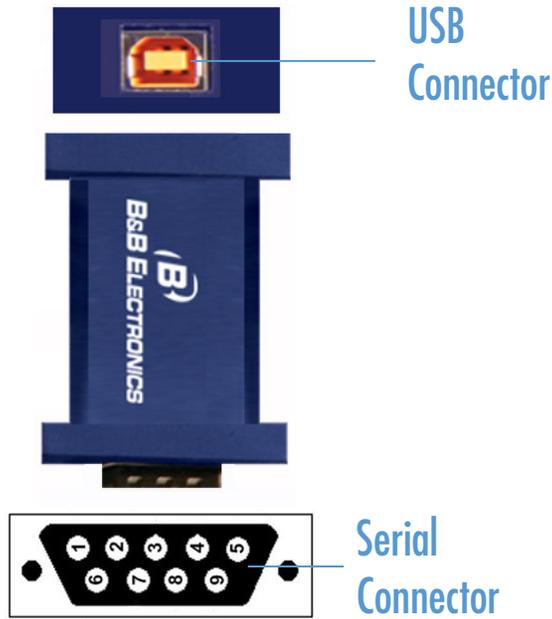


Product Overview



1 Install the Drivers

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

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

2 Connect the Converter

Connect the converter's USB port to a USB port on your computer or USB hub.

When the installation is complete the converter will appear in Windows Device Manager as an additional COM port.

Most of the time a DB9 male will be a DTE. A DB9 female will usually be a DCE.

A DTE device is "Data Terminal Equipment." This includes computers, PLCs, and most devices that are not used to extend communications.

(Think "COMPUTER" for DTE.)

A DCE device is "Data Communications Equipment." This includes modems and other devices that extend communications, like RS-422, RS-485, fiber optic converters or radio modems.

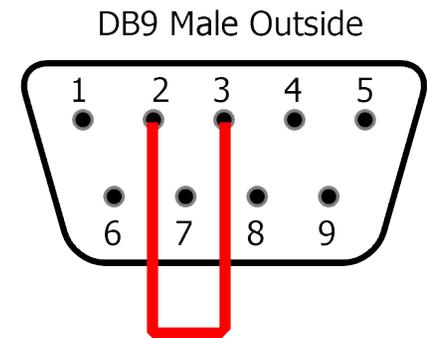
(Think "MODEM" for DCE.)

If both devices have a DB9 male you will need a crossover cable. If both devices are DB9 female you will need a crossover cable.

When one device is female and one device is male, use a straight-through cable.

3 Loopback Test

Loopback pins 2 and 3. Using Hyper Terminal or similar program, connect to the COM port. Set the desired baud rate. Ensure that Hyper Terminal local echo is OFF. Transmit data. If the same character string is returned, the test is good.



RS-232 Pinout (DB9 Male DTE)

| PIN | Signal Name | RS-232 Signals |
|-----|---------------------------|----------------|
| 1 | DCD (Data Carrier Detect) | Input |
| 2 | RD (Receive Data) | Input |
| 3 | TD (Transmit Data) | Output |
| 4 | DTR (DTE Ready) | Output |
| 5 | SG (Signal Ground) | Ground |
| 6 | DSR (DCE Ready) | Input |
| 7 | RTS (Request to Send) | Output |
| 8 | CTS (Clear to Send) | Input |
| 9 | RI (Ring Indicator) | Input |

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 ports are installed correctly and ready for use.

Are My Devices Wired As DTE or DCE? (How to Check)

1. Use Rule of Thumb

If the device plugs into the computer serial port and works normally, the device is wired as DCE (or the connection cable is a crossover type that makes it work as a DCE). If the device connects to the computer port using a "null modem" crossover cable, it is wired as DTE.

2. Use RS-232 Line Tester

A quick and easy way to determine the DTE/DCE port type is to use a RS-232 line tester such as the 9PMTT. The tester can show the signal state of any active RS-232 data lines using LEDs lighting Red or Green. Active data lines are output from a device. They may be either High or Low.

Recommended Accessories

9PAMF6
6 ft DB9 to DB9 Cable

Male to Female
<http://www.bb-elec.com/Products/Power-Supplies-Accessories/Serial-Cables/DB9-to-DB9.aspx>



USBAMB-6F

6 ft USB Cable
<http://www.bb-elec.com/Products/Power-Supplies-Accessories/USB-Cables/USB-cables.aspx>



Fast, Easy Answers...

- Please double check Step 3.
- You can also use your smart phone to access complete documentation on our website. Simply scan code to the right.



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**QUICK
START
GUIDE**



232USB9M/232USB9M-LS

USB to RS-232
Mini-Converter

✓ First Things First...

Before you begin, be sure you have the following:

- 232USB9M/232USB9M-LS
- One Meter USB Cable
- CD ROM with Drivers

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Fast and easy on the web: www.bb-elec.com