## **Updating the FUNcube Dongle+ Firmware**

## Introduction

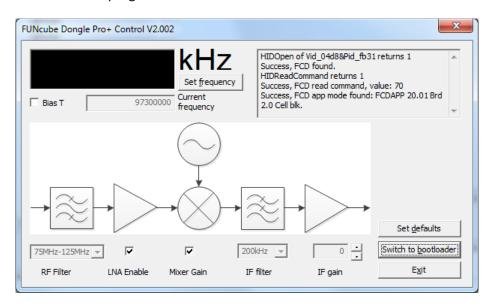
The FUNcube Dongle+ (FCD+) firmware may be updated by the end user under Windows. This is accomplished by first switching the FCD+ into Bootloader Mode using the familiar FCHID2 application. Once in Bootloader Mode, the firmware may be updated with a special Bootloader application on the host computer.

## Firmware update steps

Firstly, it is important to remove all other FUNcube Dongles (both the original FCD and FCD+) from your host computer, and to quit any applications that might try to access the FCD/FCD+.

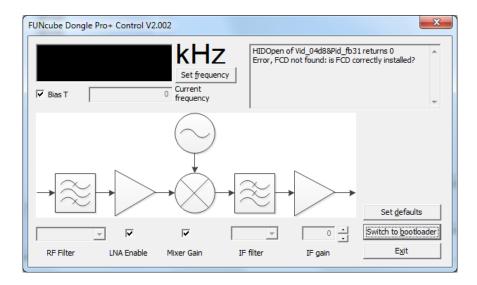
Insert the FCD+ that you're updating.

Start the FCDHID2.002.exe program.

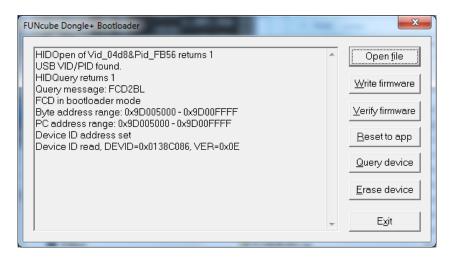


Press the "Switch to bootloader" button. If this is the first time you've used the FCD+ in bootloader mode on the host computer (or it's in a new USB port), it may take a minute or so to configure the operating system to recognise the bootloader mode.

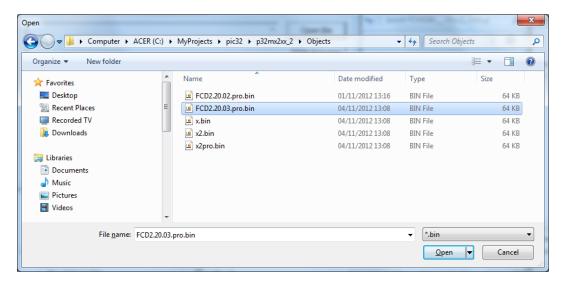
You will see that the FCHID2.002.exe program says "is the FCD correctly installed?". This is simply indicating that the FCD+ is not recognised by the FCHID2 program as it's now in bootloader mode.



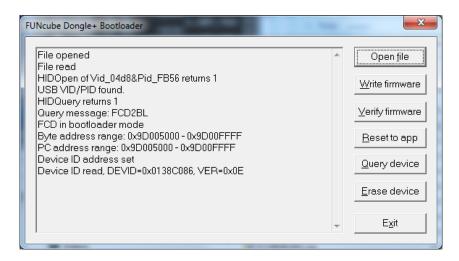
Now start the FCHIDBL2.001.exe program.



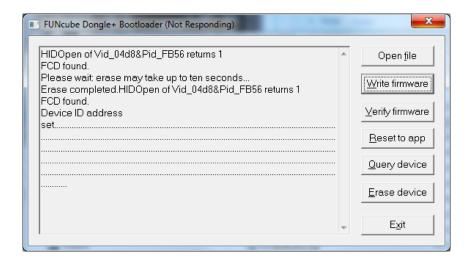
Press the Open file button



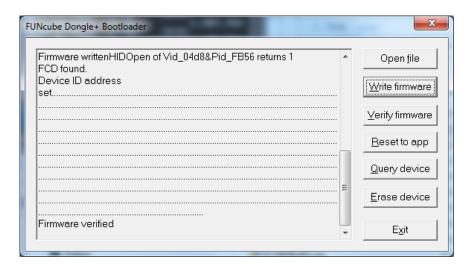
Select the appropriate firmware binary image file and press "Open".



Now press the "Write firmware" button. If you're running the Aero interface, it's possible you'll see the Bootlader application "Not Responding": this warning should disappear after 20 seconds or so.

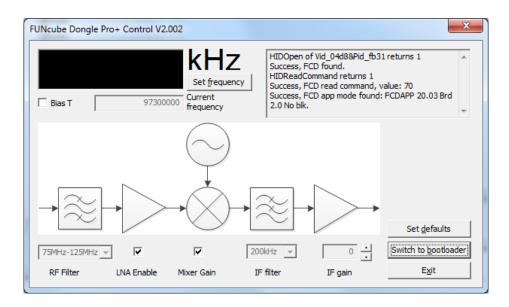


Once completed, after 20 to 25 seconds, the Bootloader program should show "Firmware verified".



Exit the Booloader program, then remove the FCD+ for a few seconds and then re-insert it.

The FCHID2 program should now show the updated firmware version in the text box.



## Finally...

You are welcome to switch back to other firmware versions, however make sure that the correct firmware edition is used: for example, firmware for the original FCD will not work on the FCD+. If there is a problem with the update process, as with the original FCD, the FCD+ fails over to the bootloader mode for safety to avoid "bricking" the FCD+.