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Drag Wing – S550 Ford Mustang Shelby GT350 Install Manual



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1. Introduction

1.1. Overview: Detailed instructions on installing the Verus Engineering Drag Wing on the S550 Ford Mustang Shelby GT350.

1.2. Difficulty: Easy

1.3. Time Required: 1-1.5 hours

1.4. Tools Needed:

- 1.4.1. Ratchet
- 1.4.2. 7mm Socket
- 1.4.3. Needle Nose Pliers or Panel Popping Tool
- 1.4.4. Scissors
- 1.4.5. 10mm Wrench
- 1.4.6. 2mm Allen Key or Socket
- 1.4.7. 4mm Allen Key or Socket
- 1.4.8. Flathead Screwdriver
- 1.4.9. 50/50 Mixture of Isopropyl Alcohol and Water
- 1.4.10. Microfiber

**1.5. Rear Wing Components**

- 1.5.1. (1) Carbon Drag Wing
- 1.5.2. (1) Right-Hand Endplate
- 1.5.3. (1) Left-Hand Endplate
- 1.5.4. (2) Adjustable Support Rod Assembly, 175mm to 200mm Long
- 1.5.5. (2) M6 Threaded Clevis
- 1.5.6. (2) Non-Threaded Clevis
- 1.5.7. (4) 25mm Support Rod Extension
- 1.5.8. (1) **Hardware Bag**
 - 1.5.8.1. (2) M6x1.0, 16mm Long Low Profile SHCS (Socket Head Cap Screw), Stainless

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- 1.5.8.2. (4) M6x1.0, 25mm Long BHCS (Button Head Cap Screw), Stainless
- 1.5.8.3. (6) M6, 12mm OD Washer
- 1.5.8.4. (4) M6x1.0, Flanged Serrated Nut, Stainless
- 1.5.8.5. (2) M6x1.0, 16mm Long BHCS, Stainless
- 1.5.8.6. (1) Roll of 3M VHB
- 1.5.8.7. (8) Endplate Washer
- 1.5.8.8. (8) O-ring for Endplate Washer
- 1.5.8.9. (6) M4x0.7, 16mm Long Flat Head Cap Screw (FHCS), Stainless
- 1.5.8.10. (2) M4x0.7, 20mm Long FHCS, Stainless
- 1.5.8.11. (2) M4 Fender Washer, Stainless
- 1.5.8.12. (2) M4x0.7 Nyloc Nut, Stainless



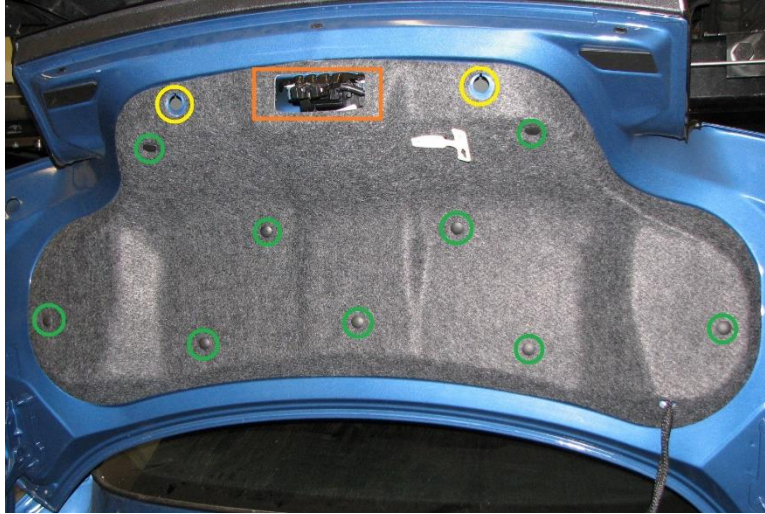
2. Shelby GT350 Drag Wing Install

- 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. If you have an OEM or aftermarket wing installed on the car, you will need to remove that for the first step. If you need a refresher on this, please review the start of UCW Rear Wing Kit installation manual.
- 2.3. Next, we need to remove the under-trunk sound deadening. Do so by unscrewing the trunk stops by hand (circled in yellow), pop off the trunk latch cover (orange) by hand or with the help of a flathead screwdriver, and remove the pop clips (circled in green) using your panel popping tool or needle nose pliers. Once all of these items are removed, you can remove the sound deadening, but you will need to push the safety release pull tab through the sound

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deadenings. **Note: The trunk stops and trunk latch cover are not installed in the photo below as they were removed previously.**



- 2.4. With the sound deadening removed, we need to remove both black covers that are circled in pink below. You can do this by hand or with the help of a flathead screwdriver.



- 2.5. Next, unclip the rear connector for the rear camera.

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- 2.6. Underneath the black covers that were removed in step 2.4, you should see something like the photo below. Use a 7mm socket to remove these bolts inside the cutouts in the trunk. There are 2 bolts per side that need to be removed.



- 2.7. Once the 4 bolts are removed, carefully and firmly pull the black trim piece away from the trunk. Below is a photo showing what the backside of the trim piece looks like. **Note: There are a couple of different mechanisms holding this piece to the trunk apart from the bolts, so it will take some patience and moving the panel in different directions to remove safely.**

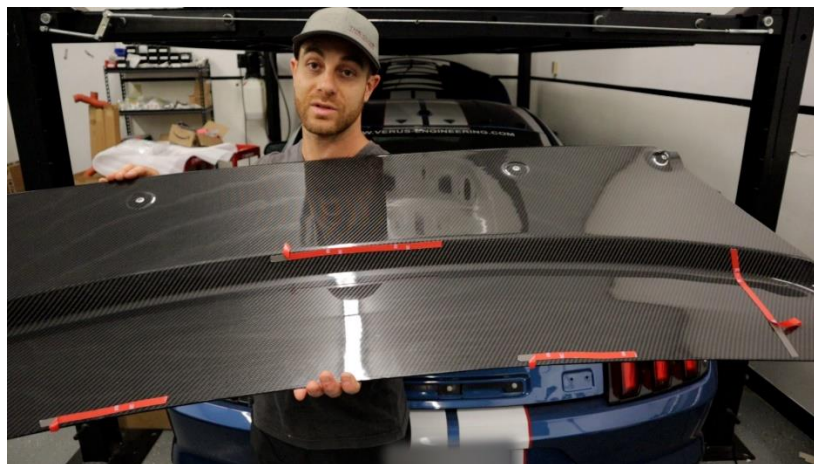


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- 2.8. Next, close the trunk and prep the trunk surface and bottom surface of the wing for the 3M VHB installation. Do so by using your 50/50 mix of isopropyl alcohol/water and a microfiber towel.
- 2.9. It is recommended to use 3M VHB's recommendation for installation. For best adhesion, the following guidelines should be met for install: **Minimal temperature for install should be 50 degrees Fahrenheit. At room temperature approximately 50% of ultimate bond strength will be achieved after 20 minutes, 90% after 24 hours and 100% after 72 hours.**
- 2.10. After both surfaces are prepped, install the 3M VHB as shown below. Note: You only want the 3M VHB installed on areas of the wing that will **contact the trunk surface, not the rear quarter panels**. Within these constraints, please use more 3M VHB than what we did in the photo. We used less due to the fact that we will be removing the drag wing after installation.



- 2.11. Test fit the wing on the trunk before removing the red backing. The wing should sit into place as it shares the contour of the trunk. Once test fit, peel the red backing away and place the wing on the trunk while massaging it into place.

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2.12. Creating small tabs sticking out from the spoiler with the red backing can help with placement. This way very little of the adhesive is available to bond to the trunk and allows for repositioning. Once the trunk is seated in its final resting place, remove the red backing completely and massage the wing into the trunk.

2.13. With the wing partially installed by the 3M VHB, pop the trunk once again and install the endplates as shown below. Use the provided black endplates washers, o-rings, and M4 FHCS for this. **Note: These are M4 bolts going into rivet nuts, so they do not need much torque. 1/8 of a turn past hand tight will be plenty.**



2.14. After the endplates are installed, we can finally install the rear support system.

2.15. There are a few ways to do this install. We chose a way that involved no holes being drilled as we wanted to retain the rear black Shelby trunk piece with no holes. Another option is to drill small holes in the black plastic panel and bolt through that. Another option

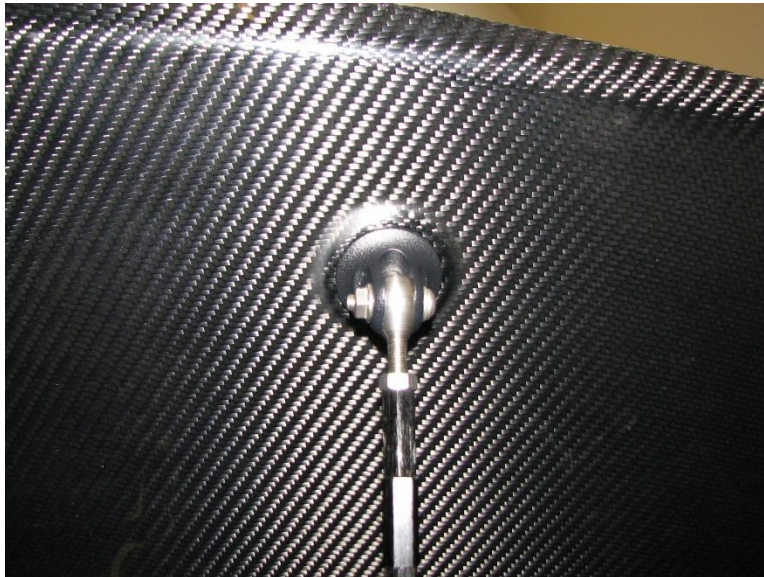
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is to drill larger holes that allow the clevis/rod end to pass through the black panel and use the location we chose as that goes to the trunk sheet metal.

- 2.16.** Start by installing the bottom threaded clevis in the trunk using one of the factory holes. You will need to use an M6 x 16mm long BHCS and an M6 x 12mm OD washer to do so. Ultimately, you can do this a number of ways depending on preference. This is just the way we chose. Keep these bolts hand tight for the time being as you will most likely need to adjust the angle to match with the upper clevis.



- 2.17.** After the bottom clevises are installed, we can install the clevises on the drag wing itself. Do so by threading the M6 x 16mm long low-profile socket head caps screw through the clevis and into the rivet nut as show below. Keep hand tight for right now.



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- 2.18.** With all four clevises installed hand tight, we now need to assemble and install our support rods. For the way that we installed the clevises, we needed to use two of the 25mm extensions on our support rods. When assembling the support rods take note that there is a left-hand threaded side and a right-hand threaded side. The 25mm extensions are right-hand thread. **Note: Depending on where you decided to install the clevises on the trunk, your install might be slightly different as far as the support rods go. Adjust your install as necessary.**
- 2.19.** Once you have the correct length support rods and clevis angles figure out, torque all 4 of the clevis bolts to 6 ft-lbs at this time.
- 2.20.** Grab your M6 x 25mm long BHCS, M6 x 12mm OD washer, and an M6 serrated nuts to install the support rods into the clevises. **(BHCS > washer > clevis prong > rod end > clevis prong > serrated nut)** Torque to 6 ft-lbs.
- 2.21.** Reassemble the rest of the trunk in reverse order.
- 2.22.** Congratulations on installing our Drag Wing on your S550 Ford Mustang GT350. Please send any questions, comments, concerns, or photos to Verus Engineering via e-mail; sales@verus-engineering.com.



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