



SPORT MAGIC NIGHT FLY SYSTEM

OVERVIEW

AIRCRAFT LIGHTING –

Sport Magic Night Fly System gives you the lighting you need to fly your R/C plane at night. Sport Magic LED lighting is fully controllable by your transmitter. It has white top wing lights, red and green bottom wing lights and yellow flashing tails lights. This lighting configuration lets you know the orientation of your plane so it's always under control.



Night Fly System Lighting

Sport Magic lights are LED striplights with adhesive backing. Sport Magic's striplights are waterproof. The striplights are on three separate circuits, but are controlled with a single two position switch on your transmitter. One flip of the switch turns on the top lights, the next flip brings on the flashing tail lights and the final flip turns on the bottom lights. Another flip of the switch will turn all of the lights off.

Sport Magic striplight LEDs are designed for 12V. Your system will work best if you plug your Sport Magic controller into a 12V battery. A (3S) lithium battery is optimal.

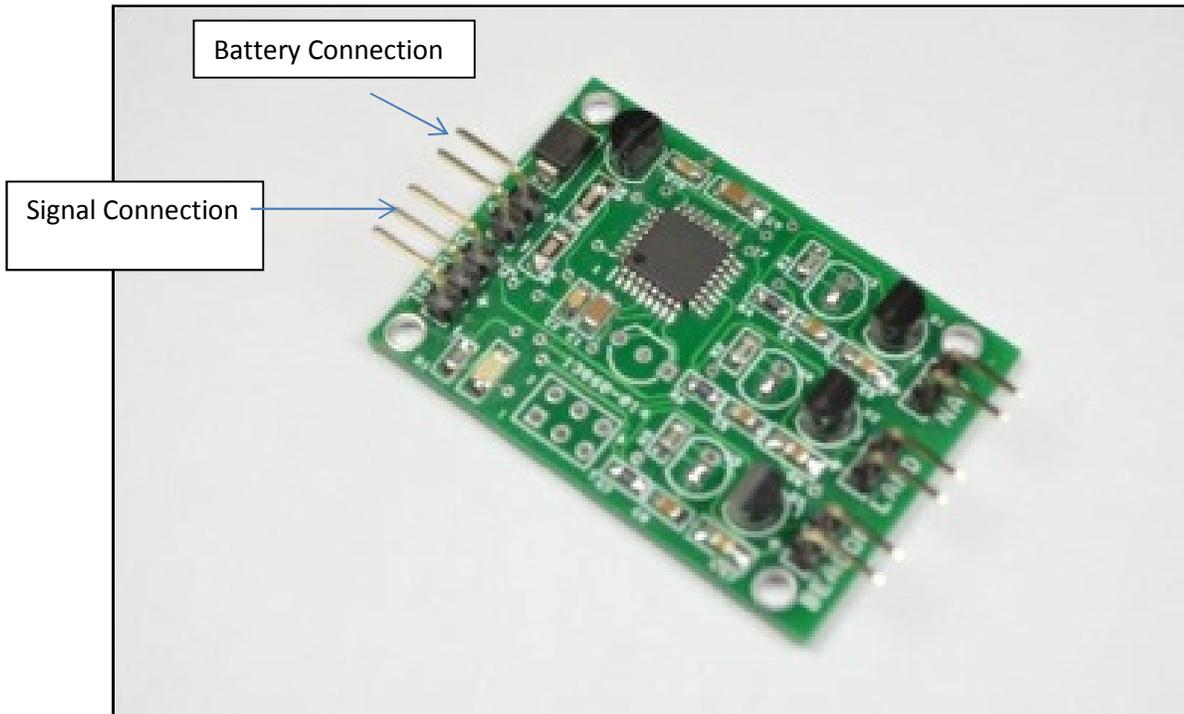
INSTALLATION AND OPERATION

INSTALLING YOUR STRIPLIGHTS-

The striplights furnished in the Sport Magic LED kit are designed for your Sport Magic and are prewired to install with the Sport Magic controller. You may also choose to provide your own striplights.

The LED striplights are very simple to install. Remove the adhesive backing from the bottom of the strip and adhere it to the skin of the plane. We recommend that you install one WHITE light strip on the top of each wing. Run each wire into the fuselage and join the two female plugs with the double male joiner provided in the LED kit and plug it into the header on the controller labeled "NAV." Place the RED striplight on the bottom of the left wing and the GREEN striplight on the bottom of the right wing, as shown in the photograph. Join the female ends with the double male joiner provided and connect it to the header labeled "LAND." Finally, install the YELLOW striplight on both sides of the tail fin of the airplane. Run the wire to the controller and connect to the header labeled "BEACON."

The joiners provided with the kit allow you to remove the wing of the plane without disturbing your light installation. You may want to shorten the wires to make the installation neater. We recommend that you splice any wires you cut with a soldered connection and protect the splice with heat shrink tubing. You may also add additional striplights to those provided in the kit. You may add striplight to the ends of the light in the kit or add entirely new runs. When adding new runs, wire them in parallel with the lights in the circuit you adding to.



Sport Magic Controller

Install the controller in the fuselage of the plane within a few inches of the receiver. We recommend Velcro with adhesive backing to attach the controller to the fuselage. Connect the three conductor wires on the controller to a spare channel on your receiver. Be sure to observe correct polarity. You will need to provide a source of 12V power to the controller. Plug the battery into the controller at the BAT terminal (on some controllers, the battery terminal may be labeled "9V." It is permissible to connect a 12V battery to this terminal).

You may choose to power the controller and the lights with your propulsion battery. Be sure to observe the correct polarity. Connect the (+) terminal on the controller to the battery positive (+) terminal and the (-) terminal to the battery negative (-) terminal. Be sure to make the connection to the battery between the battery and the motor ESC (electronic speed controller). Most users prefer to solder a permanent connection right to the battery terminal connection wiring. Be sure that the connection is securely soldered and insulated to prevent short circuits. Maximum battery voltage is 14.4VDC (3S). If you inadvertently connect Sport Magic backwards (reverse polarity) its protection circuitry will protect it from damage, but it will not work.

CONFIGURING THE TRANSMITTER AND RECEIVER -

You must configure your transmitter and receiver to allow Sport Magic to work. Following the instructions in the transmitter operator's manual, configure a two position switch to use an unused auxiliary channel. Channel 5 or Channel 7 are commonly used. You can use any two position toggle switch that you can assign to a spare channel. It does not matter what position the switch is in when you turn on the transmitter, Sport Magic will sense the position of the switch. Flipping the switch to the opposite position will activate the lights, in sequence. If the transmitter and the receiver are connected correctly to the controller, the small red led on the controller will flash briefly each time the switch is flipped.

TROUBLESHOOTING:

Lights will not turn ON/OFF:

1. No signal from the transmitter or the signal was not received by receiver. When Sport Magic receives the correct signal from the transmitter, it flashes the on board led once for every switch activation. If the led does not flash when the switch is activated, the board has not received a signal from the transmitter.

Possible Causes:

- a. Transmitter is not ON.
 - b. Transmitter not correctly programmed to send the signal from the switch to the channel you have chosen.
 - c. No power to the receiver or the receiver is wired incorrectly. The green led on the receiver must be ON steady. Check the receiver wiring to assure that the receiver is getting the proper voltage and polarity.
 - d. Signal wiring to Sport Magic signal pins not connected or incorrectly connected. Insure that the 3 pin connector from the receiver is on the channel you have selected, and that the connector is correctly placed on the signal pins.
2. Wrong signal received. Review the transmitter operator's manual to make sure that you have programmed the transmitter correctly. Also, insure that the signal wire from Flash Magic is inserted into the correct channel on the receiver.
 3. LED's wired incorrectly. The LED's must be wired such that the (+) side of the LED connector on the board connects to the anode (red wire) of the LED strip. The wires on the joiner may be reversed. Red connects to red and black to black.