

## 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 12Mbps.

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.

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

### Recommended Accessories



**MDR-20-24**  
Power Supply

## QUICK START GUIDE



+ USO9ML2-4P shown

### USO9ML2-2P / USO9ML2-4P

USB To RS-232 Converter

Before you begin, be sure you have the following:

- + USO9ML2-xP
- + One Meter USB Cable
- + CD ROM with Drivers
- + Power Supply (optional)

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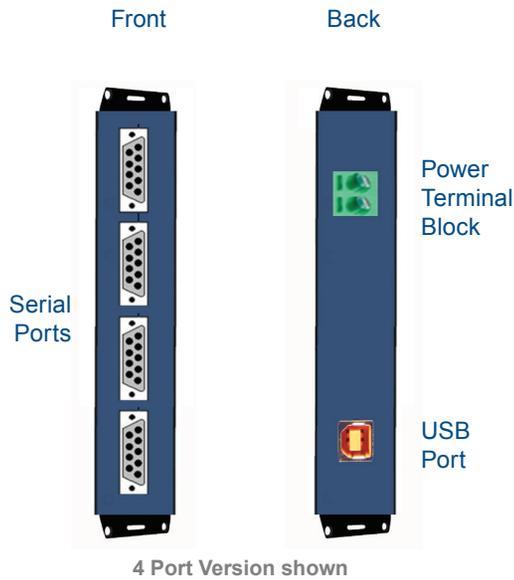
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# Product Overview



## 1 | Install the Driver

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

INSERT THE DRIVER CD INTO YOUR CD-ROM AND INSTALL THE DRIVERS BEFORE PLUGGING THE HARDWARE INTO THE PC.

If you have inserted the hardware first and the Found New Hardware Wizard has been launched, click Cancel to exit the wizard.

## 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-422/485, 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.

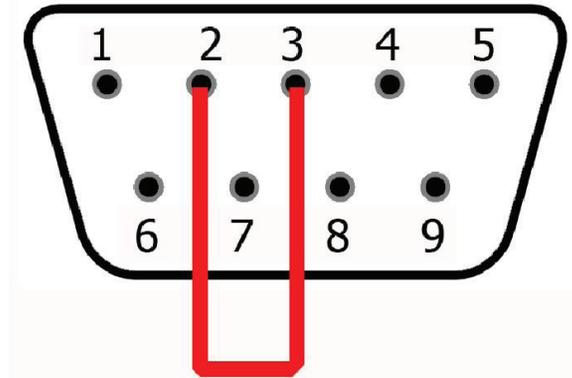
## 3 | Power Supply

It is recommended to use an external power supply with this product. Power is provided via the Terminal Block.

## 4 | 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



RS-232 Pinout (DB9 Mal DTE)		
Pin	Signal Name	RS-232 Signals
1	DCD (Data Carrier Detect)	Input
2	RD (Received 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