USB-485M

USB TO RS-485 COMMUNICATION ADAPTER INSTRUCTION SHEET



- Please read this instruction sheet thoroughly before installing and using the USB-485M.
- The contents of the instruction manual and the communication adapter driver file can change without notice.
- Visit the item page downloads section for the latest information http://adcpn.com/pn/usb-485m

PREFACE

The USB-485M is a convenient USB-to-RS-485 converter, which does not require an external power supply or a complex configuration process. It supports baud rates from 75 to 115.2 kbps, and auto switching direction of data transmission. In addition, it accomplishes RS-485 data transmission using RJ-45 connectors for convenient wiring. Its small size, handy use of plug-and-play, and hot-swap capability also provide more convenience for users.

USB-485M INCLUDES:

- USB-to-RS-485 serial communication adapter next line.
- Cable, RJ12 to RJ12, 6-wire crossover, 2m [79 in], gray (Comparable to part # ZL-RJ12-CBL-2)
- Cable, RJ12 to flying leads, 2-wire straight-through, 2m [79 in], black

APPLICABLE USES AND PC REQUIREMENT

- DURApulse™ series AC drives Modbus polling and GSoft2 configuration software
- SOLO[™] temperature controllers Modbus polling and SL-SOFT configuration software
- SureServo[™] servo drives Modbus polling and SV-PRO configuration software
- PLC CLICK and P3-550 Modbus polling
- Requires 32-bit PC with Windows 7, 8, 8.1, 10 or 11 operating system, or 64-bit PC with Windows 7, 8, 8.1, 10, or 11 operating system (for bridge and driver installation)

NOTE: Not compatible with DirectSOFT PLC software.

SPECIFICATIONS

	USB-485M Specifications
Power Supply	No external power supply needed
Power Consumption	0.4W
Voltage Isolation	3000 VDC
Baud Rates Supported	75, 150, 300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200 (bps)
Transmission Type	RS-485 half-duplex (2-wire)
USB Connector	Type A (plug)
RS-485 Connector	RJ-45
Compatibility	USB v2.0 specification
PC Compatibility	Windows Operating System required for bridge & driver installation: 32-bit driver: Windows 7, 8, 8.1, 10 64-bit driver: Windows 7, 8, 8.1, 10

LED DISPLAY

- Steady Green LED ON: power is ON.
- Blinking orange LED: data is transmitting.



A standard 6-pin RJ12 connection plug fits into the RJ45 receptacle,

RJ-45 PIN-OUT

RJ-45

NOTE: The wiring connector on the USB-485M is a standard 8-pin RJ45 receptacle.

but it connects only the middle six pins. RJ12 pins 1–6 connect to RJ45 pins 2–7.

Pin

2

3

4

5

6

Description

reserved

reserved

reserved

SG+

SG-

reserved reserved

reserved

RJ45 Receptacle

DIMENSIONS

WIRING CONNECTIONS

80.0

[3.15]

UNITS:

mm [in]

21.2 [0.83]

- 22.5 [0.89]

WIRING CONNECTIONS FOR SOLO TEMPERATURE CONTROLLERS



WIRING CONNECTIONS FOR SURESERVO SERVO DRIVES



(The other wires are used by the SureServo drive.)

WIRING CONNECTIONS FOR CLICK PLCS



WIRING CONNECTIONS FOR P3-550 PLCs



Install the driver file onto your PC BEFORE installing the USB-485M communication adapter. The driver file (USB-485M_Drivers.exe) can be downloaded from the item page downloads section. http://adcpn.com/pn/usb-485m

- somewhat.)
- 2) Select the appropriate installer for your PC.



InstallShield Wizar



PREPARATIONS BEFORE INSTALLING DRIVER (EXTRACT THE DRIVER FILE)

NOTE: Do NOT connect the USB-485M to your PC before extracting the driver file.

1) Download the driver file and accept the default selections except as shown below. (The following screen captures are mostly from Windows 7. The installation windows from other operating systems may vary

• For 64-bit machines, select the file CP210xVCPInstaller_x64.exe.

• For 32-bit machines, select the file CP210xVCPInstaller_x86.exe.

	Com	pressed Folder Too	USB-485N	1-WindowsDri	ver.zip	<u>4</u>	- 🗆	×
w		Extract					^	0
pat sho	h ortcut	🖌 Move to ▾	X Delete →	New folder	Properties	Edit History	Select all Select none Invert selection	1
		Organ	ize	New	Ope	n	Select	
Do	wnload	Is > USB-485M-1	WindowsDriver.:	zip	√ Ū	Search USB-	485M-Wind ,	P
^	□ N	ame		Туре		Compress	Size	Pass
		x64		File fold	er			
		x86		File fold	er			
		CP210xVCPInsta	aller_x64.exe	Applicat	tion	319 KB	1,026 KB	No
		CP210xVCPInsta	aller_x86.exe	Applicat	ion	309 KB	903 KB	No
] dpinst.xml		XML Do	cument	1 KB	12 KB	No
		SLAB_License_A	greement_VCP	Text Doo	ument	4 KB	9 KB	No
	Ē	slabvcp.cat		Security	Catalog	6 KB	11 KB	No
	1	slabvcp.inf		Setup In	formation	3 KB	15 KB	No
		v6-7-5-driver-re	elease-notes.txt	Text Doo	ument	6 KB	14 KB	No
	٢							>

3) "Silicon Laboratories CP210x Evaluation Kit Tools" will be installed on your PC:

2	Welcome to the InstallShield Wizard for Silicon Laboratories CP210x Evaluation Kit Tools
	The InstallShield® Wizard will install Silicon Laboratories CP210x Evaluation Kit Tools Release 3.31 on your computer. To continue, click Next.
	< Back Next > Cancel

PREPARATIONS BEFORE INSTALLING DRIVER (EXTRACT THE DRIVER FILE) (CONTINUED) TROUBLESHOOTING

4) Use the "Browse..." button only if you want to install the driver file in PC folder other than the default folder (not recommended):

nstallShield Wizard			<u></u>	3
Choose Destination Location				
Select folder where Setup will install file:	8.			
Setup will install Silicon Laboratories CP in the following folder.	210x Evaluation Kit To	ols Release 3.3	1	
To install to this folder, click Next. To in another folder.	stall to a different folder	, click Browse a	and select	
Destination Folder				
Destination Folder C:\SiLabs\MCU\CP210x			Browse	
Destination Folder C:\SiLabs\MCU\CP210x stallShield			Browse	

DRIVER INSTALLATION

NOTE: Do NOT connect the USB-485M to your PC before extracting the driver file.

AFTER installing the driver file onto your PC, connect the USB-485M communication adapter to the USB port of the PC and install the driver onto the USB-485M.

Follow the file installation prompts and accept the default selections except as shown below. (The following screen captures are from Windows XP Service Pack 3. The installation windows from other operating systems may vary somewhat.)

We recommend "Install from a list...", especially if you installed the driver file on your PC in a file location other than the default location.





OK

Cancel

where the driver is stored:	
	**
oftware - CP2103 USB to UART Bridge Controller	
er software on your computer	
tware in this location:	
rs	
K from a list of device drivers on my computer how installed driver software compatible with the device, and all driver	
e same category as the device.	
Next Ca Ily updated, the applicable comm port will show in Device Manager. ay vary depending upon your PC.) to set the baud rate, stop bits, etc.	ncel
Next Ca Ily updated, the applicable comm port will show in Device Manager. ay vary depending upon your PC.) to set the baud rate, stop bits, etc.	
Next Ca Ily updated, the applicable comm port will show in Device Manager. ay vary depending upon your PC.) to set the baud rate, stop bits, etc.	
Next Ca Ily updated, the applicable comm port will show in Device Manager. ay vary depending upon your PC.) to set the baud rate, stop bits, etc.	
Next Ca Ily updated, the applicable comm port will show in Device Manager. ay vary depending upon your PC.) to set the baud rate, stop bits, etc.	
Next Ca Ily updated, the applicable comm port will show in Device Manager. ay vary depending upon your PC.) to set the baud rate, stop bits, etc.	
Next Ca Ily updated, the applicable comm port will show in Device Manager. ay vary depending upon your PC.) to set the baud rate, stop bits, etc. Image: Source State Stat	
Next Ca Ily updated, the applicable comm port will show in Device Manager. ay vary depending upon your PC.) to set the baud rate, stop bits, etc. to set the baud rate stop bits, etc.	
Next Ca Ily updated, the applicable comm port will show in Device Manager. ay vary depending upon your PC.) to set the baud rate, stop bits, etc. it is set the baud rate is top bits, etc. it is set the baud rate is top bits is set. it is set the baud rate is stop bits is set. it is set the baud rate is stop bits is set.	
Next Ca Ily updated, the applicable comm port will show in Device Manager. ay vary depending upon your PC.) to set the baud rate, stop bits, etc. The set of the baud rate of the set o	
Next Ca	
Next Ca Ily updated, the applicable comm port will show in Device Manager. ay vary depending upon your PC.) to set the baud rate, stop bits, etc. Image: Source of the set	
Next Ily updated, the applicable comm port will show in Device Manager. ay vary depending upon your PC.) to set the baud rate, stop bits, etc. Image:	
Next Ca Ily updated, the applicable comm port will show in Device Manager. ay vary depending upon your PC.) to set the baud rate, stop bits, etc. Image: Second Sec	
Next Ca Ily updated, the applicable comm port will show in Device Manager. ay vary depending upon your PC.) to set the baud rate, stop bits, etc. Image: Set the baud rate, stop bits, etc. set the baud rate, stop bits, etc. Image: Set the baud rate, stop bits, etc. ridge Controller (COM5) set the baud rate, stop bits, etc. set the baud rate, stop	