

KOBELT

Technical Note: TN-1000



Interfacing with Kobelt Products using RS-232 Serial

AUGUST 2016 -- REVISION 1

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1 INTRODUCTION

A wide range of Kobelt products employ RS-232 serial interface technology. Recently, a physical serial port for connection to these products has been phased out on most new computers. This document outlines our recommendations for interfacing hardware adapters and the associated software with these Kobelt products.

2 HARDWARE

2.1 SERIAL TO USB ADAPTERS

A wide range of Serial-to-USB Adapters exist on the market. They come in two common versions: isolated or non-isolated. To protect your computer and all other devices from potential damage, we recommend an isolated converter.

The Advantech B&B Electronics USB-to-Isolated RS-232 DB-9M, **Model No. USO9ML2** works well with Kobelt products. The adapter is available on the B&B Electronics website, www.bb-elec.com, or from their worldwide distributors.

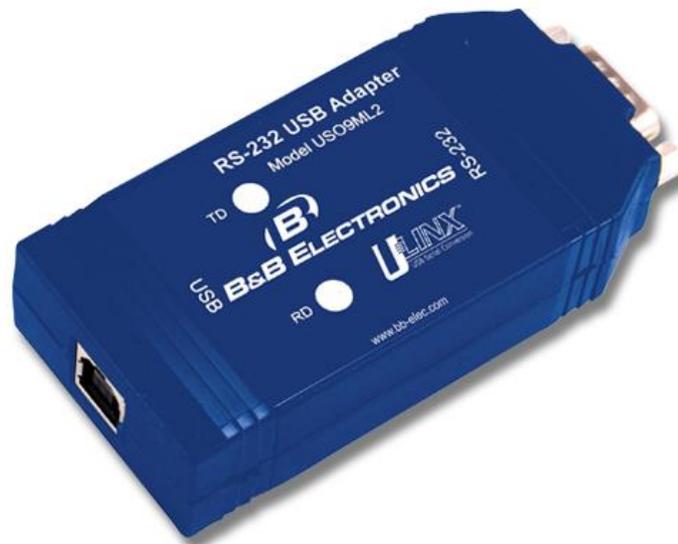


Figure 1: B&B Electronics Isolated USB-to-Serial Adapter, Model No. USO9ML2

2.2 INSTALLATION

Using a USB cable, plug the Isolated USB-to-Serial Adapter into a USB port on your computer. To install the software, follow the manufacturer's direction.

2.3 DETERMINING COM PORT

With the Serial-to-USB adapter installed, determine the COM Port Number, assigned by Windows upon initial connection of the adapter.

To determine the COM Port Number, open the “Start” menu and select Computer >> System properties. See Figure 2: Opening Computer System Properties.

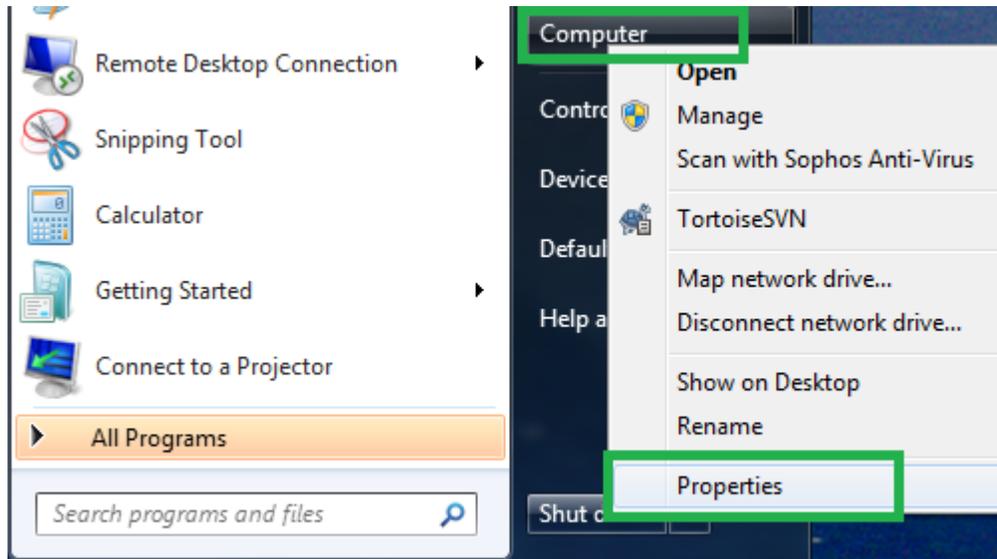


Figure 2: Opening Computer System Properties

In the “Control Panel Home” menu, select “Device Manager”. See Figure 3: Link to Device Manager.

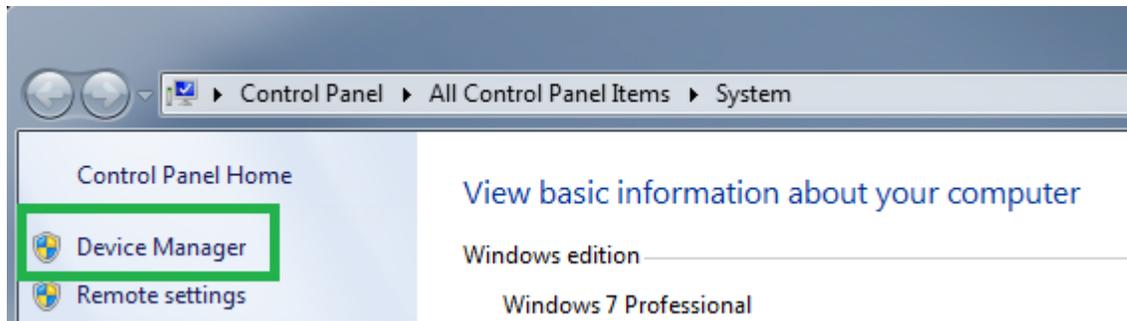


Figure 3: Link to Device Manager

Expand the “Port (COM & LPT)” line by selecting the corresponding white arrow head. A new device should appear, listed as “RS-232 Isolated Port (COM#)”. See Figure 4: Ports Menu in Device Manager.

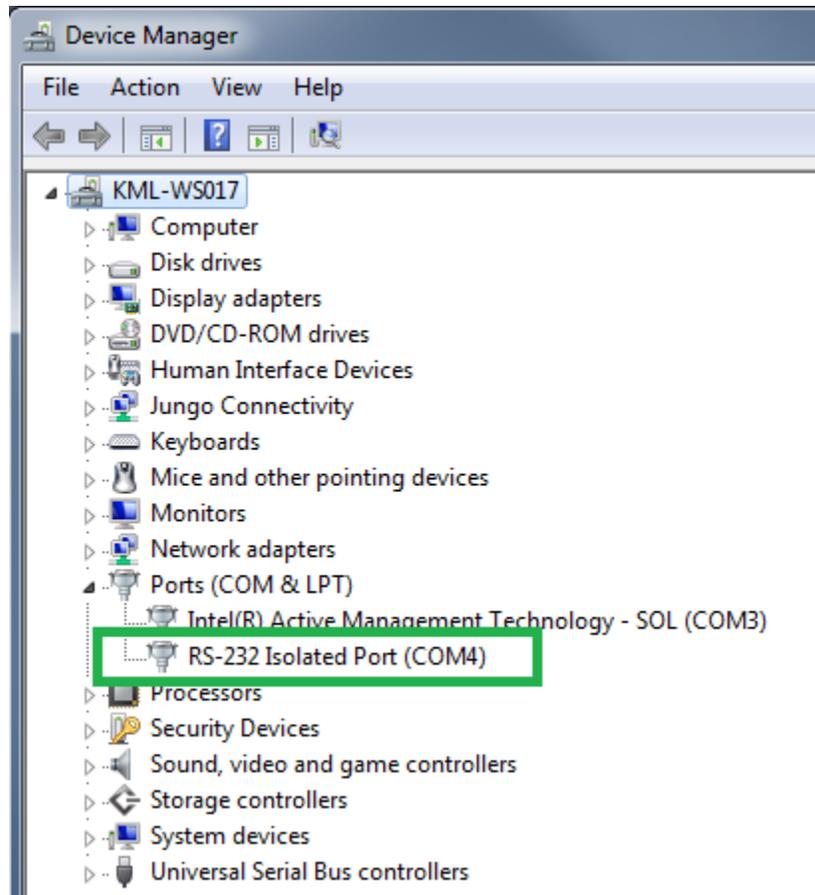


Figure 4: Ports Menu in Device Manager

3 SOFTWARE

3.1 LEGACY

The Windows XP HyperTerminal program connects to an Isolated USB-to-Serial Adapter. If the HyperTerminal program already runs on the host computer, the user may choose to skip ahead to Section 3.2.4 Application.

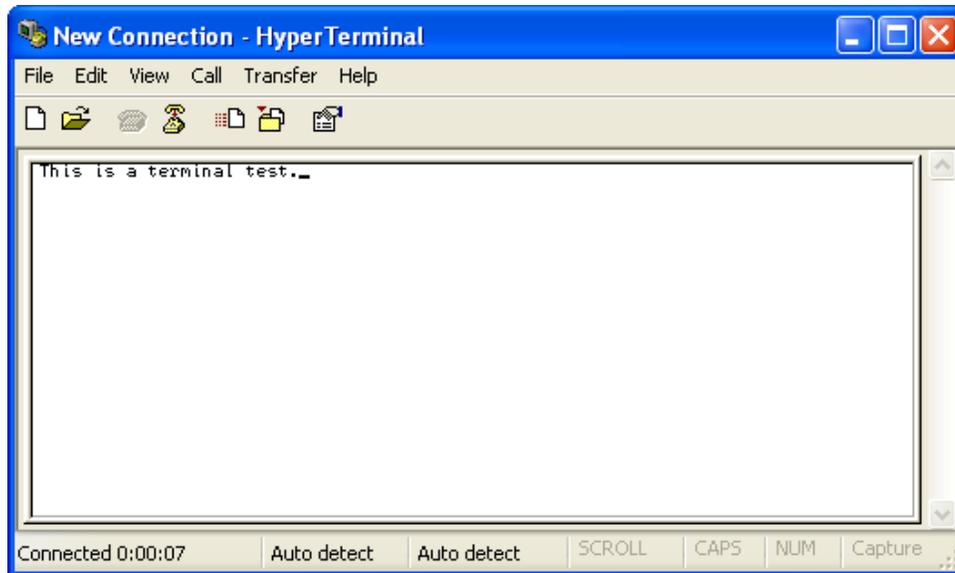


Figure 5: Hyper Terminal Interface Window

3.2 PuTTY

More recent versions of Windows no longer run the HyperTerminal program. The remainder of this document outlines the procedure for running PuTTY, a free alternative to the Windows XP HyperTerminal program.

3.2.1 Downloading PuTTY

To download PuTTY, visit <http://www.putty.org>, and follow the prompts.

Direct download link: <http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html>.

The latest release version (beta 0.67)

This will generally be a version we think is reasonably likely to work well. If you have a problem

For Windows on Intel x86

PuTTY: [putty.exe](#) [\(or by FTP\)](#) [\(signature\)](#)

Figure 6: Download Link on PuTTY Website

3.2.2 Running PuTTY

PuTTY does not require installation; instead the executable (.exe) file will run under Windows.

3.2.3 Configuration

The “PuTTY Configuration” window should appear, as shown in Figure 7: Putty Configuration Window.

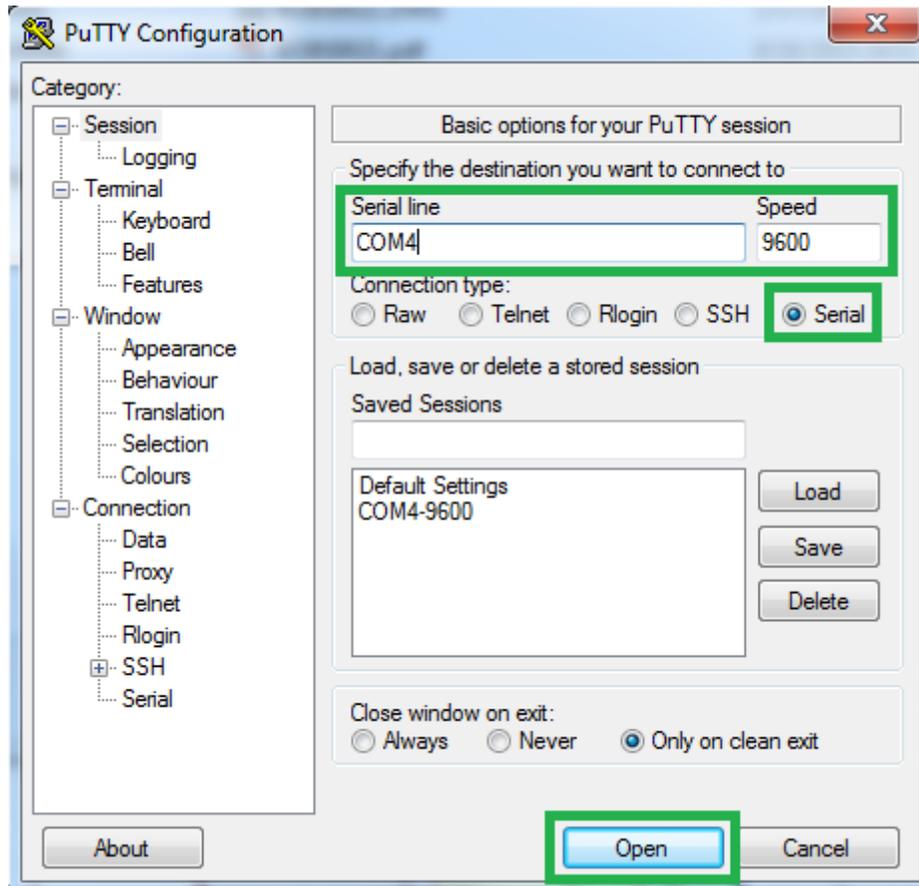


Figure 7: Putty Configuration Window

Select the “Serial” button in the PuTTY Configuration Window. Enter your COM Port# in the field marked “Serial line”, and enter a Baud Rate in the field marked “Speed”. Refer to Table 1: Default Configuration of Kobelt Product.

Table 1: Default Configuration of Kobelt Products

Kobelt Product	"Speed" (Baud rate)	Connector Number	Board Connector / Mating Connector	Connector Pinout
6525	9600	P17	MLSS100-6 / CE100F22-6	1 - N/C 2 - TX 3 - RX 4 - N/C 5 - N/C 6 - GND
6535	9600	P9	MLSS100-6 / CE100F22-6	1 - N/C 2 - TX 3 - RX 4 - CTS 5 - RTS 6 - GND

Select the "Open" button to apply these settings.

3.2.4 Application

A terminal window connected to your device will appear. Proceed with configuration or monitoring of your connected device as required. See Figure 8: PuTTY Terminal Window.

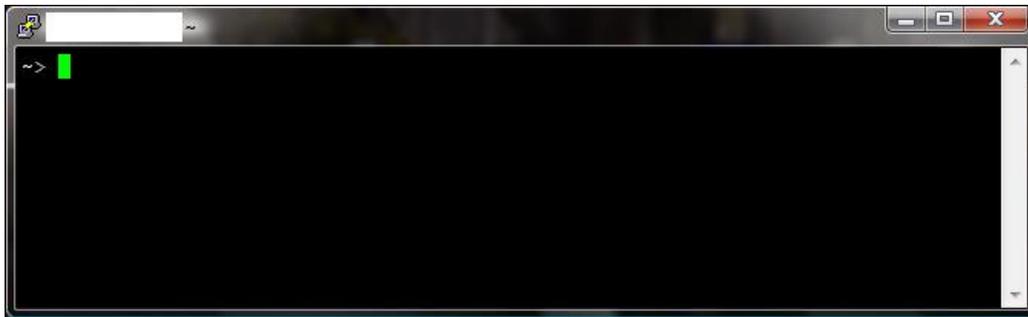


Figure 8: PuTTY Terminal Window