

Front Bumper Installation Instructions

P/N 210546, 210546.1: 2020+ Ford Transit Front Bumper

Before you begin:

- Stainless steel hardware may bind together when tightening — apply an anti-seize assembly lubricant to the threads of each bolt before assembly (not grade 8 bolts)
- This bumper is <u>NOT</u> compatible with vans prepared with a motorhome prep package. The large intercooler behind the factory steel bumper will interfere with the Aluminess bumper.
- This installation requires two or more people
- Be sure to use all appropriate PPE while installing.



Required Tools:

- Standard and metric wrench set
- Standard and metric socket set
- Flat head screwdriver
- Cut-off wheel
- Prybar
- Hammer
- Safety Glasses

Included Hardware:

| P/N | Description | Quantity |
|-------|---|----------|
| 70036 | Hex head bolt, ½"-13 x 1-1/2", grade 8 | 18 |
| 70035 | Washer, ½" ID | 34 |
| 70033 | Nut, ½"-13 nylon-locking, grade 8 | 18 |
| 70029 | Hex head bold, 3/8"-16 x 1-1/4", SS | 8 |
| 70028 | Washer, 3/8" ID, SS | 16 |
| 70024 | Nut, 3/8"-16 nylon-locking, SS | 8 |
| 70060 | Button head bolt, ¼"-20 x 1", SS | 4 |
| 70009 | Washer, ¼" ID, SS | 8 |
| 70008 | Nut, ¼"-20 nylon-locking, SS | 4 |
| 70246 | Antiseize bolt lubricant packet, 2g | 1 |

Additional Parts:

Description Quantity Picture



| Aluminum Front Bumper | 1 | |
|--|---|--|
| Winch Mounting Plate | 1 | |
| Front Sensor Bracket | 1 | |
| Outer support bracket - driver's side | 1 | |
| Outer support bracket - passenger's side | 1 | |

Stock Bumper Removal:

- 1. Open and secure the hood.
- 2. Remove the five (5) plastic rivets and four (4) 10mm bolts on the top of the grille (Figure 1).



Figure 1: Plastic Rivets (Top) and Bolts (Bottom) to be Removed

3. Remove the two (2) torx screws attaching each headlight. Once the bolts are removed, slide the headlight straight away from the vehicle, unclip wiring connectors, and remove the headlight (Figure 2).





Figure 2: Headlight Bolts

4. Remove the two (2) torx bolts holding the front fascia to the vehicle sides and the one (1) 10mm screw holding the top of the factory bumper located in the back corner underneath the headlight (Figure 3). Remove the plastic backing plate (Figure 3).

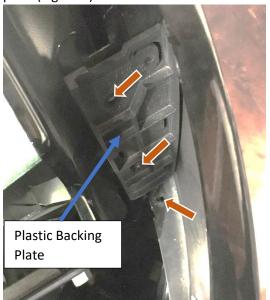


Figure 3: Hidden Bolts Underneath Headlights

5. Remove the four (4) torx bolts inside the inner wheel well along the fender flare (Figure 4).

PRO TIP: Access to the bolts is made much easier by turning the vehicle's wheels.



Figure 4: Torx Bolts Along Inner Wheel Well

6. Gently pull each fender flare away from the vehicle starting closest to the door. Once you reach the bumper, there are three (3) plastic catches that need to be released (Figure 5 & 6).



Figure 5: Fender Flare Removal



Figure 6: Fender Flare Plastic Clips Catches



 Pull the inner wheel well down and away from the bumper to gain access behind the plastic. Remove the 10mm bolt from inside the wheel well (Figure 7). NOTE: the two (2) torx bolts now visible on the bumper do not need to be removed.



Figure 7: Bolt Accessed from Inside of the Wheel Well

8. Remove the eight (8) 10mm bolts connecting the factory bumper to the under-carriage plastic (Figure 8).



Figure 8: Bolts on Underside of Bumper

- Remove the front license plate (if applicable).
 Remove the bolts or drill out the two or three (2-3) rivets attaching the license plate holder onto the factory bumper using a ¼" drill bit.
- 10. Remove the now exposed bolt caps as applicable and remove the final two (2) 13mm bolts holding on the stock bumper (Figure 9).

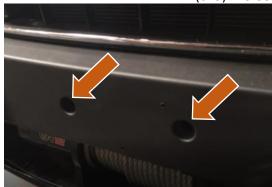


Figure 9: Front Bolts Underneath the License Plate Holder

11. Release the four (4) large plastic catches holding the grille onto the front of the vehicle (Figure 10 & 11). Note: it may be helpful to do in combination with the next step.



Figure 10: Locations of the Large Plastic Catches

NOTE: The middle two catches are underneath the top plastic cover of the grille as shown in Figure 10.



Figure 11: Close Up of Plastic Catch

12. Remove stock front bumper and grille by pulling directly away from vehicle, slowly working from the edges closest to the doors toward the center (Figure 12).





Figure 12: Factory Bumper Removal

 Be sure to disconnect any sensors that are attached to the bumper during removal (Figure 13).



Figure 13: Sensor Being Disconnected

14. Separate the factory plastic bumper from the grille by use a plastic pry tool or a flat head screwdriver covered in masking tape. Release the bumper catches holding the bumper onto the front body panels underneath the headlight area (Figure 14).

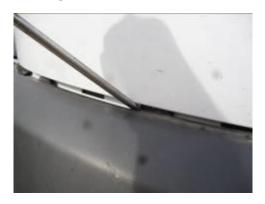


Figure 14: Front Bumper Being Pried from Body

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15. Remove all parking sensors from back of the plastic factory bumper (Figure 15).



Figure 15: Parking Sensors from Backside of Bumper

16. Remove the inner plastic radiator air deflectors (Figure 16 & 17) by removing all plastic push pins. Cut air deflectors to as shown (Figure 17).



Figure 16: Upper Push Pin Location

(Passenger Side Shown without Air Deflector)





Figure 17: Radiator Air Deflector with Cut Line Shown

- 17. Remove any and all sensors from the factory steel bumper:
 - a. Temperature sensor (Figure 18).



Figure 18: Temperature Sensor Removed

 Collision prevention / adaptive cruise control sensor – unclip from sensor and remove all clips from steel (Figure 19).

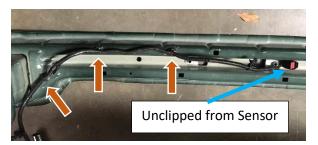


Figure 19: Front Radar Wiring Harness Removal

c. Remove entire adaptive cruise control system from steel bumper (2X – 8 mm bolts and 1X – torx bolt) (Figure 20).



Figure 20: Front Radar and Bracket Uninstalled

18. Remove two (2) 10mm bolts holding on the plastic under-carriage and pull down to remove (Figure 21).



Figure 21: Under-Carriage Bolt

19. Remove the eight (8) 13mm bolts from the backside of the steel bumper (Figure 22).

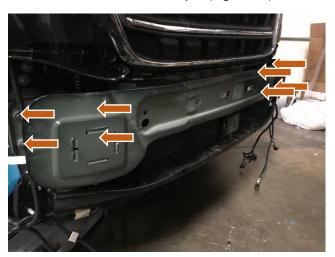


Figure 22: Factory Bumper Removal



- 20. Remove the 4 spot welds (2 per side) holding on the bumper to the frame (Figure 23). To remove, there are a couple of options:
 - d. Drill out each spot weld
 - e. Gently pry the bumper away from the frame and use a Sawzall to cut weld
 - f. Use an angle grinder to grind the spot welds down enough to use prybar/hammer to remove.



Figure 23: Example of Spot Weld (Shown from the Back)

21. Remove eight (8) 13mm bolts to remove the lower factory scuff guard (black steel member; Figure 24).



Figure 24: Lower Scuff Guard Removal

22. Separate any remaining wiring from the front of the frame and touch up any exposed metal surfaces with appropriate paint (Figure 25).



Figure 25: Exposed Metal From Bumper Removal

23. Cut the front radar bracket as shown in Figure 26 using a cut off wheel.

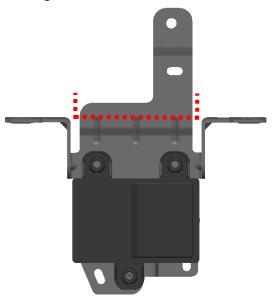
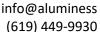


Figure 26: Cut Line for Front Radar Bracket

Front Bumper Installation:

24. Install the factory radar bracket onto the front sensor bracket using the provided ¼"-20 hardware (Figure 27). Ensure the bottom bolt is pointed down to minimize the profile for the best fitment with a winch.



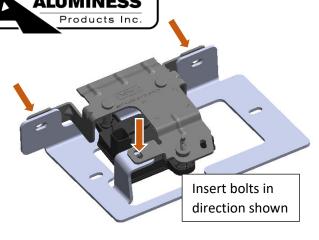


Figure 27: Front Radar Mounting to Aluminess Bracket

25. Install the now assembled radar sensor into the aluminum bumper behind the sensor window (Figure 28).

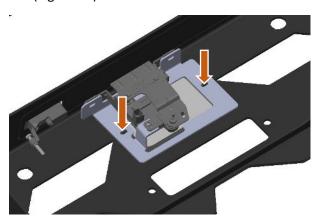


Figure 28: Radar Sensor Installed into Aluminum Bumper

26. Install the winch tray onto the frame using ½"-13 hardware through the top four (4) frame holes and 3/8"-16 bolts on the bottom four (4) scuff guard extension holes (Figure 29). Loosely install all 16 bolts through the frame/scuff guard and center the winch tray onto the vehicle before tightening. Once located, tighten the 1/2"-13 bolts to 80 ft-lbs and tighten the 3/8"-16 bolts to 20 ft-lbs.

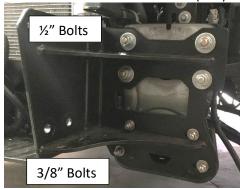


Figure 29: Winch Tray Installed onto Frame

27. Install winch onto winch tray per the manufacturer's instructions if desired (Figure 30).



Figure 30: Winch Installed onto Winch Plate

- 28. Install the plastic radiator air deflectors after being cut by reusing the top push pin (reference Figure 17 & 30).
- 29. Install the outer support brackets onto the corresponding driver and passenger sides using ½"-13 hardware (Figure 31 and 32).



Figure 31: Location of Outer Support Bracket (Passenger Side Shown)





Figure 32: Outer Support Bracket Installed

(NOTE: prototype bracket shown)

- 30. If applicable, install the parking sensors into Aluminess front bumper using the Parking Sensor Upgrade Kit (P/N 210560) and by following the separately included instructions.
- 31. Install the aluminum bumper onto the winch plate and loosely fasten them together using the remaining 1/2"-13 hardware. There are four (4) holes on each side of the bumper and winch mount to bolt through (Figure 33).

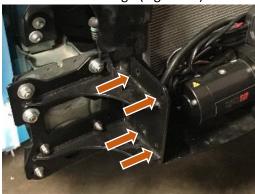


Figure 33: Aluminum Bumper to Winch Tray Mounting Locations

- 32. Position bumper into desired location and install $\frac{1}{4}$ "-20 hardware through the outer support gussets.
- 33. Tighten ½"-13 hardware to 80 ft-lbs.
- 34. Use ¼"-20 bolts to attach the plastic wheel well liner to the side of the bumper (Figure 34) through one of the two provided holes.



Figure 34: Attachment Point for Wheel Well Liner

- 35. Reconnect all wiring harnesses back into sensors as applicable.
- 36. Measure and cut fender flares at the desired position against bumper, either just above, or just below the top surface of the bumper (Figure 35).

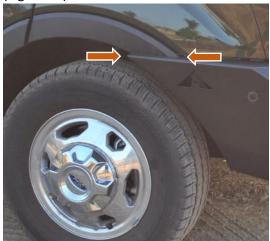


Figure 35: Fender Flares Reinstalled onto Vehicle

- 37. Re-install fender flares into position.
- 38. Your bumper is now installed! Verify all sensors are working correctly and adjust as needed.

 Check all hardware after the first 100 miles and periodically thereafter.



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