

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 this instruction sheet may be changed without prior notice. Please check the AutomationDirect website for the latest version: www.automationdirect.com/pn/usb485m.
- The driver file for this communication adapter may be updated without prior notice. Please check the AutomationDirect website for the latest version: <http://support.automationdirect.com/products/usb485m.html>.

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
- Mini-CD containing Windows driver
- This instruction sheet

APPLICABLE USES AND PC REQUIREMENT

- GS and DURAPULSE™ series AC drives – Modbus polling, and GSOFTE configuration software
- SOLO™ temperature controllers – Modbus polling, and SL-SOFT configuration software
- SureServo™ servo drives – Modbus polling, and SV-PRO configuration software
- PLC – CLICK & P3-550 – Modbus polling
- Requires 32-bit PC with Windows 98, 2000, NT, XP, Vista, 7, 8, or 10 operating system; or 64-bit PC with Windows XP, Vista, 7, 8, or 10 operating system (for bridge and driver installation).
- NOTE: Not compatible with DirectSOFT PLC software.

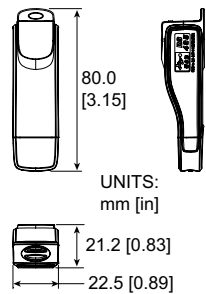
SPECIFICATIONS

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 98, 2000, NT, XP, Vista, 7, 8, 10 64-bit driver: XP, Vista, 7, 8, 10

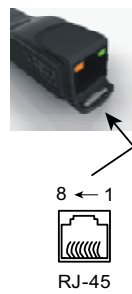
LED DISPLAY

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

DIMENSIONS



RJ-45 PIN-OUT

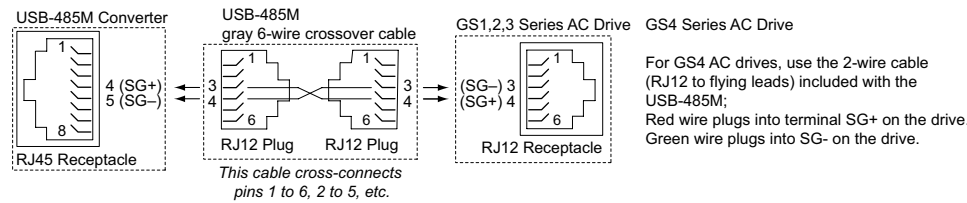


Pin	Description
1	reserved
2	reserved
3	reserved
4	SG+
5	SG-
6	reserved
7	reserved
8	reserved

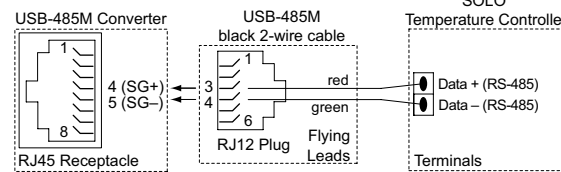
WIRING CONNECTIONS

THE WIRING CONNECTOR ON THE USB-485M IS A STANDARD 8-PIN RJ45 RECEPTACLE. A STANDARD 6-PIN RJ12 CONNECTION PLUG FITS INTO THE RJ45 RECEPTACLE, BUT IT CONNECTS ONLY THE MIDDLE SIX PINS. RJ12 PINS 1-6 CONNECT TO RJ45 PINS 2-7.

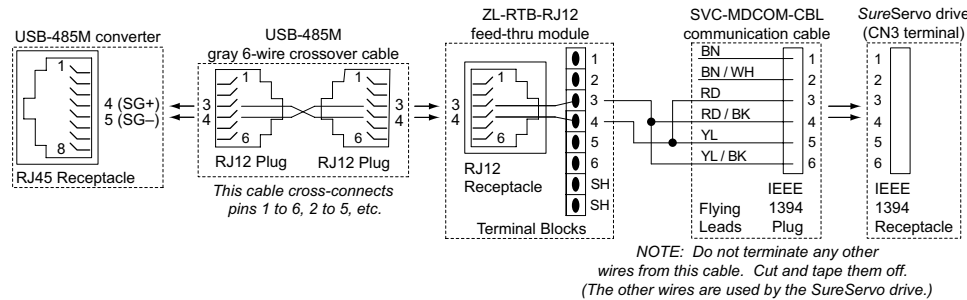
Wiring Connections for GS/DURApulse Series AC Drives



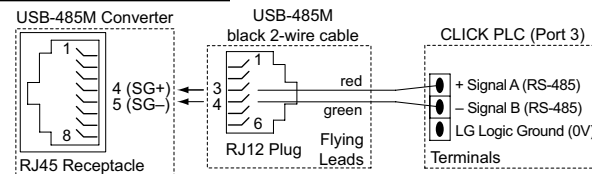
Wiring Connections for SOLO Temperature Controllers



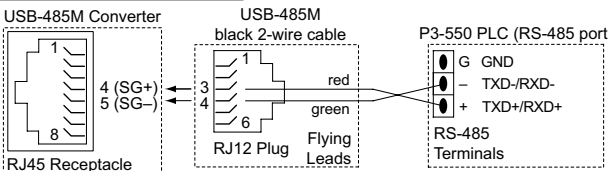
Wiring Connections for SureServo Servo Drives



Wiring Connections for CLICK PLCs



Wiring Connections for P3-550 PLCs



PREPARATIONS BEFORE INSTALLING DRIVER (EXTRACT THE DRIVER FILE)

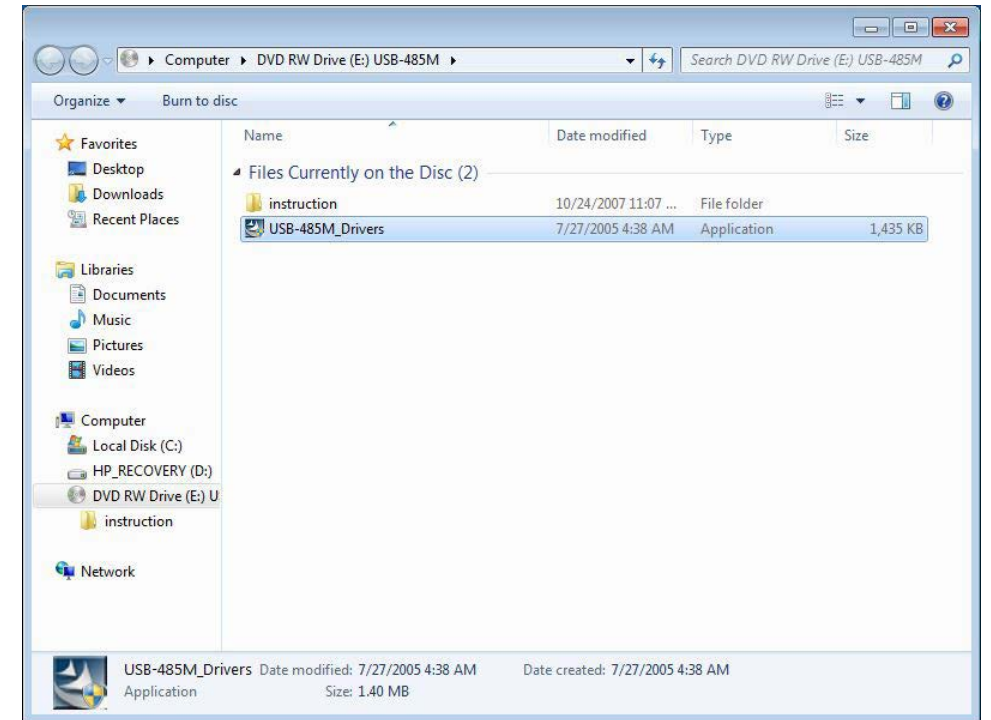
Install the driver file onto your PC BEFORE installing the USB-485M communication adapter. The driver file (USB-485M_Drivers.exe) is located on the mini-CD supplied with the USB-485M.



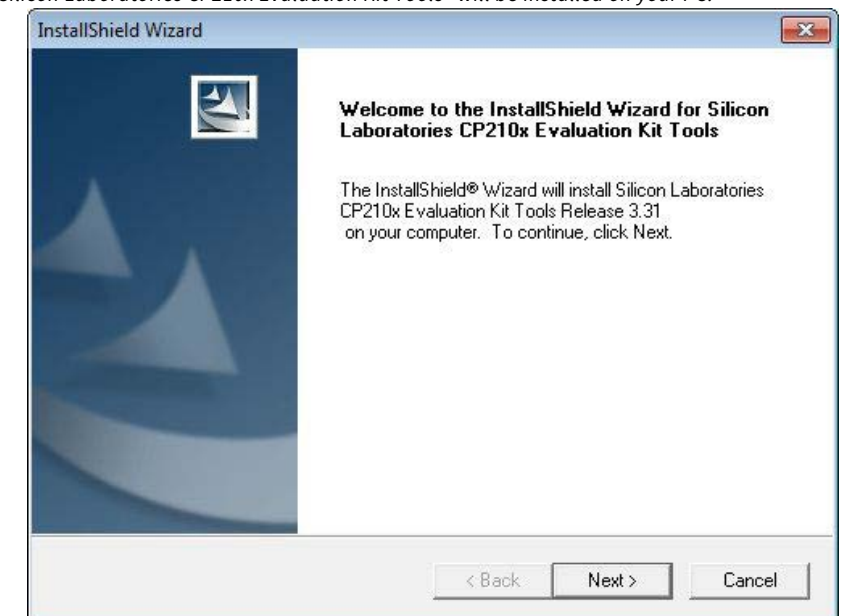
Do NOT CONNECT THE USB-485M TO YOUR PC BEFORE EXTRACTING THE DRIVER FILE.

Insert the mini-CD into your PC, follow the file installation prompts, and accept the default selections except as shown below. (The following screen captures are from 32-bit Windows 7. The installation windows from other operating systems may vary somewhat.)

- Select the file "USB-485M_Drivers" for installation:

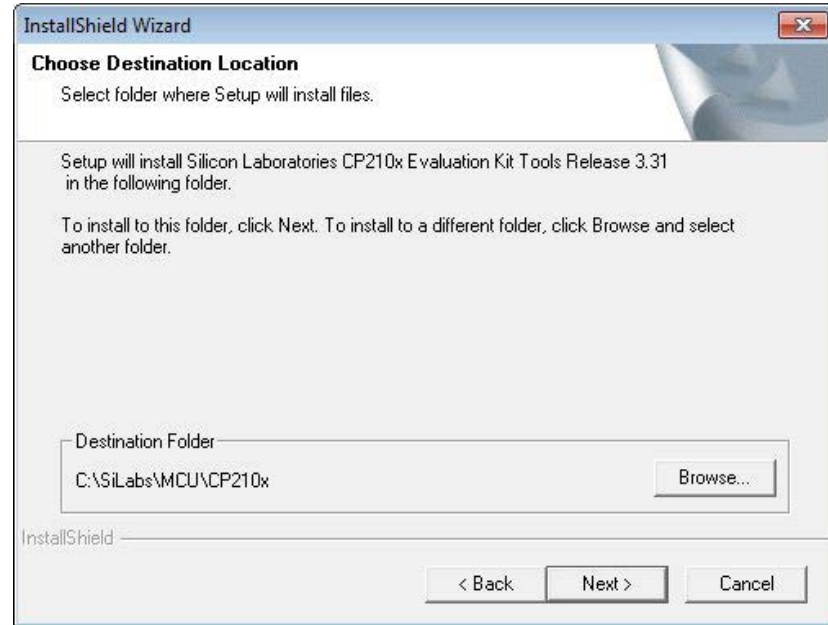


- "Silicon Laboratories CP210x Evaluation Kit Tools" will be installed on your PC:



Preparations BEFORE Installing Driver (Extract the Driver File) (continued)

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



DRIVER INSTALLATION



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.)

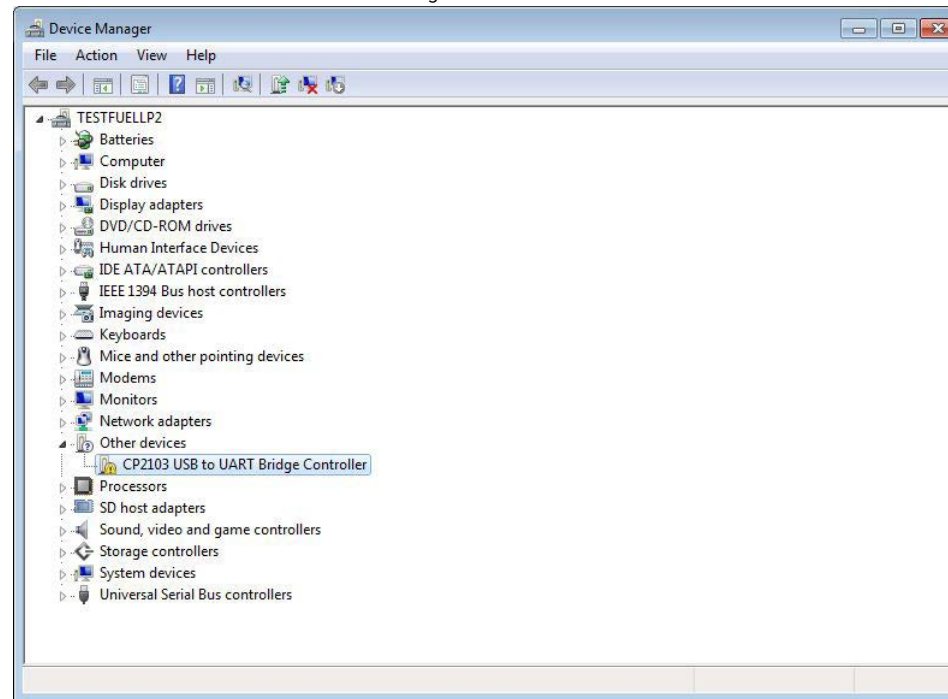
- We recommend “Install from a list...”, especially if you installed the driver file on your PC in a file location other than the default location.



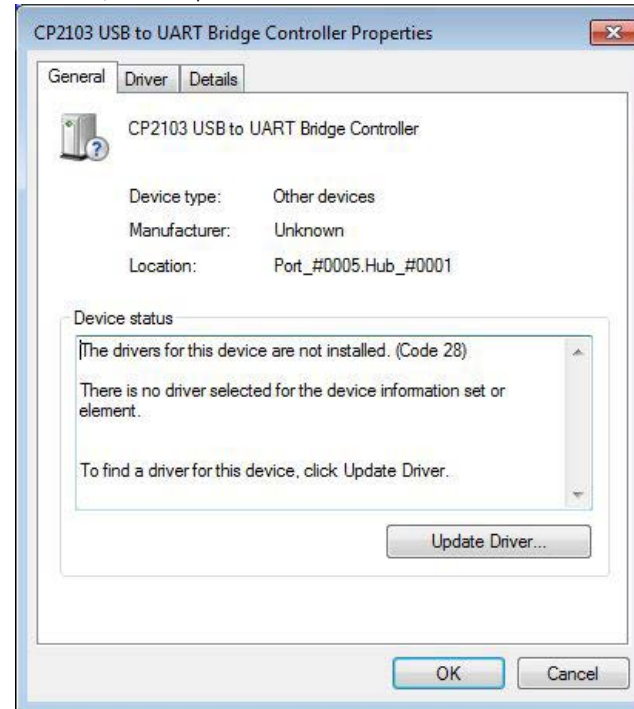
TROUBLESHOOTING

(Required Only if Driver Installation is Unsuccessful)

- With the USB-485M connected to the PC, go to: Control Panel --> System --> System Properties --> Hardware --> Device Manager --> Other devices, and select the “CP2103 USB to UART Bridge Controller”:



- From the “General” tab, select “Update Driver...”



- Browse to the file location where the driver is stored:



- After the driver is successfully updated, the applicable comm port will show in Device Manager. (The comm port number may vary depending upon your PC.) Double click the comm port to set the baud rate, stop bits, etc.

