



## USB-to-Serial Converter for IEI Access Systems

Model # 0295097

### Specifications/Requirements:

#### Mechanical:

Form Factor: Single-Gang Plate  
Circuit Board Dimensions: 2.555" x 1.8"  
Mounts to single-gang Handy Box or Work Box

#### Electrical:

Operating Voltage: 5V (USB Port Powered)  
Current Draw: Normal: 26mA  
USB Suspend Mode: less than 500µA

#### Wire Specifications:

Refer to wiring sections

#### Software:

See Below

#### Environmental:

Environment: For indoor use only.  
Temperature Tolerance: 32° F to 120° F (0° – 49°C)

#### PC Connections:

USB Port (v1.1 or v2.0)

### Description

The USB-to-Serial Converter is used to connect your PC to a HubMax II, Hub MiniMax II, Max 3, MiniMax 3or prox.pad Plus via the computer's USB port. The unit requires no hardware configuration and is ready to communicate to either type of device.

### Software Compatibility and Driver Installation

The USB Converter is compatible with a USB port (v1.1 or v2.0) and works with any version of Hub Manager Professional. To use the USB device you must install the USB drivers. It is plug and play, so when you plug it in, your PC should recognize the new hardware and attempt to install the drivers. You can either tell Windows to search automatically or browse to the drivers yourself, which are located on the Hub Manager Professional Installation CD, version 7.1.4 (or higher) and copied onto the PC when you run the Hub Manager software installation. The driver locations on the PC are as follows:

#### For Windows 98 and ME:

C:\Program Files\IEI\HubManagerPro7\Program\Utilities\USB\_Driver\FTDI\_98-ME

#### For Windows 2000, XP and Server 2003

C:\Program Files\IEI\HubManagerPro7\Program\Utilities\USB\_Driver\FTDI\_XP-2K-2003

If you do not have the latest software you can download the latest version at [www.ieib.com](http://www.ieib.com) or update your existing software through iUpdate (version 7.1.1.15 or higher contains the drivers).

### Packing List

- 1 USB-to-Serial Converter on Single-Gang Plate
- 1 Installation Instructions
- 1 USB Cable
- 1 Wire Harness

#### 15.21 Information to User

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

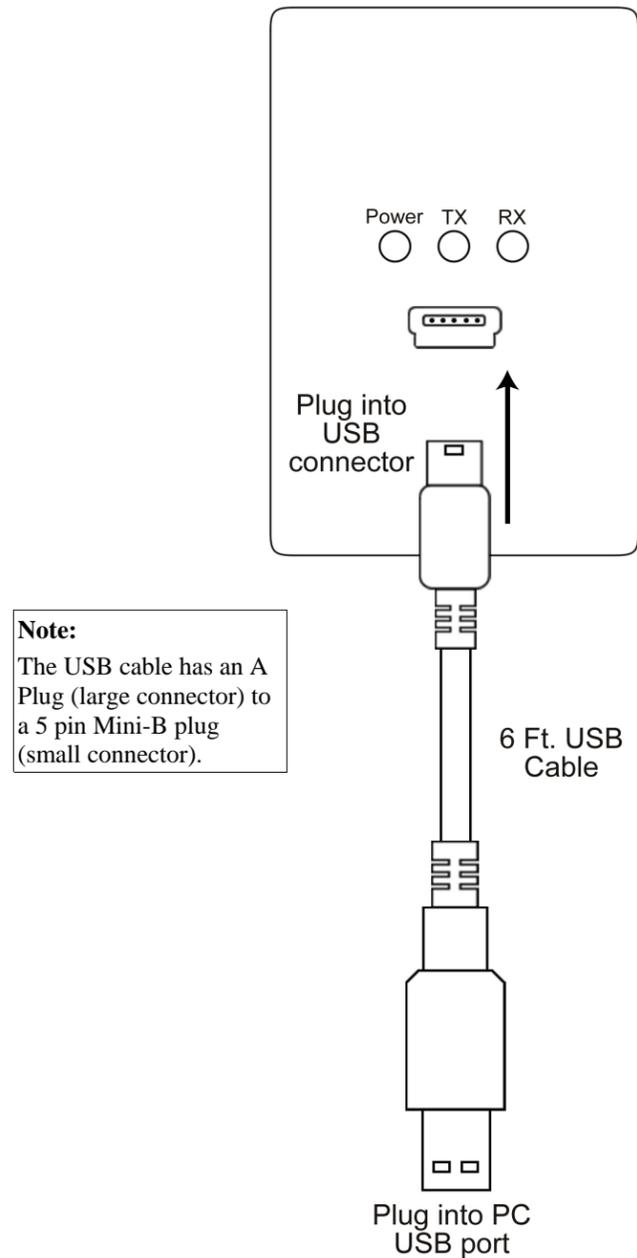


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### Connecting the USB-to-Serial Converter to a PC USB port:

To connect the USB-to-Serial Converter to your PC USB port, first plug the small end of the 6-foot USB cable into USB connector on the front. Then plug the large end of the 6-foot USB cable into your PC's USB port. The diagram below shows this connection.

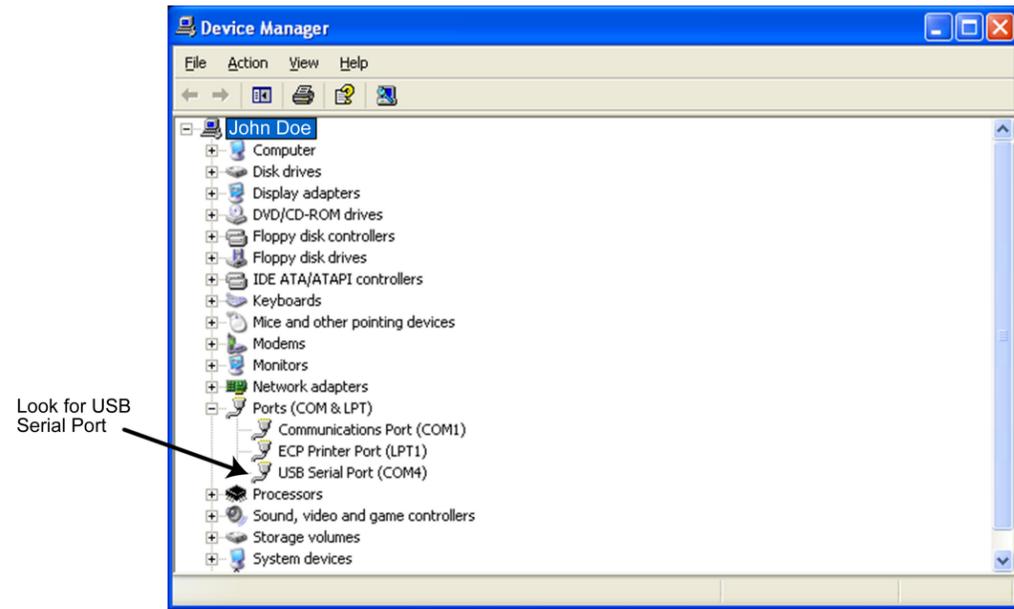
The device is powered from the USB port, so there is no need for an external power supply. When you connect the device the red power LED turns on solid. The USB-to-Serial Converter was designed to shutdown when the PC goes into suspend or hibernate mode. When the computer shuts down, the device turns off most of its functions and the device draws less than 500µA (micro-amps). The red LED also turns off, but keep in mind there is still power in the device. When the computer comes out of hibernation, the USB-to-Serial Converter immediately turns on and returns to normal operation.



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- When the device manager list opens, expand Ports (COM & LPT) by clicking the + symbol. Under this is a list of the COM ports on your PC. Look for USB Serial Port (COMx) in the list. The COM port is shown to the right. The example below shows the USB-to-Serial Converter is assigned to COM4.

**Note:** If you are unsure of which device it is, unplug the USB cable and the screen will refresh. Take note of which devices are in the list. Then plug the cable back in and notice which device re-appears in the list.



**Important Note:**

If you unplug the USB-to-Serial Converter from the USB port and plug it into a different physical port on the PC or on a USB Hub, the COM port number may change. If you do change USB ports, you must verify the COM port number, using the instructions above, prior to communicating to your hardware.

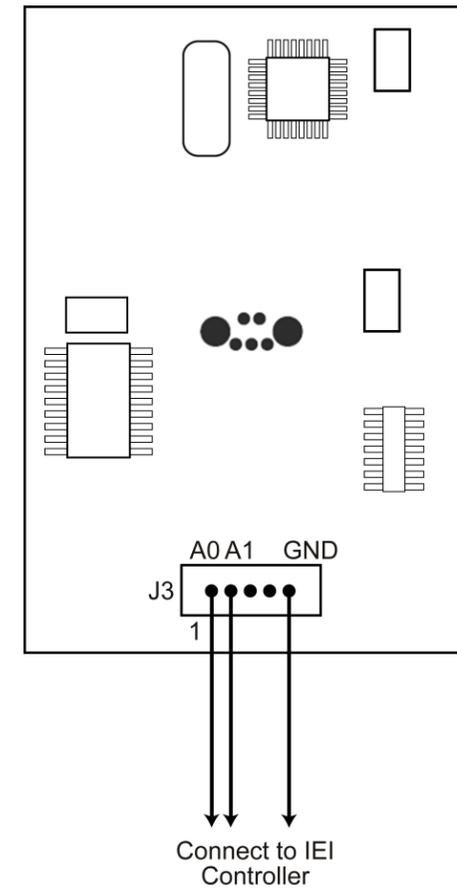
**Connecting the USB-to-Serial Converter to an RS-232 IEI Controller (HubMax, Hub MiniMax or HC500P)**

The diagram below shows the three connections required to connect to an RS-232 IEI Controller. Refer the chart under the diagram for connection details.

**RS-232 Cable Specifications:** 4-Conductor Stranded with overall foil shield

**Cable Distance:**

- 250 Ft. - 22 AWG Wire
- 500 Ft. - 20 AWG Wire
- 1000 Ft. - 18 AWG Wire



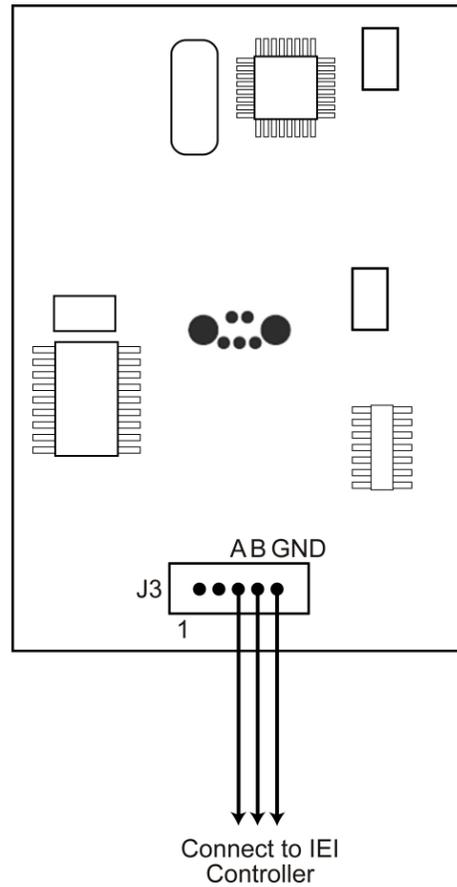
USB-to-Serial Converter	HubMax	Hub MiniMax	HC500P
A1 (Green Wire)	A1	A1	Gray Wire (A1)
A0 (Blue Wire)	A0	A0	Blue Wire (A0)
GND (Black Wire)	GND	GND	Green Wire (GND)

## Connecting the USB-to-Serial Converter to an RS-485 IEI Controller (Proxpad Plus, Max 3 and MiniMax 3)

The diagram below shows the three connections required to connect to an RS-485 IEI Controller. Refer the chart under the diagram for connection details.

**RS-485 Cable Specifications:** 24AWG, shielded, two twisted-pair telephone cable with a shunt capacitance of 16 pF/Ft.

**Cable Distance:** 4000 Ft. Maximum



USB-to-Serial Converter	Proxpad Plus	Max 3/MiniMax 3
Data A (Gray Wire)	Brown Wire (Data A)	TS3 - Data A
Data B (Red Wire)	White Wire (Data B)	TS3 - Data B
GND (Black Wire)	Green Wire (GND)	TS3 – Data GND

## Determining the USB COM port number

When you connect the USB-to-Serial Converter to your computer's USB port, the PC automatically assigns it a COM port number. You must then select this COM port in Hub Manager when connecting via USB. To determine the COM port number follow the instructions below. **Note:** These instructions are for Windows XP. If you are using a different operating system please refer to the instructions for that operating system.

1. Right click on the My Computer icon on your desktop and select properties from the drop down list.



2. When the System Properties screen opens select the Hardware tab, then click on the Device Manager button.

