



16-Port RS232 to USB2.0 High Speed Multi Serial Adapter

w/ Metal Case

Model Number: *CG-16COM-MINI*

Installation Guide

Coolgear, Inc.

Version: 1.0

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Revision History

Revision	Date	Comments
1.0	04/09/2024	First Release

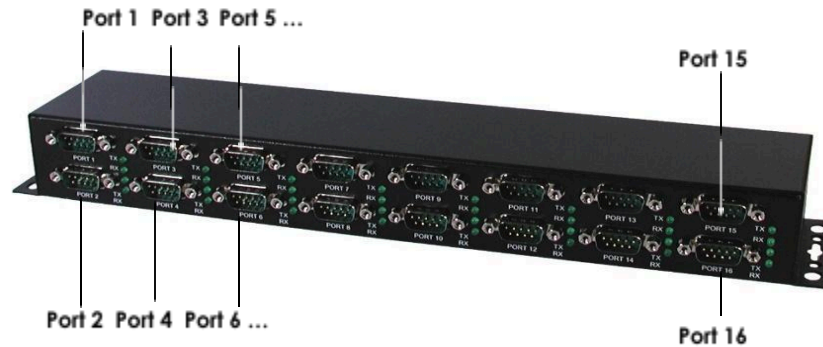
1. Introduction

Thank you for purchasing Coolgear's 16-Port RS232 to USB2.0 High Speed Multi Serial Adapter. The Adapter is an intelligent expansion module designed to connect to a PC or server through the Universal Serial Bus (USB1.1 and USB2.0), offering high-speed serial connectivity. The serial ports are fully compatible with the RS232 standard, thanks to the included virtual COM port drivers. With its sturdy metal case and USB Screw Lock Mechanism, the Adapter is an ideal solution for a wide range of critical applications.

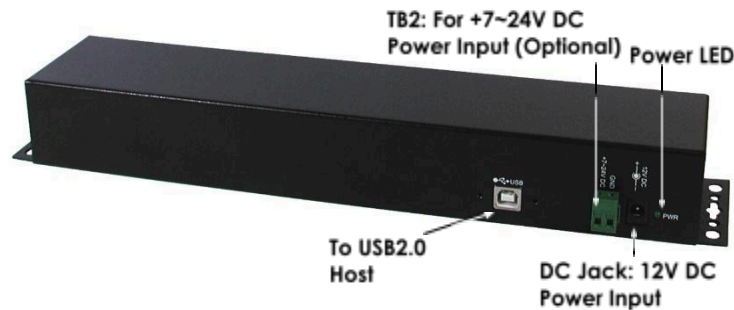
Features:

- ✓ Provides 16 RS232 Serial Ports over USB2.0 High Speed Port
- ✓ Wall Mountable, Provides Kits for DIN RAIL and 19-inch Rack Mounting Options
- ✓ Supports 480Mbps USB2.0 High Speed Data Transfer
- ✓ Provides 16 DSUB-9 Male Connectors
- ✓ Supports TX and RX LED Indicators for each Port
- ✓ Supports USB Screw Lock Mechanism Enhances Reliability
- ✓ Baud Rate from 300 bps to 921.6Kbps
- ✓ Supports 7,8 Data Bits
- ✓ Odd, Even, Mark, Space, or None parity mode
- ✓ Supports 1, or 2 Stop Bits
- ✓ Accepts Wide Range +7~24V DC Power over the 2-pin Terminal Block
- ✓ Provides a DC Jack for DC 12V Power Input
- ✓ Optional Settings to Provide +12VDC power over pin#9 of the DB9 RS232 Connectors.
- ✓ Supports Win98, Me, XP, CE, Win2000, 2003, Vista, Win 7, 8.x, 10, 11, Mac OS and Linux

Front Panel Connector Layout:



Rear Panel Connector Layout:



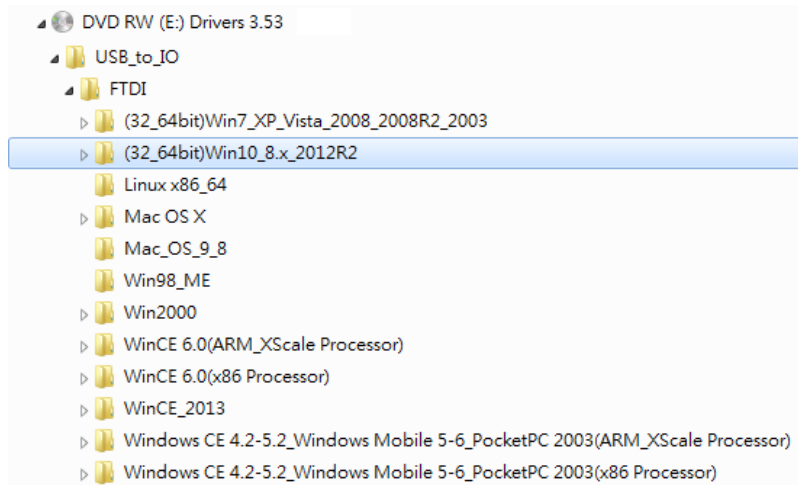
2. Plugging the Adapter

1. Connect the supplied AC/DC adapter to the DC Jack on the rear panel. Alternatively, if you prefer to supply power through the 2-pin terminal block, you can disregard the AC/DC adapter (it is sufficient to power either the DC Jack or the terminal block).
2. Insert the Type-A end of the USB cable into the USB host port on your PC or an available USB port on a USB hub.
3. Connect the Type-B end of the USB cable to the back of this unit.
4. Proceed to the next section, "Installing Drivers," to install the virtual COM port drivers for your operating system.

3. Installing Drivers

The Adapter is designed to support hot-plugging, allowing you to connect it to a USB port on your computer without the need for system restarts. The drivers for the Adapter are provided on the accompanying driver CD and are compatible with the following operating systems. Please refer to the driver CD for the driver locations specified below:

1. Driver Locations on the CD:



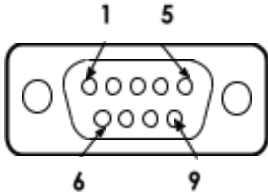
These instructions are intended for installing the drivers from the supplied driver CD. If you are installing Windows drivers, follow the steps below:

2. Installing Drivers with the Installer:

- Insert the Driver CD provided with the Adapter.
- Locate and run (double click) the Installer Program, such as "CDM v2.12.06 WHQL Certified.exe," located in the respective folder for your operating system on the driver CD.
- Follow the instructions provided by the installer program to complete the setup procedures.
- Upon plugging in the Adapter, the drivers will be automatically installed into the Windows kernel.

Please note that specific driver file names and versions may vary, but the general steps above should guide you through the installation process.

4. Male DB9 Pin Assignments and Cable Wiring



<u>9 Pins</u>	<u>Signal</u>
1	DCD
2	RXD
3	TXD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	RI

DB9(Male) to DB9(Male) Wiring

<u>DB9 (USB Adapter)</u>		<u>DB9 (Serial Device)</u>
1 DCD	←→	1 DCD
2 RXD	←→	2 RXD
3 TXD	←→	3 TXD
4 DTR	←→	4 DTR
5 GND	←→	5 GND
6 DSR	←→	6 DSR
7 RTS	←→	7 RTS
8 CTS	←→	8 CTS

5. Environmental Specifications

- Power requirements:** 12V DC, 250mA (max)
- Operating temp.:** 0 to 55°C (32 to 131°F)
- Operating humidity:** 5 to 95% RH

6. Mounting Options

The 16-Port RS232 to USB2.0 Adapter provides different mounting options according to its applications. Here are some examples:

- 1.
2. **DIN RAIL Mounting Option (w/ 2 DIN RAIL Clips):**



3. 19-inch Rack Front-Mounting Option (w/ 2 Brackets):



4. 19-inch Rack Rear-Mounting Option (w/ 2 Brackets)



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Safety

- Read the entire Installation Guide before implementing this product for your application. This guide contains important information about electrical connections that must be followed for safe and proper operation.
- Inspect the product closely for visual defects before putting it to use.
- Keep away from areas where moisture builds, this product contains electrical components that can be damaged by moisture build up, this can adversely affect your equipment connected to it.
- Do not disassemble the product. Handling the product's internal components can expose it to ESD (Electro-Static Discharge) hazards that can affect the function of the device.
- If this product is not functioning properly, email our support team at support@coolgear.com.

USB CHARGING & CONNECTIVITY EXPERTS

Within Every Great Machine

For over 20 years our rugged, off-the-shelf USB hubs, chargers, and serial products are ready to go for your next project. Based in the US, Coolgear has successfully engineered and deployed millions of connectivity solutions into industrial, medical, automotive, commercial, and aerospace industries.

We understand the importance of reliability, build quality, & consider all our customers' applications as critical, wanting to ensure long-lasting event-free integrations.

Compliance Statement

View compliance within the product's respective Technical Data Sheet, found on the product's online listing.

Technical Support

When you reach out to Coolgear support, you'll find yourself in the hands of a solution-oriented and knowledgeable expert ready to answer whatever question you throw at them. If you ever need help with your product, visit coolgear.com/support for support tickets, downloads, and other support resources. For the latest drivers, please visit coolgear.com/download.

Product Standard Warranty

One (1) Year Warranty from Date of Purchase Invoice. Coolgear will repair or replace any Product determined to be defective and which has been returned, at your risk and expense, to Coolgear. Where Coolgear determines in its sole judgment that repair or replacement of such Product is not reasonable, Coolgear will keep the non-conforming Product and refund to you the amount you paid for such Product. Returned Products shall be subject to the balance of the Warranty Period otherwise applicable. Any reconditioned parts used by Coolgear shall be subject to all the same provisions as otherwise applicable to new parts. THE FOREGOING DESCRIBES COOLGEAR'S SOLE LIABILITY, AND YOUR SOLE REMEDY, FOR ANY BREACH OF WARRANTY. IF YOU DO NOT AGREE WITH THE TERMS OF THIS LIMITED WARRANTY, YOU MUST RETURN THE PRODUCTS UNUSED AND IN THEIR ORIGINAL CONTAINERS TO YOUR ORIGIN OF PURCHASE.

Limitation of Liability

This Limited Warranty does not cover: (i) defects or damages resulting from natural causes, casualty, accident, misuse or abuse, neglect, alterations, service or repair by other than Coolgear, including without limitation by you; (ii) improper installation or de-installation, operation or maintenance, improper connections with peripherals or other causes not arising out of defects in the materials or workmanship of Products; (iii) any Product for which the warranty sticker has been removed, modified or defaced; (iv) normal wear and tear; (v) damage to or loss of repaired or replaced Products during shipping by Coolgear except when such damage or loss is caused by poor or inadequate packaging by Coolgear; or (vi) Products purchased outside the United States. UNDER NO CIRCUMSTANCES WILL COOLGEAR BE LIABLE FOR ANY LOSS OF USE, INTERRUPTION OF BUSINESS OR ANY INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES OF ANY KIND (INCLUDING LOST PROFITS) REGARDLESS OF THE FORM OF ACTION WHETHER IN CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT PRODUCT LIABILITY OR OTHERWISE, EVEN IF COOLGEAR HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT SHALL THE TOTAL LIABILITY OF COOLGEAR HEREUNDER EXCEED THE GREATER OF \$50.00 OR THE AMOUNT YOU ACTUALLY PAID FOR THE PRODUCT GIVING RISE TO SUCH LIABILITY, REGARDLESS OF THE CAUSE OF ACTION, IN CONTRACT, TORT, STRICT LIABILITY OR OTHERWISE. NOT ALL JURISDICTIONS ALLOW SUCH LIMITATIONS OF DAMAGES SO THE FOREGOING LIMITATIONS MAY NOT APPLY TO YOU.

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