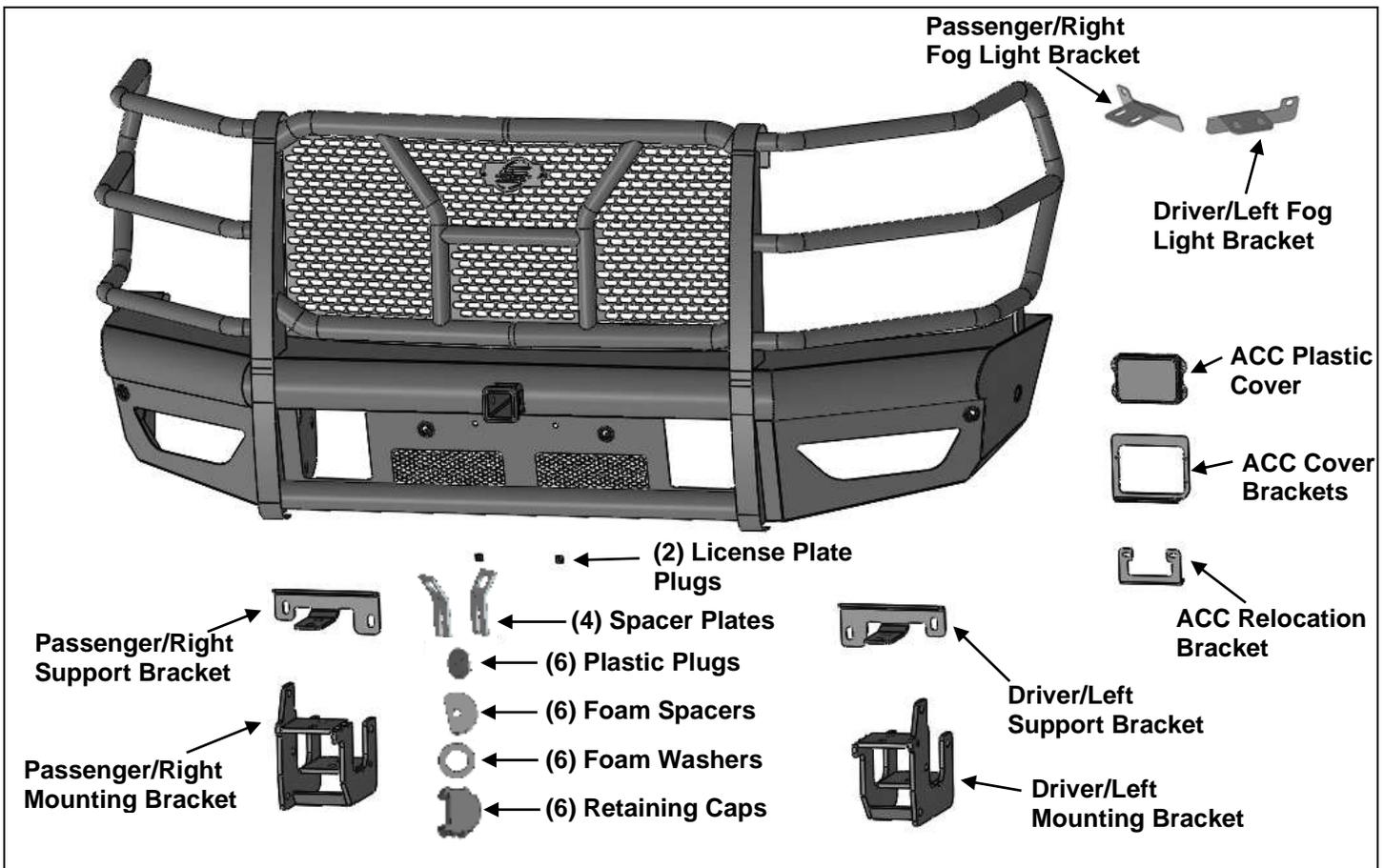


**HD REPLACEMENT FRONT BUMPER
2021-23 FORD F-150**

PARTS LIST:

1	HD Replacement Front Bumper	36	12mm x 37mm OD x 3mm Flat Washers
1	Driver/Left Mounting Bracket	4	12mm Lock Washers
1	Passenger/Right Mounting Bracket	16	12mm Nylon Lock Nuts
1	Driver/Left Support Bracket	2	12mm Double Nut Plates
1	Passenger/Right Support Bracket	4	8mm x 25mm Hex Bolts
1	Driver/Left Fog Light Bracket	8	8mm x 24mm OD x 2mm Flat Washers
1	Passenger/Right Fog Light Bracket	4	8mm Nylon Lock Nuts
1	ACC Plastic Cover	10	6mm x 25mm Hex Bolts
1	ACC Cover Bracket	18	6mm x 18mm OD x 1.6mm Flat Washers
1	ACC Relocation Bracket	10	6mm Lock Washers
4	Spacer Plates	8	6mm Hex Nuts
2	License Plate Plugs	2	6mm Flanged Nuts
6	Plastic Sensor Plugs	4	5mm x 16mm Button Head Bolts
6	Sensor Retaining Caps	4	5mm Flanged Nuts
6	15.5mm x 25mm OD x 2mm Foam Washers	12	4mm Self Tapping Screws
6	20mm x 10mm Foam Spacers	2	Wire Extenders
1	Sensor Cover Kit	1	4mm Hex Wrench
2	12mm x 170mm Hex Bolts	1	3mm Hex Wrench
18	12mm x 45mm Hex Bolts		



PROCEDURE:

REMOVE CONTENTS FROM PACKAGING. SOME PARTS ARE SMALL AND WILL BE HIDDEN IN WRAPPINGS. VERIFY ALL PARTS ARE PRESENT AND DO NOT DISCARD PACKAGING UNTIL INSTALLATION IS COMPLETE. READ INSTRUCTIONS CAREFULLY BEFORE STARTING

INSTALLATION. BUMPER IS HEAVY, ASSISTANCE IS HIGHLY RECOMMENDED TO AVOID POSSIBLE INJURY OR DAMAGE TO THE VEHICLE.

1. Remove the license plate and bracket.
2. From behind the front bumper, unplug and remove the active air dam from the bottom of the frame, **(Figures 1 & 2)**. It is not necessary to remove the lift motors, only remove the (6) bolts to remove the air dam. **NOTE:** Active air dam lift motor will not be installed or used on Steelcraft bumper. It will remain on OE bumper.
3. With the air dam out of the way, locate and unplug the main harness plug on the top of the passenger/right frame rail behind the bumper bracket, **(Figure 3)**. Unplug any remaining harnesses leading to the bumper. On hybrid models, temporarily remove the speaker assembly for the pedestrian audible alert system from the driver/left frame channel, **(Figure 4)**. Note speaker is located on the inner side of the frame, behind the driver/left bumper bracket. From below, remove the hex bolt and drop the speaker down, unplug and remove, **(Figure 5)**.
4. Next, remove the plastic bumper pads, **(Figure 6)**. Release metal clips to remove bumper pad assembly.
5. Place blocks or jack stands under the front bumper to support it during mounting bolt removal. Once the bumper has been safely supported, remove the large hex nut from the back of each bumper bracket, **(Figure 7)**. Next, from the front of the bumper, remove the (2) factory hex nuts attaching the bumper to each bumper bracket, **(Figure 8)**. **WARNING!** Assistance is required to hold the bumper in place during bolt removal to prevent the bumper from falling. Carefully slide the bumper off over the tow hooks.
6. Remove the tow hooks and plastic covers, (if equipped), from the bottom of the frame, **(Figure 9)**.
7. Next, select the Passenger/Right Mounting Bracket, **(Figure 10)**. Slide the Bracket over the end of the frame. Insert (1) 12mm Double Nut Plate into the open end of the frame. Attach the Mounting Bracket to the bottom of the frame and the Double Nut Plate with (2) 12mm x 45mm Hex Bolts, (2) 12mm Lock Washers and (2) 12mm Flat Washers, **(Figure 10)**. **NOTE:** On models with tow hooks, reuse the factory nut plate and hardware to attach the Mounting Bracket to the bottom of the frame. Do not tighten.
8. Insert (1) 12mm x 170mm Long Hex Bolt with (1) 12mm Flat Washer through the outside of the mounting tab on the Frame Bracket, through the frame and inside tab. Secure with (1) 12mm Flat Washer and (1) 12mm Nylon Lock Nut. Insert (1) Spacer Plate down between each mounting tab and the side of the frame, **(Figure 11)**. Do not tighten.
9. Select the Passenger/Right Support Bracket, **(Figure 12)**.
On models without tow hooks,
 - a. Reuse the factory hex nuts to attach the Support Bracket to the frame, **(Figure 12)**.
 - b. Attach the Support Bracket directly to the top of the Mounting Bracket with (2) 12mm x 45mm Hex Bolts, (4) 12mm Flat Washers and (2) 12mm Nylon Lock Nuts, **(Figure 13)**. Do not tighten.**On models with tow hooks,**
 - a. Line up the Support Bracket with the top of the Mounting Bracket.
 - b. Reuse the factory hex nuts to attach the Support Bracket to the frame, **(Figure 12)**.
 - c. Slide the tow hook into the Mounting Bracket and up to the top. Attach the tow hook to the Frame Bracket and Support Bracket with (2) 12mm x 45mm Hex Bolts, (4) 12mm Flat Washers and (2) 12mm Nylon Lock Nuts, **(Figure 13)**.
10. Repeat **Steps 7—9** to attach the Driver/Left Mounting Bracket, Support Bracket and tow hook if equipped.
11. If equipped with factory fog lights, unplug both lights and remove the complete light assemblies from back of bumper. Unplug and remove the adaptive cruise control, if equipped.
12. **Models with factory fog lights:**
 - a. Select the Driver/Left Fog Light Bracket. Attach the Bracket to the slots in the mounting on the back of the Bumper with (2) 8mm Hex Bolts, (4) 8mm Flat Washers and (2) 8mm Nylon Lock Nuts, **(Figure 14)**.
 - b. Attach the Driver/Left factory fog light to the back of the Bumper and Light Bracket with (3) 6mm Hex Bolts, (6) 6mm Flat Washers, (3) 6mm Lock Washers and (3) 6mm Hex Nuts, **(Figure 15)**.
 - c. Repeat to install the Passenger/Right fog light.
13. **For vehicles equipped with front sensors.**

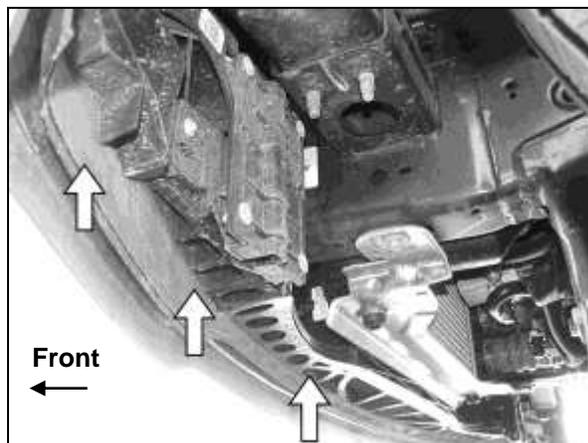
**HD REPLACEMENT FRONT BUMPER
2021-23 FORD F-150**

- 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 16)**.
- d. Repeat previous Steps to install remaining sensors.

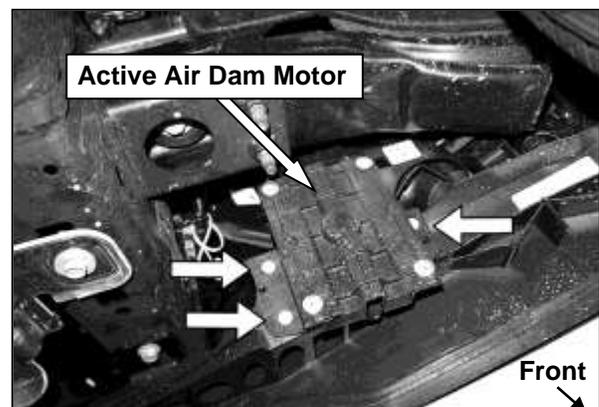
For vehicles not equipped with front sensors.

- a. Select the included (4) Plastic Sensor Plugs.
 - b. From the front of the bumper, push Sensor Plugs into sensor sleeves, **(Figure 17)**.
- 14.** Determine if vehicle is equipped with an adaptive cruise control, (ACC)
NOTE: Install the ACC assembly before attaching Bumper to vehicle.
- a. Select the ACC Cover Bracket, **(Figure 18)**.
 - b. Attach the ACC Plastic Cover to the back of the Bracket with (4) 5mm Button Head Bolts, and (4) 5mm Flanged Nuts, **(Figure 18)**.
 - c. Select the ACC and Relocation Bracket. Attach the ACC to the front of the Relocation Bracket with (2) 6mm Hex Bolts, (2) 6mm Lock Washers, (2) 6mm Flat Washers and (4) 6mm Flanged Nuts, **(Figure 19)**.
 - a. Attach the ACC assembly and Cover assembly to the mounting plate on the back of the Bumper with (2) 6mm Hex Bolts, (4) 6mm Flat Washers, (2) 6mm Lock Washers and (2) 6mm Hex Nuts, **(Figure 20)**.
- 15.** On models with grille mounted factory camera, remove the center screen, **(Figure 22)**.
- 16.** With assistance, position the Bumper Assembly onto the outside of 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.
- 17.** Attach the Bumper to the Brackets with (6) 12mm Hex Bolts, (12) 12mm Flat Washers and (6) 12mm Nylon Lock Nuts, **(Figure 21)**. Do not tighten.
- 18.** Level and adjust the bumper and fully tighten all 12mm hardware to 65-70ft-lbs. **NOTE:** If additional in-out adjustment is required, loosen Frame Bracket Hardware, slide the Bracket in or out as necessary and fully tighten all hardware.
- 19.** Reattach the wiring harness. Adjust lights as necessary and tighten all fog light bracket hardware.
- 20.** If front license plate is required, insert (2) Plastic Plugs into the square holes in the Bumper. Reuse the factory screws to attach the license plate to the Plastic Plugs, **(Figure 22)**.
- 21.** 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 Full Replacement Front Bumper assembly.

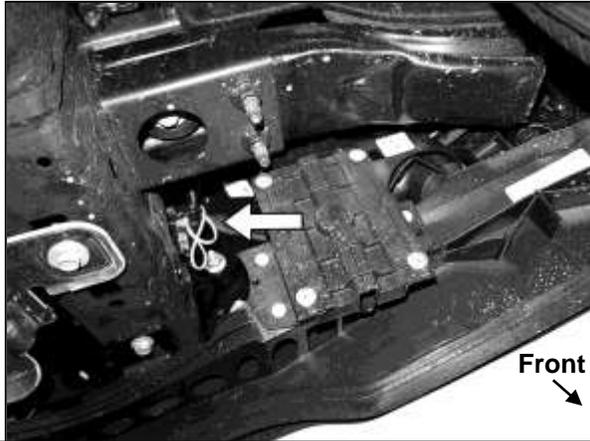


(Fig 1) Active air dam behind bumper

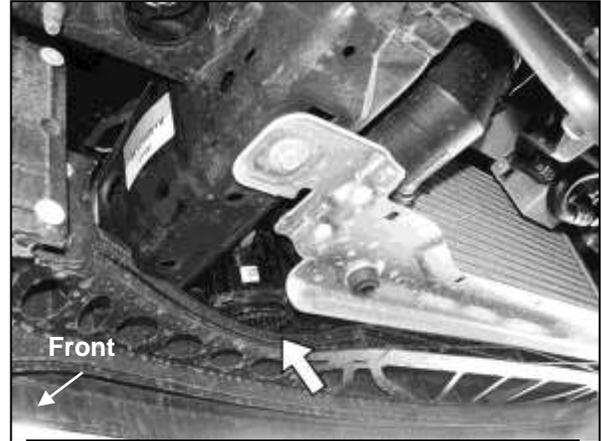


**(Fig 2) Remove bolts (arrows) to remove active air dam from motors (passenger/right side pictured)
NOTE: Air dam motor will NOT be installed on Steelcraft Bumper. Remains on OE bumper.**

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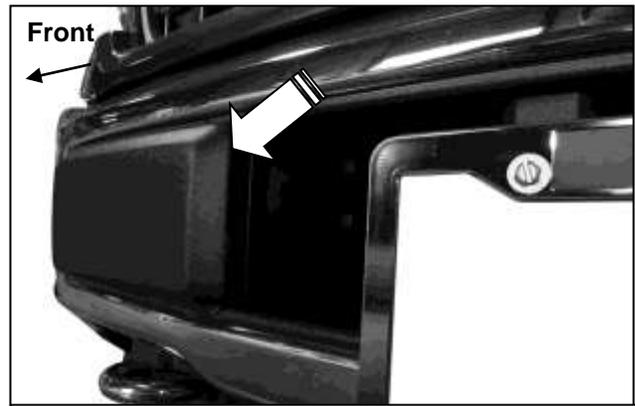
(Fig 3) Locate and unplug main harness plug on passenger/right side of bumper (arrow)



(Fig 4) Hybrid Models Only, locate alert speaker behind driver/left side of bumper

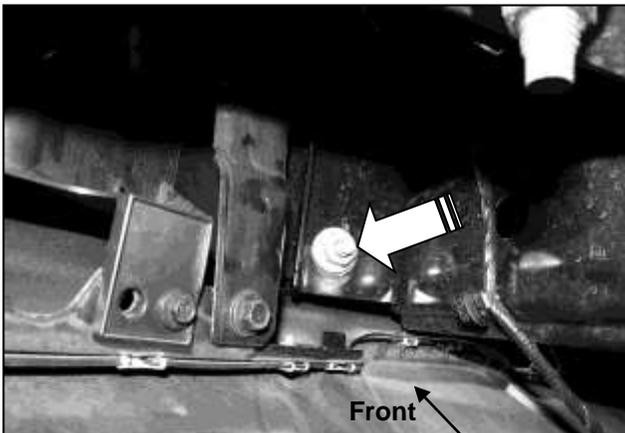


(Fig 5) Remove bolt (arrow) to temporarily remove audible alert speaker located behind driver/left side of bumper (hybrid models only-pictured from below)

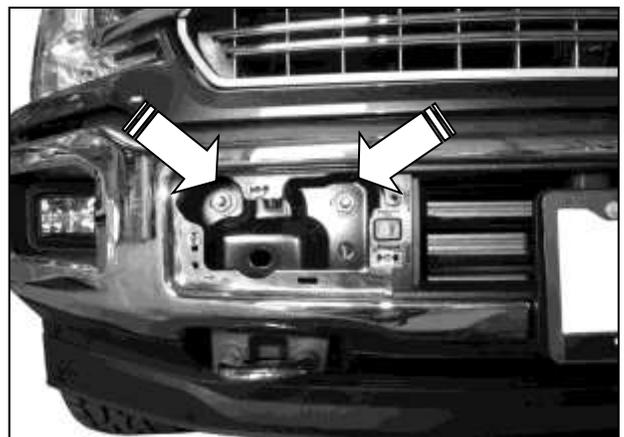


(Fig 6) Pull to release metal clips attaching plastic bumper pad to the bumper

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



(Fig 7) Remove factory hex nut (arrow) from back of bumper bracket (Driver side pictured)

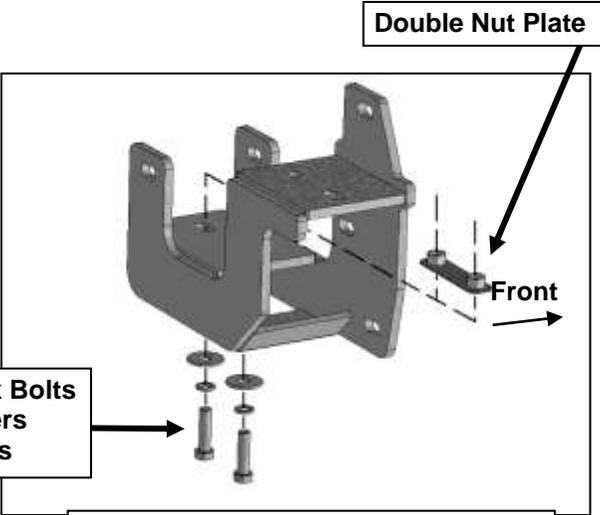


(Fig 8) Remove (2) factory hex nuts from each side

Driver/left Side Installation Pictured



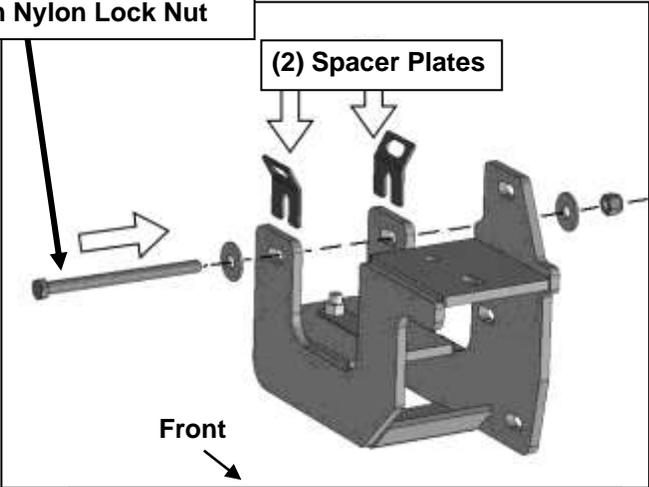
(Fig 9) Remove the tow hooks and plastic covers, if equipped



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

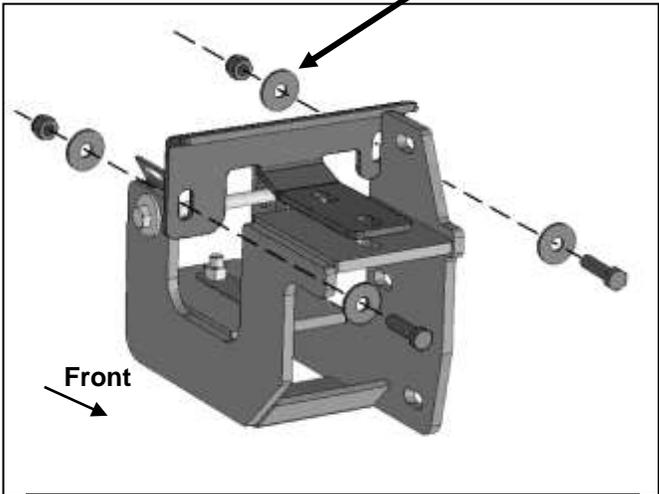
(Fig 10) Driver/Left Mounting Bracket

- 12mm x 170mm Hex Bolt
- (2) 12mm Flat Washers
- 12mm Nylon Lock Nut



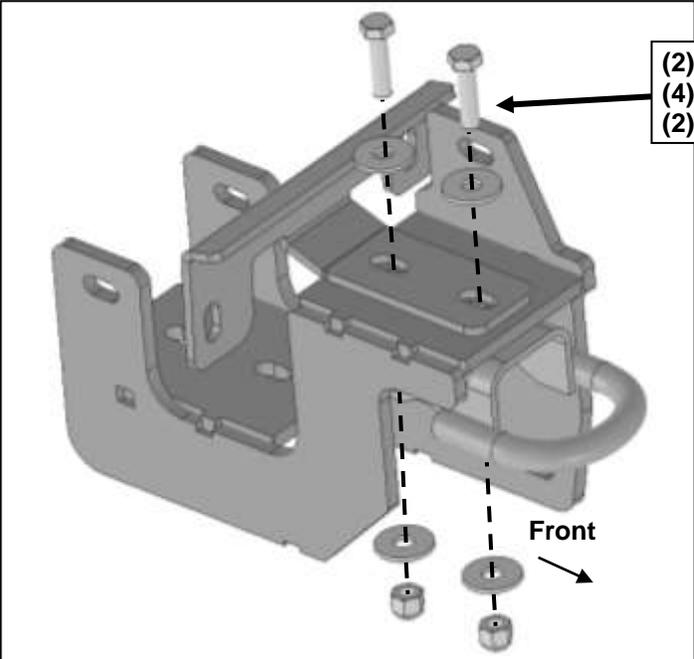
(Fig 11) Insert Spacers between frame and Mounting Bracket for more secure fit

- (2) 12mm x 45mm Hex Bolts
- (4) 12mm Flat Washers
- (2) 12mm Nylon Lock Nuts



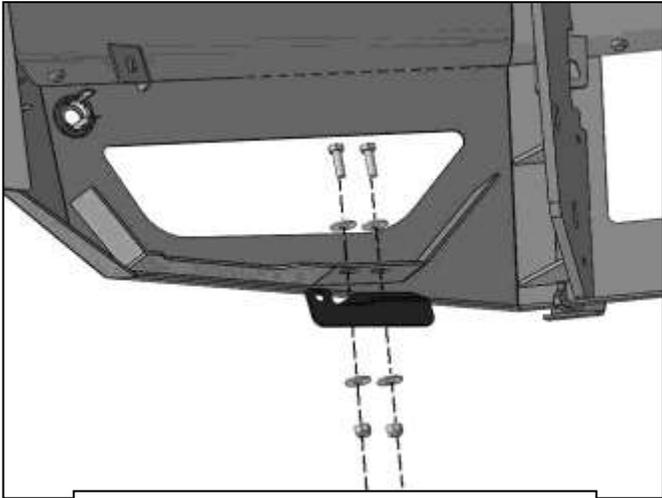
(Fig 12) Reuse the factory hardware to attach the Driver/Left Support Bracket to the frame

Driver/left Side Installation Pictured



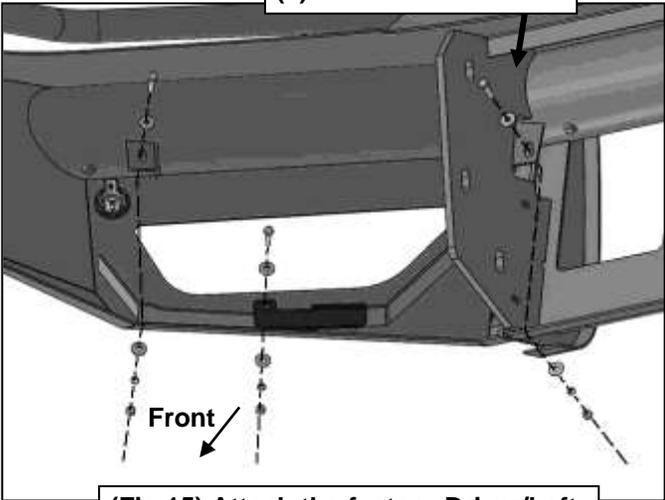
- (2) 12mm x 45mm Hex Bolts
- (4) 12mm Flat Washers
- (2) 12mm Nylon Lock Nuts

(Fig 13) Models without tow hooks, attach Driver/Left Support Bracket to the top of the Frame Bracket. Models with tow hooks, attach tow hook to inside top of Mounting Bracket

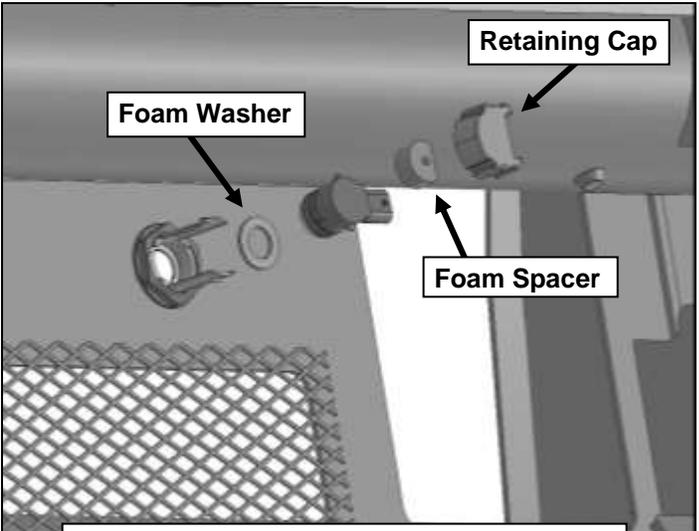


(Fig 14) Attach the Driver/Left Fog Light Bracket to the side of the Bumper

- (3) 6mm Hex Bolts
- (6) 6mm Flat Washers
- (3) 6mm Lock Washers
- (3) 6mm Hex Nuts

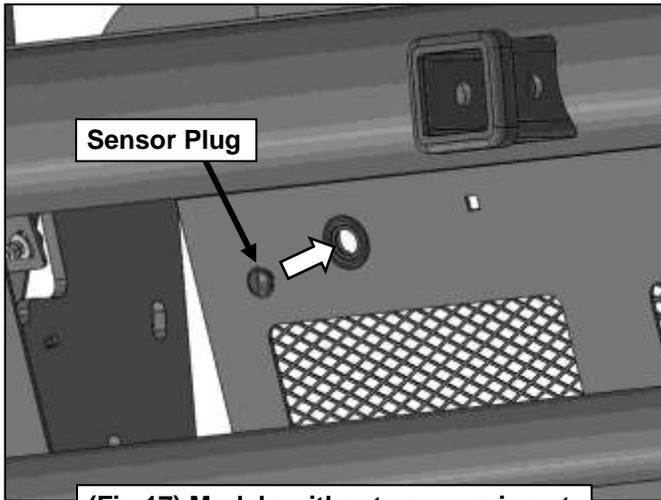


(Fig 15) Attach the factory Driver/Left fog light to the side of the Bumper



(Fig 16) Insert sensor with Seal into the sensor mount on back of Bumper, followed by the Retaining Cap with Spacer

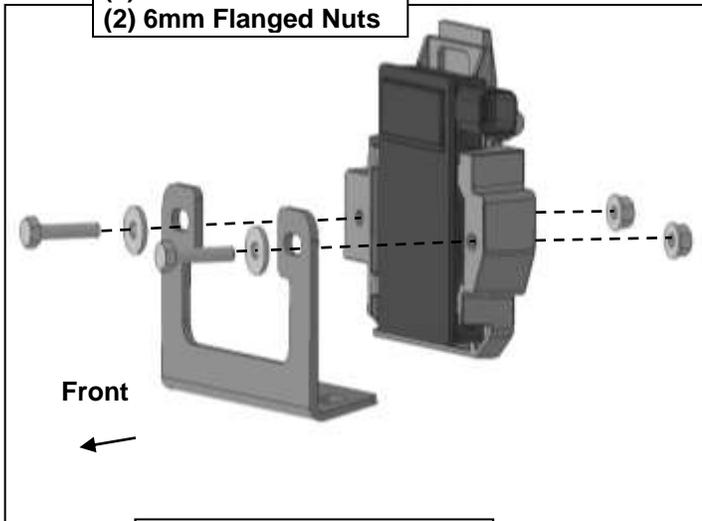
**HD REPLACEMENT FRONT BUMPER
2021-23 FORD F-150**



Sensor Plug

(Fig 17) Models without sensors insert sensor plug into the sensor sleeve

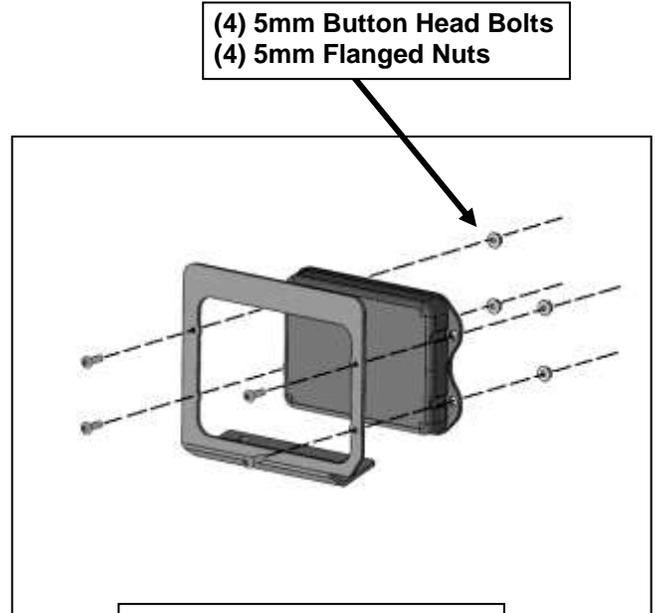
- (2) 6mm Hex Bolts
- (2) 6mm Flat Washers
- (2) 6mm Lock Washers
- (2) 6mm Flanged Nuts



Front

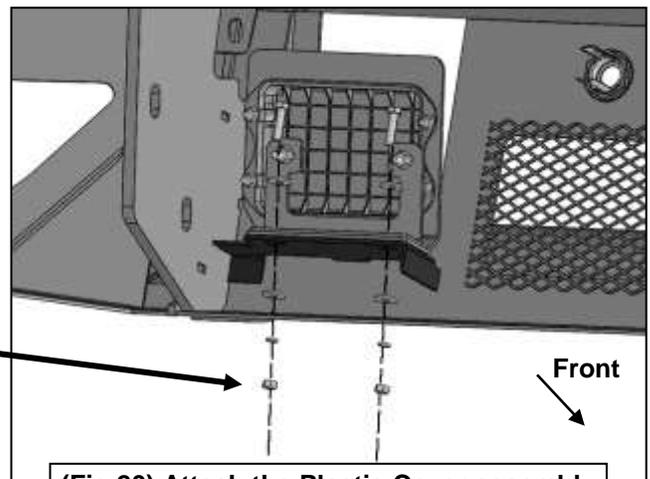
(Fig 19) Attach the ACC to the Relocation Bracket

- (2) 6mm Hex Bolts
- (4) 6mm Flat Washers
- (2) 6mm Lock Washers
- (2) 6mm Hex Nuts



- (4) 5mm Button Head Bolts
- (4) 5mm Flanged Nuts

(Fig 18) Attach Plastic Cover to the ACC Cover Bracket



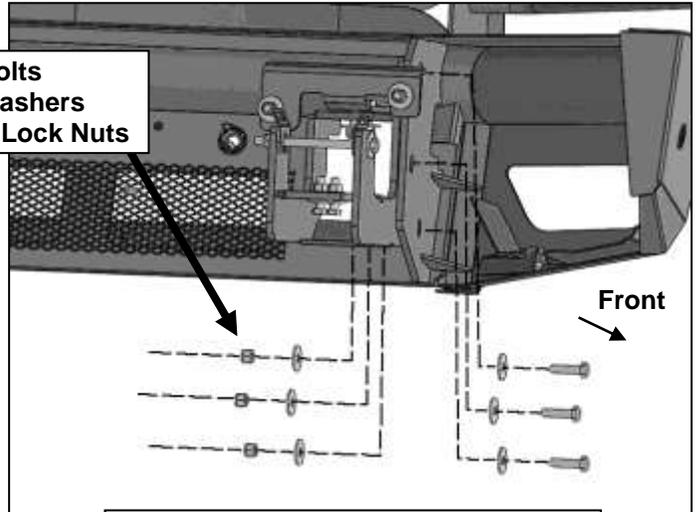
Front

(Fig 20) Attach the Plastic Cover assembly and the ACC assembly to the mounting plate on the back of the Bumper

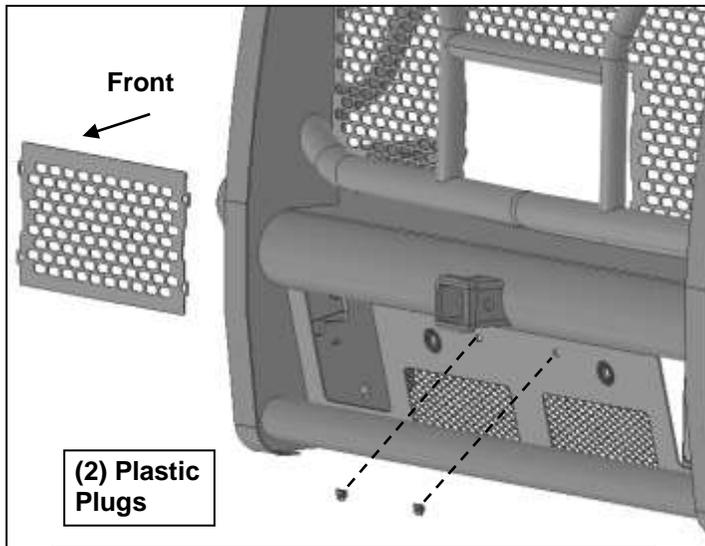
Passenger/right Side Installation Pictured

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

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



(Fig 21) Attach Bumper to Brackets

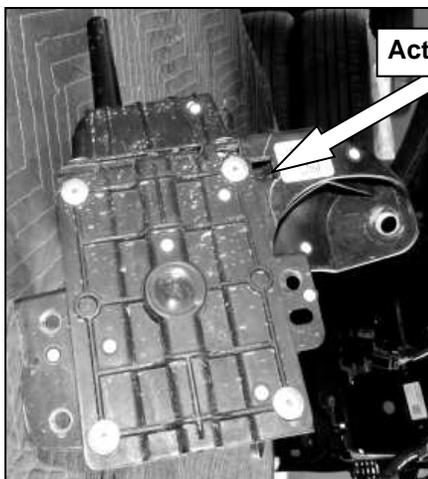


- (2) Plastic Plugs

(Fig 22) Models equipped with grille mounted camera, remove center screen. Reuse factory screws to attach license plate to Plastic Plugs



Completed Installation



Active Air Dam Motor



FINAL NOTE: This is not a sensor. This air dam motor does not get re-installed.