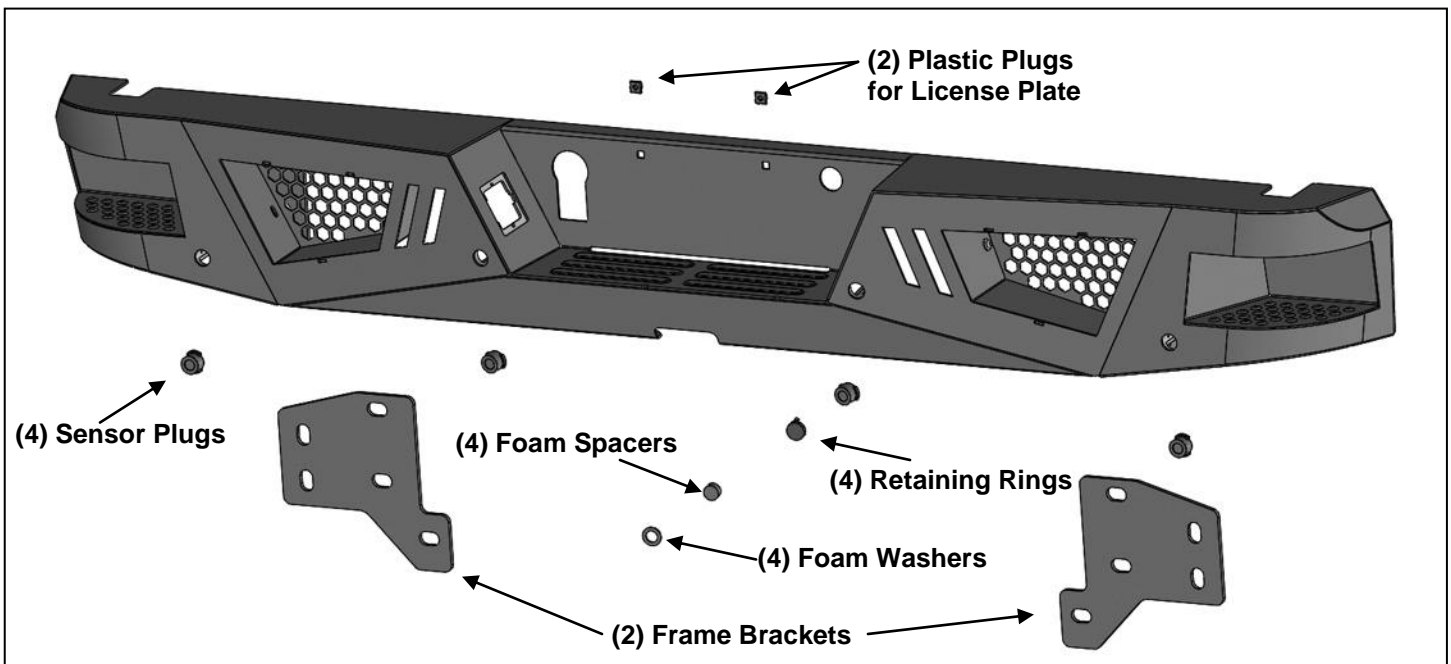


PARTS LIST:

T527990 T527991

1	Rear Bumper Assembly	8	4mm x 10mm Button Head Bolts
2	Mounting Brackets	1	4mm Wrench
4	Sensor Hole Plugs	1	6mm Wrench
2	Plastic Plugs for license plate mount	10	Nylon Wire Ties
6	12-1.75mm x 50mm Hex Bolts	4	15.5mm x 25mm x 2mm Foam Washers
4	12-1.75mm x 35mm Hex Bolts	4	20mm x 10mm Foam Spacers
16	12mm x 37mm x 3mm Flat Washers	4	Retaining Rings
4	12mm Lock Washers	1	Sensor Covers Kit
6	12 mm Nylon Lock Nuts		



PROCEDURE:

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

IMPORTANT: OEM "HD" RECEIVER HITCH INTEGRATED INTO FACTORY REAR BUMPER CANNOT BE REINSTALLED. INSTALLATION IS COMPATIBLE WITH OEM "MAX DUTY" HITCH AND MOST AFTERMARKET RECEIVER HITCHES.

1. Remove the license plate from the bumper, **(Figure 1)**. Next, unplug the license plate lights, trailer plug and sensors, (if equipped). Release the wiring harness from the clips attached to the back of the bumper. Move all wiring harnesses away from bumper. **NOTE:** Bumper is designed to be compatible with larger 7-wire universal trailer harness plug.
2. Next, release the clips holding the license plate lights in place and remove the lights, **(Figure 2)**. Release the clips securing the trailer plug and remove the plug.
3. 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, **(Figures 3A, 3B & 4)**. **WARNING!** Assistance is required to hold the bumper in place during hardware removal to prevent bumper from falling.

IMPORTANT: On models with FORD “HD” tow package, the factory bumper features an integrated receiver hitch and it cannot be reinstalled with the replacement Bumper, (**Figure 3A**). Bumper is compatible with models without receiver hitch, (standard tow package-**Figure 3B**), and with the FORD “MAX DUTY” tow package, (separate receiver hitch). Bumper is also compatible with most replacement receiver hitches.

4. Select (1) Mounting Bracket, (**Figure 5A**). Attach the Bracket to the passenger side mounting plate on the back of the bumper with the included (2) 12mm x 35mm Hex Bolts, (2) 12mm Lock Washers and (2) 12mm Flat Washers, (**Figures 5A & 5B**). Snug but do not fully tighten at this time. Repeat this **Step** to attach the Mounting Bracket on the driver side.
5. **NOTE:** Sensors, (if equipped), must be installed onto the back of the Bumper before installing the Bumper to the vehicle.

Models without bumper sensors:

- a. Select the included (4) Rubber Plugs.
- b. From behind bumper, push plugs into sensor mounting holes.

Models with bumper mounted sensors:

- a. Remove the small factory sealing washer from the sensor. Attach the provided larger (1) Foam Washer onto the front of the sensor.
 - b. Push the sensor in from the back of the Bumper until it is flush with the sensor sleeve.
NOTE: Sensor tabs may need to be trimmed to fit sensor inside the sensor sleeve. Attach the adhesive side of (1) Foam Spacer to (1) Retaining Ring. Push the Retaining Ring into the sensor sleeve until it locks into the mounting holes, (**Figure 6**).
 - c. Repeat the previous steps to install each sensor to the back of the Bumper.
6. **LED light installation at ends of bumper** as supplied with bumper or sold separately.
 - a. Insert light into opening and up to mounting slots. Check for clearance between front and back of light. If necessary, remove the screen from the back of the opening for additional clearance or access to light, (**Figure 7**).
 - b. Follow the light manufacturer’s instructions to attach (1) light to the center slot or (2) lights to the inner and outer slots in the top of the light opening.
 - c. Repeat the above steps for passenger side light installation.
 - d. Follow light manufacturer’s instructions to properly wire the light.
 7. With assistance, position the Bumper Assembly up to the mounting flanges on the end of the frame. 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.
 8. Attach the Bumper Brackets to the ends of the frame with the included (6) 12mm x 50mm Hex Bolts, (12) 12mm Flat Washers and (6) 12mm Nylon Lock Nuts, (**Figures 8A & 8B**). Do not tighten hardware.
 9. Level and adjust the bumper and fully tighten all hardware including the Mounting Bracket to Bumper hardware.
 10. Reinstall the license plate lights and trailer plug, (**Figure 9**). **NOTE:** Use a flat blade screwdriver to carefully pry the metal clip on the plug out to grab the edge of the opening.
 11. Use the included (2) push-in plugs to attach the license plate to the Bumper, (**Figure 10**).
 12. Attach the wiring harness to the lights and trailer plug.
 13. Use the included Wire Ties to secure the wiring harness to the bumper and frame as necessary.
 14. Do periodic inspections to the installation to make sure that all hardware is secure and tight.

To protect your investment, wax this product after installing. Regular waxing is recommended to add a protective layer over the finish. 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.

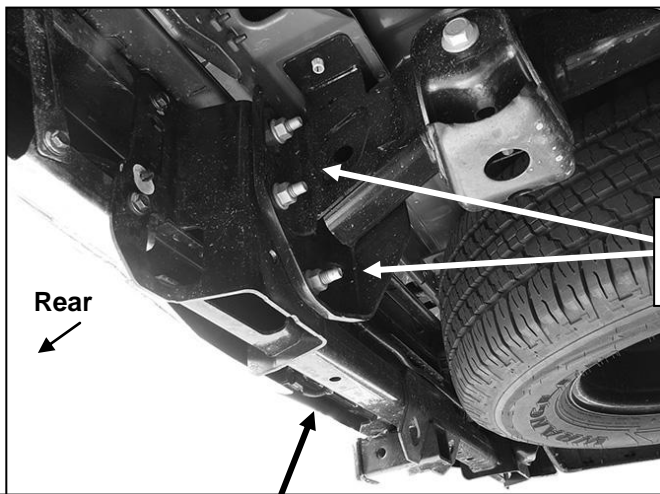
Passenger Side Installation Pictured



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

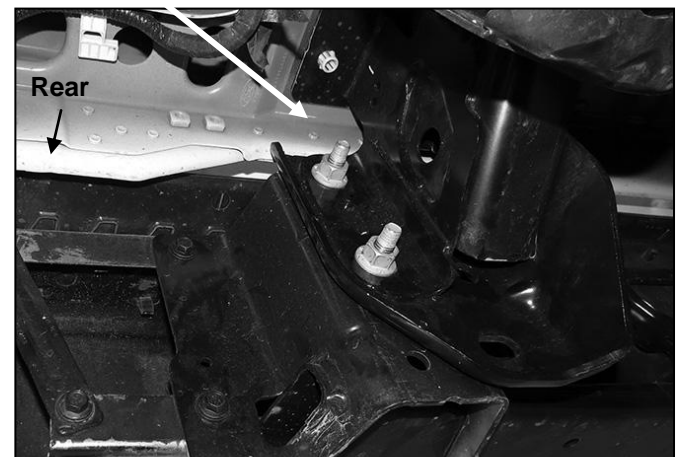


(Fig 2) Unplug license plate lights



Remove the factory hex nuts attaching bumper assembly to frame

(Fig 3A) Note bumper with integrated receiver hitch



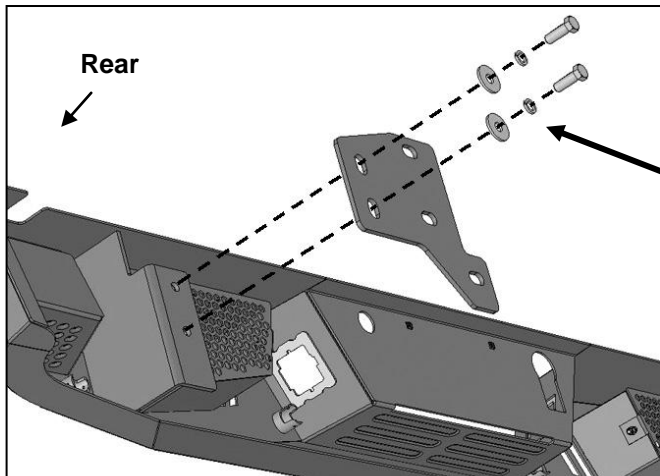
(Fig 3B) Remove the factory hex nuts attaching bumper assembly to frame. STD tow package model pictured (no receiver hitch)



(Fig 4) Passenger side of frame

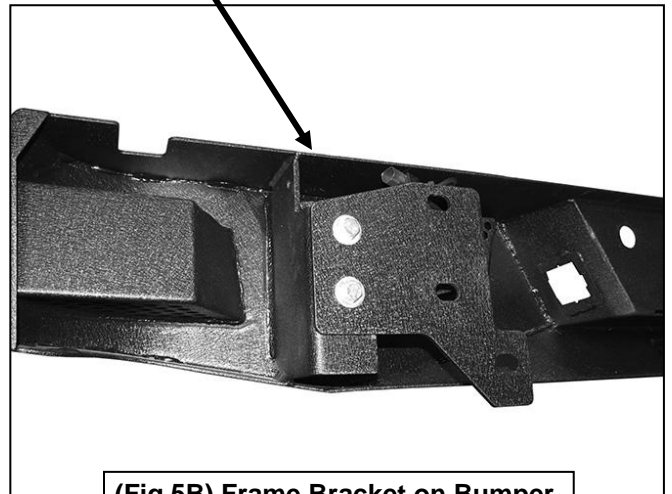
WARNING! Do not remove bumper bolts unless the bumper is properly supported on blocks or stands or the bumper may fall.

Passenger Side Installation Pictured



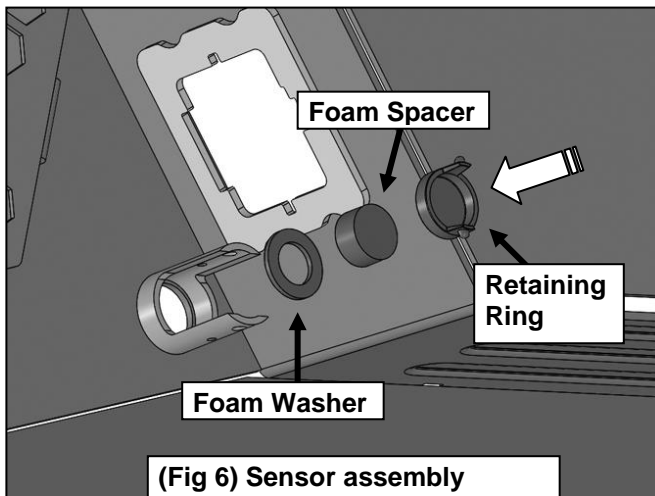
(Fig 5A) Attach Mounting Bracket to back of Bumper

- (2) 12mm x 35mm Hex Bolts
- (2) 12mm Lock Washers
- (2) 12mm Flat Washers



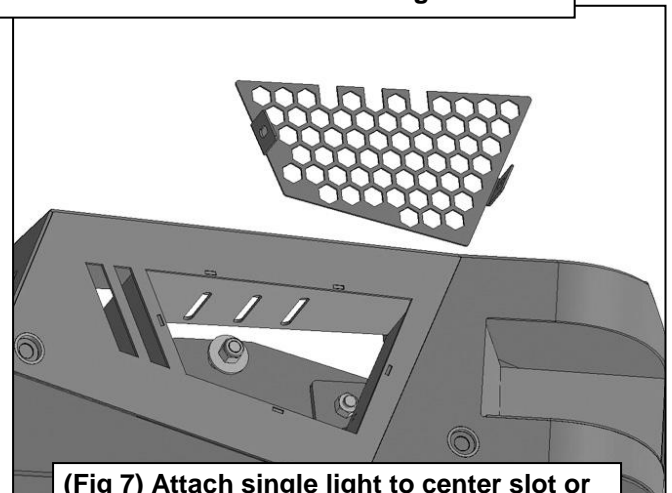
(Fig 5B) Frame Bracket on Bumper

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



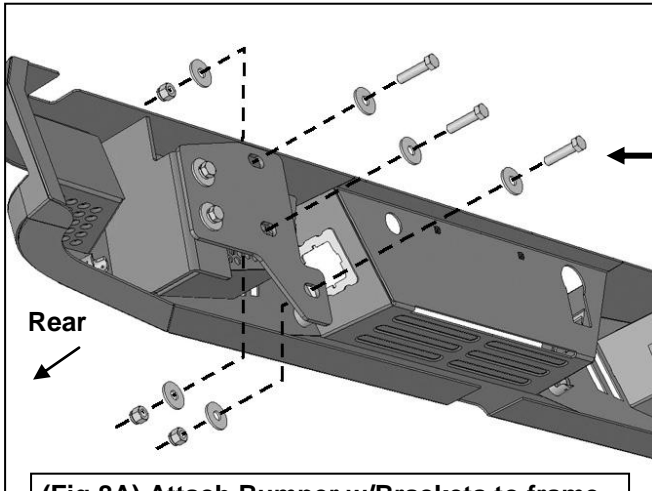
(Fig 6) Sensor assembly pictured from back of bumper

Remove screens if necessary for additional clearance around or access to lights



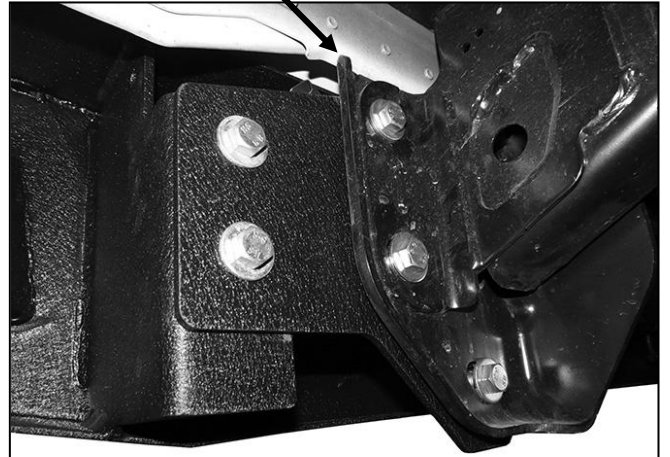
(Fig 7) Attach single light to center slot or use inner and outer slots for dual lights

Passenger Side Installation Pictured

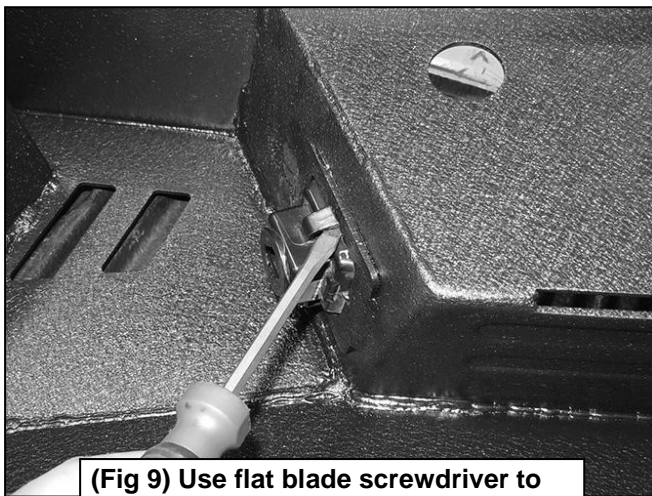


(Fig 8A) Attach Bumper w/Brackets to frame

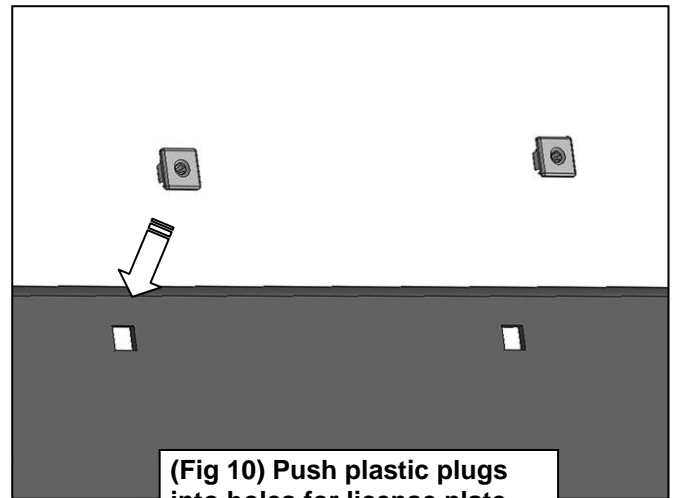
- (3) 12mm x 50mm Hex Bolts
- (6) 12mm Flat Washers
- (3) 12mm Nylon Lock Nuts



(Fig 8B) Attach Bumper w/Brackets to frame



(Fig 9) Use flat blade screwdriver to carefully pry tab to hold light in place

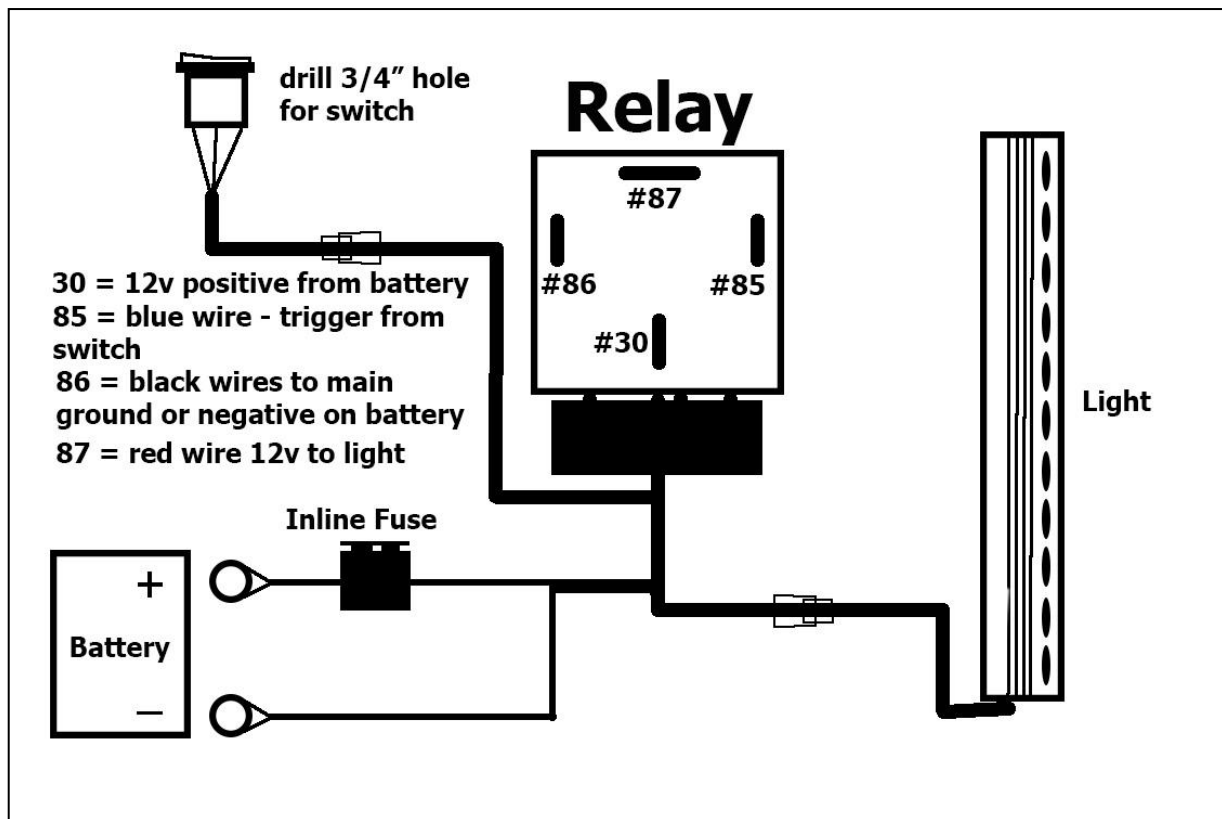


(Fig 10) Push plastic plugs into holes for license plate



PARTS LIST:

Qty	Description
1	Light
1	Wiring Harness



PROCEDURE:

1. REMOVE CONTENTS FROM BOX. VERIFY ALL PARTS ARE PRESENT. READ INSTRUCTIONS CAREFULLY. DRILLING IS REQUIRED. ELECTRICAL KNOWLEDGE IS HIGHLY RECOMMENDED.
2. Install Light into product as instructed. 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 the light. Plug harness into prewired plug on 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.