

VERUS ENGINEERING

VA STI UCW Rear Wing Install Manual



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1. Introduction

1.1. Overview: Detailed instructions on installing the Verus Engineering VA STI UCW Rear Wing.

1.2. Difficulty: Moderate

1.3. Time Required: 1-2 hours

1.4. Tools Needed:

- 1.4.1. Drill
- 1.4.2. 3/8" Drill Bit (Step bit recommended)
- 1.4.3. Allen Wrench Set (2.5mm, 3mm, 4mm, 5mm)
- 1.4.4. Ratchet
- 1.4.5. 9/16" Wrench
- 1.4.6. 10mm Wrench
- 1.4.7. Push Clip Removal Tool.
- 1.4.8. Needle Nose Pliers
- 1.4.9. Bubble Level
- 1.4.10. 10mm Socket
- 1.4.11. A Second Ratchet, or Impact Gun (3/8")
- 1.4.12. Microfiber Towel
- 1.4.13. 50/50 mix Isopropyl Alcohol
- 1.4.14. Optional: Spray wax / Polish / Buffer
- 1.4.15. Optional: A Friend to Help 😊

1.5. UCW Rear Wing

- 1.5.1. (1) UCW Wing Element
- 1.5.2. (2) Trunk Mounts (Left and Right)
- 1.5.3. (2) Wing Upright
- 1.5.4. (2) Wing Endplates
- 1.5.5. (2) Laser Cut 3M VHB Adhesive for Trunk Mounts (Left and Right)
- 1.5.6. Hardware Bag
 - 1.5.6.1. (6) M6 x 1.0 35mm Long Studs
 - 1.5.6.2. (8) M4 x 0.7 Low Profile SHCS (Socket Head Cap Screw) x 12mm Long, Stainless
 - 1.5.6.3. (4) M6 x1.0 25mm Long BHCS (Button Head Cap Screw)
 - 1.5.6.4. (4) M6 x 12mm OD Washers, Stainless
 - 1.5.6.5. (4) M6 x 1.0 Nyloc Nut, Stainless
 - 1.5.6.6. (4) Endplate Washers, Anodized Aluminum
 - 1.5.6.7. (4) Endplate Washer O-rings
 - 1.5.6.8. (4) M4 x 0.7 FHCS (Flat Head Cap Screw) x 16mm Long, Stainless
 - 1.5.6.9. (2) M6 Rivet nuts, Heavy Duty Steel
 - 1.5.6.10. (1) M6 Rivet Nut Install Tool

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2. VA Subaru STI UCW Rear Wing 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 start the install by removing the black headliner on the Subaru WRX. This is done by removing plastic push clips and is shown removed in the below photos.



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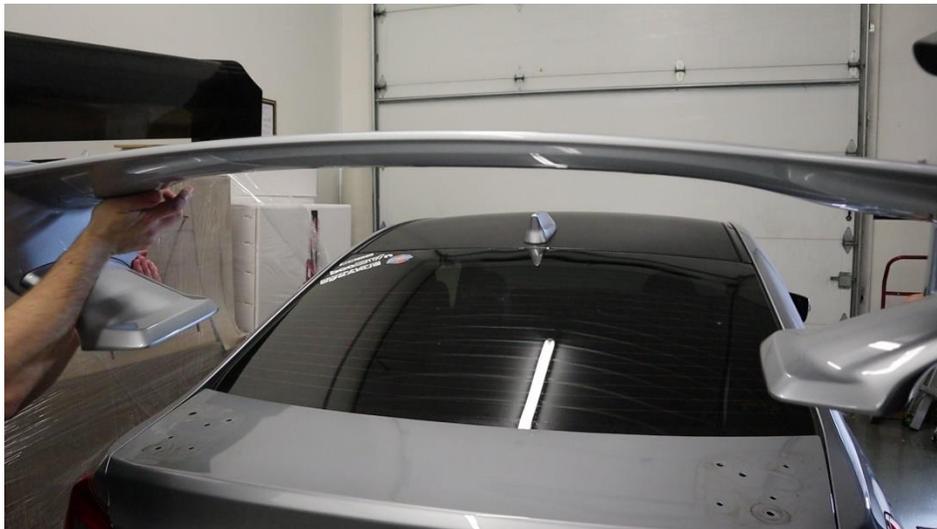
- 2.3.** Remove the two plastic bolt covers, one on each side.



- 2.4.** Remove nuts for the factory wing.

- 2.4.1.** You will want to hold the trunk down just a bit so that if the nuts fall off the socket they fall into the trunk and not into the trunk lid structure.
- 2.5.** Once unbolted, the wing will then be held in by plastic clips on both sides. It is best to grab a helper to aid in “popping” the wing off the trunk lid. Be careful not to drop your factory wing.
- 2.5.1.** First, shut the trunk and latch it completely.
- 2.5.2.** Grab your helper and smack upwards from the bottom of the spoiler close to the uprights. The spoiler should “pop” off the trunk lid. If any clips remain in the trunk lid, remove them.

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- 2.6.** With the spoiler removed, it should reveal a dirty foot print where dirt and grime will tend to collect over time. We recommend cleaning this area at the very least, however you may want to polish this area with a buffer to make sure the paint looks the same as the rest of the trunk. The base plates for the wing uprights do not cover the exact footprint of the factory spoiler.

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- 2.7. Once cleaned, thoroughly prep the area with a 50/50 solution of alcohol/water to ensure the 3M VHB tape will bond completely to the car.
- 2.8. Prep the wing uprights and trunk mounts for installation.
 - 2.8.1. Clean the bottom side of the trunk mounts with the alcohol mix used previously.
 - 2.8.2. Install the M6 studs (3 on each side) with the 3mm allen wrench. These will serve as a guide for the 3M VHB we will be applying. Just bottom the studs out with an extra 1/8th of a turn.



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- 2.8.3.** With the studs installed peel off one side of the backing for the 3M VHB and install it on to the trunk mount. We recommend holding the upright/mount sideways and working the tape from the center out, onto the mount. This will help to prevent any wrinkles in the tape.
- 2.8.4.** Once the VHB is installed grab one upright and four M4 socket head bolts and install it onto the trunk mount using a 2.5mm allen wrench. Tighten the bolts to approx. 3-4 ftlbs.



- 2.8.5.** Now the upright / mount assembly is ready to install onto the trunk lid.
- 2.9.** Pull the backing off the VHB on the trunk mount, line up the studs with the holes on the trunk, and install onto trunk lid. Apply enough pressure for the VHB to bond to the trunk. Repeat on other side and open the trunk.

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- 2.10.** With the trunk opened, thread the nuts onto the studs using the 10mm socket, and tighten to about 6 ftlbs.



- 2.11.** Reinstall the trunk lid liner with push clips
- 2.12.** At this point you may use a helper to install the wing element on to the uprights or you can choose to just rest the wing element on the wing uprights while you gather your hardware.

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- 2.13.** Grab (4) M6 BHCS, (8) M6 washers, and (4) M6 nyloc nuts. Install the front bolts first, using a 3mm allen wrench and a 10mm socket. Tighten to 6 ftlbs.



- 2.13.1.** To figure out where to set the AOA and rear bolt, refer to the chart below.

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2.14. Lastly for the wing, we will install the end plates using a 2.5mm allen wrench and a bubble level. We recommend the endplates be installed parallel with the ground.

2.14.1. For each bolt you will need one endplate washer which includes an O-ring. The O-ring helps to prevent the washer from scratching the end plate. When installing the bolts with the washers be sure the O-ring is completely seated within the groove machined in the washer. A dab of water seems to help the O-ring stay in the washer.

2.14.2. Once you have the bolts started, the o-rings seated correctly, and the endplate leveled torque the bolts to about 3 ft-lbs.

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2.15. Now we will replace the soft rubber bumpers on the bottom of the trunk lid. This will help transfer the load into the chassis preventing the trunk lid from deflecting.

2.15.1. Start by using your needle nose pliers to remove the rubber bumper from the trunk lid



2.15.2. Once the bumper is removed, you will be left with a hole that you will step out to 3/8" with your step drill bit.

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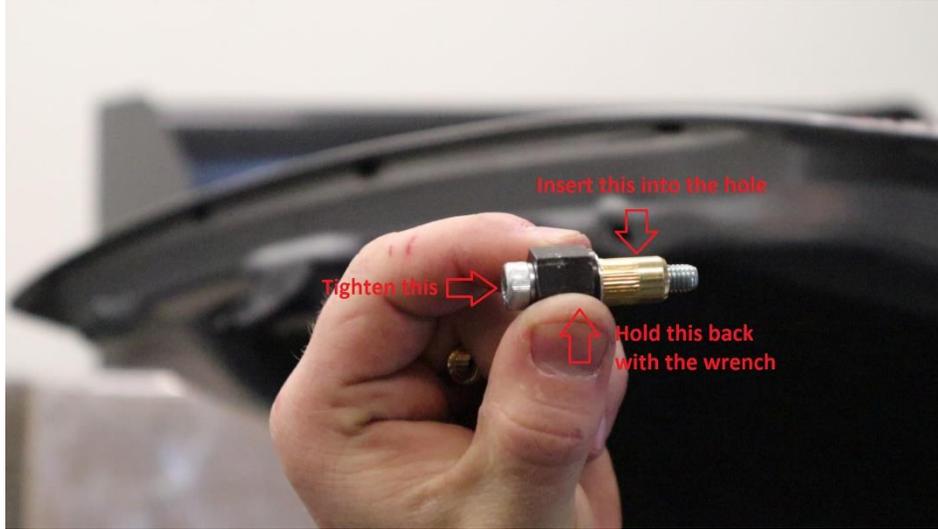
2.15.3. Use touch-up paint to cover the raw metal edges.

2.15.4. With the hole stepped out to 3/8", install the rivet nut using the installation tool that is included. Refer to pictures below to learn how to use this tool.



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- 2.16.** Grab the low profile SHCS and jam nut, and adjust the jam nut so that it matches the height of the factory bumper.

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- 2.17. Temporarily install the new “stopper”, and slowly close the trunk to verify that it makes contact with the chassis. If not, simply adjust the SHCS accordingly and re-tighten the jam nut.
- 2.18. You just installed the Verus Engineering VA STI UCW Rear Wing. Give your friend a high five and grab a beer!....or, whatever is age appropriate.
- 2.19. For any comments, questions, or concerns please feel free to reach out to us at Sales@Verus-Engineering.com

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