

VERUS

ENGINEERING

Dive Plane Kit for the VA WRX and STI

Install Manual



Author: Eric Hazen

Release Date: 2017/11/26

Approvals: E. Hazen, P. Lucas

Document Revisions

Rev	Date	Author	Description
01	2017/11/26	E. Hazen	Initial release of install manual

Dive Plane for VA WRX and STI – Install Manual

CONTENTS

1. Introduction	<3>
1.1. Overview	<3>
1.2. Difficult	<3>
1.3. Time Required	<3>
1.4. Tools Needed	<3>
1.5. Dive Plane Components.....	<3>
2. Dive Plane Install	<4-8>

Dive Plane for VA WRX and STI – Install Manual

1. Introduction

1.1. Overview: Detailed instructions on installing the dive planes on the VA WRX and STI.

1.2. Difficulty: Easy

1.3. Time Required: 1 hour

1.4. Tools Needed:

- 1.4.1.** 4mm Allen Wrench
- 1.4.2.** 10mm Wrench
- 1.4.3.** Electric Drill
- 1.4.4.** Center Punch or Sharp Tap
- 1.4.5.** 1/8" Drill Bit
- 1.4.6.** 1/4" Drill Bit
- 1.4.7.** Countersink

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.** (8) M6 x 1.0 Stainless Button Head Cap Screws (BHCS), 16mm Long
 - 1.5.3.2.** (8) M6 Small Diameter Washers, Stainless
 - 1.5.3.3.** (8) M6 Large Diameter Washers, Stainless
 - 1.5.3.4.** (8) M6 x 1.0 Nyloc Nuts
 - 1.5.3.5.** (2) Paper Install Templates



Confidential: Property of Verus Engineering. Not for Distribution outside intended recipient list.

Dive Plane for VA WRX and STI – Install Manual

2. Subaru WRX 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. 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.
- 2.3. Remove the plastic screw pins located on the front of the wheel well. These are located in the below image, with yellow arrows pointing out which units need removed.

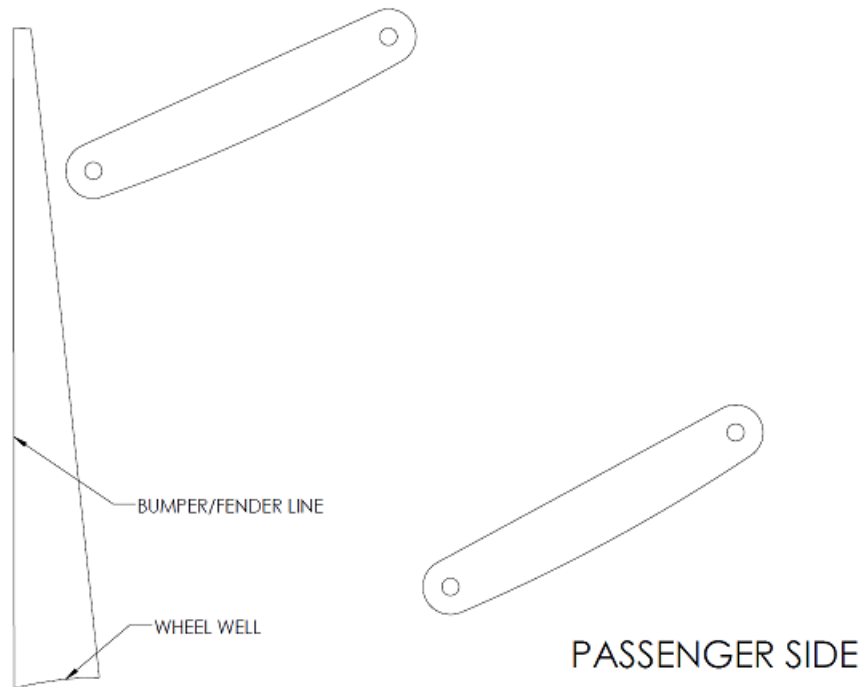


- 2.4. View the below image to understand where we recommend installing the dive planes. This location was finalized using CFD analysis. Ultimately, the end location is up to you as the installer, but this is where we found the most benefit on the WRX.



- 2.5. Each kit is supplied with a pair of paper templates. Each template (one for the driver side, one for the passenger side) include a location for the upper and lower dive plane location. Dependent on what you would like to install, use these templates as guidelines for the install.

Dive Plane for VA WRX and STI – Install Manual



- 2.6.** Using a few pieces of tape or another pair of hands, we will mark the (4) holes of the dive plane for drilling.



- 2.7.** Use a center punch or a sharp tap to mark the points. The dive plane itself will be used as your template along with the paper template.

Dive Plane for VA WRX and STI – Install Manual



- 2.8. With a drill and 1/8" drill bit initially, very carefully drill the holes in the bumper. Try not to go through anything behind the bumper.
- 2.9. Increasing the drill size to 1/4", open the holes to 1/4".



- 2.10. Utilizing the countersink, lightly deburr the holes.
- 2.11. The dive planes are ready to install. The holes on the dive planes are tight on the M6 bolts, if these need opened up, gently use the 1/4" drill bit on the dive planes now.
- 2.12. Using the M6 bolts, and the washer if you would like to use a washer on the outside, begin installing the bolts and dive planes onto the bumper. **We opted to not use the washer as the nyloc nuts will hold the dive planes on the bumper without backing off.**
- 2.13. Reaching your hand behind the front bumper through the fender liner, you can start threading on the nuts to the bolts.

Confidential: Property of Verus Engineering. Not for Distribution outside intended recipient list.

Dive Plane for VA WRX and STI – Install Manual

- 2.14.** With the nuts on the rear side of the bumper, you can tighten the bolts on the dive planes. You will need to use a socket and wrench on the nuts. Again, we chose no washers on the dive planes.



- 2.15.** Tighten torque should be no more than 72 to 120 in-lbs. The nyloc nuts will resist backing off once they are snug.
- 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 WRX. Enjoy a bump in front end downforce and a bump in front end aero balance.
- 2.19.** Please send any questions, comments, concerns, or photos to Verus Engineering via e-mail; sales@verus-engineering.com.



Confidential: Property of Verus Engineering. Not for Distribution outside intended recipient list.

Dive Plane for VA WRX and STI – Install Manual



Confidential: Property of Verus Engineering. Not for Distribution outside intended recipient list.