictions.



This product follows the provisions of the European Directives 89/336/EEC .

- *Dansk* Dette produkt er i overensstemmelse med det europæiske direktiv 89/336/EEC.
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- *Icelandic* Þessi vara stenst reglugerð Evrópska Efnahags Bandalagsins númer 89/336/EEC & 73/23/EEC.
- *Italiano* Questo prodotto è conforme alla Direttiva Europea 89/336/EEC.
- *Norsk* Dette produktet er i henhold til bestemmelsene i det europeiske direktivet 89/336/EEC.
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- *Svenska* Denna produkt har tillverkats i enlighet med EG-direktiv 89/336/EEC.

2.2 Customer support information

Support for the product is available under <http://www.icp-vortex.com> or <http://www.vortex.de>. Please note, that the ICP SATA/PATA Adapter is designed specifically for the operation with suitable ICP SATA RAID Controllers and therefore customer support can only support this.

2.3 Warnings and Cautions

This guide should be used by qualified technical personnel with experience installing and configuring computer components.

Read and adhere to all warnings, cautions, and notices in this guide.

Warnings

- The connection of a non-shielded equipment interface cable to this equipment will invalidate the CE certification of this device and may cause interference levels that exceed the limits established by the CE for this equipment. It is the responsibility of the user to obtain and use a shielded equipment interface cable with this device. If the equipment has more than one interface connector, do not leave cables connected to unused interfaces unless otherwise instructed to do so in the user manual.
- Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Hardware Installation

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This chapter provides information on installing the ICP SATA/PATA Adapter, connector layouts and LEDs.

3.1 Installation Procedures

Warning: Shock hazards may be present inside the computer in which this controller is being installed. Disconnect all power cords to the computer before the removal of any covers.

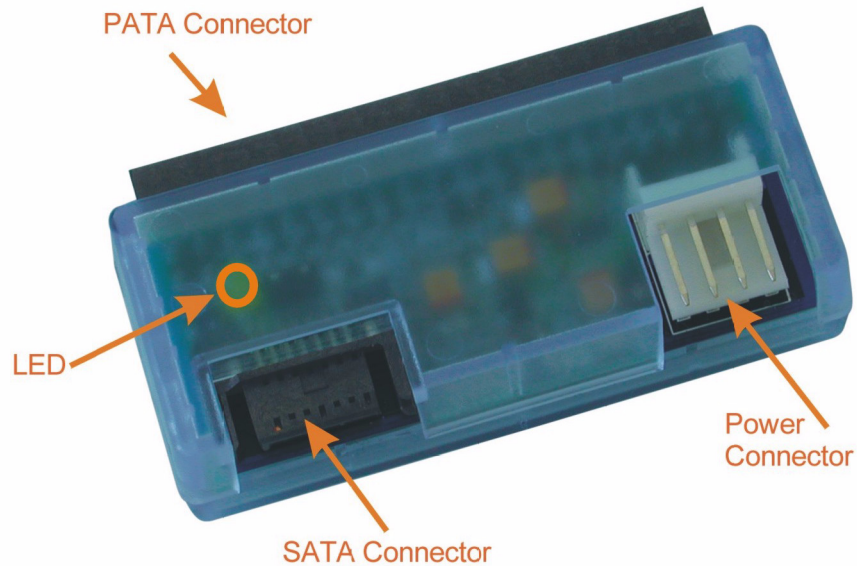
Follow the warnings noted in your computer's user manual before installing this board. ONLY after reinstallation of all the covers should you reconnect the power cords and power-up the computer.

Note: Take precautions to prevent electrostatic discharge (ESD) damage before handling the hard disks, ICP RAID Controllers and the ICP SATA/PATA Adapter.

3.1.1 Hardware Requirements

- GDT8546RZ or comparable ICP RAID Controller with SATA connectors
- PATA (IDE) Ultra DMA hard disk (UDMA 4 = 66,7 MB/s, UDMA5 = 100 MB/s, UDMA 6 = 133 MB/s)

Figure 3-1. ICP SATA/PATA Adapter Layout



3.1.2 Installation of the ICP SATA/PATA Adapter

1. Plug the SATA/PATA Adapter to the hard disk as shown in [Figure 3-2](#).

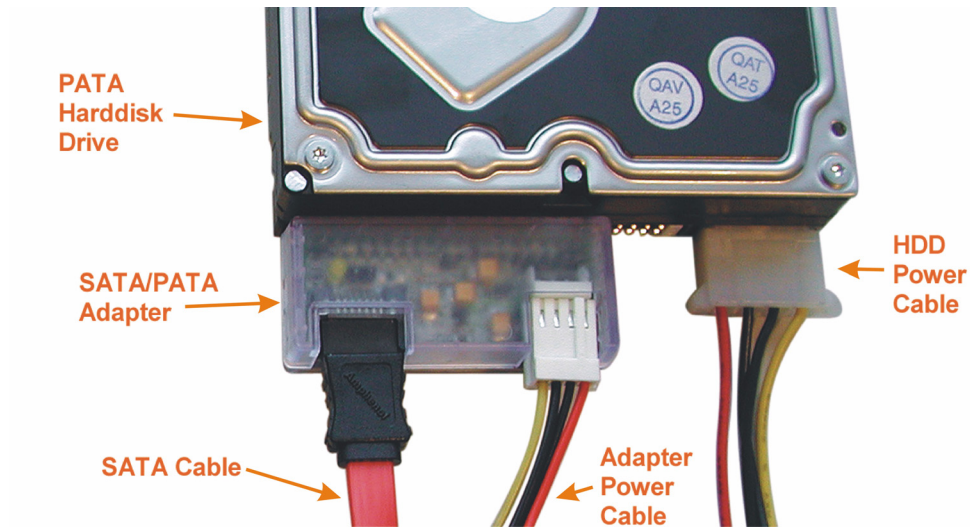
Note: The hard disk must be set as master (recommended) or to CSL ('Cable Select'). Usually you will find the information about how to set the corresponding jumpers on a sticker on the hard disk itself or within the hard disks manual.

Warning: Please use the correction orientation while connecting the adapter. If the adapter is connected the wrong way, this may cause serious damage to the adapter or the hard disk drive!

2. Then, connect the SATA cable to the SATA connector of the ICP SATA/PATA Adapter.
3. At least, connect the power cable to the power connector of the ICP SATA/PATA Adapter (small power connector) and to the PATA hard disk drives (large connector). The Y-power cable then needs to be connected to a power cable from the power supply.

Note: The ATA hard disk, the SATA I/O cable and the power cord are coded, that means they only fit in one way to the connector of the ICP SATA/PATA Adapter.

Figure 3-2. Installation of the ICP SATA/PATA Adapter in a computer system



3.2 Hardware Specifications and Features

3.2.1 Key Features

- Supports SATA power save mode
- Allows Hot Plug (on the SATA bus)
- Supports SATA command queuing (max. 32 entries)
- Is equipped with an activity LED for the connected PATA hard disk. Makes it easy to locate a failed hard disk drive in a RAID array.

Tabelle 3-1. Hardware Architecture

Component	Features
I/O Interface (SATA)	SATA 1.0, 150 MB/s
HDD Interface (PATA)	PIO Mode 0-4, UDMA Modes 0-6
Interface chip	Marvell 88i8030
Power Consumption	+5V/220mA

Tabelle 3-2. Environmental Specifications

Environmental Stress Test	Meets Required Conditions
Operating Temperature	0° C to +55° C
Storage Temperature	-40° C to +70° C
Form Factor (physical dimensions)	Height: 16,5 mm, Width: 24,5mm Length: 58 mm