

# VERUS ENGINEERING

## Rear Diffuser – Mk5 Toyota Supra Install Manual



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### Document Revisions

Rev	Date	Author	Description
01	2020/06/27	E. Hazen	Initial release of install manual
02	2021/03/18	E. Hazen	Updated Hardware and Bracket
03	2022/02/18	C. Warner	Updated Hardware and Bracket

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## Rear Diffuser, Mk5 Toyota Supra – Install Manual

## 1. Introduction

**1.1. Overview:** Detailed instructions on installing our rear diffuser on the MkV Toyota Supra.

**1.2. Difficulty:** Easy

**1.3. Time Required:** 0.5-1 hour

**1.4. Tools Needed:**

- 1.4.1. 8mm Socket
- 1.4.2. Ratchet
- 1.4.3. 10mm Wrench
- 1.4.4. Flat Head Screwdriver
- 1.4.5. 4mm Allen Wrench
- 1.4.6. Extension
- 1.4.7. Needle Nose (Optional)
- 1.4.8. 2.5mm Allen Wrench
- 1.4.9. 7mm Wrench

**1.5. Rear Diffuser Components**

- 1.5.1. (1) Assembled Rear Diffuser Main Plane
- 1.5.2. (2) Bracket, Front
- 1.5.3. (2) U Bracket, Front
- 1.5.4. (4) Bracket, Rear
- 1.5.5. (2) Bracket, Sides
- 1.5.6. Hardware Bag
  - 1.5.6.1. (4) M6 x 1.0 BHCS (Button Head Cap Screw) x 16mm Long, Stainless
  - 1.5.6.2. (13) M6 x 1.0 BHCS (Button Head Cap Screw) x 20mm Long, Stainless
  - 1.5.6.3. (6) M6 x 1.0 BHCS x 45mm Long, Stainless

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- 1.5.6.4. (22) M6 Fender Washer, Stainless
- 1.5.6.5. (17) M6 x 1.0 Nut, Serrated, Stainless
- 1.5.6.6. (6) 5mm Spacer, Nylon
- 1.5.6.7. (6) 10mm Spacer, Nylon
- 1.5.6.8. (6) 15mm Spacer, Nylon
- 1.5.6.9. (6) M4 x 0.7 SHCS (Socket Head Cap Screw) x 25mm Long, Stainless
- 1.5.6.10. (12) M4 Fender Washer, Stainless
- 1.5.6.11. (6) M4 x 0.7 Nyloc Nut, Stainless



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**2. Mk5 Toyota Supra Rear Diffuser Install**

- 2.1. Verus Engineering is not responsible for damage to you or your vehicle by following this manual and/or installing Verus Engineering products.
- 2.2. We begin by gaining access to the bottom of the rear bumper. You can do this by either jacking the rear of the car up while utilizing jack stands; or on a lift.
- 2.3. Below is a photo with access to the rear so that we can install the rear diffuser.



- 2.4. There are a total of six locations to mount brackets to. The rear units are circled in blue, while the front units are circled in red, and the side units have green arrows pointing to where they will be installed.

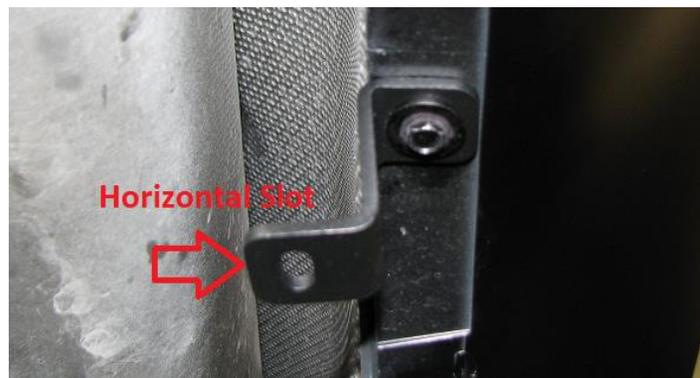


- 2.5. To install the rear mounts, simply remove the OEM 8mm bolt shown below.

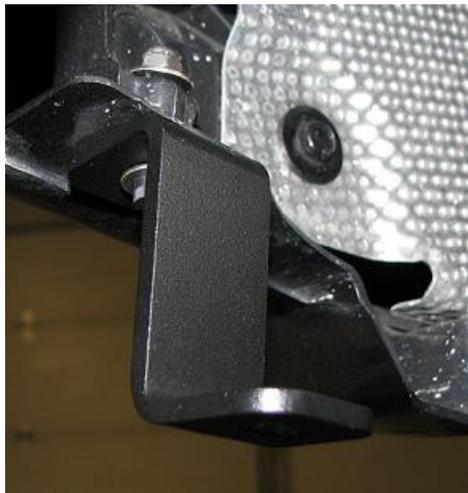
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- 2.6.** Grab one of the rear mounts and install it with the OEM bolt. Do your best to install the mount so it is pointing fore and aft (not crooked). Note orientation on car and slot positions.



- 2.7.** Alternatively, use the M4 supplied hardware through these points. This ensures the bolts do not vibrate loose over time. The below photo shows this hardware installed.



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- 2.8. For the inner points that are covered by the heat shield, you will need to cut an opening to access the nyloc nut location.



- 2.9. For the side mounts, we do something similar to the rear mounts. You can use either OE hardware or the M4 with a hole cut in the heat shield. These are installed later on (Section 2.14), but keep in mind for future reference.



- 2.10. Moving to the front locations, we have to remove the below assembly from the vehicle.

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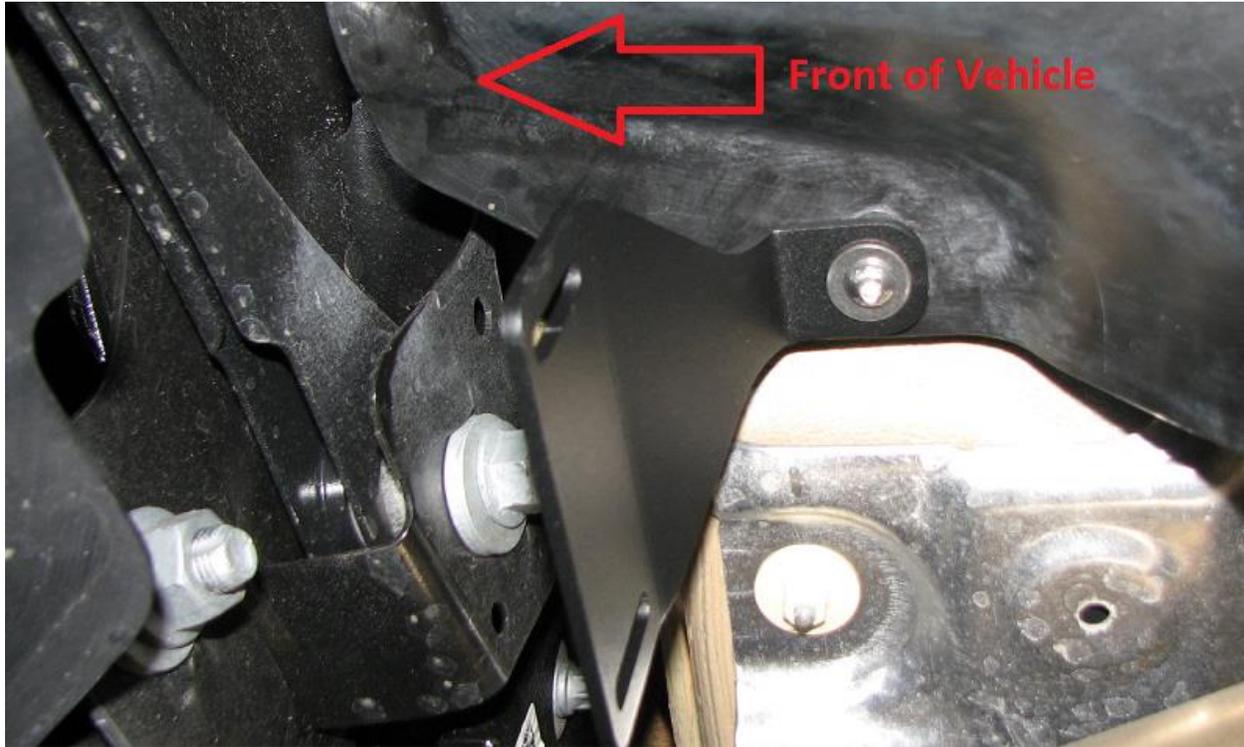


- 2.11. Remove the 8mm coarse thread bolt first.
- 2.12. Remove the white/tan plastic piece from the chassis. This separates into a top half and a bottom half and that is how it is removed from the chassis. Use the screwdriver to pull down on the head of it and needle nose pliers to remove it completely. Below is an image with the part removed.

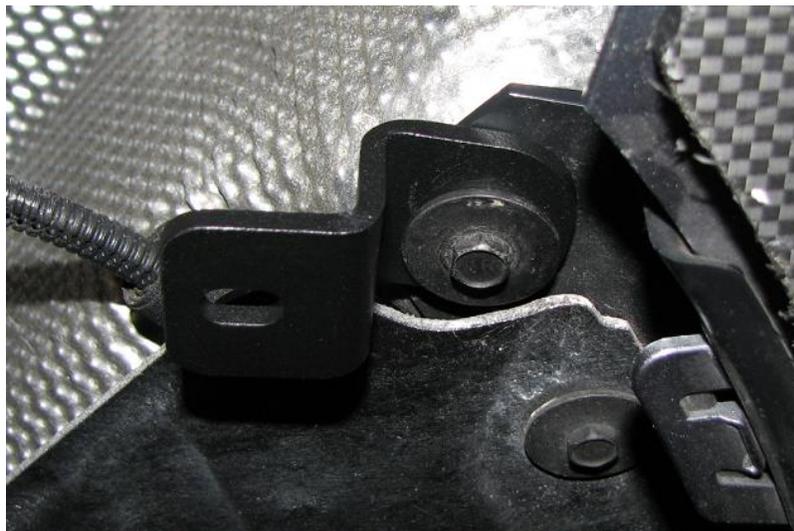


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- 2.13.** Install the front bracket as shown below. Utilize the M6 x 20mm Long BHCS with a fender washer below, and a serrated nut above the chassis. Note the orientation of the bracket.



- 2.14.** The final brackets to install are the side brackets. As mentioned previously, these can be installed with either the OE hardware, as shown below, or with the M4 supplied hardware. The bracket is installed below.



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- 2.15. We can now install the rear diffuser. It helps to have an additional set of hands but it is not necessary. On the front (4) locations, we will install the 20mm long BHCS, with a fender washer and a serrated nut on the other side.



- 2.16. On the rear, you can either install the 20mm BHCS if the diffuser is going to be installed all the way up, or utilize the 45mm long bolts with spacers to space the diffuser down to clear exhausts.
- 2.17. To properly install the rear diffuser, the bottom of the strakes should be parallel to the bottom of the rest of the car. If the car has no rake, the rear diffuser strake should be parallel to the ground.
- 2.18. Once the rear diffuser is properly sitting on the car, in the highest position possible to clear any exhaust, you can fully tighten all the bolts.
- 2.19. **Ensure the bolts are all sufficiently tightened, 6 ft-lbs for the M6 hardware.**
- 2.20. Now it is time to install the U-Shaped brackets. These brackets loop over the exhaust piping and bolt to the front centermost locations of the rear diffuser. Use the M6 16mm long BHCS, M6 18mm OD washers, and M6 serrated nuts to install these brackets. **Note: These brackets have room for adjustment to fit various aftermarket exhaust systems.** Adjust the brackets so that they are not touching the exhaust system. Once adjusted, fully tighten these bolts to 6 ft-lbs.



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- 2.21. Congratulations on installing the Verus Engineering rear diffuser on the Mk5 Toyota Supra.
- 2.22. Please send any questions, comments, concerns, or photos to Verus Engineering via e-mail; [sales@verus-engineering.com](mailto:sales@verus-engineering.com).



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