

SKYLed V2 Manual

Thank you for buying SKYLed – the ultimate Nightfly – Scale and fun lighting system. You have chosen a highly universal and unique product which delivers a lot of possibilities and individuality.

System Overview

- 6 independently programmable LED outputs per SKYLed
- Up to 24 independently programmable LED outputs with master-slave connection to other SKYLed's
- Galvanically isolated Receiver input for highest security.
- Support for RGB LEDs
- Rotor / Propeller Strobe function (Optional Sensor required).
- Create an unlimited amount of custom sequences
- Sequence selection, on/off, speed regulation and dim the LED's per receiver
- Alternative sequence selection inputs via jumpers (stand-alone without transmitter/receiver connection)
- Programmable voltage warning functions for attached power source.
- Up to 2 amps per output channel
- Input voltage range 5 - 14 volts
- Always up to date with firmware upgrades
- Pre-programmed sequences: FAI - Flashing / Knight Rider / Dim / RGB function

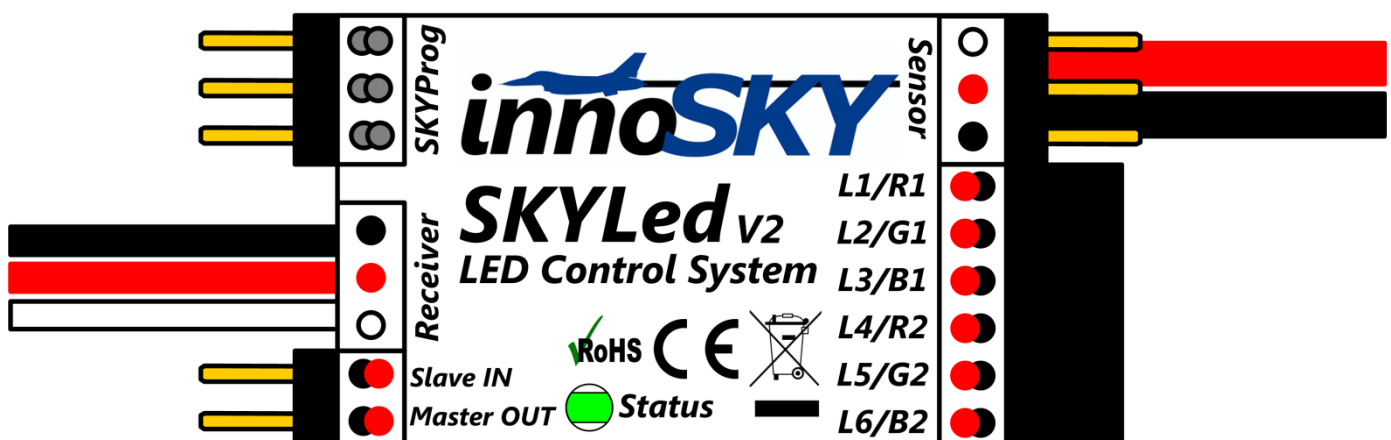
Caution

- Always check correct polarity when powering the SKYLed
- Only attach LED Products to your SKYLed. Never attach any motors, glow lamps or other inductive electronics to your SKYLed
- Please note the 2 Amps limit per output channel. Always use the correct resistors for your attached LEDs to match the power source of the SKYLed

Notice

SKYLed is exclusively programmable with the free available SKYTool. To take advantage of this great feature you need to attach the SKYLed with the optional computer interface SKYProg. Please make sure you check our Website www.innosky.ch regularly to get the latest Software versions.

1 General overview



1.1 Interfaces left

- Plugs for SKYProg interface
- Receiver cable
- Jumper input 1 or Slave input
- Jumper input 2 or Master output

1.2 Interfaces right

- Power supply. Red = positive, Black = negative
- Connector for optional sensor (Used for Rotor/Propeller Strobe)
- Connectors for 6 individual LED outputs. LED positive pole is on top and the negative pole on the bottom. All outputs have a common positive pole. The power output for the attached LED is the same as the power input on the SKYLed.

2 Pre-programmed sequences

Your SKYLed has already been programmed with 4 standard sequences to get you started:

Sequence selection:	by Jumper
Voltage warning:	Disabled
Standard sequences:	4

You can always revert to these basic settings with the SKYTool software. All the pre-programmed sequences are also available as a download from our Website.

2.1 Standard sequence 1, FAI - Scale

- Output 1: Permanent On
- Output 2: Anti-collision light 1
- Output 3: Anti-collision light 2
- Output 4: Beacon lights 1
- Output 5: Beacon lights 2
- Output 6: Dimmable, e.g. landing light

2.2 Standard sequence 2, Knight-Rider

This sequence will flash the attached LED's like the night rider light. This is a very cool demo effect.

2.3 Standard sequence 3, RGB

- Channel 1: Gradient, miscellaneous colors
- Channel 2: Blink and flash, miscellaneous colors

2.4 Standard sequence 4, Dim

Each channel of the SKYLed is in a dim modus. The brightness can be adjusted through the transmitter. Channels 1,3 and 5 are getting brighter and 2,4 and 6 darker during Transmitter dim.

3 Sequence selection

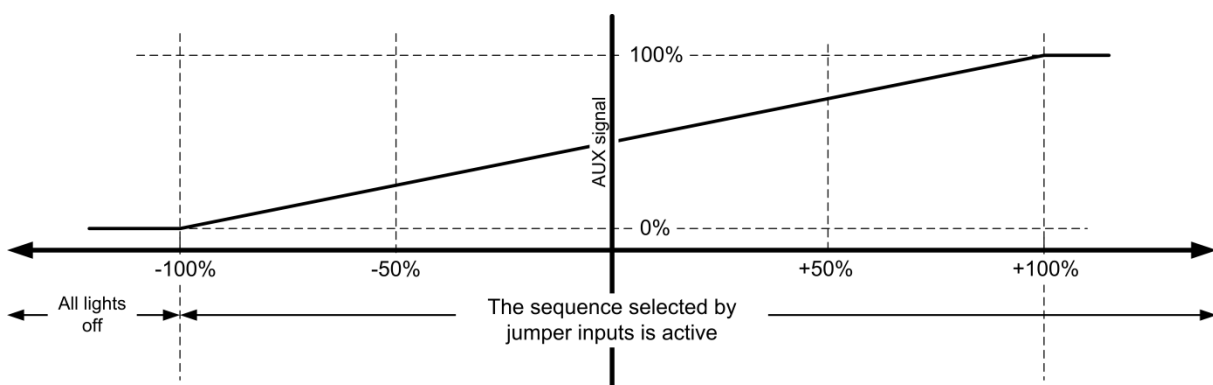
To choose your sequence you have two options. You can choose your sequence through the jumpers on the SKYLed or you use your transmitter.

3.1 Sequence selection by jumper:

To choose your sequence you can short circuit Jumper 1 and Jumper 2 on your SKYLed. With this method you can select 4 sequences programmed on your SKYLed.

Jumper 1	Jumper 2	Active Sequence
Open	Open	Sequence 1
Closed	Open	Sequence 2
Open	Closed	Sequence 3
Closed	Closed	Sequence 4

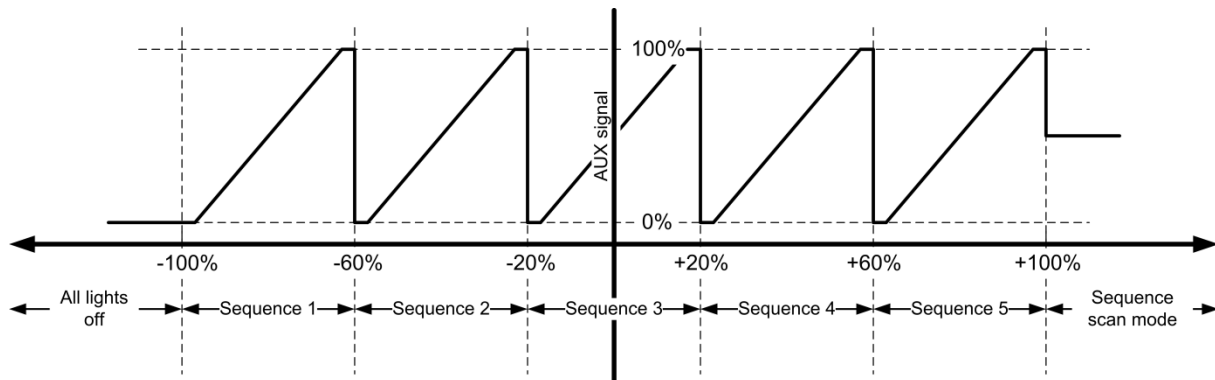
If you use jumper mode you can still attach the receiver cable to your receiver to further control the chosen sequence. If the receiver signal is lower than -105%, the sequence will be stopped and all output channels are shut off. A signal from 0% to 100% can be used for various functions such as dim of the attached LED's.



3.2 Sequence selection by receiver

In this mode you can control your SKYLed with your receiver. You can create as many sequences on the SKYLed as you like and the receiver travel (-100% to +100%) will be divided through the number of programmed sequences. Depending on your current position on your transmitter, the corresponding sequence will run.

In each range there is an AUX signal calculated between 0% and 100%. The following graphic is showing 5 active sequences.

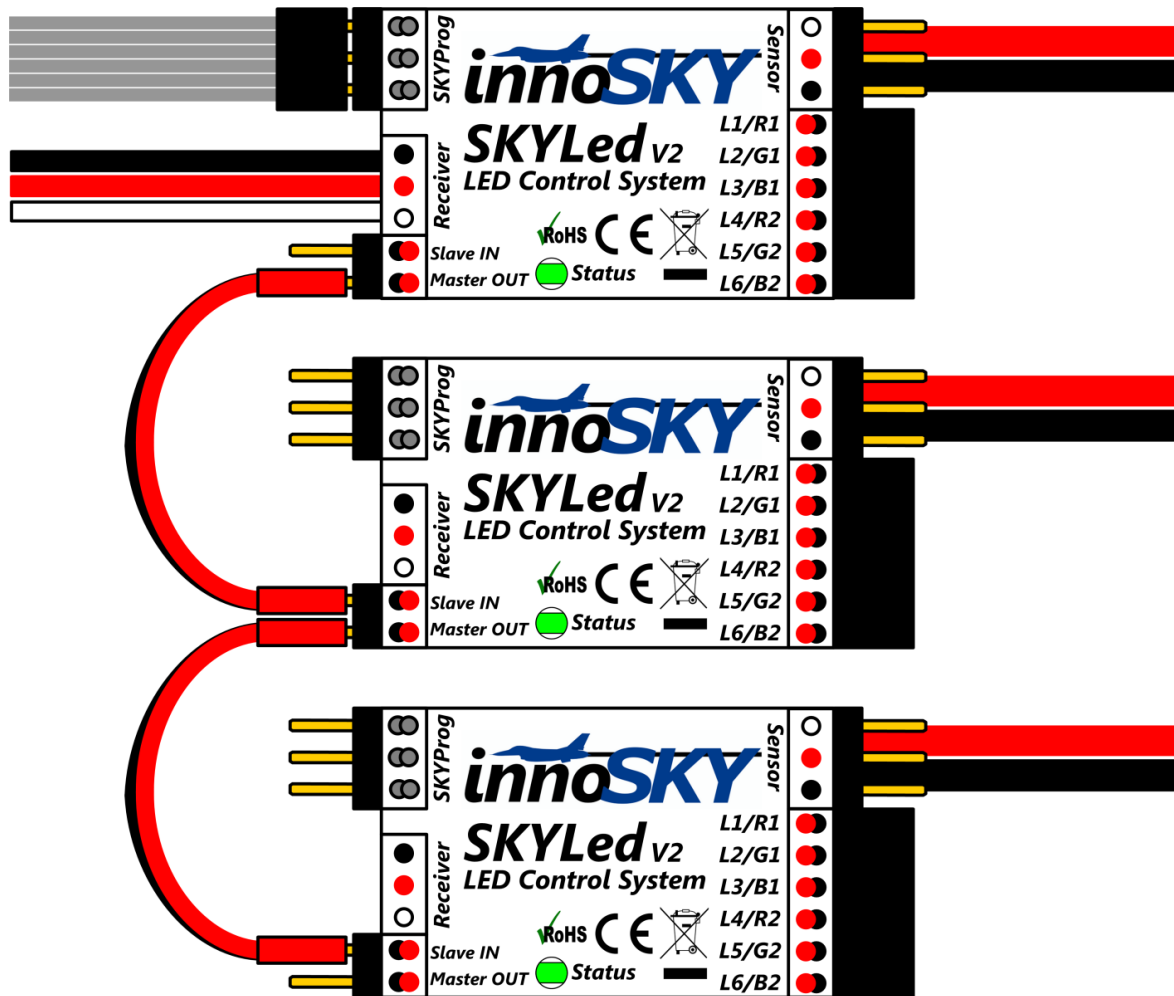


If the receiver signal is higher than +105% the SKYLed will change into the automatic mode. In this mode all programmed sequences will be processed after each other. The AUX signal stays constant at 50%.

4 Master-Slave-connection

SKYLed can control up to 24 channels. All output channels from 7 to 24 are controlled via the master output. If you attach the master output of one SKYLed to a slave input on another SKYLed you can address the output 7-12. You can also attach the 3rd SKYLed with this connection and control the LED's 13-18. This way you can control up to 24 output channels with 4 SKYLed's with Master-Slave-connections.

The following pictures shows you a configuration of 3 SKYLed in Master-Slave mode and 18 LED outputs. Please note, each SKYLed must be attached to a power source. Only the master board needs to be programmed and will control all 18 outputs. It is important to set the "Mode = Receiver" option in the master board using SKYTool. You can buy the Master/Slave cable as an optional accessory.



5 Hall Sensor

On the sensor input you can attach an optional Hall Sensor (available in the innoSKY webstore), this will enable you to install the rotorstrobe. Rotorstrobe is a feature to synchronous flash the rotor blades with different forms for cool effects. Please visit our website for demonstration Videos.

To test the sensor go to the Test sensor button in the SKYTool and activate sensor testing. When moving over the magnet the LED on the SKYLed will light up. This way you make sure the sensor is properly working.

In case you are using multiple SKYLed's in Master/Slave, Rotorstrobe is only working on the master board. You need to attach the LED's and the sensor on the master board

6 Status LED

The Status LED on the SKYLed indicates the current condition.

Condition Status Led (normal)	Explanation
Switched OFF	SKYLed is powered off. No power.
Switched ON	SKYLed is working and playing the programmed sequences
Switched ON with short breaks	SKYLed is not controlling any LED sequence because the receiver signal is <-105%. All outputs are switched off
Regularly switching ON and OFF	SKYLed is in Slave Mode and gets the Signals from the Master Board.
Switched OFF with short ON blinks	SKYLed is being controlled with the PC Software.
Sensor Test Mode	
Switched OFF	The sensor is not in reach of the magnet. Distance between the sensor and magnet too big.
Switched ON	Sensor is over the magnet.

7 Voltage Monitoring

SKYLed measures permanently the supply voltage. You can activate the voltage monitoring through the SKYTool software. You can set the minimal voltage where SKYLed will start the emergency sequence, a slow dim on all channels. This way you know your battery is almost empty.

8 Technical Data

Input voltage:	5-14V (2s to 3s LiPo)
Current consumption:	50mA
Max. current per Output Channel:	2A max
Accuracy voltage monitoring:	+/- 0.2V
Dimensions:	53 x 23 x 5mm
Weight:	10g

9 Disposal

Do not dispose your innoSKY products in the regular bin. You can return your electronic devices to your dealer where environmental recycling is taken care of.

10 Disclaimer

innoSKY Ltd. does not take any liability for damages caused by improper usage of the product.

10 Contact

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