UDS-1000

USB 2.0 Docking Station

User Manual

V 3.0

Index

1. Introduction

Thank you for ordering the **USB 2.0 DOCKING STATION**. The **USB 2.0 DOCKING STATION** is an intelligent expansion module, which connects to a PC or notebook via Universal Serial Bus (USB) port and VGA output port, providing one high-speed RS-232 serial port, one printer port, one PS/2 keyboard & mouse, 3 downstream USB 2.0 ports and one Ethernet access and one extending VGA display output port. The **USB 2.0 DOCKING STATION** features easy connectivity for traditional serial devices, printer, keyboard, mouse and other USB devices and provides up to 480Mbps USB 2.0 High Speed capability. Also add one extra Ethernet port and extra VGA display to your PC or notebook in seconds.

1.1. Features and Specifications

- One high-speed serial port, one printer port, one PS/2 keyboard & mouse, three USB 2.0 High Speed downstream ports, one Ethernet port and one VGA port to your PC or notebook.
- Improve the inconvenience of configuring old PC solutions like card extension solutions, which require adjusting IRQ or jumper settings and the incompatibility of various brands of docking solutions or bus repeaters.
- Avoid the hassle of removing your PC case, or rebooting the operating system during installation.
- Complies with USB specifications 2.0 (and under), with IEEE802.3u 100BASE-TX and with IEEE802.3 10BASE-T standards.
- Built-in 10/100Mbps Fast-Ethernet and IEEE802.3x flow control function for 100BASE-TX and 10BASE-T.
- USB printing devices class specification 1.1 compliant.
- USB HID class specification 1.1 compliant.
- Complies an extra VGA output, can easily connect a larger monitor to your notebook and give you a comfortable working environment.
- Supports bus power or external power.
- Supports Windows 98/98SE/ME/2000/XP/VISTA.

1.2. System Requirements

- A PC with Pentium series, equivalent, or above.
- A minimum of 16M bytes of RAM.
- One available USB type A downstream port (UHCI, OHCI, or EHCI).
- Windows 98 or later.

1.3. Package Contents

The product you purchased should contain the following equipment and accessories:

- 1 x USB 2.0 DOCKING STATION
- 1 x VGA/USB combo Y cable
- 1 x switching power adapter
- 1 x CD with Manual/Driver

1.4. Connectors

- One DB-9 RS-232 serial interface connector supports baud rates from 4800 to 115.2K.
- One DB-25 parallel connector supports IEEE-1284 bi-directional printer port.
- Two mini-din PS/2 ports for keyboard, mouse.
- Three USB receptacles type A downstream ports.
- One male and one female DB-15 VGA connectors.
- One RJ45 10/100T base Ethernet connector.
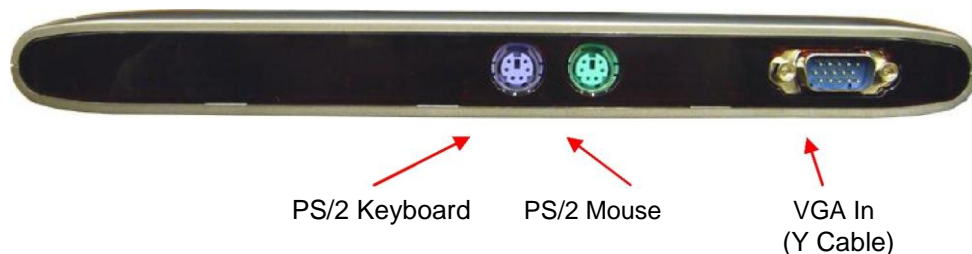- One power connector

PS/2 Keyboard   PS/2 Mouse   VGA In (Y Cable)

Fig 1.1

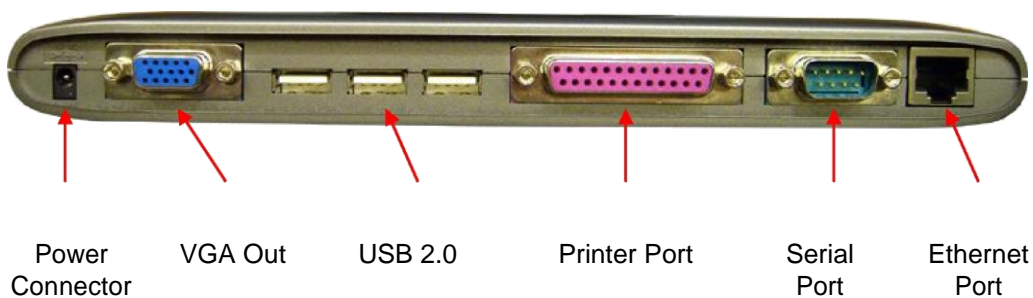| Power Connector | VGA Out | USB 2.0 | Printer Port | Serial Port | Ethernet Port |

Fig 1.2

1.5. Available functions

The available functions of **USB 2.0 DOCKING STATION** depend on the status of power supplied:

● **Bus powered**

Connect the USB/VGA combo Y cable to your PC to provide bus power. When you provide bus power only, the PS/2 mouse & keyboard, RS232, printer and Ethernet ports will be enabled. However, the USB2.0 Downstream Ports can also work under low power mode. So used of external power adaptor is recommended. (For the use of all functions)

● **Externally powered**

Connect the power adapter to provide external power.

When you provide external power, the USB Downstream Ports can support all USB devices, and you can use all the functions of **USB 2.0 DOCKING STATION**.

Note:

You must apply the power adapter in order to get full functions work properly.

1.6. LED Indicator

● **Power Indicator**

The Power Indicator will turn BLUE as either bus power or external power is supplied, even both of them supplied.

● **LAN Indicator**

■ **Link/Act (BLUE)**: This LED turns on if the 10/100Mbps (100BASE-TX) Ethernet is connected.

■ **Transmission (BLUE)**: Blinking to indicate that the data is being received or transmitted through the RJ-45 port.

LAN Indicator

Power Indicator

Fig 2

2. Installation

2.1. Execute Driver Setup Program

Before connecting **USB 2.0 DOCKING STATION** to your computer, please run the necessary setup programs first. The other drivers will be installed during the USB enumeration process later.

This installation guide is written in accordance with different operation systems, including Windows 98/98SE/ME, Windows 2000/XP/Vista. The driver installation is divided into the following steps. Please install **USB 2.0 DOCKING STATION** step by step by the following instructions:

2.1.1. Win98/98SE/Me Driver Setup

A. USB-to-Serial Port

i. Execute USB-Serial driver setup program "PL-2303 Driver Installer.exe" at "USB-Serial\Win98_Me_Win2K_XP32_2003" folder of driver CD.
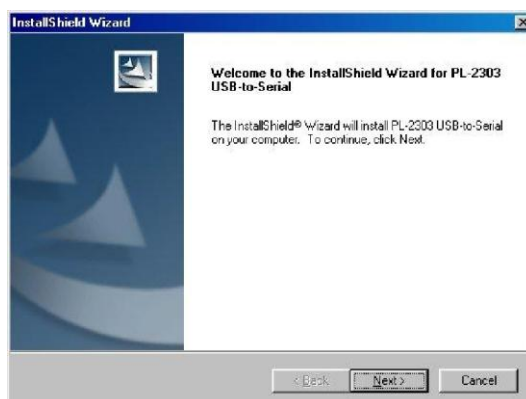
ii. Press "Next" to continue.

Fig. Win98-A1

iii. Press "Finish" to complete the setup program.
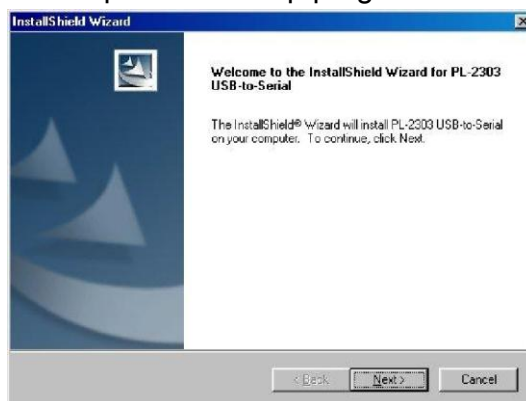

Fig. Win98-A2

2.1.2. Windows 2000/XP Driver Setup

A. USB-to-Serial Port

    i.   Execute USB-Serial driver installation program "PL-2303 Driver Installer.exe" at "USB-Serial\Win98_Me_Win2K_XP32_2003" folder of driver CD.

    ii.   Press "Next" to continue.
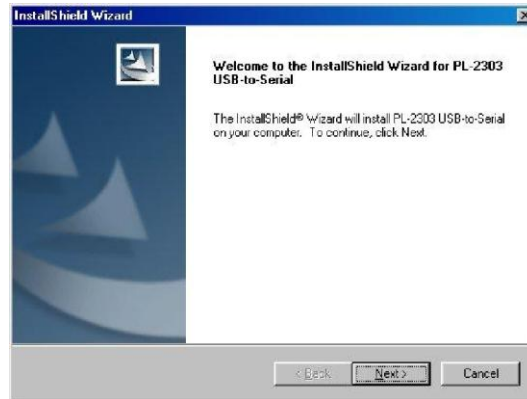

Fig. Win2K-A1
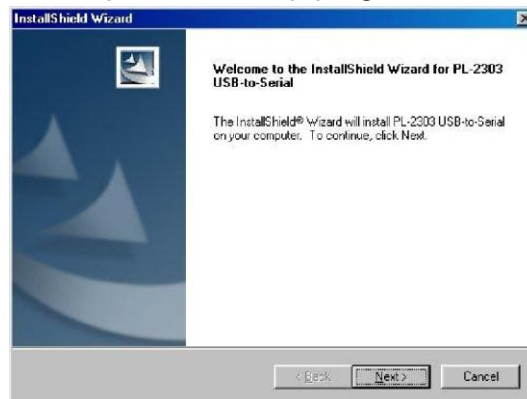
    iii.   Press "Finish" to complete the setup program.

Fig. Win2K-A2

B. USB-to-LAN Port

    i.   Execute USB-LAN driver installation program "Setup.exe" at "USB-Lan\Windows 2K-XP-32" folder of driver CD.

Fig. Win2K-B1

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ii.   Press "Finish" to complete the setup program.

Fig. Win2K-B2
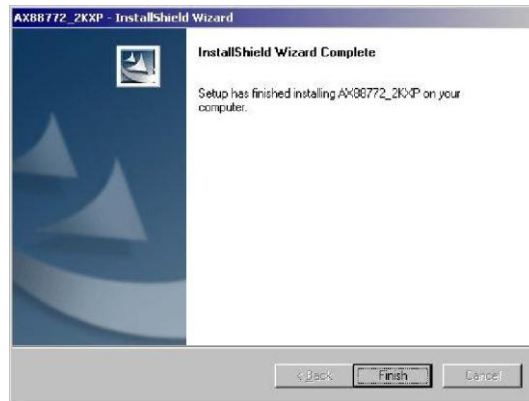
2.1.3.   Windows Vista Driver Setup
A. USB-to-Serial Port

i.   Execute USB-Serial driver installation program "**PL-2303 Vista Driver Installer.exe**" at "**USB-Serial\ Vista_32_64**" folder of driver CD.

ii.   Press "Next" to continue.
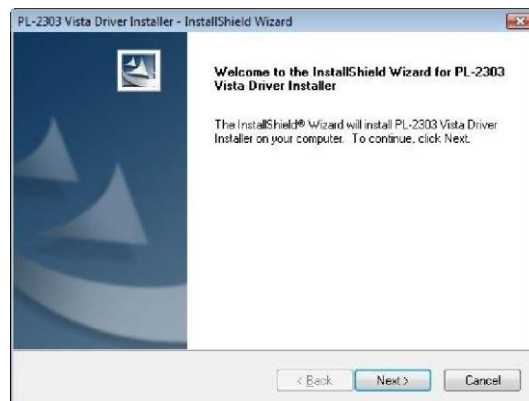
Fig. Vista -A1

iii.   Choose "I accept the terms of license agreement", and click "Next" to continue the installation.
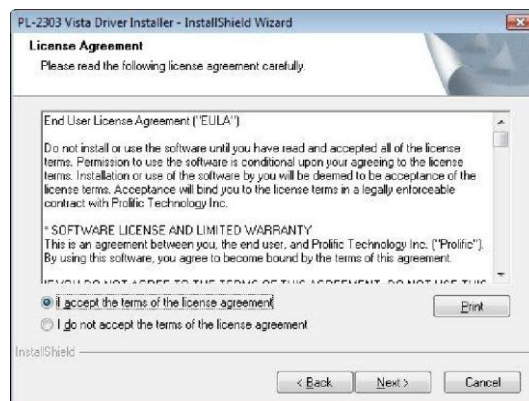
Fig. Vista-A2

iv.   Press "Finish" to complete the setup program.

Fig. Vista-A3

Win7 driver

\Driver\USB-Serial\Win7 32-64

B. USB-to-LAN Port

i.   Execute USB-LAN driver installation program "Setup.exe" at "USB-Lan\Vista 32" folder of driver CD.
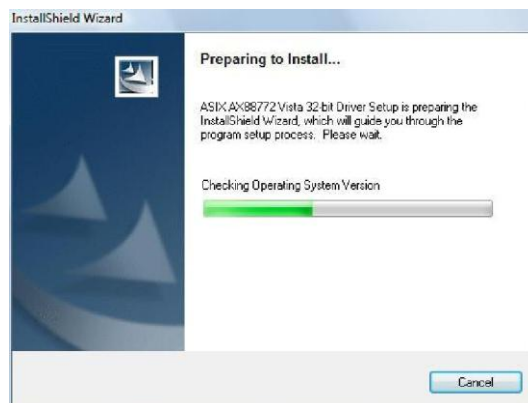
Fig. Vista-B1

ii.   Press "Finish" to complete the setup program.

Fig. Vista-B2

Win7 driver

\Driver\USB-Lan\Win7 32-64

2.2. Hardware Installation

This installation guide is written in accordance with different operation systems, including Windows 98/98SE/ME, Windows 2000/XP/Vista.

- Power on your computer and make sure that the USB & VGA ports are enabled and working properly.

- Put CD into CD-ROM drive of PC or Notebook.

- Connect the power adapter into **USB 2.0 DOCKING STATION**. (For full functions)

- Connect **USB 2.0 DOCKING STATION** to the USB and VGA port on your computer with the VGA/USB combo Y cable provided. (as Fig.3)

- Windows will start detecting USB devices. Please follow the related section to install your **USB 2.0 DOCKING STATION**.

Fig 3

2.3. USB Device Enumeration

The driver installation is divided into the following steps. Please install **USB 2.0 DOCKING STATION** step by step by the following instructions:

2.3.1.   Win98/98SE/Me USB Device Enumeration

A. USB-to-Serial Port Enumeration

USB-to-Serial Port will enumerate automatically since the driver has been setup.

B. USB Hub Enumeration

i.   Insert the "Windows 98" CD into CD-ROM drive and press "Next" to continue.

Fig. Enum98-B1

ii.   Click "Search for the best driver for your device" and press "Next" to continue.

Fig. Enum98-B2

iii.   Click "CD-ROM drive" and press "Next" to continue.

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Fig. Enum98-B3

iv. Press "Next" to start the installation process.

Fig. Enum98-B4

v. Press "Finish" to complete the installation of USB HUB.

Fig. Enum98-B5

C. USB Composite Device Enumeration

i. Please insert the "Windows 98" CD into your CD-ROM drive and press "Next" to continue.

Fig. Enum98-C1

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ii.   Click "Search for the best driver for your device" and press "Next" to continue.

Fig. Enum98-C2

iii.   Click "CD-ROM drive" and press "Next" to start the searching process.

Fig. Enum98-C3

iv.   Press "Next" to start the installation process.

Fig. Enum98-C4

v. Press "Finish" to complete the installation of Composite Device.

Fig. Enum98-C5

D. Ethernet Port Enumeration

i. Please insert the "USB 2.0 DOCKING STATION" CD into your CD-ROM drive and press "Next" to continue.

Fig. Enum98-D1

ii. Click "Search for the best driver for your device" and press "Next" to continue.

Fig. Enum98-D2

iii. Click "**Specify a location**" and click "**Browse**" to select the location of the driver folder "**USB-Lan\Windows ME-98**" in the "USB 2.0 DOCKING STATION" CD. Press "**Next**" to start the searching process.

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Fig. Enum98-D3

iv. Press "Next" to start the installation process. (Windows might ask you to insert the "Windows 98" CD during the installation process).

Fig. Enum98-D4

v. Press "Finish" to complete the installation of Ethernet Port. (Restart Windows might necessary)

Fig. Enum98-D5

E. USB HID Device Enumeration

i. The following steps might repeat multiple times due to different HID devices, mouse and keyboard.

ii. Please insert the "Windows 98" CD into your CD-ROM drive and press "Next" to continue.
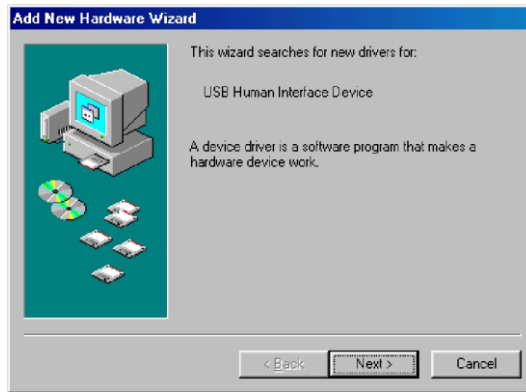
Fig. Enum98-E1

iii.   Click "Search for the best driver for your device" and press "Next" to continue.

Fig. Enum98-E2

iv.   Click "CD-ROM drive" and press "Next" to start the searching process.

Fig. Enum98-E3

v. Press "Next" to start the installation process.

Fig. Enum98-E4

vi. Press "Finish" to complete the installation of USB Human Interface Device.

Fig. Enum98-E5

F. IEEE-1284 Controller Installation

i. Please insert the "USB 2.0 DOCKING STATION" CD into your CD-ROM drive and press "Next" to continue.

Fig. Enum98-F1

ii. Click "Search for the best driver for your device" and press "Next" to continue.

Fig. Enum98-F2

iii. Click "Specify a location" and click "Browse" to select the location of the driver folder in the "USB 2.0 DOCKING STATION" CD. Press "Next" to start the searching process.

Fig. Enum98-F3

iv. Press "Next" to start the installation process.

Fig. Enum98-F4

v.   Press "Finish" to complete the installation of USB-to-Parallel Port.

Fig. Enum98-F5

2.3.2.   Windows 2000/XP/Vista USB Device Enumeration

All USB devices on "USB 2.0 DOCKING STATION" will enumerate automatically since all the driver have been setup.

2.4. Check USB Devices in Device Manager

Congratulations!! You have finished installing **USB 2.0 DOCKING STATION**. Please go to **[Control Panel],** double-click **[System]**, and **[Device Manager]**. Please double check **"Human Interface Devices", "Keyboard", "Mouse", "Network adapters", "Ports",** and **"Universal serial bus controller"** on the dialog box and see if they are working properly. (Ref. Fig.4, 5)
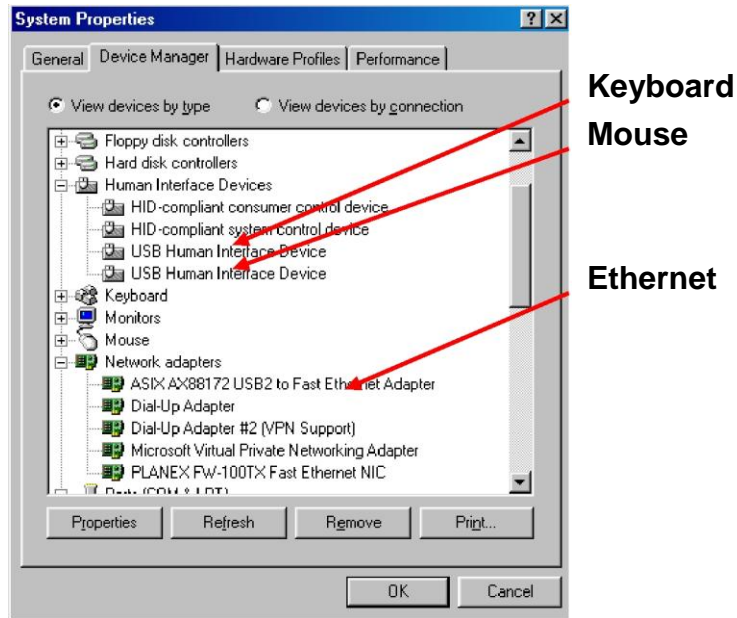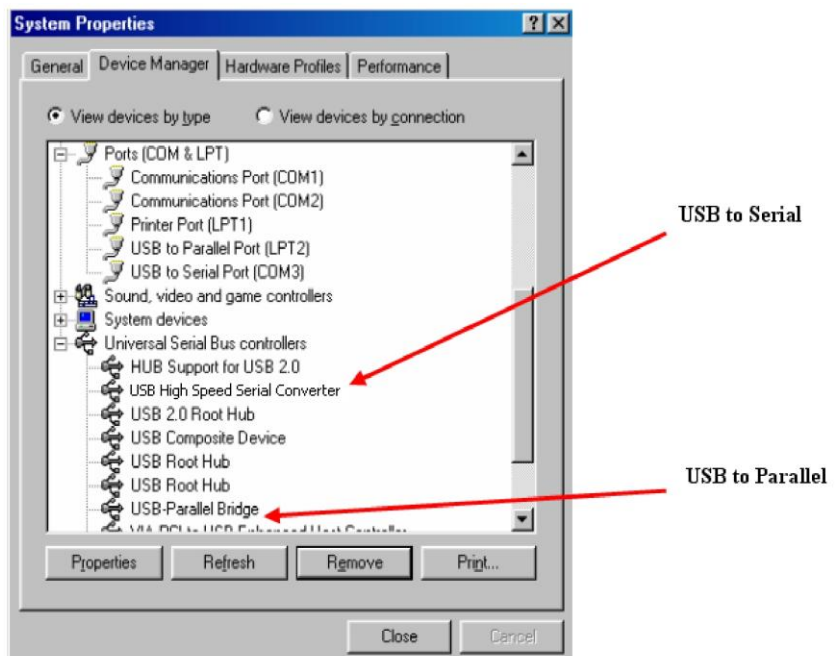

Fig.4

Fig.5

2.5. Things you need to know

- Before connecting the printer to the parallel port of USB 2.0 DOCKING STATION, the printer driver must be installed on your computer in advance, otherwise it might print unknown format of characters.

- Please refer to "Setting Up the Printer Device" section to connect your printer to the USB 2.0 DOCKING STATION.

- For modem users, please install the modem driver manually before connecting the modem to the converter, otherwise it might operate unexpectedly.

- Please refer to "**Setting Up the HyperTerminal with USB to serial port**" section as an example of routing your COM port setting.

- For the laptop computer users :

  You have to follow your user's reference guide for your computer which provided by your computer manufacture, and set up the VGA output to your extra VGA port properly. The **USB 2.0 DOCKING STATION** does not provide the feature of second display card, but just repeat your VGA display from your computer and let you set up the working environment fast without lost time.

2.6. Set Up the Printer Device

Follow the steps below to connect your printer to the USB 2.0 DOCKING STATION with your PC.

2.6.1.   For Windows 98/SE/ME

1. Connect the USB 2.0 DOCKING STATION to your printer with the parallel cable and then turn on the printer.
2. Connect the USB 2.0 DOCKING STATION to the USB port on your computer with the USB2.0 transfer cable provided.
3. Please go to **Start, Settings**, **Control Panel**, double click **System**, and **Device Manager**. Check **Ports** on the dialog box and see which printer ports the "USB-to-Parallel Port" is located. The following example is located as LPT2.
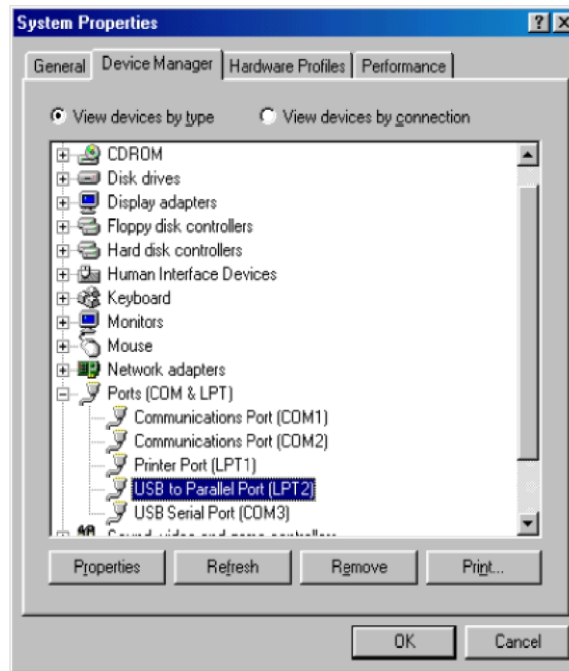
Fig.6

4. If you have installed a printer device before, go to **Start**, **Settings**, **and Printers**. Right-click the default-installed printer and choose **Properties**. The Properties dialog box of the installed printer will appear on your screen.

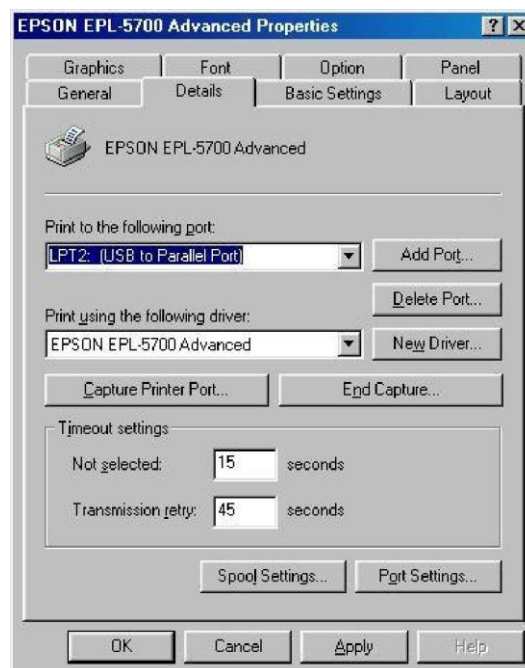5. Click **Details** folder tab and change the printer port to **LPT2: USB-to- Parallel Port**.

Fig.7

6. If you do not have a printer installed yet, go to **Start**, **Settings**, **Printers**, and choose **Add Printer**. The **Add Printer Wizard** will start and assist you to install a new printer device. Select the printer manufacturer and model name from the list provided by the wizard or use the printer driver diskette came with your printer.

7. Windows will ask you which port the printer will be used, choose **LPT2: USB to Parallel Port**.
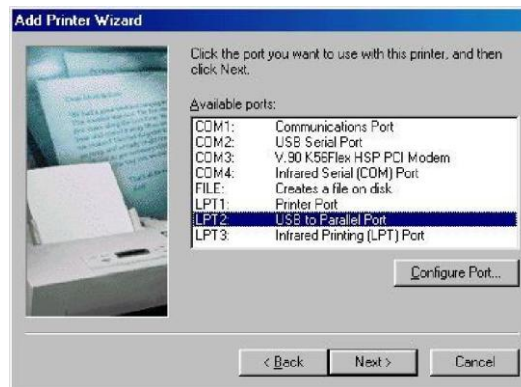

Fig.8

Follow the instructions to complete the installation. Run **Print Test Page** to see if the printer is working without any problem.

2.6.2.   For Windows 2000/XP/Vista

1. Connect the USB 2.0 DOCKING STATION to your printer with the parallel cable and then turn on the printer.

2. Connect the USB 2.0 DOCKING STATION to the USB port on your computer with the USB 2.0 transfer cable provided.

3. If you have installed a printer device before, go to **Start**, **Settings**, and **Printers**. Right-click the default-installed printer and choose **Properties**. The Properties dialog box of the installed printer will appear on your screen.

4. Click **Ports** folder tab and change the printer port to **USB001: (Virtual printer port for USB)**.
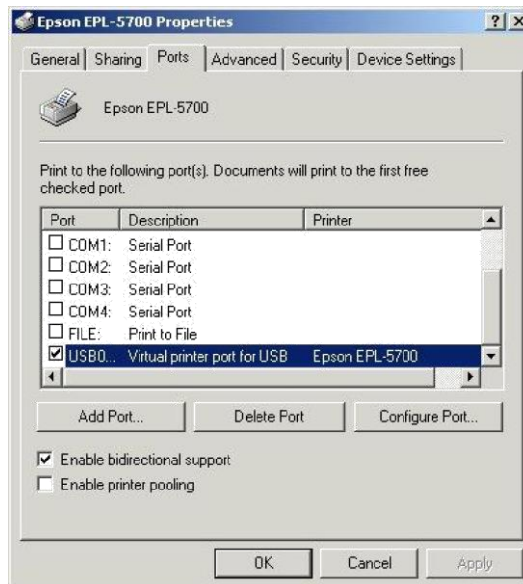
Fig.9

5. If you do not have a printer installed yet, click on **Start**, **Settings**, **Printers** and choose **Add Printer**. The **Add Printer Wizard** will start and assist you to install a new printer device. Select the printer manufacturer and model name from the list provided by the wizard or use the printer driver diskette came with your printer.

6. Windows will ask you which port the printer will be used, choose **USB001: (Virtual printer port to USB)**.
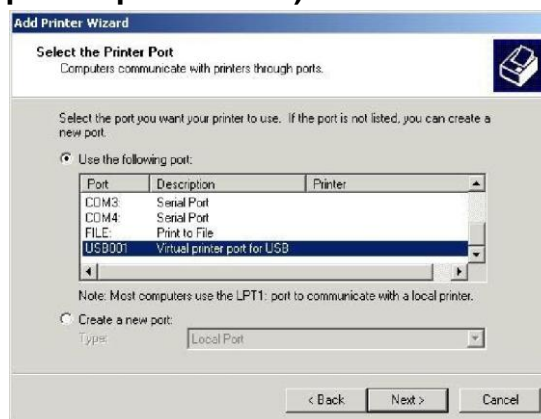
Fig.10

2.7. Set up the HyperTerminal with USB to serial port

Make sure that HyperTerminal is installed in your system. If not, please go to **[Control Panel]**. Double click **[Add/Remove Programs]**, choose **[Windows Setup]** page, **[Communications],** click **[Details]** button and enable **HyperTerminal** to install the program to your Windows system.

Go to **[Control Panel]**, double click **[System]**, and click on **[Device**

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Manager]. Check which COM port is located by USB to serial port.
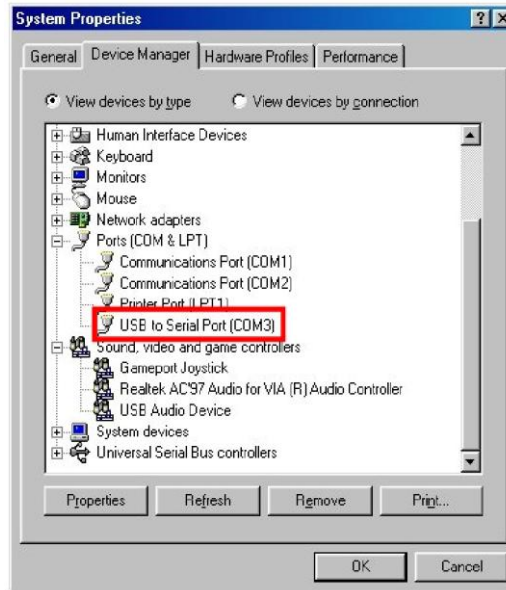
Fig.11

If you have setup HyperTerminal before, please go to **[Start], [Programs], [Accessories], [Communications], [HyperTerminal]**. Click **[File]** and choose **Properties**. The Properties dialog page will appear on your screen. If it is your first time to setup HyperTerminal, you will see the following page during the setup procedure.

Fig.12

Click the **[Connect using]** item to indicate the proper COM port, which appeared in step 1. Follow the instructions to complete the setup.

3.   Uninstalling USB 2.0 DOCKING STATION

If you want to remove **USB 2.0 DOCKING STATION** and its driver, you can uninstall it by the following steps

3.1.   Remove the device
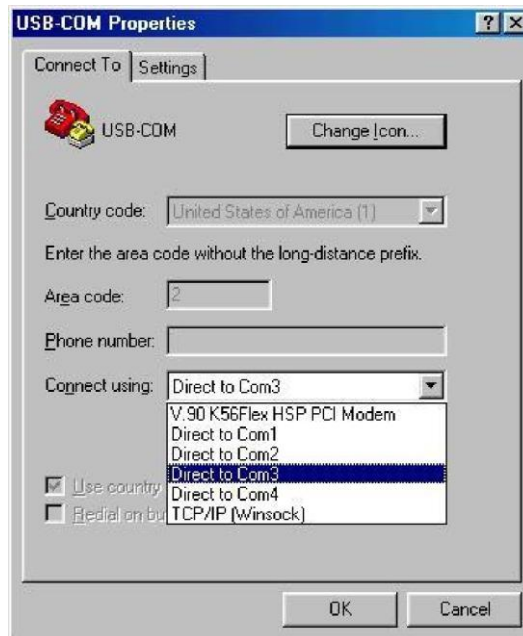
Please unplug the USB cable.

3.2.   Uninstall the driver

1. For the Window 2000/XP users: since the system has built in the USB Printer Class driver already, so you do not need to remove the printer driver.

2. For the Window 98/SE/ME users: you have to follow the instruction to remove the Serial, Printer and LAN driver.

3.2.1.   For Windows 98/SE/ME (Remove Printer, LAN, Serial Drivers):

1. Run **Uninst.exe** from the driver folder "USB-Printer\LPT_98Me" in USB 2.0 DOCKING STATION CD.

2. Please Press **OK** to remove Printer Converter.

Fig.13

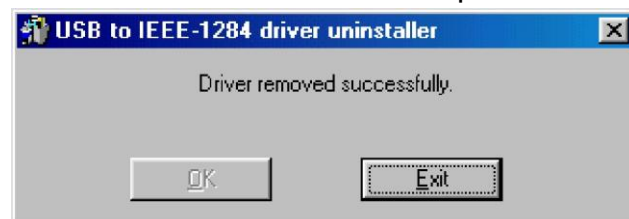3. Printer Converter had been removed. Please press Exit to continue.

Fig.14

4. Run remove_98me.exe from the driver folder "USB-Lan\Windows ME-98" in USB 2.0 DOCKING STATION CD to remove the LAN driver, this program will not show any message on the screen.

5. In **[Control Panel]**, **[Add/Remove Program]**, remove "**PL2303 driver installer**" to uninstall USB-Serial driver.

6. Reboot your Windows system to complete.

3.2.2.　　For Windows 2000/XP (Remove LAN, Serial Driver):

1. Run remove_xp2k.exe from the driver folder in USB 2.0 DOCKING STATION CD to remove the LAN driver, this program will not show any message on the screen.

2. In **[Control Panel]**, **[Add/Remove Program]**, remove "**PL2303 driver installer**" to uninstall USB-Serial driver.

3. In **[Control Panel]**, **[Add/Remove Program]**, remove "**AX88772_2KXP**" to uninstall USB-LAN driver.

3.2.3.　　For Windows Vista (Remove LAN, Serial Driver):

1. In **[Control Panel]**, **[Add/Remove Program]**, remove "**PL2303 Vista driver installer**" to uninstall USB-Serial driver.

2. In **[Control Panel]**, **[Add/Remove Program]**, remove "**ASIX AX88772 Vista 32-bit Driver**" to uninstall USB-LAN driver.

4.   TROUBLE SHOOTING

Q1: Installed the driver for USB 2.0 Docking Station under Windows XP operation system, there is no Pinter Port available in the device manager , but the other Ports (Serial ,Mouse, Keyboard and USB) are OK .

A1: The driver for USB to Printer converter on Windows 2000 and XP is not required. Microsoft supports USB Printer class in both OS. The related driver will be loaded Automatically by Microsoft when you plug in the USB to Printer device.

It will be created a message **"printer support device"** in the device manager and also a " virtual printer port for USB " in the port selection of printer setting.
You may just check this item and it will work on both system.

This is different for Windows 98 and ME. There won't be any LPT port generated by system as like in 98/ME . Please also refer to the user's manual "Set up the Printer Device " >> for Windows 2000 and XP .

Q2: Why my device manager comes out with a question mark of USB-Serial Control under Windows 2000/XP as the window below?


A2: The instructions in the user manual were not properly followed.

The drivers needs to be installed before the USB cable is connected to the PC. To resolve this problem, please follow the following steps:

1. Unplug the USB cable from the PC, and then re-plug it again.

2. Restart your computer.

Q3: After installing the drivers from the CD, why does my device manager show a question mark on "UnknownPrinter" under Windows XP 64-bit?
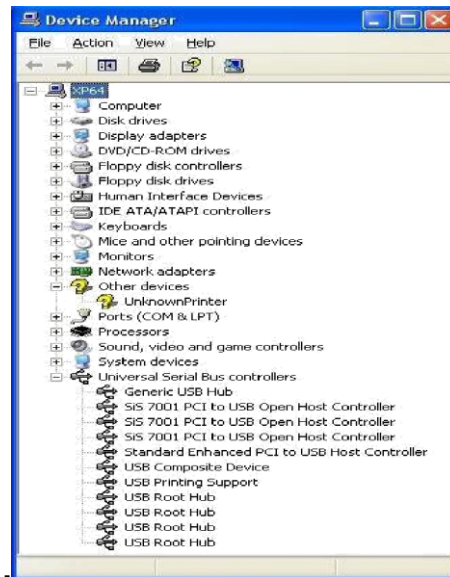
A3: This problem occurs when there is no printer connected to the USB 2.0 Docking
Station.   The message is caused by Microsoft's embedded USB printer driver of
Windows XP 64-bit, failing to find a printer.

To avoid this problem, please connect your printer to the USB 2.0 Docking
Station, before connecting the Docking Station to your PC.

APPLICATION NOTE

1. **USB 2.0 DOCKING STATION** normally derives its own power from PC Host. When only the Host power is supplied, the Power LED will turn RED, and the serial, printer, keyboard, mouse, Ethernet and 3 downstream ports can operate without the external power adapter.

2. Please note that if the external power adaptor is not be used and heavy power consumption USB device is connected, the 3 downstream ports may not function normally. Therefore the used of external power adaptor is highly recommend. You may use the external power by connecting an external 5 voltage, 2A DC power that is UL, CE, T-mark or locally approved. For Polarity, see the following:
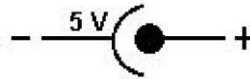
3. Unknown Device:

   If the installation process is completed and some of the devices still don't work, please click on **Start**, **Settings, Control Panel,** double-click **System**, and **Device Manager**. Check "Human Interface Devices", "Keyboard", "Mouse", "Network adapters", "Ports", and "Universal serial bus controller" on the dialog box and see if "Unknown device" appears on the screen. You need to right-click the "***Unknown device***" and choose **Remove** to remove it. Then choose **Refresh** to re-detect the device. (You might need to install the device driver once again so please follow the same installation procedures as section 2.1). After trying the above procedures and your device still cannot work, please contact the technical support at your local distributor.

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FCC Statement

This device generates and uses radio frequency and may cause interference to radio and television reception if not installed and used properly. This has been tested and found to comply with the limits of a Class B computing device in accordance with the specifications in Part 15 of the FCC Rules. These specifications are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this device does cause harmful interference to radio or television reception, which can be determined by plugging the device in and out, the user can try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the device and receiver.
- Connect the computer into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.