

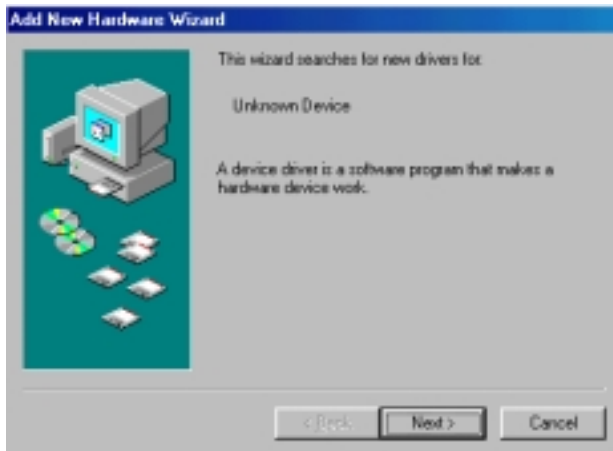
## Connect an RS-485 Network to the USB Port Model US485TB

The **US485TB** is a USB (Universal Serial Bus) port to 2 wire RS-485 converter. This converter requires no PCI/ISA slots or IRQs. Simply plug the converter into an available USB port on your computer or hub. Windows will configure the converter as an additional COM port, compatible with your Windows applications.

The RS-485 side is designed for a two-wire network. There are two sets of terminal blocks making multi-dropping this converter into an existing network easy. A pair of LEDs shows when RS-485 data is being received or transmitted. The USB side permits quick setup. Just plug in the US485TB and Windows will install the drivers and set up the converter. The USB Bus supplies power so no separate power supply is needed.



### Installation for Windows 98 (Installation for Windows 2000 may vary slightly from Windows 98 installation.)



**#1.** Plug the US485TB 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 the **Next>** button.



**#2.** The screen above appears. Make sure *Search for the best driver for your device* is selected. Then select the **Next>** button.



**#3.** The screen above appears. Make sure *Floppy disk drive* is selected. Insert the *USB to Serial Windows 98* disk into the floppy drive. Then select the **Next>** button.



**#4.** The screen above appears. Make sure *Model US485TB (B&B's USB to RS-485)* is listed as the device. Then select the **Next>** button.

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**B & B Electronics Mfg. Co.**

707 Dayton Road - P.O. Box 1040 - Ottawa, IL 61350 USA  
Phone: (815) 433-5100 - Fax: (815) 433-5105

Home Page: [www.bb-elec.com](http://www.bb-elec.com)

Sales e-mail: [orders@bb-elec.com](mailto:orders@bb-elec.com) - Fax: (815) 433-5109

Technical Support e-mail: [support@bb-elec.com](mailto:support@bb-elec.com) - Fax: (815) 433-5104

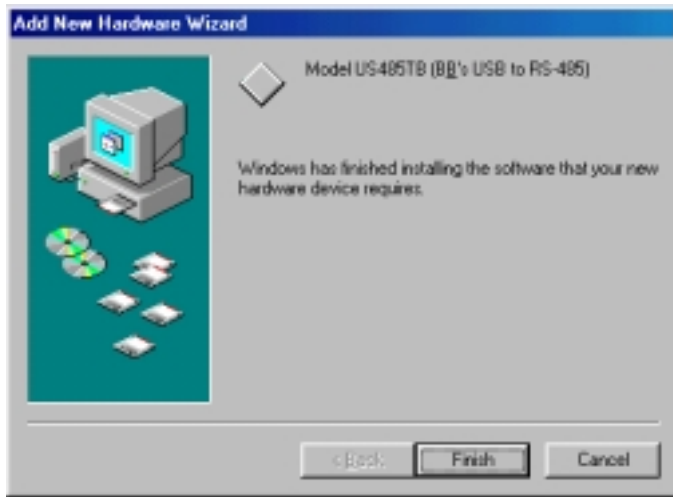
**B & B Electronics Ltd**

Westlink Commercial Park - Oranmore, Co. Galway - Ireland  
Phone: +353 91 792444 - Fax: +353 91 792445

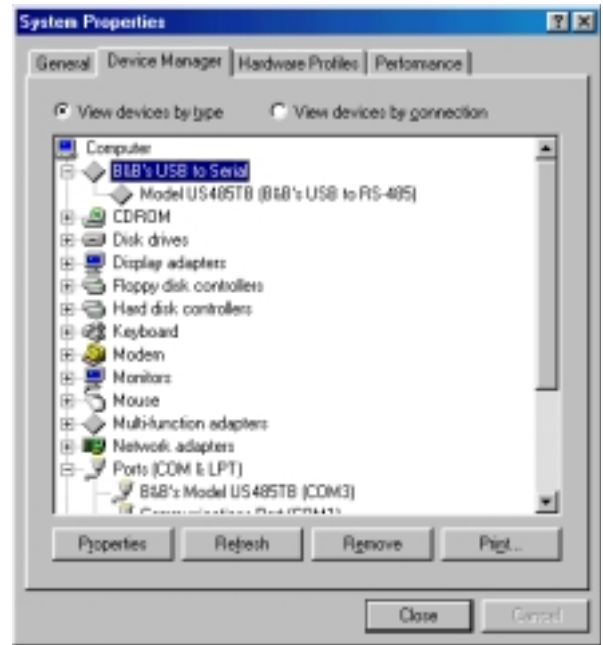
Home Page: [www.bb-europe.com](http://www.bb-europe.com)

Sales e-mail: [orders@bb-europe.com](mailto:orders@bb-europe.com)

Technical Support e-mail: [support@bb-europe.com](mailto:support@bb-europe.com)



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



#6. The converter appears in the device manager under *B&B Serial Ports*, as *Model US485TB (B&B's USB to RS-485)*. The port appears under *Ports (COM & LPT)* as *B&B's Model US485TB (COMx)*. Where x is the COM number.

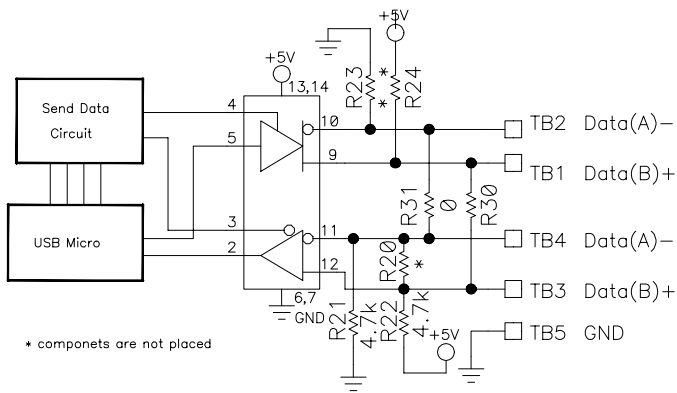
### RS-485 Control

No special software is required to control the RS-485 receiver or transmit line driver. The driver is automatically enabled during each spacing state. During the marking or idle state, the RS-485 driver is disabled and the data lines are held in the marking state by the 4.7K ohm pull-up (R22) and pull-down (R21) resistors. The value of these resistors may need to be changed to a different value when termination (R20) is used in order to maintain the proper DC bias during the idle state. See B&B Electronics' RS-422/RS-485 Application Note (available at [www.bb-elec.com](http://www.bb-elec.com) or by mail) for more information on termination and DC biasing of an RS-485 network.

### RS-485 Connections

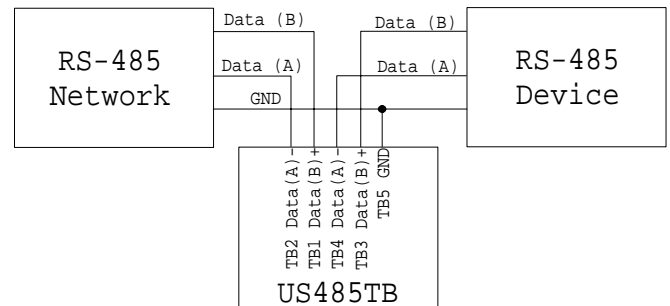
Two sets of terminal blocks connected in parallel make connections into an existing RS-485 network easy.

1. Connect Data (B) from the network to USB485TB Data(B)-.
  2. Connect Data (A) from the network to USB485TB Data(A)-.
  3. Connect the signal ground wire from the network to US485TB GND.
- For additional devices use GND and the second set of terminal blocks as shown in the figure.



### Specifications

|                    |   |
|--------------------|---|
| Dimensions:        | 3.0 x 0.9 x 1.7 in (7.7 x 2.3 x 4.3 cm) |
| Temperature Range: | 0°C to 70°C                             |
| RS-485 Baud Rate:  | Up to 115.2 kbps                        |
| USB Baud Rate:     | High speed device                       |
| USB Power:         | Low power device (draws < 100mA)        |
| Operating System:  | Windows 98, Windows 2000                |
| Accessories:       | Driver Disks on 3.5 media               |



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