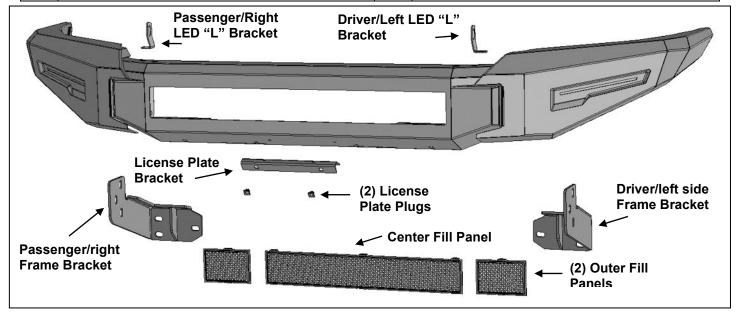
PARTS LIST:

1	MD1 Front Bumper	10	10mm Lock Washers
1	Driver/left side Frame Bracket	6	10-1.5mm Hex Nuts
1	Passenger/right side Frame Bracket	2	8-1.25mm x 25mm Hex Bolts
1	Driver/left side LED "L" Bracket	2	8-1.25mm x 16mm Hex Bolts
1	Passenger/right side LED "L" Bracket	6	8mm x 24mm x 2mm STD Flat Washers
1	Long Center Fill Panel	4	8mm Lock Washers
2	Small Outer Fill Panels	2	8-1.25mm Hex Nuts
2	Plastic License Plugs	10	6-1.0mm x 20mm Button Head Combo Bolts
1	License Plate Bracket	2	6-1.0mm x 20mm Button Head Bolts
1	Wire Harness Kit	4	6mm x 18mm x 1.6mm Flat Washers
6	10-1.50mm x 35mm Hex Bolts	2	6mm Nylon Lock Nuts
4	10-1.50mm x 30mm Hex Bolts	10	6mm Flange Hex Nuts
12	10mm x 24mm x 2.2mm LRG Flat Washers	1	4mm Wrench
4	10mm x 20mm x 2mm Small Flat Washers	10	Plastic Wire Ties



PROCEDURE:

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

- 1. Remove the license plate and bracket. Open the hood and remove the plastic cover from the top of the radiator and grille, (Figure 1). Next, carefully remove the plastic grille, (Figure 2). Remove the air dam from the bottom of the bumper.
- **2.** On models with factory fog lights, unplug the wiring harness leading to the front bumper. Move harness away from bumper.
- **3.** Carefully pull the front leading end of the fender flares to release from the bumper cover, **(Figure 3)**. The flares do not need to be fully removed, simply release the front portion and leave the rest of the flare attached.
- **4.** Remove the hardware attaching the plastic bumper cover at the top, ends and bottom. With assistance, pop the ends off of the inner clip and pull the bumper off and away from the vehicle, **(Figure 3)**.
- **5.** Remove the plastic impact pads from the aluminum inner bumper, **(Figure 4)**. Next, remove the cross bar and both aluminum bumper brackets from the ends of the frame, **(Figure 5)**.
- **6.** Select the passenger/right Frame Mounting Bracket, **(Figure 6)**. Reuse the factory hex nuts to attach the Bracket to the end of the frame, **(Figures 6 & 7)**. Repeat this **Step** to install the driver/left Bracket.

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- 7. 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) 10mm x 30mm Hex Bolts, (2) 10mm Lock Washers and (2) 10mm x 20mm Small Flat Washers, (Figure 9). Leave hardware loose at this time. 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, (Figure 10). Snug hardware but do not fully tighten at this time.
- **8.** Determine if accessory lights, (not included), or Screen Fill Panels will be installed at this time. **NOTE**: It may be easier to install Center Fill Panels and/or lights before installing Bumper.

Screen Fill Panel Installation (do not install fill panels if installing lights).

- a. Select desired long center or small outer Screen Fill Panels, (Figure 11).
- **b.** Attach Screen Fill Panels as needed with the included 6mm Button Head Combo Bolts and 6mm Flange Nuts, **(Figure 11)**. Fully tighten Fill Panel hardware at this time. Repeat to install all Panels as desired.

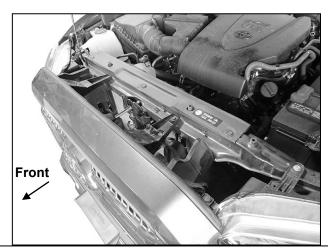
Inner center LED bar style light installation (light not included).

- **a.** Select the passenger/right "L" Light Bar Bracket, **(Figure 12)**. **NOTE**: "L" Brackets are offset to adjust for different widths of LED Bar Lights and can be installed on either side as needed.
- **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 12)**. Repeat this **Step** to install the remaining "L" Bracket on the other side of the Bumper. **IMPORTANT**: The Bumper features slots designed for most 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.
- 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, (Figure 12). Do not fully tighten hardware at this time.
- **9.** With assistance, position the Bumper Assembly up to the inside of the Frame Brackets. 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. Temporarily attach the Bumper to the passenger/right Bracket with the included (3) 10mm x 35mm Hex Bolts, (6) 10mm x 24mm Large Flat Washers, (3) 10mm Lock Washers and (3) 10mm Hex Nuts, (Figures 13 & 14). Leave hardware loose at this time. Repeat this Step to attach the driver/left side of the Bumper to the Bracket.
- **11.** Move the plastic bumper cover to a stable surface. Remove the plastic trim panels from the outer ends of the bumper cover, **(Figure 15)**. **NOTE**: Models with fog lights, remove the fog light assemblies from the back of the bumper cover and the trim panels from the front of the cover.
- 12. Use removable tape, (masking tape for example), to create a straight line from the passenger/right rear corner of the cover to the slots at the top of the indentation in the cover for the trim panels removed in Step 11, (Figures 15 & 16). Use a sharp knife or hacksaw blade to carefully cut along the line. Recommended: Cut cover approximately 1/4" below the tape line to allow for trimming for a close fit as desired, (Figure 17). Repeat this Step to cut the driver/left side of the bumper cover.
- **13.** Reinstall the bumper cover. Reinstall the grille and plastic cover removed in **Step 1**. Do not reattach the fender flares at this time.
- **14.** Level and adjust the MD1 bumper to the vehicle. Check the fit of the cut bumper cover to the MD1 Bumper, trim as necessary and fully tighten all hardware.
- 15. Cover the passenger/right plastic fender flare with removable tape, (masking tape for example). Hold the fender flare in position on the fender and over the end of the Bumper. Draw a straight line onto the tape to match where the end of the fender and Bumper meet, (Figure 18). Cut the leading end off of the fender flare to match the bumper cover and Bumper. NOTE: Cut around the mounting point at the end of the cover if possible, (Figure 19). Reattach the fender flare to the fender. Repeat this Step to cut the driver/left fender flare.
- **16.** If front license plate is required, attach the License Plate Bracket to the holes in the bumper with the included (2) 6mm x 20mm Button Head Screws, (4) 6mm Flat Washers and (2) 6mm Nylon Lock Nuts, (**Figure 20**). Insert (2) Plastic Plugs into the square holes in the Bracket. Reuse the factory screws to attach the license plate to the plastic plugs.
- 17. Do periodic inspections to the installation to make sure that all hardware is secure and tight.

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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 Front Bumper assembly.

Passenger/right Side Installation Pictured



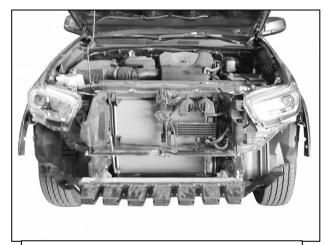
(Fig 1) Remove plastic cover from top of radiator



(Fig 2) Remove grille, air dam from below bumper and license plate.



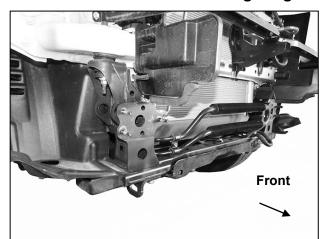
(Fig 3) Pull ends of cover off of inner clips to release and remove plastic bumper cover



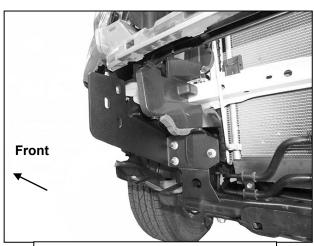
(Fig 4) Remove plastic impact bumper and aluminum crossbar and bumper brackets

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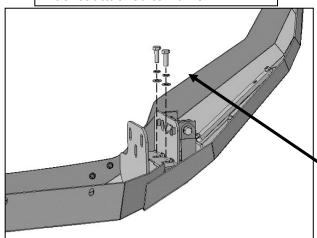
Passenger/right Side Installation Pictured



(Fig 5) Passenger/right side of frame pictured

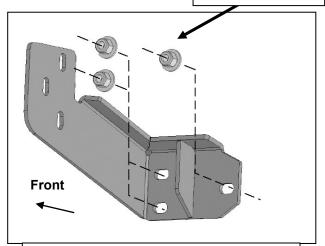


(Fig 7) Passenger/right side Frame Bracket attached to frame



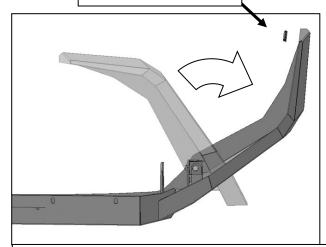
(Fig 9) Anchor outer Wings to back of center Bumper

Reuse factory hex nuts to attach Bumper Brackets



(Fig 6) Passenger/right Bracket illustrated

Remove edge trim from end of Bumper

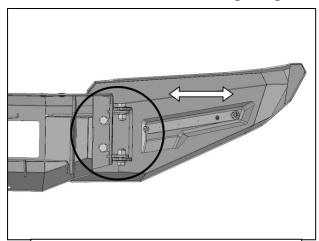


(Fig 8) Unfold outer Wings from center Bumper. Passenger/right side illustrated from below

- (2) 10mm x 30mm Hex Bolts
- (2) 10mm Lock Washers
- (2) 10mm x 20mm Small Flat Washers

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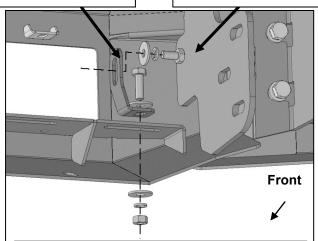
Passenger/right Side Installation Pictured



(Fig 10) Loosen hardware and pull Wing outward to widen overall Bumper Passenger/right side illustrated

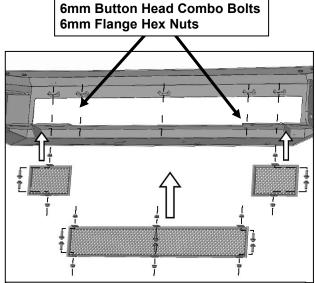
8mm x 25mm Hex Bolt (2) 8mm Flat Washers 8mm Lock Washer 8mm Hex Nut

8mm x 16mm Hex Bolt 8mm Lock Washer 8mm Flat Washer



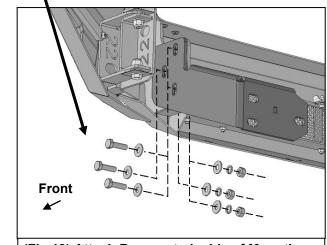
(Fig 12) Passenger/right side "L" Bracket attached to the back of the bumper. NOTE: Attach the "L" Bracket to the proper slot for the size of LED light

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



(Fig 11) Attach Inner and Center Mesh Plates to tabs on the back of the bumper as desired

- (3) 10mm x 35mm Hex Bolts
- (6) 10mm x 24mm Large Flat Washers
- (3) 10mm Lock Washers
- (3) 10mm Hex Nuts



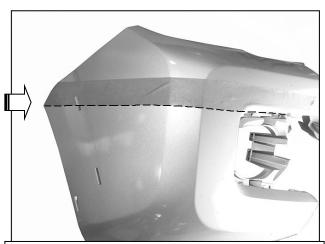
(Fig 13) Attach Bumper to inside of Mounting Brackets (driver/left side illustrated)

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Passenger/right Side Installation Pictured

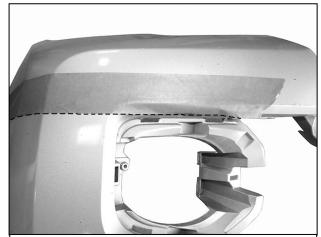


(Fig 14) Passenger/right side of Bumper attached to Mounting Bracket

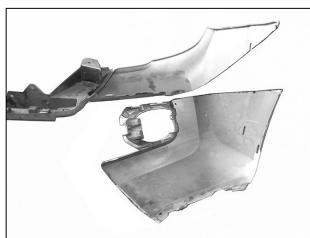


(Fig 16) Use a hacksaw blade or knife to cut bumper cover along tape from point on end of cover (arrow) to top of fog light opening (Fig 15)

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



(Fig 15) Remove fog light if equipped, and plastic trim from end of bumper cover. Use removable tape to make a straight line from the top of the opening to the corner at the end of the bumper (Fig 16)



(Fig 17) Use a hacksaw blade or knife to cut bumper cover along tape from point on end of cover to top of fog light opening. Check fit between Bumper and cut cover, trim as necessary and reinstall the plastic bumper cover (top).

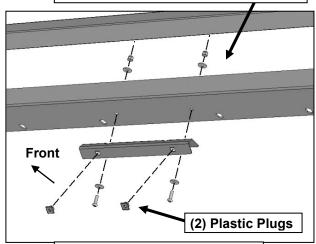
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Passenger/right Side Installation Pictured



(Fig 18) Draw a straight line on fender flare to match Bumper. Use a hacksaw blade or knife to cut leading end off of fender flare

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



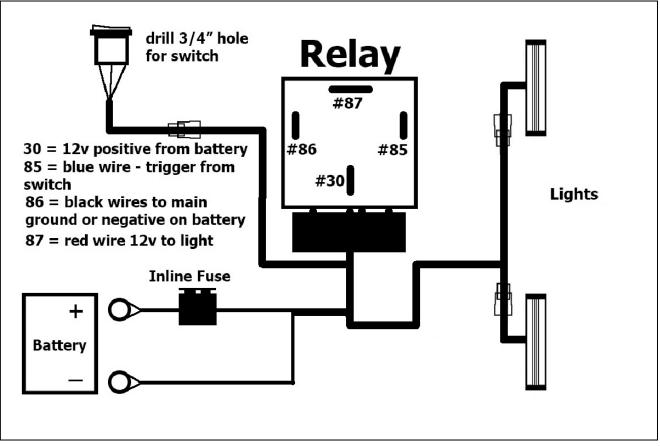
(Fig 20 Attach License Plate Bracket to Front Bumper



(Fig 19) Cut fender flare around mounting point if possible



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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.

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