



# FRONT BUMPER INSTALLATION INSTRUCTIONS

P/N 210044: 2003-2016, Chevy 2500-3500, Van Front Bumper

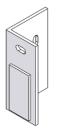
## Please read before beginning

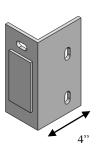
- Stainless steel hardware may bind together when tightening—It is recommended that you apply an antiseize assembly lubricant to the threads of each bolt before assembly
- This installation requires two people
- Unless otherwise specified, refer to the general torque value at the end of the instructions for specified torque values.



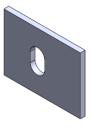
## **Required tools**

- Ratchet with 15mm, 17mm, 21mm, and 3/4" sockets
- 3/4" combination wrench
- Cutting tool (snips, shears, etc)
- Leveling tool

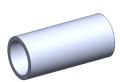




x1 x1 Driver Angle Bracket PN - 300154 PN - 300155



x2 Angle Shims PN - 350150



x 2 1" Crush Pipe PN - 350610

Included hardware	Quantity
<ul> <li>70108 - 1/2-13 x 6-1/2" Hex bolt</li> </ul>	2
<ul> <li>70103 - 1/2-13 x 2 1/2" Hex bolt</li> </ul>	4
• 70049 - 3/4" Bolt	2
• 70048 - 3/4" Flat Washer	4
<ul> <li>70047 - 3/4" Nylock Nuts</li> </ul>	2
<ul> <li>70033 - 1/2-13 Nylock nuts grade 8</li> </ul>	6
<ul> <li>70035 - 1/2 ID Washer</li> </ul>	12
<ul> <li>70051 - Hex bolt 3/8-16 x 5" Stainless Steel</li> </ul>	4
<ul> <li>70026 - Washer, Flat, Zinc 3/8 ID x 1 OD USS</li> </ul>	8





- 70024 Nut, Nylock, SS, 3/8-16
- 350150 Angle Shims
- 400441 Clamp, Muffler clamp 3" diameter (7.5mm)
- Antiseize Packet, 2g

### **Installation Instructions**

- 1. To remove the stock bumper, first loosen the outer bolts on the tension rods using the 15mm socket, indicated by the square in figure 1 below—do not fully remove this bolt
- 2. Remove the two inner bolts (indicated by the circle in figure 1) holding the tension rods to the frame, then rotate the rod towards the tire so that it won't catch on anything when you pull the bumper off

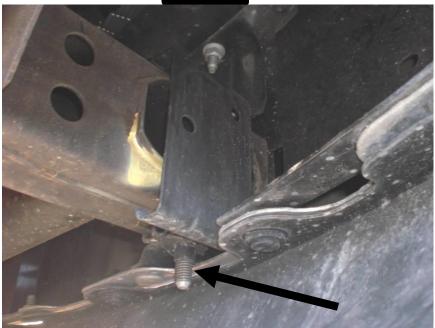


Figure 1: Stock bumper tension rod

- 3. Disconnect any driving lights or wiring harnesses which are connected to the front bumper
- 4. Remove the two large bolts holding the bumper on (indicated by an arrow in figure 2 below) they are located on the front of the frame, and go down vertically through it; use the 21mm socket







### Figure 2: Stock bumper vertical retaining bolt

- 5. Remove any additional hardware or clips which may be still attached, then remove the stock bumper
- 6. Un-clip the plastic shield in front of the radiator, and trim it back so that the front edge is behind the horizontal pipe as shown in the figure below, then re-install it



#### Figure 3: Trimmed plastic shield

7. Install the supplied bumper brackets as shown in figure 4 below—use the supplied 6" long bolts, and with a washer on the bolt head, insert them through the slotted hole so that they go through the vertical hole in the frame—take note of the direction that they are facing





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Figure 4: Installed bumper bracket

- 8. Fasten the bolts using the supplied 1/2" nuts and washers, but do not tighten them down fully yet—you may have to move the brackets forward or backward in a later step
- 9. With someone assisting you, lift up the Aluminess bumper and place it on the bumper brackets



Figure 5: View of toolbox inside, showing correct orientation of mounting hardware

- 10. Insert the 1/2" x 2 1/2" long bolts into the two upper holes in the toolbox sides, again with washers on the bolt heads and bolt heads on the inside of the toolbox, making sure they go through the slotted holes in the bumper brackets—one person may have to lift up on the bumper in order to line up the holes
- 11. Fasten these bolts using washers and nuts on the outside of the brackets, but do not tighten them down fully yet
- 12. Check that the bumper is aligned evenly left and right—a good way of checking this is by measuring the gap on each side of the bumper from the bumper's edge to the vehicle's fender Use the supplied alignment shims to take up any gap between the bumper and the frame once the bumper is centered
- 13. Place a washer on each of the <sup>3</sup>/<sub>4</sub>" Hex Bolts and insert them through each <sup>3</sup>/<sub>4</sub>" hole in the side of the tool box below the <sup>1</sup>/<sub>2</sub>" bolts from step 11. As you are inserting the <sup>3</sup>/<sub>4</sub>" hex bolts place the provided crush pipe inbetweener the frame horn so the <sup>3</sup>/<sub>4</sub>" bolt goes through the crush pipe and out the other end of the frame. The bolts will extend completely through the frame horn with about 1" of threads showing. Continue by installing the small angle with the two <sup>3</sup>/<sub>4</sub>" holes so that the angle covers the front and outer side of the frame horn. Place the <sup>3</sup>/<sub>4</sub>" nylock nut on and tighten up both sides evenly to keep bumper centered and to take up remaining slack from bolt. See Figures 6 and 7 for reference.





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Figure 6: 1/2" hex bolt with crush tube



Figure 7:  $\frac{1}{2}$ " hex bolt inside the toolbox

- 14. Install the Four 3/8 x 5" Bolts provided by placing through Clamp, Muffler clamp and around the 3" pipe and extending thru the back plate of the bumper. Place a 3/8" washer followed by a nylock nut on each. Snug these down initially and then tighten when bumper is aligned. (This attachment is to help "Trim" the angle of the bumper to be level)
- 15. After centering the bumper, tighten down all of the installation hardware, starting with the driver side lower bolt, then the passenger side lower bolt, then the driver side upper bolts, and finally the passenger side upper bolts—check that the bumper remains centered and level during this process
- 16. Once the fastening hardware is secure, the installed bumper should resemble the one shown in figure 8 below.
- 17. The fairlead cover has holes for mounting a license plate—use the supplied 1/4" hardware to bolt on your license plate here
- 18. Install the toolbox door.



Figure 8: Installed bumper





# **General Torque Values**

Size	Stainless Steel	Zinc	Grade 8
#6-32	10 lb-ft		
#8-32	18.4 lb-ft		
#10-32	26.6 lb-ft		
1/4"-20	5.3 lb-ft	7.8 lb-ft	9 lb-ft
5/16"-18	10.9 lb-ft	16 lb-ft	18 lb-ft
3/8"-16	19.4 lb-ft	28.3 lb-ft	33 lb-ft
7/16"-14	31 lb-ft	45 lb-ft	52 lb-ft
1/2"-13	47 lb-ft	69 lb-ft	80 lb-ft
M6	4.7 lb-ft	5.8 lb-ft	
M8	11.3 lb-ft	14.1 lb-ft	
M10	22.3 lb-ft	27.9 lb-ft	
M12	38.9 lb-ft	48.7 lb-ft	





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