

Instruction manual

8-Port Industrial USB to Serial Adapter Hub - RS-232/RS-422/RS-485
DIN Rail and Wall Mountable
ICUSB234858I

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Package contents

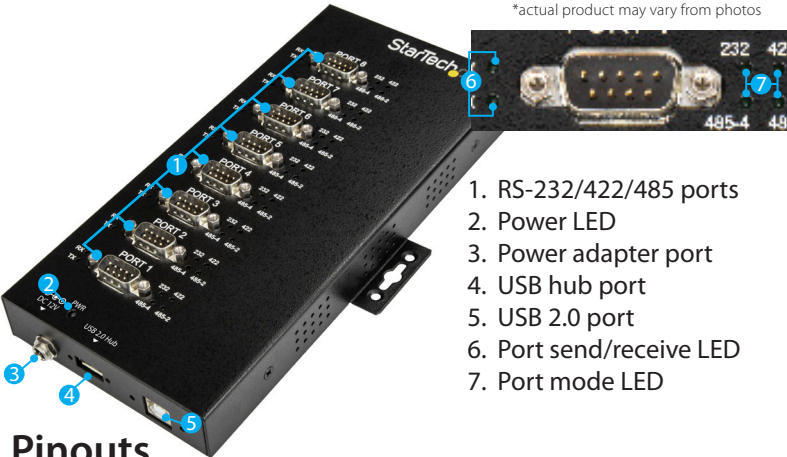
- 1 x USB serial hub
- 1 x USB-B with screw lock to USB-A cable
- 1 x DIN rail kit
- 1 x universal power adapter (NA/JP, UK, EU, ANZ)
- 1 x instruction manual

Requirements

- USB-enabled computer with an available USB 2.0 port
- Any of the following operating systems:
 - Microsoft Windows® 10, 8/8.1, 7
 - Microsoft Windows Server® 2012, 2008, 2003
 - macOS High Sierra (10.13), Sierra (10.12) El Capitan (10.11), Yosemite (10.10), Mavericks (10.9), Mountain Lion (10.8)
 - Linux® kernel 3.5 to 4.11.x, LTS versions only
- Phillips type screwdriver

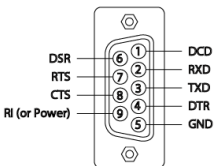
Operating system requirements are subject to change. For the latest requirements, please visit www.StarTech.com/ICUSB234858I.

Product diagram

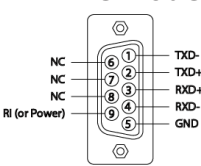


Pinouts

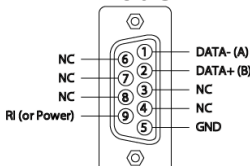
RS-232 mode



RS-422/RS-485 4-wire mode



RS-485 2-wire mode



Installation

Notes:

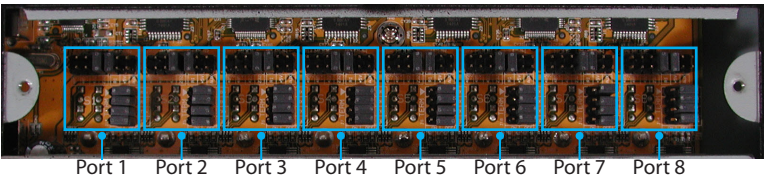
- You may need to restart your computer during the software installation process. Be sure to save any unsaved material before you install the software.
 - Configure your port settings before installing the serial adapter hub.
1. Download the latest software from the StarTech.com website: www.StarTech.com/ICUSB234858I.
 2. The software that corresponds with your operating system will be compressed in a .zip folder. Download and extract the contents of that folder to a location on your computer that's easy to access, such as your **Desktop** or **Downloads** folder.
 3. Open the folder that corresponds with your specific operating system and launch the installer file.
 4. Follow the on-screen prompts to complete the installation, and if instructed to do so, restart your computer.
 5. Connect each of your serial devices to the port you've configured for their connection.
 6. Connect the USB-A to USB-B cable to the USB 2.0 port on the serial adapter hub and to a USB port on your computer.
 7. (Optional) If you require AUX power (fully loaded) connect your power adapter to an AC outlet, then connect the Power adapter port to the USB serial hub.
 8. (Optional) If you'd like to connect a USB peripheral, like an additional USB serial hub, to the USB hub port, connect the peripheral's USB cable to the USB hub port.

Configure port settings

The serial adapter hub supports four different modes (RS-232, RS-422, RS-485 2-wire, and RS-485 4-wire) with different power and termination options. You can set the mode and settings for each individual port by adjusting the jumpers inside the serial adapter hub's housing. To access the jumpers, open the access panel on the back of the housing using a Phillips type screwdriver to remove the two screws.

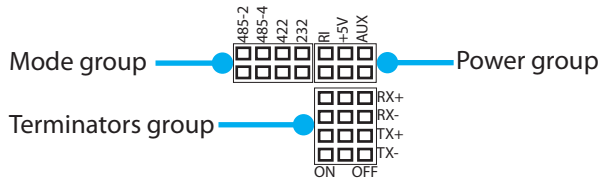
Jumper groups for each port

Each port has its own set of jumpers that enable you to assign the settings for each individual port.



Jumper group settings

There are different settings that you can define for each port: Mode, Power and Termination. Each setting has its own jumper group used to define each port set.



The tables below outline the available settings for each jumper group.

Mode (COM Standard)	
	RS-232 (default)
	RS-422
	RS-485 4-wire
	RS-485 2-wire

Use the Mode jumper group to define the serial communication standard each port uses.

Note: If the mode is set to RS-232 it's important to set all terminations to the off position (see **Jumper group settings, Terminations** for details).

Power (Pin-9)	
	AUX power adapter on pin-9
	+5V DC on Pin-9
	No power on pin-9 (default)

Use the Power jumper group to define the pin-9 power requirements for each port.

Note: AUX outputs power consistent with the power adapter connected to the Power adapter port on the USB to serial adapter hub.

Jumper group settings cont'd

Terminations	
	Both RX+/RX- and TX+/TX- terminators are disabled (Terminators for RS-232 mode) (default)
	TX+/TX- terminators are enabled (Standard terminators for RS-485 2-wire mode)
	RX+/RX- terminators are enabled
	Both RX+/RX- and TX+/TX terminators are enabled (Standard terminators for RS-422 and RS-485 4-wire mode)

Use the Terminations jumper group to define which of your send and receive communication pins are on and off for each port.

Notes:

- Because RS-232 utilizes different communication pins and additional signals can cause interference, it's recommended that all terminators be set to off in RS-232 mode.
- While standard terminations for each mode are recommended, your termination requirements may vary depending on your application and the specific device you're communicating.

About the LED indicators

The adapter features two sets of LED indicators for each port:

- The Port mode LEDs illuminate solid to indicate what mode each port is set to.
- The Port send/receive LEDs blink to indicate that data is being sent or received.

FCC Compliance Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by StarTech.com could void the user's authority to operate the equipment.

Industry Canada Statement

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe [B] est conforme à la norme NMB-003 du Canada.

CAN ICES-3 (B)/NMB-3(B)

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