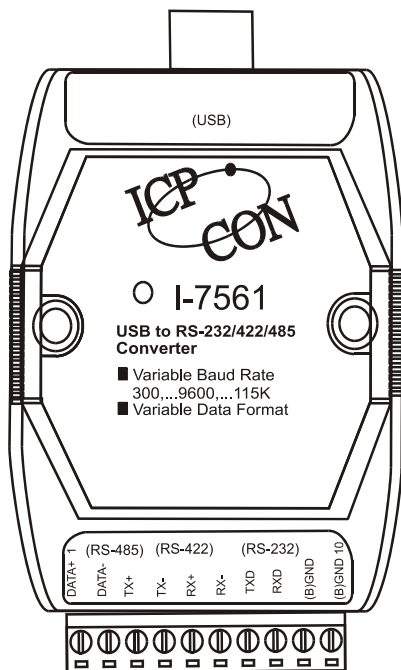


I-7561 Pin Assignment and Specifications



Introduction

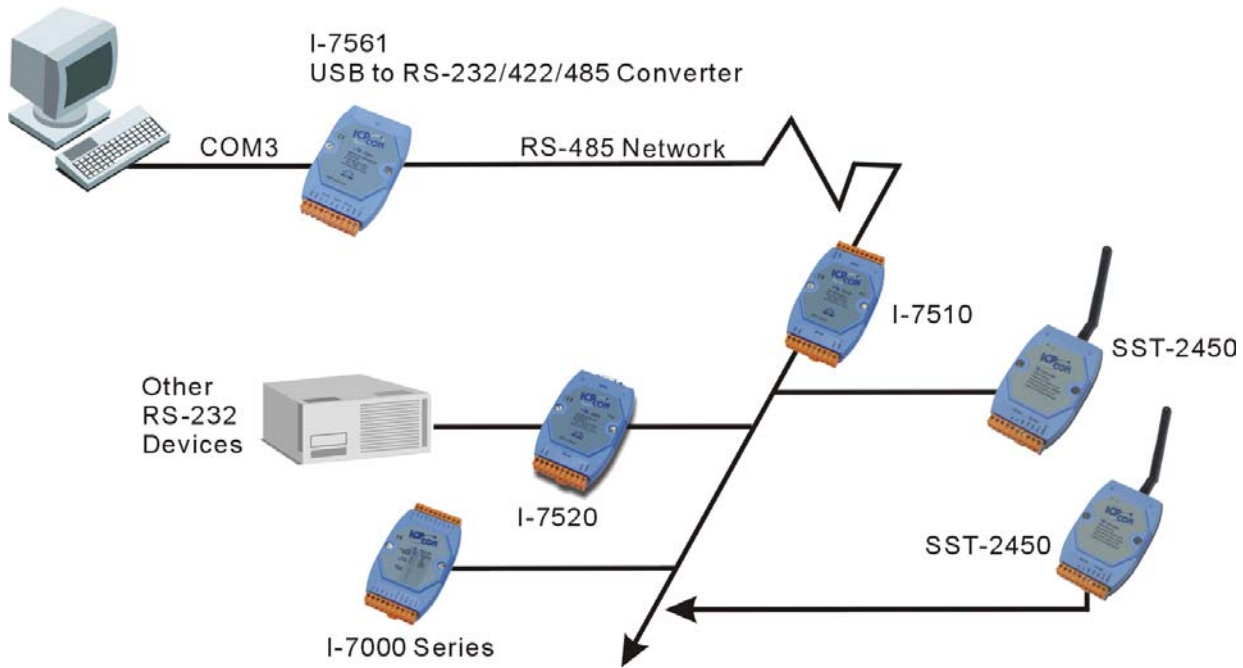
The I-7561 is a cost-effective module for transfer serial data over USB. It allows you to connect your serial devices to systems using a USB interface. Connecting the **I-7561** to a PC, you get one extra high-speed RS-232/422/485 ports. Like our I-7520A, the I-7561 contains “ Self Tuner “ This chip auto-tunes the baud rate and data format to the RS-485 network. The I-7561 module derives the power from the USB port and doesn't need any power adapter (when you use I-7561, you should connect power ground to other modules). It also features a high-speed 115.2 Kb/s transmission rate, and supports various O.S. independent RS-232/422/485 Ports.

Specifications

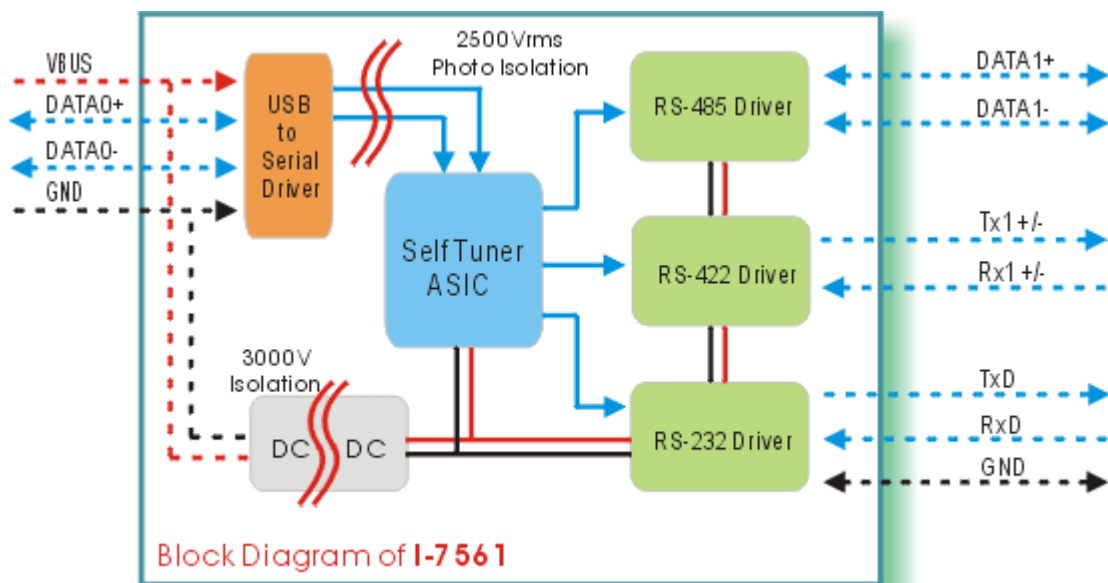
- **Compatibility:** USB 1.1 standard
- **Input port:** USB
- **Output port:** 3-wire RS-232, RS-422, RS-485.
- **Cable:** USB type A connector (Type A to Type B cable provided).
- **Isolation voltage:** 3000VDC
- “Self Tuner” inside, support multiple Baud Rate and multiple Data Format
- Auto switching baud rate, 300~115.2K bps
- 256 modules max. in one RS-422/485 network without repeater
- **Isolation voltage:** 3000VDC
- **Repeater request:** 4,000 feet or over 256 modules
- **Communication distance:**
 - 1.2Km/9600 Bps, 2.7Km/4800 Bps, 3.6Km/2400 Bps
- **Power requirements:** Voltage support by USB interface of the host-PC.
Power consumption: 1.5 W max.
- **Operation temperature:** -25^oC to +75^oC
- **Storage temperature:** -25^oC to +80^oC
- **Humidity:** 5~ 95%
- **Driver Supported:** Windows 98/ME/2000, XP, Linux, MacOS

The I-7561 System Network Configuration:

- Multiple Baud Rate
- Multiple Data Format



The I-7561 Block Diagram:



I-7561 has four different output types.

Selecting the I-7561 output type.

NOTE: The RS-232, RS-422 and RS-485 output types couldn't be used simultaneously, which means that you can only select 1 type to output.

Type 1: 1-channel RS-485 output.

Type 2: 1-channel RS-422 output.

Type 3: 2-channel RS-485 output. (Support star network)

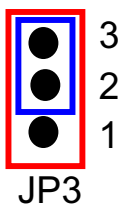
Type 4: 1-channel RS-232 output.

RS422/485 Output Jumpers settings:

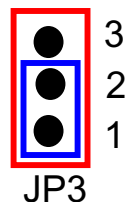
For type 1: Set the JP3 jumper to positions 1 and 2.

For type 2: Set the JP3 jumper to positions 1 and 2.

For type 3: Set the JP3 jumper to positions 2 and 3.

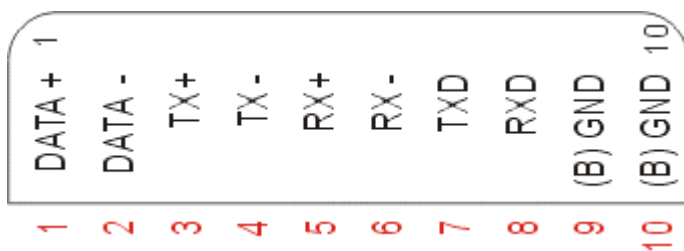


Types 1 and 2:
Default setting
RS-422 or RS-485



Type 3:
2-channel RS-485

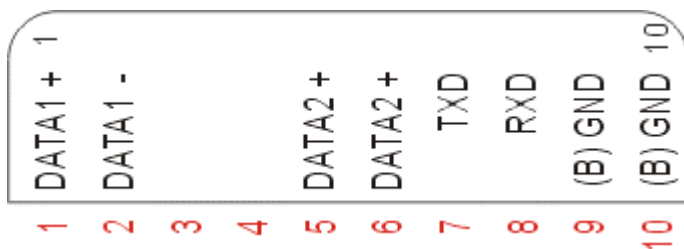
Pin Assignment For type1 and type2:



RS-485 Pin define:
DATA+ and DATA-

RS-422 Pin define:
TX+, TX-, RX+ and RX-

Pin Assignment For type3:



Channel one Pin define:
DATA1+ and DATA1-

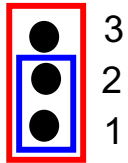
Channel two Pin define:
DATA2+ and DATA2-

The I-7561 is designed with a Termination resistor on board

Enable/Disable the resistor jumper for channel 1:

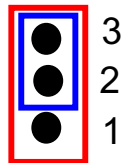
To disable the resistor: Set the JP1 jumper to positions 1 and 2.

To enable the resistor: Set the JP1 jumper to positions 2 and 3.



JP1

Default setting
Resistor Disabled



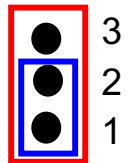
JP1

120 Ohm on board

Enable/Disable the resistor jumper for channel 2:

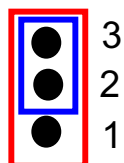
To disable the resistor: Set the JP2 jumper to positions 1 and 2.

To enable the resistor: Set the JP2 jumper to positions 2 and 3.



JP2

Default setting
Resistor Disabled



JP2

120 Ohm on board

I-7561 Driver Installation

Installing the Device

This section will guide you on how to install the I-7561 USB to RS-232/422/485 converter under Windows XP, Windows 2000, Windows ME, and Windows 98 operating systems. (**No support for WinNT**).

Download driver files from

1. Package CD, \Napdos\7000\756x\7561
2. <ftp://ftp.icpdas.com/pub/cd/8000cd/napdos/7000/756x/7561>

The following steps will show how to install the device under Windows 2000. Basically, the procedures are also somewhat the same for other Windows operating systems.

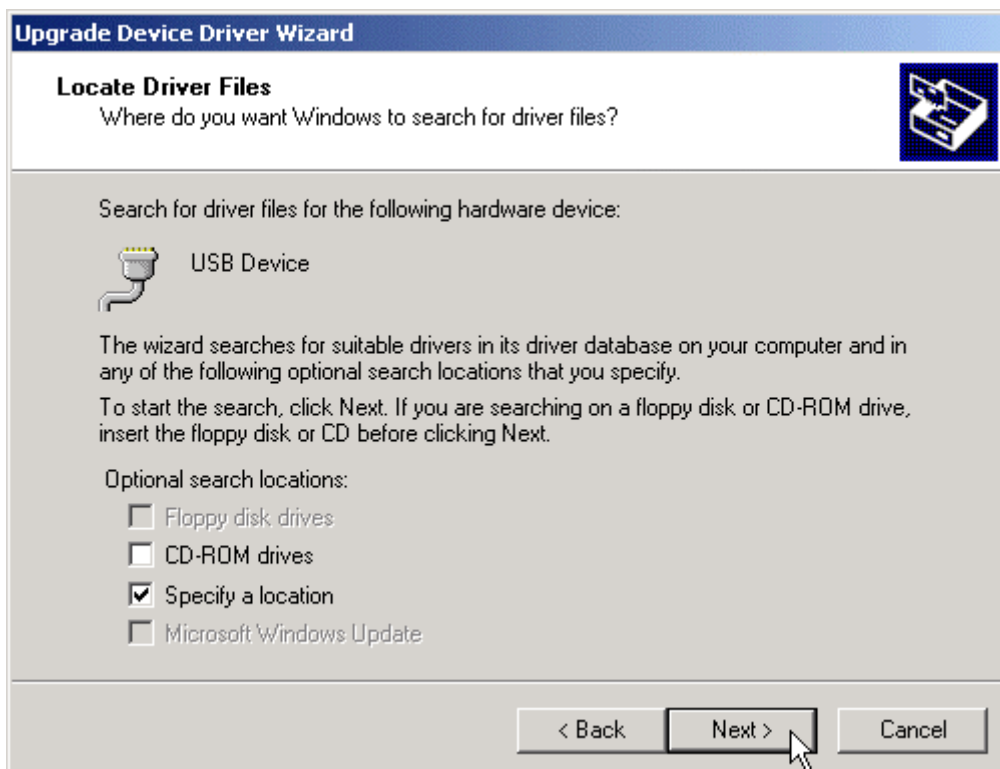
1. Power on your computer and boot to Windows.
2. Locate the USB port of your computer and plug in the I-7561.
3. Windows will detect the new device and will initiate the Found New Hardware Wizard prompting you to install the software for the detected USB Device. Select to install from a list or specific location. Click Next to continue.



4. An “Install Hardware Device Drivers” window is shown. Click “Next” to initiate a search for a suitable driver for your device.



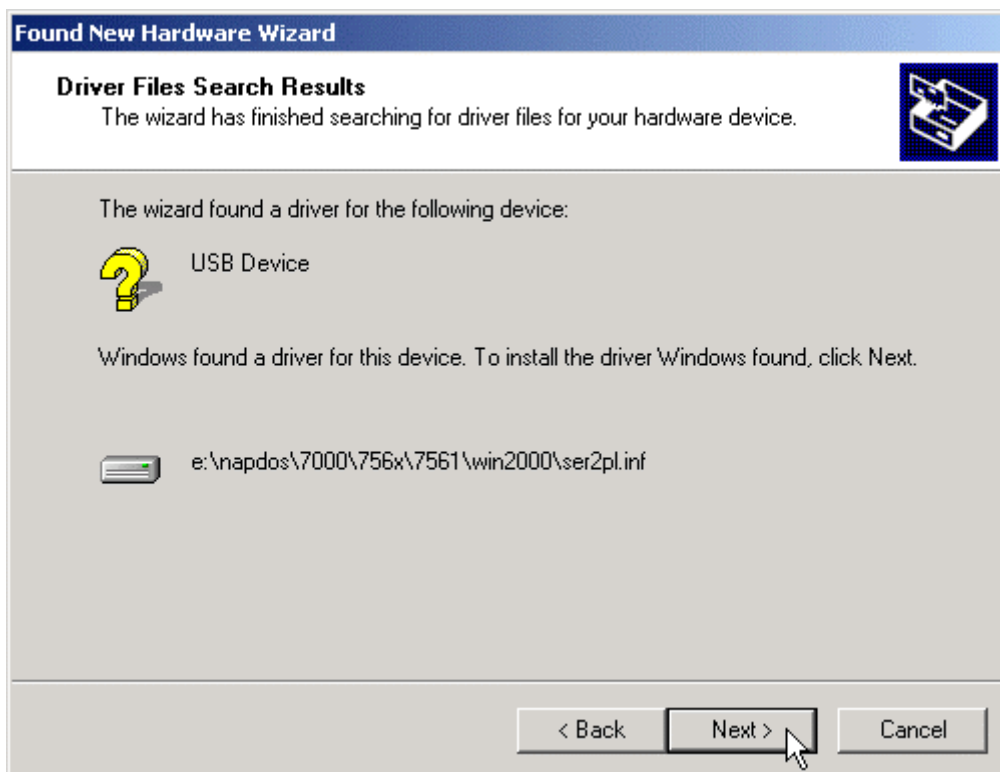
5. Select the “Specify a location” optional search locations. If the “CD-ROM drives” checkbox is selected, please insert the driver CD. Click “Next” to start the search.



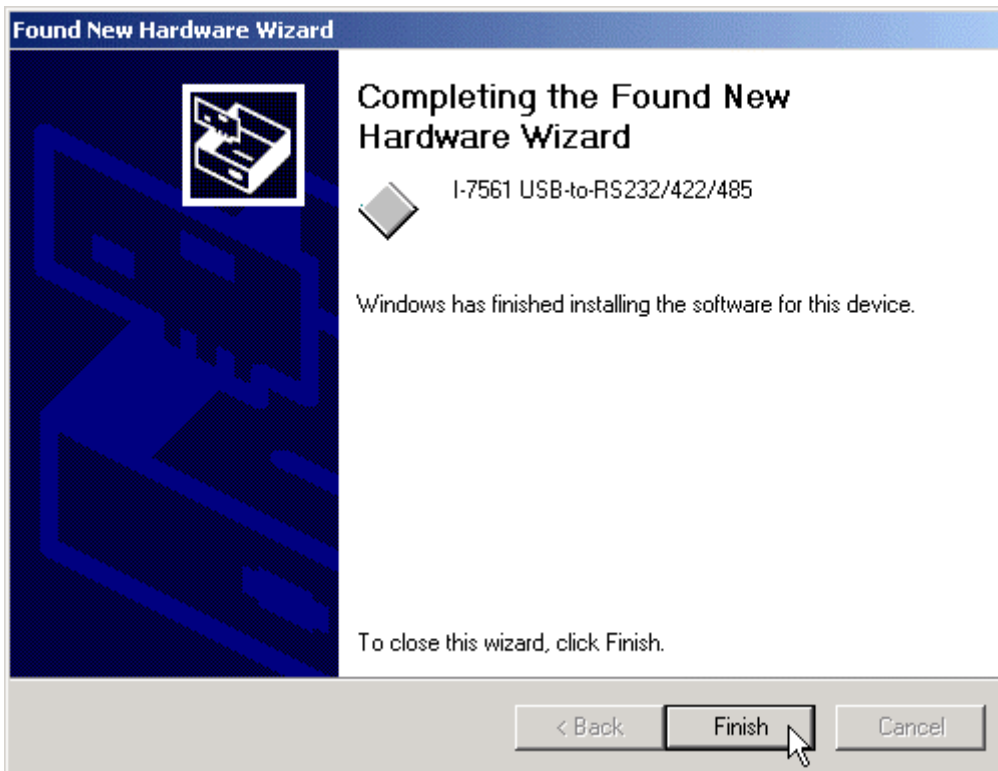
6. If the “Specify a location” is selected, you must choose the correct path. Enter E:\NAPDOS\7000\756x\7561(The ‘E’ is the Disk that Package CD put in). Click “OK” to start the search.



7. Once Windows finds the correct driver, click “Next” to install the driver.



- Windows will then install the driver for the USB-to-RS232/422/485. Once installation is complete, Windows will notify you that it has finished installing the software. Click "Finish" to continue.



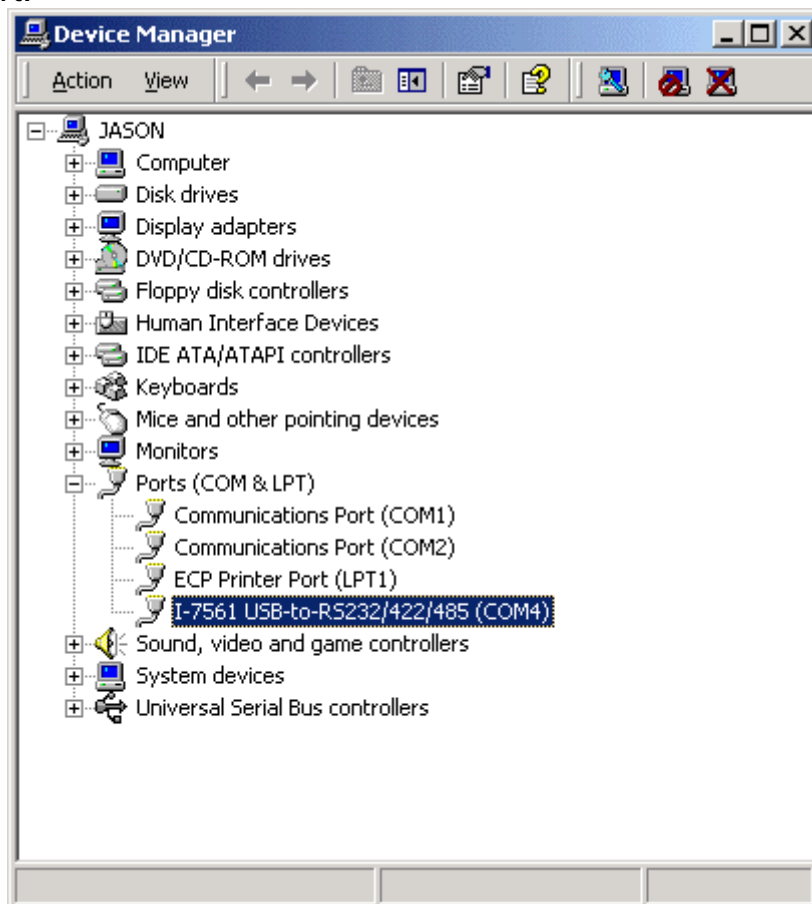
Verifying the Installation:

This section will show you on how to verify whether the I-7561 was properly installed. You will also need to determine the COM port assignment made by Windows for the USB to RS-232/422/485 converter.

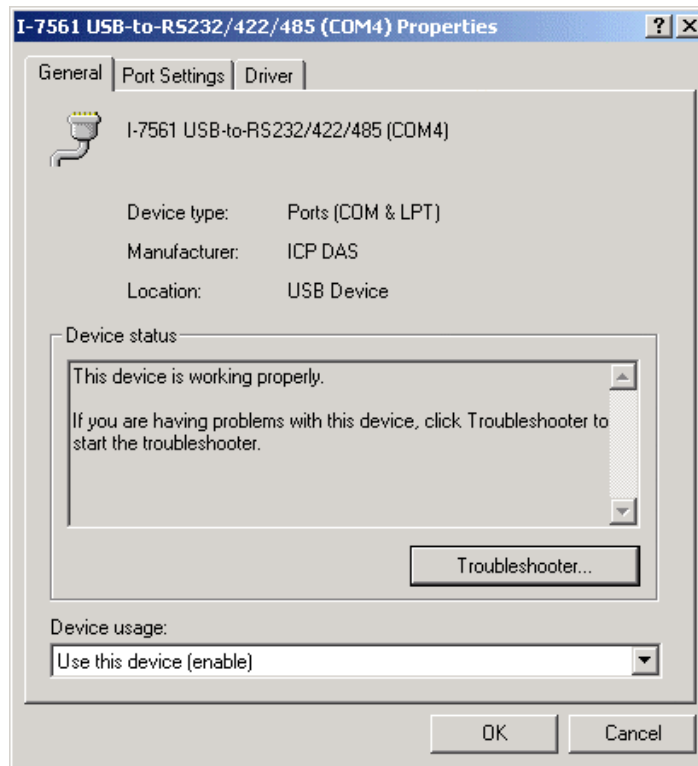
Note: Before you connect the I-7561 for the first time, ensure that you do not attach any serial devices to the converter. You must only connect the I-7561 itself.

To verify whether the device is properly installed and determine the COM port assignment for the device:

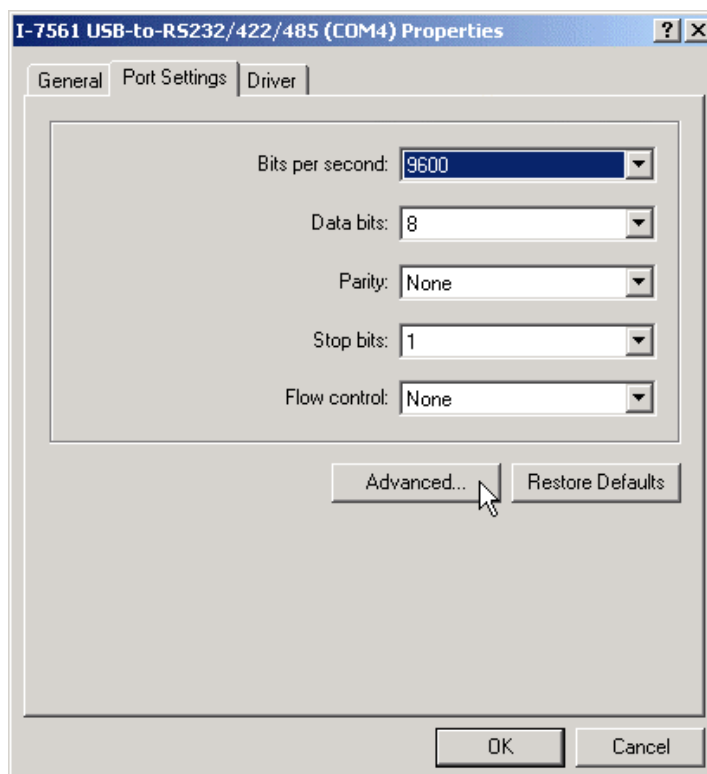
1. Click “Start” → “Settings” → “Control Panel”, then double click on the “System” icon. Once the System Properties window is display, click on ”Hardware” tab and then click on the “Device Manager” button. Double-click on Ports (COM & LPT). If the device was correctly installed, you should now see the I-7561 USB-to-RS232/422/485 (COM4) device listing. This also means that Windows has assigned the device to the COM4 port.



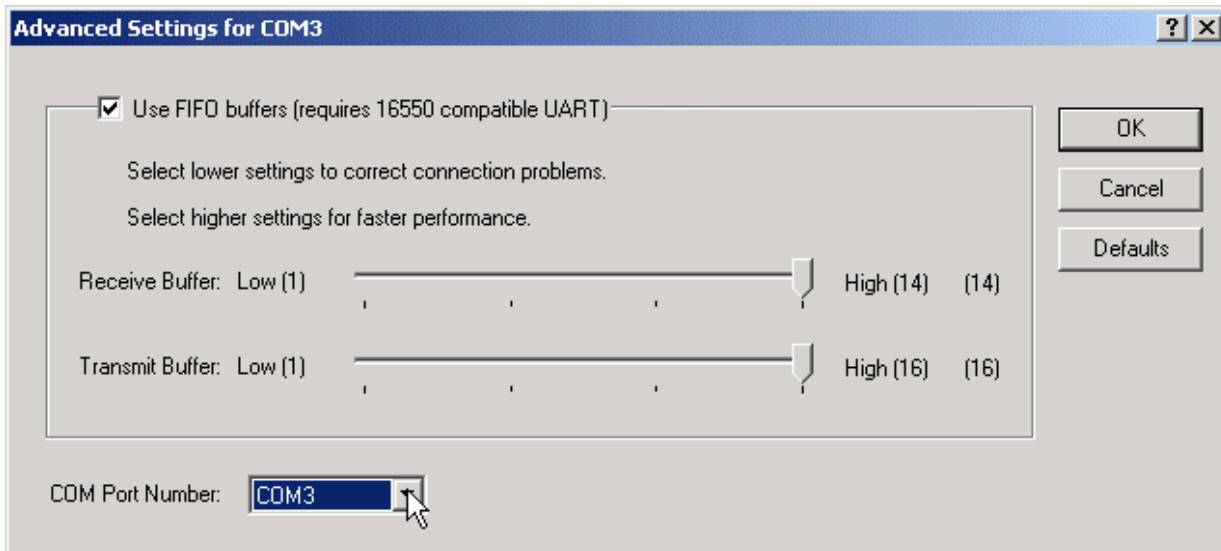
2. If you need to reassign the COM Port name to another Port number, you can double-click on the device (I-7561 USB-to-RS232/422/485) to view the properties.



3. Once the properties window opens click on the Port Settings tab. Then click on the advanced button.



4. The Advanced Settings dialog box will now be displayed. Click on the COM Port Number drop down box to check what other port numbers are available. If, for instance, Windows has assigned COM5 to the device, you may try to reassign it to a lower unused port number. Click OK when finished. Try running HyperTerminal to test whether the new port number is OK.



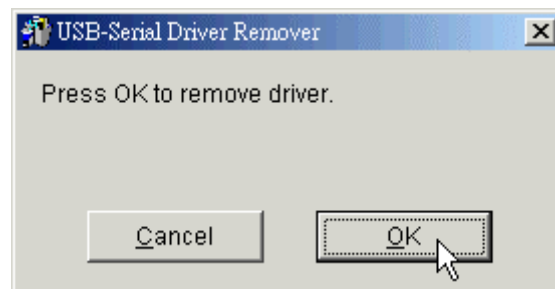
Note: Some software programs may only support Ports up to COM4 and may not work if the port is assigned to COM5 or higher.

5. Once you have verified that the device has been properly installed, you may now proceed to use the USB-to-RS232/422/485 Converter to connect to serial devices. Attach the serial device to the serial port of the adapter and then connect the USB connector to the USB port of your computer. Use the supplied driver for the serial device if needed.

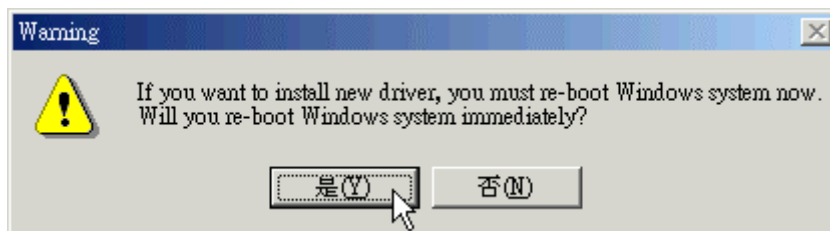
Uninstalling the Device Driver

It is easy to uninstall the USB to Serial device driver:

1. Run the DRemover98_2K.exe Uninstall program which can be found on the Package CD, \Napdos\7000\756x\7561 or at <ftp://ftp.icpdas.com/pub/cd/8000cd/napdos/7000/756x/7561>
2. The uninstall program will then prompt you whether you want to remove the utility program. Click OK to continue.



3. After the uninstall is complete, the program will prompt you to restart Windows. Click "Yes" to continue.



4. Windows will show a dialog box to notify you that the driver was removed successfully. Wait for Windows to restart your computer.

