

## **FS Performance Engineering**

Chevy Express / GMC Savana 1500 (2003-2014) Catalytic Converter Installation Instructions  
Professional Installation Recommended as Always - A car LIFT is HIGHLY Recommended

### **Tools Needed:**

- Ratchet Wrench(es)
- 7/16" Socket & Wrench
- 1/2" Socket & Wrench
- 17/32" Drill Bit (for the 5/16" Rivnuts)
- Drill (an large electric drill works best)
- Rivnut (threaded rivet nut) Installation Tool (a heavy duty one is necessary) w/ a 5/16"-18 mandrel
- Helper
- Marker / Pencil / Pointy Tool
- Blue Threadlocker

### **What's Supplied:**

#### **PARTS**

- (1) Cat Guard
- (1) Oil Drain Cover
- (1) Forward L Shield
- (2) Rearward L Shields

#### **HARDWARE**

##### **BAG 1**

- B10 - (12)** 1/4"-20 x 1" Hex Head Bolts
- B24 - (8)** 1/4"-20 Nyloc Nuts
- B29 - (4)** 1/4" Lock Washers

##### **BAG 2**

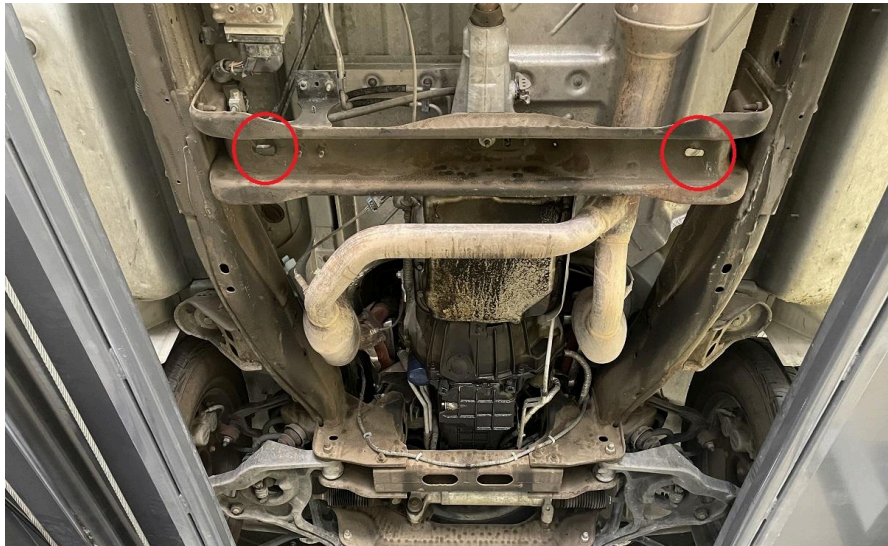
- B37 - (3)** 5/16"-18 x 3" Hex Head Bolts
- B40 - (2)** 5/16"-18 x 4.5" Hex Head Bolts
- D06 - (2)** 5/16"-18 Nyloc Nuts
- D07 - (2)** 5/16"-18 Nuts (to help with installation)
- D08 - (4)** 5/16"-18 Short Rivnuts (1 is extra)
- D14 - (3)** 5/16" Lock Washers
- D15 - (4)** 5/16" x 3/4" Washers

##### **BAG 3**

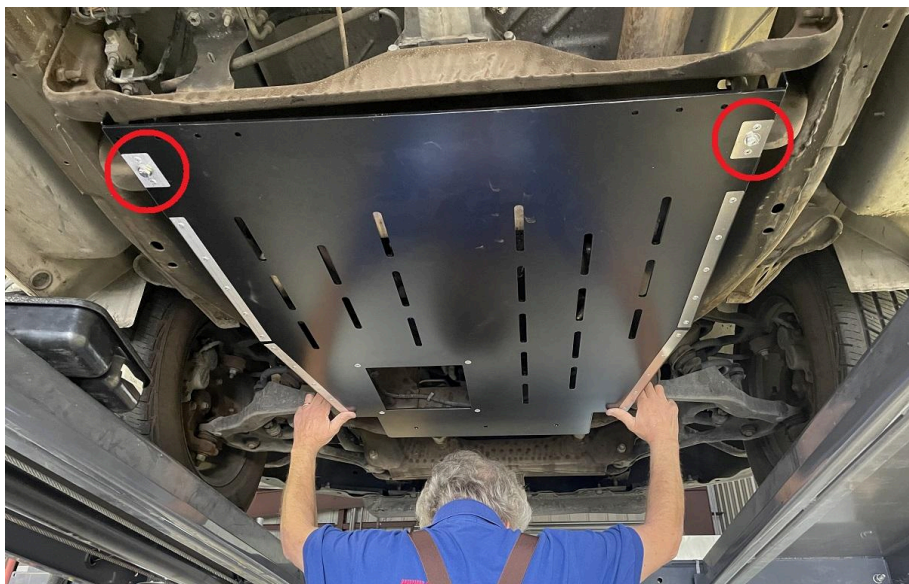
- D29 - (3)** 1.75" (45mm) Spacers
- Z99 - (2)** 3.5" (90mm) Spacers

**Steps:**

- 1.) Begin by raising your Chevy/GMC. Place it securely on jack stands. Or alternatively use a vehicle lift (highly recommended). The vehicle must be high enough for you to use your rivet nut installation tool.
- 2.) Identify the slots in the mid cross member bracing that support the transmission. The back end of your catalytic converter guard will be mounted to these two spots.



- 3.) Install your catalytic converter guard hand tight into those slots. The 3.5" long spacers are used between the guard, and cross member bracing, for appropriate spacing. Please use the 5/16-18 x 4.5" long hex head bolts. Point the bolts upward and use the 5/16-18 nuts (not the nyloc) for now. Support the front end from falling. (See 3 pictures)

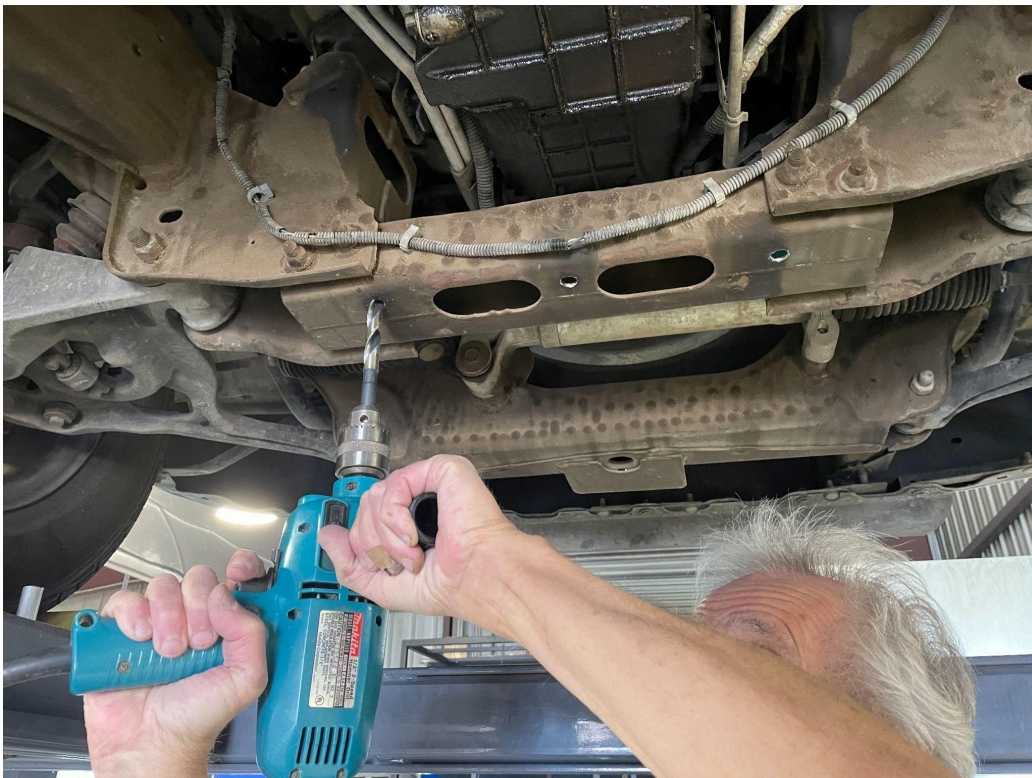
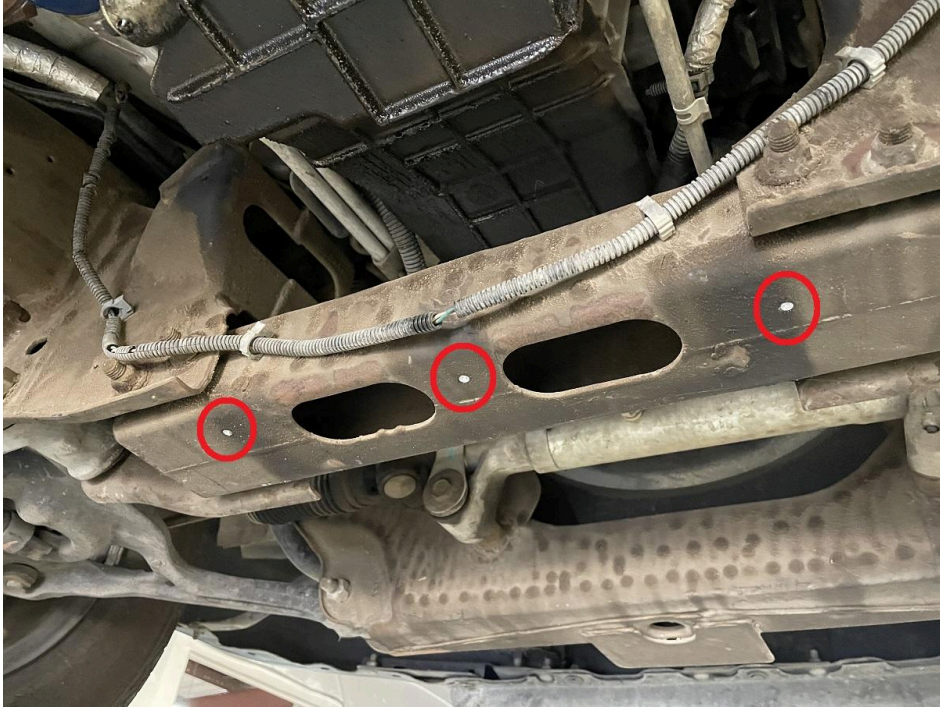




4.) Hold the front end of the catalytic converter guard against the frame. “Square” it up so the edges of the guard align with the edges of the forward cross member brace. Mark the three holes onto the crossmember.



5.) Remove the guard after making your marks. Drill out the holes with a 17/32" drill bit (we started with a small bit, then enlarged it with the 17/32"). Then install your 5/16-18 threaded rivet nuts (rivnuts for short). Use online resources, or your tool instructions, to understand how these are installed if you do not already know. (See 3 pictures)





6.) Install your (2) rearward L shields onto the top of the cat guard. Use 1/4-20 x 1" long bolts with nyloc nuts on top. Securely fasten.



7.) Install your cat guard.

At the rear you'll be using:

- (2) 5/16-18 x 4.5" Hex Head Bolts
- (2) 5/16-18 Nyloc Nuts (on top)
- (4) 5/16 Washers (under the bolts heads & under the nuts)
- (2) 3.5" Spacers

At the front you'll be using:

- (3) 5/16-18 x 3" bolts
- (3) 5/16 Lock Washers
- (2) 1.75" Spacers
- (1) Forward L Shield

Note: All spacers sit between the cat guard and frame.

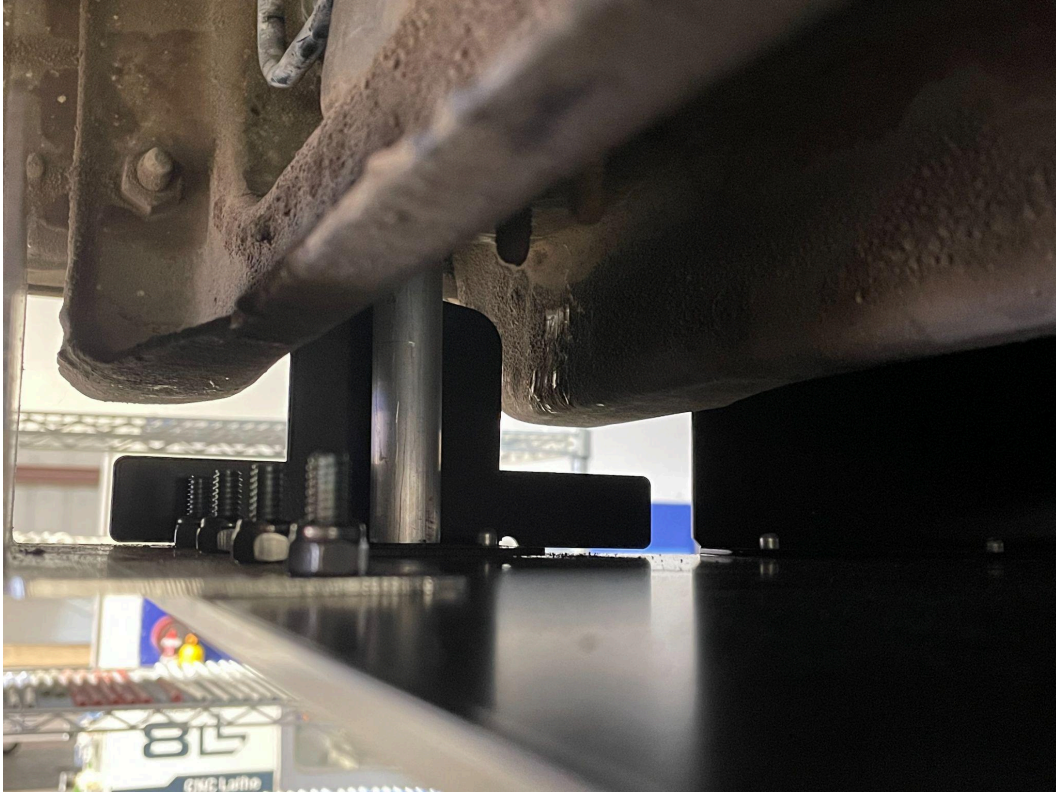
Note 2: Install all bolts loosely. Tighten one at a time.

Note 3: At the front, the Forward L Shield Sits on top of the cat guard, and the spacers sit on top of that between the shield/frame.

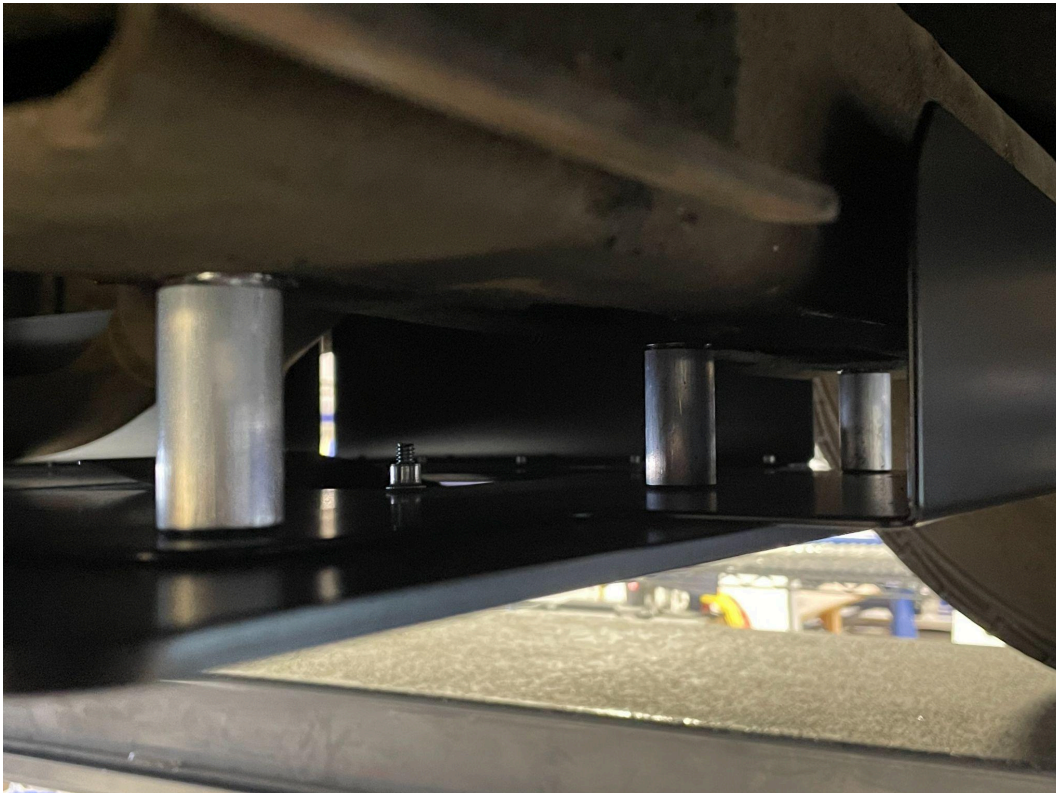
Last Note: Feel free to remove one bolt at a time at the front, apply a tiny bit of blue threadlocker, then reinstall. Blue threadlocker will prevent the bolt from unthreading at any point.



View inside rear spacing:



View inside front spacing. Front L shield installed:

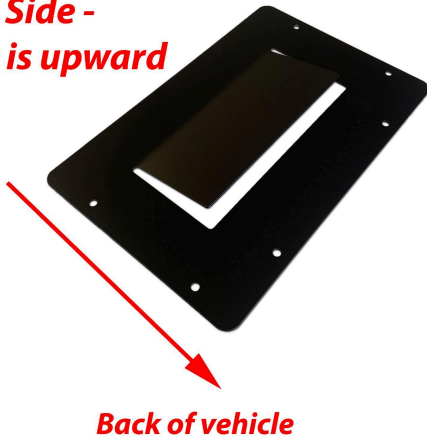




8.) Lastly, install the oil drain cover. It sits on the bottom side of the cat guard with 1/4-20 x 1" long bolts and lock washers. The opening must open toward the back and be upward to direct air above the guard.

**Top Side -  
air duct is upward**

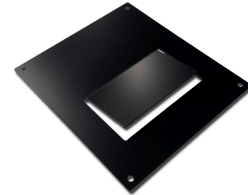
**Front of  
vehicle**



9.) Double check all bolts are secure and you are done! Enjoy your new cat guard. Feel free to tag us online using #FSPerformanceEngineering or #FSPEinc. If you have any questions don't hesitate to contact us.



**Oil drain cover features an  
air duct for additional cooling.**



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THANK YOU :)