

# **XTRACYCLE EDGERUNNER 8E/9E/10E SUPERNOVA LIGHT ASSEMBLY GUIDE**

## **Tools needed:**

- 2mm, 2.5mm, 3mm, 4mm, 5mm allen wrenches
- 6mm, 8mm wrenches
- Wire cutter/stripper/crimper
- Heat gun
- Drill with 5/32" bit (Optional, not needed on bikes sold after Nov. 2016)

**WARNING:** Installing the headlight and tail light requires trimming and stripping bare wires and making wire connections using crimp-on connectors and heat shrink. If you do not have the proper tools or know-how to complete this installation, it is highly recommend you seek the assistance of a bicycle mechanic with experience installing dynamo powered and/or e-bike lighting systems. Xtracycle will not warranty faults caused by improper installation.

**WARNING:** Always make sure the Bosch system is completely turned off before handling the wires. Failure to do so may result in injury or death.

## **Installing the Headlight**

Remove the grip, brake lever and shifter from the right side of the handlebar, as well as the Bosch console.

**Note:** Refer to component manufacturers' instructions for removing and re-installing the grip, brake lever, and shifter.

**Note:** DO NOT ATTEMPT to stretch the gap in the light bracket clamp in order to slip it over the handlebars without removing anything. It is made from aluminum and cannot flex that much. Doing so will break the light bracket.



Slide the light onto the handlebars and up against the right side of the stem clamp.



Rotate the light bracket so it extends forward and slightly upward from the handlebar, and the light bracket is parallel to the handlebar stem.



Tighten the clamp bolt with a 3mm allen wrench, just enough that the bracket cannot rotate on the handlebar. Avoid overtightening.



Once the light is installed on the handlebars, re-install the Bosch console, shifter, brake lever, and grip.



## Installing the Tail Light

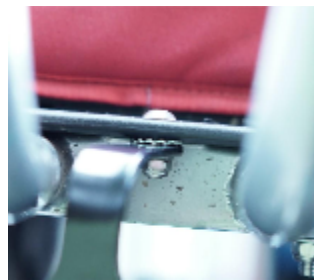
As of Nov 2015, current FlightDecks have a hole pre-drilled at the center of the back of the deck for the tail light bracket. Earlier bikes will require the hole to be drilled.

Use a 5/32" drill bit to drill a hole in the center of the rear of the deck, at least 1/2" from the edge, but far enough back that the light has good exposure.



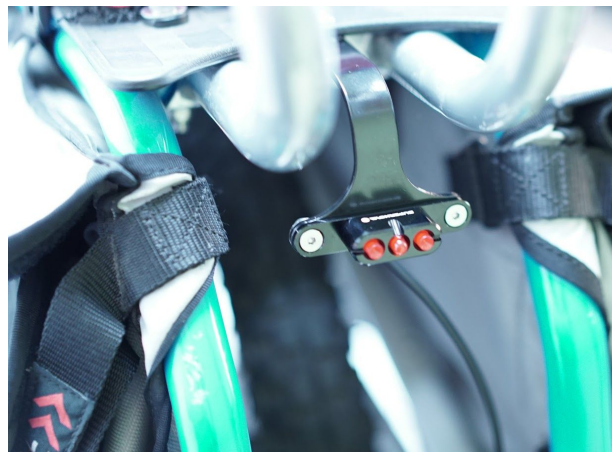
Attach the light bracket with the short M5 bolt in the configuration shown, and make sure it is pointing straight rearward.

Tighten the bolt and nut with a 3mm allen wrench and 8mm wrench, just enough so that the light mount cannot rotate and the nyloc is fully engaged.


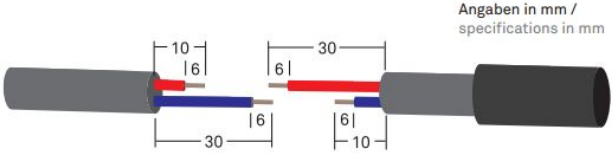


Deck  
Anti-Rotation Washer  
Light Bracket  
Washer  
Nyloc Nut

Attach the tail light on the light bracket using the two tiny bolts and nuts. The light wire runs through the cut-out at the center of the bracket.



## Connecting the headlight

<p>Find the power supply wires extending forward from the motor and unroll them.</p>	
<p>Use a wire cutter to trim the wire attached to the light.</p> <p><b>Note:</b> Use whatever length of wire allows the connection to the power supply wires to be made easily, and allows the handlebar to turn 90 degrees to either side without putting tension on the wire.</p> <p><b>Note:</b> On M/L frame (19"), with the stock handlebar and stem at full height, we recommend cutting the light wire 7-8" from the light.</p>	
<p>Once you have cut the light wire, use a wire stripper to strip about 30mm/1 1/4" of the outer black sheathing off the end of the light wire so you have two individual wires--one black and one red.</p>	 <p>(image taken from Supernova E3 Manual)</p>
<p>To create an offset connection, cut the red wire coming from the light 20mm shorter than the black wire, so about 10mm of the wire is exposed.</p>	
<p>Strip 6mm of sheathing off the ends of the black and red wires.</p>	
<p>On the power supply wires coming from the motor, cut the black wire 20mm</p>	

<p>shorter than the red one, and strip 6mm of sheathing from the end of each wire.</p>	
<p>Slide a length of heat shrink onto the wire coming from the motor, but do not heat it into place yet.</p> <ul style="list-style-type: none"><li>● Pull it down the wire so you can easily make the connections before sliding it into place.</li></ul>	
<p>Connect the red and black wires by using the crimp-on wire connectors.</p> <ul style="list-style-type: none"><li>● Slide one end of the stripped wire into the connector so that not only the stripped cable, but at least 2mm of sheathed cable, is inserted.</li><li>● Using a wire crimper, crimp that side of the connector so that it is securely fastened to the wire.</li><li>● Slide the color-matched wire into the other end of the connector and crimp it into place.</li><li>● Repeat with the other color wires.</li></ul>	
<p>Slide the large piece of heat shrink back over the connection so that it completely covers both junctions and both inner wires.</p> <ul style="list-style-type: none"><li>● Use a heat gun to heat the heat shrink and lock it in place.</li></ul>	
<p>Secure the headlight light wire by zip-tying it to the rear brake hose.</p> <p><b>Note:</b> If a PorterRack is installed, the headlight wire should be run between the PorterRack mounting bolts along with the brake hoses, shifter cable, and console wire.</p>	

## Connecting the tail light

The power supply wire for the tail light runs to the rear from the motor, through the cable guide near the kickstand plate, and along the left chainstay of the bike.

- Completely unroll it and secure it in place with zip ties.



Cut the light coming from the tail light so it can easily make the connection to the power supply wire, roughly a foot from the light.

**Note:** The junction should be near the left rear corner of the bicycle.



Repeat the connection instructions for the headlight for the tail light. On the tail light, the red wire connects to the red wire, and the blue wire from the tail light connects to the black wire from the motor.

Use the other piece of heat shrink to cover and protect this junction, and secure the wire by zip-tying it to the V-Rack.

## Testing and adjusting the headlight

Once both lights are installed and connected, test the lights by turning on the Bosch system and then pressing the light button.

- Both lights should turn on simultaneously.
- You can turn off the lights by pressing the button again.



