# **232USB9M**

### USB to RS-232 Mini-Converter

- √ Connect RS-232 Devices to your USB Port
- ✓ Perfect for Field Service Applications
- √ Small Fits easily into any laptop bag
- ✓ USB Port Powered
- √ USB 2.0 (12 Mbps) Compatible
- √ RS-232 Data rates up to 460.8 Kbps
- √ Supports Windows 98, ME, 2000, XP, & Vista

Universal Serial Bus (USB) has become the connectivity workhorse of today's PCs, replacing the familiar serial ports. However, many commercial and industrial devices still use the RS-232 interface. To connect these devices to modern PCs, you need a simple and reliable conversion solution. The 232USB9M offers this solution in a space saving, USB Port powered package. Simply plug the converter into an available USB port on your computer or USB hub and install the drivers supplied on CD ROM. The device will show up as an additional COM port in the Windows Device Manager which is fully compatible with your Windows applications. Locked serial number versions are also available (see the driver installation notes at the end of this document). A one meter USB cable is included. Remember, when it comes to USB to Serial Conversion, B&B Electronics Ulinx™ brand is your number one



#### Specifications

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RS-232	Serial Technology					
Connector DB9 Male (DTE) Data Rate Up to 460.8 Kbps	RS-232	TD, RD, DCD, DTR, GND, SDR, RTS, CTS,				
Data Rate Up to 460.8 Kbps USB Technology  Connector USB Type B Female Standard 2.0 (Backward Compatible)  Data Rate 12 Mbps  Power  Source USB Port Input Voltage 5 VDC Consumption - 0.5 W (Low power device, draws less than 100 mA) Software  Driver CD Windows 98, ME, 2000, XP, Vista Mechanical  Dimensions 2.3 x 1.3 x .6 in (5.8 x 3.2 x 1.6 cm) In-line mounted, plastic  Weight 0.23 lbs (104.3 g) with USB Cable Environmental  Operating Temp 32 to 158°F (0 to70 °C) Storage Temp -40 to 185 °F (-40 to 85 °C) Op Humidity 0 to 95 % (Non-condensing) MTBF 1946086 hours MTBF Method Parts Count Reliability Prediction Regulatory  Approvals FCC, CE  Ordering Information  Model Number 232USB9M USB to RS-232 Mini-Converter USB to RS-232 Mini-Converter (Locked Serial Number)  Accessories		RI				
Connector USB Type B Female Standard 2.0 (Backward Compatible) Data Rate 12 Mbps Power  Source USB Port Input Voltage 5 VDC Consumption - 0.5 W (Low power device, draws less than 100 mA) Software  Driver CD Windows 98, ME, 2000, XP, Vista Mechanical Dimensions 2.3 x 1.3 x .6 in (5.8 x 3.2 x 1.6 cm) Enclosure In-line mounted, plastic Weight 0.23 lbs (104.3 g) with USB Cable Environmental Operating Temp 32 to 158°F (0 to70 °C) Storage Temp -40 to 185 °F (-40 to 85 °C) Op Humidity 0 to 95 % (Non-condensing) MTBF 1946086 hours MTBF Method Parts Count Reliability Prediction Regulatory Approvals FCC, CE Ordering Information Model Number 232USB9M USB to RS-232 Mini-Converter USB to RS-232 Mini-Converter (Locked Serial Number) Accessories	Connector	DB9 Male (DTE)				
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Data Rate  Power  Source  USB Port Input Voltage  5 VDC  Consumption  Software  Driver CD  Windows 98, ME, 2000, XP, Vista  Mechanical  Dimensions  2.3 x 1.3 x .6 in (5.8 x 3.2 x 1.6 cm)  In-line mounted, plastic  Weight  0.23 lbs (104.3 g) with USB Cable  Environmental  Operating Temp  32 to 158°F (0 to70°C)  Storage Temp  -40 to 185°F (-40 to 85°C)  Op Humidity  MTBF  1946086 hours  MTBF Method  Parts Count Reliability Prediction  Regulatory  Approvals  FCC, CE  Ordering Information  Model Number  232USB9M  USB to RS-232 Mini-Converter  USB to RS-232 Mini-Converter (Locked Serial Number)  Accessories	Connector	USB Type B Female				
Source USB Port Input Voltage 5 VDC Consumption ~ 0.5 W (Low power device, draws less than 100 mA)  Software  Driver CD Windows 98, ME, 2000, XP, Vista Mechanical  Dimensions 2.3 x 1.3 x .6 in (5.8 x 3.2 x 1.6 cm)  Enclosure In-line mounted, plastic  Weight 0.23 lbs (104.3 g) with USB Cable Environmental  Operating Temp 32 to 158°F (0 to70°C)  Storage Temp -40 to 185°F (-40 to 85°C)  Op Humidity 0 to 95 % (Non-condensing)  MTBF 1946086 hours  MTBF Method Parts Count Reliability Prediction Regulatory  Approvals FCC, CE  Ordering Information  Model Number 232USB9M USB to RS-232 Mini-Converter (Locked Serial Number)  Accessories	Standard	2.0 (Backward Compatible)				
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Dimensions  2.3 x 1.3 x .6 in (5.8 x 3.2 x 1.6 cm)  Enclosure  In-line mounted, plastic  Weight  0.23 lbs (104.3 g) with USB Cable  Environmental  Operating Temp  32 to 158°F (0 to70 °C)  Storage Temp  -40 to 185 °F (-40 to 85 °C)  Op Humidity  0 to 95 % (Non-condensing)  MTBF  1946086 hours  MTBF Method  Parts Count Reliability Prediction  Regulatory  Approvals  FCC, CE  Ordering Information  Description  USB to RS-232 Mini-Converter  232USB9M-LS  USB to RS-232 Mini-Converter (Locked Serial Number)  Accessories	Driver CD	Windows 98, ME, 2000, XP, Vista				
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MTBF 1946086 hours  MTBF Method Parts Count Reliability Prediction Regulatory  Approvals FCC, CE  Ordering Information  Model Number Description 232USB9M USB to RS-232 Mini-Converter 232USB9M-LS USB to RS-232 Mini-Converter (Locked Serial Number)  Accessories	Storage Temp	-40 to 185 °F (-40 to 85 °C)				
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Model Number     Description       232USB9M     USB to RS-232 Mini-Converter       232USB9M-LS     USB to RS-232 Mini-Converter (Locked Serial Number)   Accessories	Approvals	FCC, CE				
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232USB9M-LS USB to RS-232 Mini-Converter (Locked Serial Number)  Accessories						
Number) Accessories		USB to RS-232 Mini-Converter (Locked Serial				
Accessories						
	Accessories	· · · · /				
( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )		3 ft (1 M) USB Cable (One Included)				
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## **Package Contents**

- 232USB9M USB to RS-232 Mini-Converter
- 3ft (1M) USB Cable
- Datasheet
- CD with Drivers for Windows 98, ME, 2000, XP and

If any item is missing or damaged, contact B&B Electronics for a replacement.

#### **DB9 Pin-out**

12345

6789

RS-232 Pin-out DB9 Male DTE

Pin	Direction	Signal Name		
1	Input	DCD (Receive Line Signal Detector)		
2	Input	RD (Receive Data)		
3	Output	TD (Transmit Data)		
4	Output	DTR (DTE Ready)		
5	N/A	SG (Signal Ground)		
6	Input	DSR (DCE Ready)		
7	Output	RTS (Request to Send)		
8	Input	CTS (Clear to Send)		
9	Input	RI (Ring Indicator)		

### **Driver Installation**

Screen shots are from Windows XP

THE FOUND NEW HARDWARE WIZARD WILL **RUN TWICE. ONCE TO INSTALL THE USB** DEVICE AND ONCE TO INSTALL THE SERIAL COM PORT.

- Connect the converter to your PCs USB port with the supplied cable.
- The Found New Hardware wizard will start.
- When prompted to connect to Windows Update to search for the driver, select "No, not at this time" and click on Next >



· Select Install the software automatically and click Next>



· A warning concerning Windows logo testing will be displayed. Click on Continue Anyway >



The Completing the Found New Hardware Wizard will be displayed. Click on Finish >

THE FOUND NEW HARDWARE WIZARD WILL **RUN TWICE. ONCE TO INSTALL THE USB** DEVICE AND ONCE TO INSTALL THE SERIAL COM PORT.





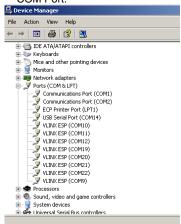
#### **Check Drivers**

Screen shots are from Windows XP

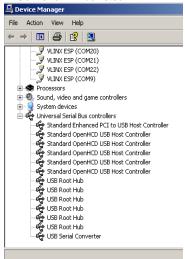
Right click on My Computer. Select the Hardware tab.



 Expand the Ports (COM & LPT) tree. The USB Serial Port will be listed as the next available COM Port.

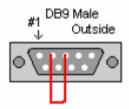


 Expand the USB Controllers tree. The USB Serial Converter will be listed.



## **Loop Back Test**

· Loop back pins 2 and 3 on the DB9 M connector.



- Using Hyper Terminal or similar program, connect to the appropriate COM port. Set the desired baud rate. Ensure Hyper Terminal local echo is OFF.
- Transmit data. If the same character string is returned, the test is good.
- A detailed description of this test is located in the technical notes section of our web page, www.bb-elec.com.

#### Installation Notes

- These USB to serial converters are offered as serialized (each unit has a unique electronic serial number) or with locked serial numbers (each unit has the same electronic serial number). LS models are great for applications, such as field service, in which a pool of converters area shared.
- SEARIALIZED Select a serialized model if the USB to serial Converter is to be assigned to a unique COM port. If you plug in a converter with a different serial number, the driver installation procedure will be initiated again. This will also allocate another COM port and USB Controller in Windows. This will happen even if the first converter is not plugged in.
- LOCKED SERIAL NUMBER Select a locked serial number model (-LS suffix) if you desire different USB to serial converters of the same type to share a single COM port (one at a time). With the locked serial number models, you only need to install the driver once, provided two converters are not plugged in at the same time. The locked serial number products are intended for uses, such as field service, in which PC's and converters are mixed and matched.
- Instructions for uninstalling the driver are located on the CD ROM.





Мы молодая и активно развивающаяся компания в области поставок электронных компонентов. Мы поставляем электронные компоненты отечественного и импортного производства напрямую от производителей и с крупнейших складов мира.

Благодаря сотрудничеству с мировыми поставщиками мы осуществляем комплексные и плановые поставки широчайшего спектра электронных компонентов.

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Осуществляем поставки продукции под контролем ВП МО РФ на предприятия военно-промышленного комплекса России, а также работаем в рамках 275 ФЗ с открытием отдельных счетов в уполномоченном банке. Система менеджмента качества компании соответствует требованиям ГОСТ ISO 9001.

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С нами вы становитесь еще успешнее!

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