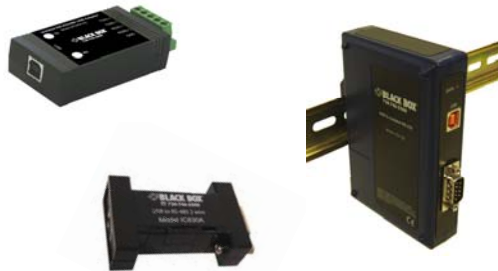## Important!
Install the CD Drivers before Connecting the Hardware to the PC.

Quick Start Guide

USB to 1 Port Serial and 1 & 2 Port DIN Converters

1 Items Included

- USB to Serial Device
- One Meter USB Cable
- CD ROM with Drivers
- This Quick Start Guide

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2 General

1. One USB port is required for each installed device. The USB port can be native to the PC or it can be a USB port from an installed USB hub to the PC.

Note: The devices work with USB 1.1 or 2.0 ports but have a maximum USB data rate of 12Mbps.

Surrounding Air Ambient Temperature: 0 to 70° C

3 Installation

- INSERT THE DRIVER CD INTO YOUR CD-ROM BEFORE PLUGGING THE HARDWARE INTO THE PC.
- If you have inserted the hardware first and the Found New Hardware Wizard launched, click cancel to exit the wizard.

- After inserting the CD, the USB Driver Installation wizard should launch automatically. If not, navigate to the CD-ROM drive and run setup.exe. To find your CD-ROM drive, double click "Computer" or "My Computer" on your desktop, then double click on your CD-ROM drive (usually D:).
- In Windows Vista, if the following dialog appears, click "Run setup.exe".
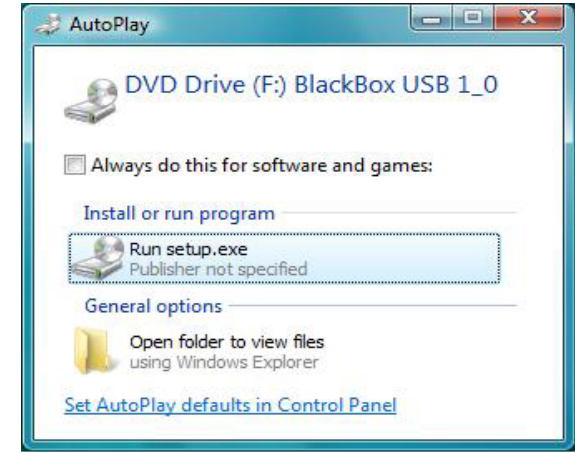
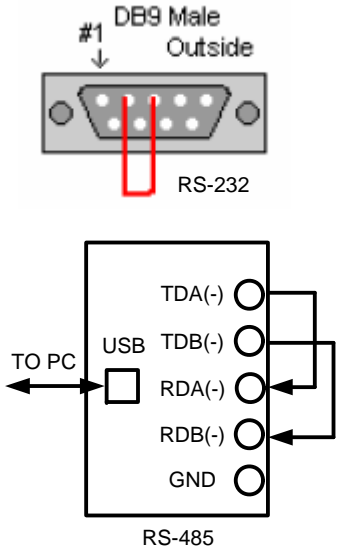- When the USB Driver Installation Wizard appears, follow the wizard to complete the installation.
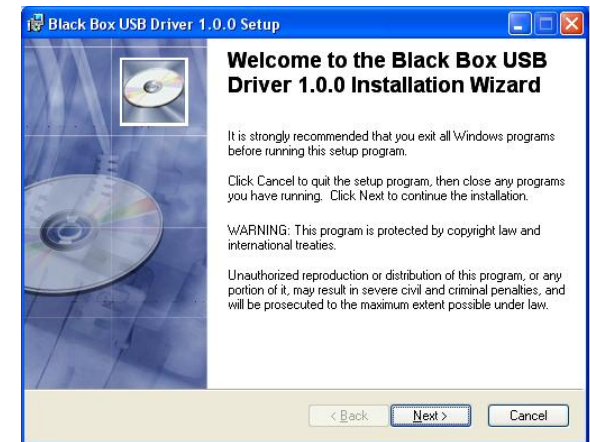
- When the USB Driver Installation Wizard is done installing the driver, using the included USB cable plug the USB hardware into an available USB port on the PC.

4 — Verifying Installation

1. To verify the installation went correctly open the Windows Device Manager
   - Scroll down to Ports,
   - Expand the ports by clicking on the plus sign (+), this shows if the ports now exist on the PC.
   - If there are no exclamation points or other indicators of a problem the ports should be installed correctly and ready for use.

2. Verifying with a **loopback test.**
   - If the device is RS-232, loopback pins 2 and 3. If the device is RS-422 or RS-485, loopback the TDA(-) to RDA(-) and TDB(+) to RDB(+). Use the pin-out charts for the location of each pin or terminal.
   - Using Hyper Terminal or similar program, connect to the appropriate COM port. Set the desired baud rate. Ensure Hyper Terminal local echo is OFF. **(Note: Hyper Terminal is not provided with Vista or 2003 Server)**
   - Transmit data. If the same character string is returned, the test is good.

DB9 Male
#1 →
Outside

RS-232

TDA(-)
USB   TDB(-)
TO PC   RDA(-)
         RDB(-)
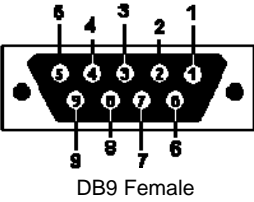   GND

RS-485

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5 — Dip Switch Setting

Note: For models with selectable RS-422/485 configurations

Dip switches allow the module to be configured for two-wire or four-wire, RS-422 or RS-485 modes. In two-wire mode the TDA (-) and RDA (-) are tied together and so are TDB (+) and RDB (+), making multi-dropping this converter into an existing network easy.
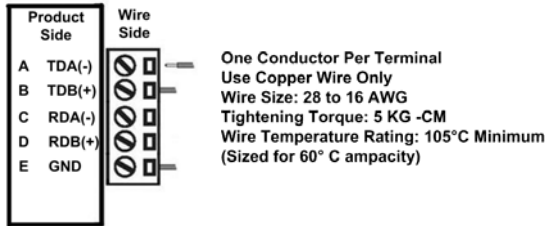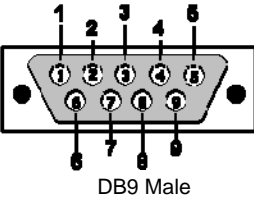
Dip Switch Settings		
Switch	Off (left)	On (right)
1	RS-422	RS-485
2	ECHO ON	ECHO OFF
3	4-Wire	2-Wire
4	4-Wire	2-Wire

6 — Pinouts

Product Side   Wire Side
A   TDA(-)
B   TDB(+)
C   RDA(-)
D   RDB(+)
E   GND

One Conductor Per Terminal
Use Copper Wire Only
Wire Size: 28 to 16 AWG
Tightening Torque: 5 KG -CM
Wire Temperature Rating: 105°C Minimum
(Sized for 60° C ampacity)

RS485 Pinout (Terminal Blocks)		
Terminal Position	RS-485, 4 Wire	RS-485, 2 Wire
A	Transmit TDA (-) Output	Data A (-) Input / Output
B	Transmit TDB (+) Output	Data B (+) Input / Output
C	Receive RDA (-) Input	Data A (-) Input / Output
D	Recieve RDB (+) Input	Data B (+) Input / Output
E	Ground	Ground

DB9 Female

RS-485 Pinout (DB9 Female)		
Pin	RS-485, 4 Wire	RS-485, 2 Wire
1	Not Used	Not Used
2	Receive RDA (-) Input	Data A (-) Input / Output
3	Transmit TDB (+) Output	Data B (+) Input / Output
4	Ground	Ground
5	Not Used	Not Used
6	Ground	Ground
7	Receive RDB (+) Input	Data B (+) Input / Output
8	Transmit TDA (-) Output	Data A (-) Input / Output
9	Not Used	Not Used

DB9 Male

RS-232 and TTL Pinout (DB9 Male DTE)			
PIN	Signal Name	RS-232 Signals	TTL Signals
1	DCD (Data Carrier Detect)	Input	Not Used
2	RD (Receive Data)	Input	Input
3	TD (Transmit Data)	Output	Output
4	DTR (DTE Ready)	Output	Not Used
5	SG (Signal Ground)	Ground	Ground
6	DSR (DCE Ready)	Input	Not Used
7	RTS (Request to Send)	Output	Output
8	CTS (Clear to Send)	Input	Input
9	RI (Ring Indicator)	Input	Not Used

NOTE: To remove drivers from a PC, there is an Uninstall reference document on the CD ROM.