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## **2018-2020 FORD F150**

# **DEFENDER SERIES GRILLE GUARD**

### **INSTALLATION INSTRUCTIONS**



# SAFETY

**Know safety, no injury. Know injury, no safety. ~Author Unknown**

If there are any questions, call 1-855-HHTOUGH

## **READ ALL SAFETY INSTRUCTIONS BEFORE INSTALLATION**

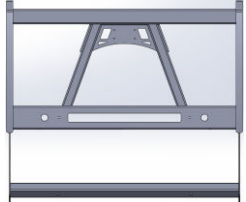
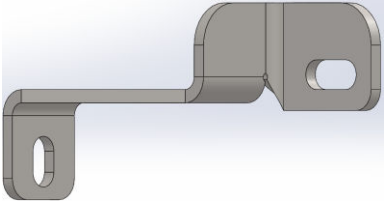
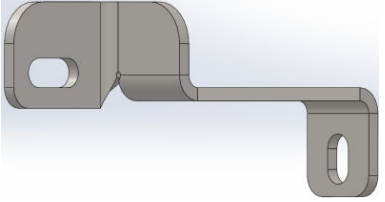
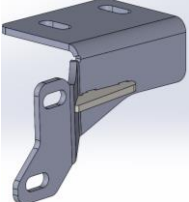
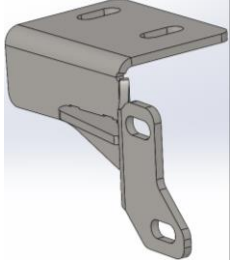
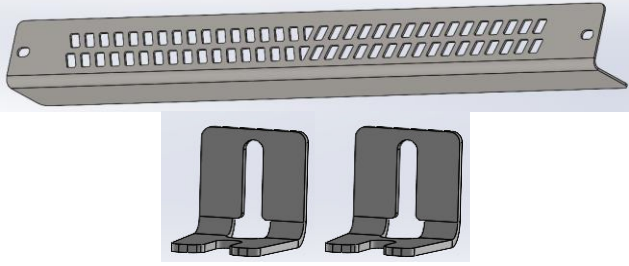
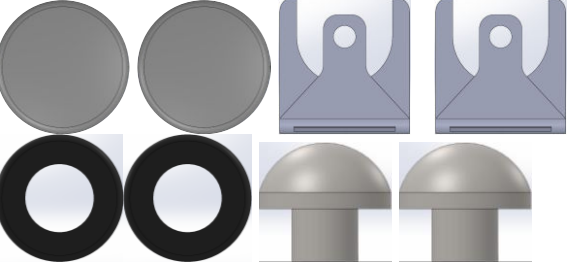
- FOLLOW ALL INSTRUCTIONS FOR PROPER ASSEMBLY
- WEAR APPROPRIATE EYE PROTECTION
- EXERCISE CARE WHEN LIFTING COMPONENTS
- USE APPROPRIATE TORQUE FOR BOLTS
- RE-TORQUE HARDWARE AT EVERY OIL CHANGE.

<b>Suggested Torque Values For Steel Grade 5 Standard Bolts</b>		
BOLT DIAMETER (INCH)	THREADS PER INCH	TORQUE (POUND - FEET)
1/4	20	7
5/16	18	14
3/8	16	25
7/16	14	40
1/2	13	60
9/16	12	88
5/8	11	120
3/4	10	200
7/8	9	302
1	8	466

<b>Suggested Torque Values For Steel Grade 8.8 Metric Bolts</b>		
BOLT DIAMETER (mm)	THREAD PITCH (mm)	TORQUE (POUND-FEET)
6	1.0	7
8	1.25	16
10	1.5	32
12	1.75	55
14	2.0	88
16	2.0	140
18	2.5	195
20	2.5	275
22	2.5	375
24	3.0	475



## I. PARTS LIST

<b>Item 1</b> DEFENDER SERIES GG <b>QTY. 1</b> 	<b>ITEM 2</b> LEFT UPPER MOUNT <b>QTY. 1</b> 
<b>ITEM 3</b> RIGHT UPPER MOUNT <b>QTY. 1</b> 	<b>ITEM 4</b> LEFT LOWER FRAME MOUNT <b>QTY. 1</b> 
<b>ITEM 5</b> RIGHT LOWER FRAME MOUNT <b>QTY. 1</b> 	<b>ITEM 6</b> LIGHT BAR COVER AND MOUNTS <b>QTY. 1</b> 
<b>ITEM 7</b> HARDWARE KITS <ul style="list-style-type: none"> <li>✓ <b>HARDWARE KIT #57</b> (60K-56-0057)</li> <li>✓ <b>HARDWARE KIT #158</b> (60K-56-0158)</li> <li>✓ <b>HARDWARE KIT #208</b> (60K-56-0208)</li> <li>✓ <b>HARDWARE KIT #229</b> (60K-56-0229)</li> <li>✓ <b>SENSOR HARNESS EXTENSION</b></li> </ul>	<b>ITEM 8</b> SENSOR KIT <b>QTY. 1</b> 

REMOVE CONTENTS FROM BOX AND VERIFY ALL PARTS ARE PRESENT.  
 If there are any questions, call 1-855 HHTOUGH or email [HHORDERS@hammerheadarmor.com](mailto:HHORDERS@hammerheadarmor.com)

## **II. TOOL LIST**

- ✓ 2 people required
- ✓ Basic tool set
- ✓ Blue masking tape
- ✓ Torx 30 bit
- ✓ 10mm wrench
- ✓ 3/8" wrench
- ✓ 13mm socket
- ✓ 15mm socket
- ✓ 21mm socket
- ✓ 3/4" socket
- ✓ Ratchet extension

## **III. VEHICLE PREPARATION**

1. Park vehicle on level surface.
2. Engage parking brake and disconnect battery.
3. Using blue masking tape, mask along the profile of your truck above the bumper. This will help protect your truck from any accidental scratches.

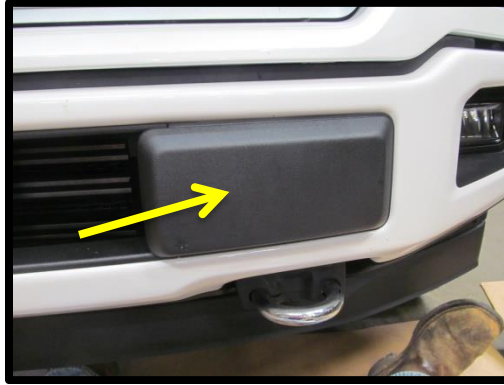
## **IV. REMOVAL OF OE BUMPER**

1. Unplug the fog lights and adaptive cruise control (if applicable). The harness is located above the right frame rail.

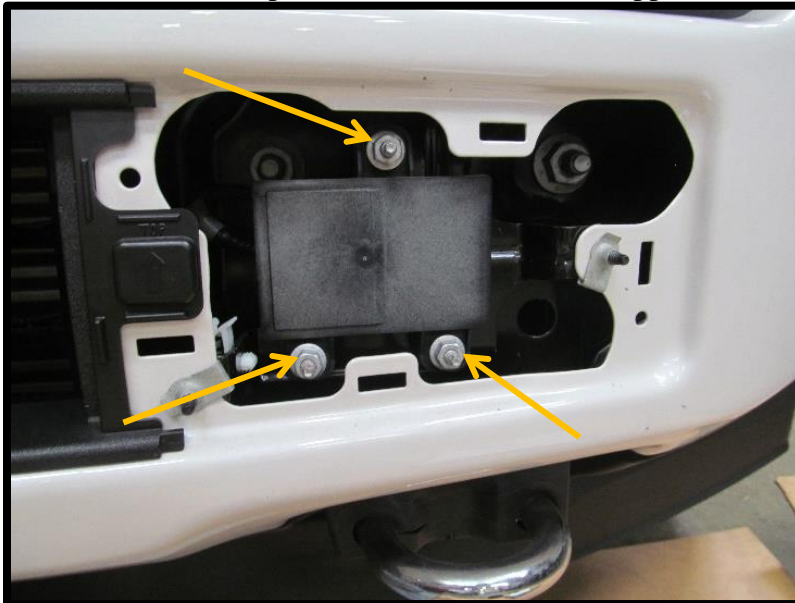




2. Using a trim tool or flathead screwdriver, remove plastic covers from above tow hooks (both sides)



3. Using a 7/16" socket, remove the Adaptive cruise control unit (if applicable).



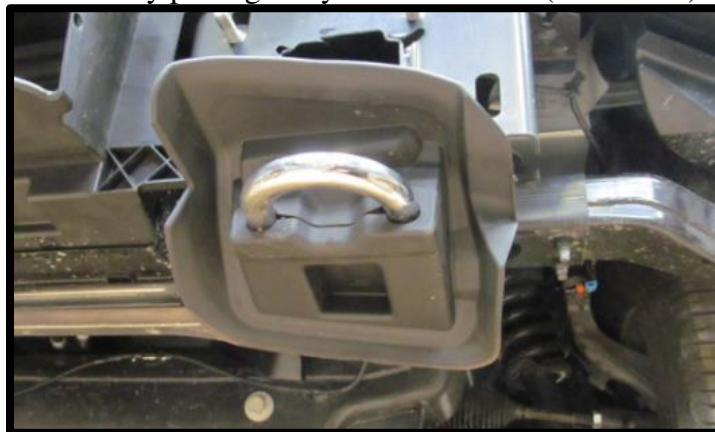
4. Using a 21mm socket, remove 1 nut from the back side of the bumper (Both Sides)



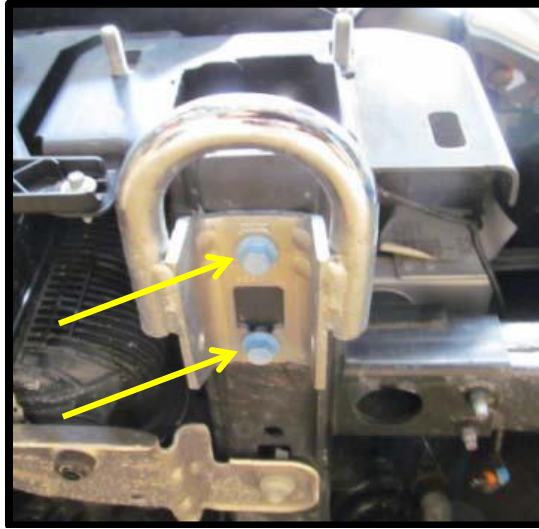
5. Using the 21mm socket from the previous step, remove the 2 front nuts holding the OE bumper to the truck (Both Sides). Once these are removed, pull the bumper away from the truck and place it out of the way. Hold on to the nuts and bolt strips, they will be used again.



6. Remove OE tow hook shroud by pulling away from the truck. (Both sides)



7. Using a 15mm socket, remove 2 bolts attaching OE tow hook to frame. Set tow hook aside (both sides). Keep the bolts and nut strips, they will be used again.



## V. INSTALLATION OF HAMMERHEAD GRILLE GUARD

1. Lay grille guard face down on a carpeted surface or a piece of cardboard. Install all lights in grille guard with brackets and hardware provided by light manufacturer. Light bar brackets are provided alongside hardware kit #57 to install a single row 20" light bar into grille guard. If not installing single row 20" light bar, use a 3/8" wrench and hardware in hardware kit #158 to install light bar cover to grille guard.
2. Install any HammerHead Armor accessories onto grille guard at this time using hardware and instructions supplied in those kits. Using a 3/4" socket or wrench and hardware in hardware kit #208, install bolt – on headlight guards to grille guard at this time. (*if applicable*)
3. Using a 13mm socket, remove the upper OE bolt on the inside of the OE bumper as pictured below. Install left upper mount (*Item 2*) using M8 hardware supplied in hardware kit #229 as shown below. Ensure upper mount fits snug to top of OE bumper and jogs away from the center of the truck. Fully tighten hardware at this time. Repeat for other side. (*Left Side Shown*)

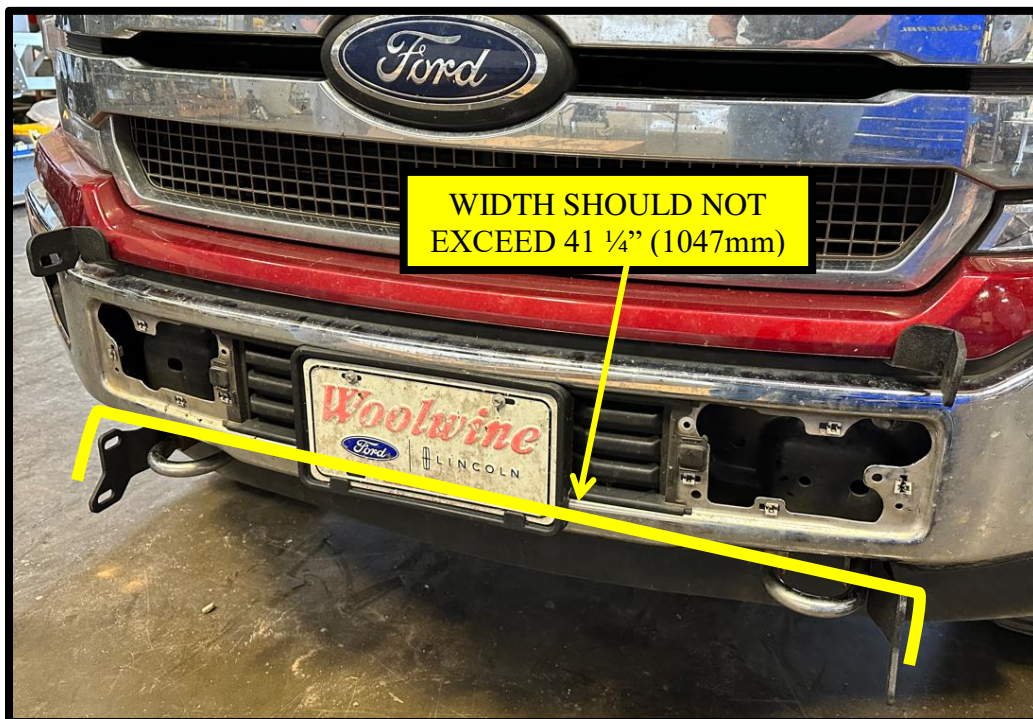




4. Using OE hardware from removal step 7, re-install tow hooks onto frame of vehicle with lower frame mounts (items 4 & 5) in between tow hooks and frame as shown below. Do not fully tighten. (*Left side pictured*)



5. Re-install OE bumper by reversing instructions found in steps 2-5 of OE bumper removal instructions. Ensure width of frame mounts do not exceed 41 1/4" wide from outside of flange to outside of flange.  
*Note – do not re-install OE tow hook shroud.*





6. Install Defender Grille guard onto truck. The mounts will go to the inside. Use hardware kit #208 to bolt the frame mounts to the Defender Grille Guard. The carriage head will go to the outside. Align grille guard to the truck and tighten all hardware to the suggested torques listed above. If you have sensors installed, plug in sensors. Plugs are provided in install kit to fill holes in square tubing and sensor cutouts (if applicable).



**Congratulations! Your product installation is now complete.  
Thank you for your purchase!**