

FS Performance Engineering

Toyota Highlander 3.5L V6 (2020-22) Catalytic Converter Guard Installation Instructions

Professional Installation Recommended

Tools Needed:

- Ratchet Wrench
- 1/4" Socket
- 12mm Wrench
- Rivet nut installation tool with a 1/4"-20 mandrel
- 25/64" Drill Bit
- Drill
- Flat head screwdriver

What's Supplied:

PARTS

(1) 4-Piece V6 Highlander Cat Guard

HARDWARE

Bag 1:

- (2) 1/4"-20 Short Rivet Nuts (rivnuts)
- (2) 1/4"-20 x 2.75" Security Bolts
- (2) 1/4"x1" Washers
- (2) 35mm Spacers
- (1) 5/32" Security Bit

Bag 2:

- (7) 5/16"x1" Security Bolts
- (1) 3/16" Security Bit

Bag/Item 3:

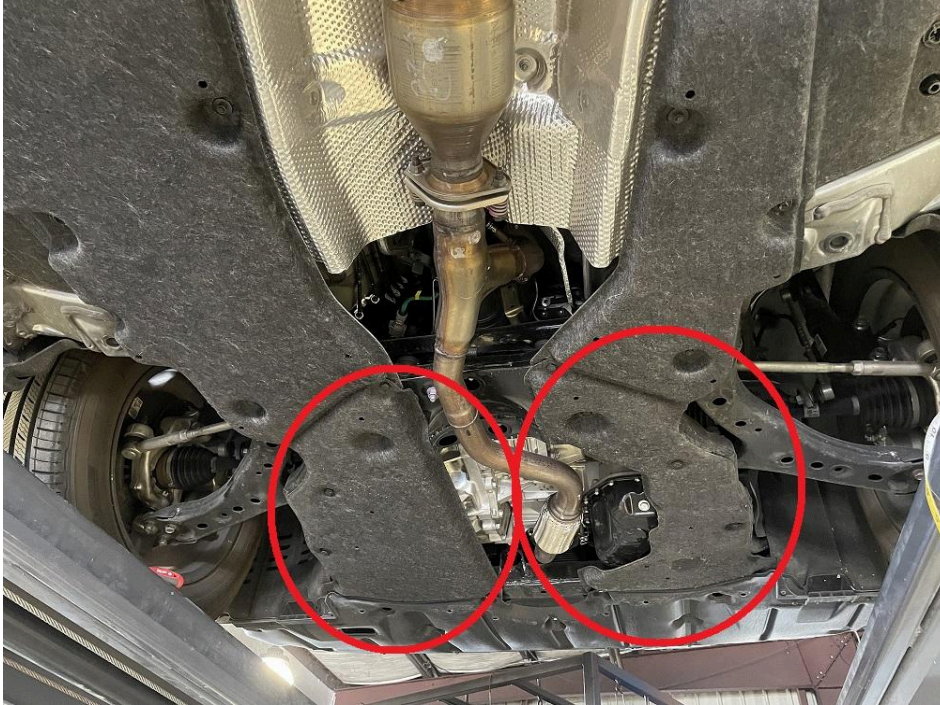
- (1) Blue Threadlocker

Need help understanding a rivnut installation tool? Scan the QR code Below!

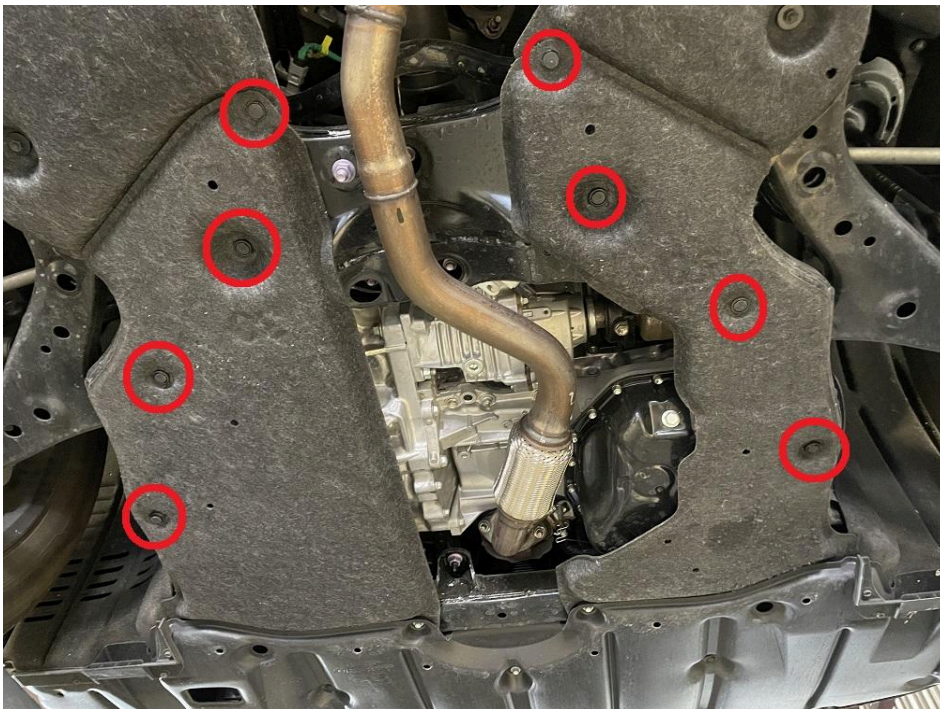


Steps:

- 1.) Begin by raising your Highlander. Place it securely on jack stands, or use a vehicle lift.
- 2.) Your catalytic converter is just under the middle of the vehicle. Identify the covers circled here:

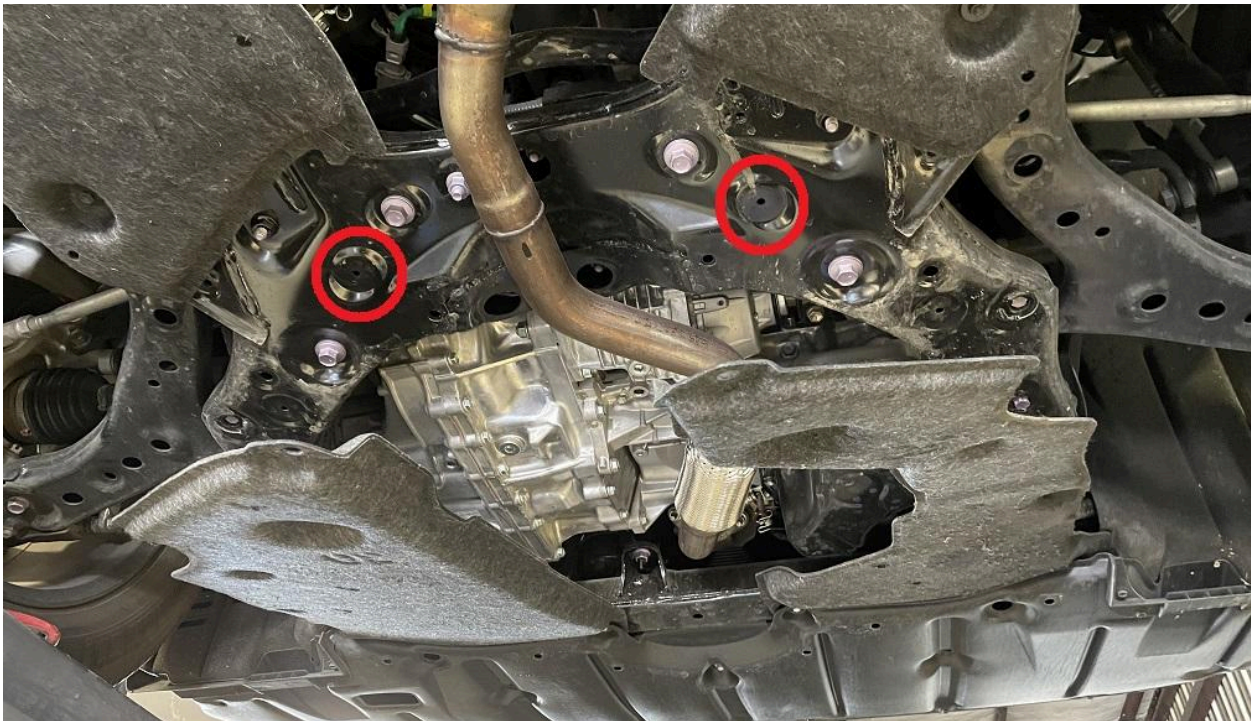


- 3.) Remove the 8 clips circled that hold the covers - use a flat head screwdriver.

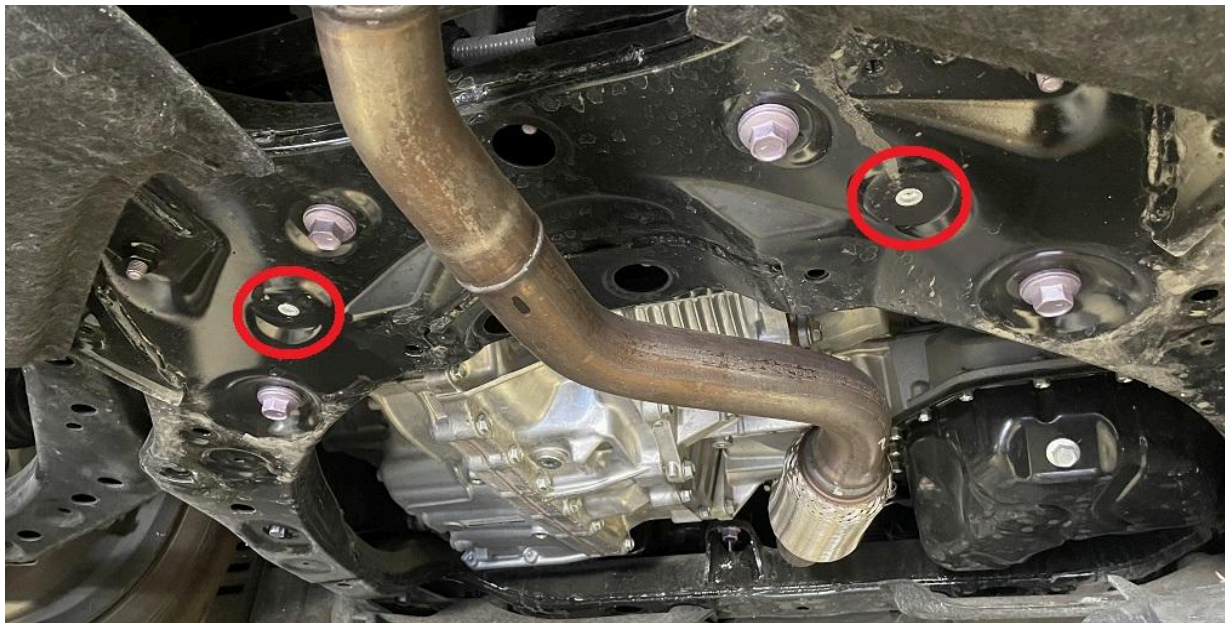
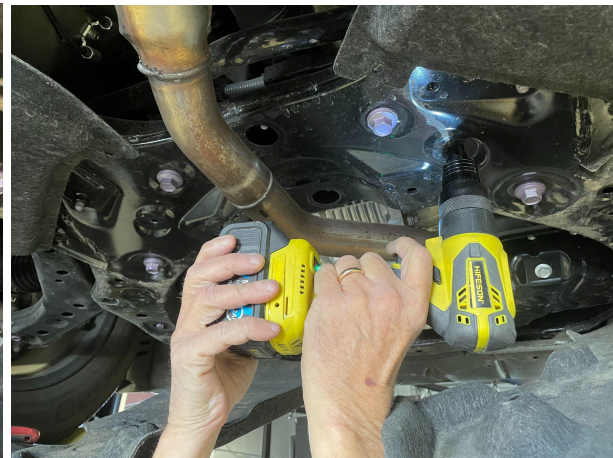
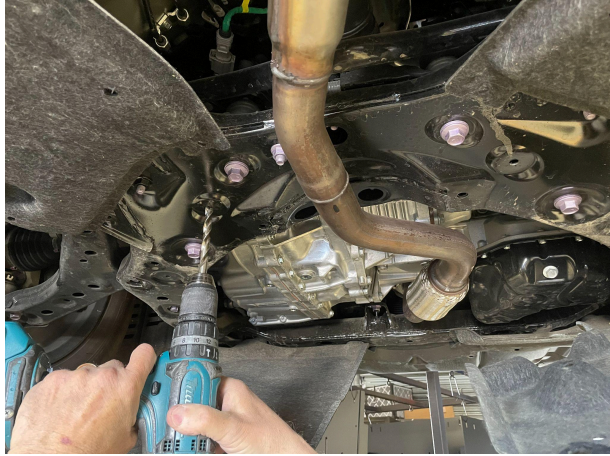




4.) Once the clips are removed the covers will hang there. Identify the two holes circled. These two holes had clips in them that you just removed.



5.) Use a drill and 25/64" drill bit to open up these holes. Then use a rivnut installation tool to install 1/4"-20 rivnuts into them. Information about rivnuts and how they work can be found by scanning the QR code on the first page. Note: your rivnut tool may look different than ours.

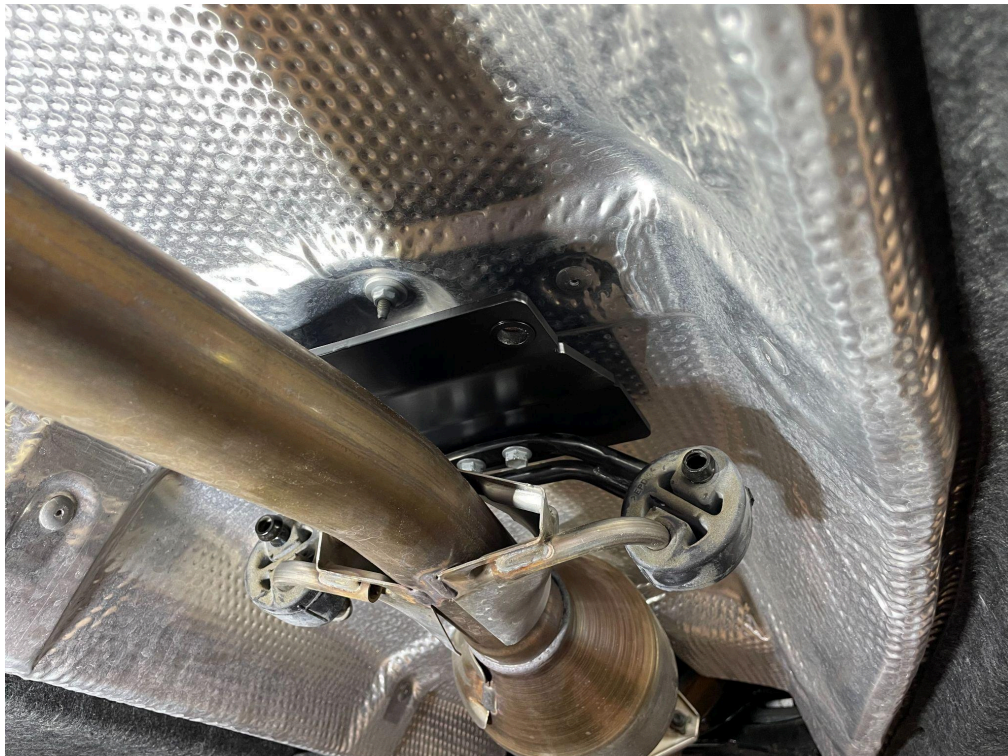


6.) You can now reinstall the covers using 6 of the clips. Two of the clips will no longer be used because you installed rivnuts into their holes.

7.) Just behind the catalytic converter are two rubber exhaust hangers. Those exhaust hangers are held by a black hanger bracket mounted to the frame. The black hanger bracket has two bolts with 12mm heads. Remove those bolts. This is the most tedious part of the job.



8.) We provide a bracket that slides above the vehicle's black hanger bracket. Slide our bracket above it, and reinstall the two bolts just removed. You will need to use blue thread locker on the bolt heads. The piece should angle downward then level back out toward the back of the vehicle. When tightening, the supplied bracket is pulled as far backward as it can go. Securely tighten.



9.) Install the next bracket shown onto the bracket just installed. Use the 5/16"-18 x 1" long security bolts and 3/16" security bit. The security bit fits into a 1/4" socket. Use threadlocker on the bolt threads but don't fully tighten yet.

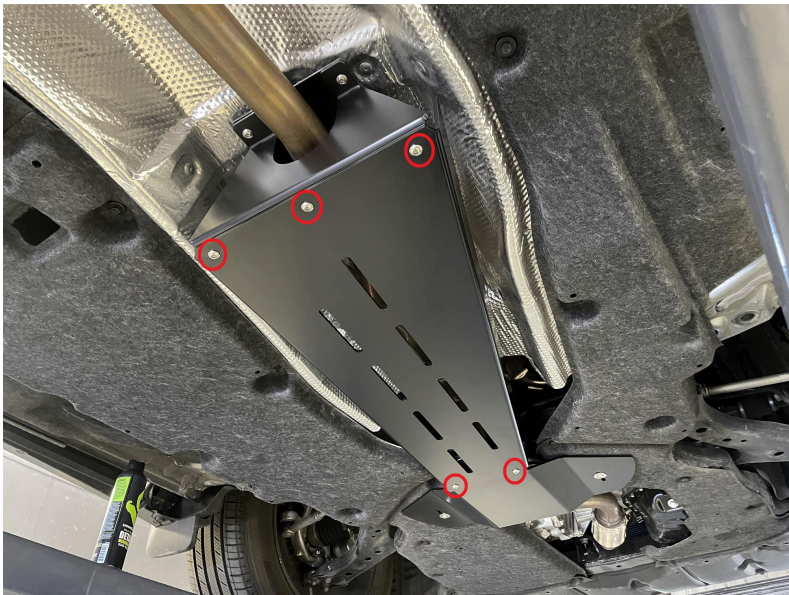


10.) Install your front bracket now. The front bracket is mounted to the rivnuts you installed earlier. Use the 1/4"-20 x 2.75" security bolts with the 1/4"x1" washers under the bolts heads; put threadlocker on the bolt threads. The 35mm spacers fit between the bracket and vehicle where the bolts push up. Use the 5/32" security bit. Leave loose.





11.) Install your main catalytic converter piece using the 5/16"-18 x 1" long bolts with blue thread locker on the threads. Securely tighten these 5 bolts. Don't over tighten or you will strip the bolt heads.



12.) Tighten the 2 bolts on the front bracket and the 2 bolts on the rear bracket. Allow the threadlocker to cure for at least 15 minutes before driving.



13.) Double check all bolts are secure and you are done! Enjoy your new Highlander cat guard. 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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