

## Mounting instruction for ACL-Modul

Dear customer,  
the electronic anti collision light "ACL-Modul" is a highly innovative product which contributes to saver airspace.

The new LED technology allows an incredibly excellent, red light with only approx. 10% of the input power compared with conventional lights. The casting in a high-optical plastic makes the ACL absolutely insensitive against water, vibrations and other environmental influence. The efficiency of the output is much higher, than with conventional electric light bulbs. The self-warming of the ACL is low and can be determined as safe. To avoid overheating, the heat balance is controlled electronically.

This anti collision light is especially designed as „Tail-ACL“ for gyrocopter to improve the visibility of gyrocopter especially for subsequent traffic at approach for landing.

If no producer mounting instruction is available, please mount the ACL-Modul (after agreement of your inspector) that no other components block the light pulse. The mounting could be at pitch elevator, rearwards at the top of the fuselage or at back side of the pylon. The mounting can be in horizontal direction as well as in vertical direction (the angle of reflected beam is the same).

### Required materials and tools

- 3-core twisted cord, according to the length of fuselage (3 - 5 meters)
- clear silicone
- soldering iron, tin solder

enclosed

- shrink hose
- 2 x nylon screws M4
- connector casing
- plug contact
- connecting cable with plug

### Recommendations

#### Cable

Depending on the fuselage length of your gyrocopter, we recommend a double core, flexible and twisted cable with a cross section of at least 1.5 mm<sup>2</sup> for power supply (red / black) and one cable with minimum 0,3 mm<sup>2</sup> for synchronisation cable. In case of doubt, you can order the suitable cable from Thiesen Electronics GmbH.

#### Adhesion

We recommend standard silicon in a tube. It is available in do-it-yourself markets. This adhesion is strong and in case of a dismantling you only need a sharp knife. We strongly advise against using other kinds of adhesion, like polyester or epoxy resin.

#### Mounting

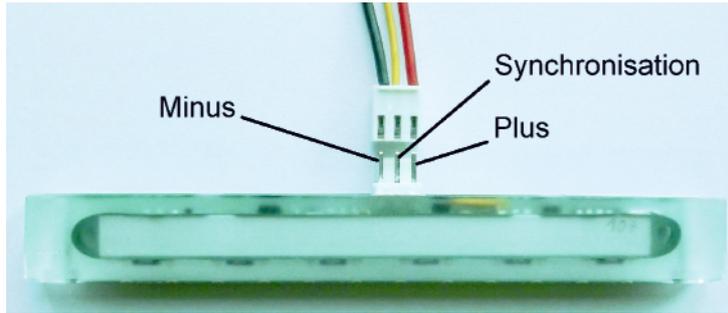
Use the 2 enclosed nylon screws M4 for Mounting.



## Electric power supply / cable connection to the aircraft system (12 Volts)

The ACL-Modul has a 3 pin connecting plug. A suitable connecting cable with plug is enclosed. Alternative a connector casing and suitable connector plugs are enclosed.

The best connection is solder with additional shrinking of the soldering joint with a shrink hose (enclosed). Only use solder for electronic soldering never use cored solder. It contains acids which cause corrosion!



### Important notes

Carefully mount the cables inside the rudder and/or the fuselage. Connect the cables professionally to the aircraft system (**red = positive, black = negative, yellow = synchronisation**) and to a 5 Amps fuse protection. Luster terminals are not suitable to connect cables. There is a good selection of suitable crimp connections in various shops. If you do not use synchronisation, please isolate the yellow synchronisation cable.

The ACL is provided with overload protection. In case of over voltage the protector switches off the ACL. After reset or voltage drop the ACL is again fully functional. The automatic overload protector shall be activated at a voltage above 18 Volts. (If the voltage reduces to a value below 18 Volts, the ACL will again be functioning)

### Servicing / maintenance

For additional UV protection, use varnish. Should the ACL be scratched, use a good polish to refurbish the damages. With slightly deeper scratches use wet sandpaper with very fine granulation (800-1000) carefully polish again. Do not use aggressive chemicals like gasoline or solvent.

#### For day to day cleaning use soap water!

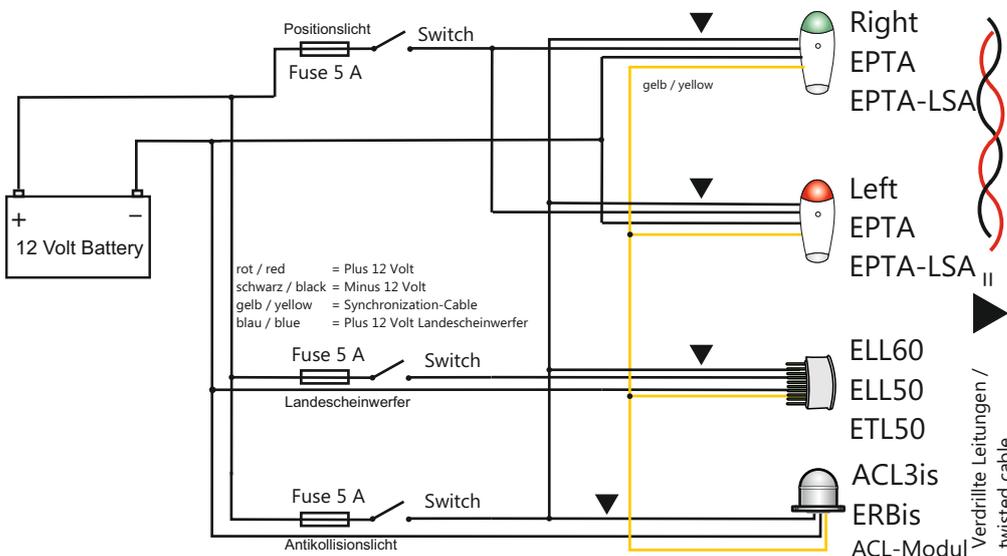
Some insect removers and detergents forces embrittlement of epoxy based plastics and laminates. Use only aircraft certified products. **If the aircraft can not hangarized, please cover the lamps to prevent surface aging!**

### Technical data

Operating voltage: 10-17 volts (DC), typically 12.8 - 13.4 volts  
 Input : approx. 20 watts  
 Fuse : 5 ampere (fusible cut-out or automatic fuse)  
 Dimensions : 165 x 14 x 20 mms  
 Drill hole : 4.5 mm  
 Weight : approx. 58 grams with connecting cables  
 Warranty : 5,000 operating hours or max. 3 years



### Wiring diagram:



**5.000 hours or max. 3 years assured luminous duration**

**Made in Germany**