uniLIGHT Modul BLACK.2+

Our 2-channel module Black.2+ is the small entry-level version to the uniLIGHT system, now with **uniLIGHT*PLUS***. It is easy to use and provides fast results for all model areas. The main application is the use of an ACL or BEACON light and switchable spotlights or navigation lights.

New in *PLUS* series

Dynamics prettier, faster and more defined lighting effects

Software compatible with uniLIGHT.DESK

Configuration freely definable light scheme and numerous settings

Safety basic short-circuit protection of the outputs, shutdown and automatic reactivation

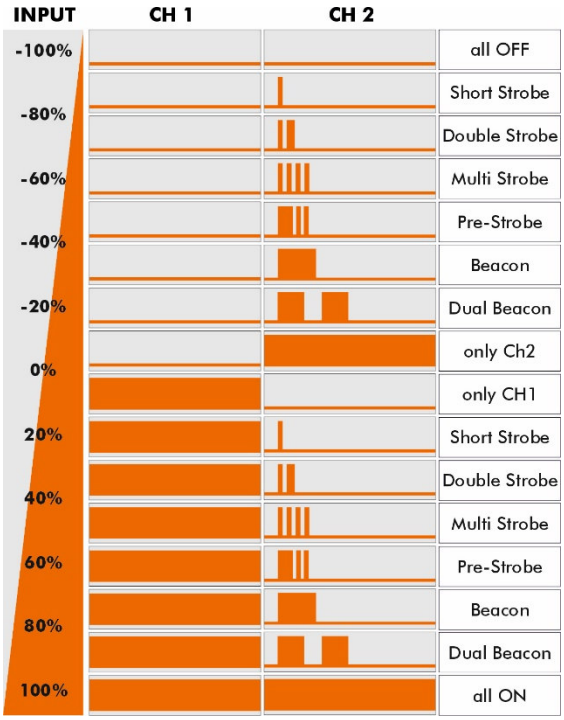
Master-Slave concept No switch required in the load circuit, is only activated by the remote control

Special functions soft switching transition and navigation+flash special function for many sports tasks

Functions for Channel 1

Navigation-/Positionlights They divide wit area around the aircrafts into areas of 120°. GREEN is used on the right, RED on the left and WHITE in the back. These lights are usually in continuous operation.

Landingspots Are always WHITE and facing forward. They are mostly symmetrical in the surfaces, on the gears, in the engine cowling or on the main chassis.



Light functions for channel 1

Strobe Strobe lights are very bright lights that are mostly used on the wingtips, sometimes also at the fuselage. They are often combined in the same housing as the position lights. In models, they are also often used forward in the direction of flight in order to obtain good visibility during the approach.

Beacon or anti-collision lights are mostly red warning lights and are used on the top and/or bottom of the aircraft, often also on the vertical stabilizer. On the ground they show "Caution, engine ON", in the air they are used to avoid collisions from above and below.

Connection and programming

The lighting system is usually controlled via a 3-stage switch. The easiest approach is to start from center position -1-. Change the servo center point (sub-trim) until your desired light signal is displayed.

The -0- position with the negative final deflection (-100% and more) is the normal state for "everything off". If the center has been shifted, or if, for example, a single flash should be displayed in the basic state, then change the servo end deflection on the transmitter until the desired light signal appears.

Finally set the switch to position -2- and change the second operating mode with the servo end deflection. The landing lights or the position/navigation light are usually switched on here.

NOTE Depending on the manufacturer, the values may vary, simply adjust the path until the desired signal is displayed live.

The programming / servo position definition can be made on several ways depending on your transmitter. Often flight phases, mixer, logic elements are very elegant to use, the possibilities are endless…

Specialfunctions

With the uniLIGHT module BLACK.2+ it is also possible to select various special functions for the channels. Of course, the easiest way to do this is to use the uniLIGHT.DESK and the programming cable. However, some basic settings can also be selected using the button.

Hold down the SET button and switch on the receiver power supply.

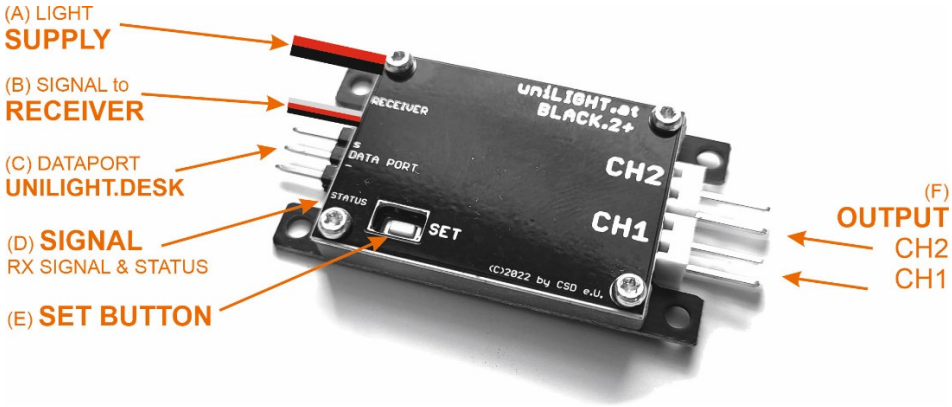
1. After releasing the button, the first channel will be active, it will flash
   1x = special function OFF
   2x = soft switching transition activated
   3x = basic level activated
2. To change the setting, press the button for approx. 1 second (signal on the blue status LED)
3. To select the next channel, press the button for approx. 3 seconds (signal green/yellow pulse LED)
4. Turn off receiver power to exit programming mode

Soft Switch is a soft transition used by a slow light pattern to simulate lightbulb behavior or a rotating beacon.

Basic Level add a minimum light intensity of approx. 10% to the light pattern. This makes all powerful strobe lights usable as a navigation light AND flashing light at the same time. Optimal application for sports models and helicopters: only one light but two functions.

NOTE Special functions are technically enabled by PWM control. If possible, use twisted-pair cables and install the lines as far as possible from the receiving system. Always do a detailed range test.

A. Power supply of the outputs (galvanically isolated)
B. Receiver
C. Data port
D. STATUS LED: blue
   SIGNAL LED: green/yellow
E. Programing/Reset
F. Outputs, each 5A



Technical Data

Receiver control page:	3.6-9,6V
light side load:	6-14V (depends on light)
size/weight:	45x24x5mm, 6g
current per channel/pulse current:	5A up to 16V, 8A max
total load until shutdown:	approx. 10A
galvanically isolated circuits:	YES
operation without RC:	YES
variable speed effects:	Classic 14+2 / Custom 2+1

Security function and Reset

In event of a short-cut or serious overload of the output, the controller is switched off immediately. The blue LED just blinks one times a second. Operation resumes after about 10 seconds. If a undervoltage is detected the blue LED is blinking double, if an overheating protection was activated, the LED is triple blinking.

Start the receiver power supply while pressing and holding the SET button for about 10 seconds. As soon as the light signal changes to a permanent light, the RESET is done and the basic setting restored.

NOTE The safety functions can be switched off for operation in special areas (e.g. night flight) uniLIGHT.DESK

Solo operation

If the controller should be operated solo, i.e. without a receiver channel, the desired light pattern must be selected once. To do this, use a servo tester or similar and press the button once to store. Then it only needs the power supply from the receiver to activate itself - via a V-cable from the receiver without the impulse line, or directly from the light battery.

Alternatively, there is a solder-jumper on the backside. If this is bridged, the control always runs as soon as the light battery is connected.