

# SEARCHLIGHT

## ASSEMBLY MANUAL



## WARRANTY

This kit is guaranteed to be free from defects in material and workmanship at the date of purchase. It does not cover any damage caused by use or modification. The warranty does not extend beyond the product itself and is limited only to the original cost of the kit. By the act of building this user-assembled kit, the user accepts all resulting in liability for damage caused by the final product. If the buyer is not prepared to accept this liability, it can be returned new and unused to the place of purchase for a refund.

## INTRODUCTION

Thanks for purchasing the Searchlight from Thunder Tiger. Ideal setup for most 1/8-9 scale heli fuselages such as Thunder Tiger Ecureuil AS355N, Agusta A109, Agusta A119 Koala.... and etc., this searchlight will make your helicopter stand out the flying field.

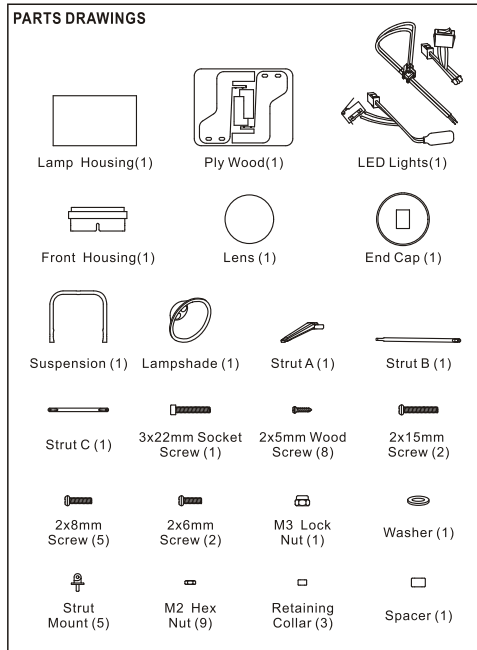
It is important that you read the instructions thoroughly and then follow them exactly. The first thing you should do before beginning assembly is to check the contents of your kit against the parts drawing. If any parts are missing, contact your dealer or authorised Thunder Tiger distributors immediately for replacement. Browse [www.thundertiger.com](http://www.thundertiger.com) for more information or customer service if you encounter any problems.

## ITEMS REQUIRED FOR ASSEMBLY

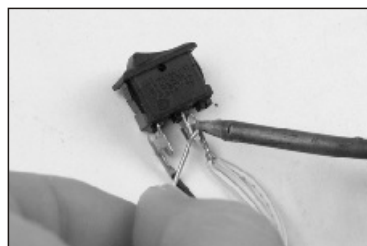
**Adhesive:** Instant (cyanoacrylate) adhesives  
**Battery:** 9V Battery

### Comprehensive Items Needed check list

- Instant adhesive
- Hobby knife
- Paper towel
- 150 Grid Sand Paper
- Fine-point, Felt-tip pen
- Misc.housing tools
- 9V Battery
- Drill and bits: 1.5mm(1/16"), 2mm(5/64").



## ASSEMBLY



1.Solder the end of LED lights and the switch together as shown.



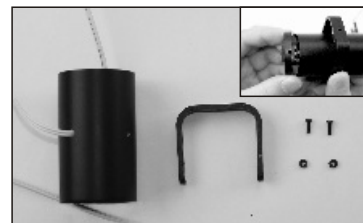
2.Press the switch complete with LED lights into the end cap after heating treat the shrink tube in place.



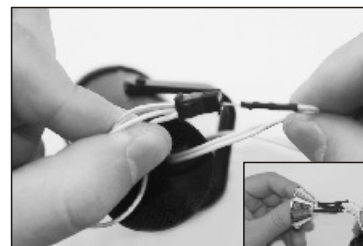
3.Trial fit the suspension at the middle of the lamp housing. Make marks then drill 1.5mm(1/16") holes at the middle of the lamp housing.



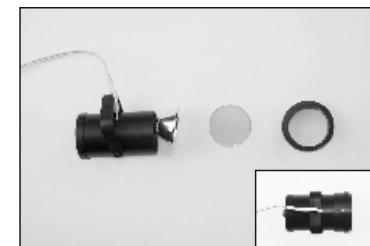
4.Drill a 1.5mm(1/16") hole on the housing through the suspension then enlarge the hole to 3.5mm(9/64") for extension wires.



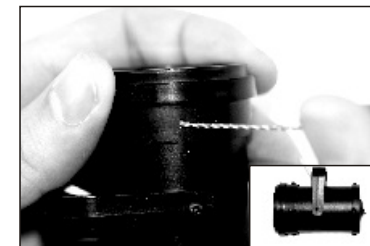
5.Thread the extension wires through the lamp housing then locate the 2x6mm screws and M2 nuts. Secure the suspension on the lamp housing with screws. Applying Loctite for each screw is required. Next insert the end cap complete with LED lights onto the lamp housing.



6.Connect the extension wires properly to one end of LED lights. Pay attention to the polarity, you can temporarily connect the other end of the extension wires to the switch wires, and install the battery to make sure they are properly connected. Next insert the lights into the lampshade.



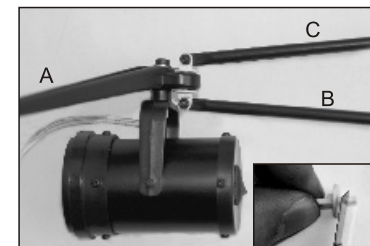
7.Place the lens onto the lampshade, and trial fit the front housing onto the lamp housing.



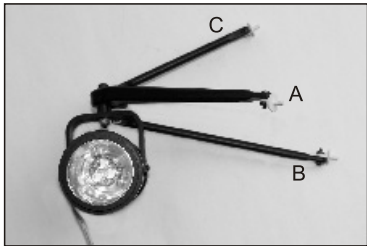
8.Locate eight 2x5mm wood screws and the lamp housing. Drill 1.5mm(1/16") holes at the corresponding positions as shown then fix end cap and front housing with screws.



9.Locate the strut A, washer, spacer, 3x22mm screw, M3 locknut and the lamp housing. Next install the strut A on the lamp housing with 3x22mm screw, washer and M3 locknut as shown.



10.Locate two strut mounts and cut one end of the two strut mounts to fit in the hole on the strut A as shown. Next install strut B and strut C with M2 nuts and 2x5mm wood screws.  
**Note:** Glue the two strut mounts on the strut A after fitting the struts on the fuselage in Step 12.



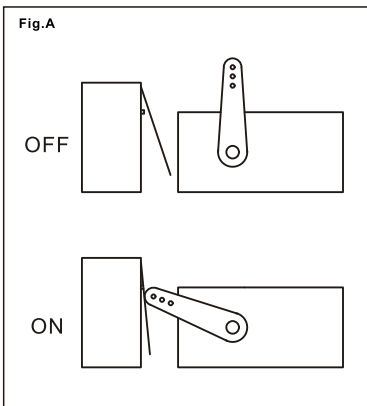
11. Install the other three strut mounts on the struts with M2 nuts and 2x5mm wood screws. Next glue the extension wires in the groove of the strut A.



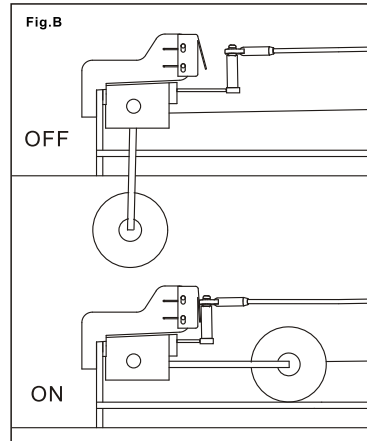
12. Drill 2mm(5/64") holes on the fuselage as shown and insert the other ends of the struts into the holes. Also drill a hole near the end of strut A for threading the extension wires. You can detach the adaptor from the wires before threading to make the hole smaller. Next glue the retaining collars on each end of the wiper mounts as shown.

#### INSTALLATION OF MICRO SWITCH

Suggest to switch on searchlight as following two ways; one is using an extra servo (Fig.A shown), the other is using the retract pushrod (Fig. B shown) if your helicopter equipped the retract.



Refer to your radio manual and set up an AUX servo with any tact switch to turn on the searchlight. You will need to find a good location to fix the servo and micro switch inside the fuselage.



If a helicopter equips the retract gear then user may use the pushrod of retract to switch on searchlight. The plywood pieces enclosed in the kit is for Thunder Tiger Augusta 109( if installed on any other fuselage then user will have to modified by himself), glue the plywood pieces with epoxy then secure the micro switch with the 2x12mm screws and M2 nuts. Trail fit the plywood in place and test the pushrod if it could switch on the micro switch as photo shown, if not then adjust the micro switch position. Glue the plywood in place when satisfied. Make sure the retract gear works smoothly and it could switch on the searchlight when gear is retracted in position.



**Congratulations! Now you have finished the assembly of the Searchlight !**

#### EXPLODED VIEW

