



**(2021-On Ford F-150 Raptor, 2024-On Raptor R)
44-0016, 44-0017 21-On Ford Raptor Squadron 2.0,
Behind Grill Kit**



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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 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:

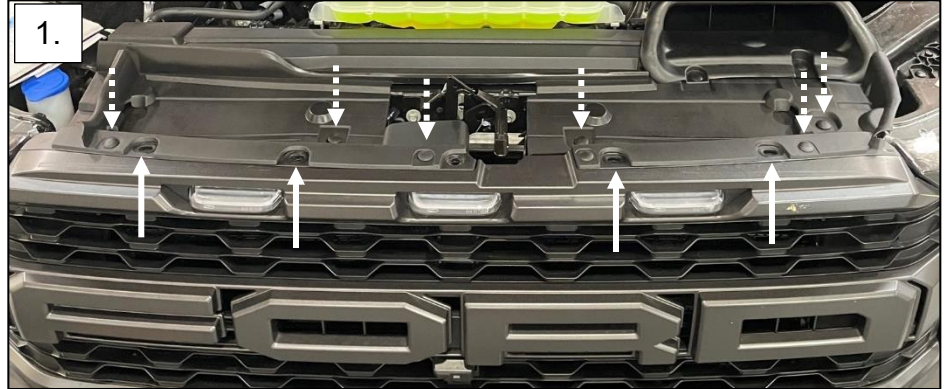
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Buyer is responsible for ensuring that it uses the products (and its vehicle) in accordance with all applicable laws, regulations, guidelines, and standards of care. Buyer acknowledges that some products may only be used when off-roading, and Buyer 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.

Tools Required

- * Trim Removal Tool
- * 7mm, 8mm, 10mm, 12mm, 7/16", 9/16" socket
- * 7/16", 9/16" wrench
- * 4mm, 5mm Hex Key

1. Using a trim removal tool or a flat head screwdriver, remove the 5x Retainer clips securing the top of the grille (↗). Use the same tool to then remove 8x plastic rivet push clips securing the top of rubber radiator shroud (↖). The whole shroud does not need to be removed as it can be folded out of the way for disassembly. **24+ Raptor R ONLY:** The whole shroud needs to be removed. Remove all the plastic fasteners.



2. Fold up the rubber radiator shroud and disconnect all the electrical for the front grille. There will be a total of 4 connectors (↗) and 2 plastic rivet push clips (↖).

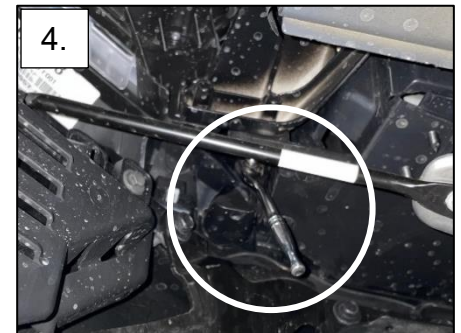
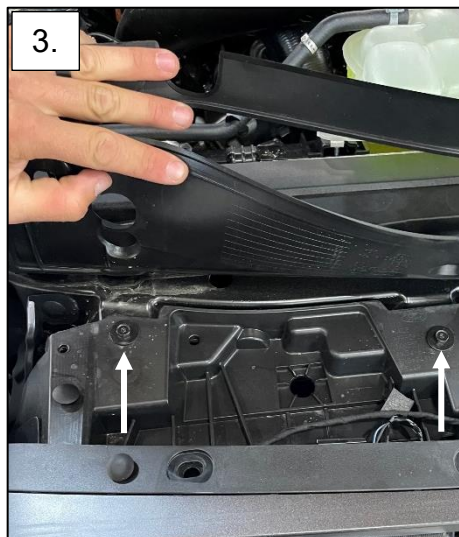
24+ Raptor R ONLY: To disconnect the black hose connector, squeeze the collar back into a circular shape to disconnect the hose.



3. Fold up the rubber radiator shroud and remove the 4x bolts securing the top of the front grille using a 10mm. There will be 2 on each side.

4. Located underneath the vehicle, will be the lower fastener for the front grille. It is not visible and will need to be removed blind. In the image shown, the ratchet wrench can be seen in location to remove the bolt. Use a 10mm socket, remove the fastener, one located on each side.

24+ Raptor R ONLY: Above the brace, the threads of two fasteners can be seen. Remove the fastener(A) towards the center of the vehicle using a 10mm deep socket.



5. Using a 7mm socket, remove the 2x fasteners securing the fender flare. Repeat process on opposite side.

6. Pull on the fender flare next to the running light to release the 2x white plastic self-retaining clips. Repeat process on opposite side.



7. Pull on the front grille facia to remove from the front fender. Repeat process on both sides.

For non-Raptor R variants skip to step 14.



8. 2024+ Raptor R Only
Remove the 6X Skid plate bolts using a 14mm socket.

9. 2024+ Raptor R Only
Remove the bolts (B) securing the brace to the bumper using an 8mm socket. Remove the brace entirely.

10. 2024+ Raptor R Only
Remove the four nuts securing the bumper to the frame using an 18mm socket.

11. 2024+ Raptor R Only
Partially remove the front bumper to gain access to the electrical connectors on the frame. **Place the bumper just beyond the frame careful not to strain the wiring harness.**



12. 2024+ Raptor R Only

Disconnect the large connector that sits above the passenger side frame by releasing the lever.

13. 2024+ Raptor R Only

Disconnect the smaller connector on that same harness that sits inside the frame rail and remove the clip securing the harness to the frame.

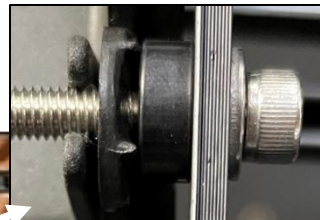
14. Pull on the front grille to remove the self-retaining clips. The best locations to hold on to are the F & D from the FORD lettering. Once the clips are released, remove the grille, and set onto a soft surface face down.

2024+ Raptor R Only

The grill will not be clipped in and can be removed by pulling it directly away from the vehicle.

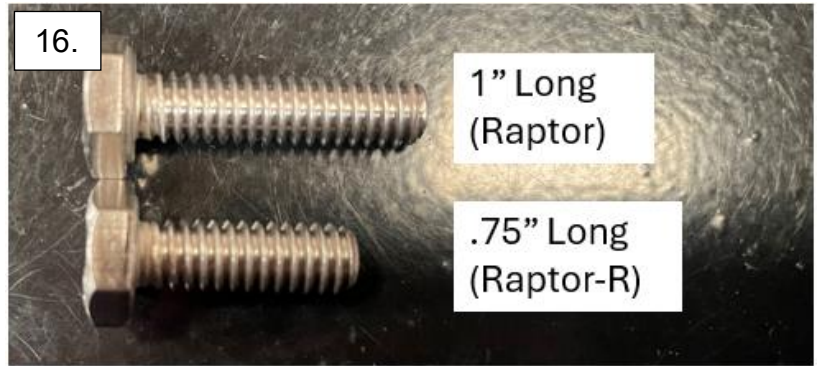
15. Using a flat head screwdriver remove the 4x lower plastic shutters by bending the plastic tab away from the shutter releasing the pivot pin. They will need to be removed on each side.

16. Install the bracket into the location where the shutters existed. Use the 2nd and 3rd mounting hole from the bottom. Apply the .25" hardware in the mount facing the center of the vehicle and 5mm hardware, into the mount facing the outside of the vehicle. Make sure to use the supplied plastic spacer in between the bracket and shutter mount. The 5mm hardware will need to be threaded past the shutter support tab. This will not hurt the functionality of the shutters and can be returned to stock.

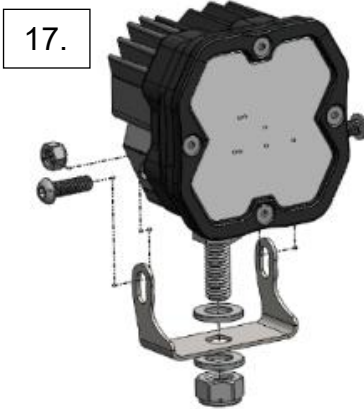


2024+ Raptor R ONLY

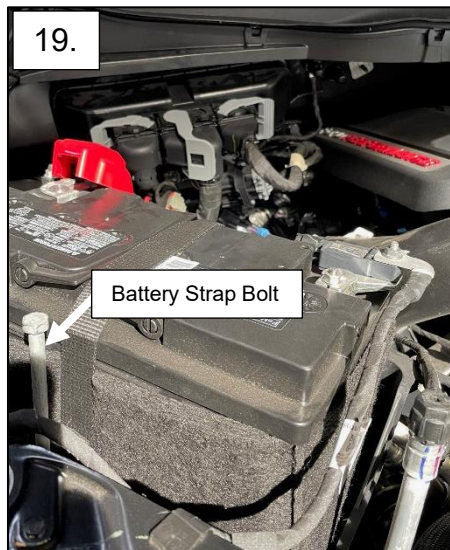
Use the shorter supplied ¼-20 hardware provided for the location outlined (C). Do this for both bracket installations. This will ensure adequate clearance.



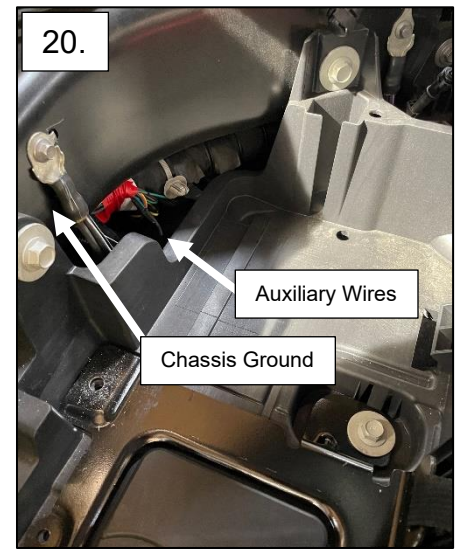
17. Using a 4mm hex key, attach the bracket to the squadron 2.0.
18. Using a 9/16" wrench and socket, torque the light to the bracket. See step 24 for visual representation of the light set-up with the corresponding light patterns.



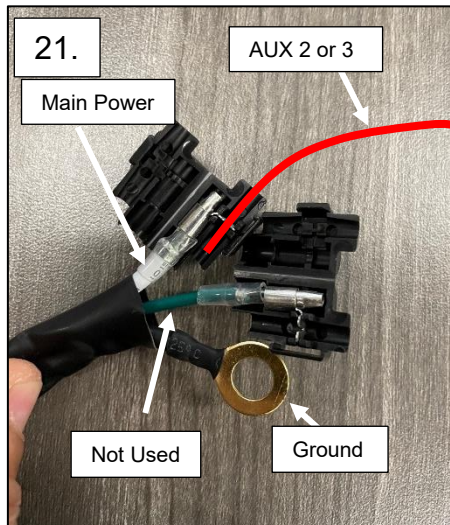
19. Using a 12mm socket, remove the battery strap. Using a 10mm socket, remove the battery terminals starting with the ground (black) terminal.



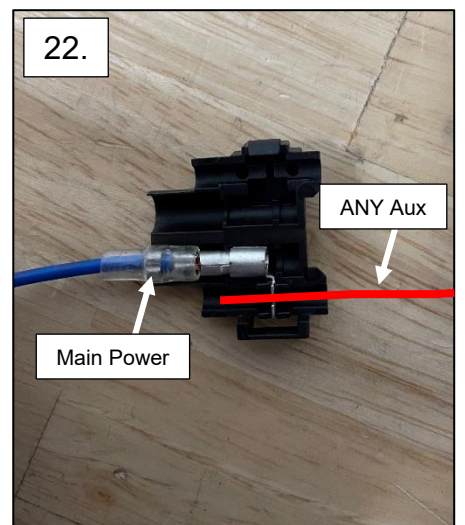
20. Once the battery is removed, locate the auxiliary wires underneath the engine bay sheet metal on the passenger side. Take the supplied wiring harness and place the 3/8" ring terminal on the black wire onto the chassis ground directly above the auxiliary wires.



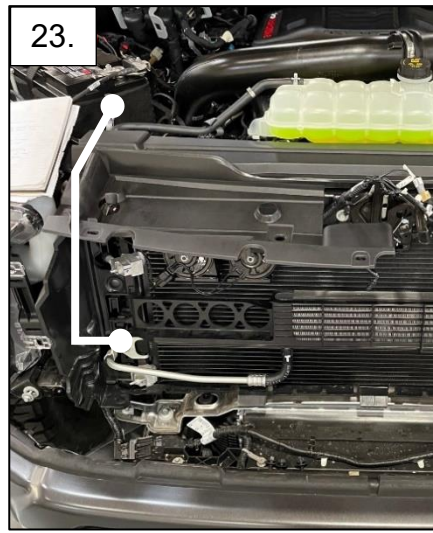
21. **Squadron 2.0 Sport Kit:** Separate the auxiliary wires. Use either auxiliary wire 2 (Green/Brown) or 3 (Green/Blue) for the main power (White Wire). Take the clasp connector on the up-fitter harness and close over the desired wire using pliers.



22. **Squadron 2.0 Pro Kit:** Use any auxiliary wire for the main power. Place the splice connector on the wiring harness over the desired wire, use a pair of pliers to force shut over the wire.

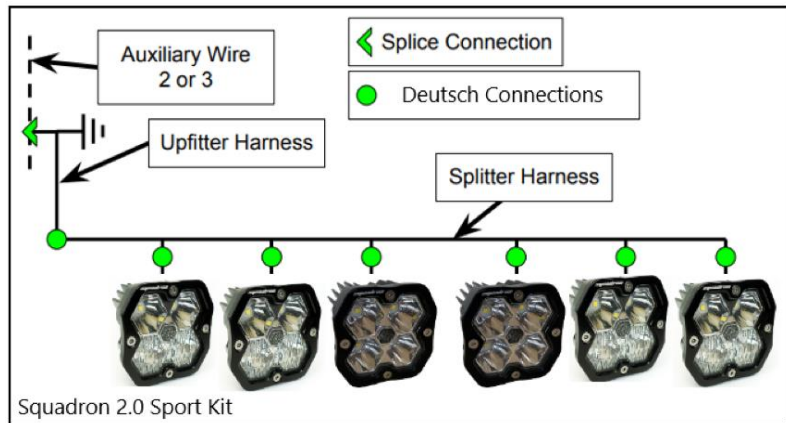
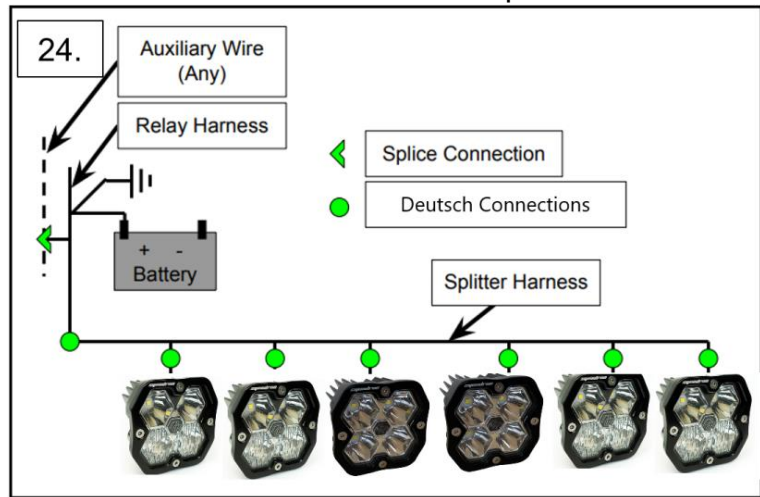


23. Re-mount the battery. If using the squadron 2.0 pro kit, place the ring terminal on the red wire to the positive (red) terminal on the battery. Route the harness from the battery to the backside of the grille opening.



Squadron 2.0 Pro Kit

24. Place the large splitter harness to the lights with the main connector facing the passenger side of the vehicle. Plug in the Up-fitter or relay wiring harness to the splitter harness. Mount the grille when connected. Test lights before installing the grille hardware. If there is any confusion, use the diagrams on the right to show the difference in wiring between the Squadron Pro & Sport



25. Once the lights are wired correctly, finish re-installing all the components taken apart. If using the squadron sport kit, the job is done. If using the squadron pro kit, use the body fastener in front of the battery to mount the relay. Using a 10mm socket, remove the fastener, install the relay and torque down.

*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.



	Lighting Specs	
	Wattage	Amps
Squadron 2.0 Sport	180	13.2
Squadron 2.0 Pro	390	28.3

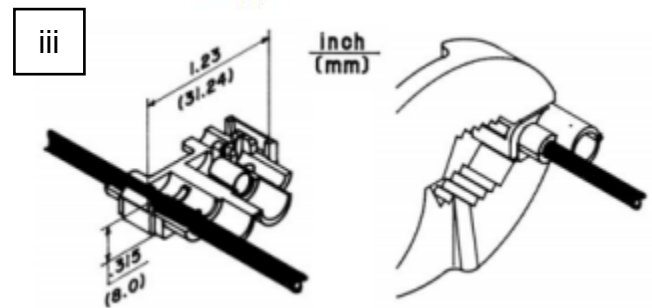
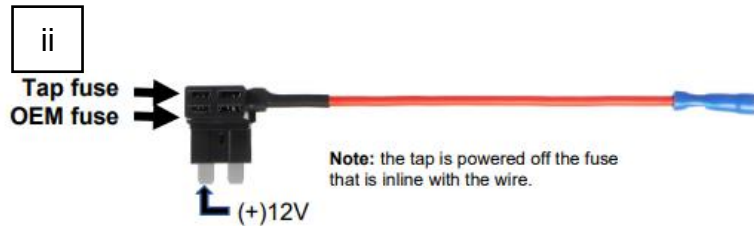


Backlight add-on harness instructions for Squadron 2.0

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)

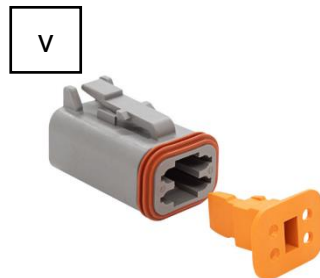
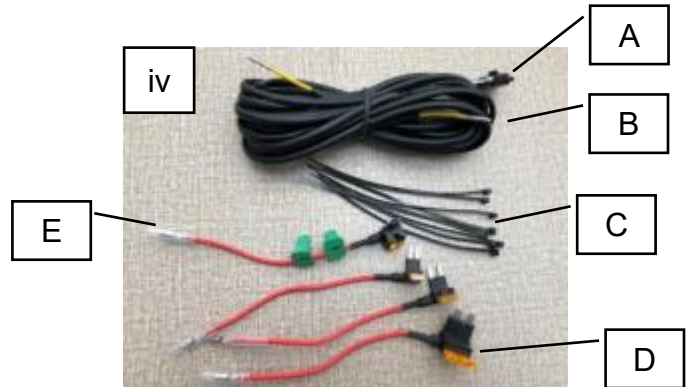
Tools Required	
- Trim Tool (Or Flathead Screwdriver)	- Test Light, or Multimeter
- Scissors	



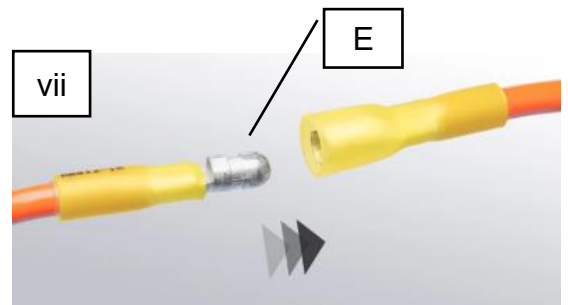
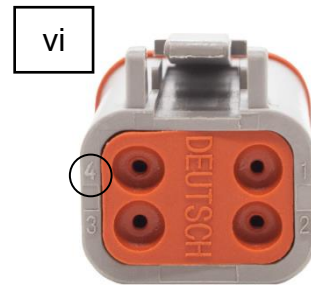
Fuse tap kit part #: 63-9209

Backlight add-on harness instructions

6. Use the provided 5-amp fuse in the fuse tap for the backlight add-on harness (See image ii for reference).
7. 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)
8. 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)
9. To reinstall the wedge lock, simply push the wedge lock back in until it clicks in. (See image v for reference)
10. Determine the best routing for the backlight add-on harness.
11. Connect the bullet connector from the backlight add-on harness to the fuse tap and secure the wire harness. (Use image iii for reference)
12. Turn on the vehicle and test to see if the backlight function on the Squadron 2.0 works appropriately.
13. 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 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