

# Installation and setup instruction Aurora Manager TL software and ABB PVI-USB-RS232\_485 adapter



## Introduction

This document details the procedure for the installation on a user's computer of **Aurora Manager TL software** and device drivers for the ABB **PVI-USB-RS232\_485 adapter**.

## Contact information and software

- The Aurora Manager TL software can be downloaded from ABB's download center web page at <http://www.abb.com/abblibrary/DownloadCenter/>. Enter "Aurora Manager TL" in the search for box on this web page to locate the download link to the latest software version. The device drivers for the ABB PVI-USB-RS232\_485 adapter can be downloaded from the software download area on ABB's website at <http://new.abb.com/power-converters-inverters/solar/monitoring-and-communication/accessories/pvi-uno-trio-ultra-core-plus>.
- To obtain the service password required to complete this procedure and for other technical questions, call ABB solar inverter technical support at **1-877-261-1374**, 6 a.m. – 6 p.m. MST.

## Equipment and software needed

- Laptop PC (with Windows® XP operating system or later) with an available USB port.
- Aurora Manager TL software, version 3.18 or newer, obtained from the website noted above.
- WinZip or similar program to extract the software from its "zipped" format.
- USB-to-RS-485 adapter, like the ABB PVI-USB-RS232\_485. The ABB PVI-USB-RS232\_485 adapter can be obtained from your distributor. Other manufacturer's adapters such as USB to RS485/RS422 Converter Mini Premium XS885, USB to RS485/RS422 Converter Mini Pro MWE820A, or USB to RS485 Converter Mini Ultimate US485MIO will work as well. For non-ABB products, refer to the applicable manufacturer's documentation for technical information.
- Standard USB A-to-B cable.
- RS-485 three-wire set to plug into adapter and attach to inverter terminal block.
- Telephone connection to call ABB technical support to obtain the required password

## Expected Time

- Less than one hour

## Note

- Complete these steps ***before*** taking the laptop into the field to reprogram an inverter.

## Installing Aurora Manager TL on a laptop PC

A user-supplied laptop PC with an open USB port and a Windows XP or later operating system are required.

### Step 1

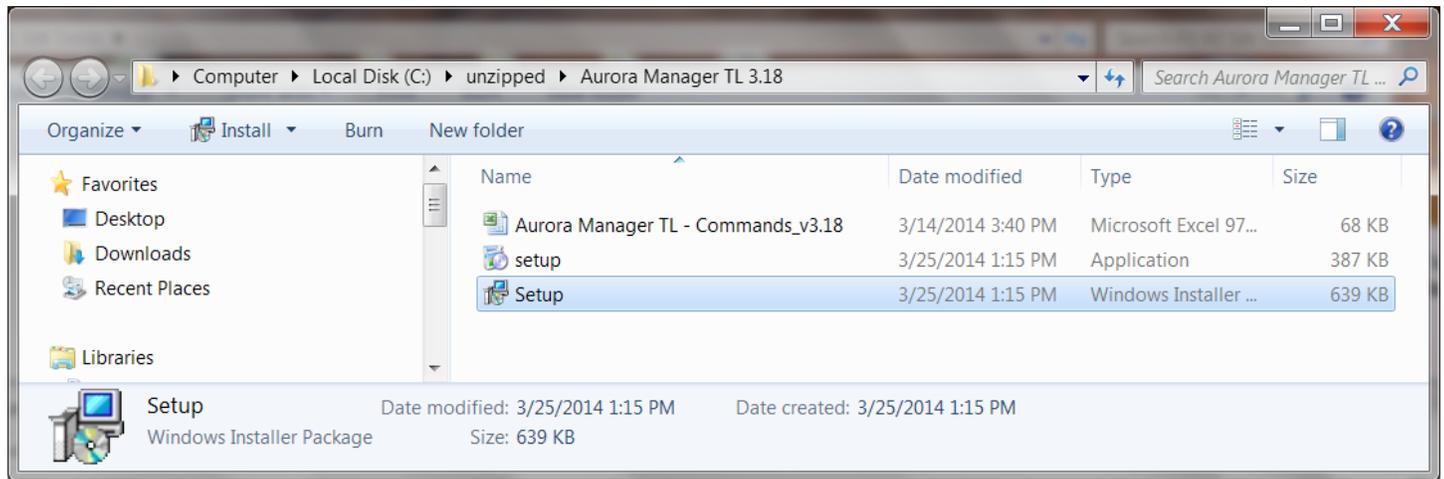
- Save the Aurora Manager TL \*.zip file (obtained from ABB’s website -- see “Contact Information and software” on page 2) on the PC.

### Step 2

- Using Winzip or a similar program, extract the files and note the folder into which the extracted files are saved.

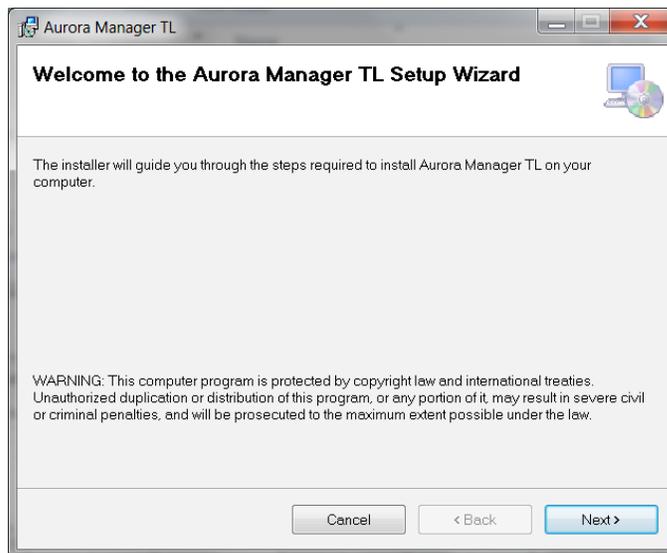
### Step 3

- Open the folder containing the extracted files.
- Double-click the “windows installer” file named **Setup**.



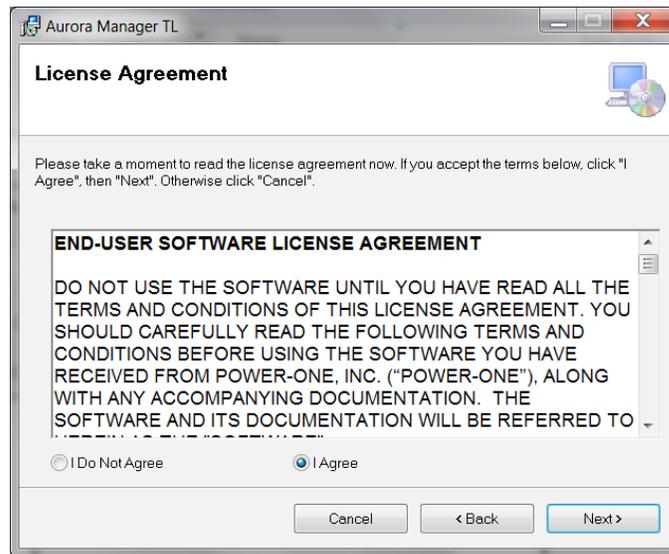
### Step 4

- When the following screen appears, click **Next**.



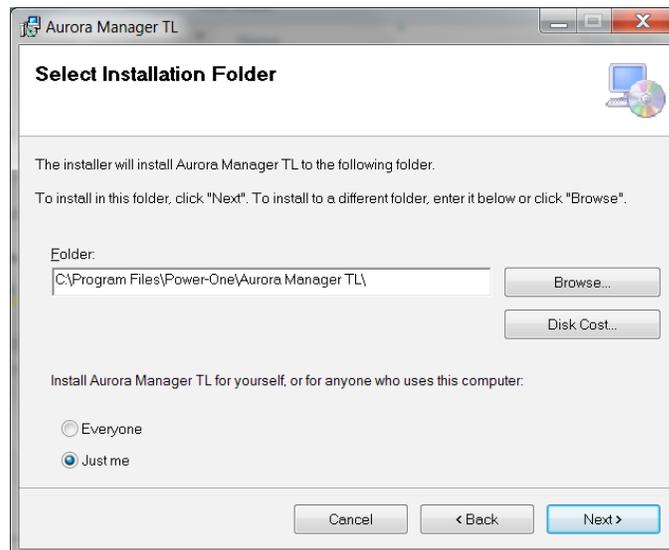
### Step 5

- Read the License Agreement.
- Upon agreement with the License Agreement, click on the **I Agree** button.
- Click **Next**.



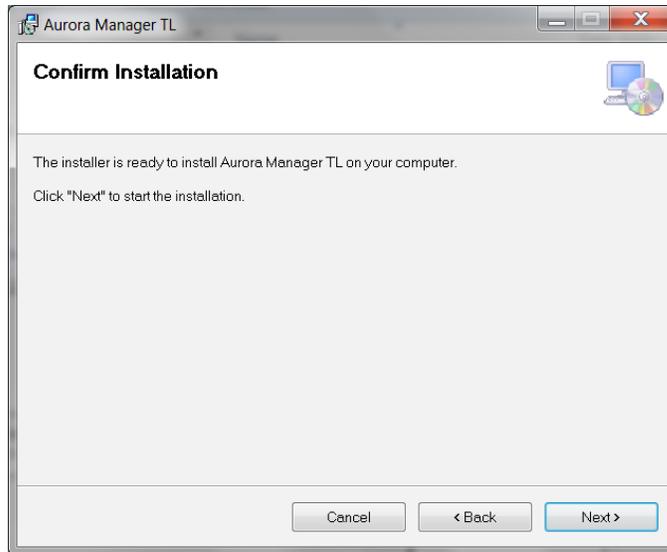
### Step 6

- Use the suggested default folder or supply a name and path for the desired storage location.
- Choose an allowable access ("Just me" is shown in the screen shot below). If you have multiple accounts on the same PC, please select "Everyone".
- Click **Next**.



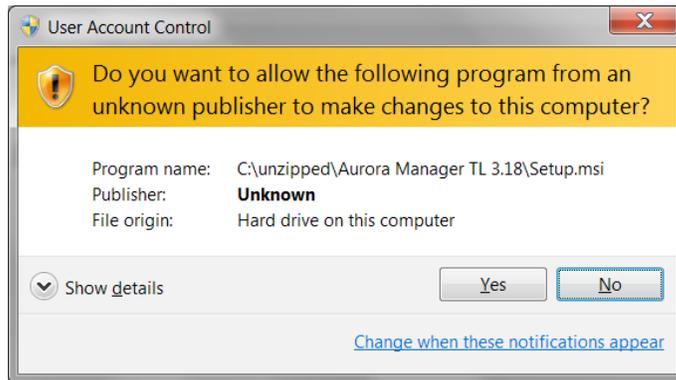
### Step 7

- Click **Next** to start the software installation..



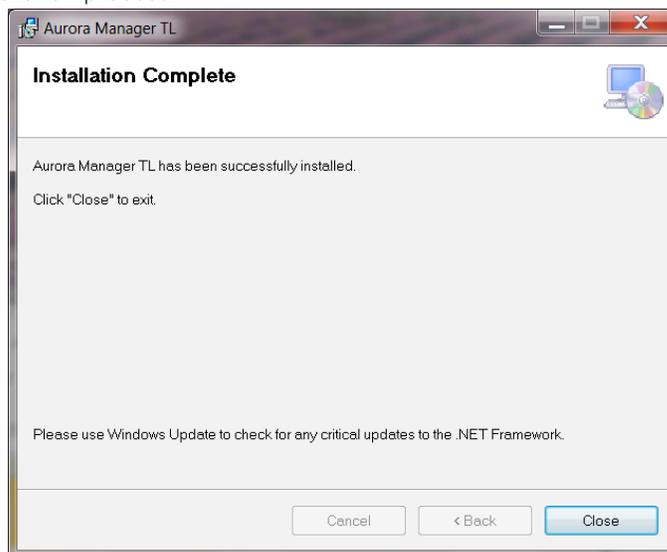
### Step 8

- If the warning box noted below appears, click **Yes** to begin installation; otherwise, proceed to step 9.



### Step 9

- When install is complete, the screen below will appear.
- Click **Close** to end the installation process.



## Step 10

- Confirm that the icon below is on the computer desktop.

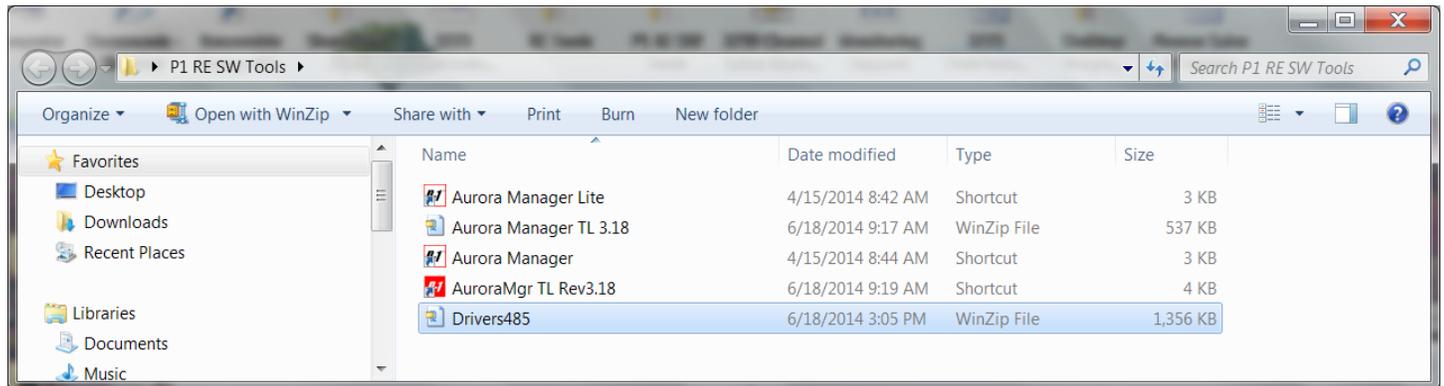


## Setting up and connecting the ABB PVI-USB-RS232\_485 adapter

This section explains the PC adapter driver installation and connection process. If other USB-to-RS485 adapters are used, follow the manufacturer's instructions for driver installation, and then proceed to Step 14.

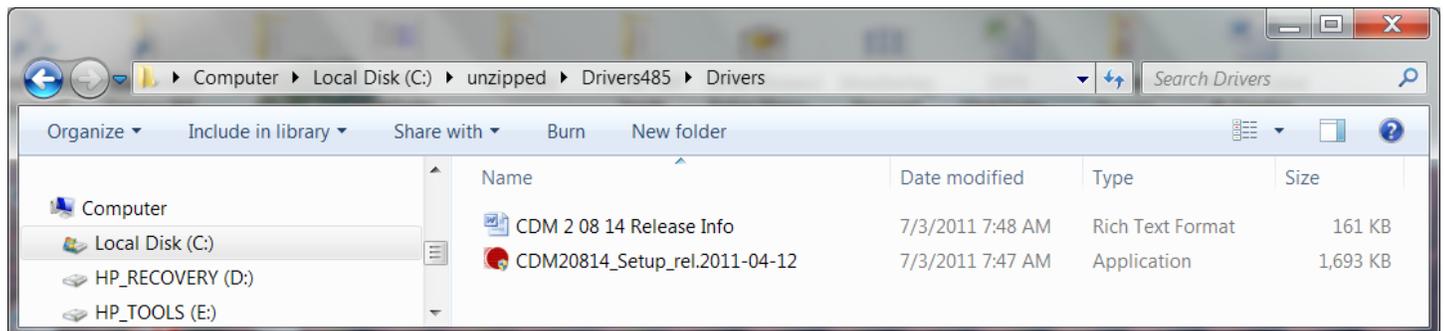
## Step 11

- Locate the driver files for the ABB PVI-USB-RS232\_485 adapter found in the archive file (Drivers485.zip). If the drivers are unavailable, they may be downloaded from the software download area on ABB's website at <http://new.abb.com/power-converters-inverters/solar/monitoring-and-communication/accessories/pvi-uno-trio-ultra-core-plus> or by calling ABB solar inverter technical support at **1-877-261-1374**, 6 a.m. – 6 p.m. MST.
- Use WinZip or a similar program to extract the files to the desired folder on the computer. Note that the file name may not be exactly as shown below.



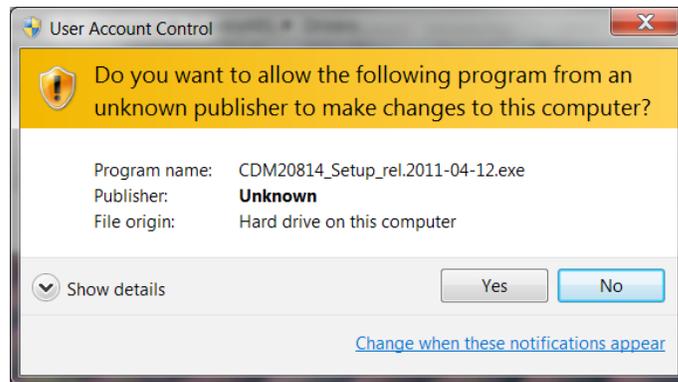
## Step 12

- Open the folder containing the unzipped contents.
- Double click on the setup file (**CDMXXXXX\_Setup...**) to install.



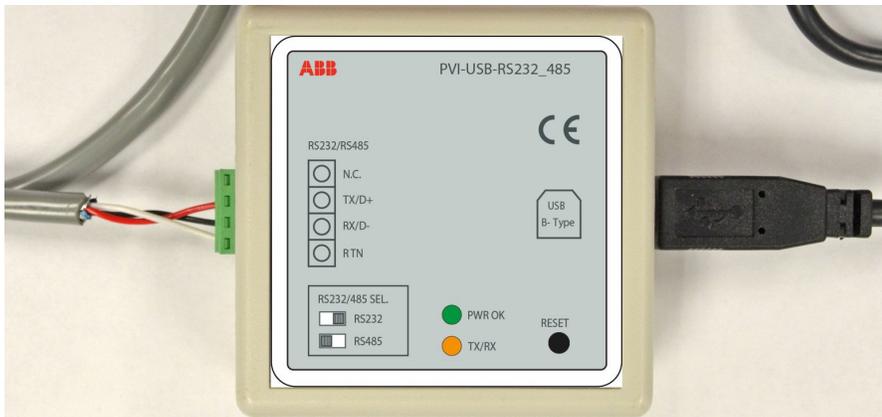
### Step 13

- If the warning box noted to the right appears, click **Yes** to install drivers. If the warning does not appear, the software will automatically install.
- This completes installation of the adapter drivers.



### Step 14

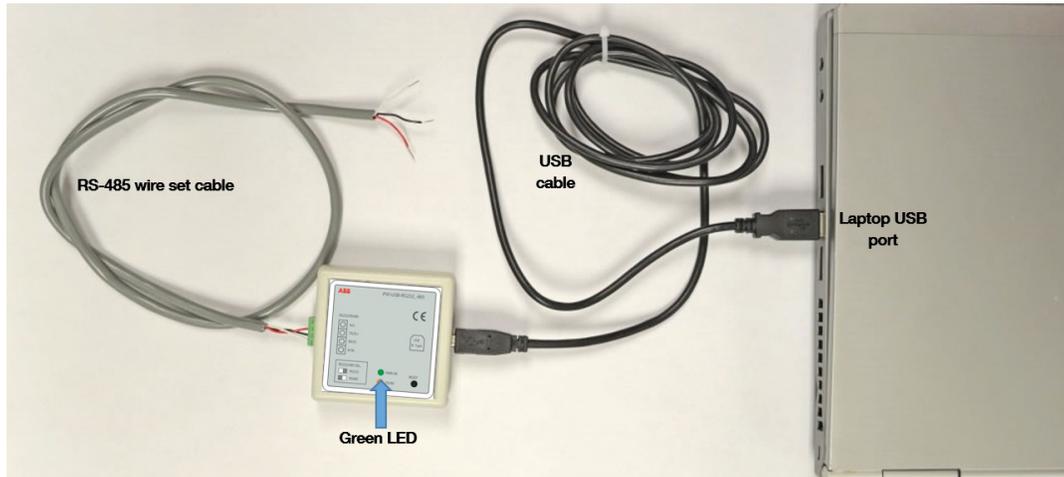
- Locate the ABB PVI-USB-RS232\_485 (or other USB-to-RS-485) adapter.
- For the ABB PVI-USB-RS232\_485, confirm the slide switch on the side of the box is the RS485 position (see arrows below).
- Attach the USB cable and an RS-485 wire set to the sides of the adapter.



RS232/485 switch is located on the side of chassis box. The black slide switch needs to be positioned to the left as shown (or positioned to the top of the device if not on its side).

### Step 15

- Connect the RS-485/USB adapter to the computer USB port using a standard USB cable.
- Power up the computer.
- Note: to avoid repeating the following steps in the future, always plug the USB cable into the same physical port. This will result in the same COM port address being used every time the adapter is connected.
- Confirm the green **PWR OK** LED is illuminated (if using the ABB adapter).

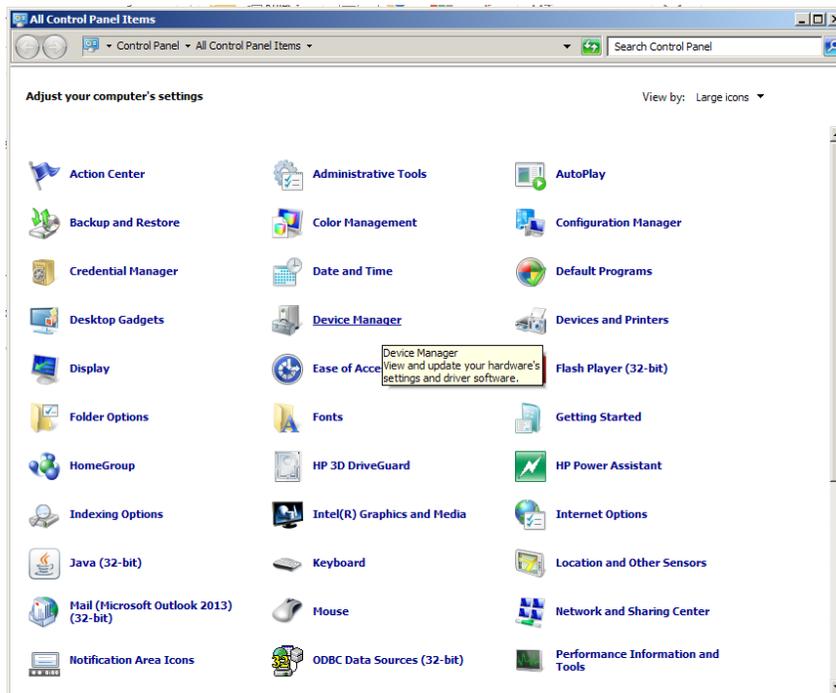


### Step 16

The next steps find and identify the computer COM port associated with the adapter.

**Note:** the actual screens may vary depending on the Windows operating system being used.

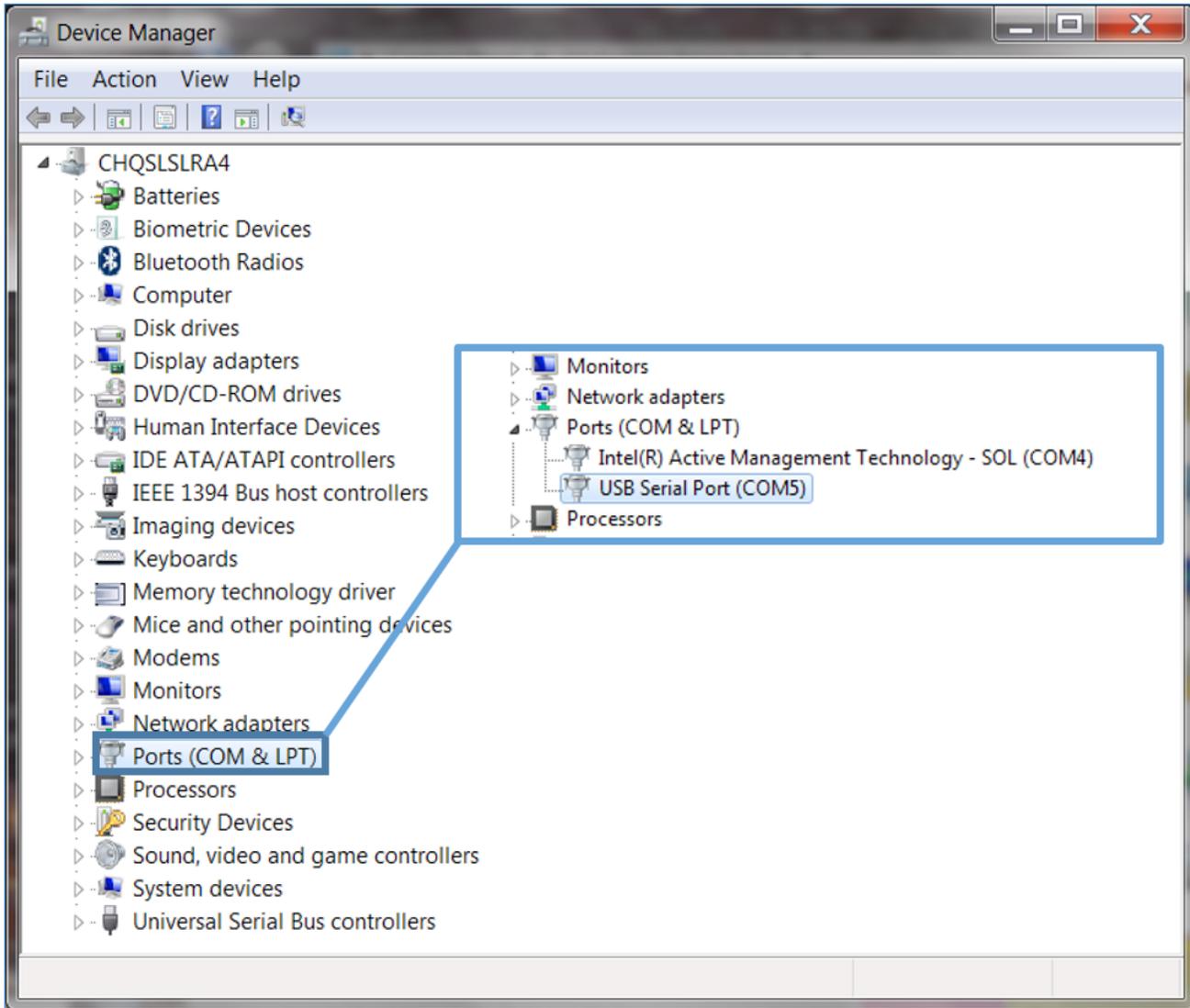
- Click the Windows **Start** button.
- Click **Control Panel**. A screen similar to the one below will appear.
- Click on **Device Manager**.



### Step 17

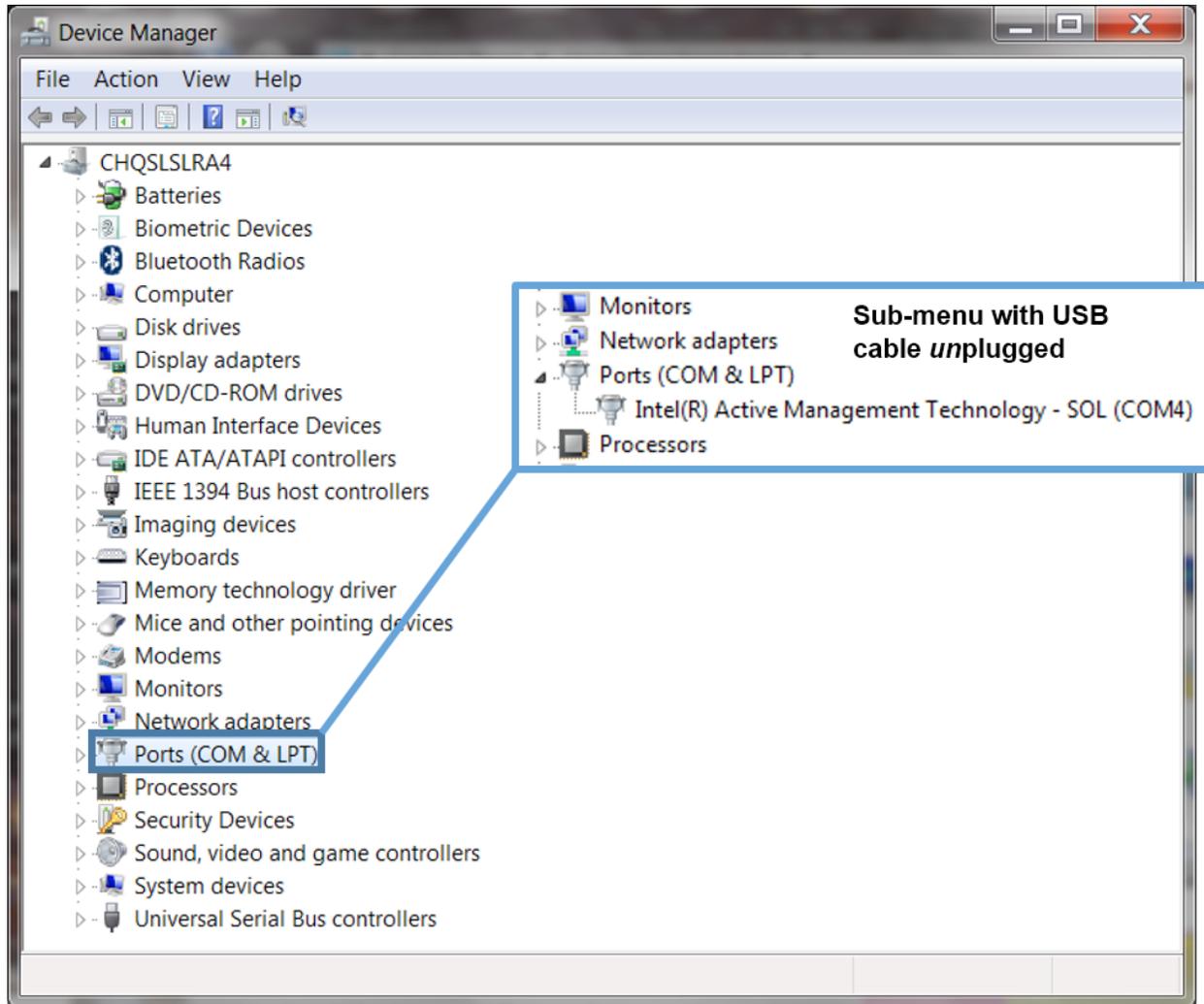
The **Device Manager** opens the screen as shown below.

- Scroll down and double click on the **Ports (COM & LPT)** entry to expand the sub-menu.
- Locate the **USB Serial Port** entry shown in the callout box below.



### Step 18

- To confirm the COM port connected to the adapter, momentarily unplug the USB cable from the laptop. The **USB Serial Port (COMxx)** listing associated with the USB-to-R485 adapter device should disappear (see callout box below).



### Step 19

- Plug the USB cable back into the laptop to confirm that the **COMxx** port listing reappears (as shown in step 17's callout box).

### Step 20

- Note the USB Serial Port COM number. It is critical to know this port number for later use.

### Step 21

- Close down the PC's **Device Manager**.

## Setting up Aurora Manager TL software for reprogramming use

Note that the following instructions can be completed prior to connecting an inverter. This is typically easier to do in the office or lab before visiting a job site.

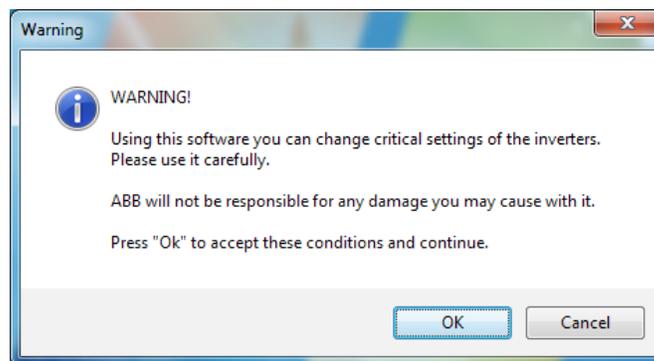
### Step 22

- Double click on the Aurora Manager TL icon on the PC Desktop.



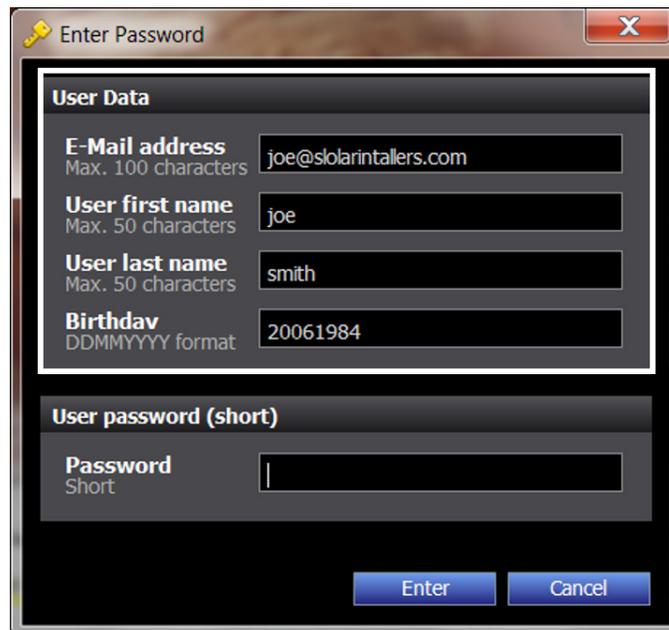
### Step 23

- Click **OK** to acknowledge and accept the conditions on the warning screen.
- This will open the **“Enter Password”** dialog box.



### Step 24

- The password dialog box will now appear.
- Fill in the requested **User Data** in the upper portion of the screen (inside the white box below).



### Step 25

- To obtain the required password to proceed with the software setup, call ABB solar inverter technical support at **1-877-261-1374**, 6 a.m. – 6 p.m. MST, and provide the User Data that was just entered above.
- **Note:** Pay careful attention to the order of the numbers in the date format (**two-digit** day of month – **two-digit** month – **four-digit** year).

### Step 26

- After obtaining the password from ABB solar inverter technical support, insert the password into the **Password** field.
- Click **Enter**.
- The password will need to be entered only once on this PC.

**Enter Password**

**User Data**

**E-Mail address**  
Max. 100 characters  
joe@solarinstallers.com

**User first name**  
Max. 50 characters  
joe

**User last name**  
Max. 50 characters  
smith

**Birthdav**  
DDMMYYYY format  
20061984

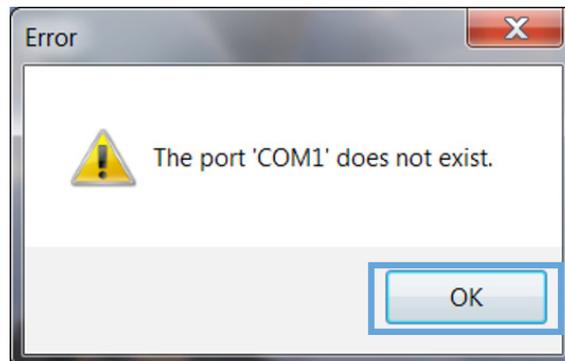
**User password (short)**

**Password**  
Short  
Type password here

Enter Cancel

### Step 27

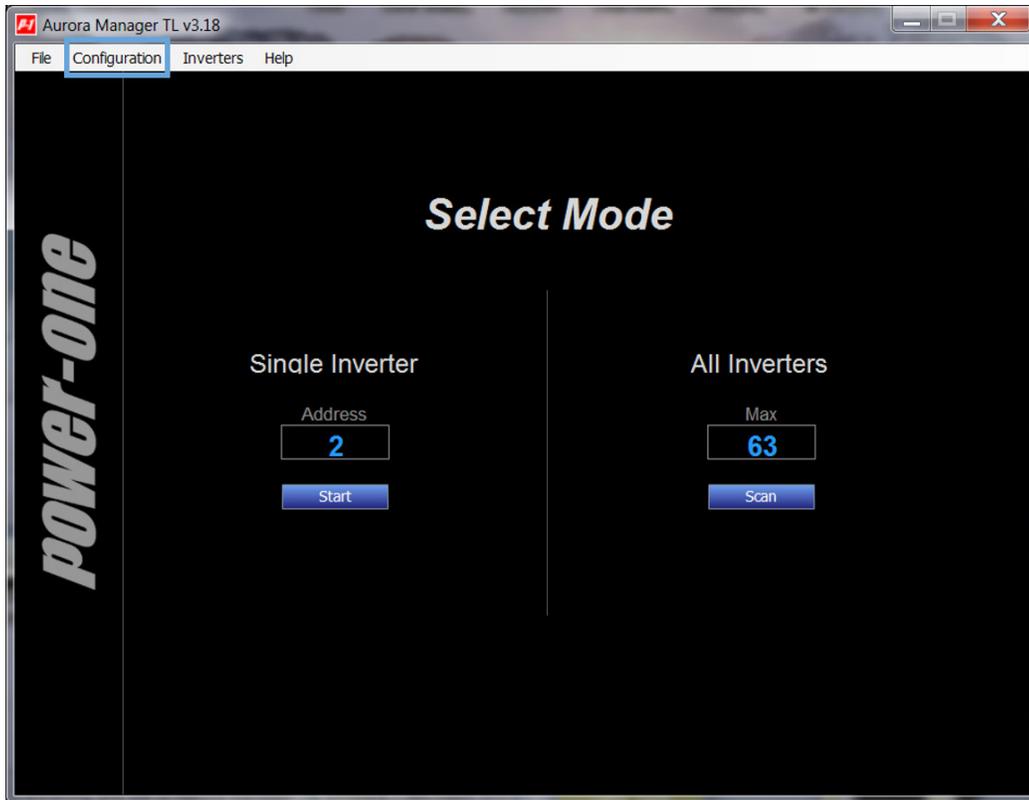
- Click **OK** on the screen to the right that will appear.



### Step 28

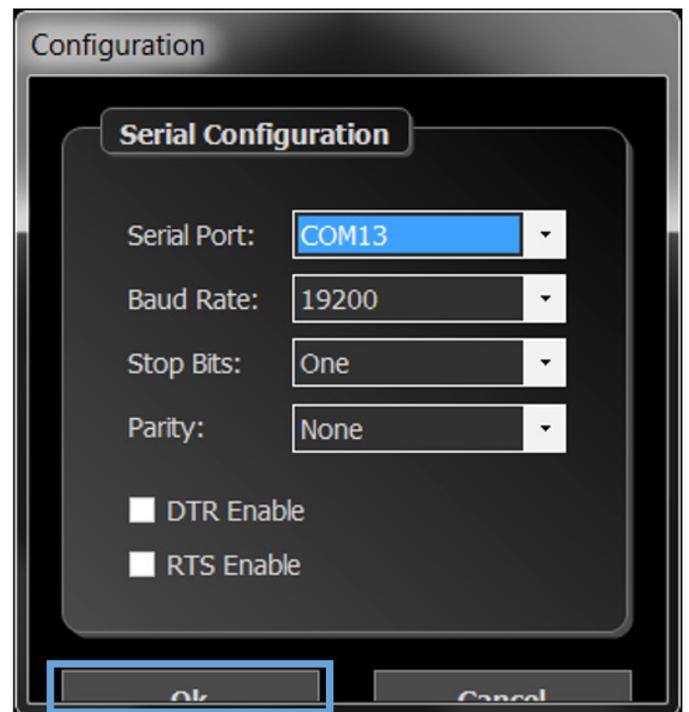
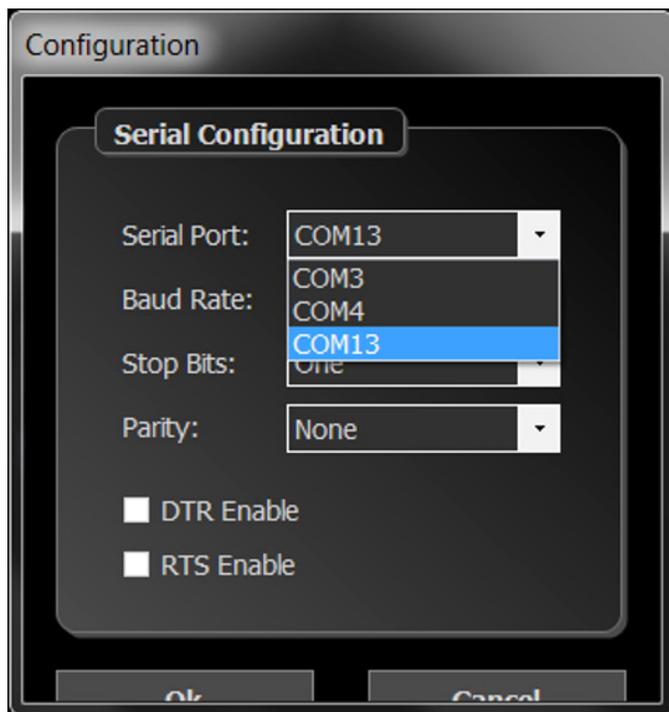
The two steps below confirm that the software sees the USB COM port identified step 20.

- Click on **Configuration** in the tool bar at the top of the next screen.



### Step 29

- Use the drop-down menu to choose the USB serial COM port address that was noted in Step 20 (this example below shows COM13).



### Step 30

- Confirm the Baud Rate = 19200, Stop Bits = One, Parity = None, and that both the DTR Enable and RTS Enable boxes are ***NOT*** checked.
- Click ***OK***.

The ***Select Mode*** screen (shown in step 28) will reappear. This completes the installation and setup of the Aurora Manager TL software.

Note that to actually use the software, a USB/RS-485 adapter must be connected to the inverter(s) and the inverter must have enough input voltage to power its communications circuitry.

For more information please contact:

**[www.abb.com/solarinverters](http://www.abb.com/solarinverters)**

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