

PERRIN

PERFORMANCE

Hatchback Wing Risers

2014-02-03

Thank you for purchasing this PERRIN product for your car! Installation of this product should only be performed by persons experienced with installation of aftermarket 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
Instant Chat off the main page of 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.

STOP AND READ ALL INSTRUCTIONS!!

- STEP 8 has a very important note regarding thread locker on studs that secure wing to hatch. This step is very important to understand as the OEM stud can break off compromising the installation of this part. Take great care in removing nut unscrewing it in the proper direction.

SPECIAL NOTES:

- It is very helpful to have a second person help with installation of these parts.
- The Wing Risers are adjustable in height as well as slightly front to back. Depending on the exact placement of the wing, will depend on how far your hatch will open before it interferes with the body of the car. During the initial adjustment stages make sure to adjust the cable stops enough that there is no possible way the hatch hits the body. You can always adjust these after installation is complete.
- Take care in regards to the instructions about the long sheet metal screw. If these are not followed, damage to the wing will occur!
- We recommend painting the underside of the wing if you have a light colored car. Using matte finish black paint or Plasti-Dip will look the best.

Parts Included with the PERRIN Wing Risers:

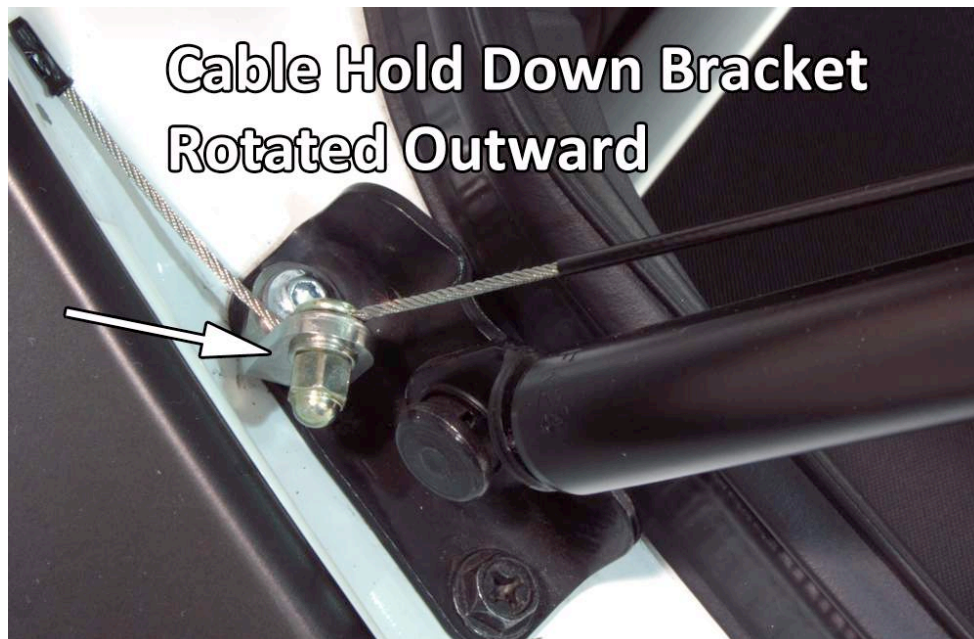
- (2) Wing Riser Outer Posts (L Shaped)
- (2) Wing Riser Inner Posts (Through Hole)
- (2) Wing Riser Center Posts (Threaded both sides)
- (2) Cable Stop Assemblies w/Brackets
- (1) 51" x 10" Matte Black Vinyl
- (2) 3" x 2" Matte Black Vinyl
- (1) Vinyl application Tool
- (24) Black Nylon Spacer
- (2) Black Cable Crimp Ends
- (4) M8x12 Socket Cap Screws
- (4) M8x20 Socket Cap Screws
- (6) M8 Flat Washers SS
- (2) M6x10 Socket Cap Screws
- (2) M6x14 Button Head Cap Screws
- (2) M6 SS Flat Washers
- (2) #14x2.5" SS Screws
- (6") ½" Split loom
- (1) M4 Allen Wrench
- (1) M5 Allen Wrench
- (6) Zip Ties

Installation of PERRIN Wing Risers

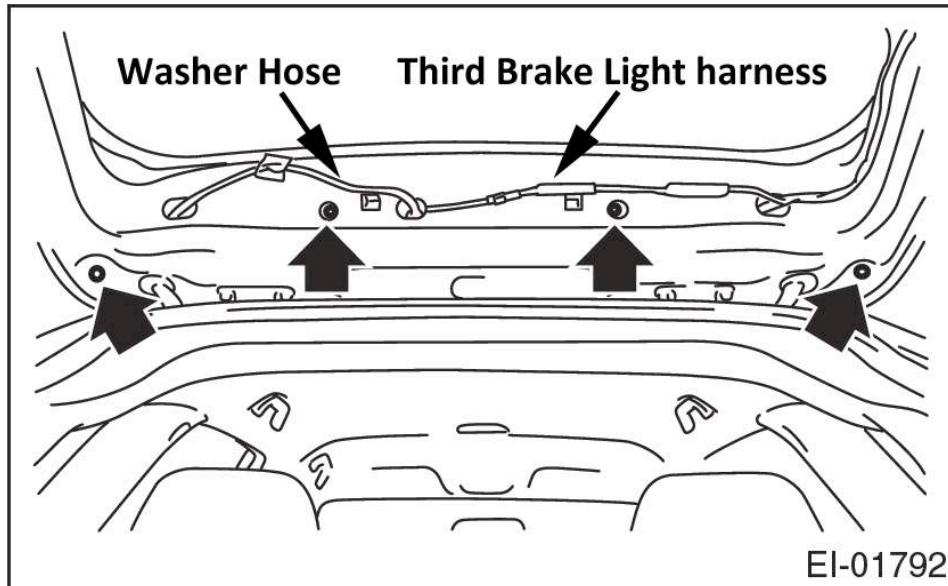
1. Lift open hatch on car and remove left upper hydraulic dampener connection from car using 12mm wrench.
2. Install "Looped" end of cable stop assembly over ball joint connection and reinstall connection to hatch tightening to 14ft-lbs. NOTE: Removing dampener will make hatch fall down slightly, so you will need to hold it up. Also because this happens, be careful to thread ball joint into the hatch straight, or you can cross thread the bolt.
3. Continue with installing remaining cable stop assembly to right side of vehicle.



4. With hatch lifted up in the air, remove (1) 10mm bolt from forward most, lower hydraulic dampener connection. Install cable stop bracket under bolt removed and reinstall supplied M6x14 button head bolt and SS washer. Before final tightening of bolt rotate bracket so it lines up with cable and hydraulic shock. NOTE: You may need to loosen cable hold down bolt in order to have cable reach.
5. Continue with installing remaining cable stop assembly to right side of vehicle.

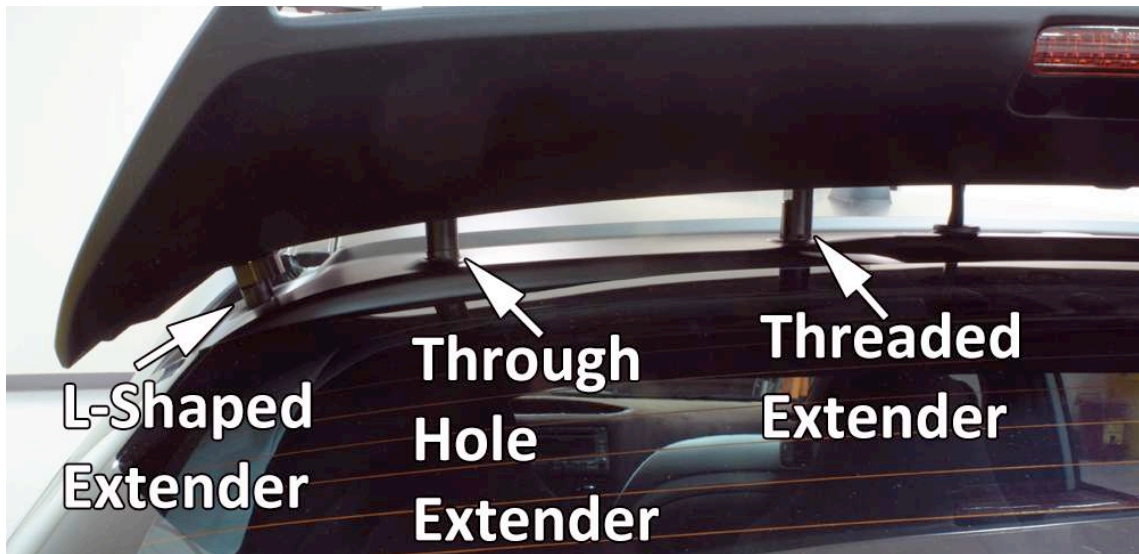


6. With hatch lifted up, remove upper plastic trim piece directly under wing. This is held on by being snapped into the hatch. A good tug starting on left side will free part from car. This is needed to expose bolts secure OEM wing to the hatch.
7. Locate windshield washer hose and third brake like electrical plug. Disconnect both and make sure they are free and clear to exit through roof after wing is removed.
8. Remove (4) fasteners as shown below. After this step there are (3) plastic fasteners holding wing to hatch, so there is no danger of it falling off.
SPECIAL NOTE: On 2011+ models inner (2) fasteners have thread locker on threads. Use a light solvent and let soak on bolt for a few minutes before removing. Also remember to unscrew bolt proper direction while working from bottom of hatch. Failure to remove fasteners properly may cause bolt failure while removing from car. If this happens, it may not allow the Wing Riser Kit to be installed properly. If this happens, please call and speak with one of our techs to determine the next best step.

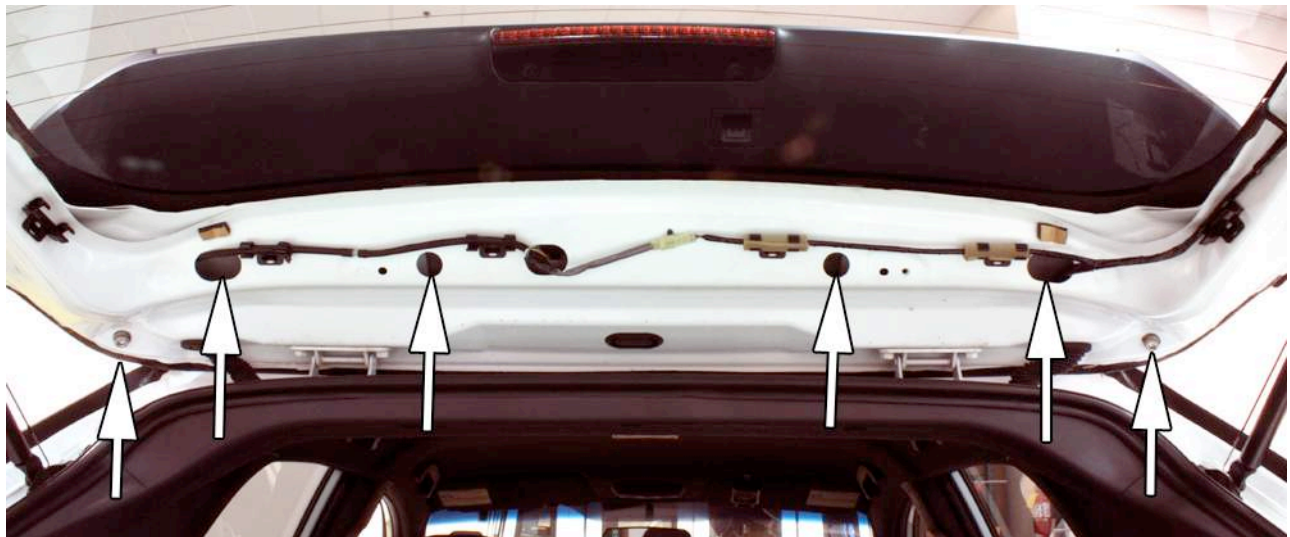


See above note regarding inner two fasteners and the potential for thread locker being used.

9. Close hatch and remove wing making sure to pull rubber grommet and wires through hatch. You must overcome the snap-on plastic fasteners holding wing to roof so some force is required to remove from car. This step is helpful to have a friend help as damage to your car can occur if wing is dropped during removal.
10. Locate and remove (3) plastic pop-it connector from wing. They need to be removed such that nothing protrudes from surface of wing. Use a sharp knife like utility knife or X-acto knife to remove. NOTE: Some cars have fittings that can be slid out. If yours has these types, slide out instead of cut them off.
 - a. At this point decide if you want to install supplied black vinyl to upper portion of hatch. This step can vary greatly depending on what you want to do. We include the vinyl strip along with an applicator tool to help make the job easier. This involves using a hair drier or heat gun to work vinyl around all the small bumps on the roof. This part of the install can be challenging if attempting to install the vinyl in one piece. Because it is hidden after the wing is installed, you can do this in sections making sure to overlap seams.
 - b. Before installing wing, also decide if you want to paint bottom portion of wing. This step can also vary, but the key is making sure you mask the area you DON'T want painted. Of all the paint types out there, a matte or flat type paint will look the best. A good choice of paint is Plasti-Dip. This is rubber based paint which looks very OEM after it's dried. This paint can be purchased at most auto parts stores. Alternatively, Plasti-Dip can be used to paint upper portion of hatch instead of covering it in vinyl. This rubber-based paint can actually be removed from painted surfaces, which makes it not very permanent.
11. Using a 3/32 drill (1/16" will work as well) drill directly in the center of the two outer plastic fasteners removed in step above. **NOTE: Make sure not to drill more than 1/2" deep or you can damage the paint on the other side of the wing.**
12. Thread one of the supplied #14 screws into each pre-drilled hole. Make sure to go at least 3/8" deep, and then remove from the hole. **NOTE: Its important to drive the screw as straight as possible through the drilled hole. Secondly it's very important you do not exceed 5/8" or this can damage the paint on the other side.**
13. Install supplied Center Posts to M6 studs sticking out of wing. Tighten these down to roughly 10ft-lbs.
14. Using supplied M6x10 cap screws, install supplied Outer Posts to outer threaded inserts in outer most parts of wing. Snug down by hand so they line up similar to picture below. These can be adjusted after wing is installed on car.
15. Open hatch roughly half way and using installed cable hold down and bracket, loosen cable hold down bolt and pull up the slack in cable and tighten down hold down bolt to roughly 5 ft-lbs. Do this for both left and right cables and brackets. If done properly your hatch will stay open halfway and not slip open.
16. Carefully set wing onto car. Start by lining up the (2) Outer Posts to the holes in the hatch. Temporarily thread supplied M8x16mm bolts through body to Wing Riser making sure to put a washer under head of bolt.
17. Locate (2) Center Posts and adjust wing until they line up with holes in hatch. Under hatch, temporarily install supplied M8x16 bolts through body making sure to put washers between head of bolt and hatch.
18. With wing still slightly loose, slide (2) Inner Posts between wing and hatch. Take supplied #14 sheet metal screw and place (1) M8 washer on head, then (4) plastic spacers. **This is a vital step to ensure you do not screw the bolt through the other side of wing!** Thread screws (and plastic spacers) through Inner Posts and into the holes drilled into wing earlier. Thread these roughly 3 turns into the wing. **NOTE: Do not go over this amount at this time!**



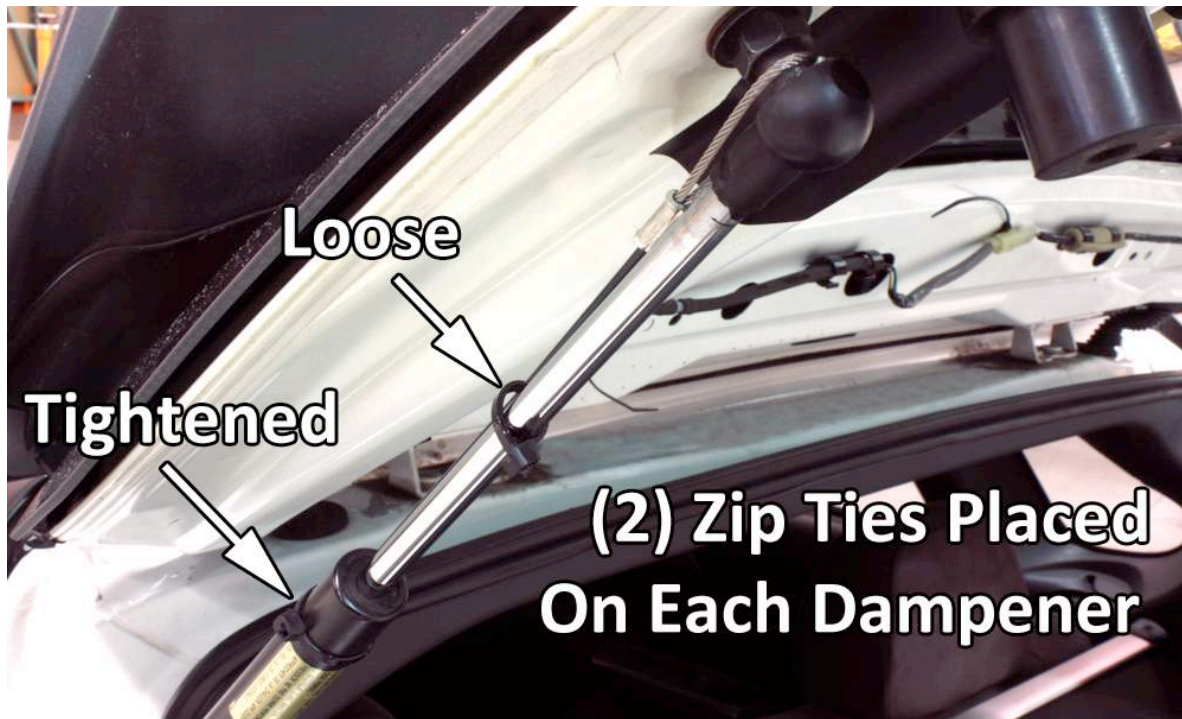
19. Close hatch slowly and completely, decided on how many (if any) spacers you want to install between the PERRIN Risers and hatch.
 - a. If more spacers are desired, starting with the left side, install one or two spacers, then work your way across the car until they all have the same amount of spacers. **NOTE: When adding spacers to Inner Post, remove sheet metal screw and take spacers from bottom of screw and place them between Inner Spacer and hatch. Make sure that (4) spacers are always on these posts, to ensure no wing damage occurs.**
 - b. After you get spacers installed, snug down all connections and close hatch. Continue with installing spacers until it's to your liking. Included are some M8x20 bolts to use if you are installing 3 or more spacers on each Post.
20. Feed third brake light plug and washer hose through center hole in hatch. Make sure align rubber grommet perfectly to hole, this will ensure no water will get inside car. **NOTE: Wires will need to be pulled through rubber grommet and out of wing body slightly. After wing is completely tightened down you will be able to tuck the wires up into wing body.**



21. Start by hand tightening Outer Post on the lower connection on both sides. Using a 14mm wrench hold the body while tightening lower connection. **NOTE: Using the 14mm wrench to twist Outer Post, you will find that you can push the wing slightly toward the back of the car. We recommend twisting the outer piece to push it back to add clearance for the roof when you raise the hatch back up. This can be adjusted later as well.**
22. Move to the Inner Posts and hand tighten Phillips head screws, then move to the Center Posts and hand tighten those as well.
23. Raise hatch to a point that there is safe clearance between wing and body. Having a second person helping during this step can make this go easier.
 - a. Carefully loosen cable hold down bolts and let some of the cable slide through. Doing this a little at a time, moving from one side to the other letting a little out here and there.
 - b. Open hatch until tip of OEM wing is roughly .25" from body or rubber molding. You may feel that its ok to let the wing touch the rubber gutter trim slightly, which is perfectly fine. Note: There is a lot of variance to how far the hatch can open depending no a few factors. Wing height, and placement front to back make a huge difference. For instance the higher the wing the more it can open. Also pushing the wing toward the back of the car can allow it to open more. Its typical to loose about 20% of the opening. You may feel that its ok to let the wing touch the rubber gutter trim slightly, which is perfectly fine.
 - c. Tighten down cable hold down bolts to secure cable and hatch. Tighten nuts to roughly 8 ft-lbs. **Take care in tighten this bolt as you can cut the cable if over tightened.**
24. Do final tightening of wing bolts. M8 bolts need to be tightened to roughly 15ft-lbs, M6 bolts tighten to roughly 10ft-lbs, and Phillips sheet metal screw tighten slightly tighter than hand tight.
25. With cable length being adjusted to desired position, cut the cable shorter and reinstall a new cable end crimp. Included in the kit is (2) extra cable end crimps for doing this. Simply put them over the wire and using a crimping tool, or pliers, crimp down on cable. This keeps cable from fraying over time.
26. Apply supplied 3"x2" vinyl rectangles to areas shown in picture. This is to protect the paint from cable rubbing over time.



27. Use two zip ties on each side as shown both hydraulic dampeners. One zip tie gets installed around body of shock and tightened. The second zip tie gets installed loose around shaft of the hydraulic dampener. Make sure to rotate the cable toward the inside of the dampener on the tighter zip tie. This is important do install this way as this keeps the cable inside of hatch when closing.



28. If zip ties are installed correctly, when hatch is closed, wire will bend toward inside of car as shown below. If you have trouble getting this to happen, put a slight bend in wire where it meets the loop. This will aid in starting the wire being toward inside of car. If you still have trouble with this, make sure that for the first 10 -20 times you open and close the hatch, the wire gets pushed toward inside of car. Since the hatch remains closed 90% of the time, you will find that over time it will start to automatically bend toward inside of car.



29. For final dress-up, spend time aligning all spacers used to each post. Simply loosen each bolt securing post to hatch and adjust until stack of spacers is straight. This can make your install look much better.
30. Using supplied split loom, cover wires and hose going from hatch to wing. There is no need to electrical tape the ends and this is used for dress up only.
31. Reinstall plastic inside hatch cover and close trunk.
32. After 1 week of driving double-check all hardware for being tight. After 1 month of driving recheck hardware and check for cables being frayed. Every 6months inspect cable for being frayed.

**Questions, Comments and Suggestions Contact: Tech@PERRINperformance.com
Visit Our Website for Instant Chat Options at www.PERRINperformance.com
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