

For the extension of the PC or as replacement for old controllers. Ideal for the new generation of EIDE U-DMA/100 HDDs. Bus mastering reduces I/O processing load on CPU to increase the system performance. Conforms to Ultra ATA/100 specification with full backward support on Ultra ATA/66/33, EIDE/Fast ATA-2, IDE and ATAPI devices. This Ultra DMA/100 controller is equipped with 2 Ultra DMA/100 IDE interfaces. You can further use your on-board IDE controller (e.g. for older HD or CD ROM drives).

Software installation

Installation under Windows 98:

When booting the system there appears a window "New Hardware Found". The controller is identified as "PCI RAID Controller". Shortly after the system is starting the **Add New Hardware Wizard** and searches for new drivers for "PCI RAID Controller". Please click on ⇒ **Next**. In the following window ("What do you want Windows to do?") select **"Search for the best driver for your device"** ⇒ **Next**. In the next window mark **"Specify a location"** and type in the location **"D:\CMD\CMD649\Win9x"** (where **D**: can be the drive letter of your CD-ROM drive). Then insert the enclosed **floppy disk** ⇒ **Next** ⇒ **Next**. Now Windows is copying the necessary files from the disk ⇒ **Finish**. Afterwards Windows is installing the UDMA/100 Controller.

Installation under Windows 95B*:

While booting the screen shows "New Hardware Found". The Update Device Driver Wizard identifies the card as "PCI RAID Controller". Please insert the 3,5" **floppy disk** into the drive ⇒ **Next** ⇒ **Other Locations**. In the following window (Select Other Location) type in the location **"D:\CMD\CMD649\Win9x"** (where **D**: can be the drive letter of your CD-ROM drive). ⇒ **OK** ⇒ **Finish**. There appears a message to insert the disk labeled "CMD Installation Diskette". Click on ⇒ **OK** and type in the location (Copy files from) **"D:\CMD\CMD649\Win9x"** (where **D**: can be the drive letter of your CD-ROM drive). ⇒ **OK**. Now Windows is copying the necessary files from the floppy disk. Afterwards the UDMA/100 controller gets installed.

* When using other versions of Windows 95 the installation may differ slightly.

Important instructions

You can check if the controller has been installed properly. Click **Start** ⇒ **Settings** ⇒ **Control Panel** ⇒ **System** ⇒ **Device Manager** ⇒ **Hard disk controllers**. There must be following entries without a yellow exclamation mark:

- CMD PCI-0649 Ultra DMA IDE Controller
- Primary CMD Ultra DMA Bus Master IDE Controller
- Secondary CMD Ultra DMA Bus Master IDE Controller

Boot options

To boot from devices connected to the Ultra-DMA/100 controller card, you must adjust the BIOS-Setting "Boot Sequence" to "SCSI", because this controller is handled like a "SCSI-Controller". If this function is missing in your BIOS (this may be in older PCs), a BIOS update perhaps adds this function. Ask your dealer or mainboard manufacturer. If you want to boot from devices connected to the On-Board IDE-controller, you can let the settings unchanged.

Connecting devices

In opposite to the 40 pin Ultra-DMA/33 ribbon cable, you **must** connect the devices in a fixed order when using 80 pin Ultra-DMA/100 connecting cables: The **blue** plug must be connected to the port on the **controller card**. The **black** plug must be connected to the **first** device ("**Master**"). If you want to connect a **second** device, it must be connected to the **grey** plug and jumpered as "**Slave**". The same order is also valid for the second controller on the card. Please pay attention to connect the red marked side of the connection cable to the side marked with an arrow of the controller or device. Besides, on the Controller-Card you find a connector with the marking "J4". Here you can connect the plug "HDD-LED". It signals Write- and read activity on a connected drive.

Advices for the plug bridges for disabling of IDE channels under DOS

The jumpers on the PCI card allow to disable IDE channels on plain DOS systems. There are following settings possible:

JP6	<input type="checkbox"/>	<input type="checkbox"/>	1-2	Primary channel (J1) enabled
JP6	<input type="checkbox"/>	<input type="checkbox"/>	2-3	Primary channel (J1) disabled
JP5	<input type="checkbox"/>	<input type="checkbox"/>	1-2	Secondary channel (J2) disabled
JP5	<input type="checkbox"/>	<input type="checkbox"/>	2-3	Secondary channel (J2) enabled

Important instruction: Please don't disable IDE channels in this way if you are also using Windows because there maybe problems when starting this operating system. The Windows driver allows to disable IDE channels via software settings. Please see below instructions.

Disabling of IDE channels under Windows 95/98

Please click ⇒ **Start** ⇒ **Settings** ⇒ **Control Panel** ⇒ **System** ⇒ **Device Manager** ⇒ **Hard disk controllers** ⇒ **CMD PCI-0649 Ultra DMA IDE Controller** ⇒ **Properties** ⇒ **Settings**. You can now disable channels under the section "Dual IDE Channel Settings".