

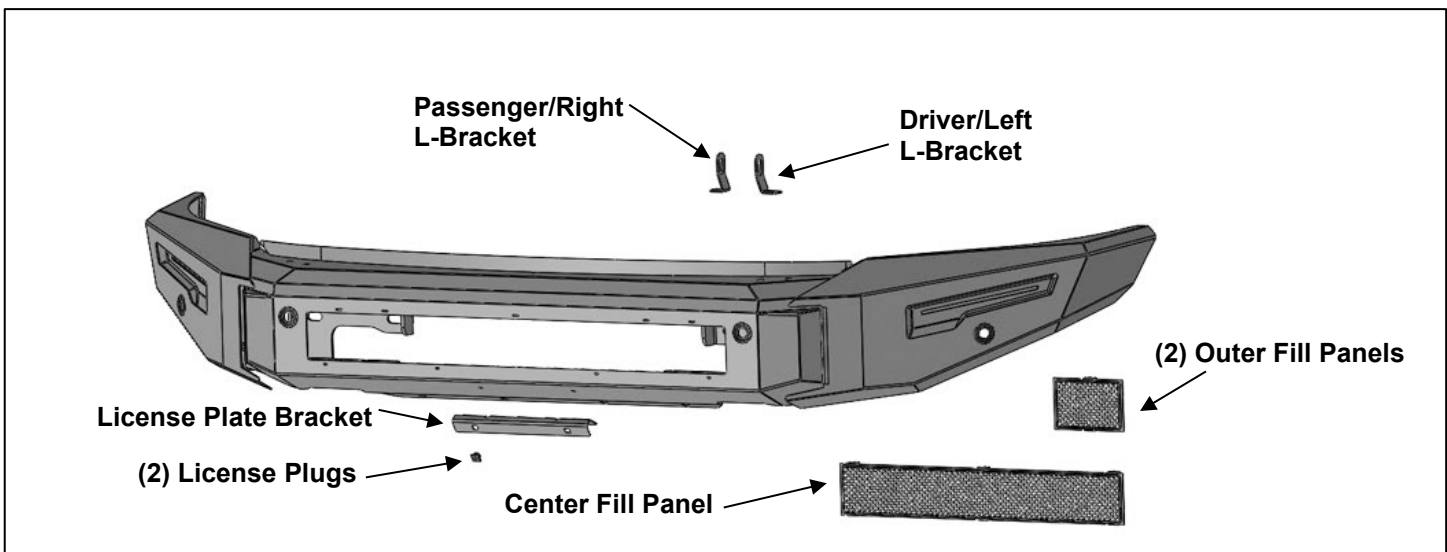


## **INSTALLATION INSTRUCTIONS**

**MD1 FRONT BUMPER  
2019-22 FORD RANGER  
FR15337**

**PARTS LIST: FR15337**

1	MD1 Front Bumper	2	8mm x 25mm Hex Bolts
1	License Plate Bracket	2	8mm x 16mm Hex Bolts
1	Center Mesh Panel	6	8mm x 24mm OD x 2mm Flat Washers
2	Outer Mesh Panels	4	8mm Lock Washers
1	Driver/Left L-Bracket	2	8mm Hex Nuts
1	Passenger/Right L-Bracket	2	6mm x 20mm Button Head Bolts
2	License Plate Plugs	10	6mm x 20mm Combo Bolts
6	12mm Plastic Retainers	4	6mm x 18mm OD x 1.6mm Flat Washers
4	10mm x 30mm Hex Bolts	10	6mm Flange Nuts
4	10mm Lock Washers	2	6mm Nylon Lock Nuts
4	10mm x 20mm OD x 2mm Flat Washers	8	Self-Tapping Screws
4	Plastic Retaining Caps	10	Wire Ties
4	15.5mm x 25mm OD x 2mm Foam Washers	1	Wiring Harness Extensions
4	20mm x 10mm Foam Spacers	1	LED Wiring Harness Kit
4	Plastic Sensor Covers	1	4mm Hex Wrench



**PROCEDURE:**

**REMOVE CONTENTS FROM BOX. VERIFY ALL PARTS ARE PRESENT. READ INSTRUCTIONS CAREFULLY BEFORE STARTING INSTALLATION. BUMPER IS HEAVY, ASSISTANCE IS REQUIRED TO AVOID POSSIBLE INJURY OR DAMAGE TO THE VEHICLE.**

1. Move to the front of the vehicle. Remove the license plate. If the vehicle is equipped with tow hooks, remove the plastic covers and the tow hooks, **(Figures 1 & 2)**.
2. Unplug the center wire harness located in the hole in the bumper under the license plate on the right side, if equipped, **(Figure 3)**. Remove the center plastic cover from the front of the bumper, **(Figures 4 & 5)**. Release the wiring harness from the clips attached to the back of the plastic cover. Remove the center wiring harness from the plastic cover. Models with adaptive cruise control sensor, unplug and remove sensor to access bumper hardware.
3. Place blocks or jack stands under the front bumper to support it during hex nut removal. Once the bumper has been safely supported remove the large factory hex nuts from the front of the bumper bracket attaching the bumper to the frame, **(Figure 6)**. **WARNING!** Assistance is required to hold the bumper in place during hardware removal to prevent the bumper from falling. With assistance, hold the bumper in position, unplug the outer wiring harness located underneath the Driver/Left headlight, **(Figure 7)**.

4. Remove bumper and place on a stable, clean surface.
5. Carefully unwrap the Bumper assembly. Pull outward to unfold the passenger/right outer wing until fully extended, **(Figure 8)**. Anchor the Wing to the back of the Bumper with the included (2) 10mmx 30mm Hex Bolts, (2) 10mm Lock Washers and (2) 10mm Flat Washers, **(Figure 9)**. Leave hardware loose. Repeat this Step to unfold and attach the driver/left Wing to the Bumper. **IMPORTANT:** There is a small amount of adjustment in the Wings that can increase or decrease the final width of the Bumper. Loosen the (2) pivot bolts and the (2) anchor bolts and pull each Wing outward as far as possible to start. Snug hardware but do not fully tighten.
6. **For vehicles equipped with front sensors.**
  - a. Remove the silicone seal from the end of the sensor. Slide the 15.5mm x 25mm x 2mm Foam Washer over front of sensor.
  - b. Insert sensor with Foam Washer into sensor sleeve.
  - c. Place (1) Foam Spacer over end of sensor. Push Sensor Retaining Cap onto sensor mount and lock into mounting holes, **(Figure 10)**.
  - d. Repeat previous Steps to install remaining sensors.

**For vehicles not equipped with front sensors.**

- a. Select the included (4) Plastic Sensor Covers.
  - b. From the front of the bumper, push Covers into sensor sleeves, **(Figure 11)**.
7. Determine if accessory lights, (not included), or Mesh Panels will be installed. **IMPORTANT:** It may be easier to install Center Fill Panels and/or lights before installing Bumper.

**Mesh Panel Installation (do not install fill panels if installing lights).**

- a. Select desired Mesh Panels.
- b. Attach Screen Fill Panels as needed with the included 6mm Button Head Combo Bolts and 6mm Flange Nuts, **(Figures 12A & 12B)**. Fully tighten Fill Panel hardware. Repeat to install all Panels as desired.

**Inner center LED bar style light installation (light not included).**

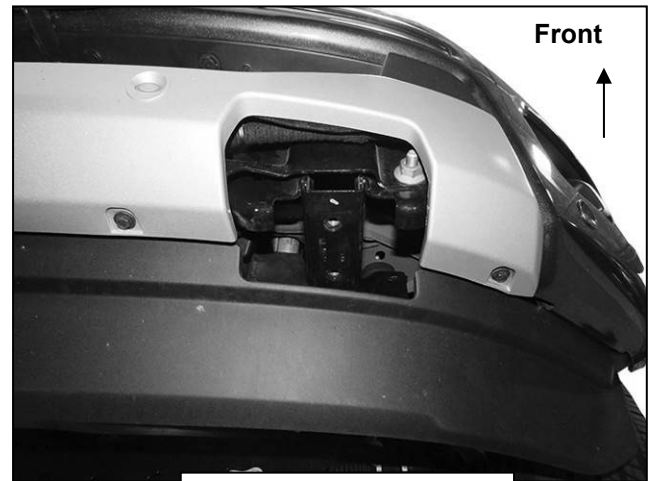
- a. Select the Driver/Left L-Bracket.
  - b. Attach the L-Bracket to the slot on the back of the Bumper with (1) 8mm x 25mm Hex Bolt, (2) 8mm Flat Washers, (1) 8mm Lock Washer and (1) 8mm Hex Nut, **(Figure 13)**. Repeat this Step to install the Passenger/Right L-Bracket on the other side of the Bumper. **IMPORTANT:** The Bumper features slots designed for 20" and 30" bar style lights. Attach the Brackets to the correct slots in the Bumper. If necessary, hold the light up to the slots to help determine correct slots to use and combination of Brackets.
  - c. Attach the light to the L-Brackets with the hardware included with the light or the supplied (2) 8mm x 16mm Hex Bolts, (2) 8mm Lock Washers and (2) 8mm Flat Washers or (2) 6mm x 16mm Hex Bolts, (2) 6mm Lock Washers and (2) 6mm Flat Washers, **(Figure 13)**. Do not fully tighten hardware.
8. Models with adaptive cruise control sensor, refer to Relocation Bracket instructions (available separately) to reinstall wiring harness and sensor if desired.
9. Locate the front frame mounting locations, **(Figure 14)**. If necessary, use the (6) 12mm Plastic Retainers to hold the factory hardware in place. With assistance, slide the bumper over the factory bolt plates, **(Figure 14)**. 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.
10. Reuse the (3) factory hex nuts per side to attach the Bumper to the vehicle, **(Figures 14—16)**. Do not tighten hardware.
11. Level and adjust the Bumper and fully tighten all hardware.
12. Attach the License Plate Bracket to the holes in the bumper with the included (2) 6mm x 20mm Button Head Bolts, (4) 6mm Flat Washers and (2) 6mm Nylon Lock Nuts. Insert (2) Plastic Plugs into the square holes in the Bracket. Reuse the factory screws to attach the license plate to the plastic plugs, **(Figures 17 & 18)**.
13. Do periodic inspections to the installation to make sure that all hardware is secure and tight.

**To protect your investment,** Do not use any type of polish or wax that may contain abrasives that could damage the finish. Mild soap may be used to clean the Bumper assembly.

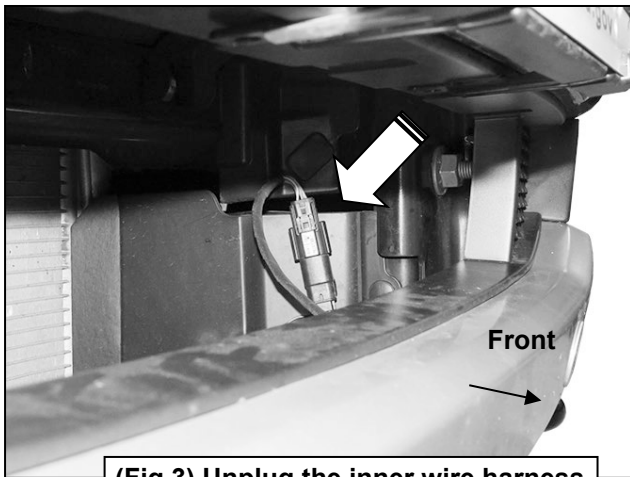
**Driver/left Side Installation Pictured**



**(Fig 1) Remove plastic covers and tow hooks**



**(Fig 2) Plastic cover and tow hook removed**



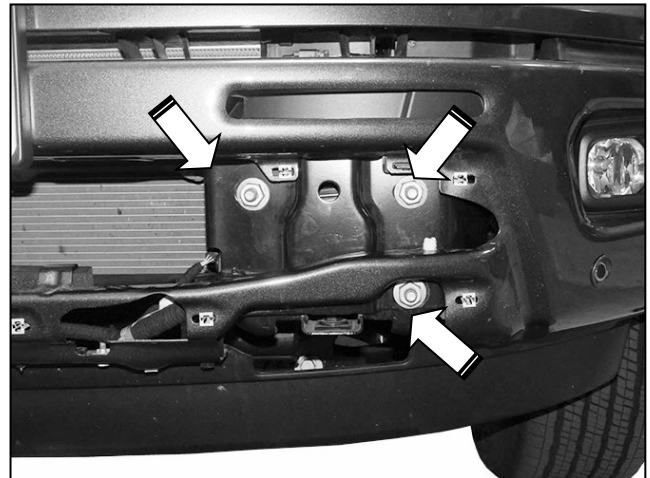
**(Fig 3) Unplug the inner wire harness**



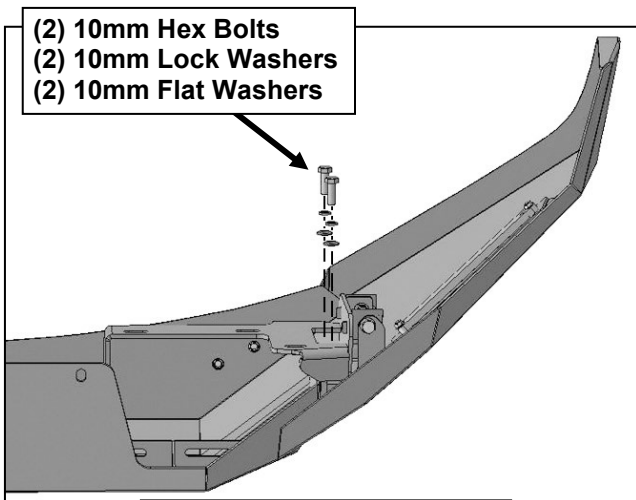
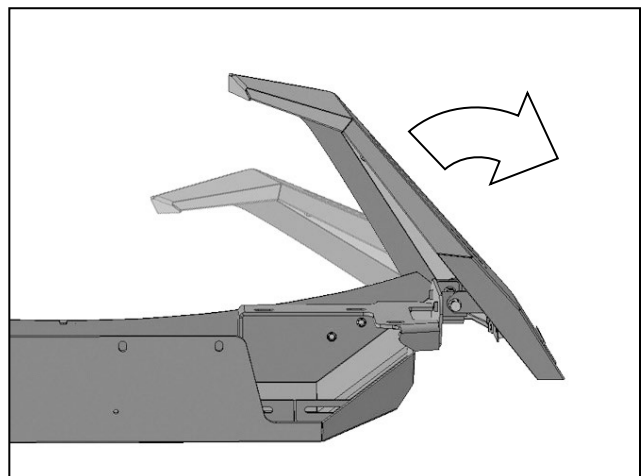
**(Fig 4) Remove the center plastic cover**

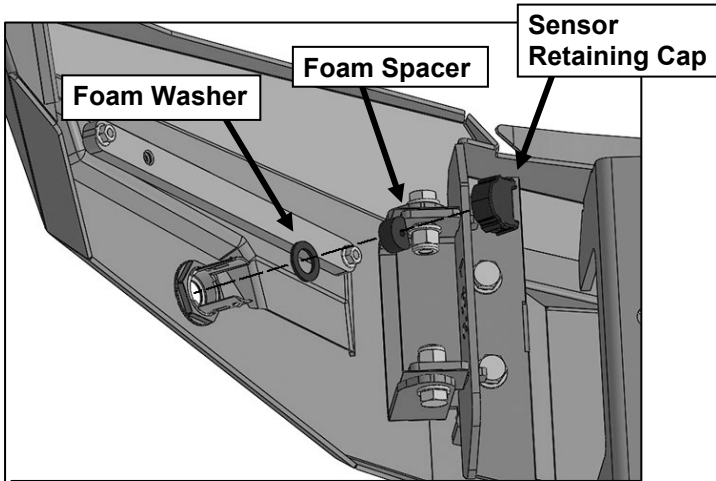


**WARNING!** Do not remove bumper bolts unless the bumper is properly supported on blocks or stands or the bumper may fall.

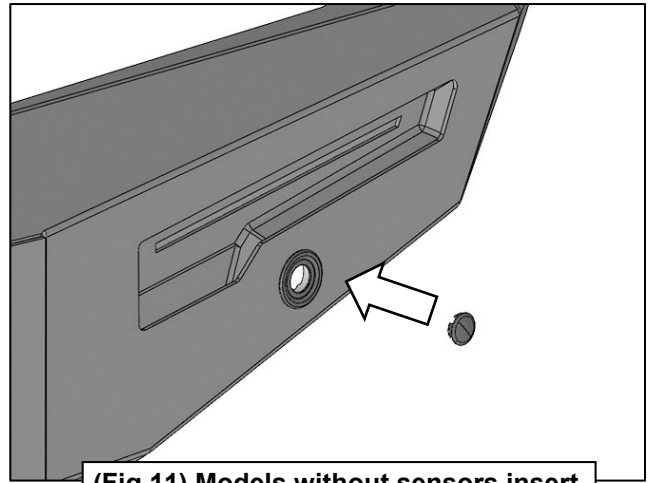


**Models with adaptive cruise control sensor, remove sensor from bumper (Fig 6). Refer to Relocation Bracket instructions (available separately) to move sensor to back of grille**





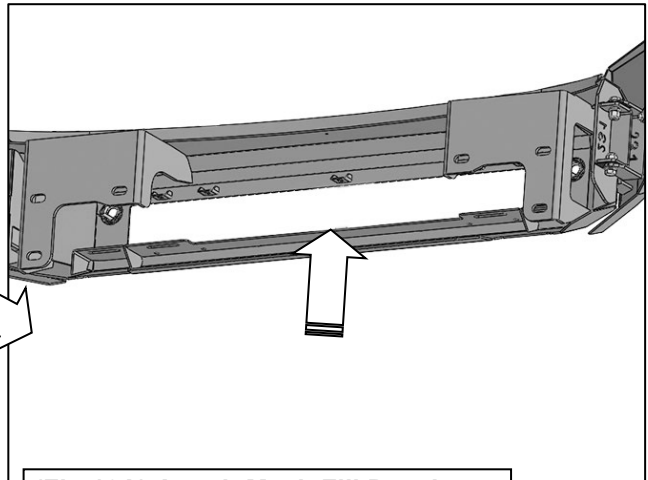
(Fig 10) Insert the sensor into the sensor sleeve



(Fig 11) Models without sensors insert sensor covers into the sensor sleeve

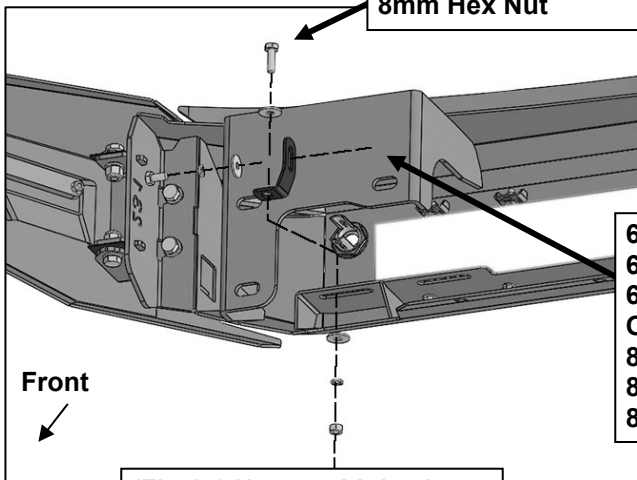
- (2) 6mm Button Head Combo Bolts
- (2) 6mm Flange Hex Nuts

(Fig 12B)



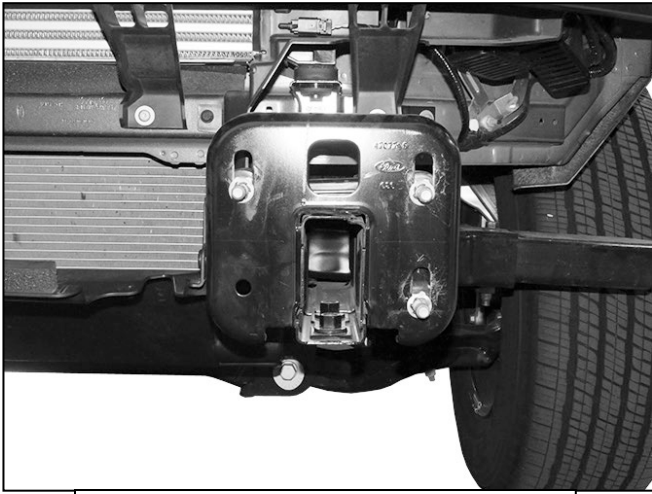
(Fig 12A) Attach Mesh Fill Panels as desired to fill unused openings for lights (lights not included).

- 8mm x 25mm Hex Bolt
- (2) 8mm Flat Washers
- 8mm Lock Washer
- 8mm Hex Nut



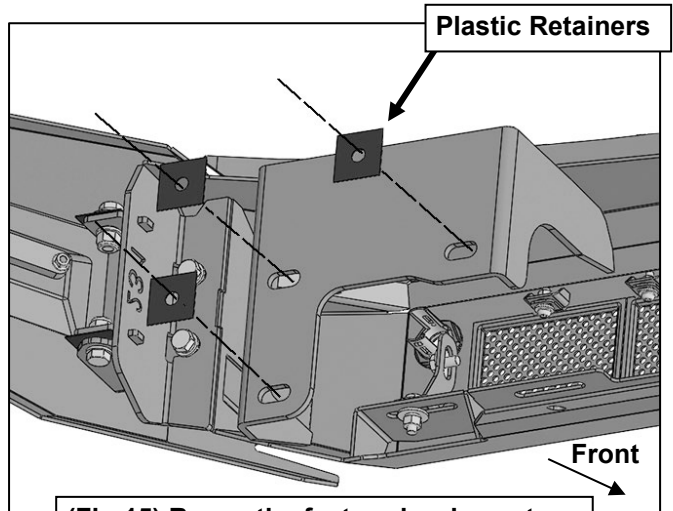
(Fig 13) Note multiple slots for different widths of lights

- 6mm x 16mm Hex Bolt
- 6mm Lock Washer
- 6mm Flat Washer
- Or
- 8mm x 16mm Hex Bolt
- 8mm Lock Washer
- 8mm Flat Washer



(Fig 14) Driver/Left mounting location

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

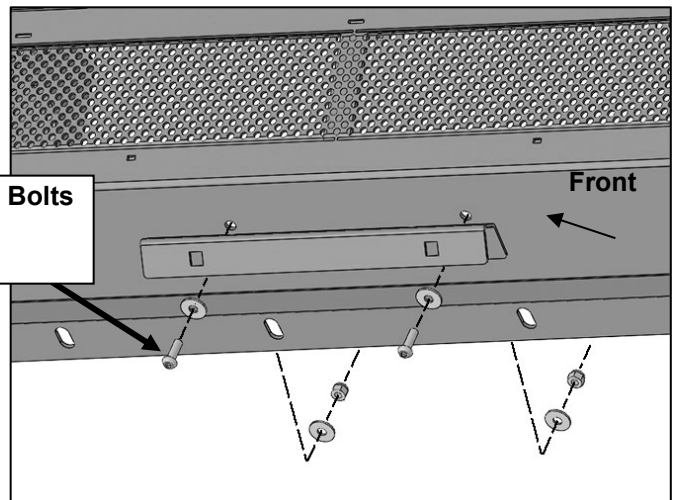


(Fig 15) Reuse the factory hardware to attach bumper to the mounting locations. Use (3) Plastic Retainers to hold the bolt plate in place

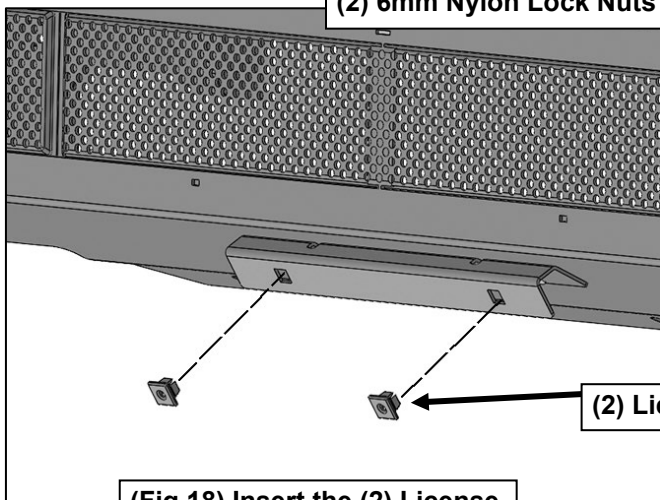


(Fig 16) Driver/left side of Bumper installed

- (2) 6mm x 20mm Button Head Bolts
- (4) 6mm Flat Washers
- (2) 6mm Nylon Lock Nuts

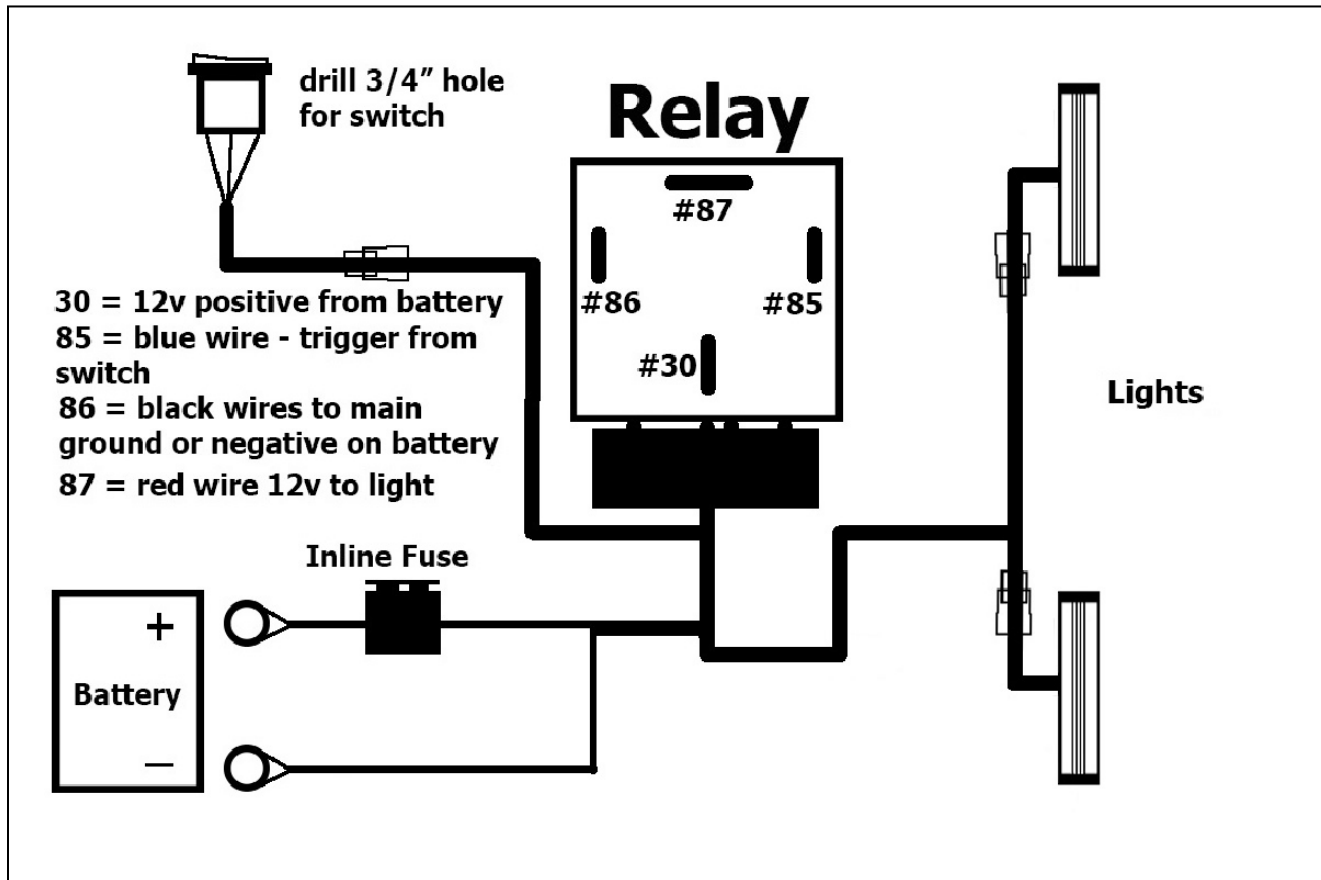


(Fig 17) Attach License Plate Bracket to Front Bumper



(2) License Plugs

(Fig 18) Insert the (2) License Plate plugs into the Bracket



**GENERAL LIGHT WIRING PROCEDURE:**

1. REMOVE CONTENTS FROM BOX. VERIFY ALL PARTS ARE PRESENT. READ INSTRUCTIONS CAREFULLY. DRILLING IS REQUIRED. ELECTRICAL KNOWLEDGE IS HIGHLY RECOMMENDED.
2. Open hood and disconnect battery.
3. 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.
4. 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.
5. Attach Relay and main harness to suitable location near battery (firewall or inner fender for example). Do not connect to battery at this time.
6. Attach switch plug to switch harness and tie harness away from anything that could damage harness.
7. Run the prewired light harness down to each light. Plug harness into prewired plug on each light. Tie wiring harness away from anything that could damage harness.
8. 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.
9. Reattach battery cables to battery. Installation is complete.
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.