

## Aerosport Products Triple RV-10 Cowl Light



Parts List	
Triple LED Spotlight PCB	1
Collimating lens	3
Lens holder cup	3
Heatsink, 40mm diameter 70mm pins	3
Parts bag	
Lens locator rings	3
Beam diffuser disk	1
M2.5 x 14mm pan head machine screw	6
#6-32 x 3/8" mounting screws	3
Heatsink plaster (glue) tube	1

Thank you for your purchase of our products!

### Power

Applying 12 volts to the **ALL** input will light up **all three** lights for a total of 3600 lumens and 3 amps current draw. Use 18AWG wire and protect with a 5 amp fuse or circuit breaker.

Applying 12 volts to the **TAXI** input will light up **just the one** lower light, which can fitted with a diffuser lens to widen the light beam for taxiing. The Taxi light produces 1200 lumens for 1 amp current draw. Use 20 or 18AWG wire and protect with a 2 amp fuse or circuit breaker.

Each LED is driven with its own linear power supply which *eliminates* any possibility of any intercom noise.

### Landing light board assembly

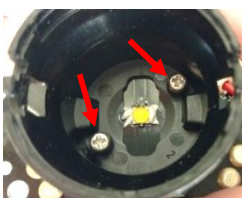


The small tube of heatsink plaster contains enough glue for eight or more heatsinks! Squeeze a **small** amount on the base of the heatsink and spread it out into a **thin** layer. The glue takes an hour or so to set, so you have plenty of time to work with the assembly.

***Less glue applied here really is more!***



The lens holders have two small tabs in their base. These fit into the small holes beside the LED, and will locate the holder and collimating lens in the optimum focal point for the LED.

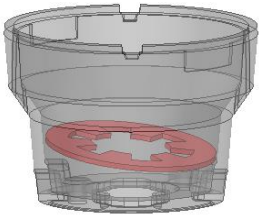


Fit two M2.5 machine screws into the holes in the lens holder and use them to sandwich the light board to the heatsink below.

The screws should be done up 'tight enough' **by hand** using a #1 Philips screwdriver.

Repeat for the other two heatsinks and lens holders.

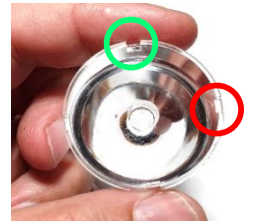
**Wait fifteen minutes or so.** If any glue has oozed through the holes close to the LED, carefully scrape it away with a small screwdriver. An excess of glue may damage the LED or prevent the lens from locking into place.



**IMPORTANT! Place a lens locator ring inside the lens holders,** shown here in red. The ring is designed to flex and it will guide the lens into the correct position in the following steps.

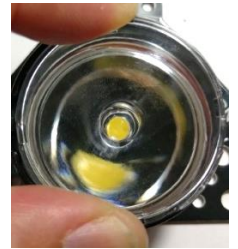
The collimating lenses have four notches around their edges, but if you look and feel closely two of the notches are cut all the way through (green circle), while two of them have a tab that will lock the lens in place (red circle).

Give the body of the lens a quick wipe to remove dust and fingerprints. These will make no difference to the light output but now is your last chance!



Hold the lens with the 'cut through' slots under your finger and thumb. Orient the lens directly above the holder, with your finger and thumb at the **north** and **south** positions.

As you lower the lens straight down into the holder you will observe the centre of the lens begin to change colour to yellow from the LED below. This indicates that the LED and lens are in alignment.



Using even pressure from two fingers from your other hand on the **east** and **west** sides of the lens, push the lens in gently until it clicks into place under the tabs at the ~~left and right~~ east and west edges of the holder. Simple!

## Wiring the landing lights

The light board has an easy to use push-fit power connector on it, which is limited to 18AWG wire.

\* Strip ¼" of insulation from the wire and simply push the wire home into the socket. It's not coming out!

Should you need to remove the wire from the light, push down on the release tab above the wire using a small screwdriver and the wire can be gently pulled from the socket.

\* **Zip-tie the wires securely to the board** using the hole provided as shown here.

**Leave a few extra inches of wire in this loop** (more than what is shown here) to help avoid *permanent* damage to the connector on the PCB if the wires are pulled or tugged, which may occur when removing the cowl from the plane.



## Plug/Socket

The onboard connector is not designed for repeated connect/disconnect cycles, so to enable you to easily remove the lower cowl for servicing, **fit a suitable plug and socket** of your choice in the power wires that feed the light.

We have not provided one for you, however a wide selection of plugs at various price and quality points is available from the Aviation Electrical aisle of your nearest auto parts store.

\* Locate the plug and socket in a prominent position so that you remember to disconnect it before removing the lower cowl from the plane.

## Diffuser disk



The supplied diffuser disk can be fitted to the lower spotlight in order to widen the light beam width for taxiing. These clip into place via the 'cut through' slots that are located at the north and south edges of the collimating lens.

## Fitting the light

The light PCB needs to be twisted 45 to 90° to allow the lenses to fit inside the tapered shape of the light bay. Rotate the PCB back to the correct orientation and secure with the #6-32 screws provided.

