

FS Performance Engineering

Sierra/Silverado 1500 GEN3 (2014-2018) Cat Guard Installation Instructions
Professional Installation Recommended as Always - A car LIFT is HIGHLY Recommended

Tools Needed:

- Ratchet Wrench(es)
- 1/4" Socket (to hold Security Bits)
- 15mm Socket/Wrench
- 7/16" Socket/Wrench
- 17/32" Drill Bit (for the 5/16" Rivnut)
- Drill
- Rivnut Installation Tool (a heavy duty one is necessary) w/ a 5/16"-18 mandrel
- Helper
- Marker
- Blue Threadlocker (optional) but a GOOD idea
- Dremel Tool with Cutting/Burr Tool

What's Supplied:

Parts:

- (1) Gen 3 Cat Guard
- (1) Oil Drain Cover
- (1) Rearward Muffler Cover

Hardware:

- (7) 5/16"-18 Rivnuts
- (7) 5/16"-18 x 2" Security Bolts
- (7) 5/16" ID, 1.25" OD Washers
- (1) Security Bit (3/16")

- (6) 20MM Spacers
- (1) 30MM Metal Spacer

- (2) M10-1.5 x 25mm Security Bolts
- (2) M10 Washers
- (1) Security Bit (7/32")

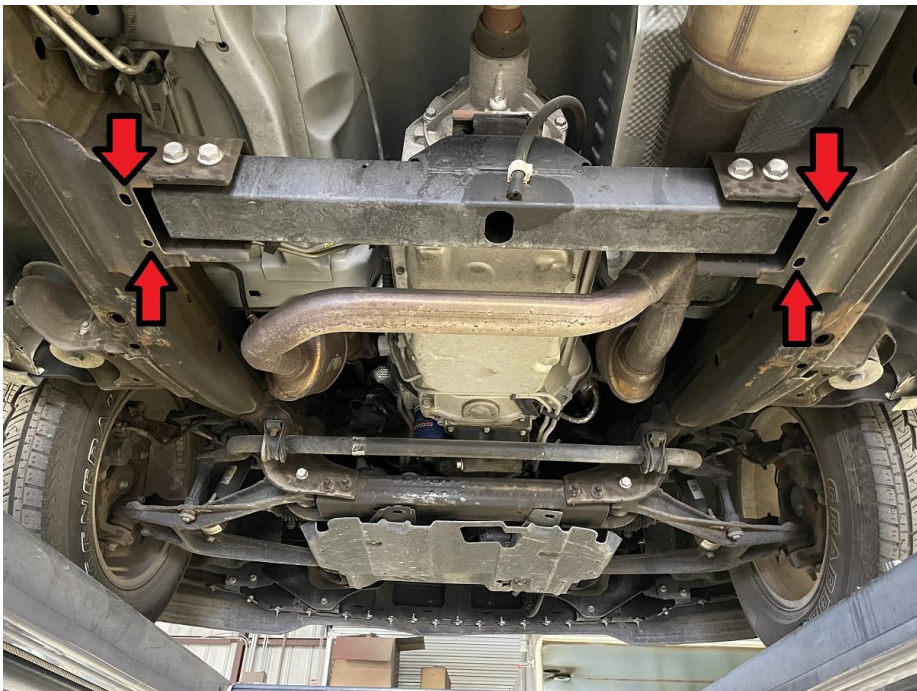
- (6) 1/4" lock washers
- (6) 1/4"-20 x 1" hex head bolts

Steps:

- 1.) Begin by raising your Chevy/GMC. Place it securely on jack stands. Or alternatively use a vehicle lift. The vehicle must be high enough for you to use your rivnut installation tool.
- 2.) Use your ratchet wrench and 15mm socket to remove the two bolts mounted on the forward subframe that are used to support the OEM shield.



- 3.) Move to the rearward/mid subframe and identify the 4 holes/slots on the left and right.



4.) On the left there is a hole in front, and slot in the rear.

On the right there is a slot in front, and hole in the rear.

- Drill out the HOLES to 17/32".
- Use a dremel tool to bore out the SLOTS to 17/32". Don't bore out the entire slot, just lightly bore the center of the slot just enough so a rivnut can be pushed through.

Then install rivnuts in the holes and slots. Use your rivnut installation tool.

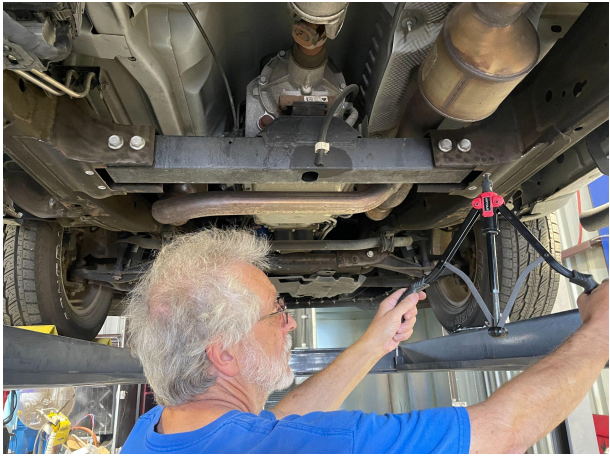
HOLES:



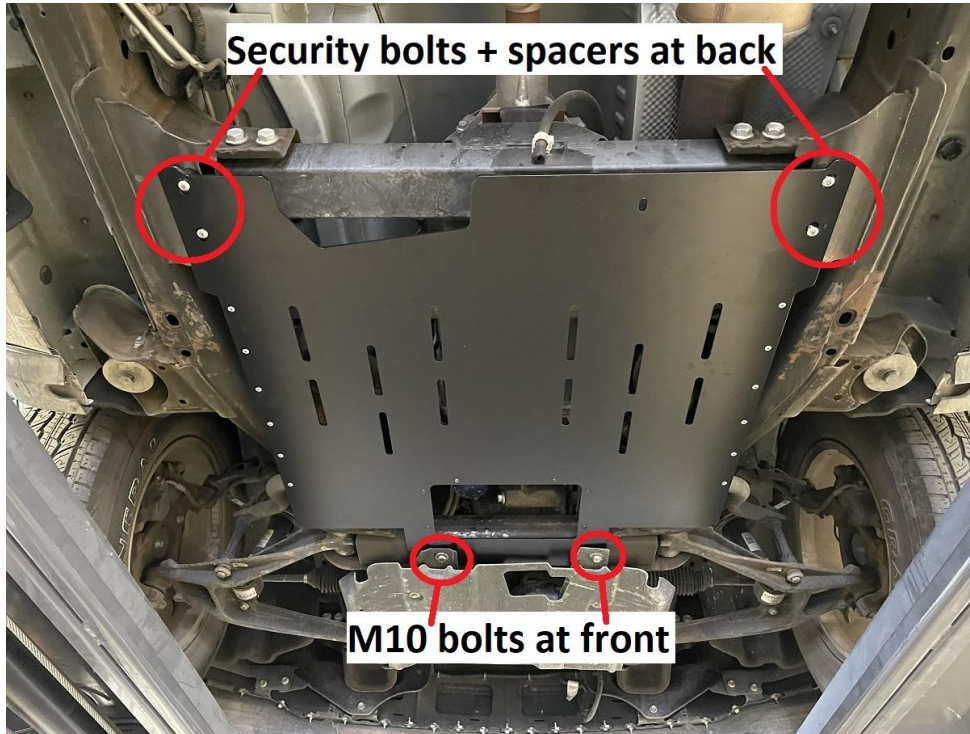
SLOTS:



RIVNUT INSTALLATION:



5.) Install your main cat guard hand tight using the two bolts up front (feel free to use the OEM 15mm bolts): the guard sits above the 2 metal pieces. Install four security bolts (5/16"-18 x 2" long) hand tight at the rear. Use 20mm spacers between the frame & cat guard at the 4 rear bolts. Security bolts will require the security bit to be inserted into a 1/4" socket.



6.) Mark the rearward middle slot on the frame. It needs to be marked so you can know where to drill a hole and install a rivnut.

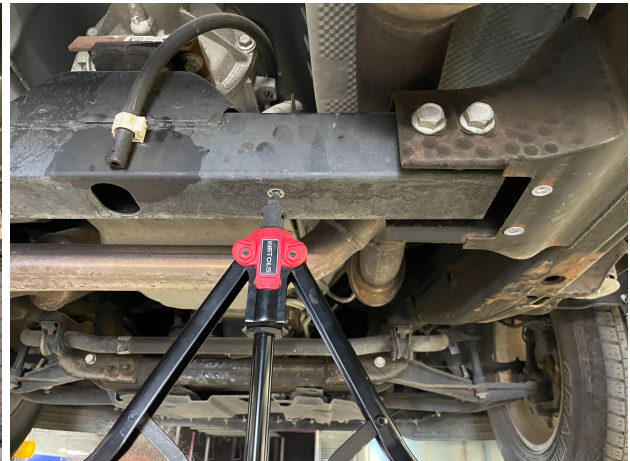


7.) While you're under there, use your 17/32" drill bit to drill out the two holes shown in the rearward frame just behind the mid-muffler & flex joint in the exhaust. You're opening them up. Then install rivnuts at those 2 locations.

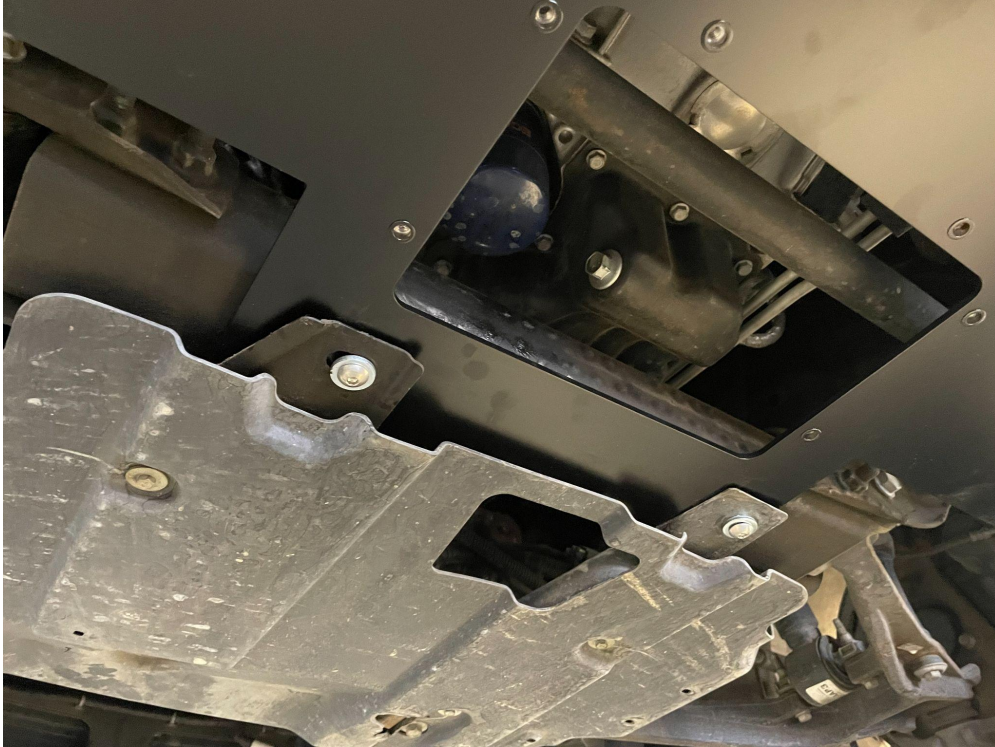




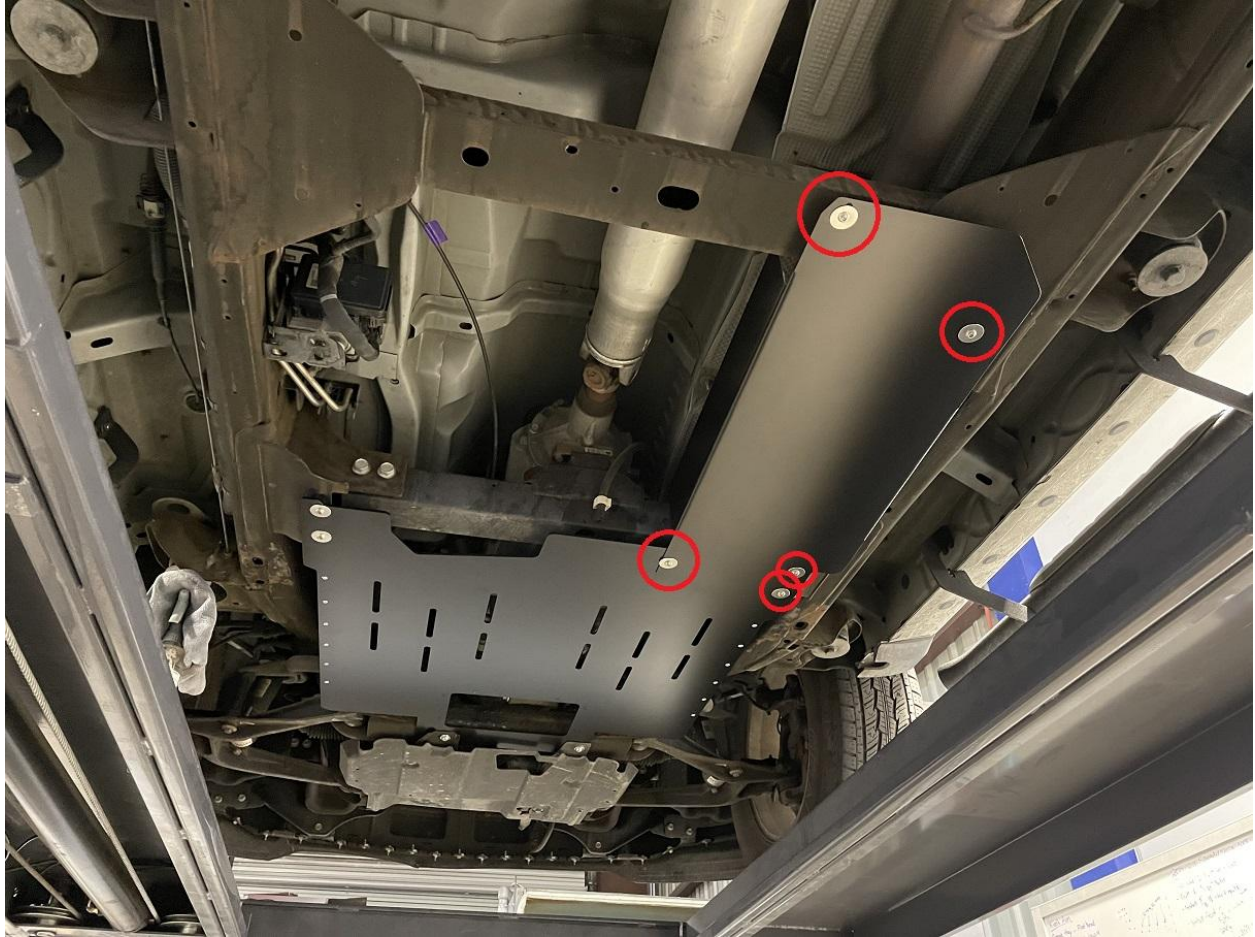
8.) Remove your cat guard. Drill a 17/32" hole in the middle of the slot you marked from step 6. Then install a rivnut at that location.



9.) Install your cat guard. Do not tighten your bolts so much that you strip the heads. Use the M10 security bolts / M10 washers at the front. Use only TWO of the 5/16"-18 x 2" security bolts, 5/16" ID 1.25" OD washers, & 20mm spacers at the left side of the truck at the rear. Hold up the right side.



10.) Simultaneously install your rear muffler guard. We designed this guard because thieves have mistaken the muffler for a catalytic converter. The guard overlaps underneath the cat guard using 3 common holes with 5/16"-18 x 2" bolts / washers - **the center hole uses the 30MM spacer, and the outer two on the right use 20MM spacers!** The 2 rear holes also use this combination - **THE REAR MUFFLER GUARD WILL ANGLE UPWARD.** This is on purpose to provide tension on the bolts.



11.) Feel free to place a VERY SMALL amount of blue threadlocker on the security bolts if you are worried about them coming loose (we were worried). Remove one bolt at a time, place threadlocker, then reinstall. If you do not you will need to recheck the bolts after about 100 miles to assure they are still tight. We recommend checking the bolts periodically over the lifetime of the vehicle.

12.) Install your oil drain cover with your 7/16" socket. Use the 1/4"-20 x 1" bolts with lock washers under the bolt heads. If your cover has an air duct built in please install it so the opening is on top with the upward angle pointed toward the back of the vehicle. This will direct cool air upward into the warm area between the frame and cat guard (our picture on the vehicle is of our old cover, yours is better!!).

**Top Side -
air duct is upward**

**Front of
vehicle**



Back of vehicle





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



PHONE: 661-809-0954

EMAIL: costas@fspeinc.com

THANK YOU :)