| Method when using for the first time | Chapter |
|---|---|
| 1. Connections | (3.1) |
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# 1 Introduction

This instruction manual is for users of the TRUST 2 PORT USB 2.0 PCI CARD. The TRUST 2 PORT USB 2.0 PCI CARD supports a higher bandwidth (up to 480 Mbps data transfer) for USB 2.0 devices. This makes the card up to 20 times faster than the USB 1.1 standard. The TRUST 2 PORT USB 2.0 PCI CARD also supports the current USB 1.1 devices for a PC.

***Note:*** *The TRUST 2 PORT USB 2.0 PCI CARD does not work on a MAC system.*

# 2 Safety

Carefully read the following instructions before use:

1. Computer components may contain static electricity. You may receive an electric shock if you touch the computer casing.

2. Turn the computer off and remove the plug from the plug socket before opening the computer.

3. Make sure the components you wish to add are compatible with your computer system.

4. Always hold the USB 2.0 card on the edges to prevent damage caused by static electricity.

# 3 Installation

## 3.1 Connections

Follow the instructions below and refer to table 1 and figure 1.

| Connection | Function |
|---|---|
| **A** | Connection for external USB devices, such as scanners, modems, cameras, etc. |

**Table 1: Connections on the TRUST 2 PORT USB 2.0 PCI CARD**

## 3.2 Uninstalling old drivers and devices

The most common cause of faults during installation is the presence of a driver for a similar, old product. The best solution is to first remove all drivers related to old devices before installing the new driver.

1. Enter the Windows 'Safe Mode' (press F8 when starting Windows and then select 'Safe Mode' from the menu which is displayed).
2. Click on 'Start – Settings – Control Panel' and double-click on the 'Add/Remove Programs' icon.
3. Find all the programs for similar, old devices and remove these by clicking on the 'Add/Remove' button. When in the 'Safe Mode', it is possible for some programs to appear twice. In that case, remove all the programs which appear twice.
4. Restart the computer.

## 3.3 Installing the driver in Windows 98 / Windows 98 SE / Windows ME / Windows 2000 / Windows XP

*Note:* First remove the drivers for your current USB 2.0 card (if present).

*Note:* The latest drivers can be downloaded from www.trust.com/13351. Check whether a new driver is available and use this for the installation.

*Note:* Make sure all other programs are closed during the installation.

*Note:* During installation in Windows XP, you may receive a message saying that the driver has not been signed. This does not cause a problem for the functionality.

1. Insert the TRUST Installation CD-ROM into your CD-ROM drive. Figure 2 will appear.
2. Click on 2 Port USB 2.0 PCI card. Figure 3 will appear.
3. Click on 'Next' to continue. Figure 4 will appear.
4. Select 'Install USB 2.0 Driver' and click on 'Next' to continue.
5. Figure 5 will appear after the installation has been completed. Select 'Yes I want to restart my computer now' to restart your computer.

You have now completed the installation of the driver. Continue to chapter 3.4 for instructions on how to install the TRUST 2 PORT USB 2.0 PCI Card.

## 3.4 Installing the USB card

1. Close Windows and turn off the computer.
2. Remove the power cable from the mains supply.
3. Open the computer casing as described in the instruction manual provided with your computer.
4. Find a free PCI slot (white).
5. Remove the plate from the slot.
6. Remove the TRUST 2 PORT USB 2.0 PCI CARD from the antistatic packaging.
7. Insert the TRUST 2 PORT USB 2.0 PCI CARD into the PCI slot. Press the card firmly into the slot so that it makes good contact. Screw the card firmly into place (see figure 6).
8. Close the computer casing and connect the power cable to the computer's power connection.

9.      Connect the power cable to the wall socket.

10.     Turn on your computer and start Windows.

11.     Windows will detect new hardware (VIA Tech 3039 PCI to USB Universal Host Controller).

12.     Click on 'Next'.

13.     Select 'Search for the best driver for your device (Recommended)'.

14.     Click on 'Next'.

15.     Points 12 to 15 will be repeated a number of times.

16.     Follow the on-screen instructions to complete the installation.

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## 4      Checking after the installation

After installing the device and the driver, the following are installed on your computer and can be checked (see figure 3).

<u>'Start – Settings – Control Panel'. Double-click on the 'System' icon and select the 'Device Manager' tab.</u>
-       Universal Serial Bus controllers

The following devices have been installed:

USB 2.0 Root Hub Device.
USB Root Hub.
USB Root Hub.
VIA Tech 3038 PCI to USB Universal Host Controller.
VIA Tech 3038 PCI to USB Universal Host Controller.
VIA USB 2.0 Enhanced Host Controller.

***Note:***        *Deviations may also occur as a result of using new drivers available on the Internet.*

***Note:***        *The location or name may vary in the 'Control Panel' for different operating systems.*

# 5     Frequently asked questions

The performance of the TRUST 2 PORT USB 2.0 PCI CARD when USB 1.1 and USB 2.0 devices are connected to it:

- USB 1.1 can use 2 speeds: 12 Mbit and 1.5 Mbit. The chip in the peripheral device determines the speed used. A 1.5 Mbit controller chip is cheaper, but only supports slow devices, such as a joystick or a mouse.
- USB 2.0 can use one of three speeds: 480 Mbit, 12 Mbit and 1.5 Mbit.

The 2 ports on the TRUST 2 PORT USB 2.0 PCI CARD share a 480 Mbit controller. If a USB joystick or mouse (1.5 Mbit) is connected and this is frequently read out, the performance will become slower and the performance of any USB 2.0 devices which are also connected to the **same controller** will be greatly reduced.

Whether this is a problem in practice depends on a number of factors. However, the following devices will cause a clear reduction in the performance of USB 2.0 devices if they are connected to the same controller:

- USB 1.1 mouse (because this is frequently read out and is a 1.5 Mbit low speed device).
- USB 1.1 webcam or Video Capture (because this uses almost the entire 12 Mbit bandwidth).
- USB 1.1 external hard disk or CD-ROM drive.
- USB 1.1 LAN module (if there is a large amount of network traffic on that segment).

**Solution**
Purchase a second controller card and connect all USB 1.1 devices to one controller card and all USB 2.0 devices to the other controller card. The controller for the USB 1.1 devices can be an old USB 1.1 controller.

| Question | Answer |
|---|---|
| **Is it possible to connect current USB 1.1 devices to the TRUST 2 Port USB 2.0 PCI CARD?** | Yes. The device will not, however, obtain the USB 2.0 speed (480 Mbits/sec) but the USB 1.1 speed (12 Mbits/sec). |
| **Is it possible to connect a USB 2.0 hub to the TRUST 2 Port USB 2.0 PCI CARD?** | Yes. You will then be able to connect a number of devices (max. 127) to one USB port. |
| **Is it possible to install more than one USB 2.0 card in my system to create more USB 2.0 connections?** | That is possible, but you could also connect a USB hub to keep as many PCI slots as possible free for other devices, such as the TRUST 4 PORT USB 2.0 HUB. |

**Table 2: Frequently asked questions**

# 6 Specifications

| Connection | PCI |
|---|---|
| No. of USB ports | 2 external USB 2.0 |
| Speeds | 480 Mbits / 12 Mbits / 1.5 Mbits per second |
| 480 Mbits application | External hard disk / CD-ROM drive, cameras (photo + video) |
| 12 Mbits application | Audio, compressed video |
| 1.5 Mbits application | Keyboard, mouse, joystick, gamepad |
| Output voltage | 5 Volt DC per port |
| Output current | 500 mA per port |
| Operating system | Windows 98 / Windows 98 SE / Windows 2000 / Windows ME / Windows XP |

**Table 3: Technical specifications**

# 7    Troubleshooting

<u>**Method**</u>

1.    Read the solutions given below.
2.    Check for up-to-date FAQ's, drivers and instruction
       manuals on the Internet (www.trust.com/13351).

**!**

| Problem | Cause | Possible solution |
|---|---|---|
| **After the card has been installed, it is not detected when starting the computer.** | The card has not been inserted into the PCI slot correctly. | Insert the card firmly into the PCI slot. |
| **The USB cable has been extended and the device no longer works.** | The length of the USB cable must not exceed 3.5 metres. A USB repeater must be used if the cable is longer than 3.5 metres. | Do not extend the cable. |
| **A device connected to the USB 2.0 card does not work or does not work correctly.** | The device has not been installed or has not been installed correctly. | Remove the device from the USB 2.0 card and uninstall the drivers. Install the device as described in the instruction manual provided with the device. |
| **USB 2.0 devices do not obtain the maximum speed.** | A USB 1.1 device is connected to the TRUST 2 PORT USB 2.0 PCI CARD. | Remove the USB 1.1 device and check whether the USB 2.0 device now works correctly. |
| | | Connect the USB 1.1 device to a USB 1.1 controller card. |
| **A message is displayed stating that not enough power can be given to the connected device.** | Too many devices are connected and they are using too much power. | Remove one or more devices until you have enough power. |

**Table 4: Troubleshooting**

If you still have problems after trying these solutions, please contact one of the Trust Customer Care Centers. You can find more information at the back of this instruction manual. Please have the following information available:

- The article number. This is 13351.
- A good description of what does not work.
- A good description of when the problem occurs.