

Updating firmware on the p²chanter (MS Windows)

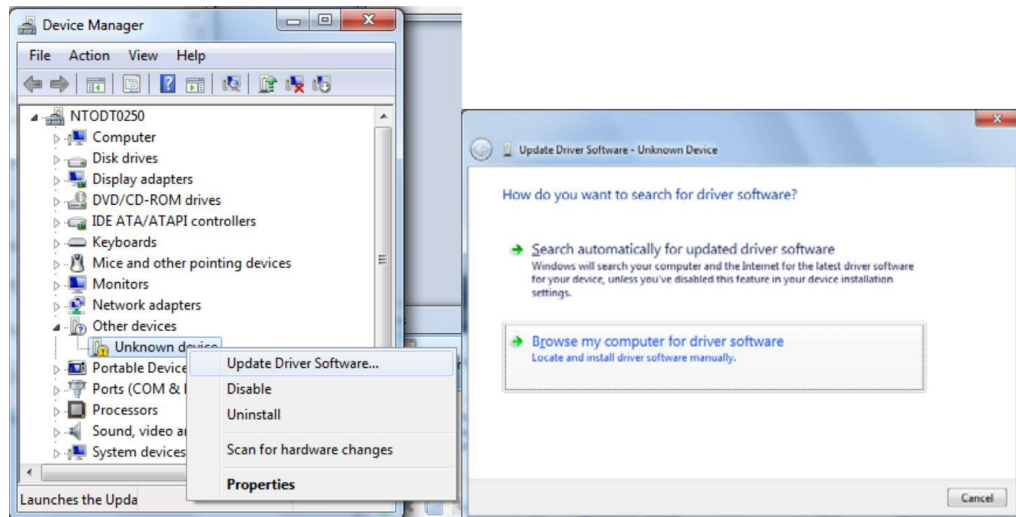
(Attention: Always use fresh batteries when updating p²chanter firmware!)

1. Download current firmware file from <http://www.p2chanter.com> and save it on your computer.
2. Download and execute the Flexible In-system Programmer “FLIP”:
<http://www.microchip.com/developmenttools/ProductDetails.aspx?PartNO=FLIP>
3. Install FLIP following the on-screen information.
4. Start the p²chanter in firmware update mode:
 - a. Remove batteries
 - b. Re-insert batteries while holding down the [Vol -]-Button on the p²chanter (Mode LED lights up red, Power LED stays off)
5. Connect a Micro-USB cable to the USB jack of the p²chanter and a USB jack on your computer.
6. Windows will try to find the drivers automatically and eventually fail to install proper drivers, so you have to follow the procedure below to install the correct drivers:

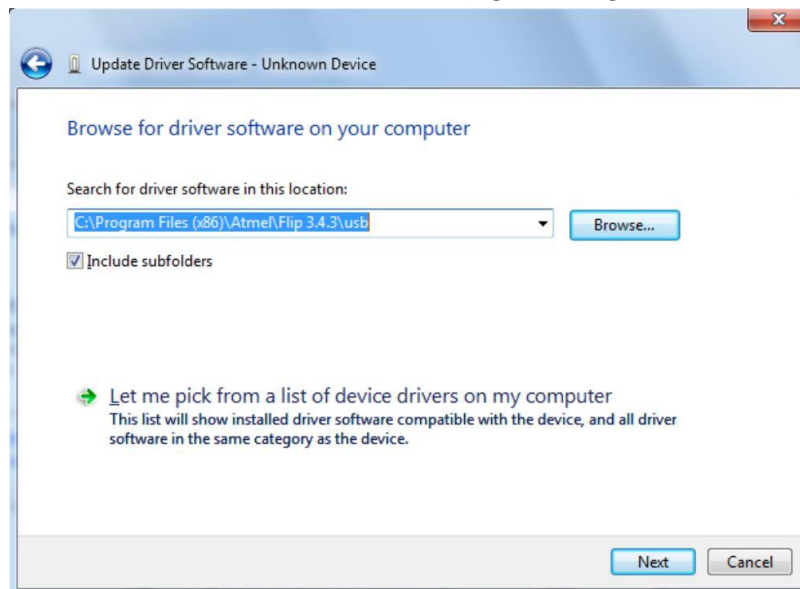
- a. Open the device manager located under “Control Panel” -> “System & Security” -> “System”



- b. Locate the new “Unknown device”, right-click it and select “Update Driver Software”



- c. Select “Browse my computer for driver software”
- d. Browse to the FLIP installation folder (e.g. “C:\Program Files\Atmel\Flip 3.4.7\usb”)



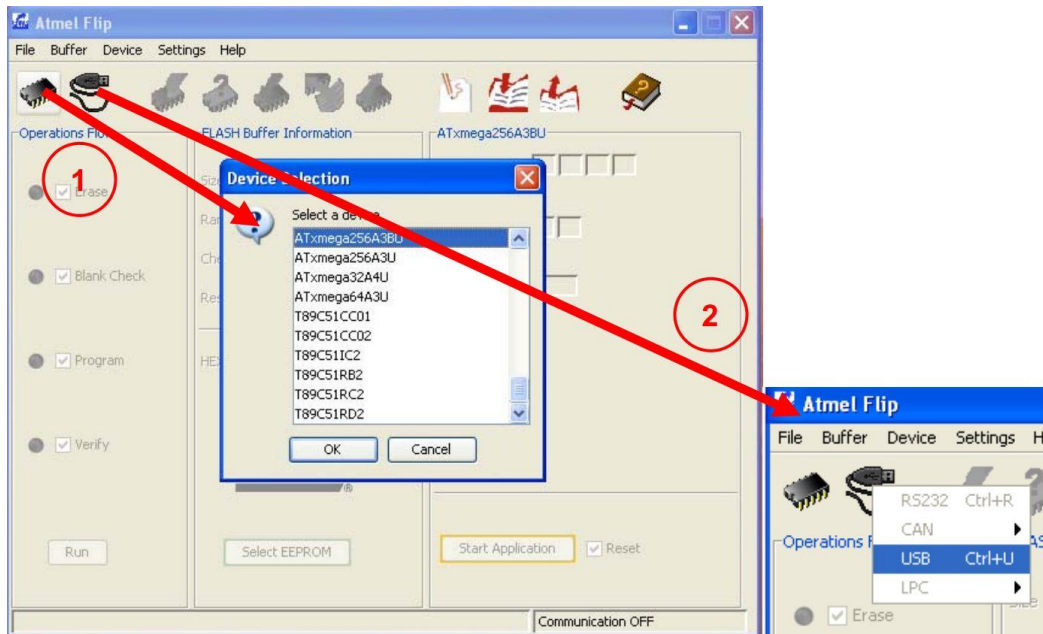
- e. On the 64-bit operating system, the following or a similar warning may appear:



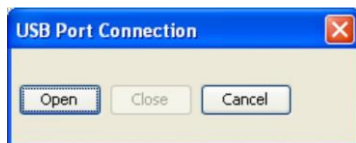
-> Choose “Install this driver software anyway”

Note: Steps 1-3 and 6 are only required when you connect the p²chanter to a new computer for the first time. On subsequent firmware updates, Windows will find and install the driver itself.

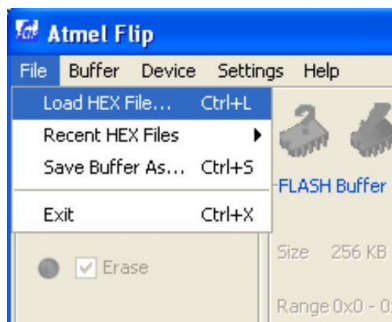
- Start FLIP by double-clicking its icon on the desktop or selecting it from the Start menu.
- Click “Select a Target Device” and select “ATxmega128A4U” from the list (1). Then press the USB plug icon and select “USB” (2).



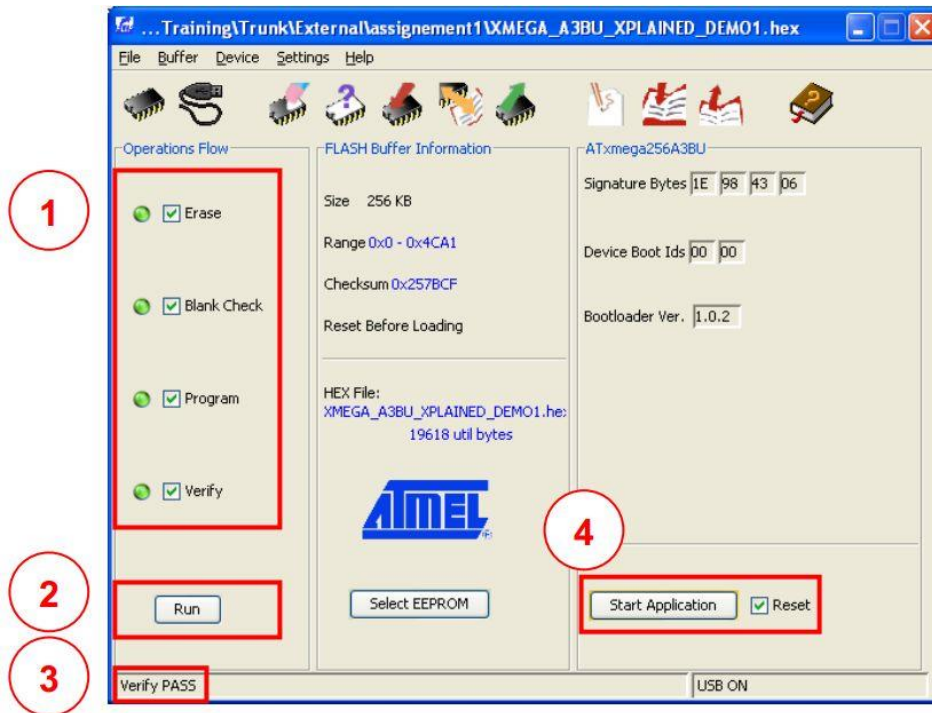
- Initiate the USB connection by clicking “Open”.



- Select the Firmware-File (*.hex) you downloaded in step 1 by selecting “File” -> “Load Hex File...”



11. Make sure the boxes for “Erase”, “Blank Check”, “Program”, and “Verify” are checked (1), then press the “Run” button (2).



After the flashing process you should get confirmation (3).

12. Press “Start Application” to execute the new firmware on the p²chanter. The instrument will play a short series of beeps and indicate the installed firmware by blinking the Mode-LED red and yellow (e.g. 3x red followed by 7x yellow means firmware version 3.7)

13. Turn off the p²chanter and disconnect the USB cable.