

# **VERUS**

## **ENGINEERING**

### Dive Plane Kit for the Subaru BRZ (2013-2016)

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#### Install Manual



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#### Document Revisions

Rev	Date	Author	Description
01	2017/12/20	E. Hazen	Initial release of install manual

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Dive Plane for Subaru BRZ – Install Manual

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## Dive Plane for Subaru BRZ – Install Manual

## 1. Introduction

**1.1. Overview:** Detailed instructions on installing the Verus Engineering dive planes on the Subaru BRZ.

**1.2. Difficulty:** Easy

**1.3. Time Required:** 1 hour

**1.4. Tools Needed:**

- 1.4.1. Tape
- 1.4.2. Drill
- 1.4.3. Scissors
- 1.4.4. Phillips screwdriver
- 1.4.5. 1/8" Drill Bit
- 1.4.6. 11/64" Drill Bit
- 1.4.7. Center Punch or Sharp Tap
- 1.4.8. Counter Sink
- 1.4.9. 7mm Wrench
- 1.4.10. 7mm Socket and Ratchet
- 1.4.11. Flat Head Screwdriver
- 1.4.12. 2.5mm Allen Wrench

**1.5. Dive Plane Components**

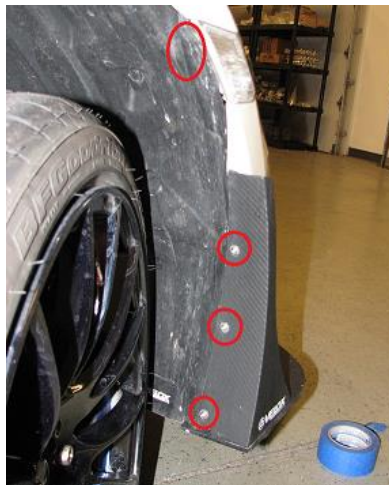
- 1.5.1. Left-hand Dive Plane
- 1.5.2. Right-hand Dive Plane
- 1.5.3. Hardware Bag
  - 1.5.3.1. (9) M4 x 0.7 Stainless Button Head Cap Screw (BHCS), 12mm Long
  - 1.5.3.2. (9) M4 x 0.7 Nyloc Nut, Stainless
  - 1.5.3.3. (19) M4 Large Diameter Washers, Stainless
  - 1.5.3.4. (2) Paper Template

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## 2. Subaru BRZ Dive Plane Install

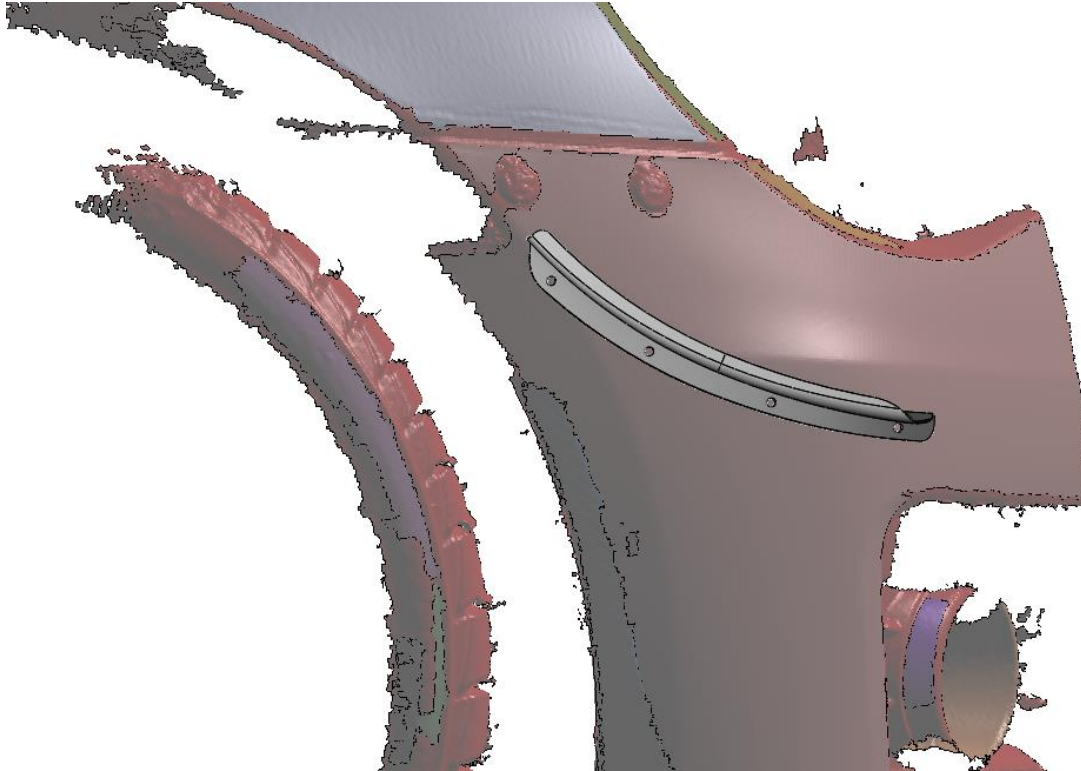
- 2.1. Verus Engineering is not responsible for damage to you or your vehicle by following this manual and/or installing Verus Engineering products.
- 2.2. It is wise to have the car fairly clean for this install, or at least the front bumper. Due to the template and drilling on the vehicle, starting with a clean car reduces the risk of scratches and improves install ease.
- 2.3. We begin by gaining access to rear of the front bumper so that we can place the nuts on the back side of the bumper. To do this, we need to remove some of the fender liner.
- 2.4. To remove the fender liner or at least gain access to the rear of the bumper, we will need to remove (4) plastic rivets from the fender liner shown below. We have our endplates installed on our car, but typically there are plastic rivets here.



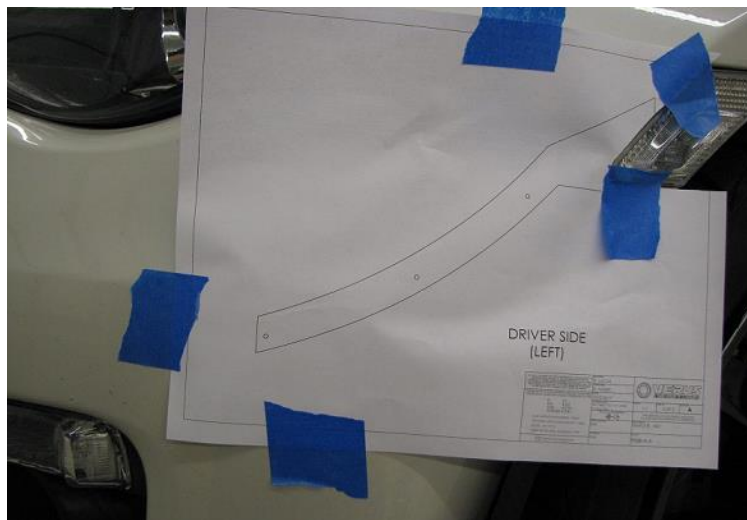
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- 2.5. View the below image to understand where we recommend installing the dive planes. **Ultimately, the end location is up to you as the installer, but this is where we found the most benefit on the Subaru BRZ from CFD analysis.**



- 2.6. Using the supplied template, we align the side marker light with the cutout. This is shown below.



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- 2.7. Before marking the holes with a center punch or tap, ensure these holes on the template line up with the dive plane's holes.



- 2.8. Mark the center of the holes with a center punch or tap. **You can use the paper templates for the top (3) holes but need to use the dive plane for the most forward hole.**

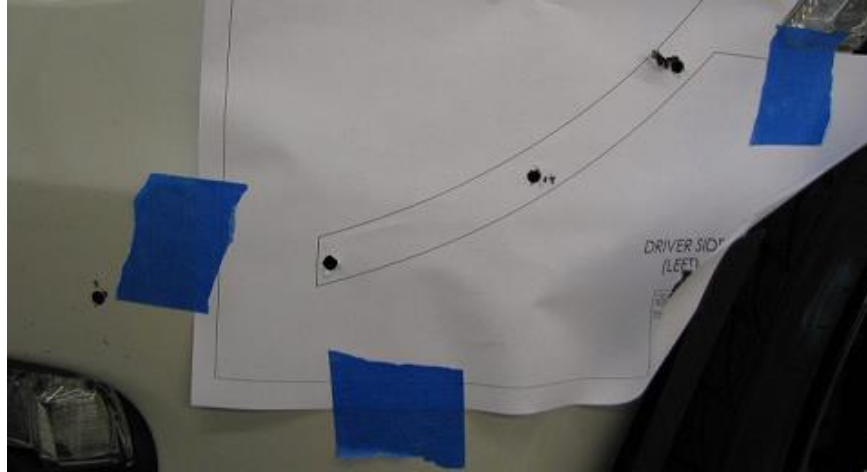


- 2.9. Begin drilling the holes with a 1/8" drill bit.

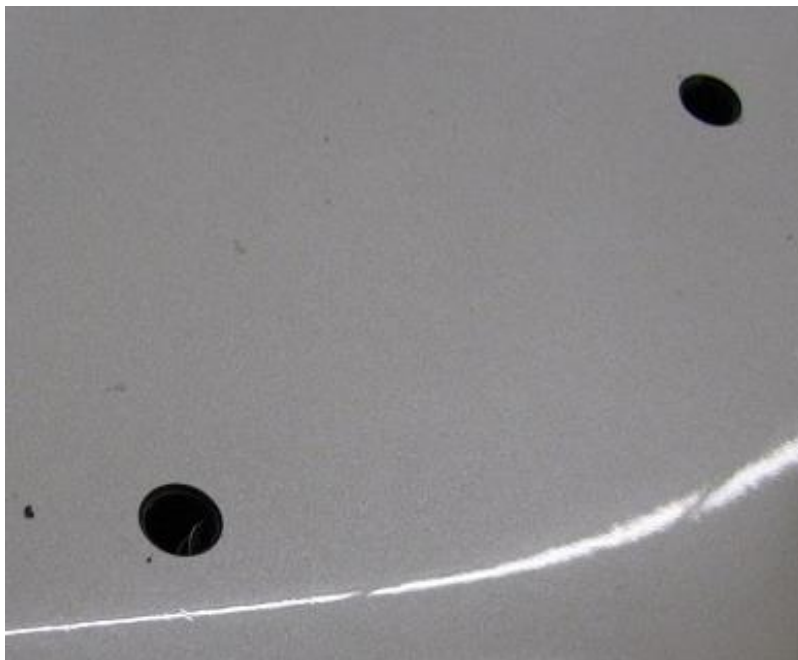
- 2.10. Increasing the drill size to 11/64" and open the holes to 11/64".

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- 2.11. Using the countersink, clean the holes from any burrs from drilling.



- 2.12. Using the M4 bolts, and a washer on the outside if you chose, begin installing the dive planes. **We chose not to use a washer on the outside but there is enough supplied in the kit to do a washer on both sides.**
- 2.13. Reaching your hand behind the front bumper you can start threading on the washer and then the nyloc nut.

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- 2.14.** With the nuts and washers on the rear side of the bumper, you can tighten the bolts on the dive planes. We found tightening the bolts from the outside while holding the nuts on the rear with a wrench easiest.



- 2.15.** Tighten torque should be no more than 40-60 in-lbs. The nyloc will resist backing off, so the fasteners only need to be snug to the bumper.
- 2.16.** Repeat the steps on the other side of the car.
- 2.17.** Reinstall everything in reverse order.
- 2.18.** Congratulations on installing the Verus Engineering dive planes for the Subaru BRZ. Enjoy the benefits the dive planes have on front end downforce.
- 2.19.** Please send any questions, comments, concerns, or photos to Verus Engineering via e-mail; [sales@verus-engineering.com](mailto:sales@verus-engineering.com).