

# LightBox SR

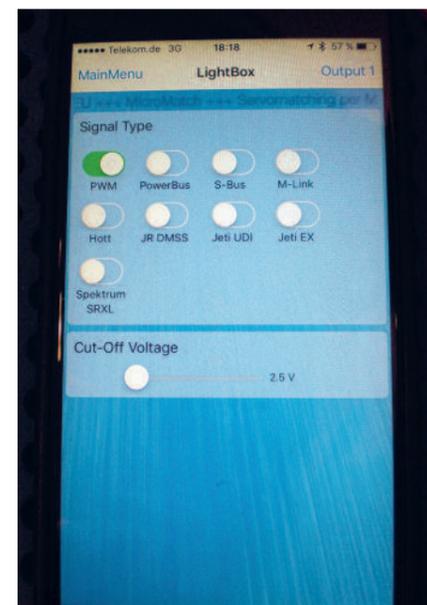
## from PowerBox Systems

### Light control system from another planet

Light, wherever you go, from foam waffles to high-end jets, all is lit. There are several providers by now, offering light control systems, that have more or less complex programming of the numerous LEDs. The LightBox SR (LB) from PowerBox Systems stands out against other lighting systems, mainly due to its simple programming.

#### The technology

LightBox SR is located in a small housing with the measures 56x19x16 and weighs 22 g. Its four integrated and secured outputs can be loaded with 1,1 A each. You can install landing, flashlight, beacon and after-burner functions with almost countless light samples. The LightBox has an undervoltage switch-off and a fail safe function and can be powered by the receiver or an external battery. It is programmed via a graphic user interface and can switch single outputs of different channels via the bus. The LB is delivered with the required patch cable and a manual.



After plugging in the BlueCom adapter in the USB slot, start the PowerBox app on your smartphone, then choose the LightBox.

#### The installation

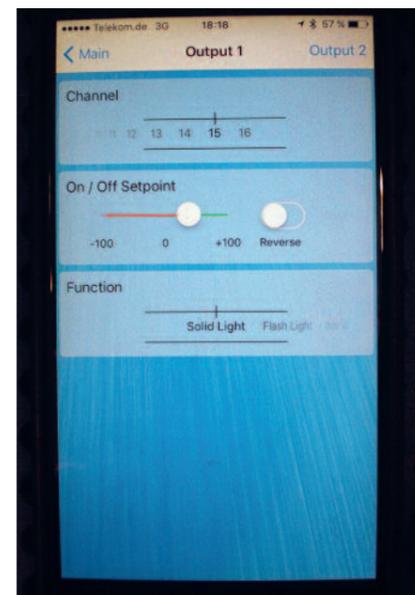
Regarding the installation, there are no requirements, I installed it in my L-39 from CARF. The configuration looks like this:

Output 1 = landing lights (1 user); Output 2 = landing lights right (1 user); Output 3 = position lights left and right wing + vertical fin (3 users); Output 4 = wing flash (2 users).

When connecting the users parallel, you should not exceed 1,1 A per output.

In „Signal Type“ first choose the operating protocol: either PWM or Bus (on the very left).

Since you set up a landing light, in the menu „Function“ choose the light effect „solid light“ (left).



Using the bus protocol you can set, which remote control channel will switch the output channels.

#### The programming

Let's start with what I really like about the LB, which is the very simple programming for PC and smartphone via a graphic user interface. For the programming of the PC, you will need the PowerBox USB adapter and the software PowerBox Terminal, that can be downloaded for free from the PowerBox homepage. For the programming via smartphone,

you will need the PowerBox BlueCom adapter. I used my smartphone.

Before you begin, the LB should be plugged into the receiver, the users and the battery, of course. After plugging in the BlueCom adapter into the USB-slot, you can start the PowerBox app on your iPhone and choose the LightBox. In „Signal Type“ you have to choose, if the LB should be operated via PWM or a bus protocol. I will come back later to this topic, when explaining the various fields of application. I choose PWM and press „Output 1“. In this menu, first thing I have to set, is, when „Output 1“ has to be powered with voltage and my landing light has to light up. Here, the setting of the three-way-switch is for the light to be switched on, when the switch is on stage 3 (+100%). The stages 1 (1 100%) and 2 (0%) are marked red. I shift the switching point with my finger, changes are shown immediately. Under „Function“, I choose, if I want to have a permanent light, a flash light or another light effect. In this case, I choose „Solid Light“. There-with, this output is programmed. Output 2 to 4 are set up in analogue. If, under „Function“ you choose another light effect, for example „Double Flash“, a submenu opens, where the „Double Flash“ can be configured.

In case you don't choose PWM on your initial screen, but choose a bus protocol with Jeti UDI, the display of the output information changes. Like this, you can define for every output channel under „channel“, from which remote control channel it should be controlled.

#### The fields of application

In addition to the simple way of programming, the LB has another specialty: all outputs can be switched either with the PWM protocol via a channel and a mechanical switch or with the bus protocol from many mechanical switches. Which sounds more complicated, than it actually is.

For a better understanding, I made a drawing of different circuit diagrams, which show, which „Signal Type“ is used in the LB and how to connect the LB:

In diagram A and B, all outputs are switched with one mechanical switch. In diagram C, you can choose to switch every output from different channels. For example, you can switch one output, when the retractable landing gear is activated and another, when the landing flaps are activated.

With this in mind: Lights on - programmed fast and easy!

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