USB-485M
USB to RS-485 Communication Adapter Instruction Sheet

5011670103
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- 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)
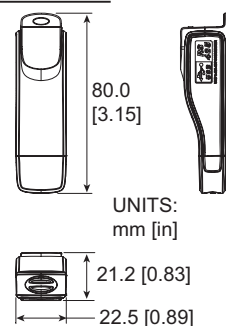
NOTE: Not compatible with DirectSOFT PLC software.

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.

DIMENSIONS

80.0 [3.15]

UNITS: mm [in]

21.2 [0.83]

22.5 [0.89]

RJ-45 PIN-OUT

8 ← 1

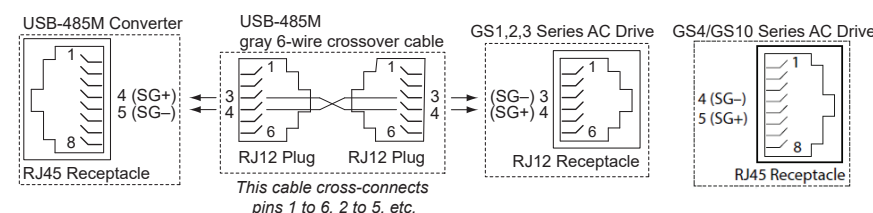| Pin	Description
1	reserved
2	reserved
3	reserved
4	**SG+**
5	**SG-**
6	reserved
7	reserved
8	reserved

RJ-45

WIRING CONNECTIONS

NOTE: 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.
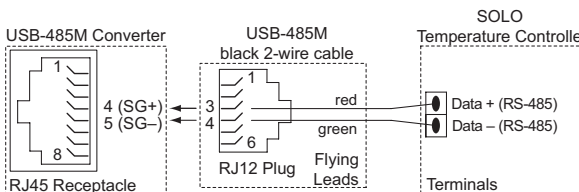
NOTE: Toshiba AS3 series VFDs use a standard ethernet cable for connection. Make sure to connect to the Modbus port of the drive, not an ethernet port. See the Toshiba RS485 Communication Manual on the AS3 store page for full instructions.
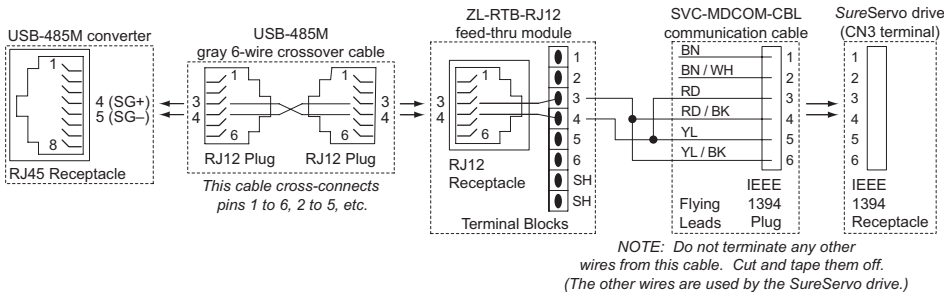
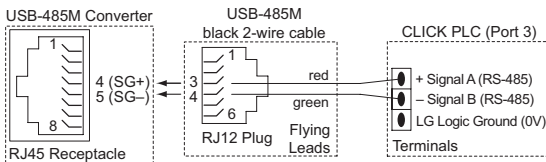### WIRING CONNECTIONS FOR GS/DURAPULSE SERIES AC DRIVES

This cable cross-connects pins 1 to 6, 2 to 5, etc.

WIRING CONNECTIONS FOR SOLO TEMPERATURE CONTROLLERS

WIRING CONNECTIONS FOR SURESERVO SERVO DRIVES

This cable cross-connects pins 1 to 6, 2 to 5, etc.

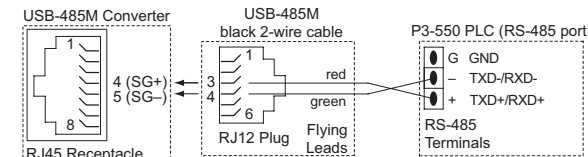*NOTE: Do not terminate any other wires from this cable. Cut and tape them off. (The other wires are used by the SureServo drive.)*

WIRING CONNECTIONS FOR CLICK PLCs

WIRING CONNECTIONS FOR P3-550 PLCs

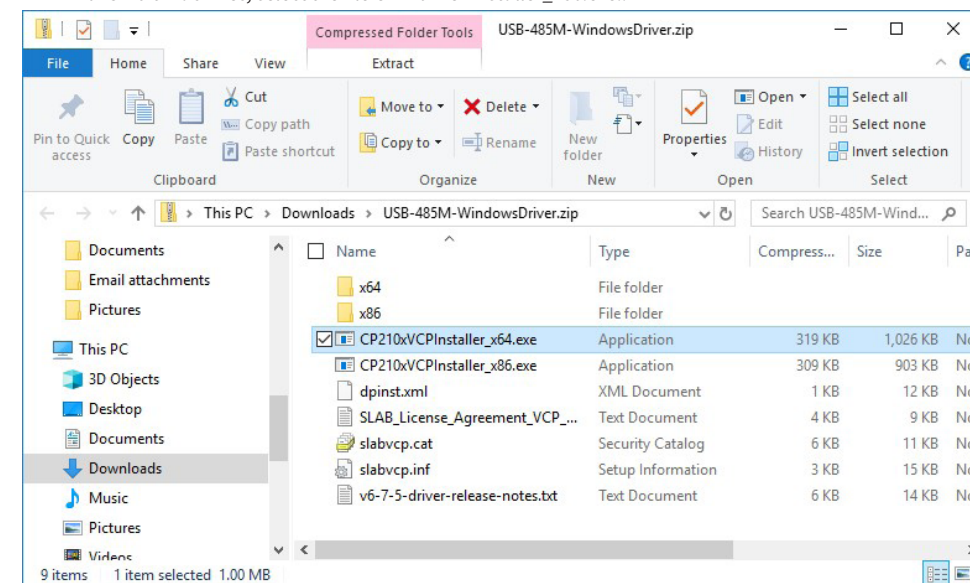## PREPARATIONS BEFORE INSTALLING DRIVER (EXTRACT THE DRIVER FILE)

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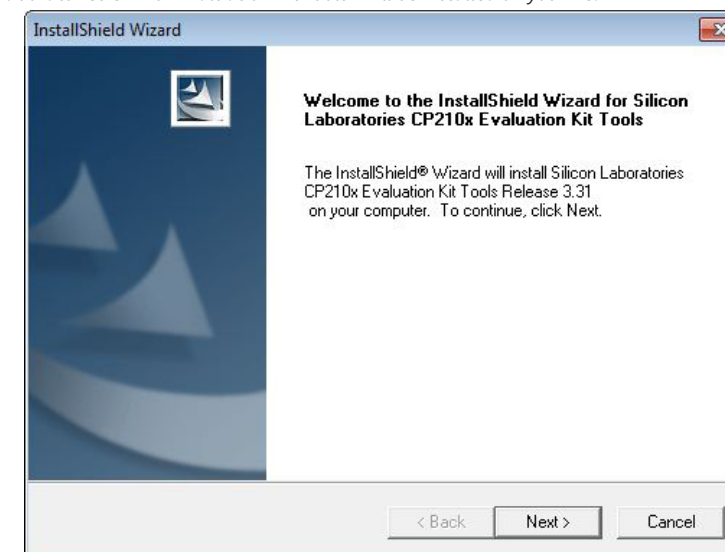
http://adcpn.com/pn/usb-485m

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 somewhat.)

2) Select the appropriate installer for your PC.
   - For 64-bit machines, select the file CP210xVCPInstaller_x64.exe.
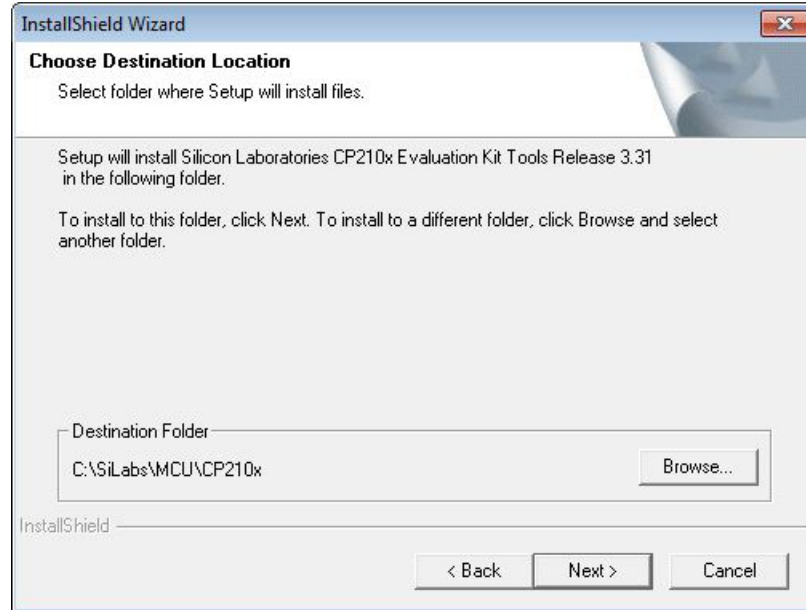   - For 32-bit machines, select the file CP210xVCPInstaller_x86.exe.:

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

AUTOMATIONDIRECT

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

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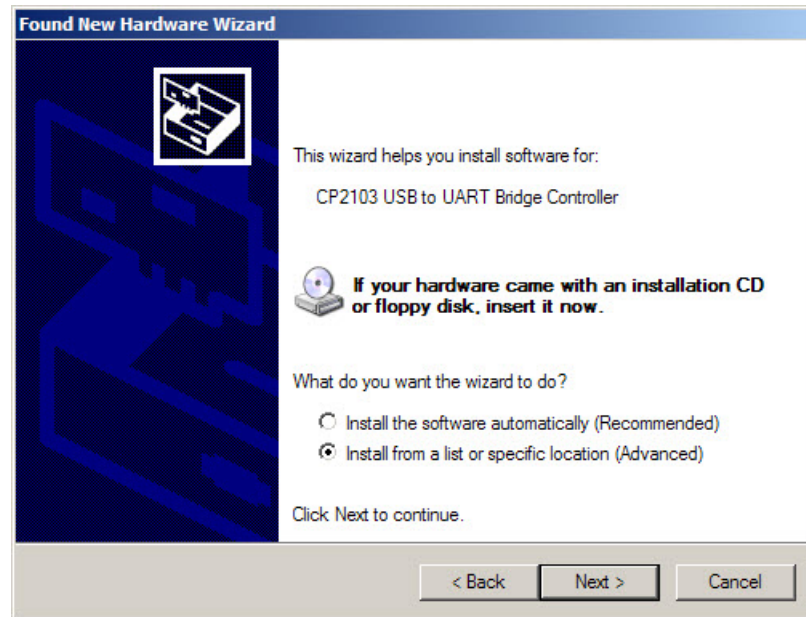

DRIVER INSTALLATION

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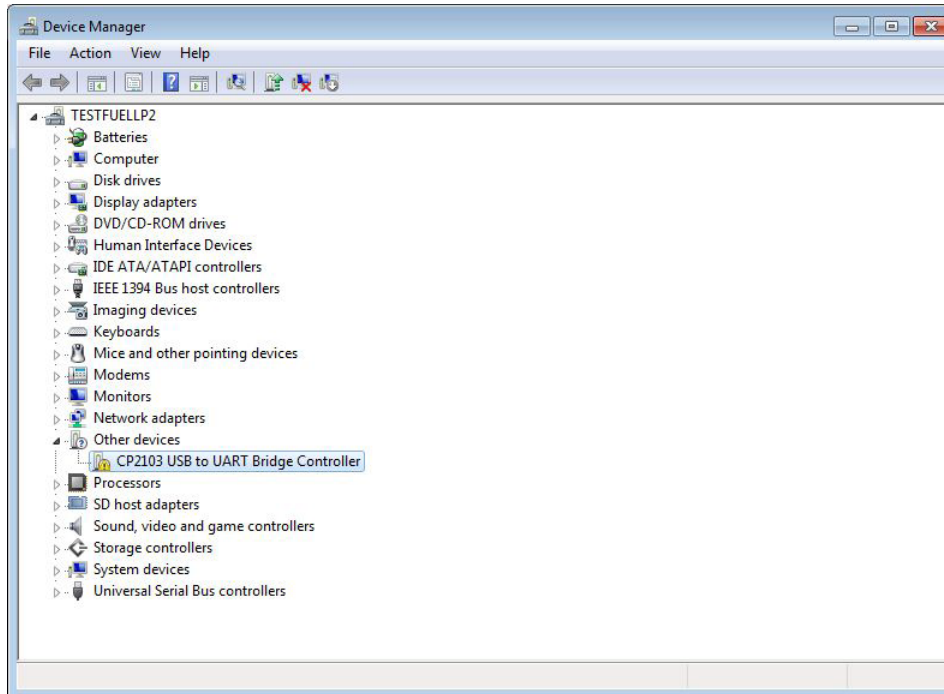
We recommend "Install from a list...", especially if you installed the driver file on your PC in a file location other than the default location.
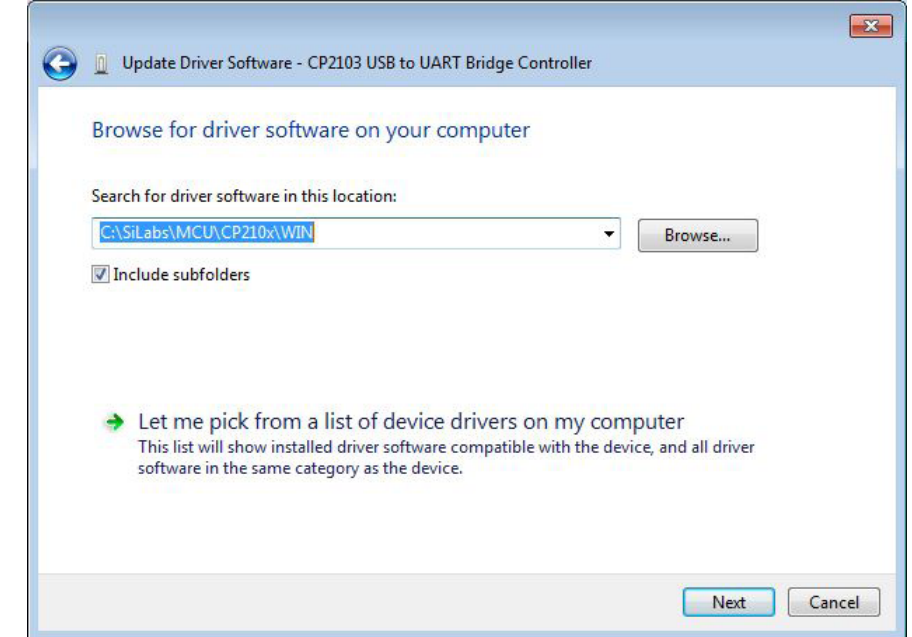

TROUBLESHOOTING

(Required Only if Driver Installation is Unsuccessful)

1) 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":

2) From the "General" tab, select "Update Driver..."

3) Browse to the file location where the driver is stored:

4) 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.