



Model: USO9ML2

## Connect & Isolate an RS-232 device to your USB-only PC port

### Features

- 2000 V RMS optical isolation
- 15KV ESD surge protection
- Adds a COM port to your PC
- Supports all handshake lines (RTS, CTS, DTR, DSR, DCD, RI)
- Protects against surges, spikes and ground loops
- LEDs for transmit and receive lines
- USB 1.0, 1.1 and 2.0 compatible (12Mbps)
- Automatic configuration on Windows 98, ME, 2000, XP, and Vista
- No power supply required (powered from USB bus)
- Includes 1 meter USB cable

Connect a legacy RS-232 device to a USB port and gain 2000 V RMS isolation from voltage spikes and ground loops. The USO9ML2 is a USB (Universal Serial Bus) port to isolated RS-232 converter. Simply plug the converter into an available USB port on your computer or USB hub and the device will show up as an additional COM port in the Windows Device Manager. Configured as an additional COM port, the USO9ML2 is now compatible with your Windows applications.

Universal Serial Bus (USB) has become the connectivity workhorse of today's PCs, replacing the familiar serial ports. But many commercial and industrial devices still use RS-232 interfaces. To connect these devices to modern PCs you need robust and reliable conversion solutions. At the same time, USB ports are becoming more common on commercial and industrial equipment such as point-of-sale peripherals, medical devices, scientific instrumentation, laboratory equipment and other devices. Sometimes these are used in environments where surges, spikes and ground loops are likely to occur.

The RS-232 port is configured with a DB9 male connector. A pair of LEDs shows when RS-232 data is being received or transmitted. The USB side is configured with a USB type-B female connector. The USB bus supplies power so no separate power supply is needed. The converter has 2000 volt RMS of isolation.

### Specifications

Dimensions:	3.0 x 1.7 x .09 in (7.7 x 4.3 x 2.3 cm)
Temperature Range:	0 to 70°C (32 to 158°F)
RS-232 Baud Rate:	Up to 460.8 kbps
RS-232 connector:	DB9 male (RS-232 with full handshake support)
USB Baud Rate:	12Mbps
USB Connector:	USB type-B female
USB Power:	Low power device (draws < 100mA)
Operating System:	Windows 98, ME, 2000, XP, Vista
Accessories:	Driver CD, USB Cable included
Isolation:	2000 V RMS
Surge Protection:	15KV ESG

### Applications

- Factory floor
- Medical
- Kiosk
- Point of sale
- SCADA



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RS-232 Pin-outs

Pin	Signal	Direction
1	Data Carrier Detect (DCD)	Input
2	Receive Data (RD)	Input
3	Transmit Data (TD)	Output
4	Data Terminal Ready (DTR)	Output
5	Signal Ground	
6	Data Set Ready (DSR)	Input
7	Request to Send (RTS)	Output
8	Clear to Send (CTS)	Input
9	Ring Indicator (RI)	Input

**DECLARATION OF CONFORMITY**

Manufacturer's Name: B&B Electronics Manufacturing Company  
 Manufacturer's Address: P.O. Box 1040  
 707 Dayton Road  
 Ottawa, IL 61350 USA

Model Numbers: USO9ML2  
 Description: USB to Isolated RS-232 Converter  
 Type: Light industrial ITE equipment  
 Application of Council Directive: 89/336/EEC  
 Standards: EN 55022  
 EN 61000-6-1  
 EN 61000 (-4-2, -4-3, -4-4, -4-5, -4-6, -4-8, -4-11)

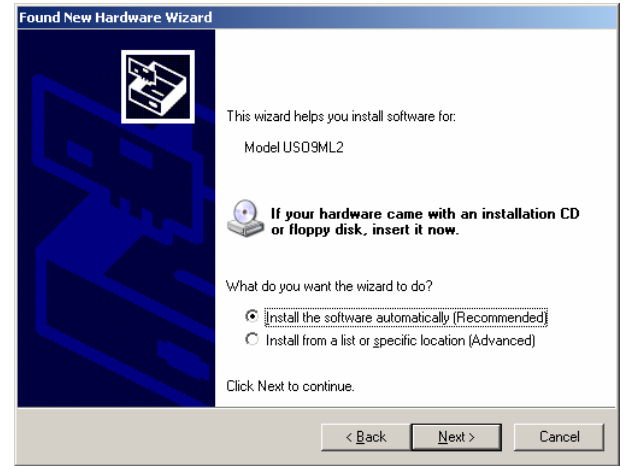



Michael J. Fahrion, Director of Engineering

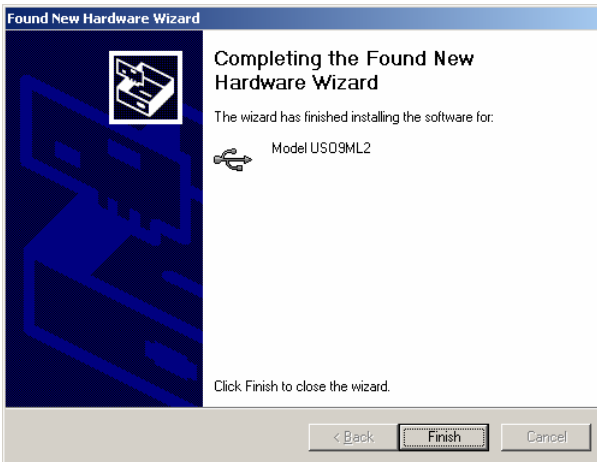
Installation for Windows



#1. Plug the USO9ML2 into an available USB port on your computer or connected hub. The screen above appears, telling you that there is a new device plugged into the USB bus. Click on *No, not this time*, then the **Next>** button.



#2. The screen above appears. Make sure *Install the software automatically* is selected. Then select the **Next>** button.



#3. The screen above will appear. Click the **Finish** button to complete the installation.



#4. You will also need to continue to install the serial port the same as installing the converter. Click the **Next** button followed by the **Finish** button. It will take a couple seconds for the serial port to be installed.



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