USB422A/485A Series -



RS422/RS485 USB Converter User Manual

Using the USB422A/485A serial Port Smart Interface Converter

Want to connect your terminals or devices with serial port connection to your PC but don't have a 25-pin serial port connection? This USB422A/485A converter will get you hooked. Using this converter for your unit, it provides a single serial port for connecting to any peripheral with serial interfaces such as barcode readers, mag-stripe readers, time recorders and access control systems, etc.

IT is designed in compact size with this converter, users can utilize the existing serial interface devices in an ease of use environment such as plug and play. The physical device and bundle software driver offer a no-specification-change feature that enable your existing serial interface devices to be used at USB port with minimum modification.

To ensure the USB422A/485A's satisfactory and trouble-free operation, please read this manual before proceeding with the device.

Contents

Information	· ·· 1
Installation	··· 3
Remove Driver Software	··· 7
Technical And Operational Description	8
Connections	··· 10
Specifications	··· 13
Note	··· 14

FCC COMPLIANCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communication.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Information

USB-422A/485A Converter





Standard Package



Main Unit (USB422A/485A)



Driver & User's Manual (DISK5277)



USB Cable (WAS-1487)

Installation

Driver Software Installation -

- 1.First connect **the USB422A/485A** converter into your PC's USB port.
- 2. Insert the USB422A/485A driver software coded at **DISK5277** set up CD into the CD-ROM drive of your computer .The setup program will begin to run automatically .
- 3. Then first time you use the Disk5277, you will need to install the said disk by twice operations. One is "Universal Serial Bus Controllers" driver; the other is COMPORT driver.

You will be prompted by following screen shots to complete the task.

1. What do you want Windows to do?



2. Select Searching locations for new driver

	Found New Hardware Wizard
	Please choose your search and installation options.
Select th	IS Search for the best driver in these locations.
	Use the check boxes below to limit or expand the default search, which includes local aths and removable media. The best driver found will be installed. Search removable media (floppy, CD-ROM) Include this location in the search: D:\ENGLISH\WINXP\PRO\ Browse Don't search. I will choose the driver to install.
	Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
	< Back Next > Cancel

3. Windows has finished installing the software

Found New Hardware Wizard				
Completing the Found New Hardware Wizard				
	Finish driver softwa installation	are		
	Official fractional second			
	Llick Finish to close the wizard.	sh		
	< Back Finish Cancel			

4. What do you want Windows to do ?



- 4 -

5. Select Searching locations for new driver



6. Windows has finished installing the software



7. Make sure the driver software installation is finished

Connect USB422A/485A unit into the USB port of the computer and then Click " Start " -> " Settings " -> " Control Panel " -> " System " ->" Device Manager " to see if there are " USB Serial Port (COM3)" at Ports (COM & LPT) and "USB Serial Converter "at Universal Serial Bus controllers.

B Device Manager	
File Action View Help	
$\leftarrow \rightarrow \blacksquare \textcircled{2} \Leftrightarrow \textcircled{2} \gg \gg \bigotimes$	
 Display adapters DVD/CD-ROM drives Floppy disk controllers Floppy disk drives DE ATA/ATAPI controllers Keyboards Mice and other pointing devices Ports (COM & LPT) Communications Port (COM1) Communications Port (COM2) Printer Port (LPT1) USB Serial Port (COM3) Sound, video and game controllers System devices Universal Serial Bus controllers 	
USB 422A/485A is here	*

Remove Driver Software

How to remove USB422A/485A Driver Software from your computer-

Put DISK5277 into the CD-ROM disk drive of the computer and then find and execute FTDIUNIN.EXE by following the steps as below:

1. Execute FTDIUNIN.EXE program

🖹 FTDI DRIVER			X
File Edit View Favorites Tools	Help		<u></u>
🕞 Back 🔹 🌍 🔹 🥬 🔎 S	iearch 🎼 Folders		
Address D:\FTDI DRIVER			Y 2 60
File and Folder Tasks	905 Release Info	2154 Release Info	<u> </u>
Move this file Copy this file	COMPORT.PDF PDF File 6 KB	FTCOMMS.VXD Virtual device driver 24 KB	
 Publish this file E-mail this file Delete this file 	ftdibus Security Catalog 11 KB	Ftdibus System file 24 KB	E
Other Places	Setup Information 4 KB	FTDIBUS_OPTIONS Rich Text Document 4 KB	
DISK5277 REV.A (D:) My Documents Shared Documents	ftdiport Security Catalog 11 KB	FTDIPORT Setup Information 5 KB	
😨 My Computer 🧐 My Network Places	Configuration Settings 1 KB	FTDIUNIN Uninstall Program for FTDI FTDI Ltd.	Dri
Details 😵	FTDIUNIN Configuration Settings 1 KB	FTLang.dll 1.0.0.1 FTLang	Execute
	System file 25 KB	FTSENUM.vxD Virtual device driver 8 KB	program
🛃 start 📄 🔅 🕲 💿	🚞 FTDI DRIVER		👜 🎎 6:04 PM

2. Unplug USB422A/485A device , continue to uninstall the drivers.

FTDI	Jninstaller Version 2.1	×
	If your USB device is connected, please unplug it now Press Continue to uninstall the drivers, or Cancel to quit.	[
	Click "Continue" Continue	

FTDI U	Jninstaller Version 2.1	×
	Uninstalling VID_0403&PID_6001 Deleting registry entries Deleting files Uninstall complete, press Finish to exit.	sh
	Continue	

Technical And Operational Description

Front Panel of USB422A/485A



RS422/485 connector

Connecting with the terminal device, which is equipped with RS422/485 interface.

USB connector

Connecting with the Computer USB port or Hub.

LINK

LINK LED turns on when the USB422A/485A unit is ready for use.

ТΧ

TX LED turns on when the data is sending from USB port to RS422/485 device.

RX RX LED turns on when the data is sending from RS422/485 device to USB port .

Operation of USB422A/485A Converter

PIN FUNCTION

RS422A



PIN		DESCRIPTION
тν	-	RS422 TX -
	+	RS422 TX+
DV	-	RS422 RX -
ΓЛ	+	RS422 RX+
G		SHIELD

RS485A



PIN		DESCRIPTION
1	-	RS485 -
I	+	RS485+
C	-	RS485 -
2	+	RS485+
G		SHIELD

Connection

1. Communication between TR550 time recorder RS-485 Device and USB Port



2. Communication between TR510 time recorder RS-485 Device and USB Prot



3. Communication between AC9400 access control RS-485 Device and USB Port



4. Communication between TR530 time recorder RS-422 Device and USB Port



NOTE : It is not always necessary to have the termination resistor. It really depends on the actual wiring and connection circumstances.

5. See the figure below:

RS485A:



RS422A:



WAS-1467



6. Wire connection between RS485 Device and USB485A Converter

P	N	FUNCTION	
1	+	RS485+	
-		RS485-	
2	+	RS485+	
2	-	RS485-	
G		SHIELD	
		•	

	WAS-1467	
WIRE	COLOR	PLUG
CUT*	GRAY	1
CUT*	ORANGE	2
CUT*	BLACK	3
CUT*	RED	4
5	GREEN	5
CUT*	YELLOW	6
7	BLUE	7
CUT*	BROWN	8

	USB4	185A			WAS-1392		
P	IN	FUNCTION			WIRE COLOR F		PLUG
1	+	RS485+		1	CUT*	BLUE	1
	-	RS485-			CUT*	BROWN	2
2	+	RS485+			CUT*	RED	3
2	-	RS485-			4	ORANGE	4
(G	SHIELD			CUT*	YELLOW	5
			•		6	GREEN	6

7. Wire connection between RS422 Device and USB422A Converter

USB422A							WAS-1467	
PIN		FUNCTION			WIRE	COLOR	PLUG	
тх	+	T+			1	GRAY	1	
	-	T-			CUT*	ORANGE	2	
RX	+	R+		┿┙		3	BLACK	3
	-	R-				CUT*	RED	4
G		SHIELD	│ │└──	5	GREEN	5		
		•				CUT*	YELLOW	6
						7	BLUE	7
						CUT*	BROWN	8

Specifications



USB Interface:

USB 1.1 and USB 2.0 compatible. Hot swap function supported Drivers for Windows 2K/XP



RS422/485

Interface :

Automatic RS422/485 data flow control, Full , 8N1 , max 250K bps, \pm 8KV ESD



Isolation protection 3000 V_{DC} provided : USB422A-01 /USB485A-01



Power :

No external power supply necessary; the USB422A/485A derives its power from the USB port.



Mounting :

Any surface



Dimensions :

USB422A/485A: D 18.8 x W 35 x H 63 mm



Environment :

Operating Temp : 0 ~ 55 Deg.C Storage Temp : -10 ~ 65 Deg.C Humidity : 0 ~ 90 % relative

Note

- 1. Do not disconnect the USB-xxx converter during running your application program to avoid any unexpected problem.
- 2. USB-xxx Driver software provides maximum 8 pcs of USB-xxx converters to be used for multiple devices communication .The addresses of the multiple devices are according to the COM PORT addresses of the PC or the addresses of the HUB USB PORT where the devices are connected. You should insert the USBxxx into the COM PORT or HUB PORT one by one in order with the addresses indicated.
- 3. USB-xxx supports only Win2000/XP OS.
- 4. You must connect USB-xxx Converter into the USB port of your computer before you start USB-xxx Driver software installation.
- After USB-xxx Converter is connected into USB port of the computer which is with USB-xxx Driver software installed,LINK LED will turn on to be ready for use, otherwise unplug USBxxx converter and try again after 5 seconds or longer.
- After unplug USB-xxx converter from the computer, you must wait for minimum 5 seconds and then plug USB-xxx converter into the computer again, otherwise Windows may not detect USB-xxx converter.
- 7. In the Application Software, the handshaking property must be set to "None" when you use USB485A.
- 8. If you are using RS485 interface for long distance transmission, we suggest you use a 24AWG or bigger range one shielded cable for connection, in order to have better performance.