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THE SCIENTISTS OF LIGHTING

(23-On) Ford Super Duty Dual Fog Pocket Kit

**(44-0031, 44-0031-UP, 44-0032, 44-0032-UP, 44-0033,
44-0033-UP, 44-0034, 44-0034-UP, 44-0035-UP, 44-0036-UP)**



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LIMITED LIFETIME WARRANTY

Baja Designs proudly offers a LIFETIME WARRANTY against manufacturer's defect on all the products that we manufacture.

These are comprehensive warranties; other than the exclusions below – you're covered. If your LED or HID bulb burns out, you're covered. Additionally, cutting off our connector or changing your lenses does not automatically void your warranty.

Exclusions:

Installation errors, abuse, misuse, or crash damage. You must be the original owner of the product and can supply proof of purchase.

Baja Designs manufactures its own products as well as resells products manufactured by others. Baja Designs makes no express or implied warranties on products not manufactured by Baja Designs including without limitation any warranties or merchantability and fitness for a purpose. We will, however, pass on all warranties made by the manufacturer, who has sole responsibility for performing such warranties.

Baja Designs will pay the freight if your product is less than 90 days old, otherwise defective products must be returned to Baja Designs, Inc., freight prepaid. At our option, we will repair or replace items in question and return them at no charge. If the identical product is no longer available, we will replace it with a similar product of equal value. Baja Designs Inc. will not be responsible for any indirect or consequential damages in connection with defective merchandise.

Items purchased through a Baja Designs authorized dealer must be returned through the dealer. Only available on LED auxiliary lights and product must be in sellable condition at MSRP. Product that has been damaged in any way after the original purchase date will be excluded from this guarantee.

Indemnification:

Buyer hereby acknowledges off-roading, racing and driving at night are dangerous activities and that the products and/or supplies purchased from Baja Designs are used in an inherently dangerous activity that may endanger life and limb; and in no event shall the seller, or seller's heirs and assigns, be held liable for consequential damages, nor shall seller's liability on any claim for damages arising out of or connected with the sale, delivery, or use of purchased products and/or supplies exceed the purchase price of the products and/or supplies.


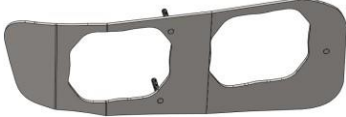










Buyer is responsible for ensuring that it uses the products (and its vehicle) in accordance with all applicable laws, regulations, guidelines, and standards of care. Buyer acknowledges that some products may only be used when off-roading, and Buyer will comply with all vehicle and road safety guidelines. Buyer is solely responsible for (and will indemnify and hold Bestop harmless for) any claims, losses, damages, fines, fees, costs, or other amounts arising out of Buyer's non-compliance with these provisions.




****For a color copy of instructions, visit your vehicle specific application on BajaDesigns.com ****

Required Tool(s):

- **Sockets:** 10mm, 7mm, 9/16", 8mm
- **Wrenches:** 9/16", 8mm
- **Bits:** 3mm Hex Bit, 2.5mm Hex Bit, T20 Torx Bit
- **Misc:** Box cutter, Pliers, Pick, Trim removal tool

Parts List:

 <p>(44-9434) (QTY:1) Ford, Super Duty (23-On), Fog Pocket Fascia DS</p>	 <p>(44-9435) (QTY:1) Ford, Super Duty (23-On), Fog Pocket Fascia PS</p>	 <p>(20-1294) (QTY:2) Hardware, M5 x12 button head cap screw SS</p>	 <p>(20-2316) (QTY:6) Hardware, Spacer 1/2" OD x 1/4" ID x 5/8" long</p>
 <p>(44-9436) (QTY:1) Ford, Super Duty (23-On), Fog Pocket Bracket DS</p>	 <p>(44-9437) (QTY:1) Ford, Super Duty (23-On), Fog Pocket Bracket PS</p>	 <p>(20-1612) (QTY:10) Hardware, Zip Tie 50lb 8"</p>	 <p>(66-0004) (QTY:2) Squadron 2.0 wire Harness Splitter-adds 1 light For kits 44-0035-UP & 44-0036-UP only</p>
 <p>(QTY:2) Squadron SAE, Clear/Amber Spot (SAE Kits Only)</p>	 <p>(QTY:2-4) Squadron 2.0 Sport Driving/Combo or Spot (Excludes Unlimited Kits, Pro Kits and some SAE Kits)</p>	 <p>(QTY: 2-4) Squadron 2.0 Pro Driving Combo or Spot (Excludes Sportsman Kits and some SAE Kits)</p>	 <p>(60-0057) (QTY:2) Squadron 2.0 Anti-Back feed harness</p>

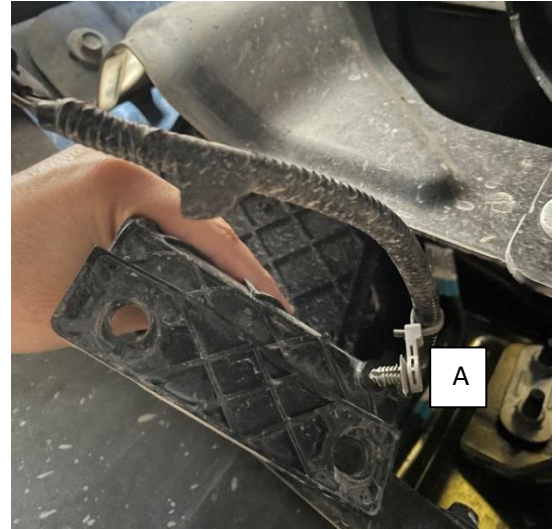
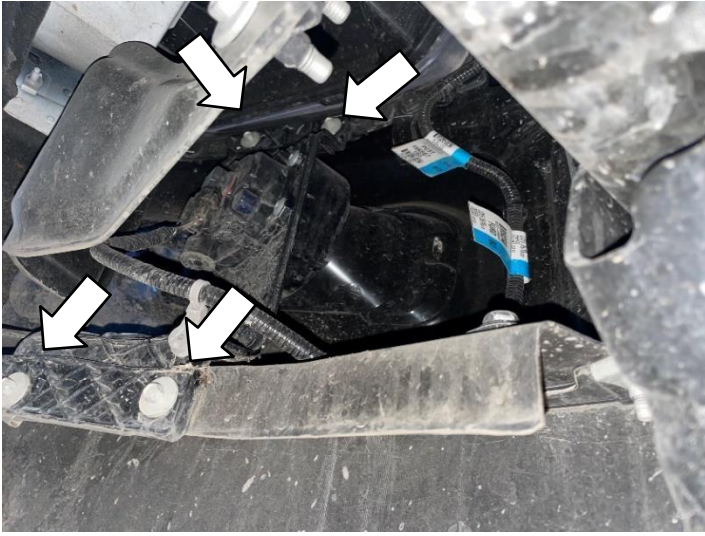
 <p>(66-0003) (QTY:1) Squadron 2.0 Wire Harness Splitter 55" Universal</p>	 <p>(64-0156) (QTY:29\" Hardware, 0.070\" Thick Sticky Back EPDM</p>	 <p>(64-0188) (QTY: 1) Upfitter Wiring Harness, Squadron 2.0 (Upfitter Version Only)</p>	 <p>(60-0058) (QTY:1) Squadron 2.0 Off/ On Harness (Toggle Version Only)</p>
 <p>(44-9352) (QTY:12) Hardware, Flat Washer M5 Screw Size</p>	 <p>(20-1002) (QTY:6) Hardware, 5mm Nylock Nut</p>	 <p>(65-0215) (QTY:2-4) Parts Bag SQ2.0/S2</p>	 <p>(65-0283) (QTY:2) Parts Bag, SAE ONLY</p>
 <p>(60-0045) (QTY: 2) Adapter, Unpinned H11</p>			

To begin, make sure the vehicle is in park, on level ground and the parking brake is engaged.

Step 1: With a 10mm socket, disconnect the negative battery cable from both batteries (boxed) (some vehicles may have only one battery). Ensure the cables are secured in such a way that they cannot touch the negative terminal.



Step 2: Remove 4X bolts from the OEM fog light bracket using a 7mm socket. Release the harness from the plastic bracket (A). Disconnect the harness from the OEM light and remove the OEM light.

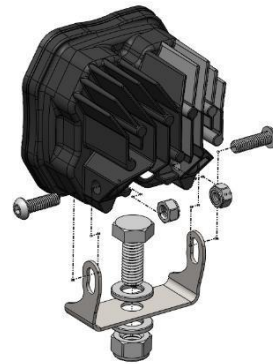
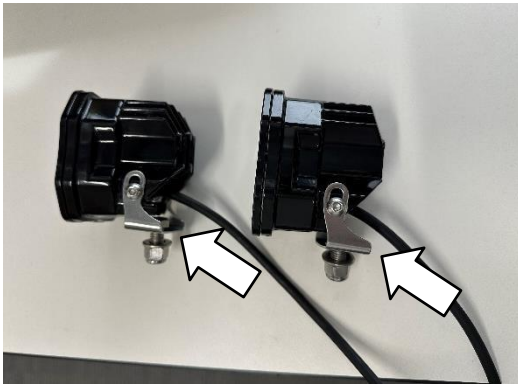


Step 3: Remove the Fog pocket plastic trim piece by squeezing the tabs from behind and pushing outward.

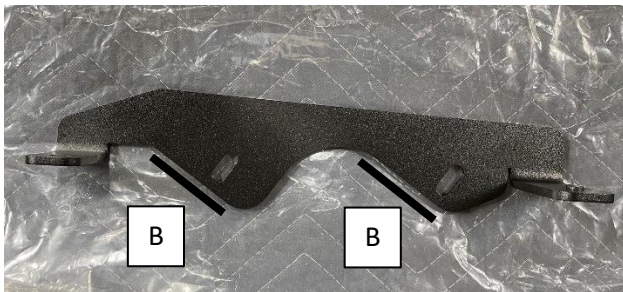


Step 4: Install the provided brackets using the M6 buttonhead screws and nuts from the parts bag onto the lights as shown using a 3mm Hex bit. Make sure the 3/8" screws and washer are pre-installed.

Note the direction of the brackets and the adjustability of the brackets.



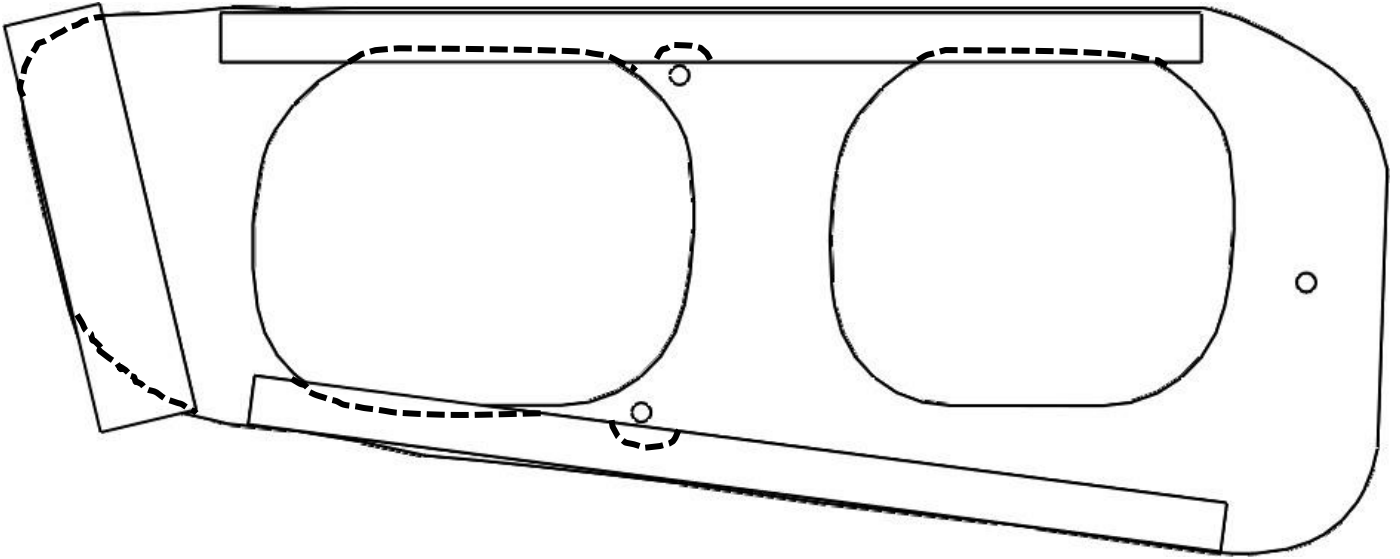
Step 5: Install your lights onto the provided brackets as shown using a 9/16" wrench and socket. The light face should be parallel to the edges (B) outlined below. **Note: SAE's must be placed on the outer positions. Lights with a Spot lens equipped (Excluding SAE) should be equipped on the inner location.**



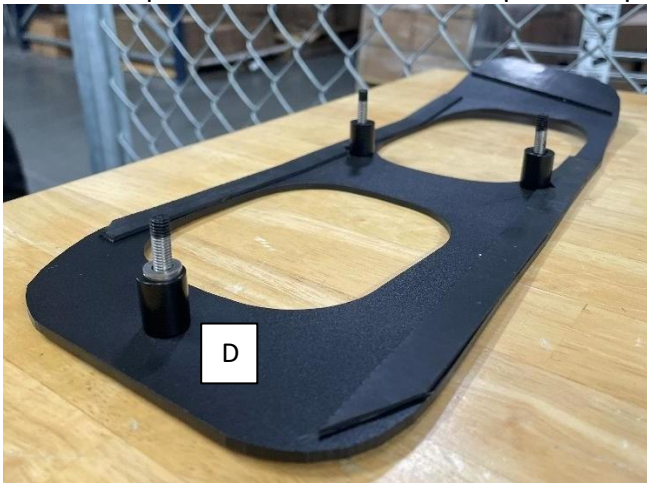
Step 6: Loosely install your main bracket inside the fog pocket using 1X M5 Button head bolt, M5 washer (C) and a 2.5 mm Hex tool. Adjust the lights to your preference.



Step 7: Cut a 10in section from your EPDM. Cut this strip horizontally so that you have two thin 10" sections. Cut a 4.25" section from your EPDM. Install the EPDM onto your bracket as shown lining up the straight edges as shown. Trim to match the bracket shape as seen on the dotted lines.



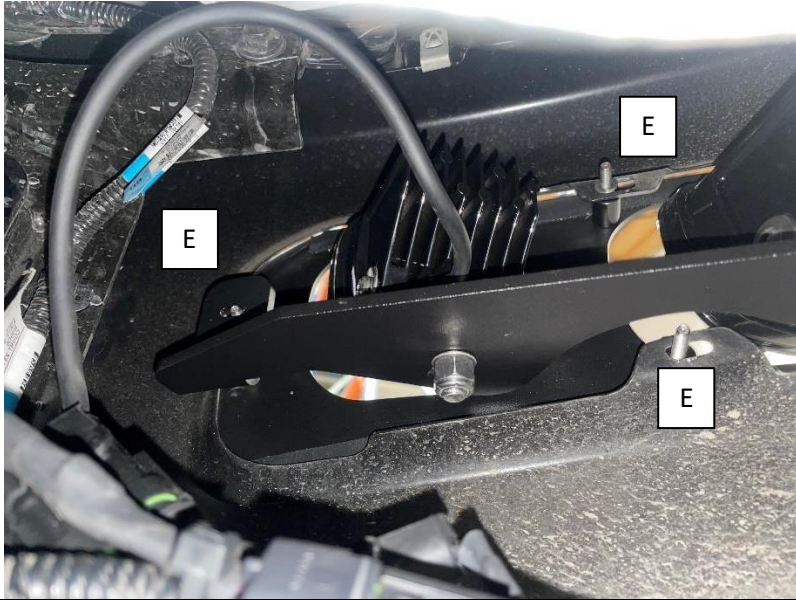
Step 8: Pre-install the spacers provided and install the fascia bracket over the light mount bracket. Note: Add two of the provided M5 washers on top of the spacer at location (D).



Step 9: Install the fascia bracket over the light mount bracket. Be sure to capture all three available mounts and ensure the front stud goes through the light mount bracket. Use an 8mm Wrench to secure the M5 washers and nylocs to the three studs.

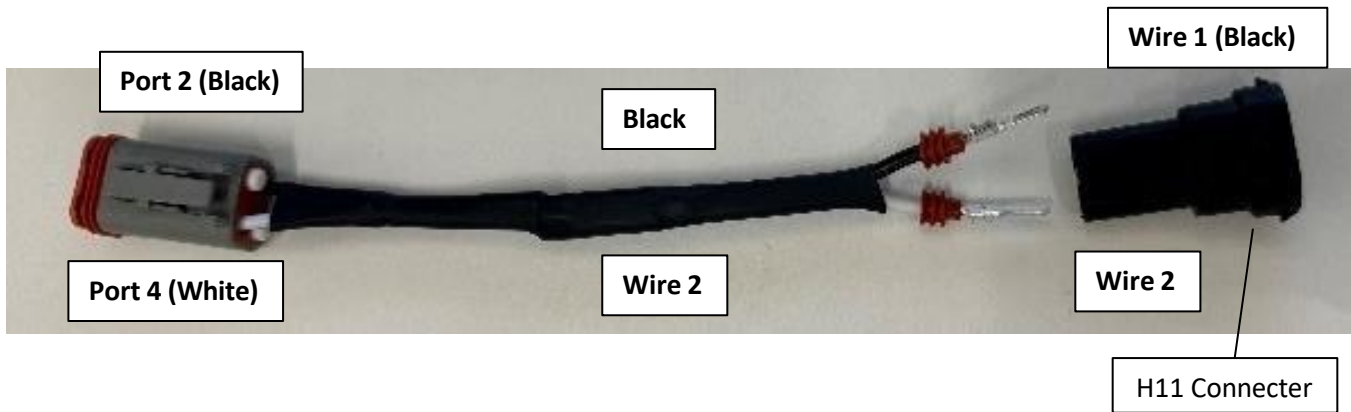


Step 10: Observe the angles of the lights. If they need to be adjusted remove the fascia and adjust their height or their angle. Otherwise, fully tighten down the M5 nylocks in the rear (E). Repeat steps 2-10 for the opposite side.



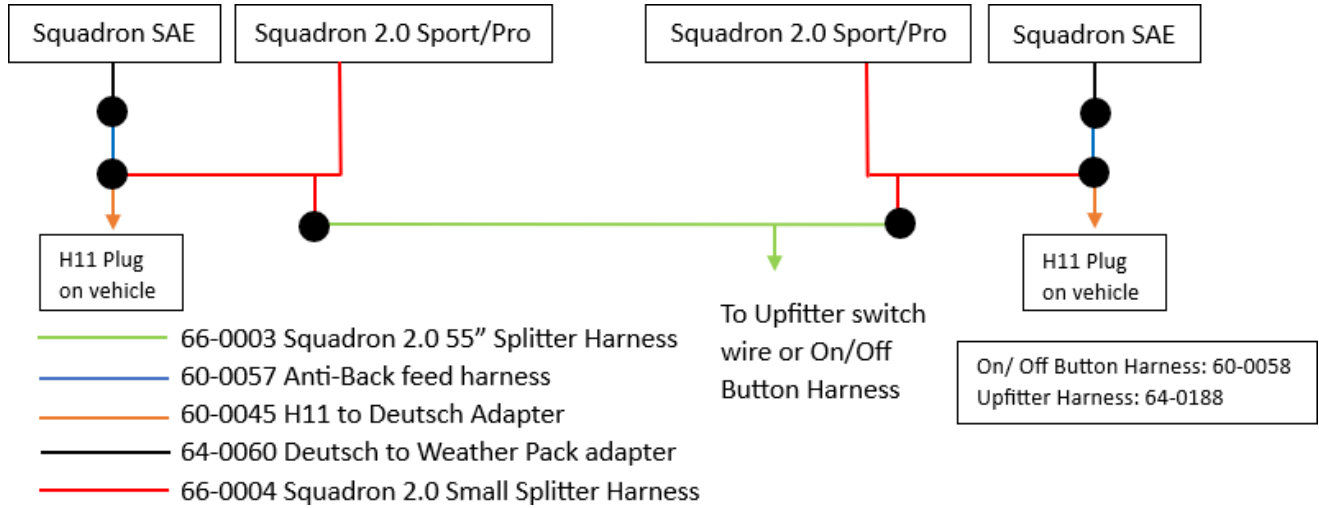
Step 11: Pin the H11 adapters provided as follows:

Locate the de-pinned harness adapter and the 4-Pin Deutsch Squadron 2.0 plug. Using a multimeter, identify which wire is positive and negative on the OEM harness. Note that the black wire (Negative) is on Port 2, and white (Positive) is on Port 4. Ensure that the H11 connector pins are installed correctly. Push the pins inside the H11 connector housing until a faint click is heard. Verify that the pins are fully installed by **GENTLY** pulling the wires away from the H11 connector housing. Connect this adapter onto the OEM harness.

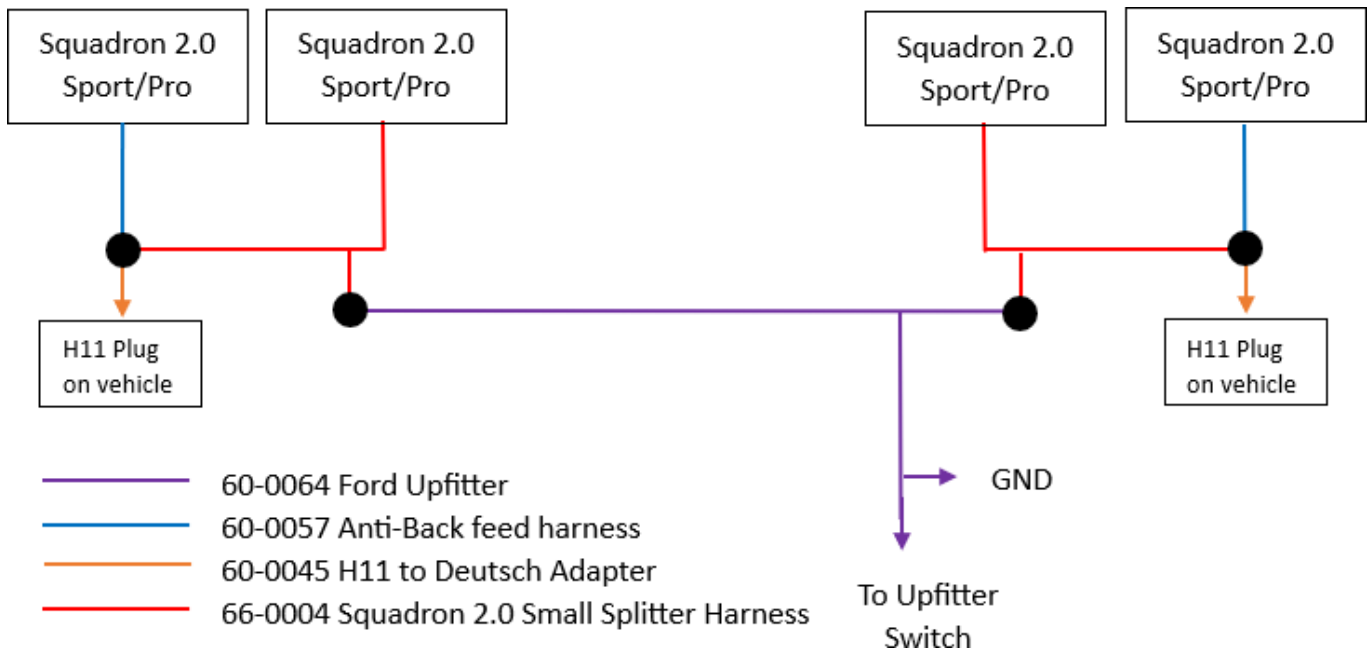


Step 12: Create the harness in the diagram below from the harnesses provided. Plug it into the lights as shown below.

(For kits 44-0031, 44-0031-UP, 44-0032, 44-0032-UP, 44-0033, 44-0033-UP, 44-0034, & 44-0034-UP)



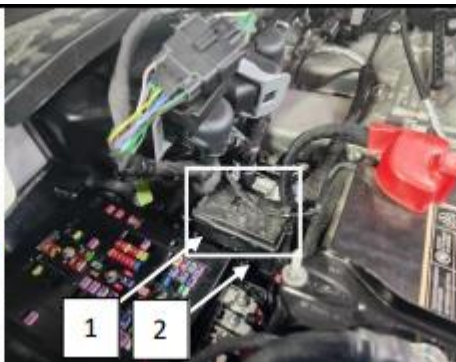
(For kits 44-0035-UP & 44-0036-UP)



Step 13: Run your wire harness down behind the passenger side headlight (Connector first).
 Note: The photo on the right depicts where the harness will exit the vehicle. (Bumper removed for visibility).

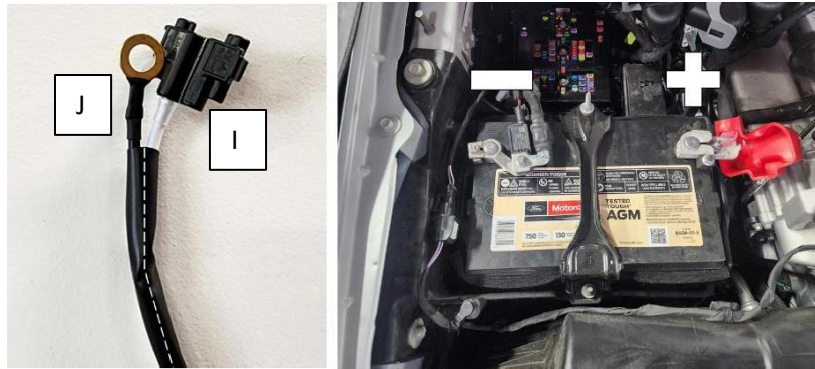


Upfitter Only Locate and detach the upfitter fuse box located near the PS fuse box (boxed) by pressing in the two locking tabs (1&2) and lifting up to access the bundle of wires underneath it. Take the included upfitter wiring harness and attach the white wire scotchlok (I) to the desired auxiliary wire using a set of pliers. Reinstall the upfitter fuse box. Attach the connector on the upfitter harness to the harness end (F).



Aux Switch	Wire Color	Amp Rating
Aux 1	Bn/Gn	25
Aux 2	Vt/Og	25
Aux 3	Bu/Gn	25
Aux 4	Gy/Bn	25
Aux 5	Bn/Ye	40
Aux 6	Gy/Og	40

Carefully cut back the sheathing around the wiring till the black wire can reach the negative battery terminal without straining. Attach the black wire (J) to the negative battery cable and reattach the cable to the battery. Place any excess wire into a service loop and secure it out of the way. The installation is now complete. Test to ensure proper functionality.

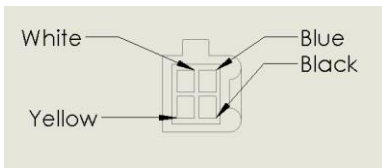


Toggle Switch Only

Connect the connector that is now down behind the fog light to the harness end (F) from Step 11. Run the switch lead across the firewall. Secure the relay where convenient. Zip tie the harness out of the way.



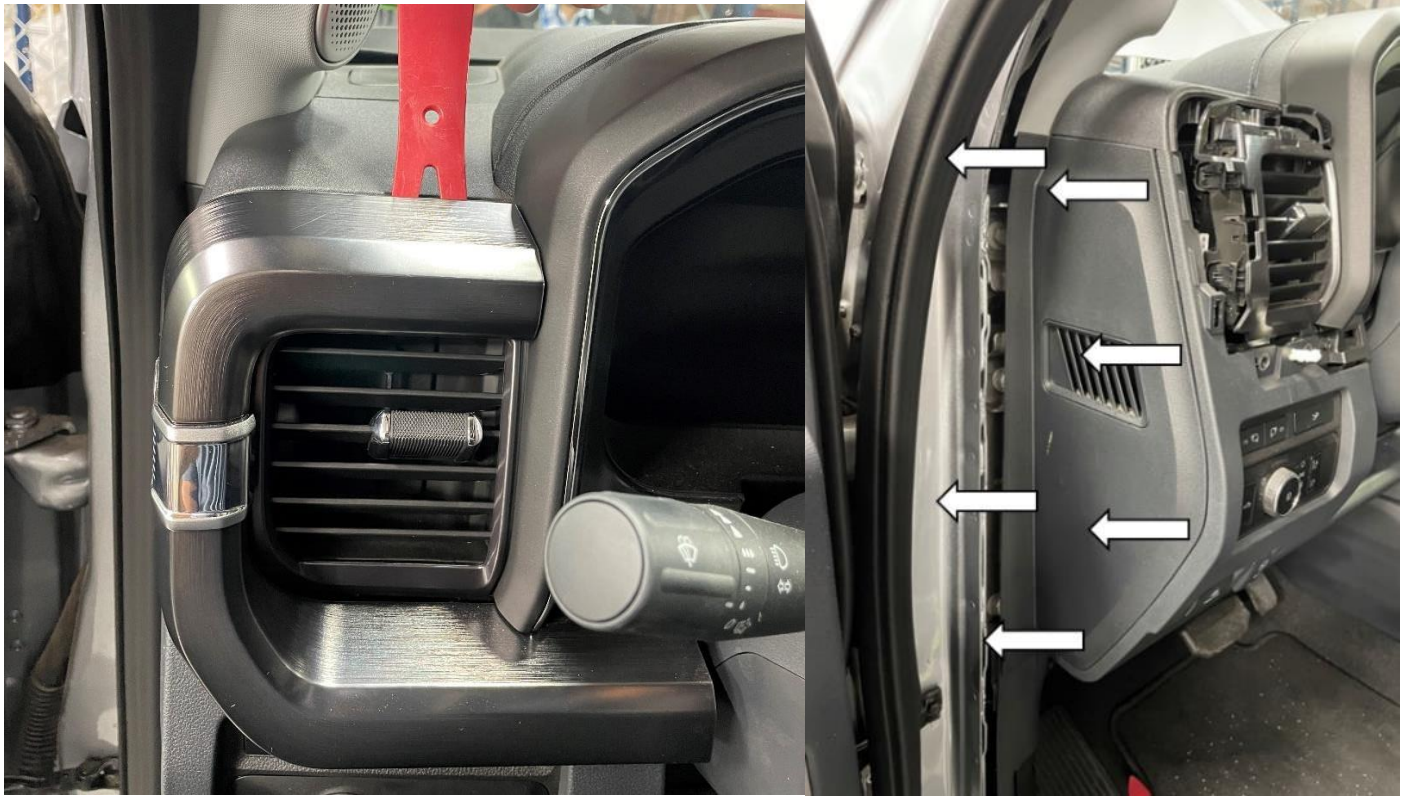
Locate the red connector (K) that attaches the switch to the main harness and disconnect it. With a pick, remove the wire terminals from the connector. Run the switch lead, terminals first, through the wire passthrough (circled) starting inside the cab. Pull the cable through once you are past the grommet and up to your main harness. Reinstall the terminals into the connector and reattach it to the main harness.



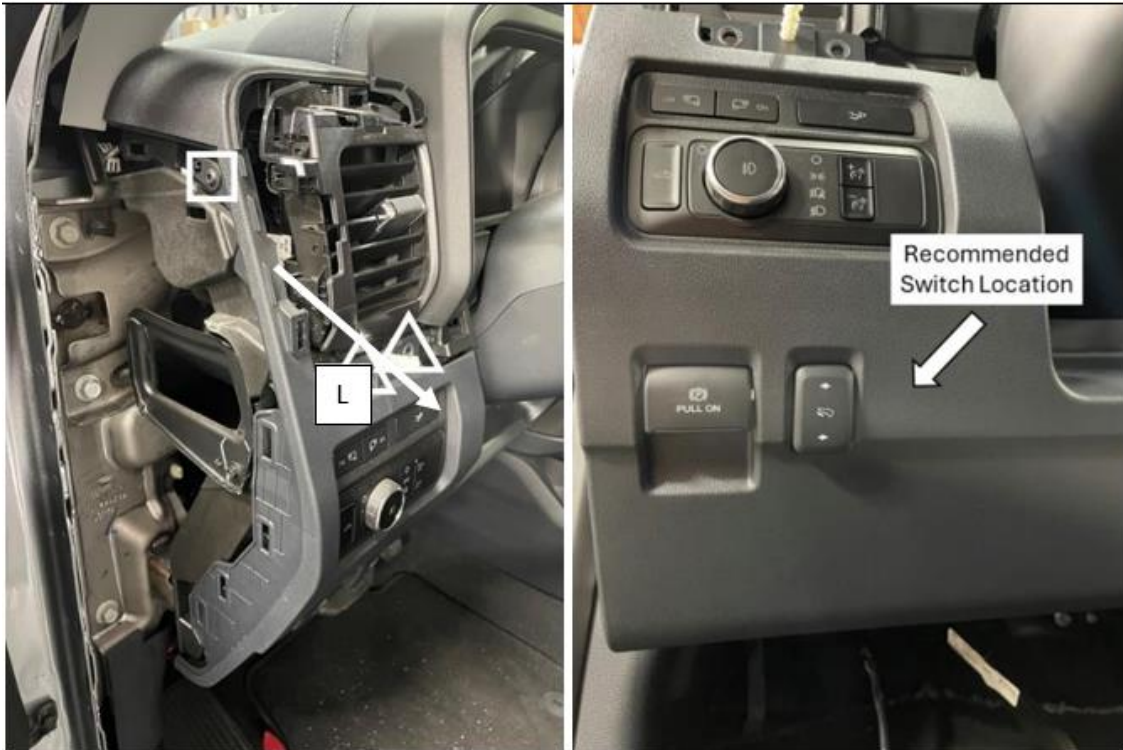
K



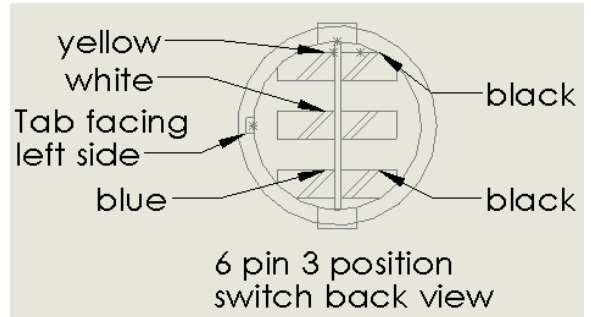
Remove the bezel from around the vent by prying at the edges and pulling directly backwards. Locate the panel on the side of the dash and remove the door seal around it. Gently pull outwards on the panel to remove it.



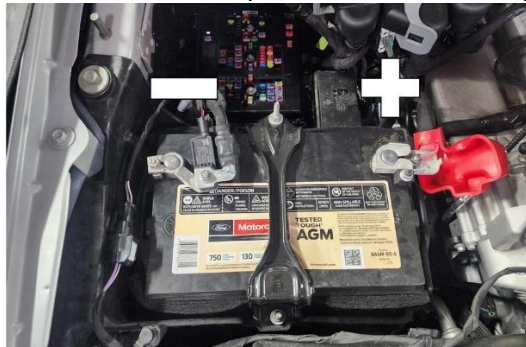
With a T20 Torx (boxed) and 7mm socket (triangle), remove the 3 screws securing the trim panel surrounding the headlight controls. Gently pull the panel diagonally downward (L) to allow access behind it. Check for clearance behind the panel and drill a 3/4" hole at the recommended switch location.



Take a reference photo of the switch's wiring output. Disconnect the spade connectors and run the wires through the newly created switch hole. Reconnect the wires and press the switch into place.



Using a 10mm socket, attach the red wire to the positive battery cable and the black to the negative battery cable. Secure any excess wire in a service loop and secure out of the way. Reconnect the negative battery cables and the installation is now complete. Test to ensure proper functionality.



*Tie all wires away from sharp, hot, and/or rotating components.

* Re-torque all the fasteners after 100 miles.

*Your install is now complete! Thank you for choosing Baja Designs.

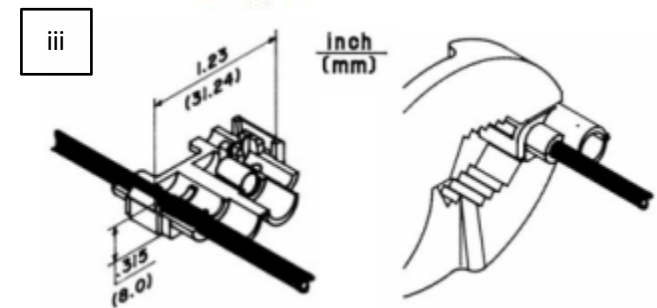
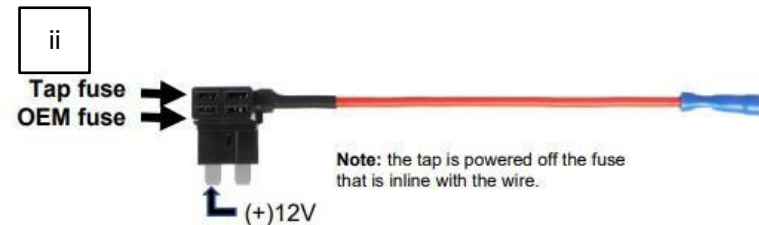
Backlight add-on harness instructions for Squadron 2.0

Note: Included with this harness is four fuse taps. In the event that none will work for your application, a splice connector is included (shown on right).

1. Locate the fuse panel in the engine compartment. Remove cover.
2. Observe the inside of the fuse box cover, or the owner's manual to determine fuse locations and functions. The goal is to find a suitable circuit that is powered on when the vehicle is turned on. It is important to choose a fuse location that does not power sensitive electrical components, such as sensors and ignition modules. Choose a fuse that is activated by turning the key and remains active while the vehicle is starting and running. The IGN fuse is highly recommended for this. Using other circuits to run the backlight may result in the color changing when not desired.
3. Once the fuse location has been chosen, the multimeter or test light will be used to determine which side of the fuse is power and which side is the output. Using either tool, touch the positive test lead to one side of the fuse socket and touch the negative lead to the negative battery post, or any convenient ground. With the keys in the off position, neither side of the fuse socket should have power. If they do, another fuse location will need to be chosen.
4. Now, turn the keys to the on position and measure each side of the fuse socket. When the test light illuminates, or the multimeter DC voltage measures 12-14V, the power side of the fuse has been determined. Insert the fuse tap into the socket with the arrowed side blade (shown in image ii) contacting the power side. Plug in the backlight harness to the female bullet receptacle of the fuse tap. If the fuse socket originally had a fuse, place it into the open socket on the fuse tap.
5. Every fuse panel is different and sometimes there are adjacent components that make it difficult or impossible to plug in a fuse tap. In this case, the splice connector will need to be used. Find a wire that is powered when the keys are on. Ideally, this wire would power the daytime running lights and not an electrically sensitive component like a sensor. With the backlight harness inserted into the female bullet receptacle of the splice connector, clasp the splice over the desired power wire and clamp with pliers until an audible click is heard. (See image iii for reference)

Tools Required

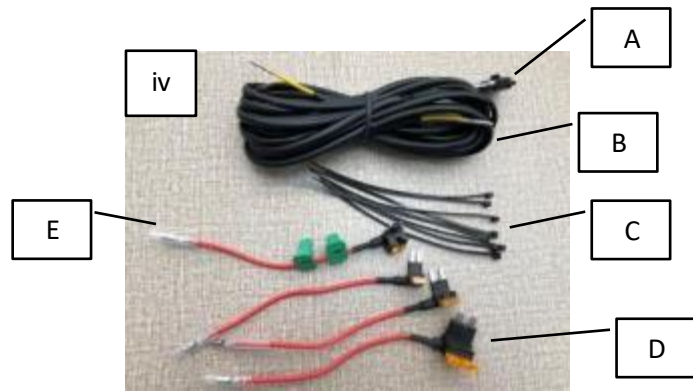
- Trim Tool (Or Flathead Screwdriver)
- Scissors
- Test Light, or Multimeter



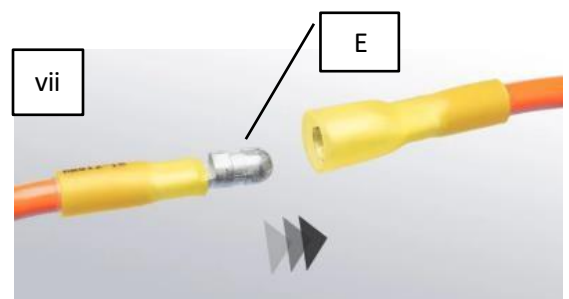
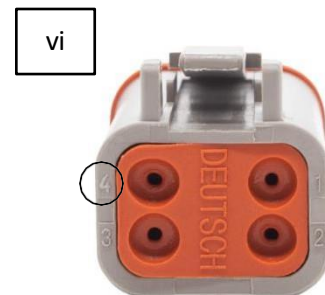
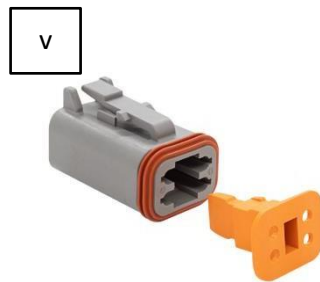
Fuse tap kit part #: 63-9209

Backlight add-on harness instructions

1. Use the provided 5-amp fuse in the fuse tap for the backlight add-on harness (See image ii for reference).
2. Remove the Wedge lock from the plug by using a flat head screwdriver and **gently** prying along the edges with a flathead to release the lock (see image v for reference)
3. Locate the backlight add-on harness supplied in the kit. If a cavity plug was inserted previously in the PnP (Plug-n-Play) adapter, please remove it and insert the terminal inside the (3) pin location. (See image vii for reference)
4. To reinstall the wedge lock, simply push the wedge lock back in until it clicks in. (See image v for reference)
5. Determine the best routing for the backlight add-on harness.
6. Connect the bullet connector from the backlight add-on harness to the fuse tap and secure the wire harness. (Use image iii for reference)
7. Turn on the vehicle and test to see if the backlight function on the Squadron 2.0 works appropriately.
8. Use included zip ties to tie the harness out of the way of any hot and/or rotating components.



- A: Splice connector
- B: Harness
- C: Zip ties
- D: Fuse taps
- E: Bullet connector



Backlight switch adapter instructions

1. Connect the bullet connectors from the switch inline between the fuse tap and the backlight add-on harness.
2. Turn the vehicle on and rapidly turn the switch on and off until the desired color is displayed as the backlight.
3. Once the desired color has been achieved, the switch can be either removed or left in. To remove the switch, turn the vehicle off and remove the switch. Reconnect the bullet connectors between the fuse tap and the backlight add-on harness. To leave the switch in line, secure the switch so it does not move. **Be sure to always leave switch in the "on" position if the switch will be left in.**



Inline switch part #: 60-0071