

Installing new Firmware

The bootloader is a small separate program which resides on the more modern 2B's (Firmware V2.104 and above) which allows you to update the main Firmware program quickly and easily.

Uplink2 is designed to operate with 2B's with the bootloader installed, and will not work correctly until a bootloader is installed. If you do not have a bootloader installed then you need to install it FIRST. For more details on how to install the bootloader see the Installing the bootloader documentation.

Requirements

This document assumes you have

1. a 2B with a working bootloader
2. Install and tested the drivers
3. Installed and tested Uplink2

More details can be found at

<http://www.e-stim.co.uk/uplink>

Firmware Installation Procedure

1. Check you have enough battery power to operate the 2B during the update process. Before starting ensure you are working with a fresh battery, or have connected your 2B to the mains via the PSU.
2. Visit our webpage and download the latest version of the **firmware**. You will find this at <http://www.e-stim.co.uk/uplink>
3. Save this file onto your computer.
4. Ensure the digital link cable is disconnected from your 2B
5. Press and hold the select button on the 2B, and then switch the 2B on. Once the screen has lit up, release the select button.
6. You should see the bootloader screen below



B

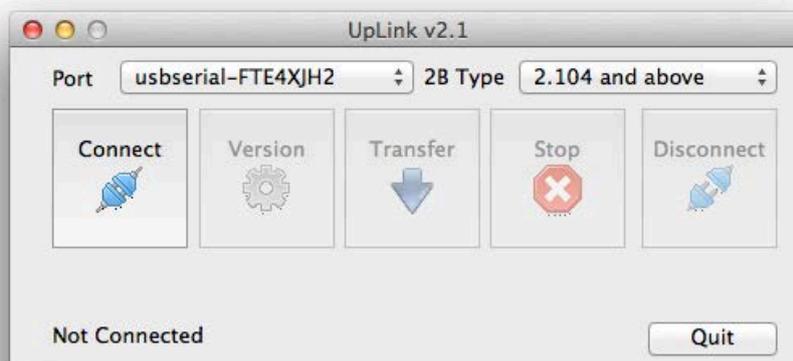
7. If you see anything else then stop, you have either not followed the instructions correctly, or you have a 2B without a bootloader and you will need to install one.



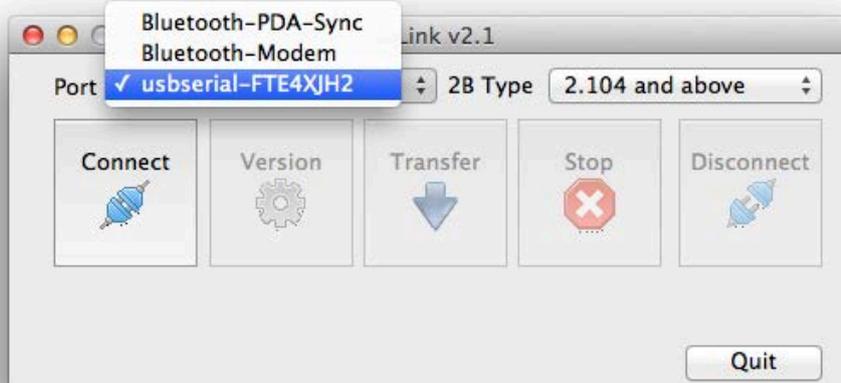
Your 2B will stay in this mode until data transfer is complete, when it should reset or you power cycle the 2B manually. If you power cycle the 2B during a transfer or interrupt it in some way (by removing the link cable) then you will probably corrupt the firmware being loaded. If this occurs you need to turn the 2B off, and re-install the firmware.

8. Plug in the digital link cable into the centre socket on the 2B, and a spare USB socket on your computer. If you have installed the drivers correctly your computer should recognise the digital link cable.

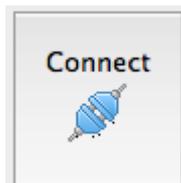
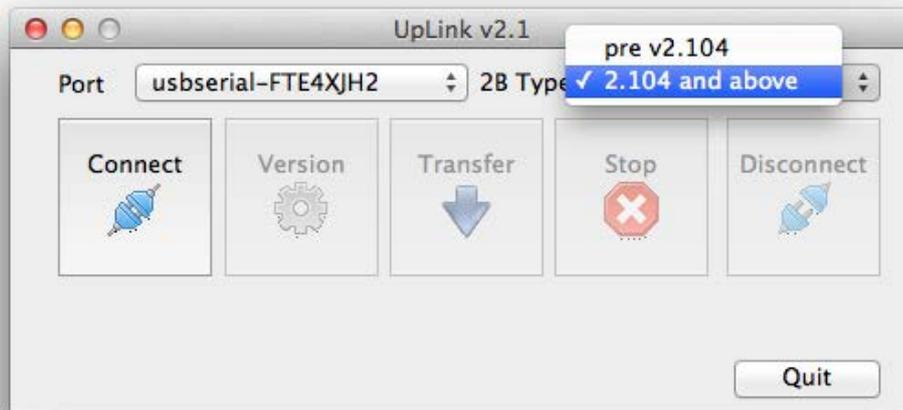
9. Run the UpLink2 program.

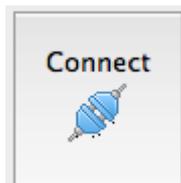


10. On the UpLink program console select the port the digital link cable is connected to.



11. Select the 2B Type. As you have a bootloader installed, select '2.104 and above'



12. Press the  button.

This will open the USB Port.



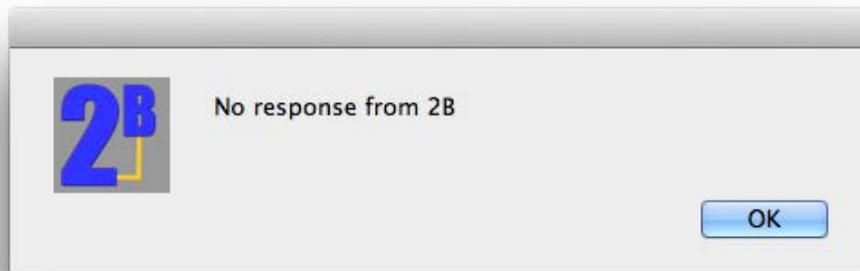
13. Press the  button

14. You should now see the update program looking for and detecting the 2B. You should get one of several responses.



This is what you should get. The currently installed firmware may differ, and may even display as unknown depending on the state of your 2B. Click ok to exit.

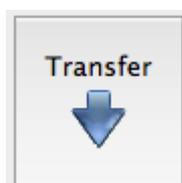
If you get the following response then check your connections, and try again. It may take several attempts to gain a response with the version button.



Possible reasons for no response

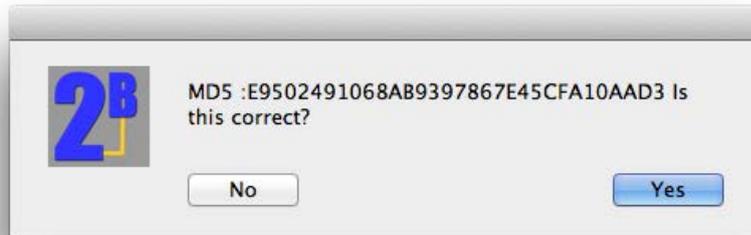
- Cables not correctly connected
- Incorrect COM port selected
- Cable drivers incorrectly installed
- Incorrect 2B Type Selected
- No Bootloader installed
- 2B switched off
- Low Battery

Transfer Firmware File



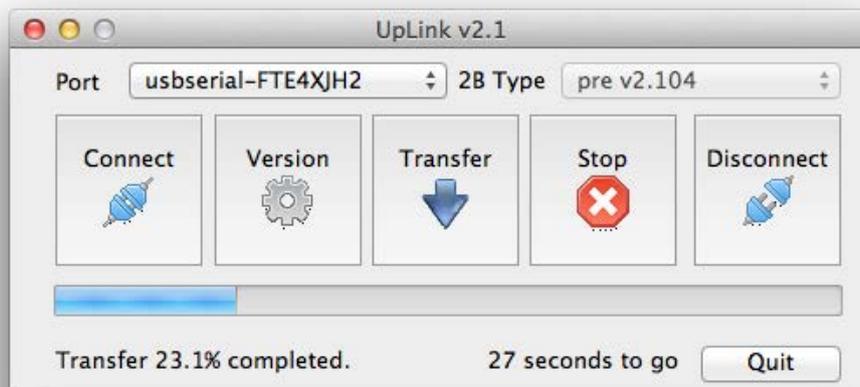
Press the  button, and by using the standard computer file dialogue screen, select the bootloader file you previously downloaded. It should be called something like 2104R.2bfx. Do not attempt to edit this file as it is encrypted and any edits will cause corruption and possibly damage your 2B.

The file will be loaded and checked. You will get a dialog such as that below

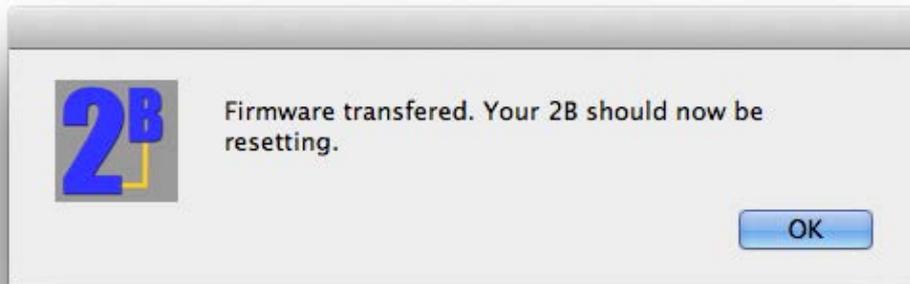


The MD5 Digest is a unique code to every file that indicates that the file is correct and hasn't been tampered with. We publish the MD5 Digest code on our website together with the bootloader file. Select **Yes** if the MD5 Digest matches the code on the website.

The firmware should now start to download. The UpLink screen will display the progress of the download as well as giving you an estimation of the time left to complete the download. Do **NOT** disconnect or turn off your 2B while updating the firmware, as this will corrupt the download and you will have to start again.



Transferring the Firmware should take approximately 6 minutes. Once the download has completed you should see the following on your computer, and your 2B should be resetting.



Because you have downloaded a new firmware the settings memory of your 2B may be corrupted so you should perform a factory reset before proceeding.

1. Switch your 2B off
2. Disconnect the digital link cable from the 2B.
3. Switch your 2B on. You should see the new firmware start.
4. Using the Select and Adjust knobs Select the factory Reset option on your 2B. This will reset the settings memory to the default settings.
5. Play!!!

Problems? Confused?

In the event of problems, you can try our support forum at <http://www.e-stim.net> or email us directly at info@e-stim.co.uk. We generally ask for a copy of the debug log and any further details as to what process you followed.