Installation Guide of Hi-Speed USB to Serial & Multi-Serial Adapter

The USB to Serial Adapters consist of the following models:

- **USB to Single Serial Adapter**   **(USB-COM, USB-COM-PL, USB-COM-CBL)**
- **USB to Single Serial Adapter**   **(USB-COM-25, USB-COM-M, USB-COM-SI-M)**
- **USB Dual Serial Adapter**   **(USB-2COM, USB-2COM-PL)**
- **USB Dual Serial Adapter (Metal)**   **(USB-2COM-M, USB-2COM-SI-M)**
- **USB Quad Serial Adapter**   **(USB-4COM, USB2-4COM-(SI)-M/ CBL)**
- **USB 8-Port Serial Adapter**   **(USB-8COM, USB2-8COM-M/ CBL)**
- **USB to 16-Port Serial Adapter**   **(USB-16COM-RM, USB2-16COM-M CBL)**
- **USB to 32-Port Serial Adapter**   **(USB-32COM-RM)**

Introduction

The USB Serial Adapter is designed to make serial port expansion quick and simple. Connecting to a USB port on your computer or USB hub, the USB Serial Adapter instantly adds serial communication port to your system. By taking advantage of the USB bus, the USB Serial Adapter makes it easier than ever to add serial port and serial device to your system with easy plug-and-play and hot plug features. Adapting the new technology, the serial port expansion now takes the new bus with easy and convenient connectivity.

Plugging the USB Serial Adapter to the USB port, the adapter is automatically detected and installed. There are no IRQ & COM port conflicts, since the port doesn't require any additional IRQ, DMA, memory as resources on the system. The RS-232 port functions as native Windows COM port, and it is compatible with Windows serial communication applications. Each port is individually configurable.

The USB Serial Adapter provides instant connectivity to RS-232 communication device for factory automation equipment, multi-drop data collection devices, barcode readers, time clocks, scales, data entry terminal and serial communication in harsh environment. The USB to Serial Adapter is suitable for remote access, retail and industrial application, data collection and other applications requiring high speed RS-232 communication ports.

Optical Isolation & Surge Protection

Optical isolation and surge protection are available to USB-COM/2COM-SI-M, and USB2-4COM-SI-M. Each serial port is individually optically isolated with 2000 volt DC optical isolation. The optical isolation protects your computer from spikes and surges, by converting the electrical pulse into an optical signal and then changing it back into an electrical pulse. Your computer is well protected, since the surges and spikes cannot cross the optical link. Each serial port is individually protected by surge protector to withstand electrostatic discharge and power surges up to 25KV ESD. Surge suppression on all signals prevent from damages caused by lightning or high voltage.

Power Requirement

If your USB to Serial Adapter is provided with external power adapter, you need to plug the power adapter to the power source after driver installation.

The USB-4COM, USB2-4COM-M, USB2-4COM-M CBL and USB2-8COM-M CBL are powered by host USB ports. They must work in USB self-power mode that supplies power of 5V / 500mA.
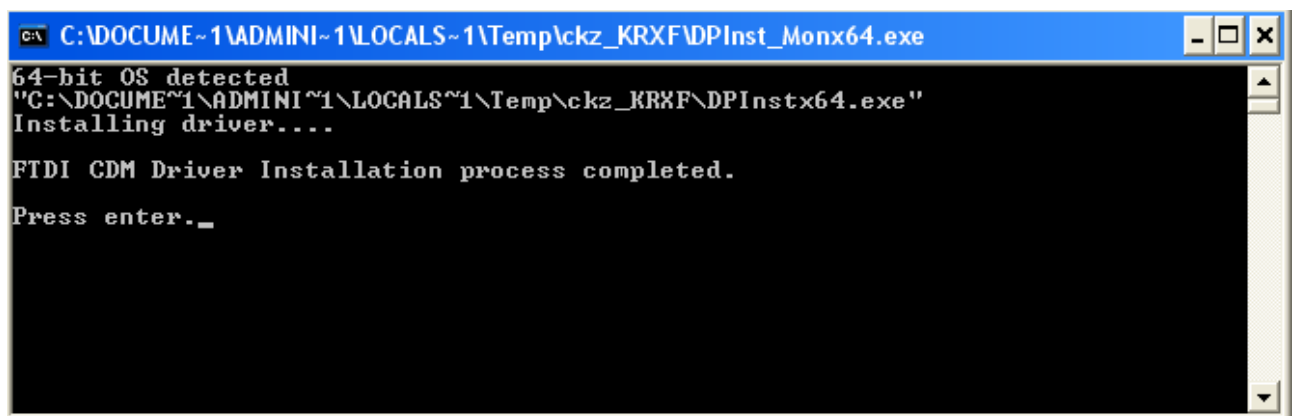
Windows 7/ Vista / 2003 / XP / 2000 Driver Installation

You need to have administrator privileges to install any new drivers under Windows 7/ Vista/ 2003/ XP/2000. To install the driver or update the configuration please log onto Windows as "Administrator" or ask your system administrator to install the USB-COM driver.

You need to install driver first, prior to hardware installation. Do not connect the USB-to-Serial Adapter to the USB port of your computer, before you finish driver installation.

Please proceed with the following steps to install the driver:

1. Insert the "USB COM Series Driver and Utility" CD into your CD-ROM.
2. The "USB COM Series Driver and Utility CD" dialog box appears.
3. Under "Driver Installation", double click "Windows 7, Vista, 2003, XP, 2000 driver" to install the device driver.
4. The USB COM install program will auto-detect the OS type and install the driver automatically. (Note: in Windows 7 or Vista OS you will find another dialog box, please click on "OK" to confirm the drivers install program).

5. After the message "FTDI CDM Driver installation process completed" appears, press "Enter" to complete the driver installation.
6. Plug in the USB to Serial Adapter to the USB port of your computer. Windows will finish installing the driver files.

Check Installation

You can now verify the installation has been completed successfully by looking under Device Manager of the System Properties screen. (Go there by Start-Setting-Control Panel-System Properties-Hardware-Device Manager.

The device should have installed as a "USB Serial Port (COMx)" attached to "USB Serial Converter (A/B or A/B/C/D)".

Change COM Port Properties & COM Port Number

This feature is particularly useful for programs, such as HyperTerminal, which only work with COM1 through COM4. Please ensure that you do not change the COM Port Number already in use.

To change the virtual COM port properties:

- Select the "USB Serial Port"
- Click "Properties".
- Select "Port Setting" and "Advanced".
- Click the drop down arrow on COM Port Number and scroll to the required COM port. Select "OK".
- Return to the Device Manager Screen. You will see that the USB Serial Port installation has been changed to the new COM Port Number.

Uninstalling Windows 2003/XP/2000 Drivers

Please proceed with the following steps to uninstall the 2003/XP/2000 driver:

1. Insert the "USB COM Series Driver and Utility" CD into your CD-ROM.
2. The "USB COM Series Driver and Utility CD" dialog box appears.
3. Under "Driver Uninstalling", double click "Windows 2003, XP, 2000 driver uninstall" to uninstall the device driver.
4. When the following dialog box appears, double click "Clean System" to uninstall the 2003/XP/2000 drivers.
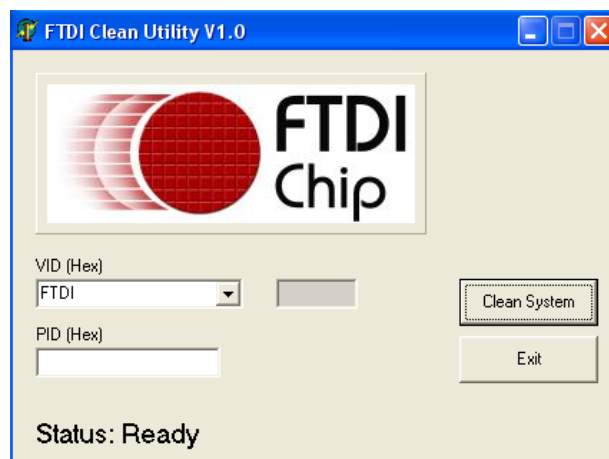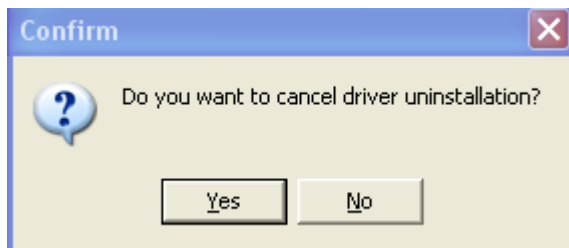
5. **You need to disconnect all USB to serial Adapters from your PC, when the message below appears. Double click "OK" to start uninstalling Windows 2003/XP/2000 USB to Serial drivers.**

6. **Double click "Yes" to confirm it.**
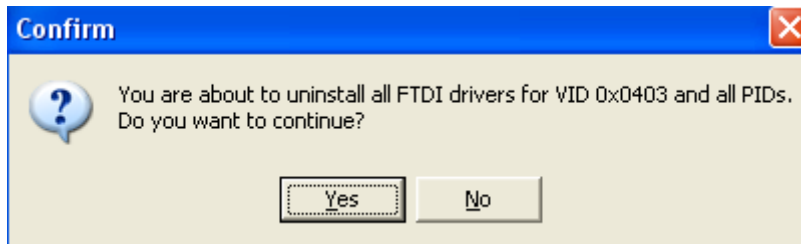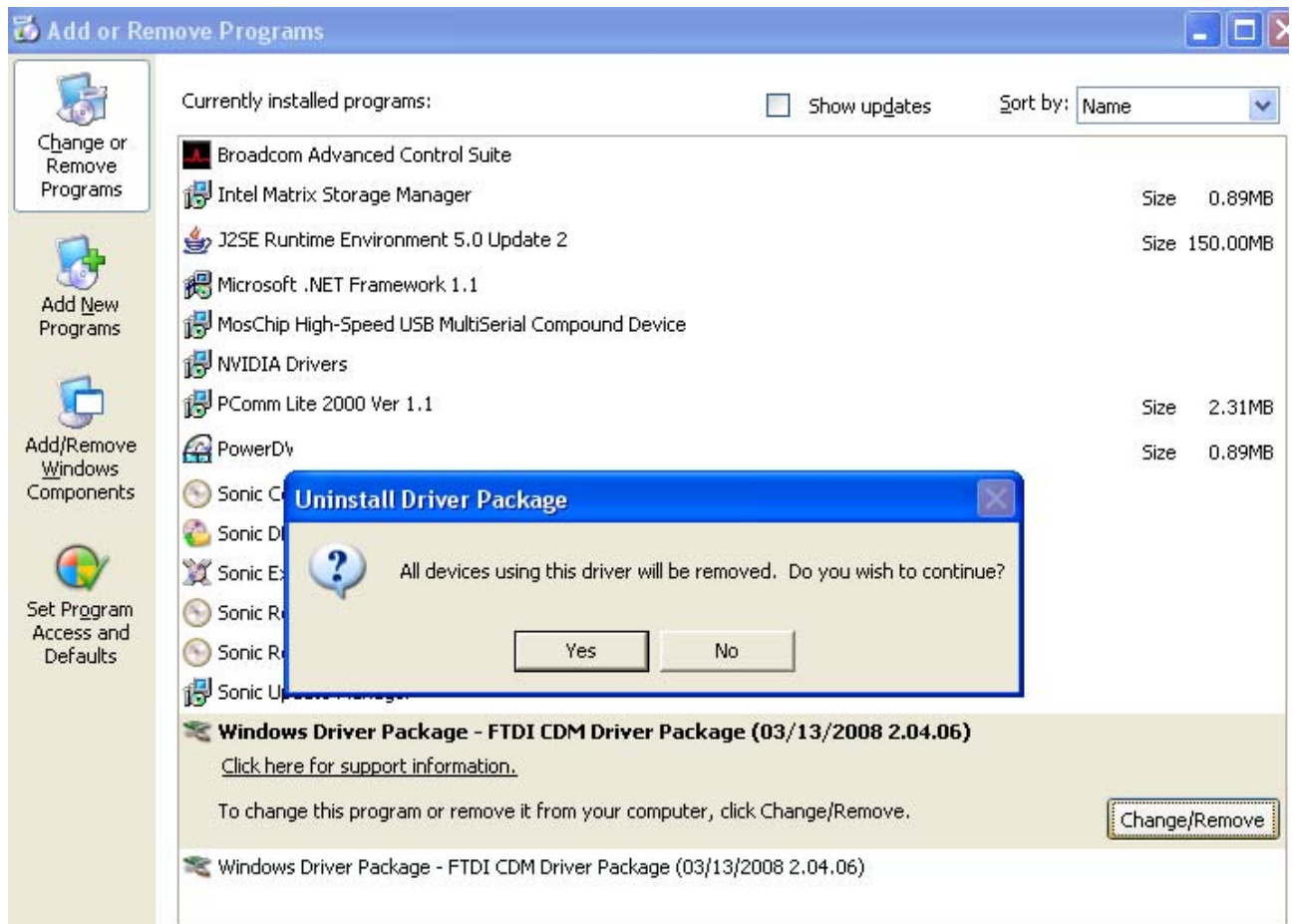

7. **Click "No" to proceed.**

8. **When the message "Status: System clean completed" appears, double click "Exit" to complete the USB to serial drivers uninstall.**

9. **Press "Start" button and select "Control Panel".**

10. Open the Add or Remove program.

11. Remove the first "Windows Driver Package – FTDI CDM Driver Package (…)".

12. Click "Chang/Remove" and "Yes" to remove the first Windows Driver Package.

**13. Remove the second "Windows Driver Package – FTDI CDM Driver Package (…)".**

14. Click "Chang/Remove" and "Yes" to remove the second Windows Driver Package.

15. Reboot the computer to complete the driver uninstall.

Uninstalling Windows 7 or Vista Drivers

Windows 7 and Vista have many new security features. You need to proceed with the following steps to uninstall the Vista driver:

1. The USB to serial devices must connect to the PC.

2. Press "Start" button and select "Control Panel".

3. Select "Classic View" from the top left hand corner and then "System" from the list.

4. Select "Device Manager" from the top left hand corner.
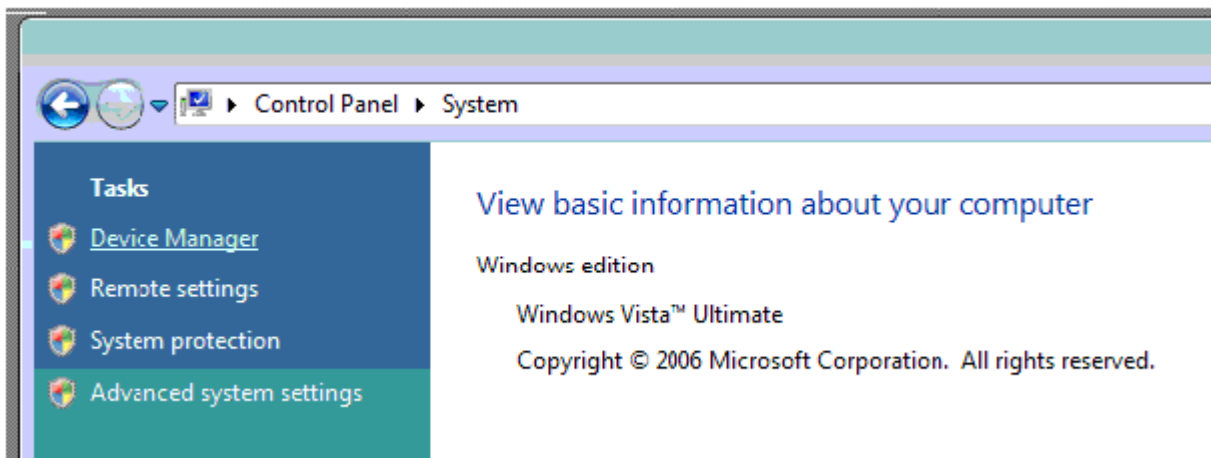
5. Locate your Device under the Ports (COM & LTP) section and right click on it to bring up the menu shown.
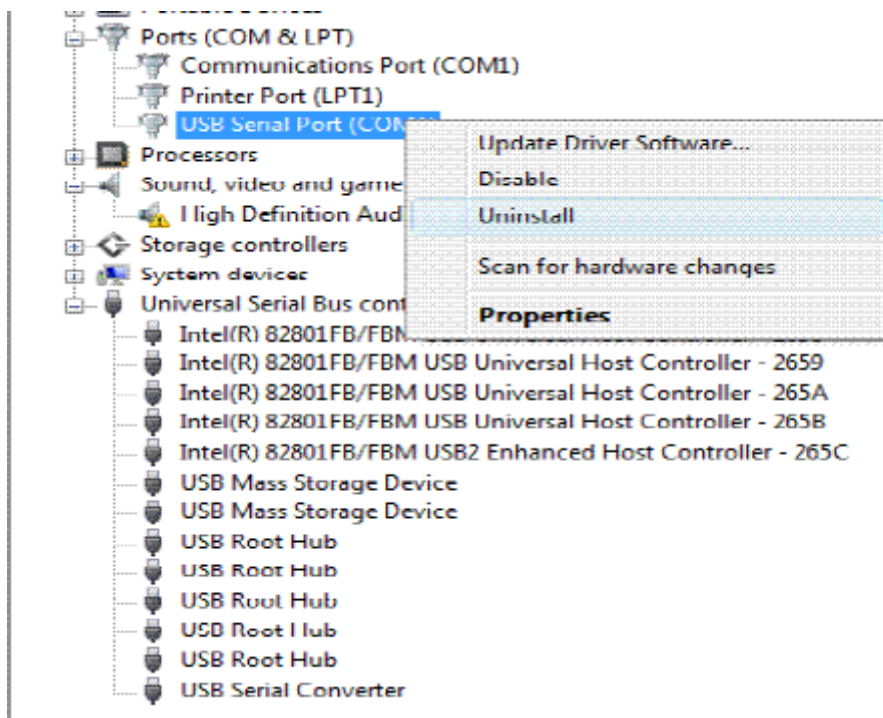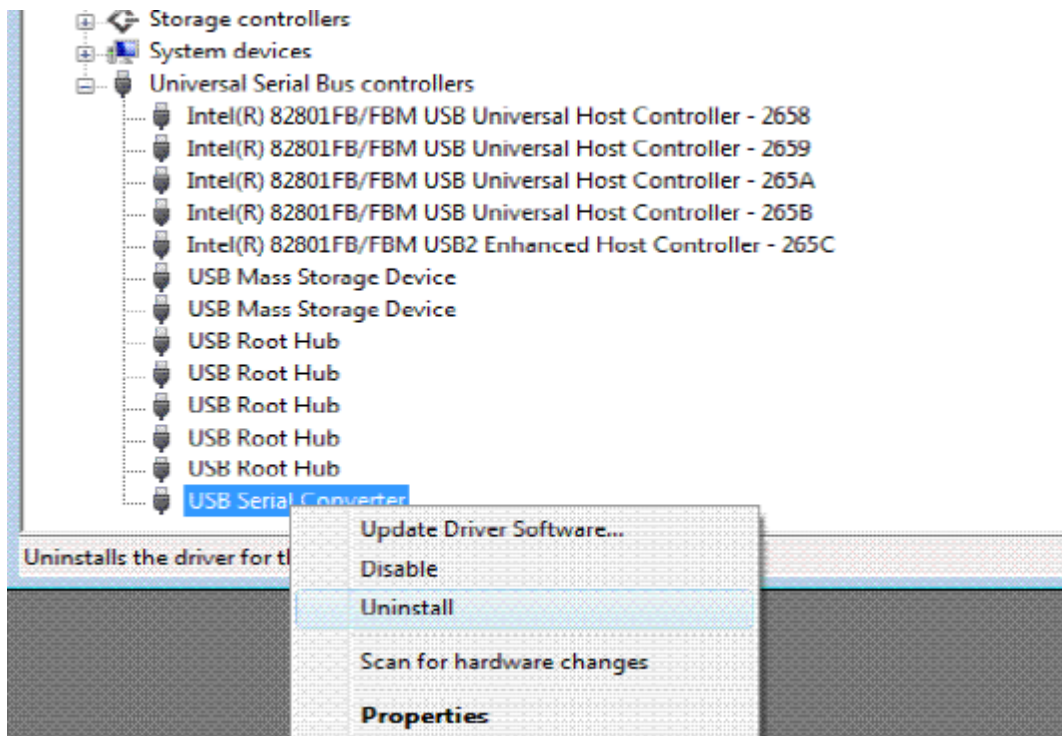
6. **Select uninstall and be sure to check the box for "Delete the driver software for this device" in the next window and press "OK".**
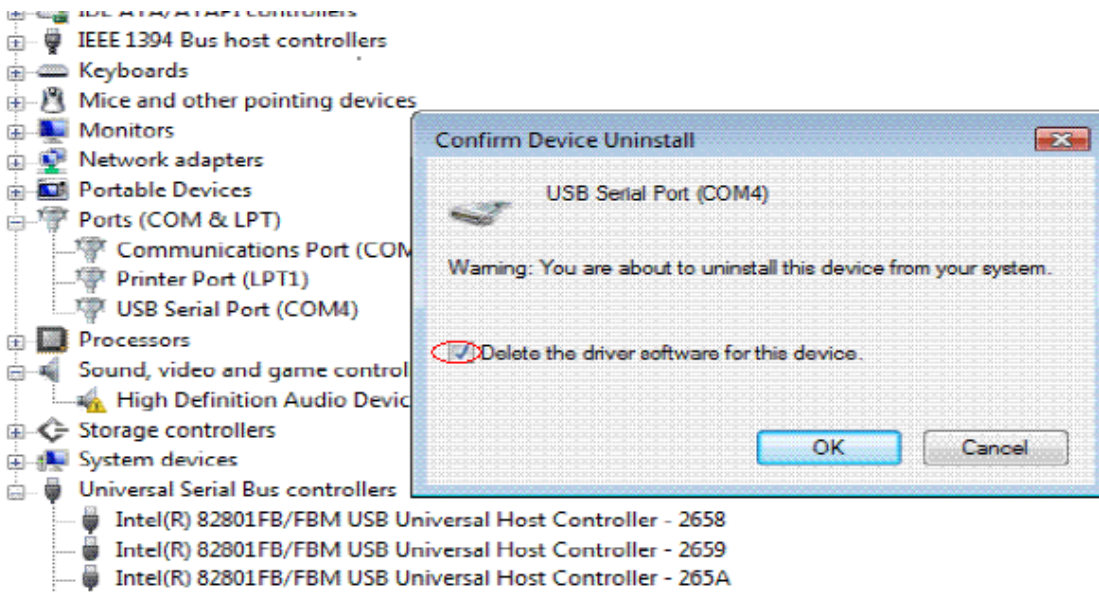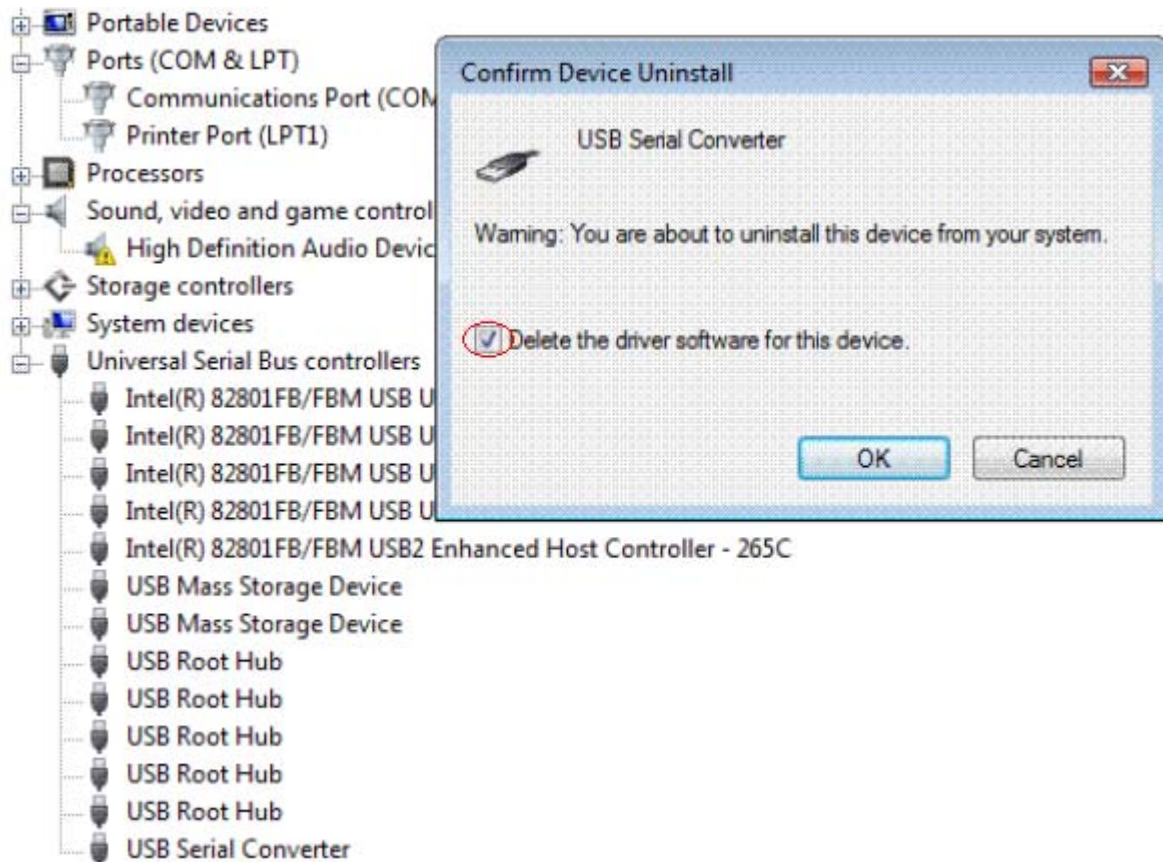

Note: if you have more than one USB Serial Port (COMx) installed in your PC, you need to repeat from step 5 to step 6 to delete the driver software for each port.

7. **Locate your Device under the Universal Serial Bus Controllers section, and right click on it to bring up the menu shown.**
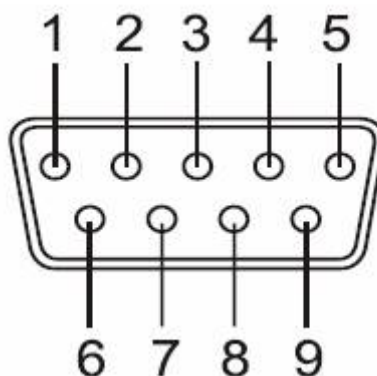
8. Select uninstall and be sure to check the box for "Delete the driver software for this device" in the next window and press "OK".
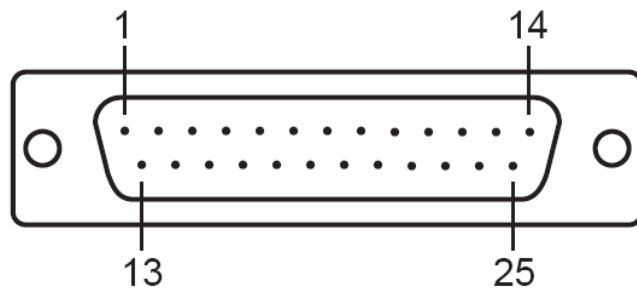

Note: if you have more than one USB Serial Converter installed in your PC, you need to repeat step 7 and step 8 to delete the driver software for all devices.

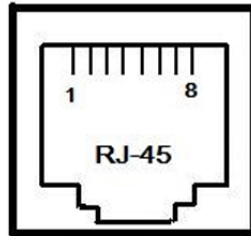## RS-232 Signal Pin-outs of DB-9 Male

Pin 1	DCD
Pin 2	RxD
Pin 3	TxD
Pin 4	DTR
Pin 5	GND
Pin 6	DSR
Pin 7	RTS
Pin 8	CTS
Pin 9	RI

RS-232 Signal Pin-outs of DB-25 Male

Pin 1	
Pin 2	TxD
Pin 3	RxD
Pin 4	RTS
Pin 5	CTS
Pin 6	DSR
Pin 7	GND
Pin 8	DCD
Pin 9	
Pin 10	
Pin 11	
Pin 12	
Pin 13	
Pin 14	
Pin 15	
Pin 16	
Pin 17	
Pin 18	
Pin 19	
Pin 20	DTR
Pin 21	
Pin 22	RI
Pin 23	
Pin 24	
Pin 25	

RS-232 Signal Pin-outs of RJ-45 (for USBG-32COM-RM)

Pin 1	RTS
Pin 2	DTR
Pin 3	GND
Pin 4	TxD
Pin 5	RxD
Pin 6	DCD
Pin 7	DSR
Pin 8	CTS