

MTO SERIES REAR BUMPER

2021+ F-150

RBFF1-04



TOOLS REQUIRED

- 10mm, 13mm, 16mm Socket
- 17mm Wrench
- 4mm Allen Bit
- Trim Clip Tool
- Needle Nose Pliers
- Angle Grinder
- Flathead Screwdriver
- Zip Ties (Optional)

SKILL LEVEL

- Novice/Intermediate
- 2 to 3 persons

Little skill level required, however, additional assistance will be required for installation and removal of bumpers.

TIME REQUIRED

- 3 Hours

Time to install this should only take about three hours.

WARNINGS/CAUTIONS BEFORE STARTING INSTALLATION

Before you install this kit – Read and understand all instructions, warnings, cautions, and notes contained in this installation instruction guide. Consult your vehicle owner's manual for proper disconnection of electrical and lifting of vehicle if required for installation of this product.

This install may require some technical skills and knowledge of basic mechanical work. If you do not feel that you are capable of performing this install please take this product to a trained professional.

After reading this guide please contact us with any questions or concerns before installing product.
Customer Service: 855-680-9595

DV8 Offroad is not responsible for any bodily injury or harm to you or your vehicle as a result of an improper install.

Proper installation of this kit required knowledge of the factory recommended procedures for removal and installation of original equipment components. We recommend that the factory shop manual and any special tools needed to service your vehicle be on hand during the installation. Installation of this kit without proper knowledge of the factory recommended procedures may affect the performance of these components and the safety of the vehicle

- Always wear eye protection when operating power tools

Inspect all contents of this package to make sure product is not damaged and all installation hardware has been included. If parts are missing from kit, please be prepared to provide the following information

1. Name of purchase location
2. Bar Code on side of box
3. Date above bar code
4. Date inside box cover



INSTALLATION MANUAL

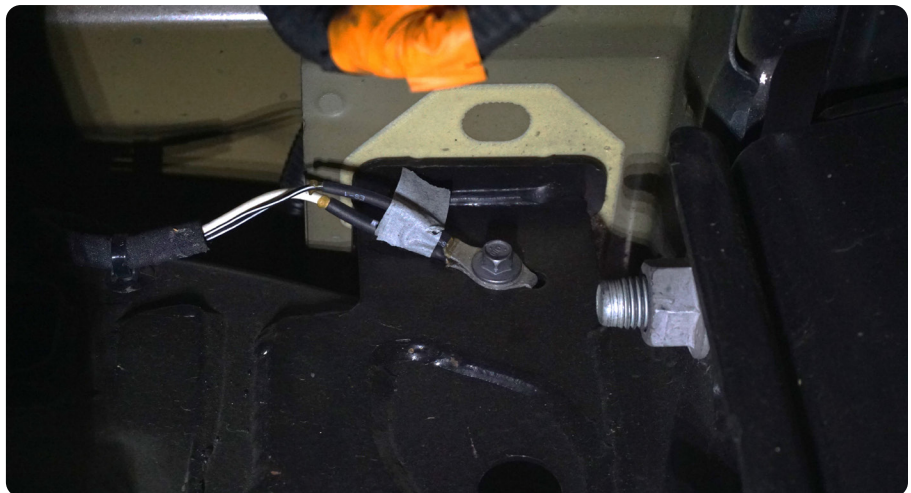
Begin by unpacking all items and inspecting for missing pieces or damage. If you have any concerns, please contact the company the product was purchased from.

HARDWARE INCLUDED

- (6) M10x40 Hex
- (12) M10 Flat Washers
- (6) M10 Nylon Lock Nuts
- (4) M6x20 Allen
- (8) M6 Flat Washers
- (4) M6 Nylon Lock Nuts



STEP 1 | Use a 10mm socket to remove the bolt securing the ground wire located on the outside of the driver side frame rail.



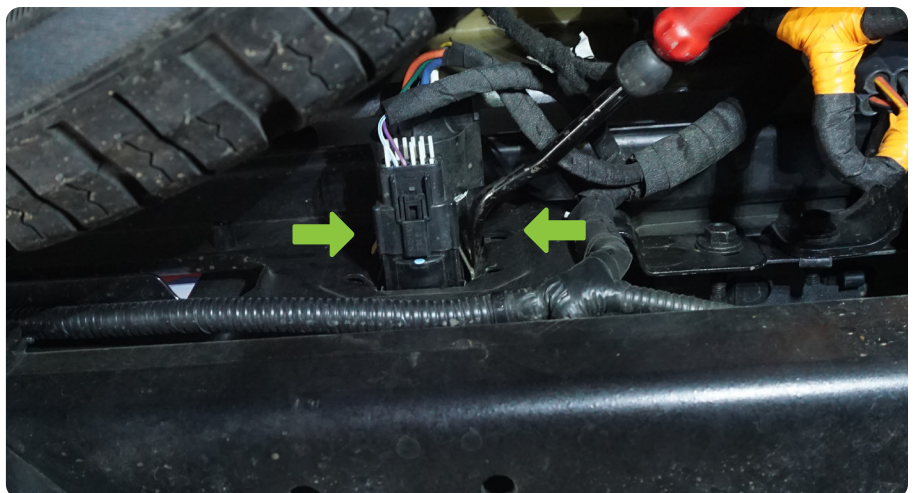
INSTALLATION MANUAL

STEP 2 | Use a trim clip tool to remove the clips securing the ground wire to the frame rail.

One clip is located next to where the ground was secured, and the other is on top of the frame rail above the spare tire.



STEP 3 | Remove the trailer wiring plug from the bumper using a trim clip tool to press in the release tabs on both sides of the plug and push it out of the bumper.



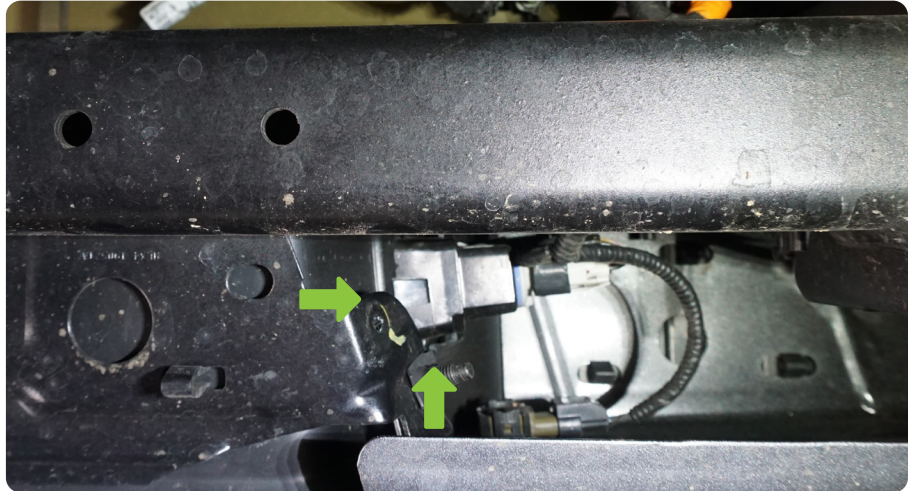
INSTALLATION MANUAL

STEP 4 | Remove the license plate lights using a trim clip tool to press on the two release tabs.

The release tabs are located on the side and bottom of the lights.

Remove the wiring harness from the lights by pressing down the release tab and pulling away.

Once removed, set them off to the side for installation on the DV8 bumper.



STEP 5 | Press the release tab on the smaller plug and pull to remove.

Use a trim clip tool to remove the gray plastic lock from the larger plug and then press the release tab and pull to remove.

Once removed, set the trailer plug off to the side for installation on the DV8 bumper.



INSTALLATION MANUAL

STEP 6 | Remove the sensors from their bezels on the bumper by gently spreading the tabs on the sensor bezel to release them.



STEP 7 | Use needle nose pliers to squeeze the release tabs and push up from underneath the bumper, and have a friend pull up on the trim from the top of the bumper.

Start at one side of the bumper and work towards the other side until the trim is completely removed.



STEP 8 | Disconnect the plug for the sensor wiring harness located between the driver side frame rail and the spare tire by rotating the lock-release and pulling.

Note: Spare tire can be removed for easier access to the plug.



INSTALLATION MANUAL

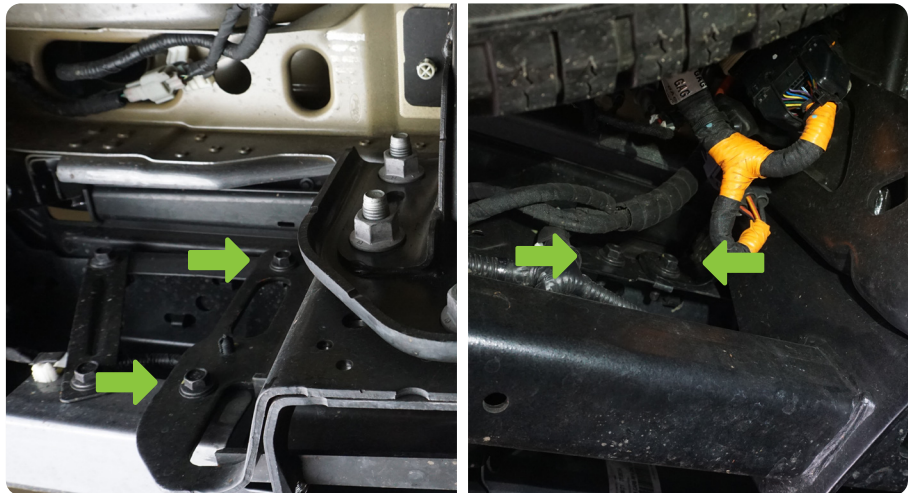
STEP 9 | Use a 10mm socket to remove the bolts located on both sides of the hitch step.



STEP 10 | Remove the eight bolts securing the bumper to the vehicle using a 13mm socket.

- Four are located on the outside edge of both frame rails.
- Four are located in between the frame rails, above the hitch, directly behind the spare tire.

Note: Bumper will become loose during this step. Assistance is recommended to prevent



STEP 11 | Use a trim clip tool to remove the clips securing the sensor wiring harness to the bumper.



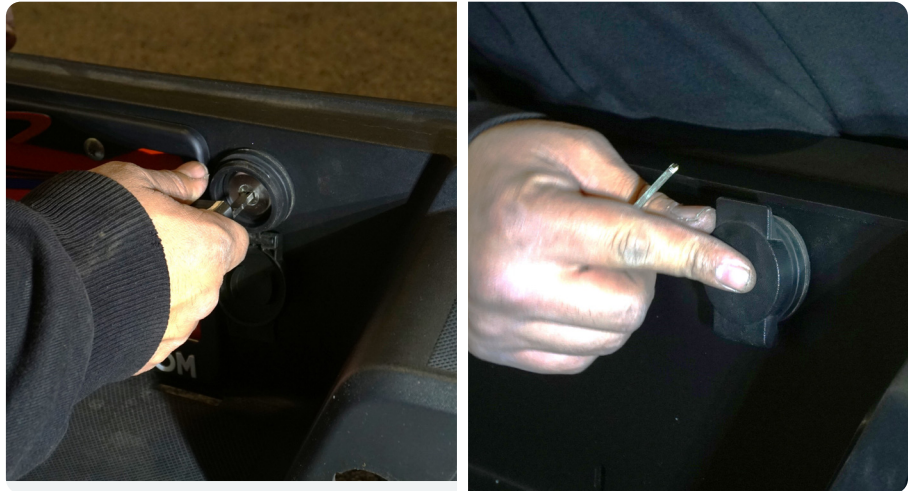
INSTALLATION MANUAL

STEP 12 | Remove the wiring harness from the vehicle by gently feeding the wires through, or sliding it over, the bumper support bracket and set it off to the side.



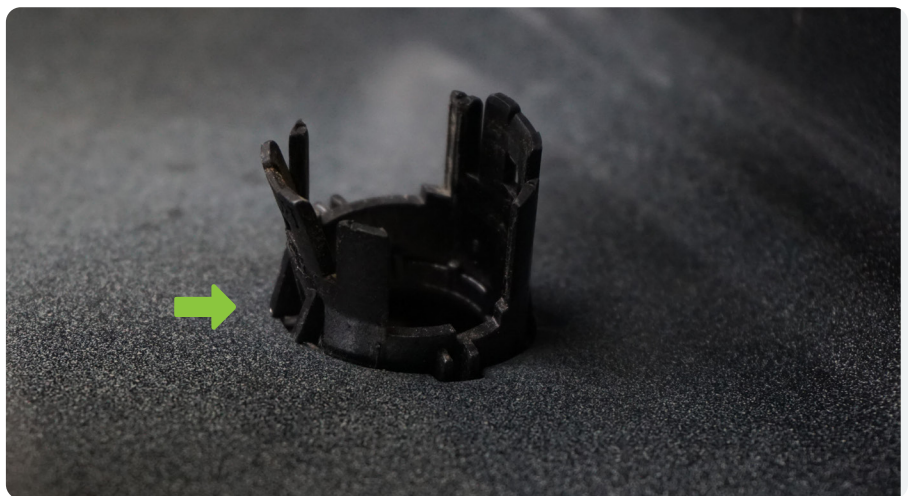
STEP 13 | Remove the lock for the spare tire by rotating the lock and pulling out.

Install it into the DV8 bumper by pressing it in to place, then rotating the lock.



STEP 14 | Use a trim clip tool to remove the sensor bezels from the factory bumper by pressing the small tabs securing the bezels and pushing them "out" towards the front of the bumper.

Tip: The sensor bezels must be re-installed at the same location that they were removed from. Use painters tape to mark the bezels as "outer-driver", "inner-driver", etc.



INSTALLATION MANUAL

STEP 15 | Install the license plate lights by pressing them until they “clip” into place.



STEP 16 | Install the trailer plug on the DV8 bumper by pressing it until it “clips” into place.



STEP 17 | Install the license plate using the provided M6 hardware with a 4mm allen bit and 10mm socket.



INSTALLATION MANUAL

STEP 18 | If you are running flush mount pod lights, install them at this time using the hardware provided with the light.

*Note: We are using 3" elite series flush mount pod lights for our install.
Part Number: BE3FMW40W*



STEP 19 | Factory sensor bezels must be trimmed for installation on the DV8 bumper.

Example of trimmed bezel (lower left) and untrimmed bezel (lower right).

The small triangular tabs must be cut flush with the rest of the bezel.

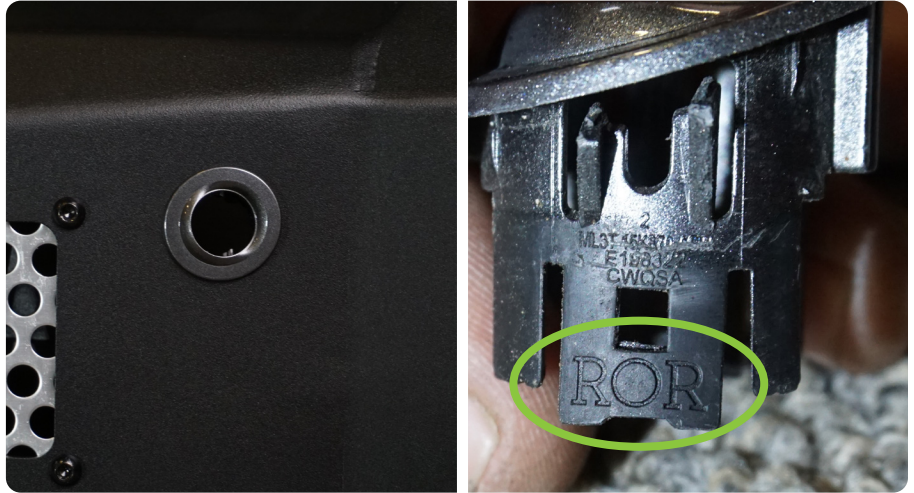


INSTALLATION MANUAL

STEP 20 | Install the sensor bezels into the DV8 bumper in the locations they were removed from the factory bumper.

Tip: Reference the painters tape from step 12, or the bezels to determine their install location.

Example: "ROR" stands for "Rear Outer Right".



STEP 21 | Connect the license plate light wiring harness to the license plate light plugs by pressing them until they "clip" into place.



STEP 22 | Feed the sensors through to their approximate location of install.

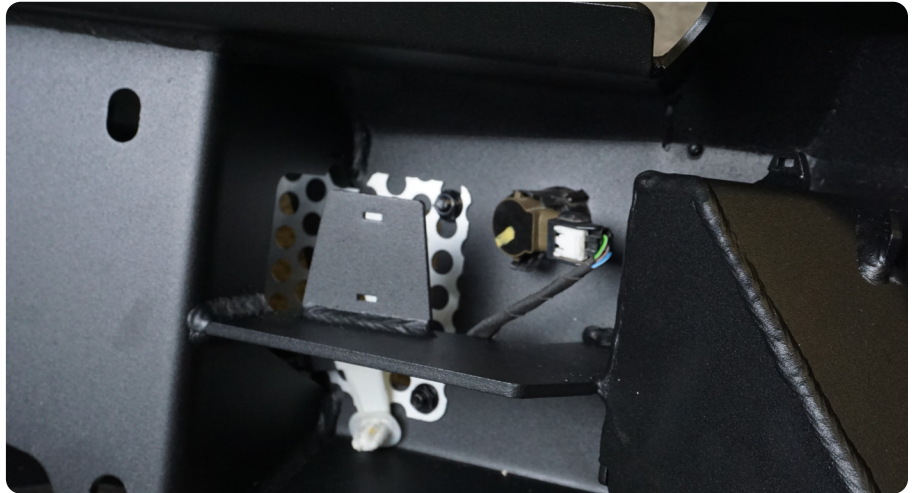
There are cutouts in the bumper for running sensor wires. The sensors on the farthest corners will run under bumper mount and inside sensors are run directly behind the license plate light.



INSTALLATION MANUAL

STEP 23 | Install sensors into their bezels by gently pressing them until they “clip” into place.

Note: If the wires are not long enough to install in the same direction as the picture, you can flip them. Sensors can be installed into the bezels in either direction.



STEP 24 | Connect the trailer wiring harness and plugs by pressing them until they “clip” into place.

Re-install the plastic locking piece onto the larger connector.



STEP 25 | The small section must be removed to accommodate the DV8 bumper.

The plate sitting behind the factory license plate location must be cut at the 90 degree bend.



INSTALLATION MANUAL

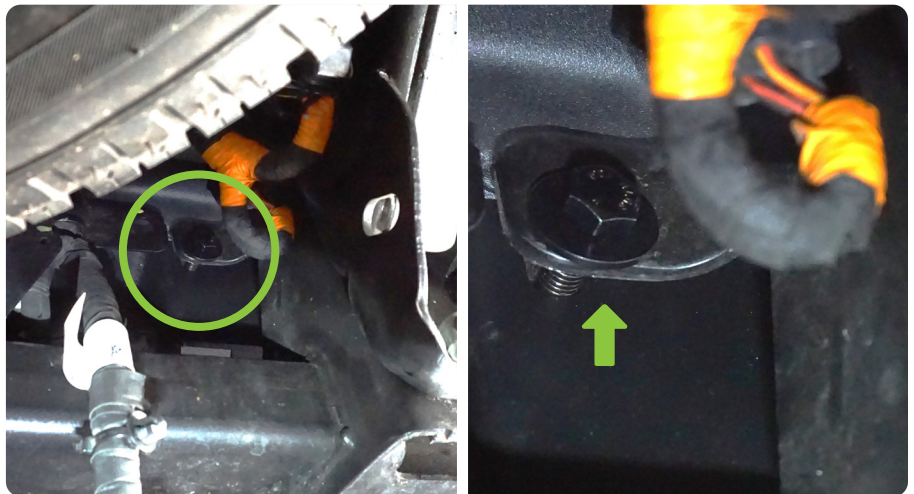
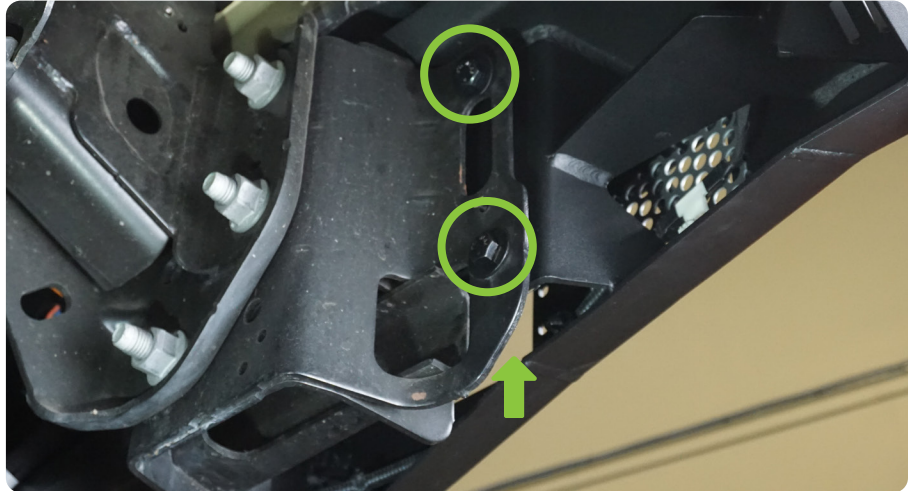
Install the bumper to the vehicle and loosely secure using the provided M10 hardware with a 16mm socket and 17mm wrench.

There is room to slip a wrench in from the bottom of the bumper.

Make sure the wiring is not pinched between the bumper and vehicle during install.

Check to make sure the bumper is adjusted as desired, then secure.

Note: Assistance is recommended to prevent injury and damage to the vehicle or product.



STEP 26 | Connect the bumper wiring harness plug to the vehicle wiring harness by pressing it into the connector and rotating the lock into place.

This is located between the driver side frame rail and the spare tire.

Note: Spare tire can be removed for easier access.



INSTALLATION MANUAL

STEP 27 | Use a 10mm socket to secure the ground wire to the driver side frame rail.

Secure ground wiring using the factory wire clips from step 2.

Tip: Use zip ties to secure any loose sections of wiring for a cleaner install.

Double check all hardware is secure.



STEP 28 | Double check all hardware is secure.

