- Tightening torque 5 KG -CM.
- Wire temperature rating: 105 °C (Sized for 60° C ampacity)

Information — FCC Rules

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference that may cause undesired operation.

Information — UL Class 1 Div. 2

LISTED

Suitable for use in Class 1, Division 2, Groups A, B, C, and D Hazardous Locations, or Nonhazardous locations only.

WARNING — EXPLOSION HAZARD — DO NOT DISCONNECT EQUIPMENT WHILE THE CIRCUIT IS LIVE UNLESS THE AREA IS KNOWN TO BE FREE OF IGNITABLE CONCENTRATIONS.

Install in accordance with control drawing number 9340R0.

Ind. Cont. Eq.

For HAZ LOC

3HTV

E245548

Class 1, Div. 2, Groups A, B, C, & D
Temp. Code T4A

Customer Support Information

Order toll-free in the U.S.:
Call 877-877-BBOX
(outside U.S. call 1-724-746-5500)

FREE technical support
24 hours a day, 7 days a week:
Call 724-746-5500 or
fax 724-746-0746

Mailing address:
Black Box Corporation
1000 Park Drive
Lawrence, PA 15055-1018

Web site: www.blackbox.com

E-mail: info@blackbox.com

icd120a_qsg_rev3

BLACK BOX ICD120A

Industrial Isolated Converter

Quick Start Guide

Converts (1) USB 2.0 port to (2) RS-232, RS-422, or RS-485 serial ports.

What's Included

Before you begin, make sure you have the following items:

- (1) ICD120A
- (1) 6.4-ft. (2-m) USB cable
- (2) brackets and (4) screws for panel mounting
- DIN rail mount adapter

Installation Steps

STEP 1: Download and install the drivers.

Dowload the converter's drivers from:

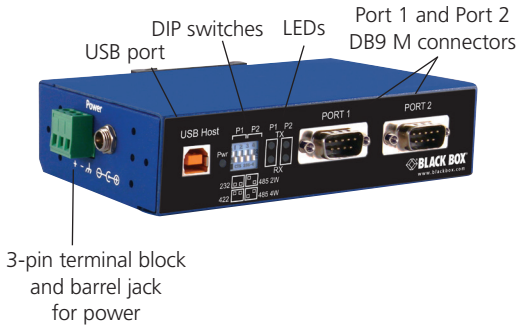
http://www.ftdichip.com/Drivers/VCP.htm

and install them on the attached PC.

STEP 2: Set DIP Switches.

Refer to the table below and the following illustration.

DIP Switch	SW #	RS-232	RS-422	RS-485 4-Wire	RS-485 2-Wire
Port 1	1	OFF	ON	OFF	ON
	2	OFF	ON	ON	OFF
Port 2	3	OFF	ON	OFF	ON
	4	OFF	ON	ON	OFF



STEP 3: Power the Converter.

The ICD120A can run on 5 V USB power if the host port is providing 500 mA. It can also be powered via the terminal block or barrel jack port.

STEP 4: Connect the Converter.

When you connect the converter to the host computer's USB port, the Found New Hardware wizard will open. It will discover and install the USB device. Then it will discover and install each serial port. Allow Windows to install the converter "Automatically." There is no need to connect to the Internet or Windows Update.

If a popup window says the software has not passed Windows logo testing, that's OK. Just click on "Continue Anyway."

When the wizard is complete, the serial ports on the converter will appear in Windows Device Manager as new COM ports.

NOTE: You do NOT need to install software drivers.

STEP 5: Configure the Serial Ports.

Open Control Panel. Click "System" to open the Device Manager. Under "Ports," double-click the port to be configured.

On the "Serial Port Properties" window, set the required communications parameters for the system with which you are communicating. If necessary, click Advanced and set up the Advanced Properties. (Refer to the user manual for more information.)

To download the user manual from the Black Box Web site:

1. Go to www.blackbox.com
2. Enter the part number (ICD120A) in the search box:

3. Click on the "Resources" tab on the product page, and select the document you wish to download.

STEP 6: Loopback Test.

Set the converter to RS-232 mode using the DIP switches. Loopback pins 2 and 3. Using HyperTerminal or a similar program, connect to the COM port. Set the desired baud rate. Ensure that HyperTerminal local echo is OFF. Transmit data. If the same character string is returned, the test is good.

STEP 7: LEDs.

Type	Indication when ON
PWR	Computer is receiving adequate voltage and current from USB or power source.
TX	Serial interface is transmitting data.
RX	Serial interface is receiving data.

Troubleshooting

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 on a USB hub that is connected to a PC.

The device works with USB 1.1 or 2.0 ports. But it has a maximum USB data rate of 12 Mbps.

To verify the installation, you may open the Windows Device Manager. Scroll down to Ports. Expand the flyout window. You should see the new ports. If there are no exclamation points or other trouble indicators the ports are installed correctly and ready for use.

Sleep & Hibernate: Windows 7 disables USB transmit while in Sleep & Hibernate.

Terminal Block

- One conductor per terminal.
- Use copper wire only.
- Wire size 16 to 28 AWG.