



## FS Performance Engineering

Chevy / GMC Express / Savanna Catalytic Converter Installation Instructions (2006-2008)  
Professional Installation Recommended as Always - A car LIFT is HIGHLY Recommended

### **Tools Needed:**

- Ratchet Wrench(es)
- 1/4" Socket
- 7/16" Socket & Wrench
- 1/2" Socket & Wrench
- 3/8" Drill Bit
- Drill (wear safety protection when drilling)
- Helper
- Marker / Pencil / Pointy Tool / Sharpie
- 2 to 4 C-clamps

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

#### **Parts:**

- (1) Left Cat Guard
- (1) Right Cat Guard
- (1) Rear Shield
- (1) Support Bracket
- (2) 1/2" Spacers for Left-Rear Side (if necessary)

### **Hardware:**

#### **BAG 1**

- (7) 5/16"-18 x 2" SECURITY Bolts
- (14) 5/16" x 1.25" Washers
- (7) 5/16"-18 Nyloc Nuts
- (1) Security Bit (3/16")
- (6) 5mm Spacers

#### **BAG 3**

- (4) 1/4"-20 x 3.75" Long Hex Bolts
- (4) 1/4" x 2" Washers
- (4) 1/4" x 1" Washers
- (4) 1/4"-20 Nyloc Nuts

#### **BAG 5**

- (20) 5/16-18 x 1" Hex Bolts
- (20) 5/16-18 Nyloc Nuts

#### **BAG 2**

- (5) 5/16"-18 x 1" SECURITY Bolts
- (5) 5/16" x 1.25" Washers
- (1) Blue Threadlocker

#### **BAG 4**

- (1) 40mm Spacer
- (1) 5/16"-18 x 3" Hex Head Bolt
- (2) 5/16" x 1.25" Washers
- (1) 5/16"-18 Nyloc Nuts

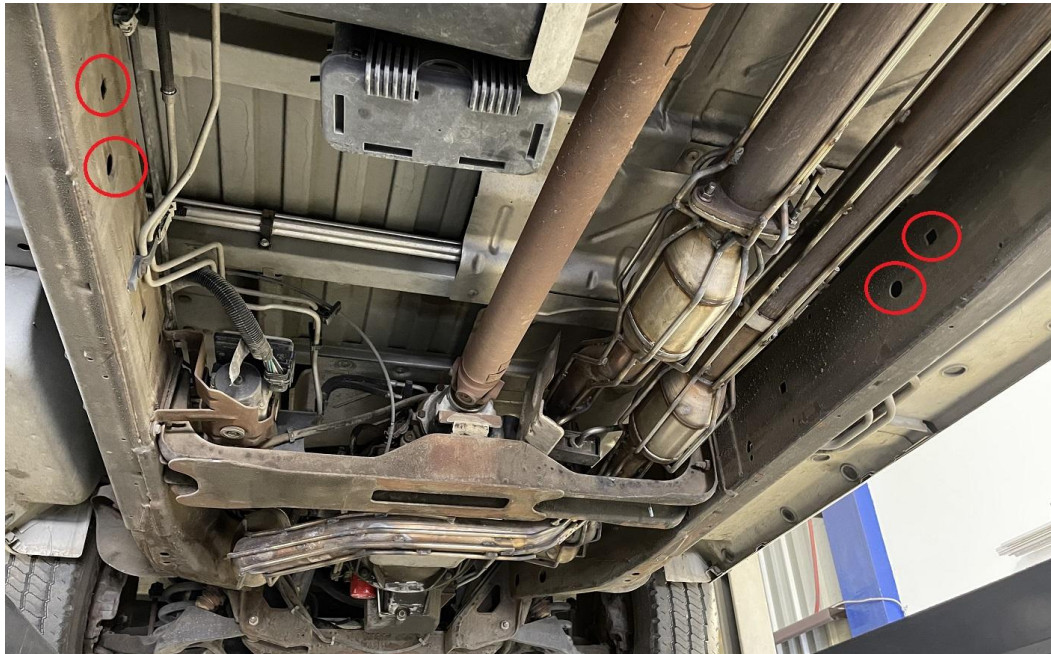
**Steps:**

1.) Begin by raising your Chevy/GMC. Place it securely on jack stands. Or alternatively use a vehicle lift (highly recommended).

1.5) If you have a 2500, it may be likely that you do not need the 2 pieces in the kit in steps (2) and later in (6). Additionally, the kit does come with two ½” spacers for the left side just in case the exhaust sits too low. The spacers can be used, if necessary, to lower the rear end of the left-side cat guard.

2.) Install your support bracket **loosely** into the holes shown using a 7/16” wrench and socket. On each side there will be a square hole, and a circular hole. You will be using the hardware listed below to install it at those locations between the vehicle's frame rails. It may be a tight fit. These holes are located behind the transmission's crossmember, just behind the rear catalytic converters. The 70 degree fold on the support bracket sits toward the back of the van.

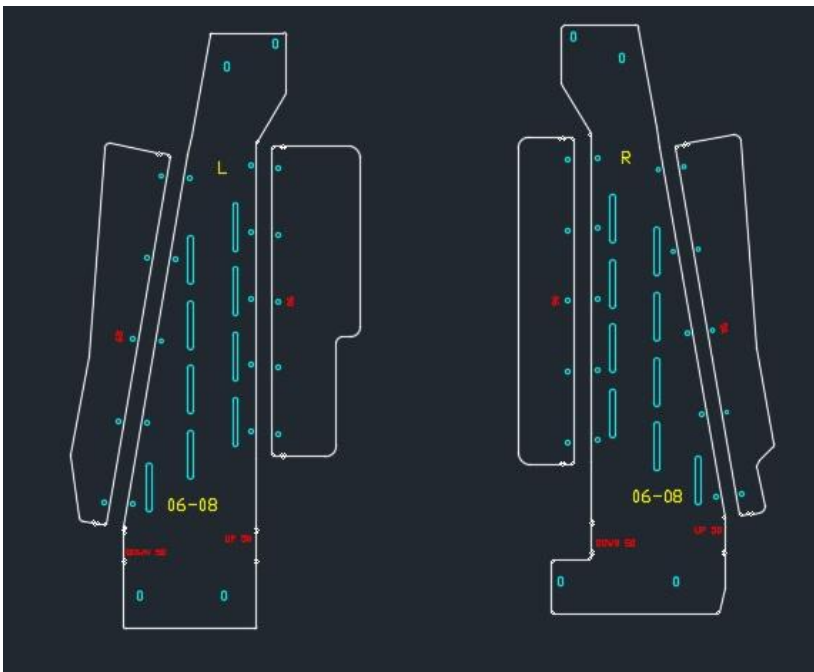
- (4) ¼”-20 x 3.75” Long Hex Bolts (point inward)
- (4) ¼” x 2” Washers (on the outside of the frame rails)
- (4) ¼” x 1” Washers (on the inside of the frame rails/support bracket)
- (4) ¼’-20 Nyloc Nuts (on the inside of the frame rails/support bracket)







2.5) UPDATED INSTRUCTIONS - If you ordered the catalytic converter shield for delivery, there will be pieces that bolt onto the 2 long cat guards. These pieces need to be assembled onto the cat guard as shown in the picture below. Use 5/16-18 x 1" hex bolts pointing upward with nyloc nuts on top.



3.) Hold your left guard up against the frame. The guard should sit on the frame at the front, and on the crossmember that supports the transmission at the rear.

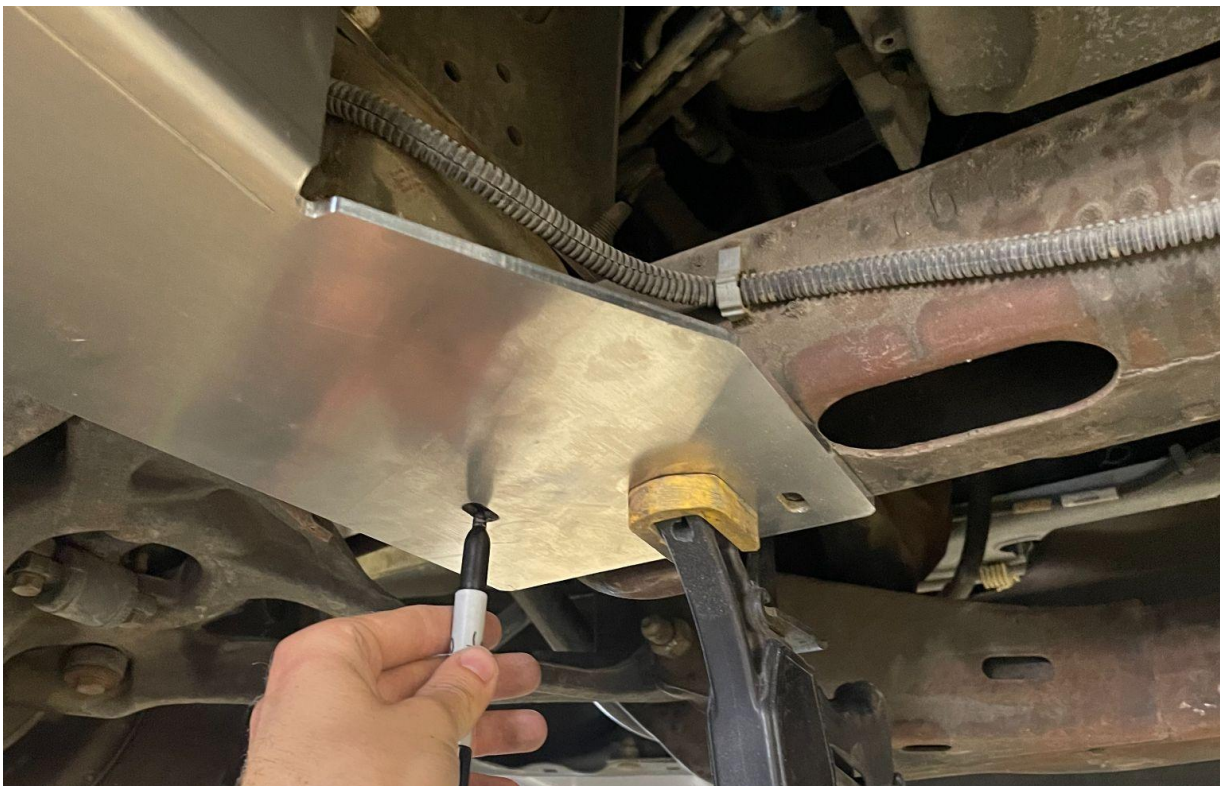
The inner edges of the guard should match with the inner edges of the holes on the crossmembers. The front edge of the guard should match the front edge of the frame's crossmember. Use C-clamps to hold the guard in place. Adjust the cat guard forward / backward so the mounting slots align with the frame.

Note: Check that there is no interference with the exhaust system. If the guard is positioned correctly there shouldn't be, however it is possible the guard will be close to the exhaust - this is corrected later with spacers.





4.) Mark the 4 holes/slots on the frame. Then remove the guard and drill  $\frac{3}{8}$ " holes at the marked locations.



5.) Once all 4 holes are drilled out, use a 1/2" wrench and socket and the hardware listed below to install the guard. The 5mm spacers are placed between the guard and frame - only use the spacers at the rear if the exhaust is close to touching the cat guard. If you want to space down the rear end, we supply 1/2" spacers to do so at this location.

(4) 5/16"-18 x 2" Security Bolts

(8) 5/16-1.25" Washers (under nuts and head of bolts)

(4) 5/16" Nyloc Nuts

(4) 5mm Spacers





6.) Locate and drill all holes for the right-side cat guard. This will be the same process as the left side using your  $\frac{3}{8}$ " drill bit. Assure the front edge of the cat guard is aligned with the front edge of the frame.

The rear-outer right hole will not need to be drilled. There is already a slot in the frame. Feel free to use this slot to help locate where your cat guard should be mounted. The slot will use a  $\frac{5}{16}$ "-18x3" Bolt, with a washer under the head, 40mm spacer between the guard and frame, and washer/ nyloc nut on top.

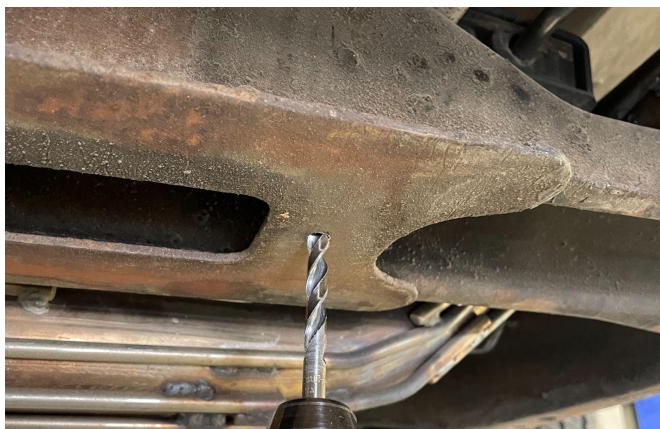
When installing the right cat guard, you will need to mount the rear shield at the same time in common holes. The rear shield sits under the right cat guard, but above the rear support bracket. **SEE ALL PICS!!!**

**Marking rear left hole. Outer right bolt temporarily installed.**



<-- Outer Right Bolt

**Marking and drilling front holes and left rear hole.**



← Left Rear Hole on Right Side Cat Guard

Overlapping right side cat guard with rear shield, leave loose until rear shield is mounted onto the rear support bracket and rear bracket is secure.

Left hole: 5/16-18 x 1.5" Security Bolt, 5/16x1.25" washer top/bottom, 5/16" nyloc nut

Right hole: 5/16"-18x3" Bolt, 5/16x1.25" washer top/bottom, 40mm spacer between the guard and frame, and nyloc nut on top.



Rear shield being mounted onto rear support bracket. Use the 5/16"-18 x 1" bolts with 5/16x1.25 washers. Be sure to use thread locker on the threads here securely tighten.



Tighten bolts at the front of the right-side cat guard:



7.) Using your 7/16" wrench and socket, tighten the bolts that are holding the rear support bracket to the frame. Assure the bracket is not touching the box right in front of the gas tank - if it is, loosen the bolts and slide it forward/backward with the rear support bracket, then tighten.

8.) Tighten the bolts at the front of the support bracket.



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



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THANK YOU :)