

# PERRIN

## Gurney Flap for 2008-14 STI and 2009-14 WRX Hatchback

2017-12-05

Thank you for purchasing this PERRIN product for your car! Installation of this product should only be performed by persons experienced with installation of after market performance parts and proper operation of high performance vehicles. If vehicle needs to be raised off the ground for installation, the installer must use proper jacks, jack-stands and/or a professional vehicle hoist for safety of the installer and to protect property. If the vehicle is lifted improperly, serious injury or death may occur! Please read through all instructions before performing any portion of installation. If you have any questions, please contact our tech department prior to starting installation. We can be reached in any of the following methods:

Email [Tech@PERRINperformance.com](mailto:Tech@PERRINperformance.com)

Instant Chat off the main page of [www.PERRINperformance.com](http://www.PERRINperformance.com)

Or simply call our tech team at 503-693-1702

### GENERAL MODIFICATION NOTE

Modifications to any vehicle can change the handling and performance. As with any vehicle, extreme care must be used to prevent loss of control or roll-over during sharp turns or abrupt maneuvers. Always wear seat belts, and drive safely, recognizing that reduced speeds and specialized driving techniques may be required. Failure to drive a vehicle safely may result in serious injury or death. Do not drive a vehicle unless you are familiar with its unique handling characteristics and are confident of your ability to maintain control under all driving conditions. Some modifications (and combinations of modifications) are not recommended and may not be permitted in your state or country. Consult the owner's manual, service manual, instructions accompanying these products, and local laws before purchasing and installing these modifications. You are responsible for the legality and safety of the vehicle you modify using these components.

### SPECIAL NOTES:

- It is important that many measurements are taken before any drilling occurs. Triple check everything before drilling the first hole.
- It is very helpful but not necessary to have a second person to help hold the Gurney Flap while holes are being marked.
- You will need a 7/32" drill bit to install this part.
- The slots in the part are designed to align wing level to car, not allow adjustment vertically.
- If any of the holes end up slightly off, you can always drill out the Gurney Flap slots to add additional adjustment. It is constructed of aluminum and will not rust. So there is no reason to re-paint areas where powder coat was removed.

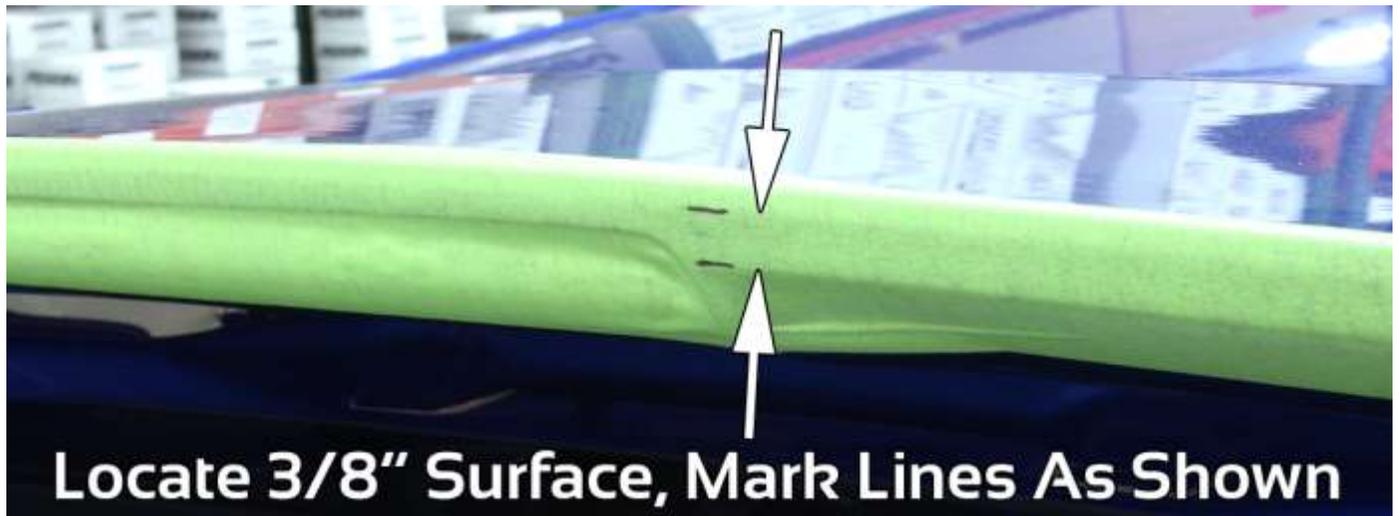
### Included Parts with PERRIN Gurney Flap:

- (1) PERRIN Gurney Flap
- (14) 8-32x1/2" Button Head Screw Black
- (16) #10 Washer Black
- (14) 8-32 Rivet Nut or "Rivnut"
- (2) 8-32x3/4" Grade 10.9 Socket Cap Screw
- (1) Rivet Nut Tool
- (1) 3/32 Hex Wrench

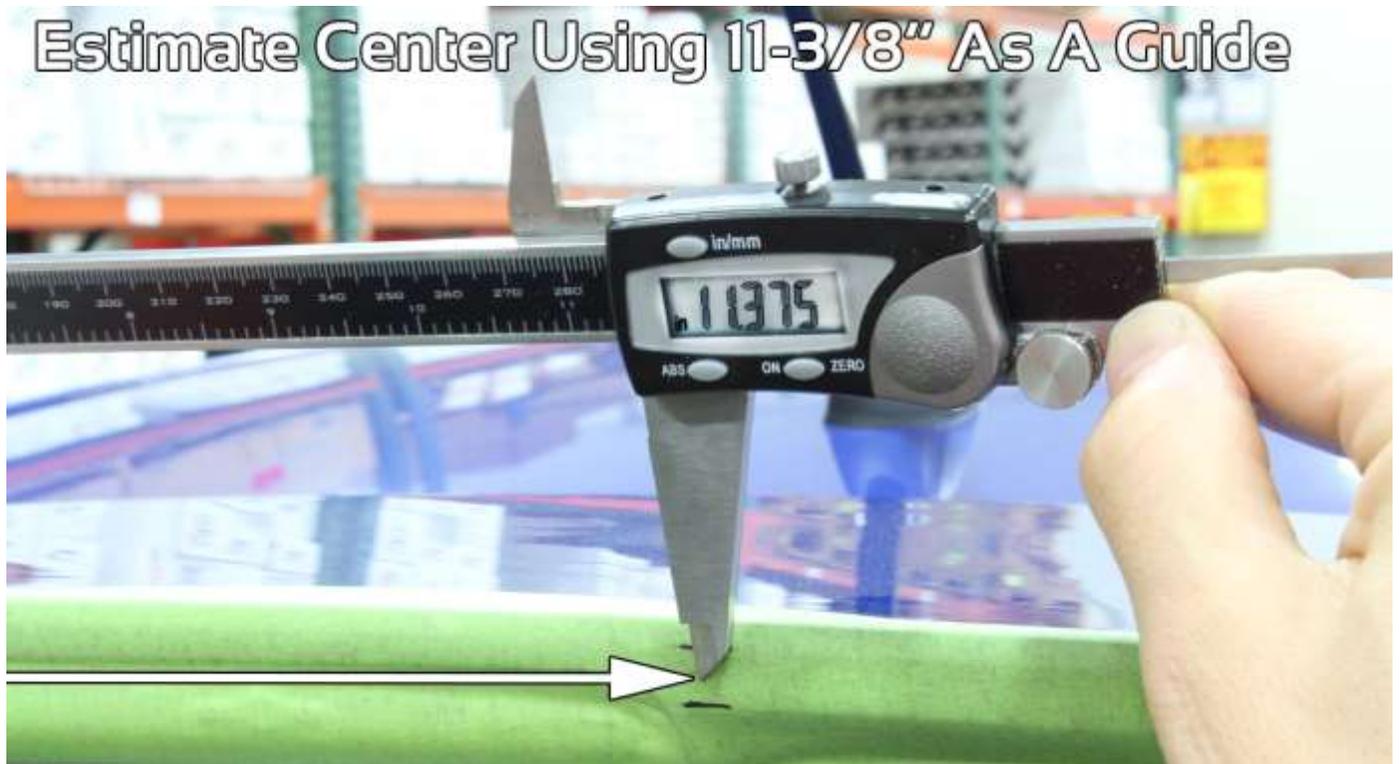


## Installation Instructions

1. Wash car or at minimum, wash rear spoiler.
2. Locate flat area (roughly  $3/8$ " tall) on wing where Gurney Flap will be installed. This is where all the holes will be drilled in later steps.
3. Apply masking tape across surface. This step allows you to protect the spoiler as well as help the flat surface stand out. **NOTE: Use tape that is at least 1" wide to help edges stand out the best.**
4. Use picture below and mark horizontal edges of  $3/8$ " surface next to the third brake light.



5. First (2) holes will need to be drilled  $11-3/8$ " apart and centered across third brake light. Use a measuring device (calipers or ruler work best) as shown below. **NOTE: This step involves estimating hole locations, take time and double check before making first hole. A tape measure can work, as well, but the hook will interfere with making accurate marks.**
  - a. If using calipers, open them up to  $11.375$ " and lock them down. Set across wing over third brake light, and center both points, indicating first hole to drill. Press sharp edges into tape to mark both hole locations.
  - b. If using a ruler, locate  $11-3/8$ " and center this over 3<sup>rd</sup> brake light. Using a pen or pencil, make a vertical mark at  $0$ " and  $11-3/8$ ".



6. Locate center (vertically) on  $3/8$ " flat surface and create crosshair indicating first (2) hole locations.
  - a. Measure  $3/16$ " down (half of  $3/8$ ") from upper horizontal mark on  $3/8$ " surface. Make a small mark on tape with pen or pencil. Double check this mark indicates center (vertically) by measuring  $3/16$ " from the bottom edge.
  - b. With cross hairs on both sides of car done, verify visually they are evenly spaced from 3<sup>rd</sup> brake light.

## Use Gurney Flap To Check Alignment



7. Before continuing, double check alignment of marks by setting Gurney Flap on wing and lining up with crosshairs. Verify that Gurney Flap sits evenly across wing and doesn't sit to one side more than the other. If Gurney Flap doesn't seem centered, stop and redo all markings above.
8. Drill a  $7/32''$  hole at each of the crosshair as shown below.

## Drill $7/32''$ Hole Halfway ( $3/16''$ ) Between Lines



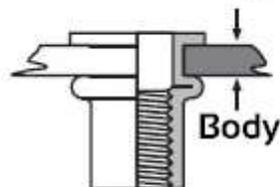
9. Remove roughly 1" of tape around both holes.



10. Install (1) #10 washer onto 8-32x3/4" bolt, apply grease to threads and under head of bolt, install bolt through small hole on supplied tool, and install supplied 8-32 Rivetnut (with flange side facing tool). See picture above.
11. Install rivet nut fully into hole on wing.
  - a. While holding tool and rivet nut tightly against wing, slowly tighten 8-32 bolt. **NOTE: You will feel some force on the wrench for the first couple of turns, then it will get much easier.**
  - b. Continue to tighten bolt (while holding the tool steady) until the turning force becomes slightly harder, and/or stops. **NOTE: During this stage, the rivet nut is compressing and biting into the wing from the inside.**
  - c. Once the bolt/rivet nut have hit this stopping point, remove screw, washer, and tool and check that flange of rivet nut is sitting flush with the wing.
  - d. Install additional Rivetnut into remaining hole.



**Rivet Nut Shown Compressed**



**Visual Representation Of When  
Tool Stops During Installation**

12. Using supplied black 8-32 screws and washers, install PERRIN Gurney Flap onto wing using both holes but leave loose.
13. Form Gurney Flap around wing and double check that it is centered and lines up as desired. Once Gurney flap is in the desired placement, snug down bolts.
14. Using the Gurney Flap as your guide, bend around wing and trace each of the next (4) slots onto the wing (still covered with tape). **NOTE: It may be nice to have a friend help, as they can bend the Gurney Flap around while you mark the wing.**



15. Remove Gurney Flap from car.
16. If lined up properly, all "slots" should line up in the middle of the  $3/8$ " flat surface, or at least be very close to lining up. If some line up toward the top or bottom a bit more, do not worry as this can be corrected.
17. Above and below each slot, mark horizontal edges of  $3/8$ " surface using pen or pencil.
18. Measure  $3/16$ " down (half of  $3/8$ " ) from upper horizontal mark on  $3/8$ " surface. Make a small horizontal mark on tape with pen or pencil. Double check this mark indicates center (vertically) by measuring  $3/16$ " from the bottom edge.
19. Estimate center (horizontally) on each slot and make a vertical mark to create crosshairs.
20. Follow Steps 8-11 to install Rivetnuts into each of the (4) holes.
21. Using supplied black 8-32 screws and washers, install PERRIN Gurney Flap onto wing using both holes but leave loose.



22. Double check that Gurney Flap still lines as desired to wing. Check that all edges have the same reveal, indicating it is centered on wing. If it lines up, snug down hardware and trace remaining (6) slots onto wing with tape still installed.



23. Remove Gurney Flap from car.
24. Create remaining (6) crosshairs by estimating center of slot.
  - a. Inner most slots (2 of them on this last step) should line up centered on 3/8" flat surface. If not, place crosshairs so they are as close to centered on the 3/8" surface as possible.
  - b. Outer (4) most slots must be far enough away from upper surface so that each Rivetnut does NOT protrude past the edge.
  - c. Example above shows that all three slots needed crosshairs places slightly lower instead of perfectly centered. In this example all crosshairs need to be place in the center (horizontally).
25. Follow steps 8-11 to install remaining (6) Rivetnuts.
26. Reinstall Gurney Flap to wing using all (12) mounting locations, but leave all hardware loose.
27. Adjust gurney flap vertically to desired location. Starting with inner 8-32 bolts, tighten to roughly 3ft-lbs torque. During this step you may find that the insert will compress a bit further, this is normal and expected.
28. After a week of driving the car, inspect all bolts to ensure they are tightened properly.

**Questions, Comments, and Suggestions Contact: [Tech@PERRINperformance.com](mailto:Tech@PERRINperformance.com)  
Visit Our Website for Instant Chat Options at [www.PERRINperformance.com](http://www.PERRINperformance.com)  
Call Our Tech Team at 503-693-1702**