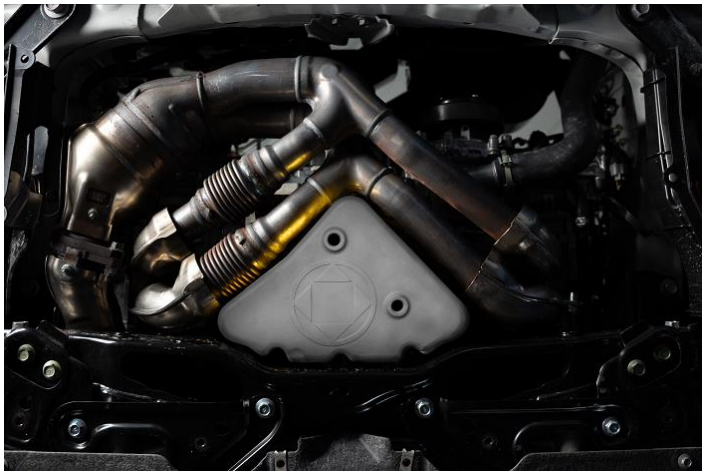
High-Capacity Oil Pan – Toyota GR86/Subaru BRZ

Install Manual



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Release Date: 2025/10/20
Approvals: E. Hazen

Document Revisions

Rev	Date	Author	Description
01	2025/10/20	M. Deckard	Initial release of install manual

Contents

Introduction

Overview: Detailed instructions on installing the Verus Engineering High-Capacity Oil Pan for the GR86 and Subaru BRZ

Difficulty: Moderate

Time Required: 1.5 – 3 Hour

Tools Needed:

- 10mm Socket
- 12mm Socket
- 14mm Socket
- 17mm socket
- O2 Sensor Socket or Wrench
- 6-10” Extension
- 1/4” allen wrench, T-Handle, or Socket
- 5mm allen wrench, T-Handle, or Socket
- Impact or Ratchet
- Flat Head Screwdriver
- Clip puller/trim tool
- Hammer (Rubber mallet or dead blow preferred)
- Razor Blade Scraper / Gasket Scraper
- Scissors
- Three Bond/Gasket maker
- Isopropyl Alcohol

High-Capacity Oil Pan, Toyota GR86/Subaru BRZ – Install Manual

Oil Pan Kit Components

- (1) High-Capacity Oil Pan
- **Hardware Bag**
- (1) Gold Foil 4” x 24”

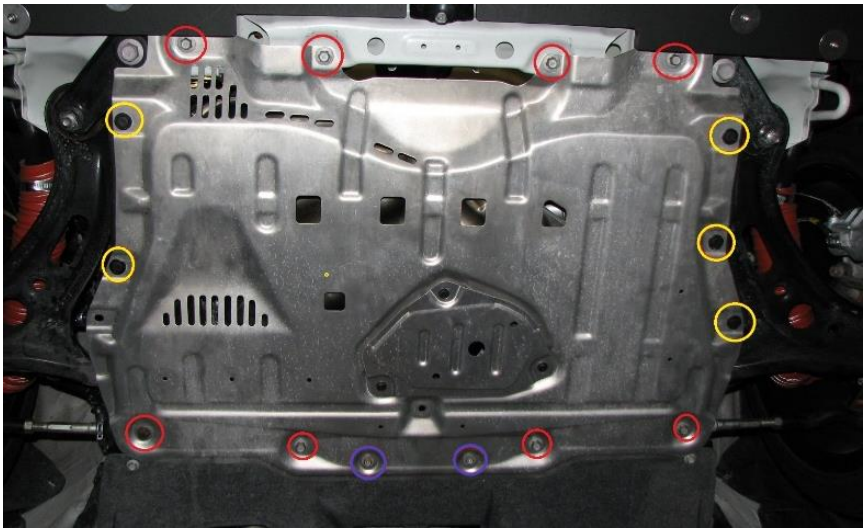
Toyota GR86/Subaru BRZ High-Capacity Oil Pan Install

1. Verus Engineering is not responsible for damage to you or your vehicle by following this manual and/or installing Verus Engineering products. Please seek professional service/guidance if you are uncomfortable/incapable of installing this in a safe manner. Contact us at support@verus-engineering.com if you have any questions/concerns.

Disclaimer: The oil pan used in the following images is a prototype unit. The oil pan you are installing may look different.

2. We begin by gaining access to the engine shield under the car. Jack the car up and support it safely with a jack and jack stands or a lift if you have access to one.

3. Remove the (5) plastic retention clips circled in yellow, the (8) 12mm head bolts circled in red, and the (2) 10mm head bolts circled in purple. The engine shield can now be removed.



4. Once the engine shield is removed, use the 17mm socket to drain the oil from the OEM pan.

5. Once the oil is finished draining, reinstall the drain plug and proceed to the next step.

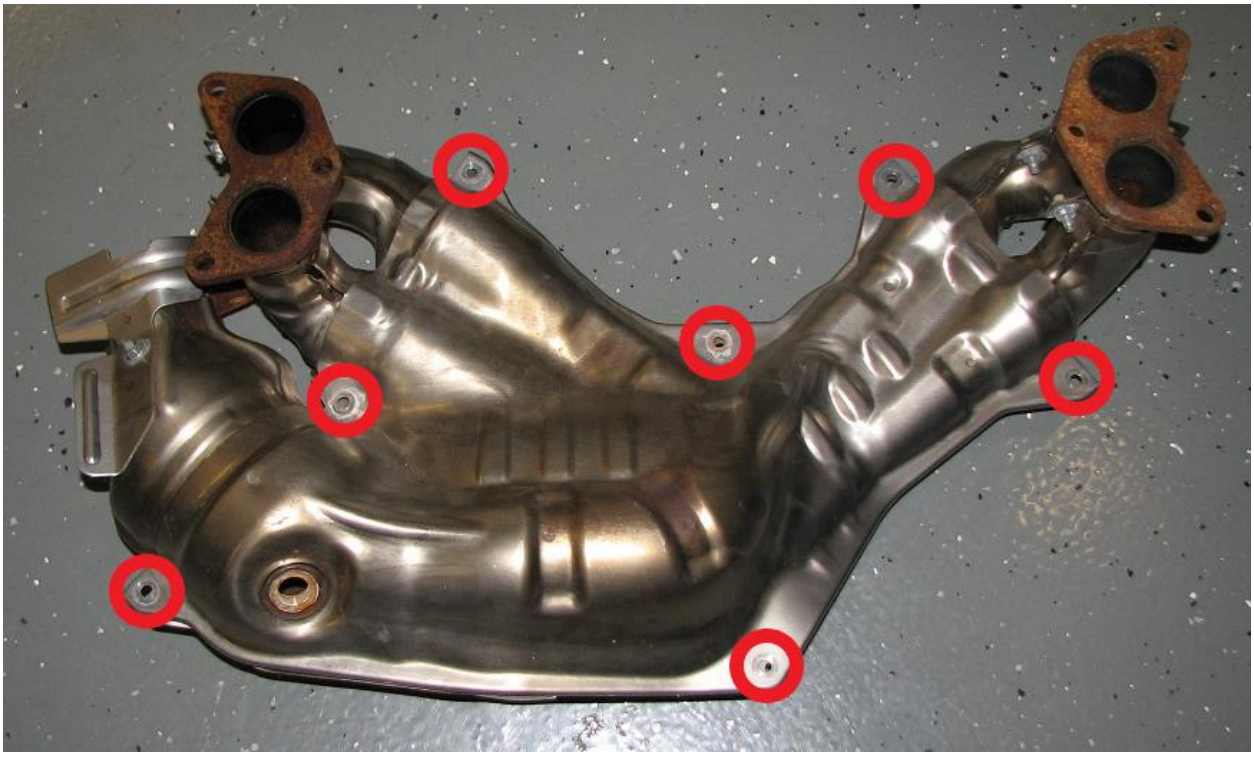
6. Disconnect the black and grey O2 Sensor connectors that are located towards the front of the engine and remove the wire loom press-in retention clips from each wire set. **Note: This may be easier by disconnecting via the top side of the engine bay.**

7. You will now need to remove the exhaust manifold. Use a deep 14mm socket to remove the (8) exhaust manifold nuts circled in red below. **Note: The manifold may take some effort to get off of the studs.**

   Caution: It is recommended to use protective gloves when handling the exhaust manifold, as the heat shield edges are very sharp!

8. Remove the front O2 sensor, circled below, by using an O2 sensor socket or a 22mm wrench.

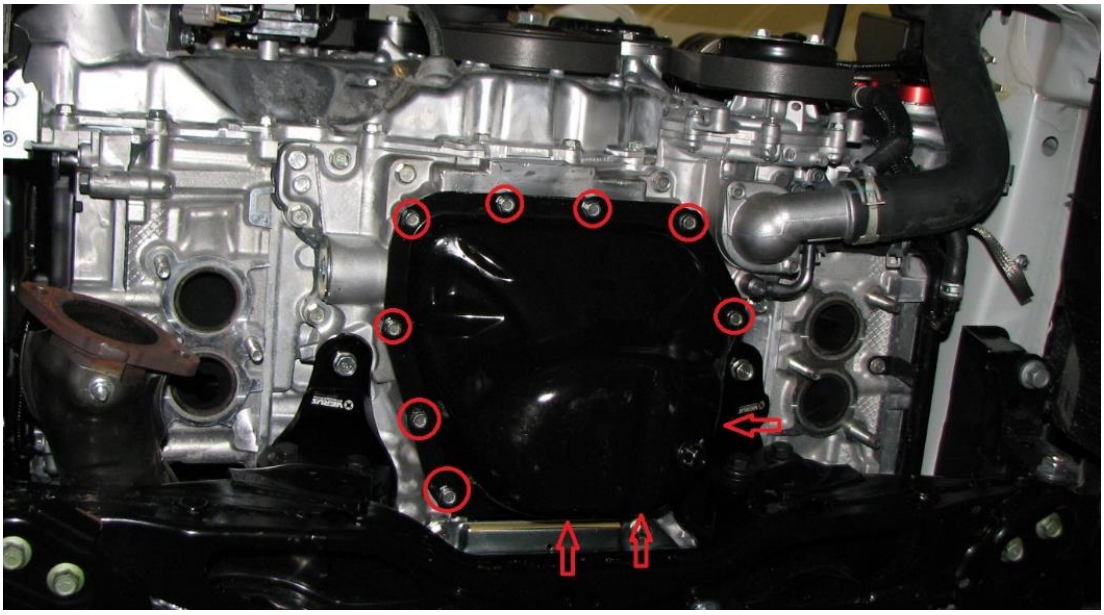
9. Remove the (7) bolts using a rachet or impact driver with a 10mm socket. Remove the top and bottom heat shield and set them aside, they will not be reinstalled.



10. Reinstall the O2 Sensor into the exhaust manifold.

11. The exhaust manifold is now ready to be reinstalled on the vehicle so we can set this aside.

12. Remove the (11) oil pan bolts with a rachet or impact driver using a 10mm socket.

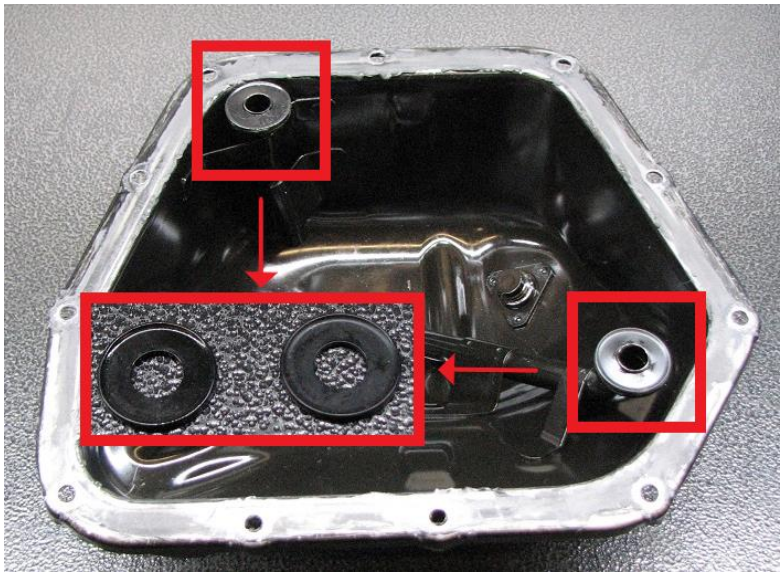


13. Remove the OEM oil pan by carefully prying around the perimeter with a couple of flat blade screwdrivers. **Note: The sealant can be quite hard to remove. Work slowly and try to not damage the mounting flange on the block.**

14. Now that the OEM oil pan is removed, it is time to prep the new pan. Wipe down the exterior of the High-Capacity Oil Pan with isopropyl alcohol.

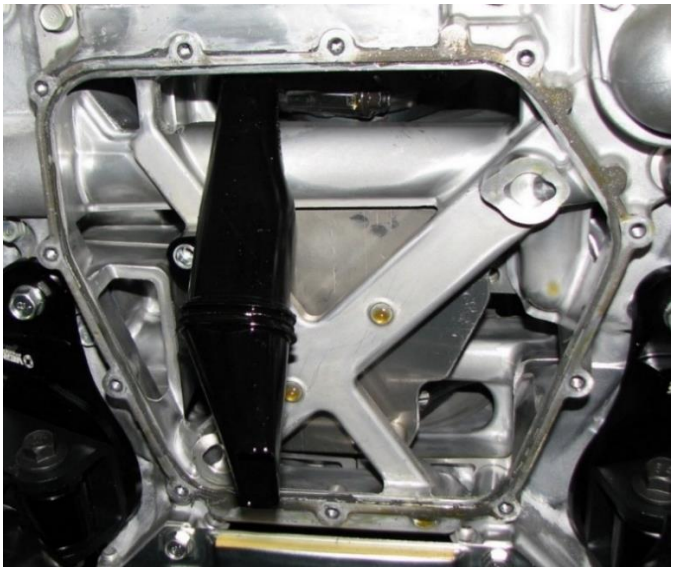
15. Apply the provided gold foil to tape around the sides in which the exhaust manifold runs. **Note: Use scissors to trim multiple pieces to fit.**

16. From the OEM oil pan, remove the (2) drain back tube gaskets and transfer them to the High-Capacity Oil Pan. **Note: You may replace these gaskets if you choose.**



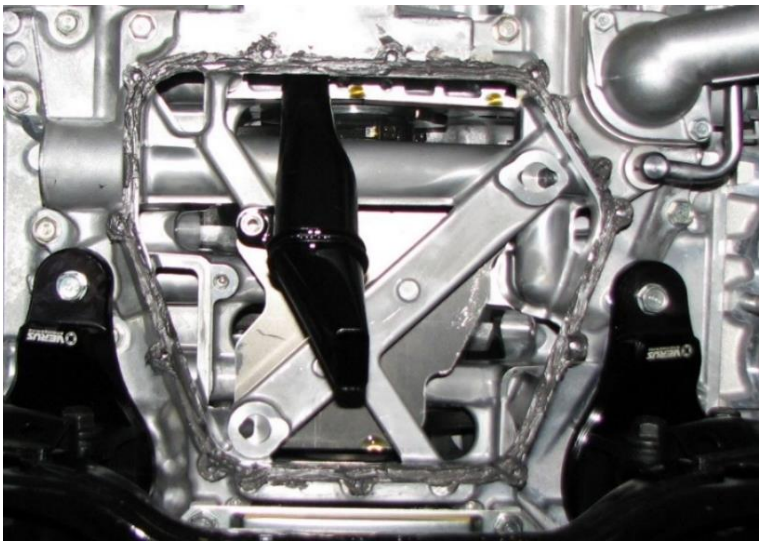
17. The oil pan is ready to be installed on the car and can be placed aside.

18. Moving back to the engine block, we need to remove the old RTV gasket with a razor blade scraper. **Caution: Be careful not to scrape or gouge the metal surface.**



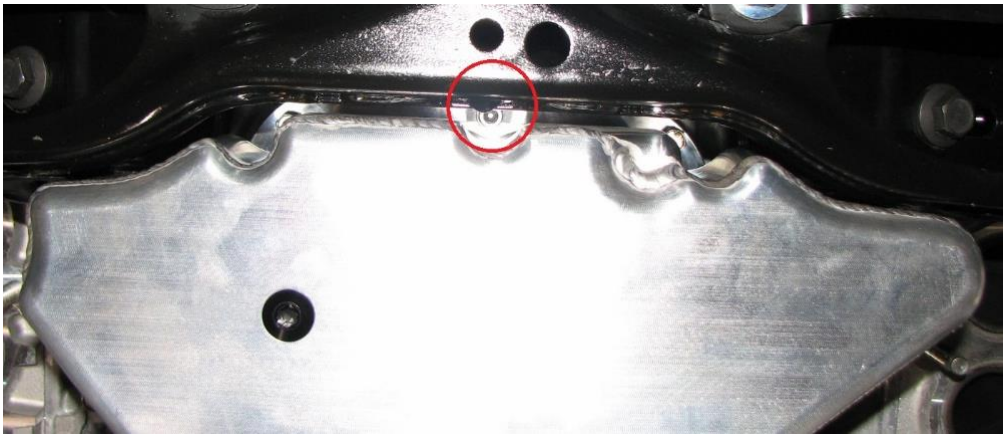
19. At this time, check the oil pickup tube for debris/silicone before installing the pan. Pull out all debris with needle nose or similar.

20. Create an oil pan gasket using oil grade RTV silicone gasket maker, or OEM three bond, by putting a thin layer on the mounting face of the engine. **Note: We do not recommend putting the gasket maker on the oil pan because the flange is much larger than the flange on the engine.**



21. Install the Verus oil pan by re-using factory hardware. Torque fasteners in a crisscross pattern to 6 ft-lbs.

22. The rear middle bolt will have the tightest clearance to access. A 10mm socket on 1/4” drive with a long extension will allow you to access to this bolt.



23. Reinstall the exhaust manifold and torque it down to factory specifications while using the OEM hardware. **Tip: Orient the manifold 90 degrees clockwise and turn counter-clockwise as you ascend.**

24. Plug in the O2 Sensor connectors and re-attached the wire loom to the bracket.

25. Reinstall the skid plate using the factory hardware.

26. Fill your engine with oil. **Note: The oil capacity has increase from ~5.3 quarts to ~7 quarts. Note:** 7 quarts will be an intended slight overfill and will show as 1" above the full line on your dipstick. When draining/changing the oil, examine the drain plug O-rings for damage or wear and only tighten until the O-ring is fully compressed and the drain plug is flush with the oil pan, approximately 10 ft-lbs.

27. Congratulations on installing the Verus Engineering High-Capacity Oil Pan on your Toyota GR86 or Subaru BRZ!

28. Please send any questions, comments, concerns, or photos to Verus Engineering via e-mail; support@verus-engineering.com.