

# USB 2.0 High Speed 4-Port Hub



## Making Your Mobile Life Easier.

Visit our Web site at: www.targus.com Features and specifications are subject to change without notice. © 2003 Targus Corp. 400-0109-001A

# **USER'S GUIDE**

Making Your Mobile Life Easier.

Brussels Hannover Barcelona Tokyo Milano Amsterdam Singapore London Paris New York Los Angeles Toronto Hong Kong Sydney

PMS Black 15%



# **USB 2.0 High Speed 4-Port Hub**

#### Introduction

Congratulations on your purchase of a Targus USB 2.0 High Speed 4-Port Hub. This ultra portable hub is USB 2.0 compliant and connects to a Universal Serial Bus (USB) port on your desktop or notebook computer.

The hub has four ports for connecting USB (high-speed 2.0 or standard 1.1) devices to your computer. One or more of these devices can be additional hubs. You can daisy-chain up to 127 USB (high-speed 2.0 or standard 1.1) devices to your computer in this way.

The hub also provides a maximum bandwidth of 480 Mbps, which enables you to connect devices that consume a large amount of bandwidth, such as an external storage device, printer, scanner, DVD or CD-RW drive or digital camera, to your computer.

This user's guide describes how to connect the hub to your computer and install default software drivers for the following hub models:

- PAUH200 USB 2.0 High Speed 4-Port Switching Hub
- PAUH210 USB 2.0 High Speed Mini Cable Powered Hub

In addition to this user's guide, depending on the hub model that you purchased, this package contains:

#### PAUH200

- USB 2.0 switching hub
- 2 USB 2.0 A to B cables
- · AC power adapter

#### PAUH210

- USB 2.0 hub
- · USB "Y" power cable

# Features

#### PAUH200

- Has two type B USB ports that allow a user to connect and simultaneously use the hub with a second computer
- Supports hot swapping and Plug and Play operation

#### PAUH210

• Supplied "Y" power cable uses two type A USB connectors, one for power and data flow (black) and the other for power only (red), eliminating the need for an AC power adapter

## **System Requirements**

To use the hub, your computer must meet the following hardware requirements and run one of the operating systems listed below

#### Hardware

# **Operating System**

- PC with an Intel® Pentium® processor or equivalent and a hard • Windows® Millennium disk drive
- 64 MB RAM or higher, depending Windows® 2000 on the operating system
- · USB interface

- Windows® 98SE
  - Edition
- · Windows® XP
- · Mac OS X



NOTES: The USB 2.0 High Speed 4-Port Hub is backward compatible, so you can connect it to a computer with either a USB 1.1 or 2.0 interface.

When using the hub with a computer that has a version 1.1 USB interface, all of the devices attached to the hub will run at USB 1.1 speed (up to 12Mbps).

# Connecting the Hub and Installing the Drivers

To connect the hub to your computer and install the operating system's default drivers, follow the steps listed below for the hub model that you purchased.

#### Model PAUH200

The model PAUH200 hub comes with two high-speed A/B cables so that you can connect it to two host computers. If you are connecting the hub to only one host computer, keep the second cable in a safe, easy to remember place for future use.

- 1 Turn on your computer (if it's off).
- 2 Plug the supplied cable's USB type A connector end into a USB port on your computer.



USB type A and B connector ends

- 3 Plug the cable's USB type B connector end into the hub.
- 4 Repeat steps 2 and 3 using the second cable to connect the hub to a second host computer.
- 5 Attach the supplied AC power adapter to the AC power jack on the hub and plug the adapter into an available electrical outlet.

Your computer's operating system automatically detects the new hardware and begins installing the appropriate default drivers 6 Follow the on-screen instructions to complete the driver installation.

You can now connect USB devices to the hub or daisy-chain additional hubs.

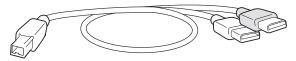
#### Model PAUH210

The "Y" power cable that connects the model PAUH210 hub to your computer has two USB type A connector ends, one black and one red

The black connector supports up- and downstream data flow between the hub and your computer and provides power to the hub and any device attached to the hub. The red connector only provides power; data flow is not supported.

When the USB type A connectors are used together, the "Y" power cable provides enough power to run any attached device, even devices that consume large amounts of bandwidth, eliminating the need for an AC power adapter (if the device has one).

- 1 Turn on your computer (if it's off).
- 2 Using the supplied "Y" power cable, plug the black USB type A connector end into a USB port on your computer.



"Y" power cable with USB type A and B connector ends

3 Plug the red USB type A connector end into another USB port on your computer for additional power to the hub.



NOTE: If you are using the hub with just one USB connection, any devices attached to the hub that require heavy power, such as a printer or external storage device, may operate slower due to reduced bandwidth. To increase speed, use the device's AC power adapter, or connect the red USB type A connector to your computer.

- 4 Plug the cable's USB type B connector end into the hub. Your computer's operating system automatically detects the new hardware and begins installing the appropriate default drivers
- 5 Follow the on-screen instructions to complete the driver installation.

You can now connect USB devices to the hub or daisy-chain additional hubs.

# **Connecting Devices to the USB Hub**

To connect a USB device, plug it into a USB port on the hub and follow any additional instructions provided with the device

When connecting new devices to the hub, consider the following guidelines:

- If your computer is running the Windows<sup>®</sup> 98 operating system, a series of screens appear, beginning with the Add New Hardware Wizard, to guide you through the driver installation process.
- If your computer is running the Windows<sup>®</sup> Millennium Edition, Windows<sup>®</sup> 2000 or Windows<sup>®</sup> XP operating system, the device drivers may install automatically.

- When connecting a new device to the hub, you must run the Setup or Install program for that device.
- When connecting a device to the hub, to avoid possible damage, never force the cable connector into the port on the hub. If the cable connector does not attach smoothly, remove the connector, turn it over and try attaching it again.

# **LED Status Indicator Lights**

Once the default drivers are installed, the LED status indicator lights glow and you can connect devices to the hub.

The LED lights display as follows:

#### Model PAUH200

- Power light glows green when the hub is receiving power from your computer and glows orange when it's receiving power from the AC power adapter.
- Hub status light A glows green when a host computer is connected.
- Hub status light B glows red if a second host computer is connected.



NOTE: Use only the supplied AC power adapter with the hub to avoid possible damage.

#### Model PAUH210

 Power light glows green when the hub is receiving power from your computer via the "Y" cable.

# **Specifications**



NOTE: Specifications are for all models unless indicated otherwise.

#### Models

PAUH200 and PAUH210

#### **Dimensions**

**PAUH200:** 0.93 x 2.8 x 1.8 inches (23.5 x 70 x 45 mm) **PAUH210:** 0.93 x 2.4 x 1.5 inches (23.5 x 61 x 38 mm)

#### Weight

1.6 ounces (45 g)

#### **Operating Temperature**

32 to 158 degrees Fahrenheit (0 to 70 degree Celsius)

#### Standards

USB Specification Revision 2.0 and 1.1 compatibility

#### Data Speed

USB v1.1: 12 Mbps USB v2.0: 480 Mbps

#### **Connector Ports**

#### PAUH200

Hub to computer: 2 (series B receptacle) Hub to devices: 4 (series A receptacle)

#### PAUH210

Hub to computer: 1 (series B receptacle) Hub to devices: 4 (series A receptacle)

### **LED Indicators**

#### PAUH200

Power: 1 (Orange - with AC power adapter,

Green - running off computer's power

supply)

Hub to computers: 2 (A - Green, B - Red)

#### PAUH210

Power: 1 (Green)

#### Per-Port Current

500 mA (with the AC power adapter or "Y" power cable)

#### **External Power - AC Power Adapter**

DC 5 Volt

#### Cable length

3-foot (1 m)

# **Troubleshooting**

#### General

Can I connect USB 1.1 compatible devices to the hub?

Yes, the hub is backward compatible with USB 1.1 devices.

Can I use the model PAUH210 hub if I have only one available USB port?

Yes, the model PAUH210 hub works with one USB port if you connect it to your computer with the black USB connector. For more information, refer to "Model PAUH210" on page 6.

## **Device Not Working**

- Make sure that the device is firmly connected to the port on the hub.
- Plug the device into a different port on the hub. If it still doesn't work, test the device by connecting it directly to your computer.
- Check that you ran the Setup or Install program for the device.
- Make sure that the device appears in Device Manager. See "Verifying Device is Installed" below.
- Disconnect all devices from the hub and reconnect them, one at a time. Check that each device works before plugging in the next one

## Verifying Device is Installed

#### Windows® Operating System

To check that the hub is installed properly, use Device Manager to locate the Generic USB Hub on USB 2.0 Bus device.

To access Device Manager for the Windows® 98/Me operating system, right-click My Computer, Properties, and then click the Device Manager tab.

For the Windows® 2000/XP operating system, right-click My Computer, Properties, click the Hardware tab, then click the Device Manager button.

To test that the hub is working properly, in the Device Manager window:

- 1 Select the Generic USB Hub on USB 2.0 Bus device.
- Click the **Properties** button or icon, depending on your operating system.

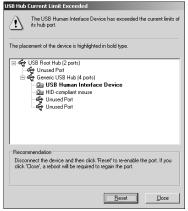
3 Verify that the message "This device is working properly" appears.

#### **Macintosh Operating System**

To verify that the hub is installed properly, locate the Generic USB Hub on USB 2.0 Bus device by opening Apple System Profiler and clicking Devices and Volumes.

## USB Hub Current Limit Exceeded Warning

If a device exceeds the power available for its hub port, the following screen appears with the offending device highlighted.



USB Hub Current Limit Exceeded screen

To re-enable the hub port for the affected device, follow the on-screen instructions.

# **Technical Support**

In the unlikely event that you encounter a problem with your Targus accessory, please contact our technical support team at:

Email: techsupport@targus.com

Internet: http://www.targus.com/support.asp

Our knowledgeable staff is also available to answer your questions through one of the following telephone numbers.

#### US

Monday through Friday, 8:00 a.m. (08:00) to 8:00 p.m. (20:00)

Eastern time: 800-283-6325

#### Canada

Monday through Friday, 9:00 a.m. (09:00) to 5:00 p.m. (17:00)

Eastern time: 888-827-4877

## Europe

Belgium +32 0 02-717-2451

Denmark +45 0 35-25-8751

France +33 0 1-64-53-9151

Germany +49 0 21-16-579-1151

Italy +39 0 24-827-1151

Netherlands +31 0 53-484-9470

Spain +34 0 91-745-6221

Sweden +46 0 8-751-4058

Switzerland +41 0 1-212-0007

United Kingdom +44 0 20-7744-0330

Eastern Europe & others +31 0 53-484-9479

## **Product Registration**

For more efficient customer service and to activate the product's warranty, Targus recommends that you register your Targus accessory shortly after purchasing it.

To register your Targus accessory, go to:

#### http://www.targus.com/registration.asp

You will need to provide your full name, email address, phone number, and company information (if applicable).

## Warranty

Targus warrants this product to be free from defects in materials and workmanship for one year. If your Targus accessory is found to be defective within that time, we will promptly repair or replace it. This warranty does not cover accidental damage, wear and tear, or consequential or incidental loss. Under no conditions is Targus liable for loss of, or damage to a computer; nor loss of, or damage to, programs, records, or data; nor any consequential or incidental damages, even if Targus has been informed of their possibility. This warranty does not affect your statutory rights.

Warranty Registration at:

http://www.targus.com/registration.asp

# Regulatory Compliance

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.

#### **FCC Statement**

#### **Tested to Comply**

This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to

radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- · Reorient or relocate the receiving antenna
- · Increase the separation between the equipment and receiver
- · Move the computer away from the receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Intel and Pentium are registered trademarks of Intel Corporation. Windows is a registered trademark of Microsoft Corporation. Macintosh is a registered trademark of Apple Computer, Inc. All other trademarks are the property of their respective owners.