MultiPort USB

User Manual

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Revision History

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What is USB MultiPort?

USB is a complex word of "Universal", meaning all peripheral devices use the same connector, and "Serial", meaning devices are connected as a daisy chain through serial transmission. USB is an interface suggesting a solution to inconvenience and inefficiency caused by slow speed and limited device connection of existing external ports (serial or parallel). Compared to external ports that were only used to connect devices such as modems, printers and scanners, USB is powerful in that it connects all types of basic peripheral devices that were each connected via different types. Also, when a new device is plugged, it's auto-detected without any rebooting or setup process, enabling 127 connections maximum. Installation is handy since PnP is perfectly supported. No extra equipment is needed since most of the main-board chipsets include the USB controller.

USB cable type supported is type A, which can utilize the USB port of the PC or the USB hub. This product obtains power from USB, and this makes the product powerful since no external power supply is required.

Multiport USB Specifications

- Hardware

- Number of Ports: 1, 2, 4, 8
- USB Interface: USB Spec 1.1/2.0
- Serial Interface: RS232/COMBO(422/485)
- LED: Tx and Rx per each port
- Serial Connector: DB9 (Male) 1,2,4/ DB9 (Female) 4,8 Panel type
- Serial Communication Speed: 921.6Kbps maximum
- External Power: Selectable/Disable(*1)

- Software

- Supports Windows 98/2000/XP/2003/Vista/2008/7, and Linux Driver, OS X Driver (*2)
- Supports Windows XP/2003/Vista/2008/7 x64

*1: You can connect external power supply to Panel type USB MultiPort H/W ver. 1.5 or above only.

*2: If you would like to use USB Multiport for Linux or MAC OS X , please contact tech@sysbas.com

Multi-1/USB Ver4.0

Multi-1/USB Ver4.0 is a model that supports USB2.0. It is detected automatically when user connects USB port with computer. It supports maximum communication speed of 921.6Kbps. Furthermore, it is equipped with surge protector to protect internal systems from outer shock. In Combo Model, user can set line interface, communication mode and terminal resistor. Also, the LED is attached outside to show the current status of signal lines.

- Specification

Communication Speed	Max 921.6Kbps
Bus Interface	USB 2.0(Full Speed)
Line Interface	RS232/RS422/RS485
Controller	FTDI 232R
Connector	DB9 Male
Protection	15kV Surge Protector
O/S	Windows 98/2000/XP/2003/Vista/2008/7, Linux
Manufaturer	SystemBase Co., Ltd



Hardware

1. RS232 Model

- DB9 Male Pin Assignment



- How to connect to a Terminal



When using 2, 3, 5 only, loop-back each 7-8(4-5), 1-4-6(6-8-20). (numbers in parentheses are for DB25 connector.)

- How to connect to a Modem



2. RS422, RS485 Model

- DB9 Male Pin Assignment



- DIP Switch Setting





		ON	OFF
1	Interface Select	RS485	RS422
2	Echo/Non-Echo Select	Echo	Non-Echo
3	RS422 terminal resistor	Install	Uninstall
4	RS485 terminal resistor	Install	Uninstall

- Jumper Setting



- 1 Loosen the two screw on the bottom case.
- ② Remove the side cap.

Look at the rear side of case, you can find the small grooved.

이곳에 일자 드라이버 같은 기구물을 넣어서 비틀면 쉽게 케이스를 벗길 수 있다.

 $\ensuremath{\mathfrak{I}}$ Top cover is slid to the inside of the case.



Hardware





10M: Not use Slew Rate Limit ability. Maximum communication speed 921.6Kbps in this mode.



250K: Use Slew Rate Limit ability. Communication speed is limited under 250Kbps.



- RS422 Point-to-Point Connection



- RS422 Multi-Drop Connection



- RS485 Connection



RS485, like LAN, uses Half Duplex Bus and has no classification between host and terminal.



Multi-2/USB Ver4.0

Multi-2/USB Ver4.0 is a model that supports USB2.0. It is detected automatically when user connects USB port with computer. It supports maximum communication speed of 921.6Kbps. Furthermore, it is equipped with surge protector to protect internal systems from outer shock. In Combo Model, user can set line interface, communication mode and terminal resistor. Also, the LED is attached outside to show the current status of signal lines.

- Specification

Communication Speed	Max 921.6Kbps
Bus Interface	USB 2.0
Line Interface	RS232/RS422/RS485
Controller	FTDI 2232H
Connector	DB9 Male
Protection	15kV Surge Protector
O/S	Windows XP/2003/Vista/2008/7, Linux
Manufaturer	SystemBase Co., Ltd



Hardware

1. RS232 Model

- DB9 Male Pin Assignment



- How to connect to a Terminal



When using 2, 3, 5 only, loop-back each 7-8(4-5), 1-4-6(6-8-20). (numbers in parentheses are for DB25 connector.)

- How to connect to a Modem





2. RS422, RS485 Model

- DB9 Male Pin Assignment



- DIP Switch Setting





		ON	OFF
1	Interface Select	RS485	RS422
2	Echo/Non-Echo Select	Echo	Non-Echo
3	RS422 terminal resistor	Install	Uninstall
4	RS485 terminal resistor	Install	Uninstall

- Jumper Setting



- 1 Loosen the two screw on the bottom case.
- ② Remove the side cap.

Look at the rear side of case, you can find the small grooved.

③ Top cover is slid to the inside of the case.



Hardware

Multi-2/USB Ver4.0





10M: Not use Slew Rate Limit ability. Maximum communication speed 921.6Kbps in this mode.

250K: Use Slew Rate Limit ability. Communication speed is limited under 250Kbps.



- RS422 Point-to-Point Connection



- RS422 Multi-Drop Connection



- RS485 Connection



RS485, like LAN, uses Half Duplex Bus and has no classification between host and terminal.



Multi-4/USB Ver4.0

Multi-4/USB Ver4.0 is a model that supports USB2.0. It is detected automatically when user connects USB port with computer. It supports maximum communication speed of 921.6Kbps. Furthermore, it is equipped with surge protector to protect internal systems from outer shock. In Combo Model, user can set line interface, communication mode and terminal resistor. Also, the LED is attached outside to show the current status of signal lines.

- Specification

Communication Speed	Max 921.6Kbps
Bus Interface	USB 2.0
Line Interface	RS232/RS422/RS485
Controller	FTDI 4232H
Connector	DB9 Male
Protection	15kV Surge Protector
O/S	Windows XP/2003/Vista/2008/7, Linux
Manufaturer	SystemBase Co., Ltd



Hardware

1. RS232 Model

- DB9 Male Pin Assignment



- How to connect to a Terminal



When using 2, 3, 5 only, loop-back each 7-8(4-5), 1-4-6(6-8-20). (numbers in parentheses are for DB25 connector.)

- How to connect to a Modem





2. RS422, RS485 Model

- DB9 Male Pin Assignment



- DIP Switch Setting





		ON	OFF
1	Interface Select	RS485	RS422
2	Echo/Non-Echo Select	Echo	Non-Echo
3	RS422 terminal resistor	Install	Uninstall
4	RS485 terminal resistor	Install	Uninstall

- Jumper Setting



- 1 Loosen the two screw on the bottom case.
- ② Remove the side cap.

Look at the rear side of case, you can find the small grooved.

 $\ensuremath{\mathfrak{I}}$ Top cover is slid to the inside of the case.



Hardware





10M: Not use Slew Rate Limit ability. Maximum communication speed 921.6Kbps in this mode.



250K: Use Slew Rate Limit ability. Communication speed is limited under 250Kbps.



- RS422 Point-to-Point Connection



- RS422 Multi-Drop Connection



- RS485 Connection



RS485, like LAN, uses Half Duplex Bus and has no classification between host and terminal.



Multi-4/8 USB under V1.5

Multi-4/8 USB under V1.5 can work with USB power only, so does not need external adapter. It can supply +5V or +12V when the device needs. This feature is useful when small devices such as cash box, bar-code reader and printer are connected to PC POS system. +5V or +12V adapter don't affect the operation of USB MultiPort because this part is separated from serial communication part. This voltage is supplied through 9th pin of DB9 connector.

1. RS232 Model

- DB9 Female Pin Assignment



b9 remaie

- External Voltage Supply Jumper



There are jumpers for each port when opening the case. Users can select 1 of 3.

- RI: Use 9th pin of DB9 connector as RI signal (Default)
- 5V: Use 9th pin of DB9 connector as +5V supply (needs adapter)
- 12V: Use 9th pin of DB9 connector as +12 supply (needs adapter)



Hardware

- How to connect to a Terminal



When using 2, 3, 5 only, loop-back each 7-8(4-5), 1-4-6(6-8-20). (numbers in parentheses are for DB25 connector.)

- How to connect to a Modem





Hardware

2. RS422, RS485 Model

- DB9 Female Pin



- How to connect RS422 Point-to-point signal line





- How to connect S422 Multi-drop signal line



- How to connect RS485 signal line



- RT(Terminal Resistor) : 120 Ohm (Not necessary)
- In RS485 mode, there is no discrimination between Host and Terminal.



Multi-4/8 USB V1.5, V1.6

Multi-4/8 USB V1.5 & V1.6 can work with USB power, so does not need external adapter. But it can work with external adapter when it needs more stable power supply. It can supply +5V when the device needs. This feature is useful when small devices such as cash box, bar-code reader and printer are connected to PC POS system. +5V can be supplied even when Multi-4/8 USB don't use external adapter. This supply voltage is supplied through 9th pin of DB9 connector. (Caution: Never use adapter except +5V. It may damage the MultiPort.)

1. RS232 Model

- DB9 Female Pin Assignment



- External Voltage Supply Jumper

Multi-4U RS232 V1.5, V1.6



Multi-8U RS232 V1.5, V1.6



There are jumpers for each port when opening the case. Users can select 1 of 2.

- RI: Use 9th pin of DB9 connector as RI signal (Default)
- Power: Use 9th pin of DB9 connector as +5V supply

2. Combo (RS422/RS485) Model

- DB9 Female Pin Assignment





- Switch for selecting RS422/RS485 line interface

• Multi-4/USB Combo V1.5, V1.6



Multi-8/USB Combo V1.5, V1.6



1	2	Interface	Mode
OFF	OFF	RS422	Point-to-Point
OFF	ON	RS422	Multi-Drop
ON	OFF	RS485	Non-Echo
ON	ON	RS485	Echo

- Portx RT: RS422, RS485 Terminal Resistor

• Multi-4/USB Combo V1.5, V1.6



• Multi-8/USB Combo V1.5, V1.6



- 422: RS422 Terminal Resistor
- 485: RS485 Terminal Resistor
- NONE: No Terminal Resistor

- External Voltage Supply

- In Multi-4/8 USB Combo model, +5V is always supplied through the 9th pin of DB9 connector. Users can connect 9th pin to the device if they are to supply +5V to the device.



Hardware

Multi 4/8 V1.5 & 1.6

- Jumper for Slew Rate setting

Slew Rate Limit allows communication without errors by activating slew-rate driver to reduce reflection waves and EMI electromagnetic waves. However, communication speed is limited when it is used.

• Multi-4/USB Combo V1.5, 1.6



• Multi-8/USB Combo V1.5, V1.6



Slew Rate Limit Off



Slew Rate Limit On



Multi-4/8 USB V1.7

Since Multi-USB V1.7 is used USB 2.0 Controller, the performance is higher than ever. Throughput is increased about 30% than ever, you'll use more smoothly.

Also, It can supply +5V when the device needs. This feature is useful when small devices such as cash box, bar-code reader and printer are connected to PC POS system. +5V can be supplied even when Multi-4/8 USB don't use external adapter. This supply voltage is supplied through 9th pin of DB9 connector.

1. RS232 Model

- DB9 Female Pin Assignment



- External Voltage Supply Jumper Multi-4U RS232 V1.7





Hardware

Multi-4U RS232 V1.7



There are jumpers for each port when opening the case. Users can select 1 of 2.

- RI: Use 9th pin of DB9 connector as RI signal (Default)
- Power: Use 9th pin of DB9 connector as +5V supply





2. Combo (RS422/RS485) Model

- DB9 Female Pin Assignment



- Switch for selecting RS422/RS485 line interface

This is switch for selecting RS422/RS485 line interface. Default is RS485.

- Multi-4/USB Combo V1.7



1	2	Interface	Mode
OFF	OFF	RS422	Point-to-Point
OFF	ON	RS422	Multi-Drop
ON	OFF	RS485	Non-Echo
ON	ON	RS485	Echo



Hardware

- Portx RT: RS422, RS485 Terminal Resistor



- Jumper for Slew Rate setting

Slew Rate Limit allows communication without errors by activating slew-rate driver to reduce reflection waves and EMI electromagnetic waves. However, communication speed is limited when it is used.

- Multi-4/USB Combo V1.7







Installing Windows 98 Device Driver

- 1. Run Windows 98.
- 2. Connect Multi-USB to the USB connector of the PC.



3. Click "Next".





4. Click "Next"

D:#Win98	D:#Win98	Windows will search for new drivers on your hard drive, and in any of the locations. Click Next to start the sear Eloppy disk drives CD-ROM drive <u>M</u> icrosoft Windows Update Specify a Jocation:	in its driver database following selected ch.
Drawas	Browse	D:\Win98	_
Diowse			Browse

5. Check "Specify a location" and specify correct location of Windows 98 device driver. If you have the driver CD provided with MultiPort product, put it into the CD-ROM drive and specify the location of the driver as "[CD Rom]:\Driver\USB\Win98". Then click "Next".



- 6. Click "Finish" to complete the installation process.
- 7. Repeat steps 3-6 when "Add New Hardware Wizard" restarts.



Installing Windows 2000/XP/2003 Device Driver

- Install procedures for 64bit drivers are identical to 32bit drivers
- 1. Run Windows 2000/XP/2003.
- 2. Connect USB MultiPort to your PC's USB port.
- 3. Insert media CD (provided with MultiPort) into the CD drive.
- 4. Select "Install software automatically (Recommended)", then click "Next".

Found New Hardware Wizard				
	Welcome to the Found New Hardware Wizard			
	This wizard helps you install software for:			
	USB <-> Serial Cable			
	If your hardware came with an installation CD or floppy disk, insert it now. What do you want the wizard to do?			
	 Install the software automatically (Recommended) 			
	O Install from a list or specific location (Advanced)			
	Click Next to continue.			
	< <u>B</u> ack <u>N</u> ext > Cancel			

5. Click "Finish".

Found New Hardware Wiz	ard		
	Completing the Found New Hardware Wizard		
	The wizard has finished installing the software for:		
	USB Serial Converter A		
Click Finish to cose the wizard			
	< <u>B</u> ack Finish Cancel		

6. Steps 4 through 6 automatically install drivers in the CD. "USB Serial Converter" will all be automatically installed.



Windows 2000/XP/2003

7. Following procedures will guide you through installing "USB Serial Port". Select "No. Do not connect now", and then click "Next"



8. Click "Finish"



9. Steps 7 through 8 automatically install drivers in the CD. "USB Serial Port" will all be automatically installed.



 Following picture depicts "Device Manager" after carrying out all steps. As can be seen "USB Serial Converters" and "USB Serial Ports" are successfully installed. The number of lines may vary depending on the product you are using.



11. USB Multiport installation on Window 2000/XP/2003 is now finished.



Installing Window Vista/2008 Device Driver

- 1. Run Windows Vista/2008
- 2. Connect USB MultiPort to your PC's USB port.
- 3. Insert media CD(provided with MultiPort) into the CD drive
- Click "Locate and install driver software (recommended)" on the "Found New Hardware" window.



- 5. Step 4 will automatically install drivers in the CD. USB <-> Serial Cable will automatically be installed.
- Following picture depicts Device Manager after carrying out step 4. As can be seen, all "USB Serial Converters" are successfully installed. The number of lines may vary depending on the product you are using.





7. Following procedures will guide you through installing "USB Serial Port". Select 'Don't search online'



8. Click "Locate & Install driver software (recommended)" on the "New hardware found" window

🕞 Found New Hardware
Windows needs to install driver software for your USB Serial Port
Locate and install driver software (recommended) Windows will guide you through the process of installing driver software for your device.
Ask me again later Windows will ask again the next time you plug in your device or log on.
Don't show this message again for this device Your device will not function until you install driver software.
Cancel



9. Following picture depicts "Device Manager" after carrying out step 8. As can be seen, all "USB Serial Converters" and "USB Serial Ports" are successfully installed.

🚽 Device Manager
File Action View Help
 Network adapters Ports (COM & LPT) Communications Port (COM1) Printer Port (LPT1) USB Serial Port (COM32) USB Serial Port (COM33) USB Serial Port (COM34) Processors Sound, video and game controllers Storage controllers System devices Universal Serial Bus controllers Generic USB Hub Generic USB Hub Generic USB Hub Standard Enhanced PCI to USB Host Controller USB Composite Device USB Composite Device USB Root Hub USB Root Hub USB Serial Converter A USB Serial Converter A USB Serial Converter C
USB Serial Converter D

10. "USB Multiport" installation on Window Vista/2008 is now finished



Installing Window 7 Device Driver

- Install procedures for 64bit drivers are identical to 32bit drivers
- 1. Run Windows 7

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- 2. Connect USB MultiPort to your PC's USB port.
- 3. Insert media CD(provided with MultiPort) into the CD drive
- 4. Click "Hardware and Sound" in "Control Panel"



 Following picture depicts Device Manager after carrying out step 4. Click "Device Manager".



 Right click "USB <-> Serial Cable" in "Device Manager". then Choose "Update Driver Software"

File Action View Help	
🗭 🔿 📰 📴 🔽 🖬 😣	
a 🚽 sysbas-PC	
⊳ 1 Computer	
Disk drives	
👂 🌉 Display adapters	
DVD/CD-ROM drives	
Human Interface Devices	
De ATA/ATAPI controllers	
Mice and other pointing devices	
Monitors	
Network adapters	
Other devices	
USB <-> Serial Cable	
USB <-> Serial Cable	
Ports (COM & LPT)	
Processors	
Sound, video and game controllers	
> 📜 System devices	
🕞 🖶 Universal Serial Bus controllers	

7. Click "Browse my computer for driver software" in order to install driver manually.





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8. Click "Browse" and set driver software's location to

"[CD]:\Driver\USB\Win2000,XP,2003,Vista,2008,7"



9. Confirm that "USB Serial Converter" is installed normally. Then, right click "USB Serial Port" and follow the same process from number 6 again.

Other devices	14. C
USB Serial Port	Undate Driver Cofficien
USB Serial Por	opdate Driver Software
USB Serial Por	Disable
Ports (COM & LP	••* Uninstall
Processors	Scan for hardware changes
Sound, video and System devices	Properties
🎍 🏺 Universal Serial Bus c	ontrollers
- 🟺 Generic USB Hub	
🏺 Intel(R) 82801G (I	CH7 Family) USB Universal Host Controller - 27C8
🟺 Intel(R) 82801G (I	CH7 Family) USB Universal Host Controller - 27C9
🟺 Intel(R) 82801G (I	CH7 Family) USB Universal Host Controller - 27CA
🟺 Intel(R) 82801G (I	CH7 Family) USB Universal Host Controller - 27CB
🏺 Intel(R) 82801G (I	CH7 Family) USB2 Enhanced Host Controller - 27CC
🚽 🏺 USB Composite D	levice
- 🗍 USB Composite D	levice
🛶 🏺 USB Mass Storage	e Device
🛶 🏺 USB Root Hub	
🔲 🌡 USB Root Hub	
🌡 USB Root Hub	
🌡 USB Root Hub	
🚽 🌡 USB Root Hub	
🛄 🗑 USB Serial Conve	rter 🗛
🌡 USB Serial Conve	rter B
🟺 USB Serial Conve	rter C
📖 🏺 USB Serial Conve	rter D
*	*

10. Following picture depicts "Device Manager" after carrying out all steps. As can be seen, all "USB Serial Converters" and "USB Serial Ports" are successfully installed.



11. "USB Multiport" installation on Window 7 is now finished



Automatic Driver Installation in Windows

This procedure applies to Windows 2000, XP, 2003, Vista, 2008, 7 and Windows XP, 2003, Vista, 2008, 7 x64. If you want to install device drivers manually, please refer to manual installation pages.

- 1. Run Windows.
- 2. Connect USB MultiPort to your PC's USB port.
- 3. Insert install CD into the CD-ROM drive.
- 4. If a "Found New Hardware" window appears, click "Cancel".



5. Go to "[CD]\Driver\USB\Win2000,XP,2003,Vista,2008,7". Execute "CDM 20600".

퉬 amd64	5/7/2009 9:18 AM	File Folder	
鷆 i386	5/7/2009 9:18 AM	File Folder	
CDM 2 04 16 Release In	2/25/2009 8:49 AM	DOC File	62 KB
CDM20600	5/6/2009 5:54 PM	Application	2,341 KB
🗊 FTClean	11/12/2004 10:39 AM	Application	428 KB
📄 ftd2xx.h	10/29/2008 4:59 PM	H File	23 KB
ftdibus	2/25/2009 11:10 AM	Security Catalog	12 KB
🛍 ftdibus	2/17/2009 10:02 AM	Setup Information	4 KB
ftdiport	2/25/2009 11:10 AM	Security Catalog	11 KB
📰 ftdiport	2/17/2009 10:02 AM	Setup Information	5 KB
🎭 FTDIUNIN	5/14/2004 3:59 PM	Application	411 KB



6. When the following Windows appears, click "Run".



7. Device drivers will be installed automatically.

🚾 C:\Users\hjnoh\AppData\Local\Temp\ckz_0YSY\DPInst_Monx64.exe
64-bit OS detected "C:\Users\hjnoh\AppData\Local\Temp\ckz_0YSY\DPInstx64.exe"

After the installation is completed, the program will terminate. Go to "Control Panel" →
 "Device Manager" or right click "Computer" → "Device Manager" to open Device Manager.
 You will be able to see that "USB Serial Converter" and "USB Serial Port" is successfully
 installed.



Windows Device Driver Setup

 An advanced properties page is available for devices using the device. To access the advanced properties page, open "Device Manager" in Control Panel. Find the USB serial port you want to change the properties of and right-click on it. Select "Properties" from the menu then select the "Port Settings" tab to get the window below.

JSB Serial Port (COM3) Properties
General Port Settings Driver
Bits per second: 9600
Data bits: 8
Parity: None
Stop bits: 1
Elow control: None
<u>A</u> dvanced <u>R</u> estore Defaults
OK Cancel



This page allows configuration of the basic device parameters (i.e. Baud rate, data bits, parity, stop bits and flow control). To access more advanced settings, click on the "Advanced..." button to display the advanced properties page (shown below).

ranced Settings for COM3		3
COM Port Number: COM3		OK
USB Transfer Sizes		Cancel
Select lower settings to correct performance problems at Select higher settings for faster performance.	ow baud rates.	Defaults
Receive (Bytes):		
Transmit (Bytes):		
BM Options	Miscellaneous Options	
Select lower settings to correct response problems.	Serial Enumerator	v
steppu Timer (manc):	Serial Printer	
	Cancel If Power Off	
Timeouts	Event On Surprise Removal	
	Set RTS On Close	
Minimum Read Timeout (msec): 0	Disable Modern Ctrl At Startup	

- 3. This page will allow the following parameters to be altered:
 - COM port number
 - USB buffer sizes
 - Latency timer
 - Alter this to correct compatibility problems for obsolete applications.
 - Read and write timeout values
 - You can alter this for timing of timeout event if there are no more Tx/Rx data.
 - Miscellaneous options
 - Serial Emulator: The function of the serial enumerator is to detect a Plug-and-Play enabled device (such as a serial mouse or serial modem) that is attached to the USB serial port.
 - Serial Printer: If enabled, serial printer will disable timeouts to allow for long delays associated with paper loading.
 - Cancel If Power Off: The Cancel If Power Off option can be used to assist with problems encountered when going into a hibernate or suspend condition. This will cancel any requests received by the driver when going into hibernate or suspend.
 - Event on Surprise Removal



Driver Setup

- The Event On Surprise Removal option is generally left unselected. If an application sets SERIAL_EV_EVENT2 (refer Windows DDK) in it is event bitmask and this feature is enabled, the device driver will signal this event on surprise removal.
- Set RTS on Close: Selecting the Set RTS on Close option will set the RTS signal on closing the port.
- Disable Modem Control at Startup: This option is used to control the modem control signals DTR and RTS at startup. In normal operation, the modem control signals at startup follow the behavior of the legacy port. However, due to timing differences between a legacy COM port and a virtual COM port, a "spike" on one of these signals in the legacy port can appear as an assertion of the signal in the virtual COM port.
- Devices that monitor these signals can enter the wrong state after an unplug-replug cycle on USB. Note that if \ the "Serial Enumerator" option in the property page is selected, then the enumeration sequence causes the modem control signals to change at startup. So if it is necessary to select "Disable Modem Ctrl At Startup", then it is likely that "Serial Enumerator" should be unchecked in the property page.
- Don't adjust these parameters if you can use the device normally. If not, please contact us (tech@sysbas.com) about these parameters first.



Removing Windows 98/2000/XP/2003 Driver

You can be used to remove device driver in three way

- 1) Using Device Manager.
- 2) Using FTClean.exe
- 3) Using CDMunistaller.exe

Ж Тір

Windows 98, 2000, XP, 2003 using Customers, please remove the driver by FTClean.exe. Windows Vista, 2008 Customers who use the driver in Device Manager, remove it. Customers using Windows 7, please use the CDMunistallerGUI.exe.

Multi-USB PID information Multi-1/USB: 6001 Multi-2/USB v1.x: 6001 Multi-2/USB v4.0: 6010 Multi-4/USB v1.x (v1.7 excluded): 6010 Multi-4/USB v1.7/v4.0: 6011 Multi-8/USB v1.x: 6010 USB Multiport will be removed after all removal processes are completed.



Driver Removal

1. Remove Device Driver Using Device Manager

- 1. Execute "Device Manager". Do not remove USB MultiPort form USB port. USB Multiport will be removed after all removal processes are completed.
- "USB Serial Converter A/B/C/D" controllers and "USB Serial Port" serial ports can be found. The number of lines may vary depending on the product you are using. Serial ports will be removed first.





3. Find 'USB Serial Port (COM#)' under "Device Manager->Ports->USB Serial Port (COM#)" and right click on any "USB Serial Port". Click "Uninstall".



4. Check the following check box, and click "OK".



5. Remove rest of the USB Serial Ports.





 Unlike the first Device Removal Window, check box can not be found. Click "OK" to remove current port. Repeat step 5~6 until all Serial ports are removed.



- 7. "USB Serial Port" removal is now completed. We will now continue with "USB Serial Converter" removal.
- 8. Right click on one of the "USB Serial Converter" and click "Uninstall".



9. Check the "check box" and click "OK".



10. Remove rest of "USB Serial Converters".

🚔 Device Manager 📃 💼	×			
File Action View Help				
	*			
PCI Serial Port				
🛛 🔤 🗛 🗛 🗛 🗛 🗛 🗛 🗛 🗛 🗛				
Ports (COM & LPT)				
Communications Port (COM1)				
ECP Printer Port (LPT1)				
Processors				
💼 🛋 Sound, video and game controllers				
🖶 🐟 Storage controllers				
🛓 🚛 System devices				
💼 🖷 🏺 Universal Serial Bus controllers				
🚽 🚽 Generic USB Hub				
🚽 🚽 🚽 Intel(R) 82801GB USB Universal Host Controller - 27C8				
🚽 🚽 Intel(R) 82801GB USB Universal Host Controller - 27C9				
Intel(R) 82801GB USB Universal Host Controller - 27CA				
Intel(R) 82801GB USB Universal Host Controller - 27CB				
Intel(R) 82801GB USB2 Enhanced Host Controller - 27CC				
USB Composite Device	=			
USB Composite Device				
USB Social Convertex 0				
USB Serial Convert				
LISB Serial Convert Disable	-			
	F			
Uninstalls the driver for the selecture Uninstall				



Driver Removal

11. Repeat steps 10~11 until all USB Serial Converters are removed.





2. Using FTClean.exe

1. Remove USB MultiPort from USB connection port.

USB MultiPort drivers are now completely removed from your system.

 Execute "Task Manager". "USB Serial Converter A/B/C/D" controllers and "USB Serial Port" Serial Ports can be seen. The number of ports may vary depending on the product you are using. These devices must all be removed.



3. Insert install CD in the CD-ROM. Open the folder named "[CD]:\Driver\USB\Win2000,XP,2003,Vista,2008,7".

🗁 WIN 2000 , XP , 2003 , Vista					- 🗆 ×
<u>File E</u> dit <u>V</u> iew F <u>a</u> vorites <u>1</u>	ools	Help			-
🌀 Back 🗸 🕥 - 🏂 🔎) Sear	ch 😥 Folders 🔢 🕂			
Address 🛅 D:\DRIVERS\USB\WI	V2000	I,XP,2003,Vista		-	🔁 Go
	-	Name	Size	Туре	Date M
CD Writing Tasks 💦 🐥		Files Currently on the CD			
🕜 Write these files to CD		and64		File Folder	8/10/2
			400 KD	File Folder	8/10/2
File and Folder Tasks 🛛 🕆	1	Fillean.exe	428 KB	Application	11/11/.
🛒 Rename this file		i≇tridzxx.n. ∰tfdibus.cat	20 KB 14 KB	H File Security Catalog	2/1/20 7/1/20
脑 Move this file		📑 ftdibus.inf	3 KB	Setup Information	6/26/2
Copy this file		➡ ftdiport.cat	14 KB	Security Catalog	7/1/20
Publish this file to the		📑 ftdiport.inf	5 KB	Setup Information	6/26/2
Web		🎭 FTDIUNIN.exe	411 KB	Application	5/13/2
📄 E-mail this file		🔊 TestMP2.exe	64 KB	Application	5/11/2
X Delete this file	-	•			►



Driver Removal

4. Execute "FTClean.exe". Type the correct PID under "PID (Hex)" box, and then click "Clean System".

🅡 FTDI Clean Utility V1.0	- 🗆 X
FTDI Chip	
VID (Hex) FTDI	Clean System
PID (Hex) [6010]	Exit
Status: Ready	

"PID" refers to the Product ID

- Multi-1 PID: 6001
- Multi-2 Ver4.0 and Old Multi-4/8 PID: 6010
- Multi-4 Ver4.0 PID: 6011
- 5. Click "OK".





6. Click "Yes".

🆅 F1	DI Clean Utility V1.0	
	FTDI Chip	
VID (FTD	Hex)	
PID	Confirm	×
601	You are about to uninstall all FTDI drivers for VID 0x0403 and PID 0x601 Do you want to continue?	10.
St	<u>Yes</u> <u>N</u> o	

7. Click "No".

🗿 FTDI Clean Utility V1.0)	_ 🗆 🗙
	FTDI Chip	
VID (Hex) FTDI		Clean System
PID (Hex)	Confirm	×
lend	🕐 Do you want to c	ancel driver uninstallation?
Status: Ready	(<u>Y</u> es	No
		· · · · · · · · · · · · · · · · · · ·

8. "FTDI Uninstaller v3.0" window will appear & disappear several times. This is a normal uninstall process so wait until this window does not appear.

FTDI U	ninstaller v3.0	×
	Uninstalling VID_0403&PID_6010 Deleting registry entries Deleting files Uninstall complete, press Finish to exit.	
ļ	Continue	



Driver Removal

9. Driver removal is completed when the following window (FTDI Clean Utility) remains activated without any action.

🕼 FTDI Clean Utility V1.0	- 🗆 ×
FTDI Chip	
VID (Hex)	Clean System
PID (Hex) 6010	Exit
Windows Server 2003 Status: System clean completed	********

- 10. Remove USB MultiPort from USB connection port.
- 11. The driver removal process is now completed.



3. Using CDMUnistaller.exe

- 1. Run CDMunistallerGUI.exe in Driver CD.
- 2. Insert PID number in Product ID

Vendor ID 0403	Product ID 6001	
		Add
		Bemove
		<u>C</u> lear
Generate uninst Ready	all log file	Cancel

3. Click the Add button.

Vendor ID 0403	Product ID 6001	
VID 0403 PID 6	001	
		<u>R</u> emove
		<u>C</u> lear
= e	stall log file	
Generate unin		
Ready		

4. Click the "Remove Devices".



Driver Removal

5. You can see the screen shown below, if driver is removed.





Multi-4/8 USB History

Version	Feature	
V 1.0 & V 1.1	Using for applying 12V from DC	
	Providing among 12V, 5V, RI through 9(ninth) pin of DB9	
	Using linear regulator in V1.0. Using switching regulator in V1.1.	
V 1.2	DC has nothing to do with bus power supply of USB port. DC is used only	
	external power supply. Power supply applied DC is 9(ninth) pin of DB9.	
	Applying 5V to outside using 5V adapter from DC	
	Applying 12V to outside using 12V adapter form DC	
	Output power supply(voltage applied DC) or RI signal through the 9(ninth)	
	pin of DB9	
V 1.5	Providing +5V power supply or RI signal through DB9 connector 9 pin(RI)	
	DC can be used additional BUS power supply and external power supply.	
	DC must be used 5V adapter.	
	Using GL850	
V 1.6	Providing +5V power supply through DB9 connector 9 pin(RI)	
	DC can be used additional BUS power supply and external power supply.	
	DC must be used 5V adapter.	
	Using GL850A (Discontinued GL850)	
V1.7	Choosing the high performance USB 2.0 controller, the performance	
	increases 30% than ever.	
	Providing +5V power supply or RI signal through DB9 connector 9 pin(RI)	
	DC can be used additional BUS power supply and external power supply.	

