

Dear customer,

We are delighted that you have purchased the **latest** version of the **PowerBox Sensor** battery backer from our range.

You are now the owner of one of our high-performance battery backers for your valuable model aircraft; a unit which couples two batteries of your choice - NC, NiMH or LiPo – and constantly monitors the voltage curve of both packs.

You may well find that your batteries accept slightly different capacities after several flights and several recharges. This actually represents proof that your **PowerBox Sensor** really is equipped with two independent systems. We are aware that exactly identical capacities are always charged into the batteries when other systems are used. This is curious, and we suggest that you ask yourself if that could really happen if two independent safety systems were really present. In fact, we know that our competitors' systems feature no duplicated parts apart from the two batteries, as mentioned above. All these units do is discharge both batteries simply and cheaply through a single regulator, with the result that your complete RC system is solely dependent on this one regulator. Please bear in mind that the electronic components of regulators are not immune to failure, and that no serious electronics designer could claim that the components he uses could never fail and therefore do not need to be duplicated.

We do not consider circuits of this type to be redundant systems in the true sense of the term.

The 2007 version of the **PowerBox Sensor** has now been equipped with two independent voltage monitors: the two multi-colour LEDs (right and left LED) in the case of the **PowerBox Sensor** are assigned to the actual voltage of the batteries. The multi-colour LEDs indicate the voltage of both packs in **four stages: green, orange, red and flashing red.**

The unit also includes a **low voltage memory** for both batteries, designed to help you monitor your power sources even more accurately. This **low voltage memory** records all voltage collapses of both batteries during a single flight.

After each flight, and **before** you switch the system off, you can call up this low voltage memory by pressing both sensor buttons "I" and "II" **simultaneously.**

Both memories are reset when you switch off the power supply. The recording process starts afresh next time you switch the system on.

The power circuits can be switched on and off using the two push-buttons. This method of switching also allows you to **check** each power circuit or battery **individually:** switch one power circuit on, "stir the sticks" on your transmitter, and check that everything is working properly. Now switch this power circuit off again and switch the second on. Repeat the check; if everything is in order, switch the first power circuit on again, and you have genuine double safety.

This method of switching provides you with the highest standard of safety

Setting the battery type:

The **PowerBox Sensor** is switchable, i.e. you can switch the unit to work with five-cell **NC** or two-cell **LiPo** packs.

The default setting is for LiPo batteries. If you wish to change the setting to five NC cells, please use this procedure:

Connect both five-cell NC packs: both LEDs will now flash red, as the voltage monitor is at its default LiPo setting.

The program can now be switched in common for both monitor circuits in order to change the voltage monitor setting. The "SET" button is used for this.

Simply hold the "SET" sensor button pressed in until the correct setting appears on the central red LED. **Please note the following:**

- Red LED **flashes once: LiPo**
- Red LED **flashes twice: five-cell NC battery**

Now we come to **setting the voltage monitor circuits:**

- Hold the "SET" button pressed in.
- After about one second, the LED changes colour to orange
- After a further three seconds the LED changes colour to red
- After a further five seconds the LED goes out briefly. **Now watch carefully !**

- If you release the button when the LED flashes red once, the voltage monitor circuits are set to LiPo.
- If you continue to hold the button pressed in, the LED flashes red twice: release the button now, and the voltage monitor circuits are set to five-cell NC or NiMH batteries.
- That's all there is to it.