

CP2102 USB-to-Serial Bridge Driver Installation



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1. Overview

We use the **Silicon Labs** [<http://www.silabs.com/>] CP2102 USB-to-UART Bridge Controller in several of our products to provide USB connectivity while communicating via a simple serial protocol. It is the key component of our **Pololu USB-to-serial adapter** [<http://www.pololu.com/catalog/product/391>]:



Pololu USB-to-serial adapter with CP2102

and is also used in our **Orangutan USB Programmer** [<http://www.pololu.com/catalog/product/740>], **USB 16-Servo Controller** [<http://www.pololu.com/catalog/product/390>], and **Orangutan X2** [<http://www.pololu.com/catalog/product/738>]. These CP2102-based products feature a mini-B connector, so you will need a **USB A to mini-B cable** [<http://www.pololu.com/catalog/product/130>] to connect them to one of your computer's USB ports. Once the appropriate drivers are installed for your system, the CP2102 will look like a standard serial port. This document provides you with the necessary drivers along with installation instructions.

Other Pololu products that use the CP2102 [<http://www.pololu.com/catalog/category/36>]

2. Windows Drivers and Installation Instructions

Before you connect your Pololu CP2102 device to a computer running Microsoft Windows, you should install its drivers:

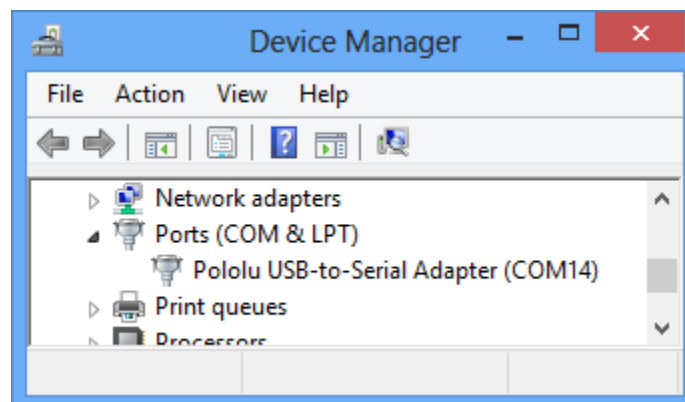
1. Download the **CP2102 drivers for Windows** [http://www.pololu.com/file/download/pololu-cp2102-windows-121204.zip?file_id=0J14] (4MB zip).
2. **IMPORTANT:** You must extract the zip archive into a temporary directory. DO NOT attempt to double-click or run any of the files until you have extracted them.
3. Open the temporary directory and run the appropriate executable. If you have a 64-bit operating system, you should run *pololu-cp2102-setup-x64.exe*. If you have a 32-bit operating system, you should run *pololu-cp2102-setup-x86.exe*.
4. During the installation, Windows will ask you if you want to install the drivers. Click “Install” (Windows 8, 7, and Vista) or “Continue Anyway” (Windows XP).
5. The installer should complete successfully.

Windows 8, Windows 7, and Windows Vista users: Your computer should now automatically install the necessary drivers when you connect a Pololu CP2102 device. No further action from you is required.

Windows XP users: You need to follow steps 6–10 for each new device you connect to your computer.

6. Connect the device to your computer’s USB port. Your computer will detect the new hardware and open the Found New Hardware Wizard.
7. When the Found New Hardware Wizard is displayed, select “No, not this time” and click “Next”.
8. On the second screen of the Found New Hardware Wizard, select “Install the software automatically” and click “Next”.
9. Windows XP will warn you again that the driver has not been tested by Microsoft and recommend that you stop the installation. Click “Continue Anyway”.
10. When you have finished the Found New Hardware Wizard, click “Finish”.

If you now go to your computer’s Device Manager and expand the “Ports (COM & LPT)” list, you should see “Pololu USB-to-Serial Adapter” as one of the COM ports.



Windows 8 device manager showing a Pololu CP2102 device.

Some software will not allow connection to higher COM port numbers. If you need to change the COM port number assigned to your USB adapter, you can do so using the Windows device manager. Bring up the properties

dialog for the “Pololu USB-to-Serial Adapter” COM port and click the “Advanced...” button in the “Port Settings” tab. From this dialog you can change the COM port assigned to your device.

3. Mac OS X Drivers

We cannot provide technical support for the Macintosh Operating System, but we have Macintosh drivers for the CP2102 USB-to-UART Bridge Controller that we have tested on Mac OS X 10.7. The drivers should work on Mac OS 10.5 through 10.7. You can download these drivers here: **48014_SiLabsUSBDriverDisk.zip** [http://www.pololu.com/file/download/48014_SiLabsUSBDriverDisk.zip?file_id=0J547] (1MB zip).

Additionally, we have older drivers that other customers have used successfully on both PowerPC- and Intel-based Macs running OS X version 10.3.9 or later, but these probably will not work on version 10.7 or later. You can download these drivers here: **OSX_cp2102_drivers.dmg** [http://www.pololu.com/file/download/OSX-cp2102-drivers.dmg?file_id=0J16] (723k dmg)



Mac OS X compatibility: We have confirmed that our CP2102-based devices work on Mac OS X 10.7 and other customers have used them successfully on older versions. We can assist with advanced technical issues, but most of our tech support staff does not use Macs, so basic support for Mac OS X is limited.

4. Linux Installation

Recent versions of the linux kernel include support for the CP2102 USB-to-UART Bridge Controller as part of the usb-serial driver, so your Pololu CP2102 should work right out of the box. We have verified that the CP2102 works with Ubuntu versions 7.04 and 8.04. If you experience any problems, we recommend you upgrade to the most recent version of your distribution.