How To Install Drivers for WCH CH9102F USB to Serial Chips

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Overview

Certain boards, like the [ESP32 Feather V2](https://www.adafruit.com/product/3459), have a USB to serial converter chip that communicates between the processor and your computer. These chips require drivers to be installed on your computer's operating system.

This guide will show you how to install the drivers for the WCH USB to serial chips - also known as CH9102F or CH9102. These chips are replacing the SiLabs chips, like the [CP2104](https://www.adi.com/product/CP2104) and [CP2102N](https://www.adi.com/product/CP2102N), that have been used on Adafruit boards in the past. There are drivers for Windows and Mac computers available. If you're on Linux, the drivers are built-in.

Windows Driver Installation

Begin by downloading the zip folder for Windows either from the WCH website or directly below.

- [CH343SER.ZIP](https://www.wch.com/products/ch343ser.zip)
- [WCH website](https://www.wch.com/products/ch343ser.zip)
Right-click on the downloaded zipped folder and click Extract All...

Select a file destination for the unzipped folder and click Extract.

Navigate to your unzipped folder. Double click on SETUP.EXE to launch the installation program.
A dialog box titled DriverSetup(X64) will open. Click INSTALL to begin the installation of the driver.

Once the installation is complete, a pop-up window will appear letting you know that the installation was successful. Click OK to close the window.

If you click HELP in the DriverSetup(X64) dialog window, you will get more details on the driver installation process.

Once you plug in your device over USB, the driver will complete its installation. That's all there is to installing the WCH USB to serial driver on Windows!
Mac Driver Installation

Begin by downloading the zip folder for Mac either from the WCH website or directly below.

After unzipping the folder, double click on the CH34xVCPDriver.pkg file.

This will launch the Installer dialog window. Click Continue.
Click Install to begin the installation.

A security notification may open after the installation begins. Use Touch ID or enter your password to allow the installation to continue.

You'll see a progress bar. Once the installation has completed you'll see a message in the dialog box that the installation was successful. Click Close to exit the box.
Additional Step for OS X 11.0 and Above

This driver application may open automatically following the successful install above.

If it does not, open LaunchPad, find CH34xVCPDriver Application, and open the App.

Click Install to install the driver.

A security warning may open. If so, click on Open Security Preferences.

In Security and Privacy, click on the lock icon in the lower-left corner to make changes.
Click Allow to allow the installation to continue.

Once the installation finishes, you'll see a dialog box open that says "success". Click OK.

Finally, quit the application. That’s all there is to installing the WCH USB to serial driver for Mac OS X 11.0 and above!

Final Steps for Installing on OS X 10.9 to 10.15

If you are running the older supported version of Mac OS X 10.9 to 10.15, then you will need to restart your computer and follow the steps detailed on pages 3 and 4 in the PDF included in the zip folder.