7 | Converter Formats
Standard vs Locked Serial Number

The converter is available in two formats: "Standard" and "Locked Serial Number." The version you select depends on your application.

Standard converter Model BB-USO9ML2-A has a unique serial number. Drivers must be installed for the converter and a unique COM port will be assigned.

Typical applications: fixed location.

All **Locked Serial Number** Models BB-USO9ML2-LS-A share the same serial number and will install using the same COM port. The driver only needs to be installed once; subsequent BB-USO9ML2-LS-A converters install using the same COM port.

Typical applications: field service.

+ Recommended Accessories

Serial Cable, 1.8m (6 ft)
DB9 male - DB9 female
Model# BB-9PAMF6

USB Cable, 1.8m (6 ft)
Type A male - Type B male
Model# BB-USBAMBM-6F

RS-232 Line Tester
Model# BB-9PMTT

+ QUICK START GUIDE

Models BB-USO9ML2-A, BB-USO9ML2-LS-A

Isolated USB to RS-232 Converter

Before you begin, be sure you have the following:

+ USB/RS-232 Converter
+ USB Cable, 0.9m (3ft), included

ADVANTECH

www.advantech.com

Fast and easy on the web: www.advantech.com

Product Overview

RS-232 Port

LEDs

USB Port

1 | DB9 Pinout

DB9 Male DTE

DSR (Input)
RTS (Output)
CTS (Input)
RI (Input)

DCD (Input)
RD (Input)
TD (Output)
DTR (Output)
Signal Ground
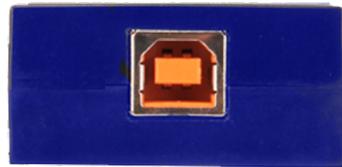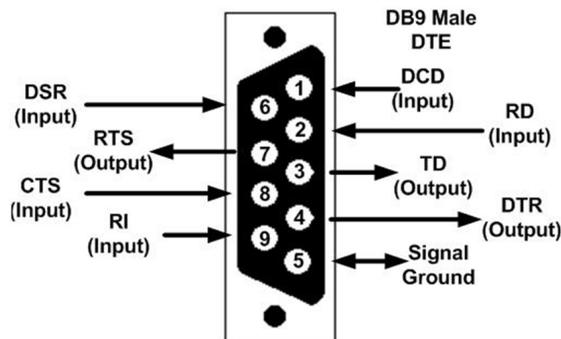
2 | Install the Drivers

When plugged in, Windows will find and install the FTDI Virtual COM (VCP) driver software. Be sure Windows Updates is enabled.

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

If the computer you are installing this product on cannot access the internet, a driver package is available for download from the Advantech B+B website.

3 | Connect The Converter

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

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-422/485, fiber optic converters or radio modems.
Think "MODEM" for DCE.

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

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

4 | Check LEDs

When everything is installed and connected, the LED will blink to let you know that data traffic is passing through the converter.

5 | Loopback Test

Loopback pins 2 and 3.

Using Hyper Terminal or a 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 data is returned, the test is successful.

DB9 Male Outside
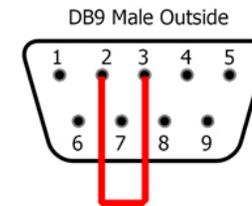
6 | Troubleshooting

**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 an 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 Advantech B+B Model# BB-9PMTT. The tester can show the signal state of any active RS-232 data lines using LEDs. Active data lines are output from a device. They may be either High or Low.