

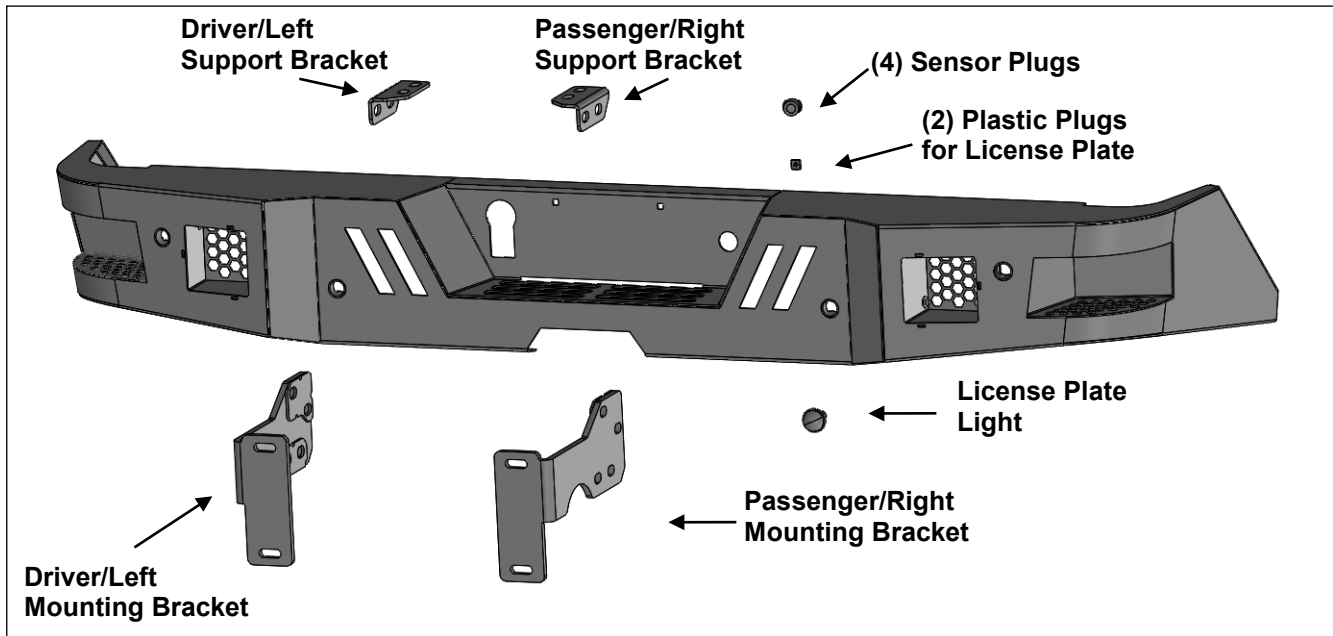
# **BODY ARMOR** 4 X 4

**ECO-Series Rear Bumper Winch  
For 14-18 Tundra  
# TN-2962**

Body Armor 4x4  
1050 N. Vineyard Ave  
Ontario, CA 91764  
PH: 951-808-0750  
Customer Service hours:  
M-TH: 7:30am to 4:30 PM Pacific Time  
Friday: 8 AM – Noon Pacific Time

**PARTS LIST:**

1	Rear Bumper Assembly	4	12-1.75mm x 45mm Hex Bolts
1	Driver/Left Mounting Bracket	4	12mm Lock Washers
1	Passenger/Right Mounting Bracket	4	12mm x 32mm x 3mm Flat Washers
1	Driver/Left Support Bracket	1	License Plate Light
1	Passenger/Right Support Bracket	2	Plastic Plugs for license plate mount
12	14-1.5mm x 60mm Fine Thread Hex Bolts	8	4mm x 10mm Button Head Bolts
24	14mm x 28mm x 2.5mm Flat Washers	4	Sensor Plugs
12	14mm Lock Washers	1	4mm Allen Wrench
12	14mm Fine Thread Hex 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. INSTALLATION WILL INTERFERE WITH BLIND SPOT ALERT AND REAR CROSS TRAFFIC ALERT SYSTEMS.**

1. Locate BSM button next to the steering wheel to turn off the Blind-Spot Monitor (BSM) and Rear Cross Traffic Alert (RCTA) Systems, (if equipped). Next, unplug the wire harnesses from the (2) monitor sensors located on the rear ends of the Rear Bumper. **NOTE:** The BSM and RCTA systems will not work with Bumper installation, monitor sensors cannot be reinstalled with Bumper.
2. Remove the license plate from the bumper. Next, unplug the license plate lights, trailer plug and sensors, (if equipped) **(Figure 1)**. Release the wiring harness from the clips attached to the back of the bumper. Move all wiring harnesses away from bumper.

**3. Determine if vehicle is equipped with factory receiver hitch:**

**Models with Factory Receiver Hitch**

- a. Use a flat blade screwdriver to pry the plastic cover from the top of the rear bumper on the passenger and driver side edge **(Figure 3)**.
- b. Remove the plastic screw previously under the license plate **(Figure 4)**. Release the clips and factory hardware under the passenger and driver side of the bumper and proceed to remove the center plastic piece on top of the bumper **(Figure 5 & 6A)**.
- c. Place blocks or jack stands under the receiver hitch to support it during mounting bolt removal. Once the bumper has been safely supported, remove the factory hardware attaching the bumper to the top and bottom of the receiver hitch and remove the bumper **(Figure 6B)**. **NOTE:** Leave hitch attached to vehicle.

- d. Select the Passenger/Right Mounting Bracket and attach it to the four holes in the receiver hitch with the same (4) factory bolts, **(Figures 7 & 8)**. Snug but do not fully tighten at this time. Repeat this **Step** to attach the Driver/Left Mounting Bracket on the driver side

**Models without Factory Receiver Hitch**

- a. 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 frame and remove the bumper **(Figure 2)**.
  - b. Select the Passenger Support Bracket. Attach the Bracket to frame with (2) 14mm Hex Bolts, (4) 14mm Flat Washers, (2) 14mm Lock Washers, and (2) 14mm Hex Nuts, **(Figures 9 & 10)**.
  - c. Next, select the Passenger/Right Mounting Bracket. Attach the Bracket to the outside of the frame and Support Bracket with (4) 14mm Hex Bolts, (8) 14mm Flat Washers, (4) 14mm Lock Washers, and (4) 14mm Hex Nuts **(Figure 11)**. Snug but do not fully tighten at this time.
  - d. Repeat **Steps 3b & 3c** for Driver/left side Bracket installation.
4. With assistance, position the Bumper Assembly up to the Mounting 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.
  5. Attach the Bumper Bracket to the end of the Passenger/Right Mounting Bracket with the included (2) 12mm Hex Bolts, (2) 12mm Lock Washers and (2) 12mm Flat Washers, **(Figures 12A & 12B)**. Repeat this **Step** to attach the Driver side Bumper Bracket to the Driver/Left Mounting Bracket. Do not fully tighten hardware at this time.
  6. Level and adjust the Bumper and fully tighten all hardware.
  7. Reinstall the trailer plug, **(Figure 13)**. **NOTE:** Use a flat blade screwdriver to carefully pry the metal clip on the plug out to grab the edge of the opening.
  8. Use the included (2) License Plate Plugs to attach the rear license plate to the (2) holes in the Bumper, **(Figure 13)**. Insert the License Plate Light into the hole in the bumper, **(Figure 13)**. Attach the License Plate Light wire to the end of the factory license plate light wire harness.
  9. Determine if the bumper is equipped with back up sensors.

**Models with bumper mounted back up sensors:**

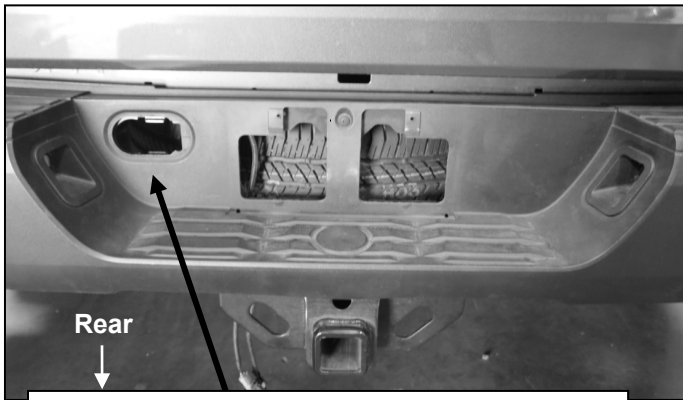
- a. Push the sensor in from the back of the bumper. Secure each sensor to the socket with (2) 4mm Button Head Screws, **(Figure 14)**. **IMPORTANT:** Sensors fit snug in sockets. The 4mm Screws are used to apply slight pressure to lock the sensors in place. Tighten both screws evenly until they touch the sensor body only. Do not overtighten screws or damage to sensors will result.
- b. Reattach the factory wiring harness to sensors.

**Models without bumper mounted sensors:**

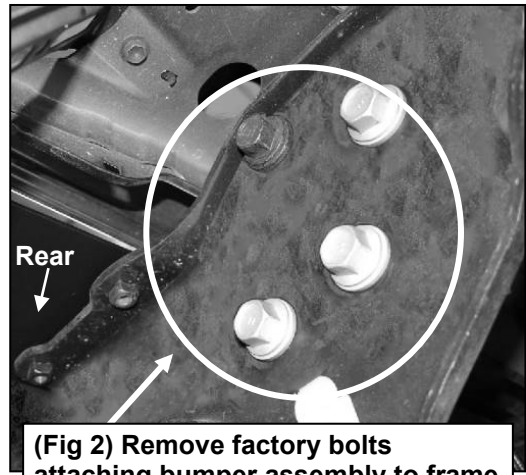
- a. Push the (4) sensor plugs in from the back of the bumper.
10. **LED light installation at ends of bumper** as supplied with bumper or sold separately.
    - a. Insert light into opening and up to mounting slots. Check for clearance between front and back of light. If necessary, remove the screen from the back of the opening for additional clearance or access to light, **(Figure 15)**.
    - b. Follow the light manufacturer's instructions to attach (1) light to the slot.
    - c. Repeat the above steps for driver side light installation.
    - d. Follow light manufacturer's instructions to properly wire the light.
  11. Attach the wiring harness to the trailer plug.
  12. Use the included Wire Ties to secure the wiring harness to bumper and frame as necessary.
  13. 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

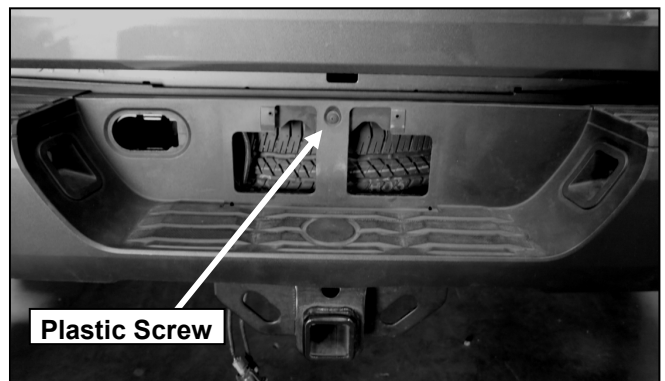


(Fig 2) Remove factory bolts attaching bumper assembly to frame



(Fig 3) Use a flat blade screwdriver to pry the plastic cover from the top of edges of the bumper

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



(Fig 4) Remove plastic screw previously under the license plate.



(Fig 5) Remove Factory Hardware and Plastic Clip from the underside of the bumper

Passenger Side Installation Pictured



(Fig 6A) Remove center plastic piece on top of the bumper

**Note:** Fig 6 only shows some factory hardware that must be removed. Additional factory hardware may need to be removed to remove the bumper



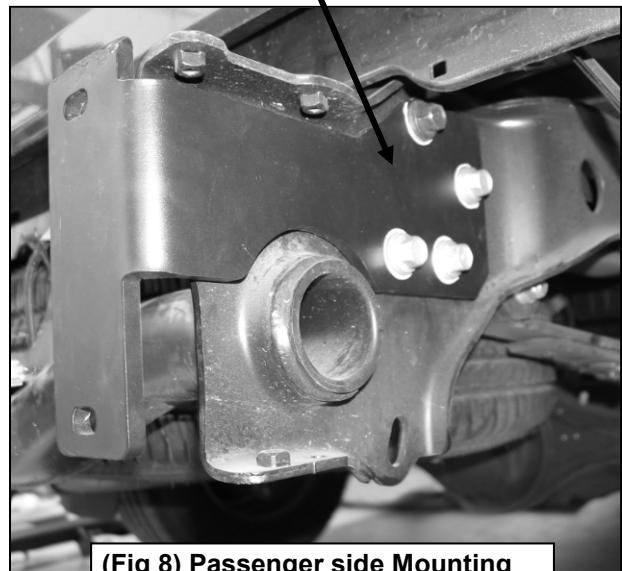
(Fig 6B) Remove factory hardware under the plastic pieces.



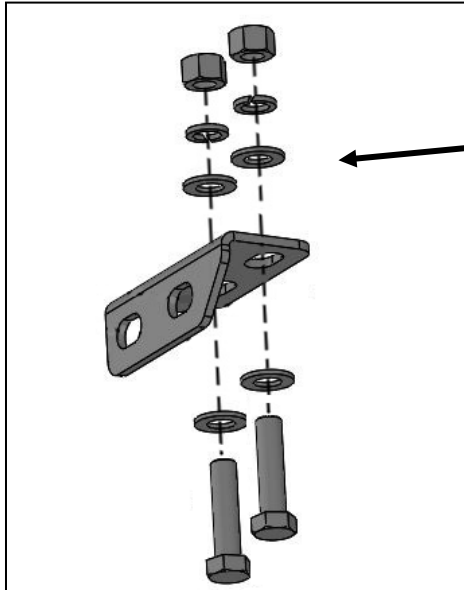
Factory Support Bracket

(Fig 7) Passenger/right side Mounting Bracket attached to the receiver hitch & factory support bracket.

Models with Receiver Hitch use factory hardware.

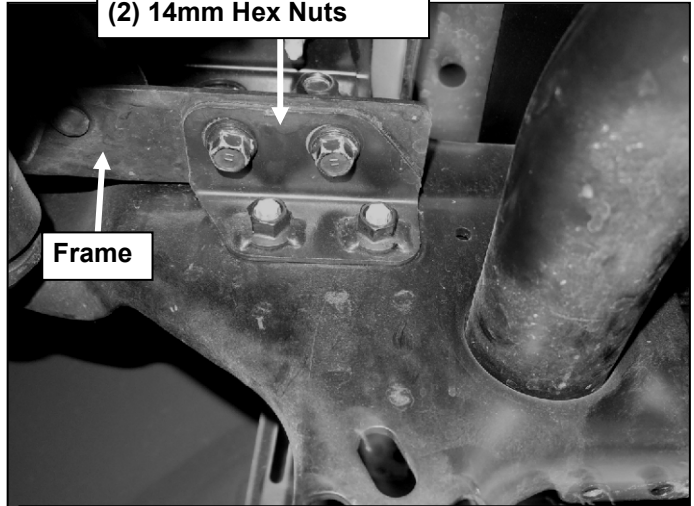


(Fig 8) Passenger side Mounting Bracket attached to receiver hitch



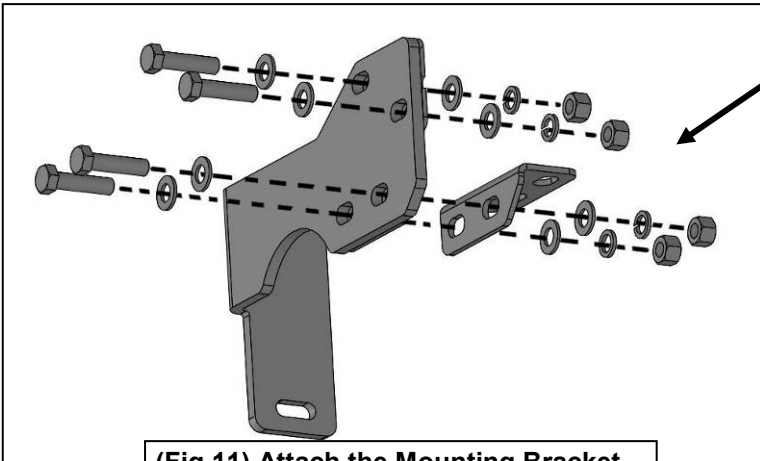
(Fig 9) Models without receiver hitch attach Support Bracket to frame

Factory Hardware or  
(2) 14mm Hex Bolts  
(4) 14mm Flat Washers  
(2) 14mm Lock Washers  
(2) 14mm Hex Nuts



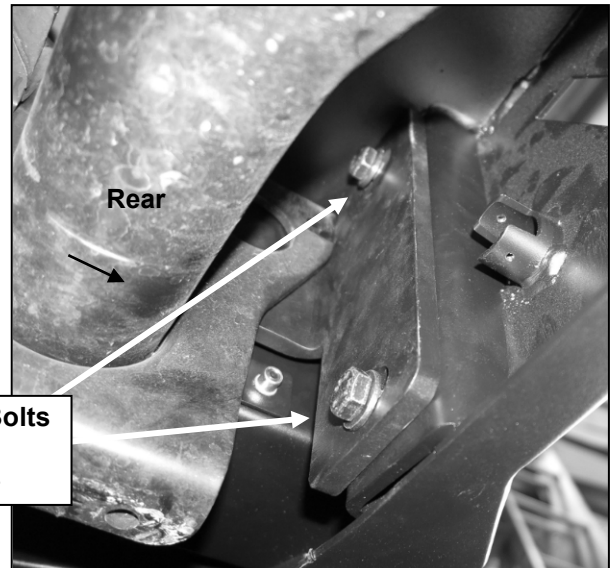
(Fig 10) Attach Support Bracket to inside of frame or receiver hitch. (Pictured with Hitch Receiver)

Models without  
Receiver Hitch:  
(4) 14mm Hex Bolts  
(8) 14mm Flat Washers  
(4) 14mm Lock Washers  
(4) 14mm Hex Nuts



(Fig 11) Attach the Mounting Bracket to the frame and Support Bracket

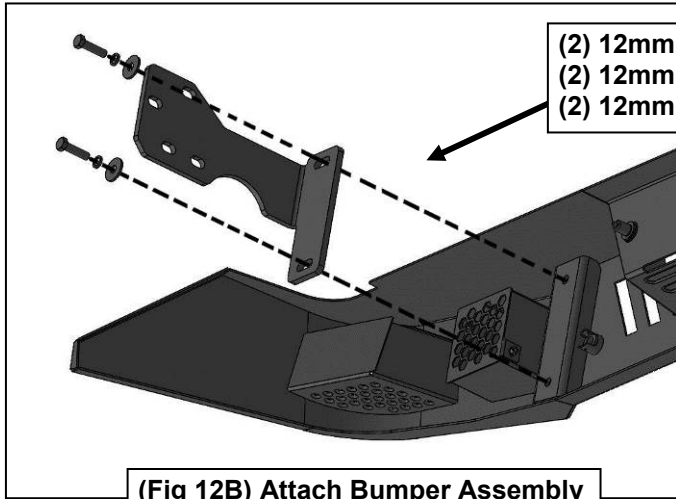
(2) 12mm x 45mm Hex Bolts  
(2) 12mm Flat Washers  
(2) 12mm Lock Washers



(Fig 12A) Attach Bumper Assembly to Mounting Brackets

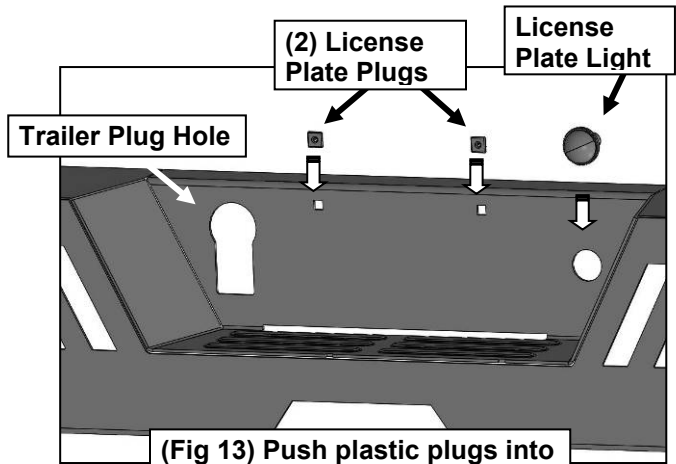
**WARNING!** Do not crawl under bumper unless the bumper is properly supported on blocks or stands or the bumper may fall.

Passenger Side Installation Pictured



- (2) 12mm x 45mm Hex Bolts
- (2) 12mm Lock Washers
- (2) 12mm Flat Washers

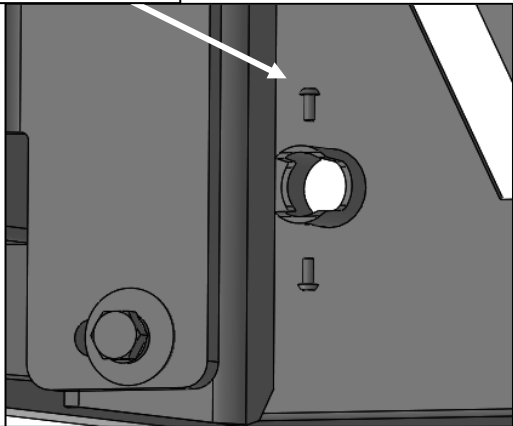
(Fig 12B) Attach Bumper Assembly to Mounting Brackets



- (2) License Plate Plugs
- License Plate Light
- Trailer Plug Hole

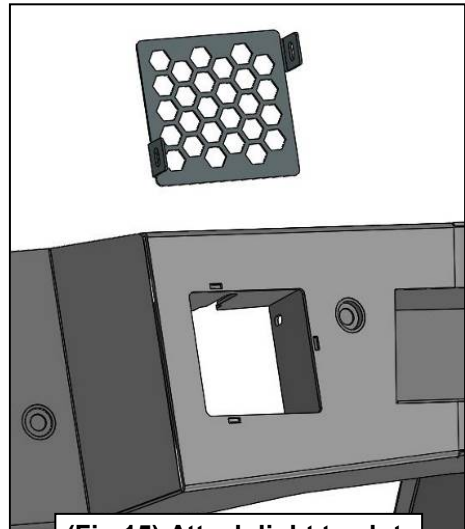
(Fig 13) Push plastic plugs into holes for license plate

- (2) 4mm Screws



(Fig 14) Push sensor into mounting sleeve. Use 4mm Screws to lock sensor in place.

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



(Fig 15) Attach light to slot



Complete Installation

TUNDRA