

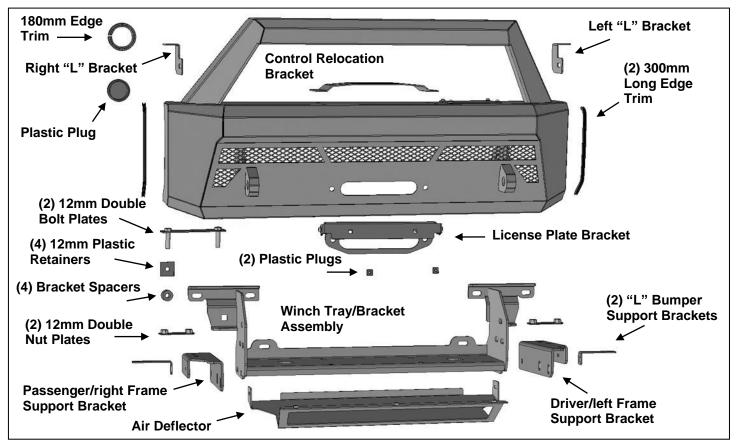
TEL: 1-866-XANATOS

INSTALLATION INSTRUCTIONS

ARMOUR III HD FRONT WINCH BUMPER
2018-20 FORD F150
(Excl. 2020 Diesel models & Incl. Eco Boost engine model)
PART# AR3HD41NL

PARTS LIST:

1	CS-1 Winch Center Bumper	18	12mm Lock Washers
1	Winch Tray/Bracket Assembly	8	12mm Hex Nuts
1	Driver/left Frame Support Bracket	2	10-1.5mm x 30mm Button Head Bolts
1	Passenger/right Frame Support Bracket	2	10-1.5mm x 30mm Hex Bolts
1	Air Deflector	4	10nn x 24mm x 2.5mm Flat Washers
1	Control Pack Relocation Bracket	4	10mm Nylon Lock Nuts
2	Bumper "L" Support Bracket	2	8-1.25mm x 25mm Hex Bolts
1	Driver/Left LED Light Bracket	2	8-1.25mm x 16mm Hex Bolts
1	Passenger/Right LED Light Bracket	6	8mm x 24mm x 2mm Flat Washers
1	License Plate Bracket (pivot style)	4	8mm Lock Washers
2	Plastic Plugs for license plate mount	2	8mm Hex Nuts
1	2" Plastic Hole Plug	3	6-1.0mm x 20mm Combo Bolts
2	200mm Edge Trim (use as hole grommet)	4	6-1.0mm x 20mm Button Head Bolts
2	310mm Bumper Outer Edge Trim	6	6-1.0mm x 25mm Hex Bolts
4	12mm Plastic Retainers	20	6mm x 18mm x 1.6mm Flat Washers
4	Bracket Spacers	10	6mm Nylon Lock Nuts
2	12mm Double Bolt Plates	1	6mm Allen Wrench (for 10mm Button Bolts)
2	12-1.75mm Double Nut Plates	1	5mm Allen Wrench (for 10mm Button Bolts)
14	12-1.75mm x 45mm Hex Bolts	1	4mm Allen Wrench (for 6mm Button Bolts)
22	12mm x 24mm x 2.5mm Flat Washers	10	Nylon Wire Ties



PROCEDURE:

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

- Remove the license plate and bracket, (Figure 1). Remove the plastic bumper pad assembly, (Figure 2). NOTE: Carefully pull bumper pad straight out away from bumper. Unplug and remove the adaptive cruise control, if equipped, (Figure 3).
- 2. Unplug the fog lights, if equipped, (Figure 4). Release the wiring harness from the clips attached to the back of the bumper. Move all wiring harnesses away from bumper.
- 3. 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 outer large hex nut from the back of the driver/left and passenger/right bumper brackets attaching the lower bumper to the bumper brackets, (Figure 5). Next, from the front of the bumper, remove the (4) factory hex nuts, (2) per side, attaching the bumper to the bumper brackets, (Figure 6). 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 if equipped, and move it to a stable work surface.
- 4. Remove the double bolt plate from the end of the driver/left side of the frame, (Figure 7). NOTE: Use a small flat blade screwdriver to remove the clips attaching the bolt plates. Insert the included longer 12mm Double Bolt Plate, (Figure 8). Thread (2) 12mm Plastic Retainers onto the Bolt Plate to hold it in place, (Figure 9). Repeat this Step to install the passenger/right Double Bolt Plate.
- **5. IMPORTANT**: On models with active air dam, unplug and remove entire mechanism. On models equipped with ecoboost, remove the shroud and shutter assembly if equipped.
- **6.** Remove the plastic splash guard from the bottom of the factory bumper, **(Figure 10A). NOTE:** Splash guard cannot be reinstalled. Disassemble the bumper.
- 7. Use a metal cutting saw, (hacksaw for example), to cut off the (2) top center tabs and the left and right connector, (Figure 10A). Cover the outer ends of the bottom of the bumper with removable tape, (masking tape for example). Draw a vertical line from the opening straight down through the bottom of the bumper, (Figure 10A). Repeat to mark the passenger/right side of the bumper.
- **8.** Make a straight vertical downward cut from the opening on both ends of the bumper opening to remove the lower section from the bumper, **(Figures 10A & 10B)**.
- **9.** Reassemble the factory bumper.
- 10. Remove both tow hooks if equipped. NOTE: Tow hooks cannot be reinstalled.
 - a. **IMPORTANT**: On models without tow hooks, insert (1) 12mm Double Nut Plate into the end of each frame rail, **(Figures 9 & 15)**. Line up the Double Nut Plate with the (2) holes in the bottom of the frame. Use (1) 12mm x 45mm Hex Bolt to temporarily hold each Nut Plate in position over the holes.
- 11. Reinstall the factory bumper over the Double Bolt Plates, (Figure 12). Slide the included (4) Bracket Spacers over the bolts on the Bolt Plates, (Figures 11 & 12). Reuse the (2) factory hex nuts to attach the bottom/back of the bumper to the frame, (Figure 5). Do not fully tighten hardware at this time.
- **12.** Select the Winch Tray/Bracket Assembly, **(Figure 13)**. Attach the Winch Tray to the Spacers and Bolt Plates with the included (4) 12mm Flat Washers, (4) 12mm Lock Washers and (4) 12mm Hex Nuts.
- **13.** Attach the back of the Winch Tray to the bumper brackets with (2) 10mm x 30mm Hex Bolts, (4) 10mm Flat Washers and (2) 10mm Nylon Lock Nuts, **(Figures 13 & 14)**. Do not fully tighten hardware.
- 14. Select the driver/left Frame Support Bracket, (Figure 15). Remove the hex bolt holding the Nut Plate in place. Attach the Bracket to the bottom of the frame and Double Nut Plate with the factory tow hook bolts or the included (2) 12mm x 45mm Hex Bolts, (2) 12mm Lock Washers, and (2) 12mm Flat Washers, (Figure 15). Attach the Winch Tray to the Support Bracket with the included (2) 12mm x 45mm Hex Bolts, (4) 12mm Flat Washers, (2) 12mm Lock Washers and (2) 12mm Hex Nuts, (Figures 15 & 16). Do not fully tighten hardware at this time. Repeat this Step to install the passenger/right Frame Support Bracket.
- **15.** Select (1) "L" Bumper Support Bracket, **(Figure 17)**. Attach the Support Bracket to the outside of the driver/left Frame Support Bracket and the bottom of the factory bumper with the included (2) 6mm x 25mm Hex Bolts, (4) 6mm Flat Washers and (2) 6mm Nylon Lock Nuts, **(Figure 17s & 18)**. Repeat this Step to attach the passenger/right side "L" Bumper Support Bracket.

- **16.** Align and center Winch Tray to vehicle. Adjust factory bumper as necessary and fully tighten hardware.
- 17. If installing winch, (winch not included), attach the winch to the Winch Tray at this time. Winch must be installed before Bumper is placed in position. NOTE: Follow manufacturer's instructions to remove the control assembly from the top of the winch and attach it to the Relocation Bracket, (Figure 20). Follow manufacturer's instructions to properly attach the winch to the vehicle's electrical system.
- **18.** Carefully unpack the Bumper. Attach the included long Edge Trim to the sides of the Bumper, **(Figure 19)**. Temporarily place outer Bumper in position to check for clearance.
- **19.** On models with winch, apply short section of Edge Trim to hole in top of Bumper. **NOTE**: On models without winch, insert Plastic Plug into hole and skip to **Step 21**, **(Figure 20)**.
- **20.** Select the winch control and Relocation Bracket. Attach the assembly to the top of the Bumper with the included (4) 6mm x 20mm Button Head Bolts, (8) 6mm Flat Washers and (4) 6mm Nylon Lock Nuts, (Figure 20).
- 21. Attach winch cable guide, (not included), to front of Bumper. NOTE: On vehicles requiring front license plate, select the Pivoting License Plate Bracket, (Figure 21). Use the included (2) 10mm x 30mm Button Head Bolts and (2) 10mm Nylon Lock Nuts to attach the Bracket to the front of the cable guide and Bumper. Push the included (2) push-in Plastic Plugs into the square holes in the Bracket and reuse the factory hardware to attach the license plate to the Plastic Plugs.
- **22.** With assistance, position the Bumper Assembly up to the outside of the Winch Tray assembly, **(Figure 22)**. 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.
- **23.** Attach the driver/left side of the Bumper to the outside of the Winch Tray with the included (3) 12mm x 45mm Hex Bolts, (3) 12mm Lock Washers and (3) 12mm Flat Washers, **(Figures 22 & 23)**. Do not fully tighten hardware at this time. Repeat this Step to attach the passenger/right side of the Bumper.
- **24.** Level and adjust the Bumper and fully tighten all hardware.
- **25.** Select the Air Deflector, **(Figure 24)**. Attach the Air Deflector to the bottom of the Bumper with the included (3) 6mm x 20mm Button Head Combo Bolts. Attach the rear tabs on the Air Deflector to the inside of the Support Brackets with (2) 6mm x 25mm Hex Bolts, (4) 6mm Flat Washers and (2) 6mm Nylon Lock Nuts, **(Figure 24 & 25)**.
- **26.** Determine if bar style LED light, (not included), will be installed at this time. **NOTE**: Bull Nose assembly is designed to be compatible with most 20" to 24" Bar Style LED lights.

LED bar style light installation (light not included).

- **a.** Select the driver/left "L" Light Bracket, **(Figure 26)**. **NOTE**: "L" Brackets are offset to adjust for different widths of LED Bar Lights and can be installed on either side as needed.
- **b.** "L" Brackets to the inside will accommodate a light 21-3/8" to 23-3/16" wide.
- c. "L" Brackets to the outside will accommodate a light 24-5/8" to 26-3/8" wide.
- **d.** Attach the L Bracket to the slot on the back of the Bull Nose assembly with (1) 8mm x 25mm Hex Bolt, (2) 8mm Flat Washers, (1) 8mm Lock Washer and (1) 8mm Hex Nut, **(Figure 26)**. Repeat this Step to install the remaining "L" Bracket.
- **e.** Attach the light to the "L" Brackets with the included (2) 8mm x 16mm Hex Bolts, (2) 8mm Lock Washers and (2) 8mm Flat Washers or use the hardware included with the light, **(Figures 26)**. Do not fully tighten hardware at this time.
- 27. Do periodic inspections to the installation to make sure that all hardware is secure and tight.

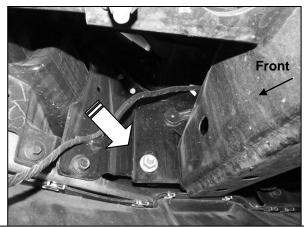
To protect your investment, Do not use any type of polish or wax that may contain abrasives that could damage the finish. Mild soap may be used to clean the Bumper assembly.



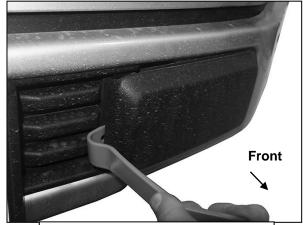
(Fig 1) Remove license plate from Bumper



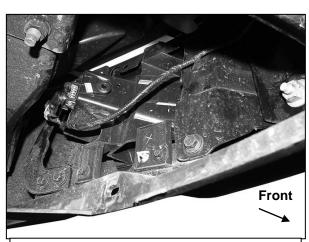
(Fig 3) Unplug and remove ACC sensor from driver/left side of bumper, if equipped



(Fig 5) Remove factory hex nut (arrow) from back of bumper brackets (driver/left side pictured)

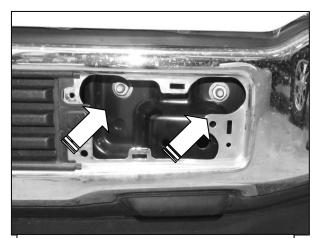


(Fig 2) Remove the plastic bumper pads from the front of the Bumper

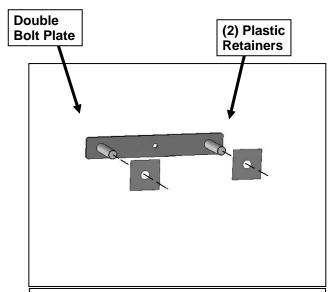


(Fig 4) Unplug all wiring harnesses leading to front bumper (fog light pictured)

Page 4 of 10 6/10/21 (DP)

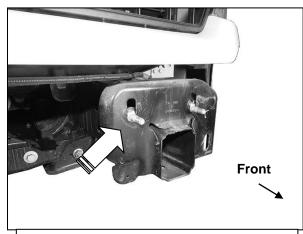


(Fig 6) Remove (2) factory hex nuts from each side and remove bumper assembly

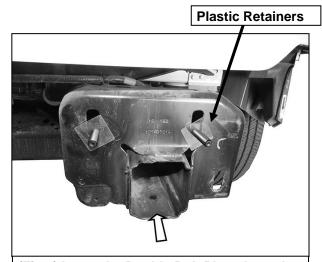


(Fig 8) Insert the included Double Bolt Plate through back of mount on frame (Fig 9)

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



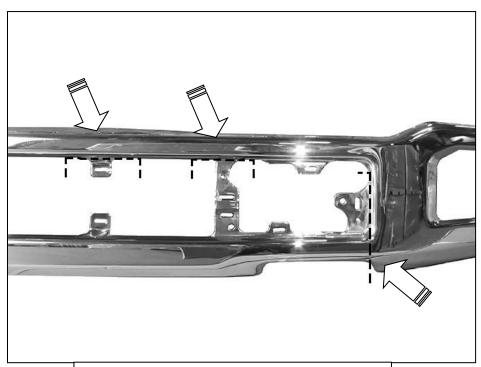
(Fig 7) Remove double bolt plates (arrow)



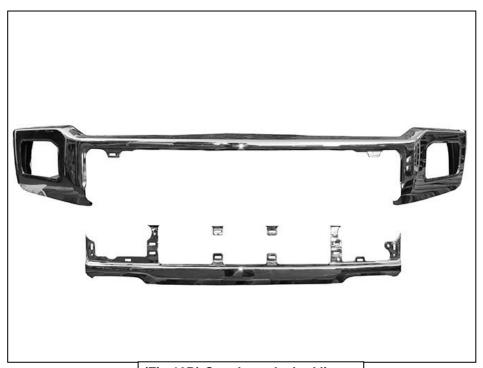
(Fig 9) Insert the Double Bolt Plate through back of mount on frame. Thread the (2) Plastic Retainers onto the Bolt Plate to hold it in position.

Models without tow hooks, slide 12mm Double Nut Plate into frame (arrow) and line up over mounting holes in frame. Hold Nut Plate in place with (1) 12mm Hex Bolt (also see Fig 15)

Page 5 of 10 6/10/21 (DP)

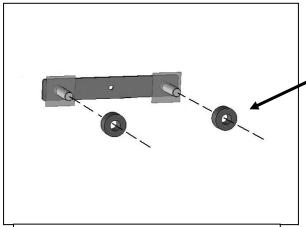


(Fig 10A) Cut along dashed line to remove lower bumper section (driver/left side pictured)



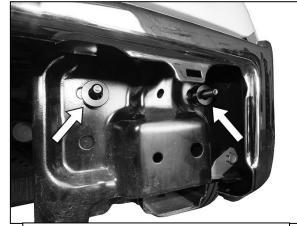
(Fig 10B) Cut along dashed line to remove lower bumper section

Page 6 of 10 6/10/21 (DP)



(Fig 11) Reinstall bumper. Slide Bracket Spacers over Double Bolt Plate

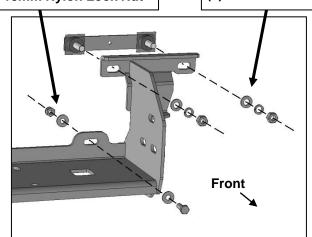
(2) Bracket Spacers



(Fig 12) Reinstall bumper. Slide Bracket Spacers (arrows) over Double Bolt Plate

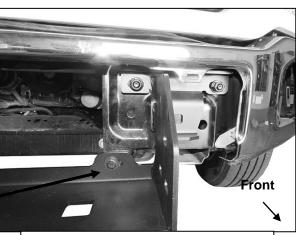
10mm x 30mm Hex Bolt (2) 10mm Flat Washers 10mm Nylon Lock Nut

- (2) 12mm Flat Washers
- (2) 12mm Lock Washers
- (2) 12mm Hex Nuts



(Fig 13) Attach Winch tray/Bracket assembly to Double Bolt Plate and tab on factory bumper brackets (driver/left side illustrated)

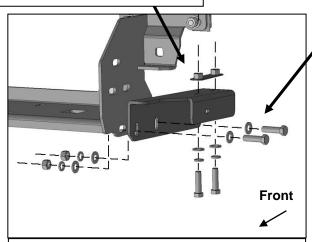
10mm x 30mm Hex Bolt (2) 10mm Flat Washers 10mm Nylon Lock Nut



(Fig 14) Winch tray/Bracket assembly installed (driver/left side pictured)

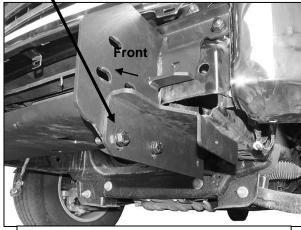
12mm Double Nut Plate

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

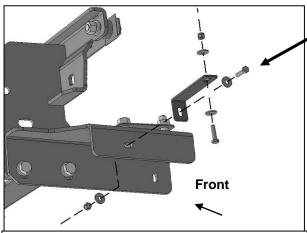


(Fig 15) Attach driver/left Frame Support Bracket to double nut plate in frame channel

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

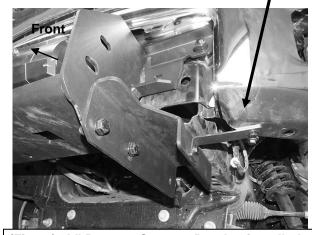


(Fig 16) Attach driver/left Frame Support Bracket to side of Winch Tray assembly

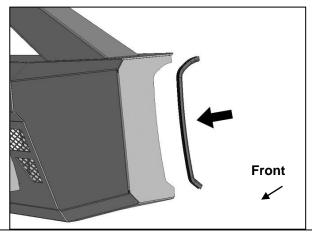


(Fig 17) Attach "L" Support Bracket to outside of Frame Support Bracket and bumper

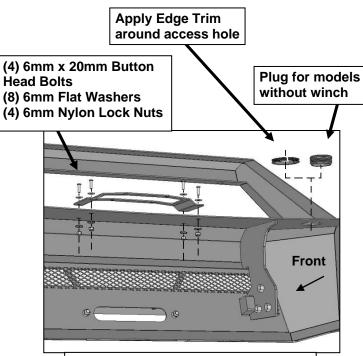
- (2) 6mm x 25mm Hex Bolts
- (4) 6mm Flat Washers
- (2) 6mm Nylon Lock Nuts
- (2) 6mm x 25mm Hex Bolts
- (4) 6mm Flat Washers
- (2) 6mm Nylon Lock Nuts



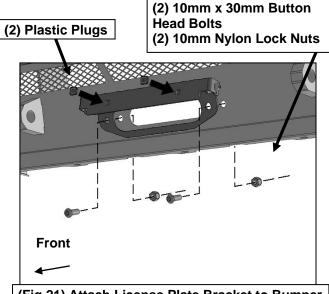
(Fig 18) "L" Bumper Support Bracket installed



(Fig 19) Push long Edge Trim onto ends of Bumper

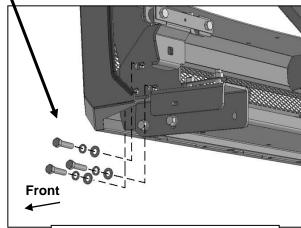


(Fig 20) Attach winch control unit to Relocation Bracket. Attach assembly to top of Bumper (optional)

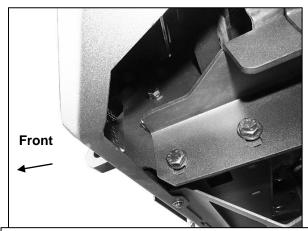


(Fig 21) Attach License Plate Bracket to Bumper

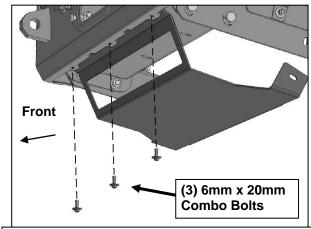
- (3) 12mm x 45mm Hex Bolts
- (3) 12mm Lock Washers
- (3) 12mm Flat Washers



(Fig 22) Attach Bumper to inside of Winch Tray Bracket Assembly

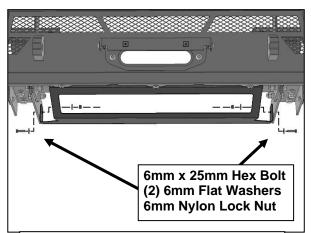


(Fig 23) Attach Bumper to inside of Winch Tray Bracket Assembly (driver/left side pictured)



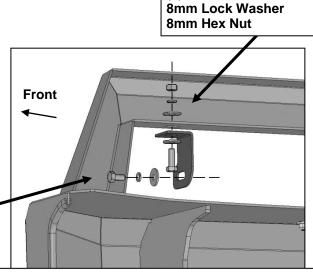
(Fig 24) Attach Air Deflector to inside of Bumper

8mm x 25mm Hex Bolt (2) 8mm Flat Washers



(Fig 25) Attach rear tabs on Air Deflector to inside of Support Brackets

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



(Fig 26) Attach LED "L" Brackets to bottom of loop. NOTE: Top Light bracket mounting location is designed for 20-24" single or double row bar style light. Flip Brackets side to side if necessary