



# BARDE REAR BUMPER

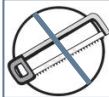
PART NO. IB-BR-03F

**FITS:**

2021-2023 Ford F150 (Excl. 2022-2023 F150 Lightning EV)



90-180 min



Cutting Not Required



Drilling Not Required

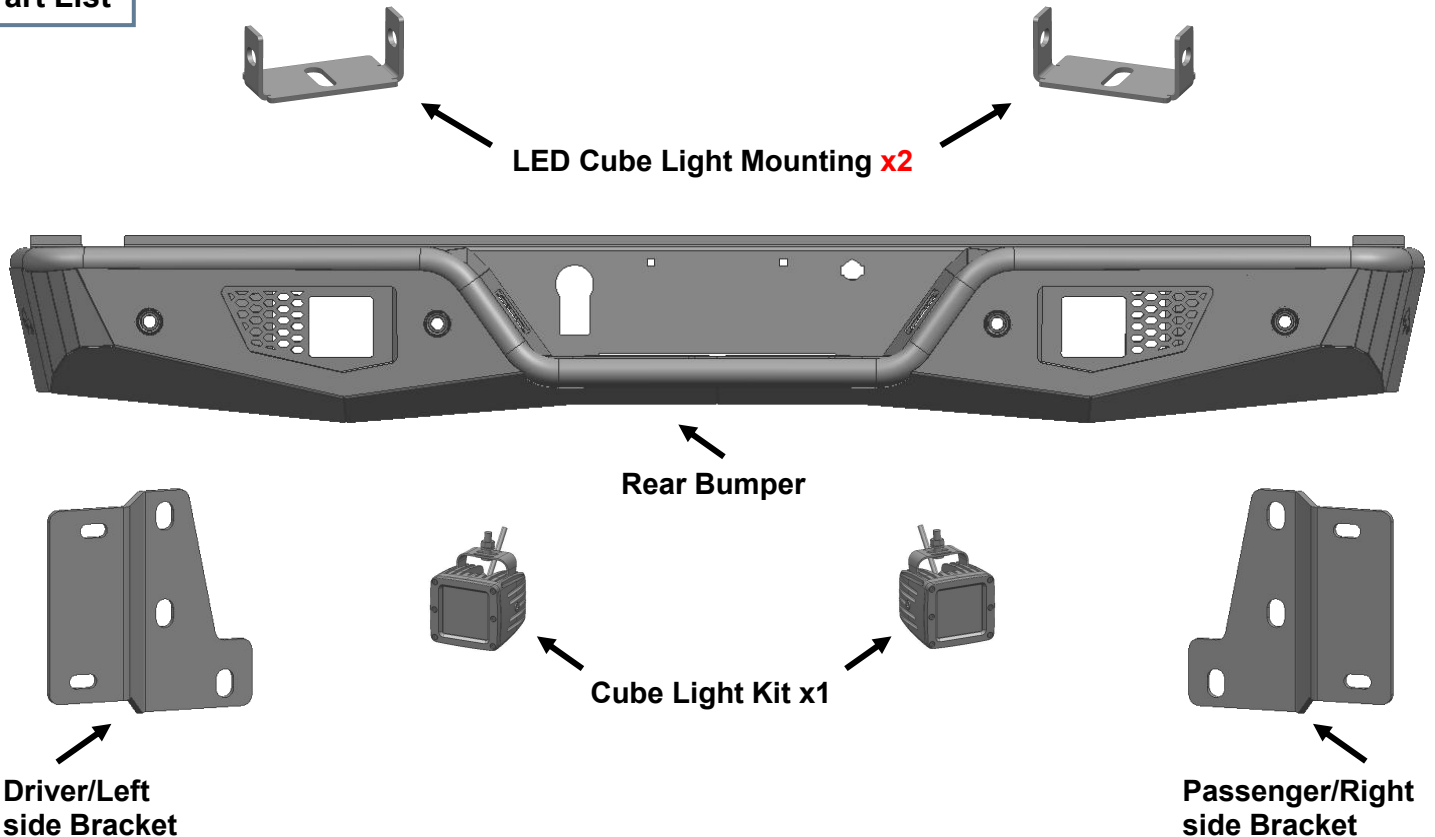
## Torque & Tools


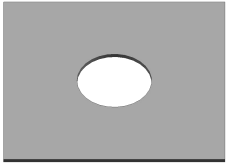
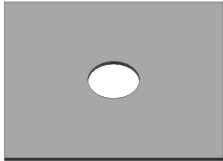

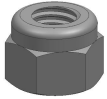






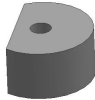


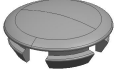



Fastener Size	Tightening Torque (ft-lbs)	Wrench Required		Allen Wrench Required	
■ 6mm	■ 7-8.5		■ 10mm		■ 4mm
□ 8mm	□ 18-20		□ 13mm		□ 5mm
■ 10mm	■ 35-40		■ 16mm		□ 6mm
□ 12mm	□ 60-70		□ 18mm		□ 8mm
■ 14mm	■ 90-110		■ 22mm		□ 12mm

### BEFORE INSTALLATION

REMOVE CONTENTS FROM BOX. VERIFY ALL PARTS ARE PRESENT DEPEND ON THE PARTS LIST. READ INSTRUCTIONS CAREFULLY. BUMPER IS HEAVY, ASSISTANCE IS HIGHLY RECOMMENDED TO AVOID POSSIBLE INJURY OR DAMAGE TO THE VEHICLE.

### Part List



<p><b>Use to attach Bumper to the Mounting Brackets:</b></p>	 <b>x2</b> <p>10mm x 35mm Bolt Plate</p>  <b>x6</b> <p>14mm Plastic Retainer</p>  <b>x4</b> <p>10mm Plastic Retainer</p>  <b>x4</b> <p>10mm x 30mm x 2.5mm Flat Washer</p>  <b>x4</b> <p>10mm Nylon Lock Nut</p>
<p><b>Use to attach the LED Cube Light Brackets to the Bumper:</b></p>	 <b>x4</b> <p>6mm x 20mm Allen Head Bolt</p>  <b>x4</b> <p>6mm x 18mm x 1.6mm Flat Washer</p>  <b>x4</b> <p>6mm Flange Nut</p>  <b>x4</b> <p>6mm Lock Washer</p>  <b>x1</b> <p>4mm Allen Wrench</p>
<p><b>Use to attach Parking Sensors to the Bumper:</b></p>	 <b>x6</b> <p>Sensor Cap</p>  <b>x6</b> <p>Foam Spacer</p>  <b>x6</b> <p>Foam Seal</p>  <b>x12</b> <p>4mm Self Tapping Screw</p>  <b>x6</b> <p>Sensor Hole Plastic Plug (Use on the models without Front Sensor)</p>  <b>x6</b> <p>Sensor Cover (Cover the sensor when it fails)</p>
<p><b>Others:</b></p>	 <b>x2</b> <p>License Plastic Plug</p>  <b>x10</b> <p>Nylon Ties</p>

## STEP 1

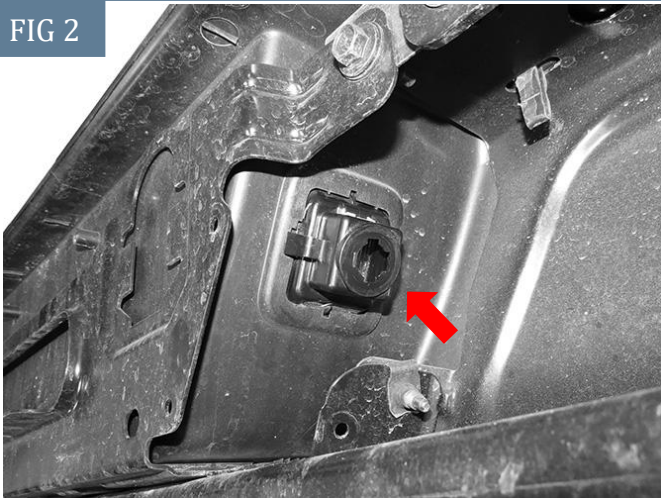
Remove the license plate from the bumper, (**Fig 1**). Next, unplug the license plate lights, trailer plug and sensors, if equipped, (**Fig 1 & 2**). Unplug the wiring harness leading to the bumper, (**Fig 3**). Move wiring harness away from bumper. **NOTE:** Bumper is designed to be compatible with larger 7-wire universal trailer harness plug only.

FIG 1



(Fig 1) Unplug and remove 7-wire trailer plug

FIG 2



(Fig 2) Unplug license plate lights



**WARNING!** Do not crawl under bumper unless it is properly supported on blocks or stands or the bumper may fall.

FIG 3

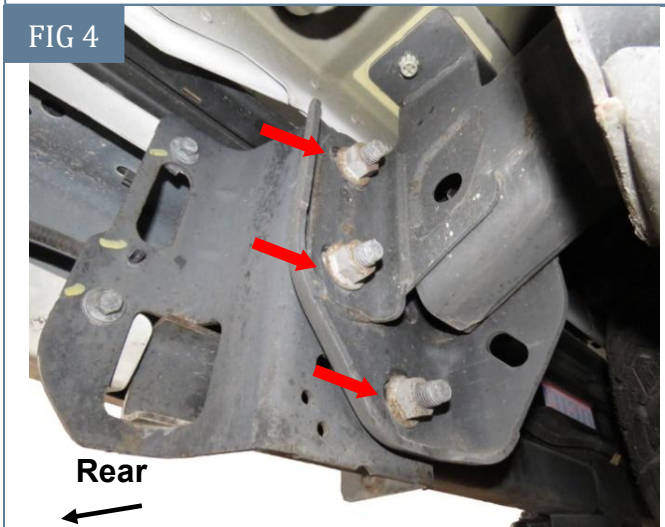


(Fig 3) Locate and remove wiring harnesses leading to bumper

## STEP 2

Place blocks or jack stands under the bumper to support it during mounting bolt removal. Once the bumper has been safely supported, remove the factory hardware attaching the bumper to the end of the frame and remove the bumper assembly, (**Figs 4**). **WARNING!** Assistance is required to hold the bumper in place during hardware removal to prevent bumper from falling.

FIG 4



(Fig 4) Remove factory hardware to remove bumper from vehicle

## STEP 3

Remove the wiring harness, license plate lights, trailer plug and spare access lock from the factory bumper. Remove sensors, (if equipped), from bumper.

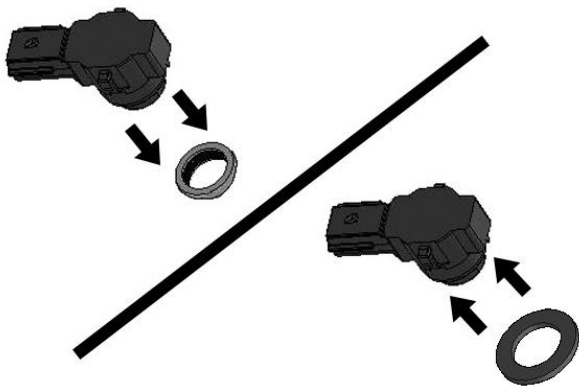
## STEP 4.1

Depending correct procedure for your model.

### Models with bumper mounted sensors:

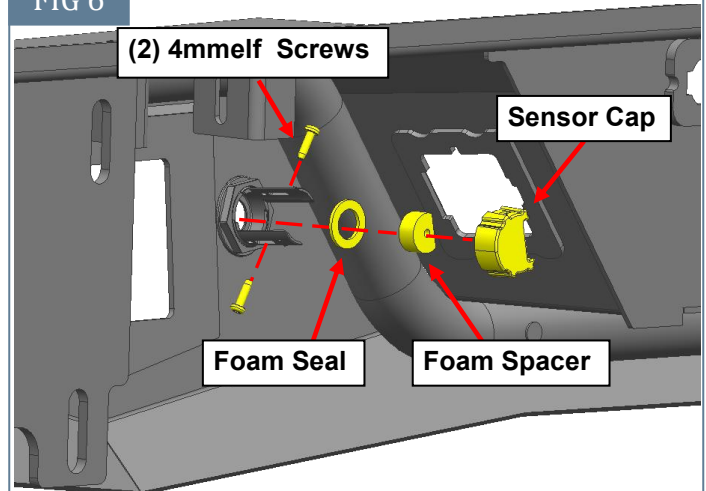
- Select (1) sensor. Remove the silicone seal from the end of the sensor, **(Fig 5)**.
- Slide the included larger Foam Sensor Seal over front of sensor, **(Fig 5)**.
- Insert sensor with Seal into sensor mount in Rear Bumper, **(Fig 6)**.
- Place Thick Foam Spacer over end of sensor. Push Sensor Retaining Cap onto sensor mount and lock into mounting holes, **(Fig 6)**.
- Repeat previous **Steps** to install the remaining (3) sensors, **(Fig 7)**.
- Install wiring harness from factory bumper.

FIG 5



**(Fig 5) Remove original silicone seal from sensor. Slide included Foam Seal over end of sensor**

FIG 6



**(Fig 6) Insert sensor assembly into the sensor mount on back of Bumper. Use 4mm Screws to lock sensor in place.**

FIG 7



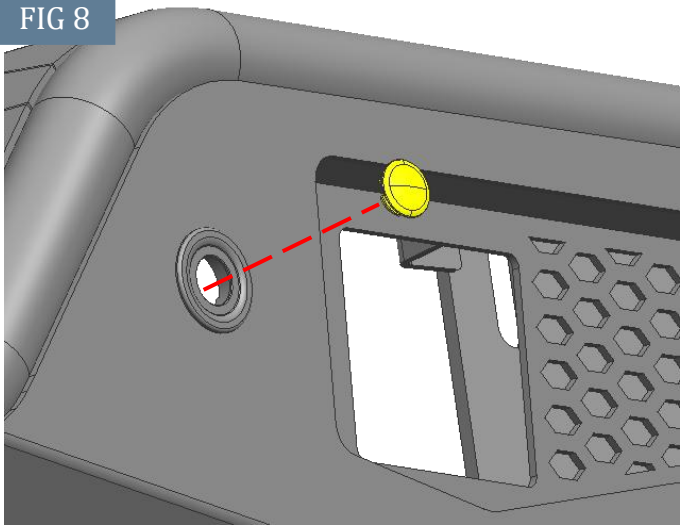
**(Fig 7) Parking sensor installed**

## STEP 4.2

### Models without bumper sensors:

- From the front of the bumper, push the included Plastic Plugs into sensor mounting holes, **(Fig 8)**.
- Install wiring harness from factory bumper.

FIG 8

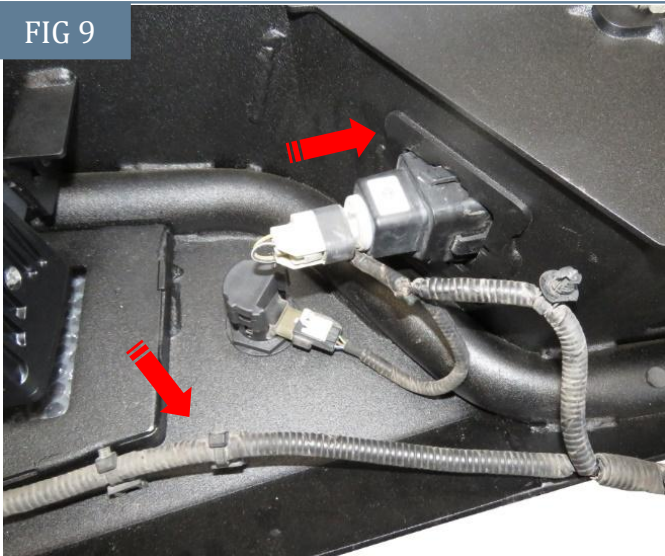


(Fig 8) Models without sensors, push Plug into Sensor Mount

## STEP 5

Install the license plate lights and trailer plug into the Bumper, (Figs 9 - 10). Use the included Wire Ties to secure the factory wiring harness to the Bumper as necessary.

FIG 9



(Fig 9) Attach License Plate lights to mounting slot and wiring harness to Bumper

FIG 10



(Fig 10) Attach 7-wire trailer plug to mounting slot

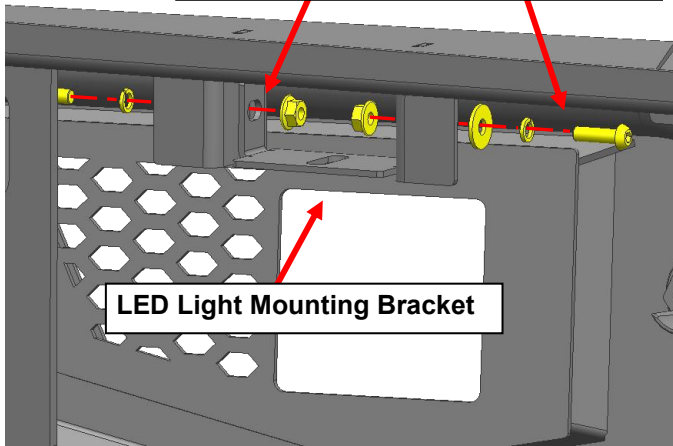
## STEP 6

### LED cube style light installation.

- a. Select (1) LED Light Mounting Bracket
- b. Attach LED Light Mounting Bracket to the back of Bumper with the included (2) 6mm Allen Head Bolts , (2) 6mm Lock Washers, (2) 6mm Flat Washers and (2) 6mm Flange Nuts, (Fig 11).Hand tighten hardware at this time.
- c. Attach light to the Mounting Bracket,(Fig 12).
- d. Follow light manufacturer's instructions for adjustment and to properly wire the light to the vehicle electrical system after Bumper installation.
- e. Repeat the previous **Steps** to install the remaining LED cube style light.

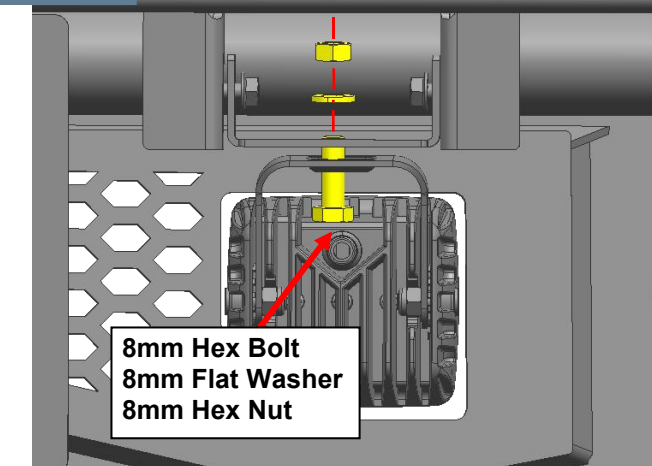
FIG 11

- (2) 6mm x 20mm Allen Head Bolts
- (2) 6mm Lock Washers
- (2) 6mm x 18mm Flat Washers
- (2) 6mm Flange Nuts



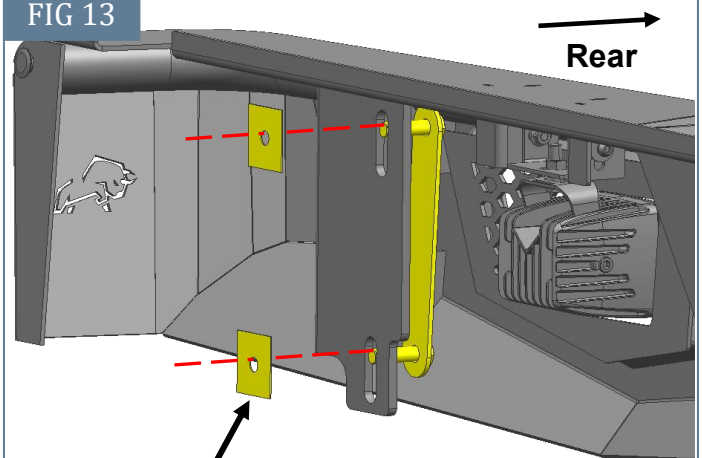
(Fig 11) Attach the LED light Mounting Bracket to the back of Bumper

FIG 12



(Fig 12) Attach the cube style LED light to the mounting Bracket (These standard parts included on the Cube Light Kit)

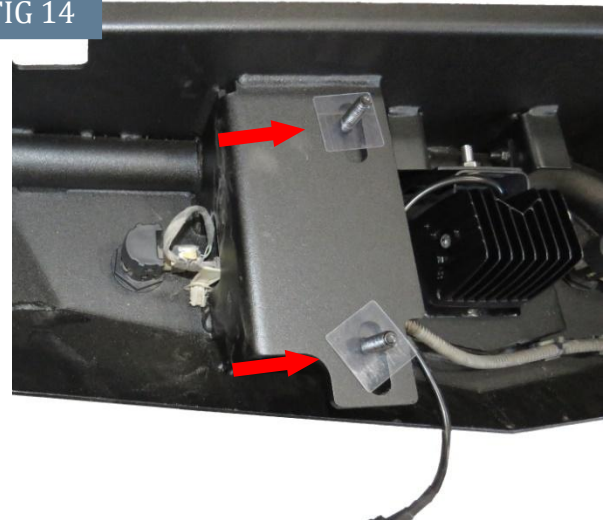
FIG 13



- 10mm Double Bolt Plate
- (2) 10mm Plastic Retainer

(Fig 13) Insert 10mm Double Bolt Plate into and through back of mounting tab on back of Bumper

FIG 14



(Fig 14) Attached Double Bolt Plate with Plastic Retainers

## STEP 7

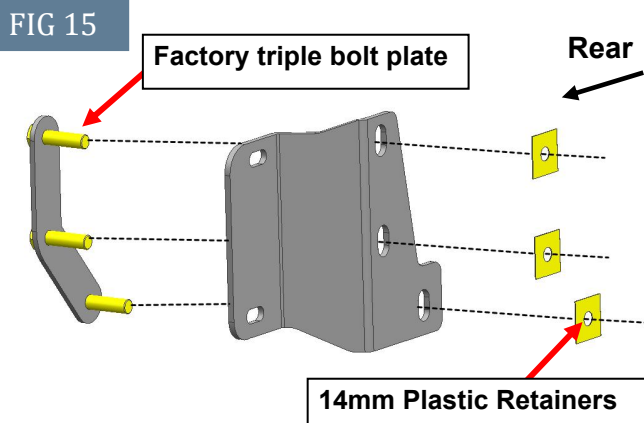
Select (1) 10mm Double Bolt Plate and (2) 10mm Plastic Retainers, (Fig 13). Insert the Double Bolt Plate into and through the back of the mounting tab on the Rear Bumper. Thread the Retainers down onto the Bolt Plate to help hold it in position, (Fig 14). Repeat this **Step** to install the remaining 10mm Double Bolt Plate.

## STEP 8

Insert the factory triple bolt plate which be removed on **Step 2** into the Passenger/Right Mounting Bracket. Thread (3) 14mm Plastic Retainers onto the bolt plate to help hold it in position during Bumper installation, **(Fig 15)**.

Attach the Passenger/Right Mounting Bracket assembly to the frame reusing factory hardware removed on **Step 2**, **(Fig 16)**. Snug but do not fully tighten hardware at this time.

Repeat this **Step** to install the Driver/Left Side Bracket to the frame.



**(Fig 15) Attach factory bolt plate to passenger/right Mounting Bracket**



**(Fig 16) Attach passenger/right Mounting Bracket to vehicle with OEM bolt plate and hardware**

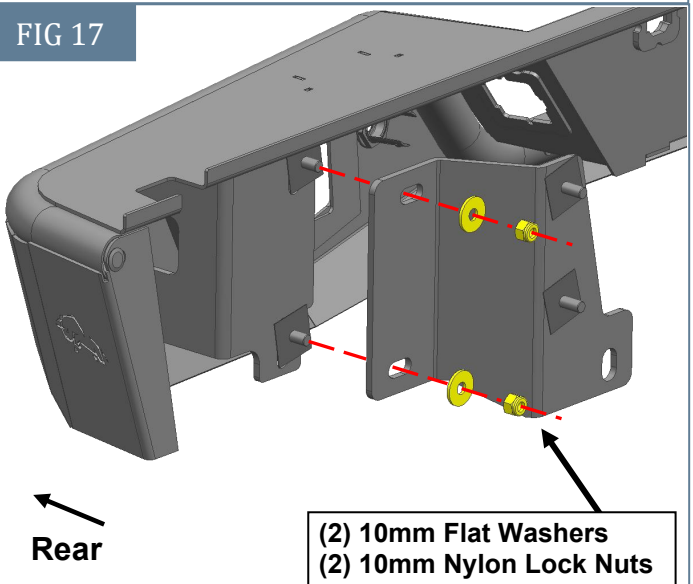


**WARNING!** Do not crawl under bumper unless it is properly supported on blocks or stands or the bumper may fall.

## STEP 9

With assistance, attach Bumper assembly to the Mounting Brackets with (4) 10mm Flat Washers and (4) 10mm Nylon Lock Nuts, **(Fig 17)**.

Temporarily support the weight of the Bumper. **WARNING:** To avoid possible injury or damage to the vehicle, do not proceed until the bumper is fully and safely supported.



**(Fig 17) Attach Bumper to Mounting Brackets**

## STEP 10

Slowly open tailgate and check for clearance. Level and adjust the Bumper and fully tighten all hardware.

## STEP 11

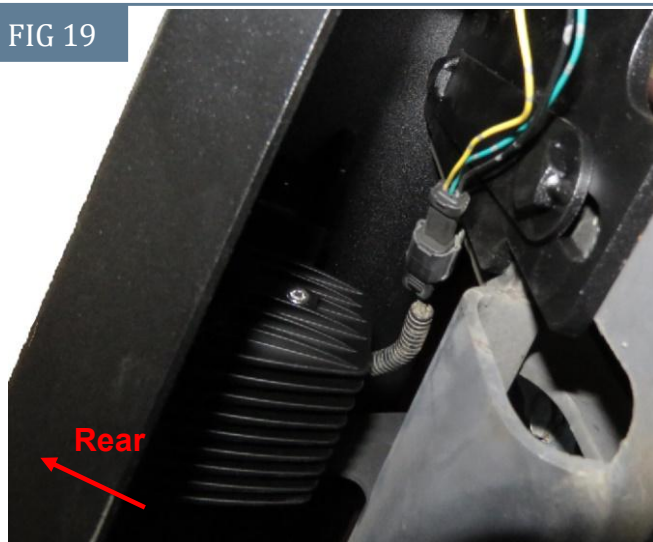
Attach the wiring harness to the sensors, lights and trailer plug, (Figs 18 & 19). Use the included Wire Ties to secure the wiring harness to the bumper and frame as necessary.

FIG 18



(Fig 18) Attach wire connectors to parking sensors

FIG 19

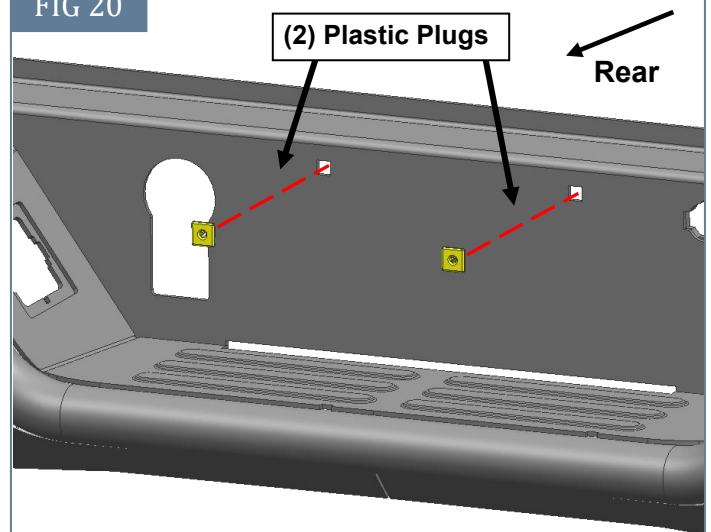


(Fig 19) Connect wires to LED Lights

## STEP 12

Use the included (2) Plastic plugs to attach the license plate to the Bumper, (Figs 20).

FIG 20



(Fig 20) Attach license plate to Plastic Plugs

FIG 21



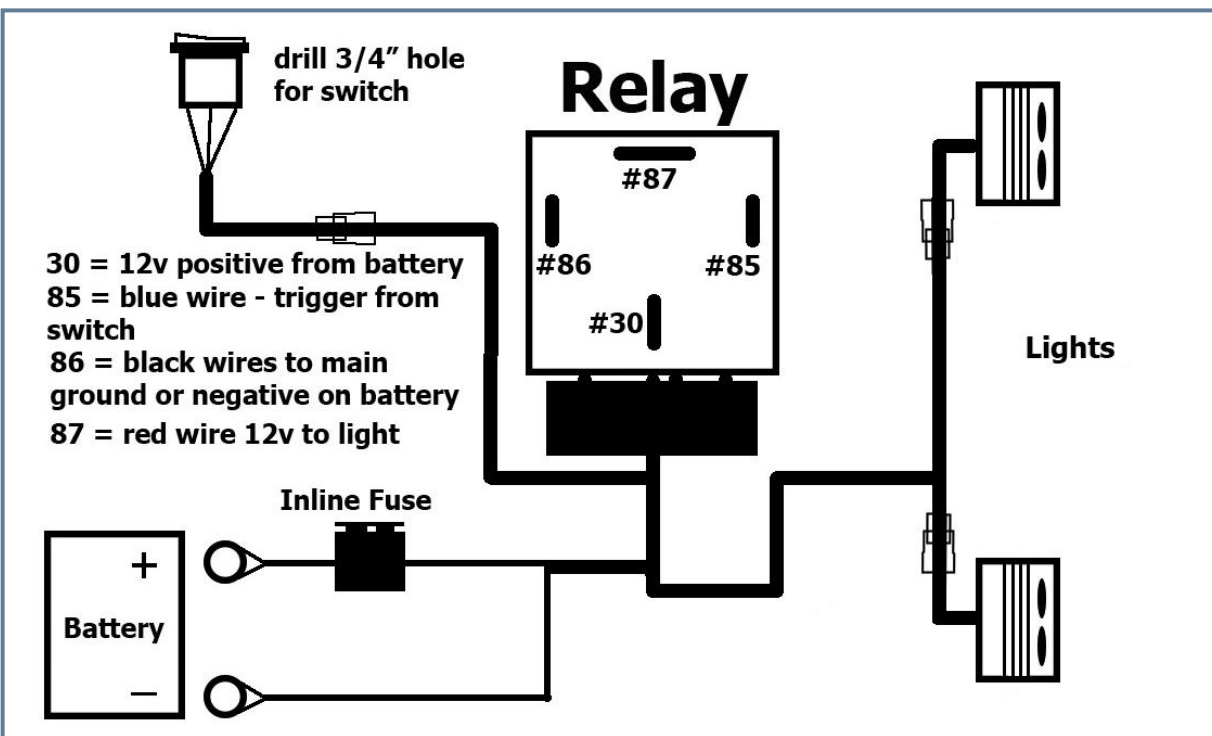
(Fig 21) Complete installation

## STEP 13

Do periodic inspections to the installation to make sure that all hardware is secure and tight.

## CUBE LED LIGHT INSTRUCTIONS

<b>PARTS LIST:</b>	Qty	Description	Qty	Description
	2	Lights	2	8mm Flat Washer
	1	Wiring Harness	2	8mm Hex Nut
	2	8mm Hex Bolt		



### PROCEDURE:

- 1 REMOVE CONTENTS FROM BOX. VERIFY ALL PARTS ARE PRESENT. READ INSTRUCTIONS CAREFULLY. DRILLING IS REQUIRED. ELECTRICAL KNOWLEDGE IS HIGHLY RECOMMENDED.**
1. Open hood and disconnect battery.
2. Unwrap preassembled wiring harness. Disconnect the plug in the harness leading to the lighted switch. Locate suitable mounting location for switch. Drill 3/4" hole in panel to mount switch. **IMPORTANT:** Do not drill any holes in panel until back of location is properly checked for clearance. Use of safety goggles is required.
3. Run switch harness through firewall on vehicle. Drill hole through firewall as required for harness plug. Highly recommend use of rubber grommet (not included) to protect harness. Feed switch harness plug through hole in firewall. Seal firewall with silicone as necessary.
4. Attach Relay and main harness to suitable location near battery (firewall or inner fender for example). Do not connect to battery at this time.
5. Attach switch plug to switch harness and tie harness away from anything that could damage harness.
6. Run the prewired light harness down to the light. Plug harness into prewired plug on each light. Tie wiring harness away from anything that could damage harness.
7. Attach the fused red positive and black negative wires on the main harness to the battery. **NOTE:** Attach black negative wire to negative terminal on battery or suitable chassis ground.
8. Reattach battery cables to battery. Installation is complete.
9. Adjust lights for best results and fully tighten all hardware.
10. Do periodic inspections to the installation to make sure that all hardware is secure and tight and all wiring harnesses are properly secured and free from excessive movement.