

## 6 | Troubleshooting

### What baud rates can be used?

Baud rates up to 460.8 Kbps.

### What operating systems are supported?

Windows 2000, XP, Vista (32/64 bit), 7 (32/64 bit), and 10 (32/64 bit).

### Which USB cables can I use?

A 0.9 meters (3 ft.) cable is included. Other lengths can be purchased separately. The maximum range for USB is 15 feet. B+B SmartWorx sells USB extenders if you need to go further than 4.6 meters (15 ft.)

### Can I get another terminal block for the USB converter?

Yes. The part number is BB-TBKT2.

### How can I test the USB converter to make sure it is working correctly?

A quick way to test the converter is to set the dipswitches to 485, Echo ON, 2-wire, 2-wire. Then use HyperTerminal to do the loopback. Visit the Advantech B+B technical library for instructions and screen shots.

## 7 | Standard vs Lock Serial Number

### Standard

*Models BB-USOPTL4 or BB-USPTL4*

Converters have unique serial numbers and assign a unique COM port. Drivers must be installed for each converter. A unique COM port is assigned each time. Typical application: fixed locations.

### Locked Serial Number

*Models BB-USOPTL4-LS or BB-USPTL4-LS*

All converters with the same model number share a common serial number and same COM port. The driver only needs to be installed once; subsequent converters install using the same COM port. Typical application: field service.

## Related Products

### USB Isolator

Model BB-UH401



### 4-Port USB Hub

Model BB-UHR204



# QUICK START GUIDE



## BB-USOPTL4, BB-USPTL4, BB-USOPTL4-LS, BB-USPTL4-LS

USB to RS-422/485 Converters  
(Isolated, Non-Isolated, Locked Serial Number)

Before you begin, be sure you have the following:

- + USB Serial Converter
- + USB Cable
- + CD-ROM with Drivers

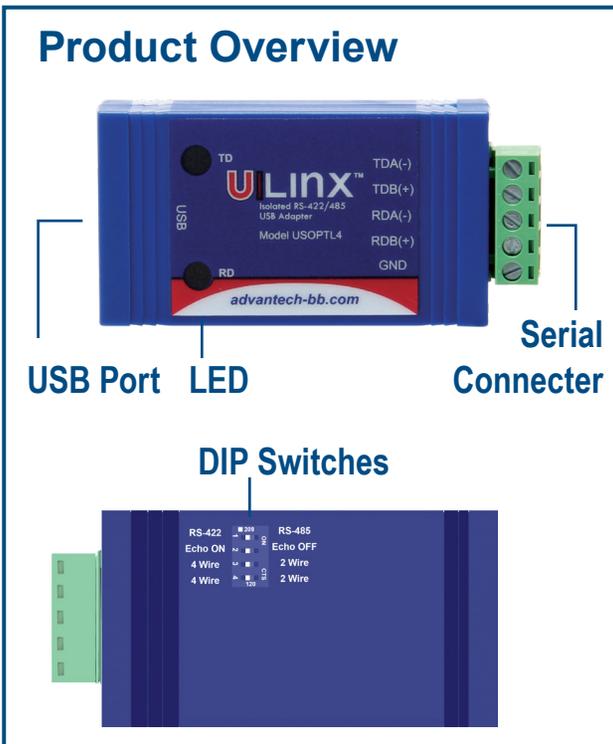
# ADVANTECH

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# ADVANTECH

## Product Overview



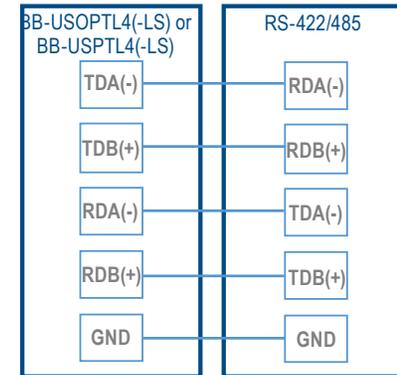
## 2 | Set DIP Switches

DIP SWITCH POSITION		
Switch	OFF (left)	ON (right)
1	TD Always Enabled (RS-422)	TD Only Enabled During Data Transmission (RS-485)
2	RD Always Enabled (ECHO On)	RD Disabled During Data Transmission (ECHO Off)
3	4-Wire Mode	2-Wire Mode
4	4-Wire Mode	2-Wire Mode

## 4-Wire RS-485 (full-duplex)

- + RS-422 = All DIP Switches OFF
- + RS-485 = DIP 1 ON; DIP 2, 3 and 4 OFF

### 4 Wire Set-up



## 1 | Install Drivers

Use the included CD to install the converter's drivers.

**Warning: To prevent installation errors, do not plug in the hardware until you have already installed the drivers.**

After connecting the device, you can check Device Manager to learn which COM port number was assigned (Control Panel/System/Hardware/Device Manager/Ports LPT & COM).

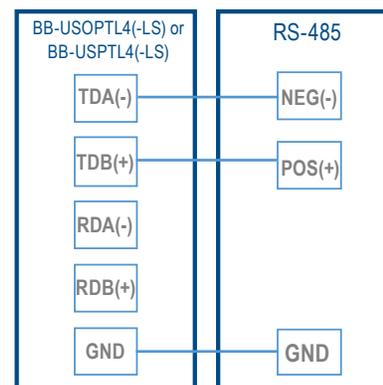
You can re-assign COM numbers by clicking the Advanced Settings button on the Port Settings screen.

## 3 | Wire the Converter

### 2-Wire RS-485 (half-duplex)

- + All DIP Switches = On

### 2 Wire Set-up



## 4 | Loopback Test (optional)

- Set DIP switches 1, 3, 4 to ON.
- Set DIP switch 2 to OFF.
- Use HyperTerminal or another terminal program to confirm passage of data through converter.

## 5 | Check LEDs

When everything is installed and connected, the LEDs will blink to indicate that data traffic is passing through the converter