

Brain/iKon (1&2) Recovery procedure from a failed firmware update

A Firmware update fail is a very, very rare event but can happen (for example if the Brain/iKon power goes down during the update, if the internet connection drop during the update, if the PC crash or reset during the update, if USB cable disconnect from PC or Brain/iKon, if USB cable is defective and have false contacts on connectors, etc.).

But don't worry, if you want, and have ~5 minutes, can for sure recover yourself without any need to wait days for a unit replacement.

First verify that your Software is the last release (the download and update of the software take around 25 second but is proportionally related to the size of the Software. New versions usually are bigger).

When your failed unit is powered, it can be in two different state:

A) The red Led is fixed on, this mean that the unit is in Boot Loader mode:

Simply connect the unit with the USB cable to the PC;

With Brain2/iKon2 don't give power on the servo rail with the BEC/LIPO, USB power the unit;

With Brain1/iKon1, disconnect all servos from the unit and power the unit from the Servo Rail;

Connect the Unit to the PC by the USB cable. Follow the below points from n°8 to the n°14 (launch the software, follow the messages and update your unit);

B) Any led light up, in this case you can follow the following procedure:

For Brain1/iKon1:

- 1) Without power, on the 4 poles SYS connector, short the two central pins together (keep attention to don't make any short with the lateral pins 1 & 4 because they are the ground and power). You can use a very little insulated screwdriver (with attention to avoid connector pins damages/flexions), or modify for this purpose one of the cables with 4 poles connector normally used for external Bluetooth module or external Remote USB and shorting the two central green and yellow wires (better keep wires shorter than too long);
- 2) Disconnect all servos, ESC and receiver connected to the unit;
- 3) Power the unit from servo rail keeping active the short circuit;
- 4) The Unit power on and the red led light up and stay fixed on (any blink) that mean that your unit is now in Boot Loader mode (BL);
- 5) Now you can remove the short between the pins of the connector;
- 6) Connect the USB cable between the PC USB and the Unit micro USB, and go to the step 8 below;

For Brain2/iKon2 without integrated Bluetooth:

- 1) Without power, on the 4 poles SYS connector, short the two central pins together (keep attention to don't make any short with the lateral pins 1 & 4 because they are the ground and power). You can use a very little insulated screwdriver (with attention to avoid connector pins damages/flexions), or modify for this purpose one of the cables with 4 poles connector normally used for external Bluetooth module or external Remote USB and shorting the two central green and yellow wires (better keep wires shorter than too long);
- 2) Keeping active the short circuit, power the Brain/iKon **ONLY** by USB cable connecting to the PC USB and the Unit micro USB;
- 3) The Unit power on and the red led light up and stay fixed on (any blink) that mean that your unit is now in Boot Loader mode (BL);
- 4) Now you can remove the short between the pins of the connector, and go to the step 8 below;

For Brain2/iKon2 with integrated Bluetooth:

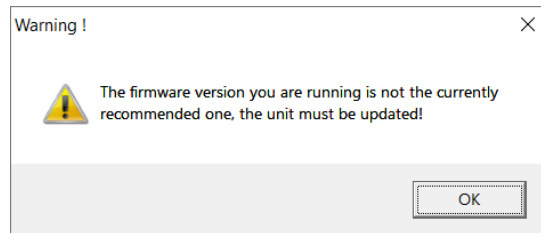
- 1) Without power, on the CH4-5-6 connector, short the CH5 & CH6 pins together (keep attention to don't make any short with the inferior CH4 pin). You can use a very little insulated screwdriver (with attention to avoid connector pins damages/flexions), or modify for this purpose a standard cable/extension with a 3 poles connector like that supplied with Brain/iKon and normally used for receivers / servos connections, shorting the red and white/yellow wires (better keep wires shorter than too long);
- 2) Keeping active the short circuit, power the Brain/iKon **ONLY** by USB cable connecting to the PC USB and the Unit micro USB;
- 3) The Unit power on and the red led light up and stay fixed on (any blink) that mean that your unit is now in Boot Loader mode (BL);
- 4) Now you can remove the short between the pins of the connector, and go to the step 8 below;

For micro Brain1/iKon1, & micro Brain2/iKon2 & mini Brain2/iKon2:

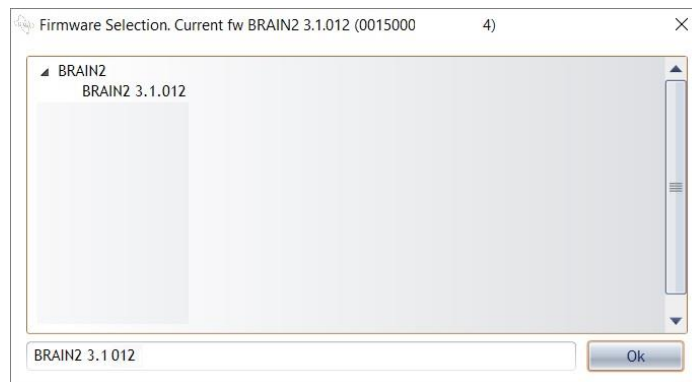
- 1) Without power, on the 4 poles SYS connector, short the two central pins together (keep attention to don't make any short with the lateral pins 1 & 4 because they are the ground and power). You can use a very little insulated screwdriver (with attention to avoid connector pins damages/flexions), or modify for this purpose one of the cables with 4 poles connector normally used for external Bluetooth module or external Remote USB and shorting the two central green and yellow wires (better keep wires shorter than too long);
- 2) Disconnect all servos, ESC and receiver connected to the unit;
- 3) Power the unit from servo rail keeping active the short circuit;
- 4) The Unit power on and the red led light up and stay fixed on (any blink) that mean that your unit is now in Boot Loader mode (BL);
- 5) Now you can remove the short between the pins of the connector;
- 6) Now you can connect the Remote USB to the unit;
- 7) Connect the USB cable between the PC USB and the unit micro USB, and go to the step 8 below;

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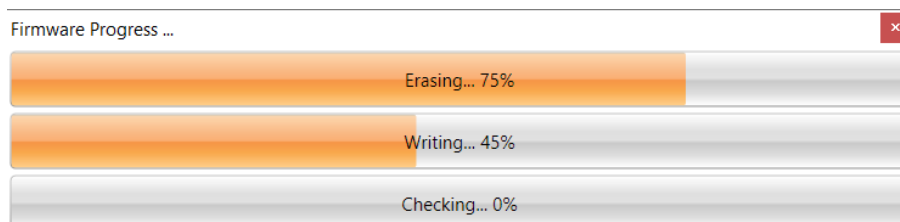
- 8) Internet connection on your PC must be active. Verify with your browser that the internet connection is working. Can be blocked by the antivirus and/or firewall of your computer or your router that block the update process. Try to disable either for 5 minutes during the update process;
- 9) Launch the Windows Brain/iKon configuration software. Software recognize that the running software is not a regular software (indeed it is the Boot Loader firmware) and inform you that the firmware in the unit must be updated:



- 10) Click on OK button and a new window appear showing you the firmware selector for update:



- 11) On the top of the windows instead of the usual regular firmware version you can see the Boot Loader (BL) firmware version. If it is not the last version "BRAIN2 BL 1.7" keep note of the number between brackets that is the unique serial number of your unit, for a possible future use;
- 12) If the firmware version to load in the unit appear in the below window, Click OK, otherwise click before on the firmware displayed inside the window to make appear the firmware number in the below window.
- 13) Now the Firmware Progress bars appear:



- 14) When after around 23 seconds (depend from the size of the firmware) the update is over (Erasing & Writing) and Checking bar start to increase, the unit restart and the Green and red led start to alternate blinking. If the Boot Loader is not the last 1.7 version, there is an added little delay (~1 second) needed for the Boot Loader update before the led's turn on;
- 15) Only for Brain2/iKon2: if the Boot Loader is not the last 1.7 **AND** led's don't start to blink, don't worry. You simply must send us the serial number of your unit that you have read at the step 11). With the serial number we can temporarily set your unit able to load beta firmware (like done by all our beta testers). Once your Unit is Beta enabled, you can redo the full procedure starting from point 1) but at point 12) before click on "OK", you must select the special firmware version number 3.0.032 that is able to unblock some critical situations updating the Boot Loader to version 1.7. After the update to 3.0.032 and the unit initialization completion, you can close and reopen the software, so the unit is usually and normally updated to the last official firmware version automatically proposed from the update server (Don't fly with 3.0.032 firmware!! Is a Fake firmware). After this process, once the Boot Loader 1.7 is loaded in your unit you can't have more this Boot Loader problem.