FRS/BRZ/GT86 High-Efficiency Rear Wing

Install Manual

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Document Revisions

Rev	Date	Author	Description
01	2018/06/10	E. Hazen	Initial release of install manual
02	2019/06/19	E. Hazen	Revised Mounting Updates

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FRS/BRZ/GT86 Rear Wing – Install Manual

1. Introduction

1.1. Overview: Detailed instructions on installing the High-Efficiency Wing on the FRS/BRZ/GT86 OEM trunk

1.2. Difficulty: Moderate to Hard

1.3. Time Required: 2-3 Hours

1.4. Tools Needed:

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1.4.2. 10mm socket
1.4.3. 12mm socket
1.4.4. Ratchet
1.4.5. 3mm allen wrench/socket
1.4.6. 4mm allen wrench/socket
1.4.7. 5mm allen wrench/socket
1.4.8. 10mm wrench
1.4.9. 9/16 wrench
1.4.10. Assorted Drill Bits
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1.5. Rear Wing Components

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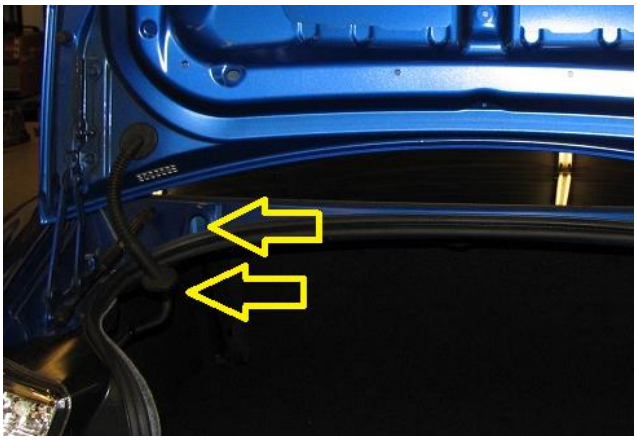
2. Rear Wing Installation

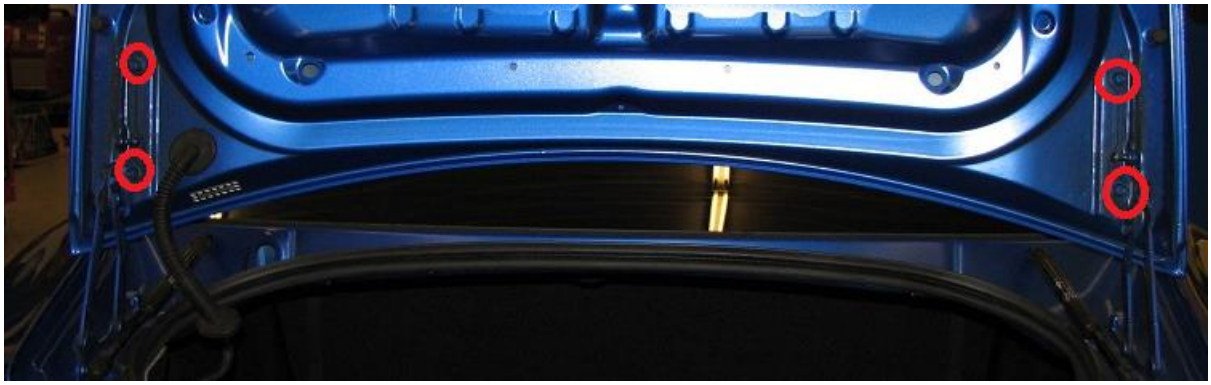
2.1. Verus is not responsible for damage to you or your vehicle by following this manual and/or installing Verus Engineering products.

2.2. We begin by removing the rear trunk from the vehicle. To do so, you first need to disconnect the wire harness in the trunk and remove the wire loom from the chassis. This is shown below.



2.3. Remove the trunk shocks from the trunk, by using a flat head screwdriver on the black clip. This is shown below.

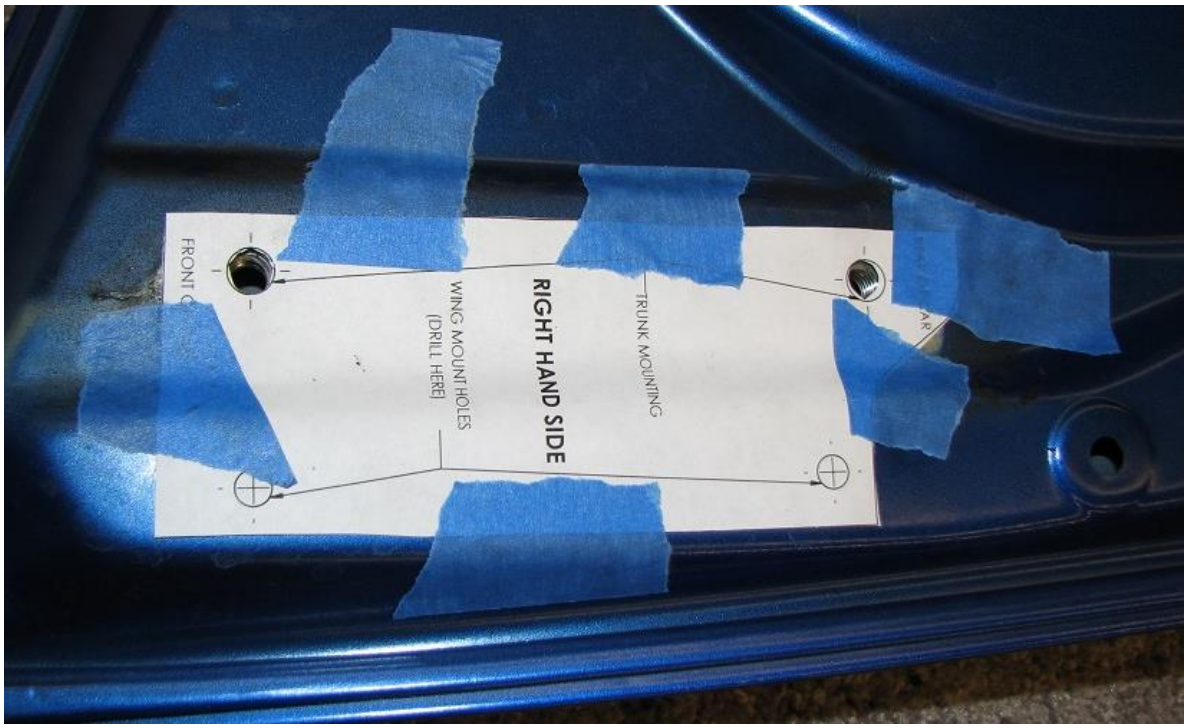
2.4. With these removed from the trunk points, we can remove the (4) 12mm bolts from the trunk and remove it from the vehicle. A second set of hands is definitely helpful.



2.5. Place the trunk on the carpeting, with the top of the trunk facing downward. Use whatever steps you think is necessary to protect the paint's finish.

2.6. If you have a BRZ or an OEM spoiler, your car should have these little rubber stops as shown below. If your vehicle has this; remove it from the trunk by pulling it off. It may take a decent bit of coercion, but it is just clipped in.

2.7. Cut the supplied templates out of the drawing. Also cut the holes where the trunk latch holes are located. Using painters tape (or any tape), place this template on the trunk as shown below. Ensure that you follow the curvature of the trunk where it changes in height, this ensures accurate placement of the holes.



2.8. To ensure the locations are correct, grab the stainless bracket and place it on the trunk. The holes should line up and the top most slot should line up with the center of the rubber bumper hole.

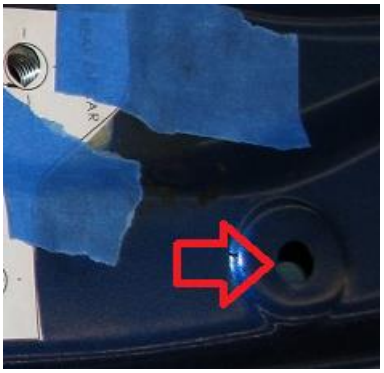
2.9. If everything lines up correctly, mark these holes with a center punch.

2.10. If your trunk does not have this rubber bumper hole, utilize this time to mark the hole location, **with the stainless strengthening bracket as a template**. We will need to drill this regardless.

2.11. Begin drilling the two mounting holes with a 1/8" size drill bit. Go all the way through the trunk skin as well.

2.12. With the two holes started, grab a 9/32 drill bit and open these holes up to that size. You can also use a stepper drill bit, it actually goes through this thin sheet steel easier than drill bits.

2.13. Moving to the rubber bumper portion, we need to open this hole to 3/8" to install the rivet nut. Using a drill bit or a step bit, open this hole up to 3/8". If you do not have a hole here, it still needs to be drilled, just ensure you **do not puncture or go through the bottom side quickly. You can cause the skin's sheet metal to deform if the drill bit hits it!!!!**



2.14. Once this hole is 3/8", we can install the supplied rivet nuts. We recommend a bit of sealant to help reduce the chance of any rust. This is shown below.

2.15. Utilizing the 9/16" wrench to hold the nut and a 10mm socket, tighten the rivet nut into this hole. A fully installed rivet-nut is shown below. The slight excess of sealant is desired to reduce rusting.

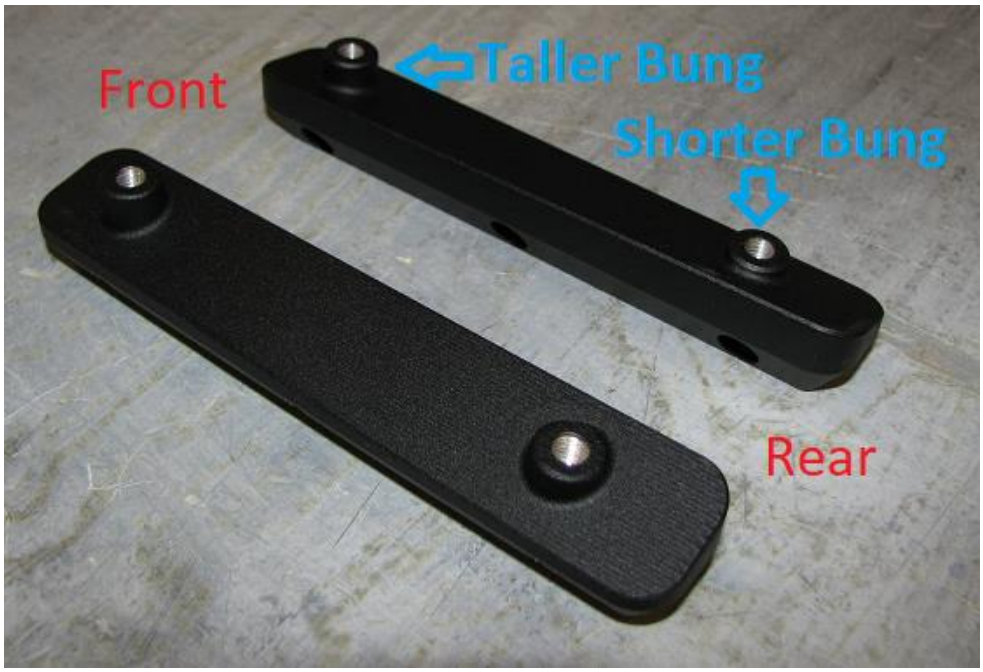
2.16. With the rivet nut installed, and the holes drilled to 9/32”, we can flip the trunk over and start working from the top side of the trunk.

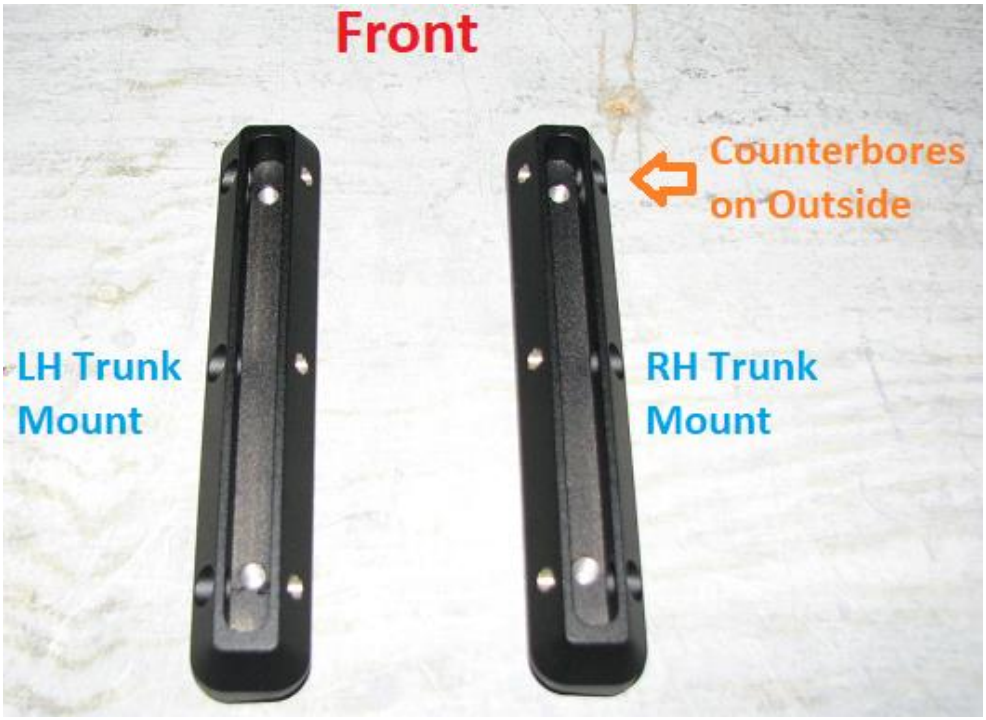
2.17. Utilizing the step bit again, we open these holes out a bit further. **Ensure that the drill bit does not grab the material or it may deform the skin and cause an eye sore after install.**

2.18. With the holes slightly larger, we can now use a carbide bit and grinder to open these holes up larger. **You will want the holes to be slightly larger than bungs on the mount.**

2.19. With the holes larger, we can work on installing the mounts onto the trunk. **If you have touch up paint, touch up the exposed edges at this time and allow to dry.**

2.20. Supplied are (2) trunk mounts, there is a left hand unit and a right hand unit.

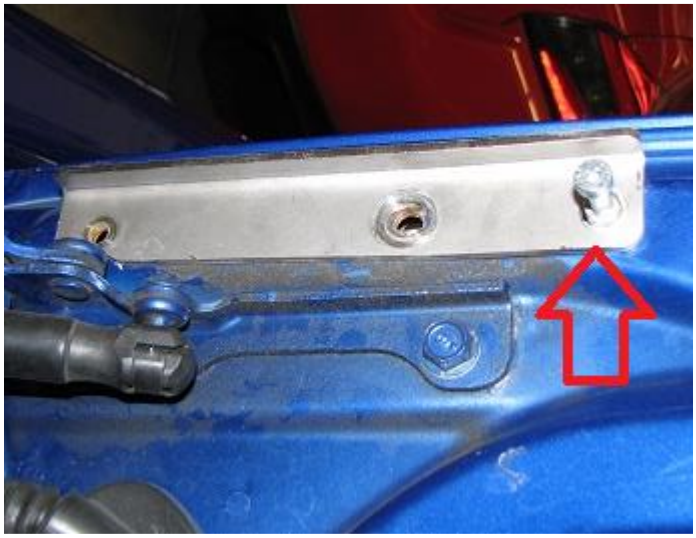




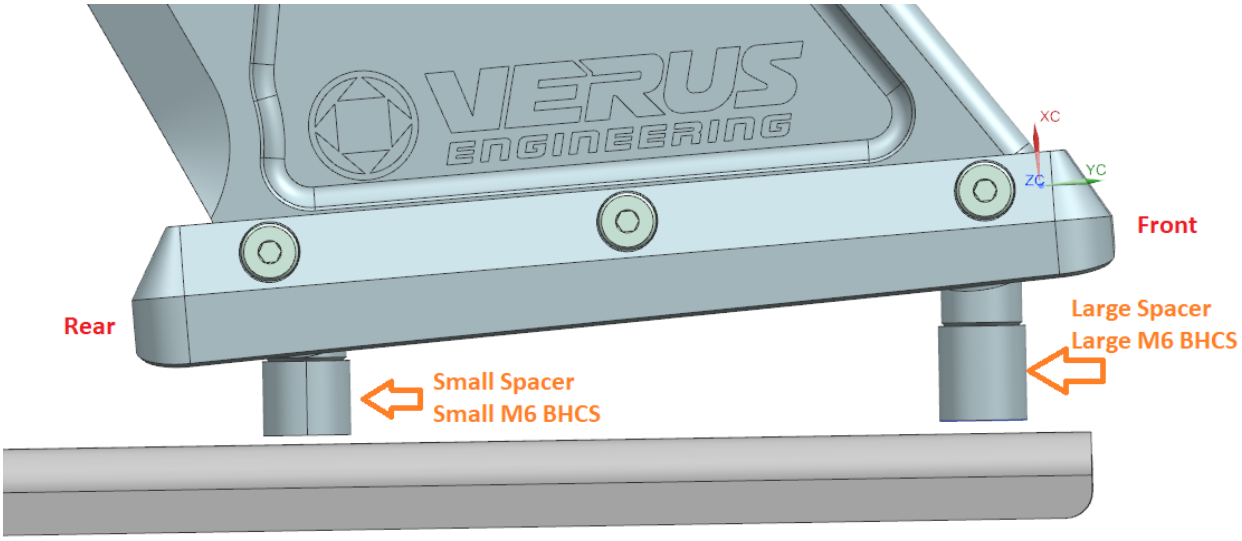
2.21. At this point, we will install the double sided tape on the bottom side of the trunk brackets. Before applying, wipe the mount with a 50/50 isopropyl alcohol/water mix.

2.22. Apply the double sided tape as shown below. We recommend removing the white side of the double sided tape first. Message double sided tape into mount.

2.23. We now install the strengthening bracket on the bottom side of the trunk as shown below. Utilize the M6 x 1.0 Low Profile SHCS, with the jam nut install. Note the bracket orientation.



2.24. We can now install the trunk mounts to the trunk. The below image helps associate which hardware goes where on the trunk. ***The larger spacer with the longer M6 BHCS, goes on the front most point on the trunk. The shorter spacer and bolt go in the rear location.***



2.25. Clean trunk with 50/50 isopropyl alcohol/water.

2.26. To install, we recommend grabbing the bolt, with a large M6 fender washer, and installing it through the strengthening bracket. At this point, you can safely place the spacers on the bolt; ensuring they do not get lost into the trunk.

2.27. The mount is ready to install at this point!

2.28. Remove the red double sided tape backing, and carefully begin threading the trunk mount onto the bolts. ***Do not cross thread the bolts into the aluminum mount!***

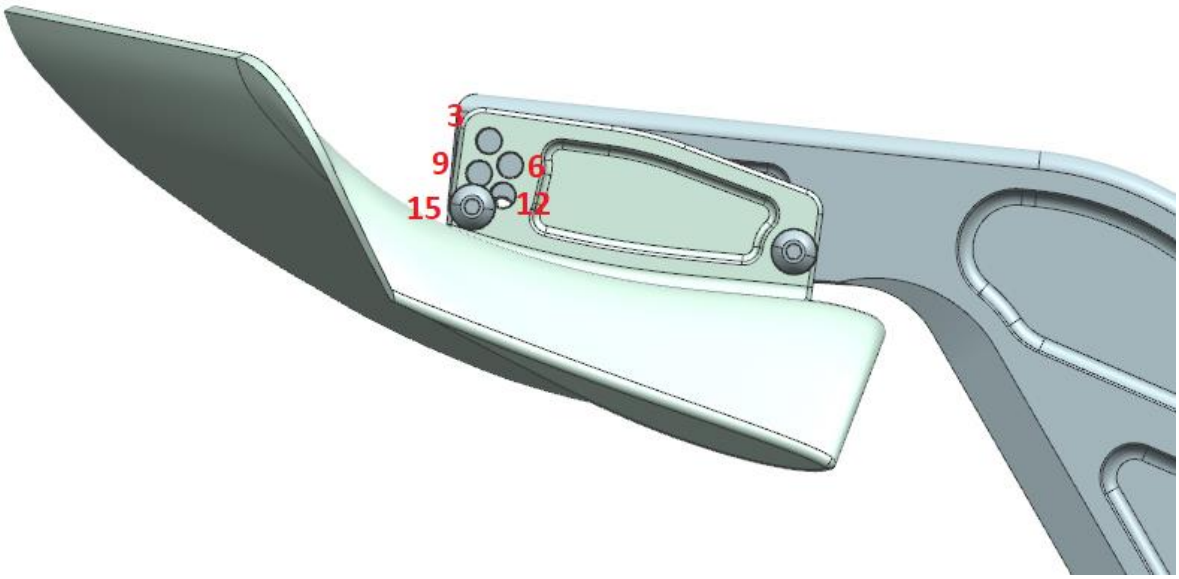
2.29. To fully tighten the mounts, torque to 6-8 ft-lbs. Work the double sided tape into the trunk's surface to ensure proper adhesion and weather-proofing.

2.30. At this point, we can install the uprights into the trunk mount utilizing the (3) M5 x 0.8 SHCS provided. Torque to 4 ft-lbs.

2.31. Reinstall the trunk onto the vehicle. Torque the 12mm bolts to 12-16 ft-lbs.

2.32. With the trunk bolted onto the car, we can install the wing onto the uprights. This is another good two person job but can be handled alone. Utilize the M5 BHCS, washers, and nyloc nuts to install the rear wing.

2.33. There are (5) AOA for the rear wing, 3, 6, 9, 12 and 15. Below is a photo showing how to choose each AOA with the rear adjustment location.



2.34. Do not overly torque the m5 bolts, with the nyloc nuts, excessive torque is not required. We recommend 4 ft-lbs max.

2.35. The final portion of the install involves the setting of the load transferring SHCS.

2.36. To begin this, install the supplied foam as shown below.

2.37. Then, while slowly closing the trunk, watch the SHCS and see how close it comes to touching this foam. You will want the SHCS head to hit this piece of foam and hinge location when fully closed.

2.38. This process will likely take a few times to get perfect, but is important to keep the trunk's movement to a minimum.

2.39. Congratulations on installing the Verus Engineering High-Efficiency Wing. Please send any question, comments, concerns, or feedback to sales@verus-engineering.com

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