



**USB
to
RS232 or RS485 Converter
Manual**

August 2007



Introduction

The USB to RS-232 or RS-485 adapter converts the standard USB 1.0 - 2.0 format to either RS-232 or RS-485 selectable by internal jumpers.

The AVE USB to RS-232 fully supports RTS handshaking in a real time mode. This allows the AVE USB232 to support peripherals in poll / select mode similar to the AVE VSI-Pro.

The AVE USB to RS-485 supports true bi-directional communication of RS-485 signals on a single twisted pair in half duplex mode. It also uses the RTS handshaking signal via a standard COM port to control flow direction to be backward compatible with software using a standard RS-232 to RS-485 converter and use RTS for flow control. This allows the AVE USB adapter to work with the Networker and Vnetworker directly in a poll / select protocol configuration.

The AVE USB adapter can be used for RS-422 for single direction only. RS-422 uses one twisted pair for TXD and one twisted pair for RXD. Therefore you can use the RS-485 connection to RS-422 equipment for either TXD or RXD.

Baudrate

This device can scan terminal baudrate and set device baudrate as same as terminal.

Compatible Baud rate (Bit per second)
300,1200,2400,4800,9600,19200,38400,57600,115200

Power

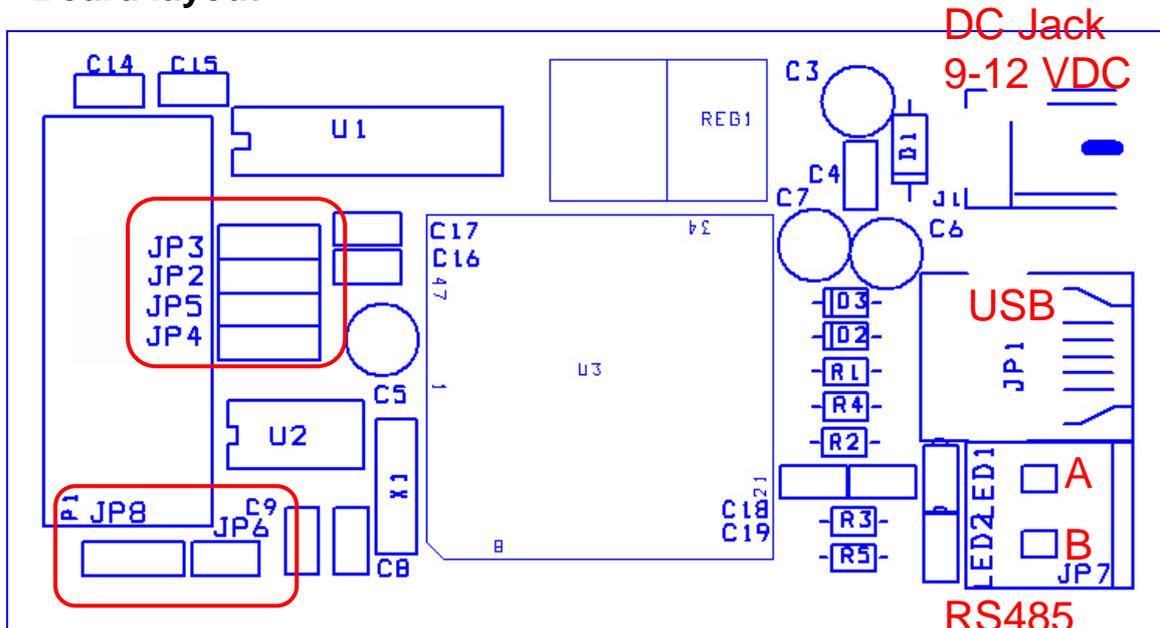
This device can **use power from the USB bus** or power from DC adaptor.

9-12 VDC



Jumper Selections

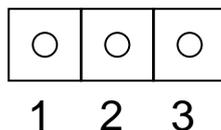
Board layout



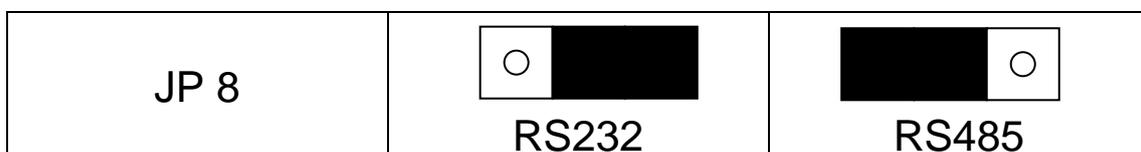
- JP1 - USB type B Connector.
- JP7 - RS485 Push Cage Clamp Connector.
- P1 - RS232 Connector (DB9 Male).
- JP6 - RS485 / RS-422 load resistor jumper (120 Ohm).

Note – The last device in an RS-485 or RS-422 network needs to be terminated with a 120 ohm resistor. Apply this jumper accordingly.

Configuration Setting



Select communication (RXD)



RS232 Configuration

	Connect to DB9 (M)	
Jumper setting →		
RXD (JP3)	PIN 2	PIN 3
TXD (JP2)	PIN 2	PIN 3
CTS (JP5)	PIN 7	PIN 8
RTS (JP4)	PIN 7	PIN 8

Default Setting

Jumper	Default Setting	Note
JP8		Select RS485
RXD (JP3)		Connect to DB9M PIN 2
TXD (JP2)		Connect to DB9M PIN 3
CTS (JP5)		No connection
RTS (JP4)		Connect to DB9M PIN 7

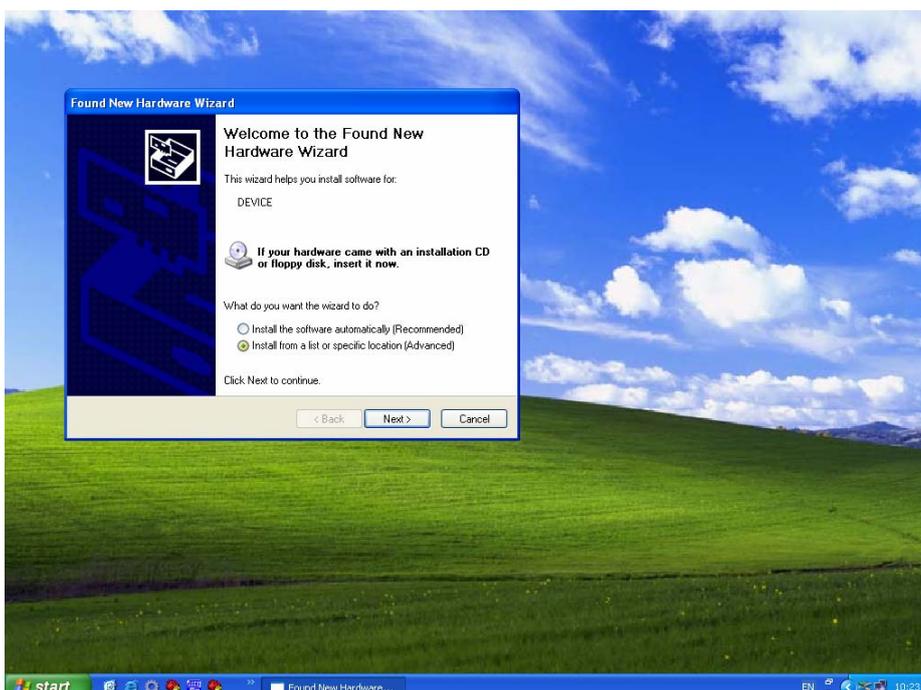
Software Installation

Installation of Virtual Comport (WinXP) [aveusb.inf]

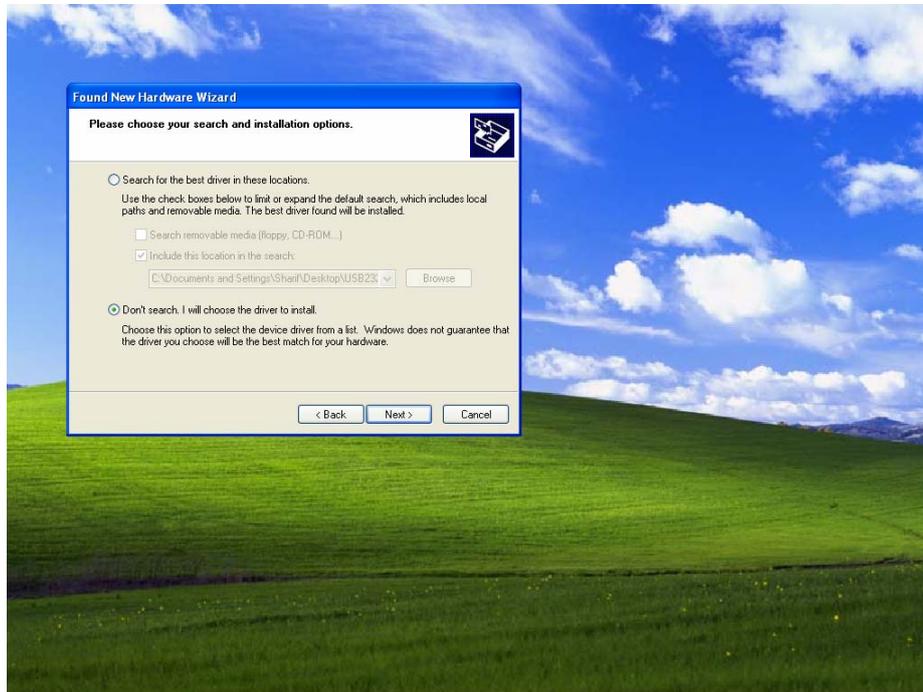
1. Connect USB cable from device to computer.



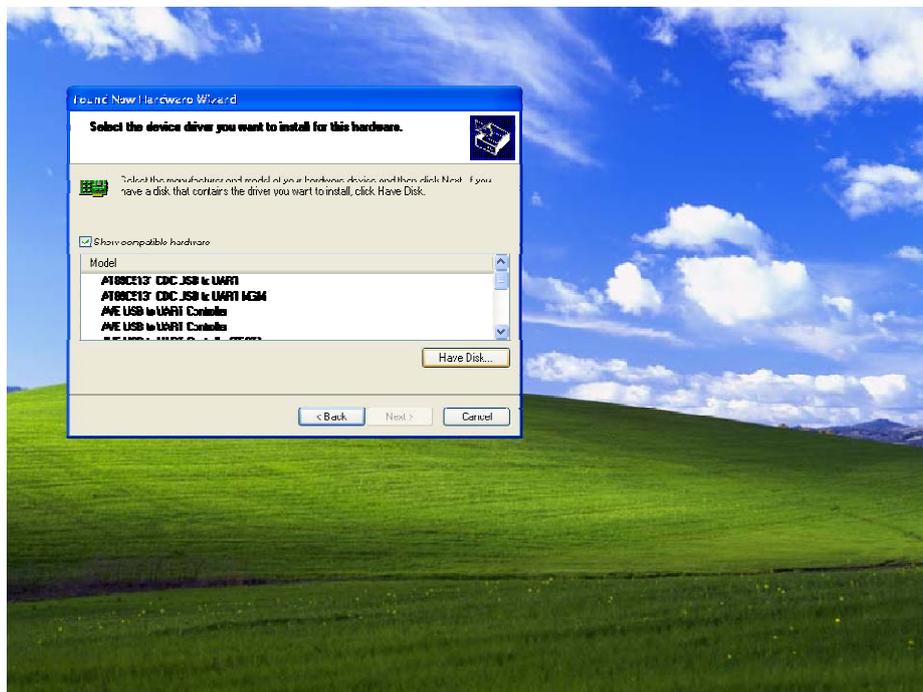
2. Choose "Install from a list or specific location (Advance)" and click "next" to continue.



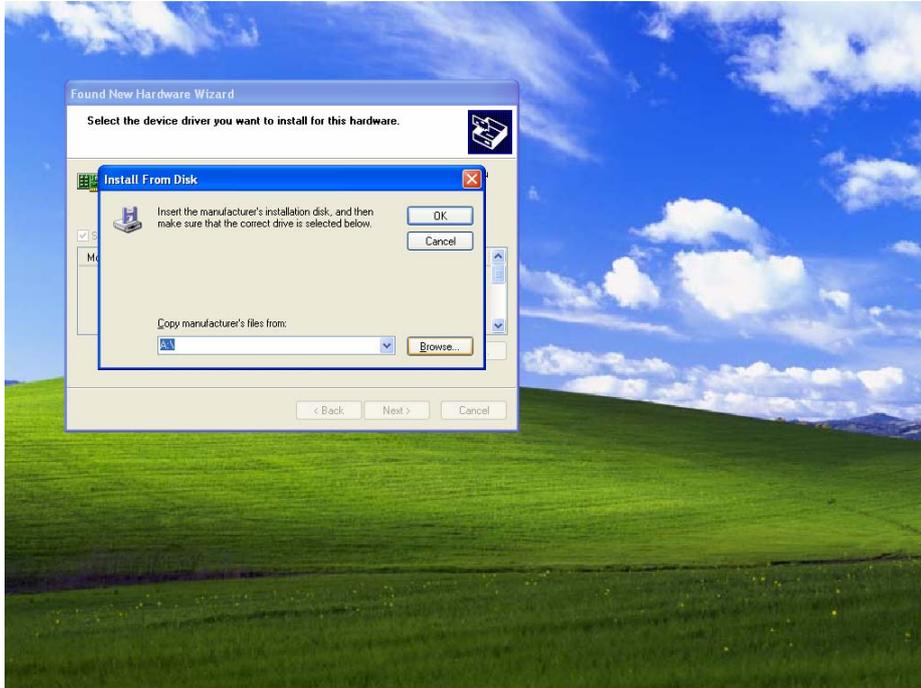
3. Choose “Don’t search. I will choose the driver to install.” and click “next” to continue.



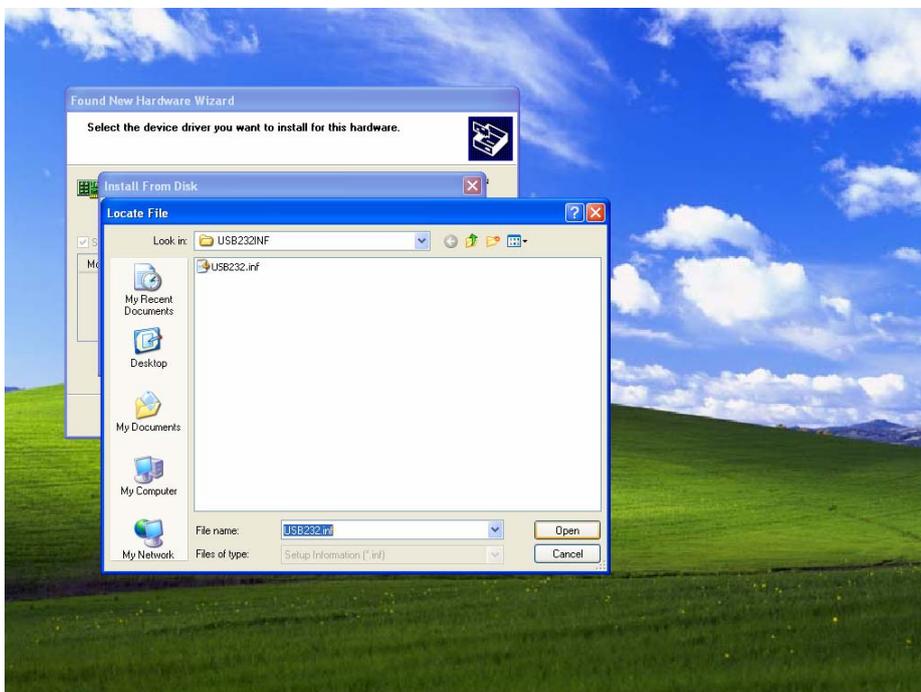
4. Click “Have Disk...”



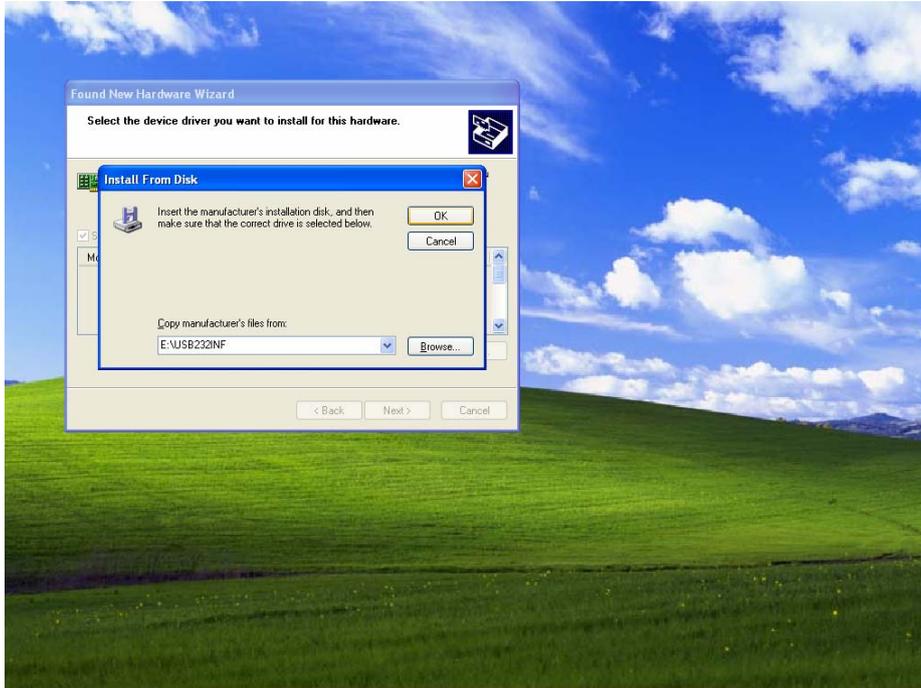
5. Click “Browse...”



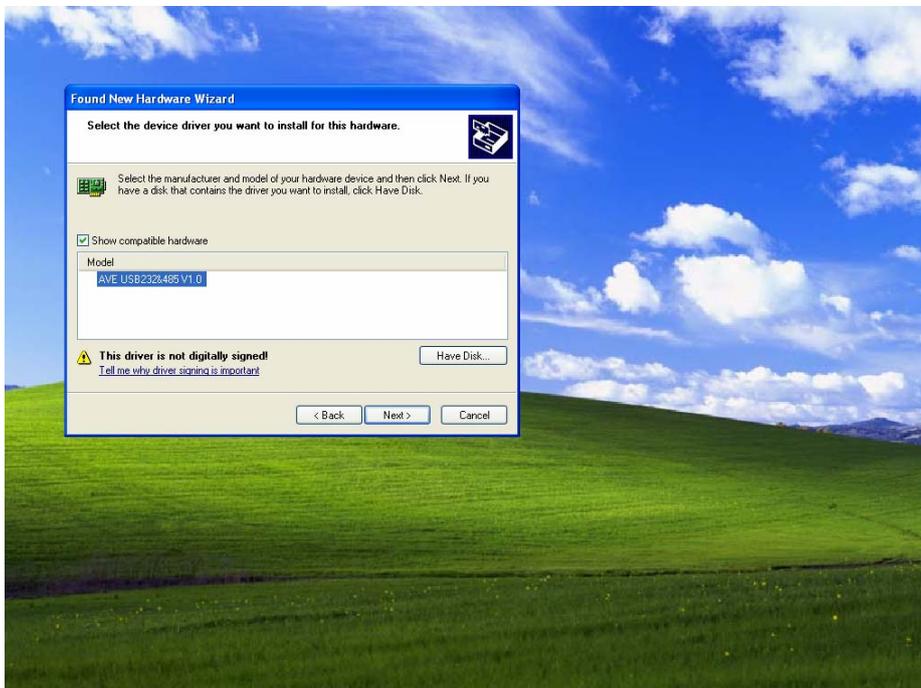
6. Select folder USB232INF in CDROM drive and click “Open”.



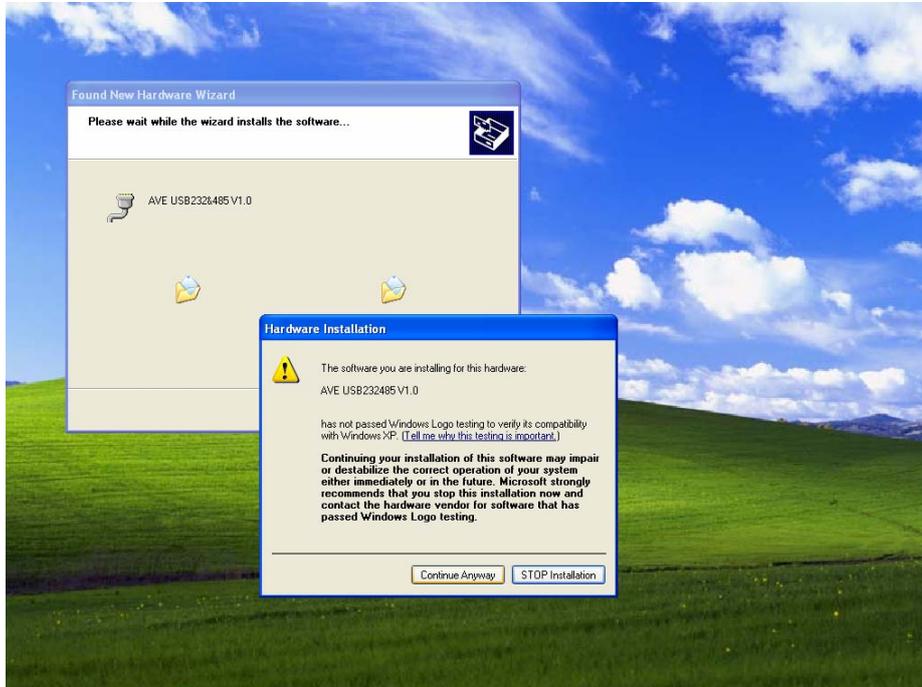
7. Click “OK”



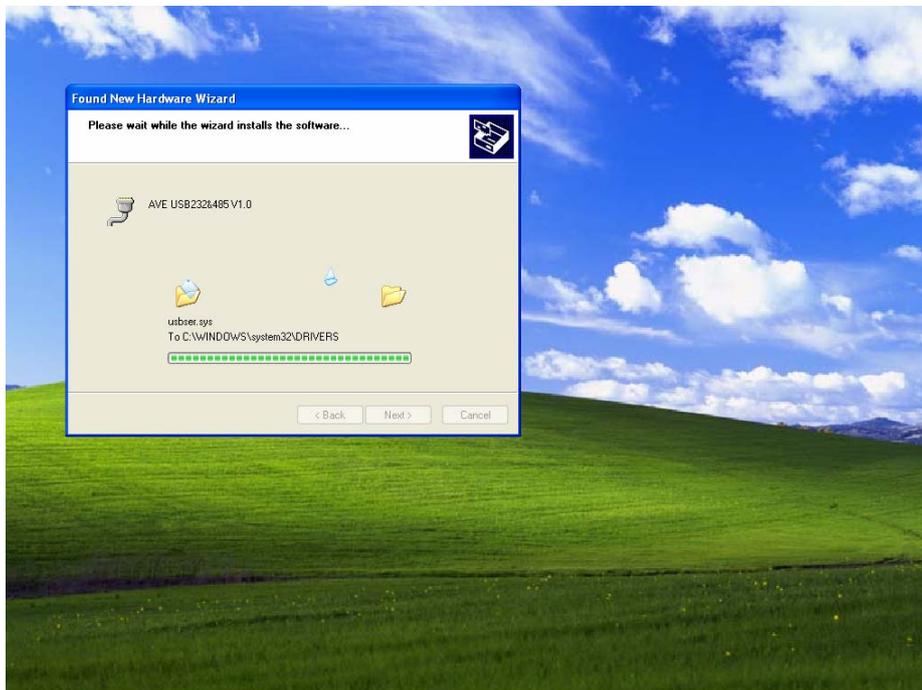
8. Click at “AVE USB232&485V1.0” and click “Next”



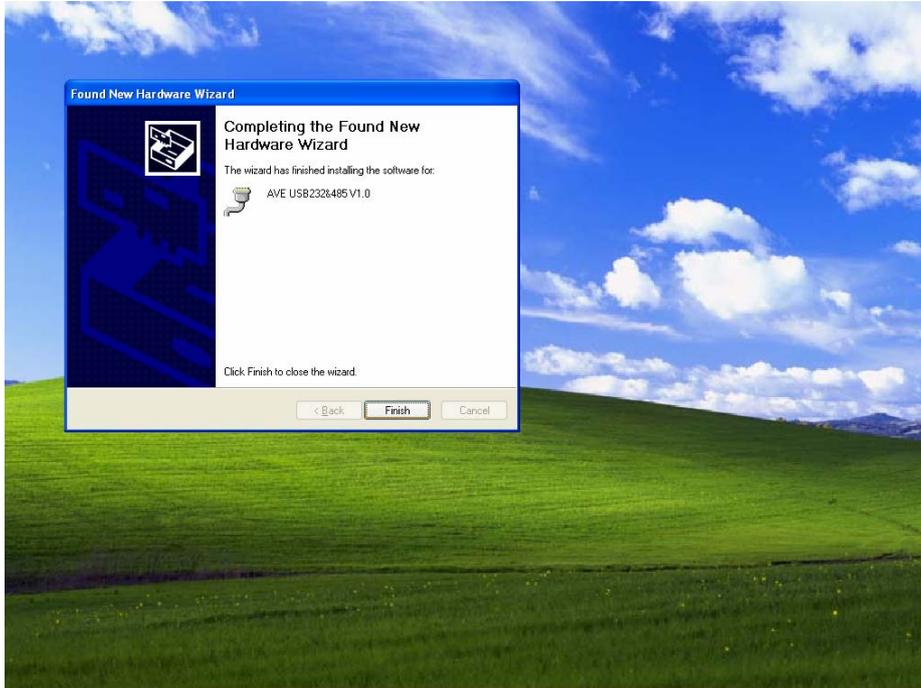
9. When Hardware Installation window appear, click “Continue Anyway”.



10. Please wait while Driver is installing.

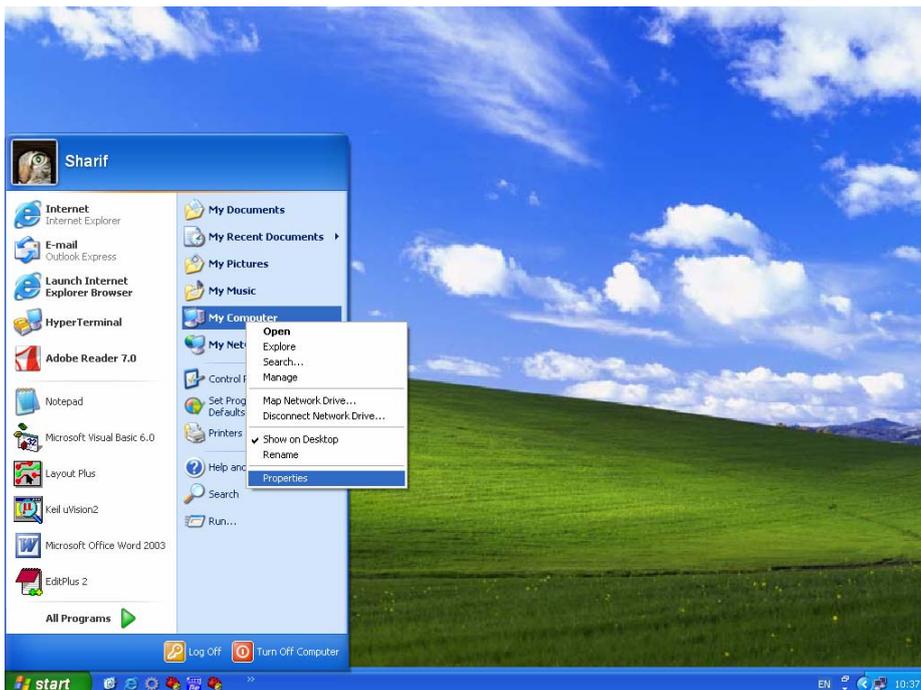


11. Click “Finish”

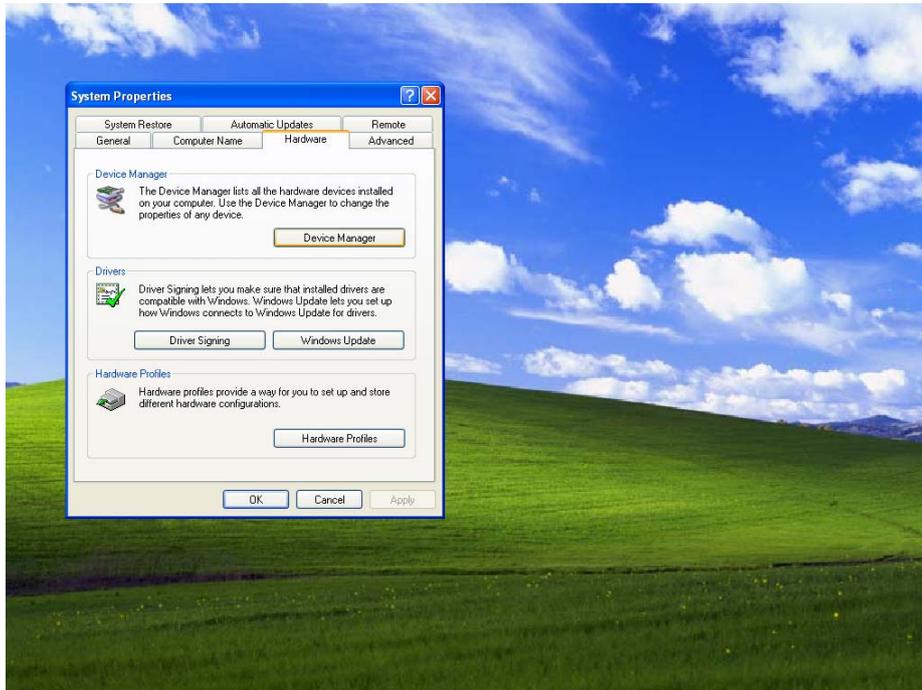


Now device ready to work. Please check comport number of device.

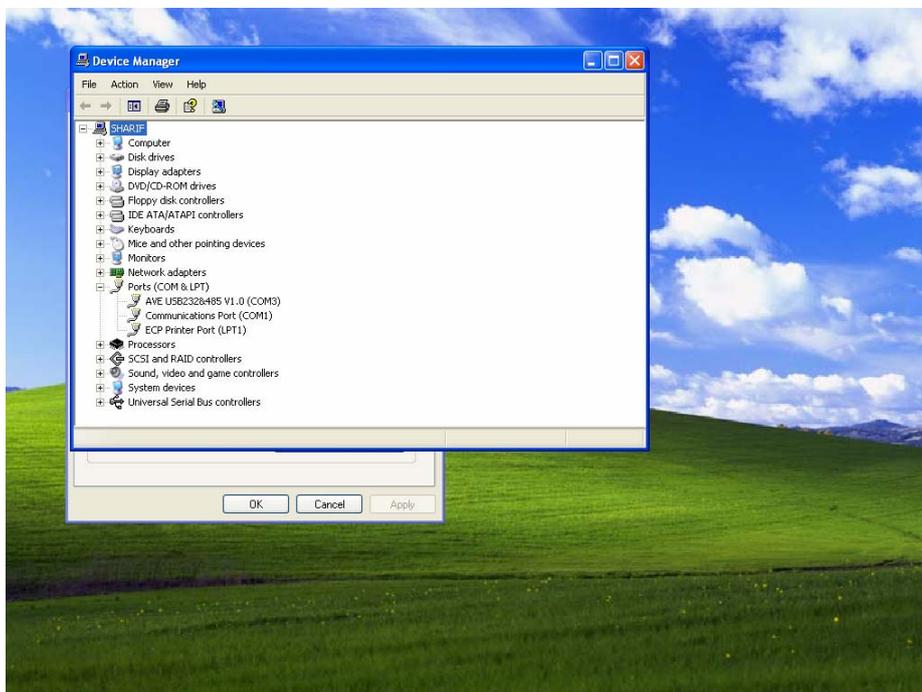
1. Right click on My Computer icon and choose “Properties”.



2. Click “Device Manager”

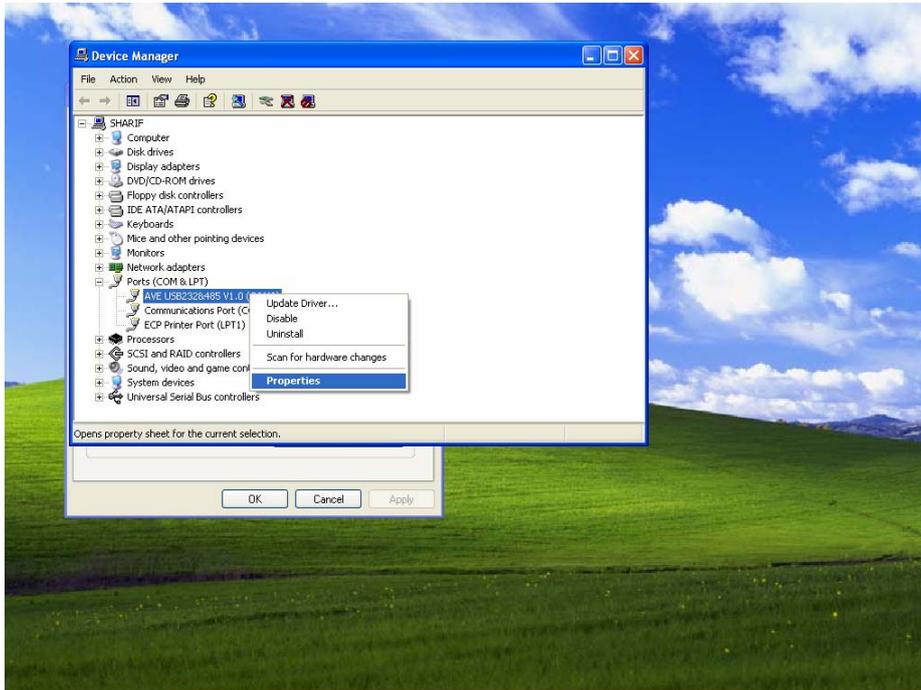


3. In “Ports (COM&LPT)” you will see port number of AVE USB232&485 V1.0 (COM3).

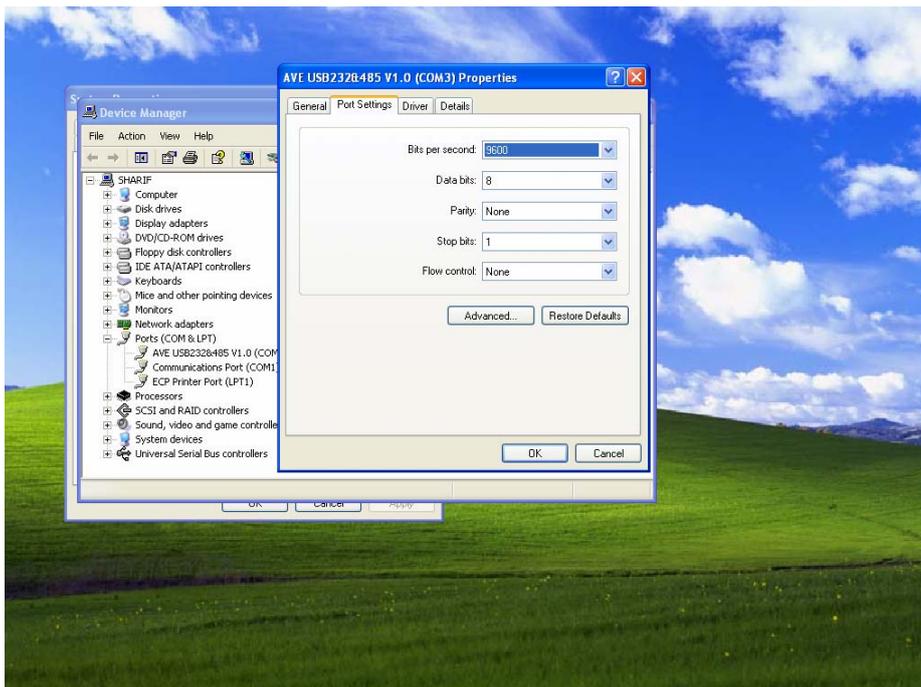


If you want to change port number of device, Please see instruction below.

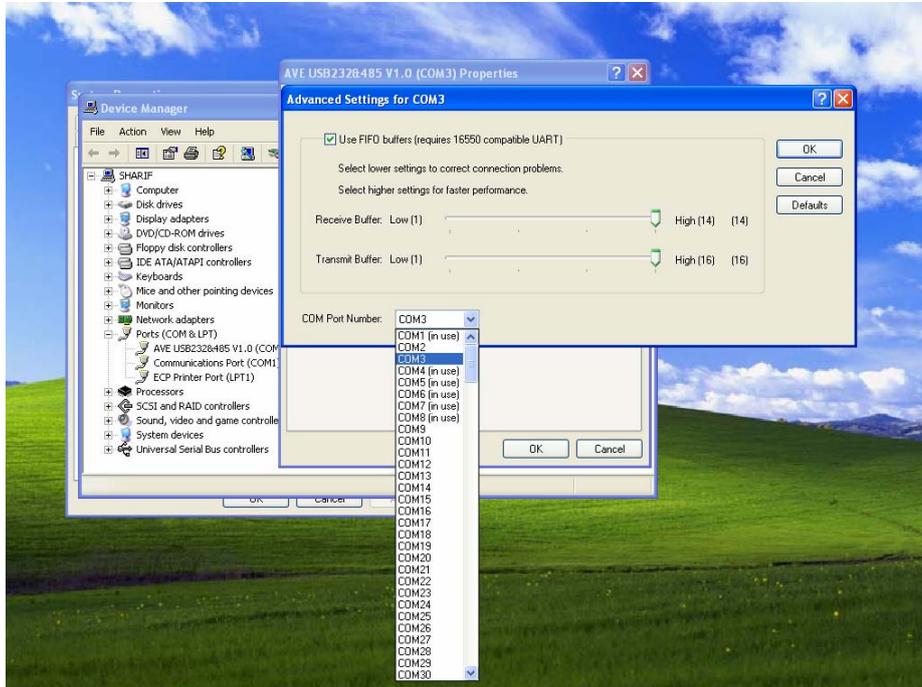
1. Right click on USB232&485 V1.0 and choose “Properties”.



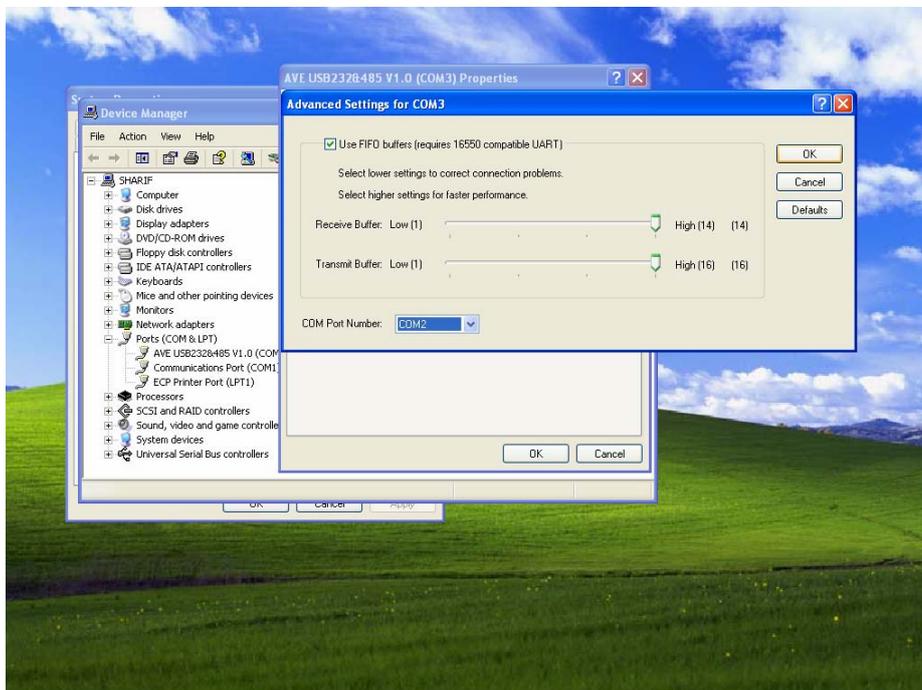
2. Click “Port Setting” tab and click “Advanced...”



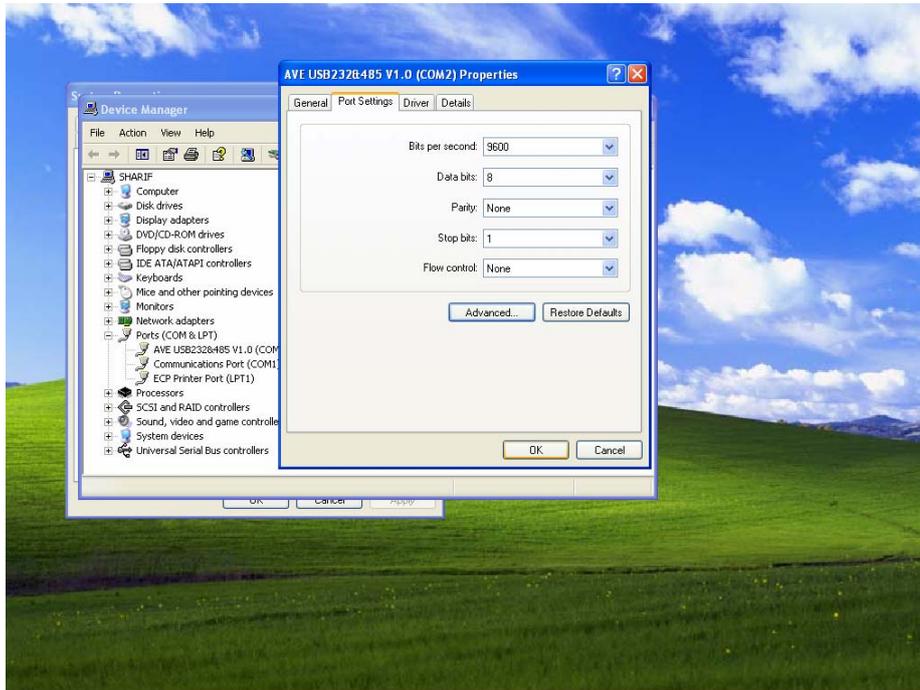
3. At “COM Port Number” you can change com port number in this combo box.



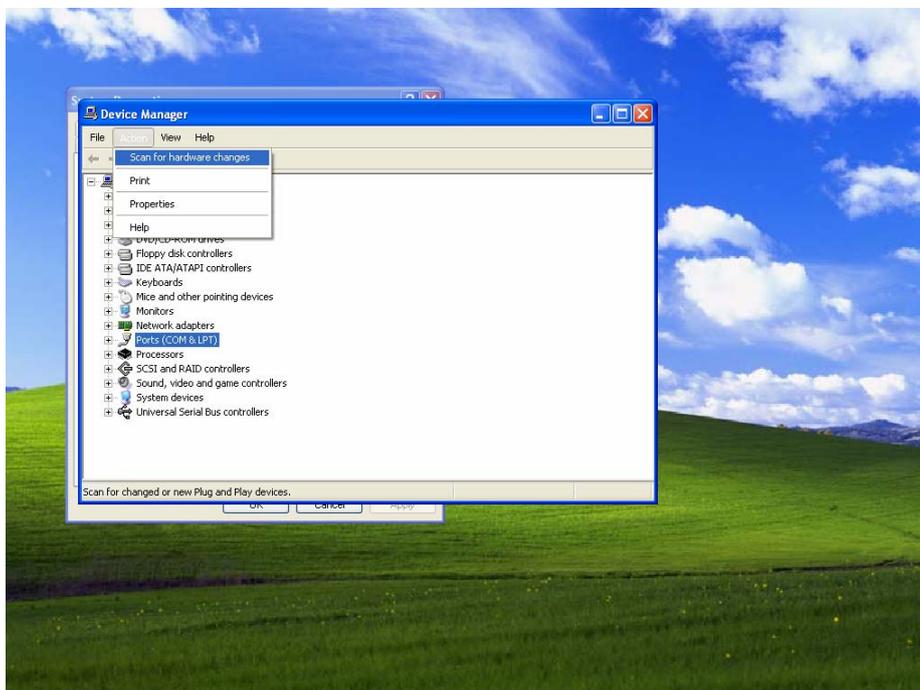
4. If you change com port number completely, click “OK”



5. Click “OK”



6. Click “Action” on Menu bar and choose “Scan for hardware changes” for refresh new port number.



7. You will see new port number of device.

