

FS Performance Engineering

Kia Optima (2014-2015) Front Splitter Installation Instructions *Professional installation and a car lift is recommended.*

Tools Needed:

- Drill
- 1/4" drill bit
- Phillip's head screwdriver
- 10 mm wrench
- 10 mm socket / ratchet wrench
- Short extension (possibly)
- 4mm or 5/32" allen head wrench
- Sharpie (possibly)
- Masking tape (possibly)

Tools for rods: shown on separate instructions

Included in Kit:

- (1) Splitter
- -> If you purchased it online and had it shipped, it will be in 3 pieces.
- (2) Fins/flares (a left and right side)
- (19) M6-1.0 x 20mm hex flange bolts
- (2) M6-1.0 x 40mm bolts
- (2) M6-1.0 x 45mm bolts
- (4) M6-1.0 x 16mm countersunk bolts
- (4) M6 countersunk washers
- (23) 1/4" ID, 1" OD fender washers
- (19) ¹/₄" ID small washers
- (4) 1/4" lock washers
- (23) M6-1.0 Nyloc Nuts
- (2) 20mm spacers
- (2) 15mm spacers
- (4) Whiz nuts to help with installation
- (1) Pair of 12-13.75" Rods
- (4) 5/16"-18 button head bolts ($\frac{3}{4}$ ") long
- (4) 5/16" ID, 1.25" OD fender washers
- (1) Blue threadlocker

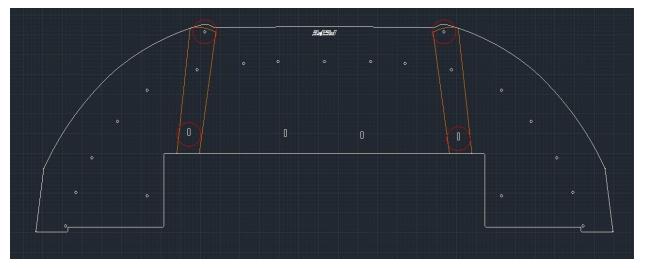


Steps:

- 1.) Raise the front of the car and secure with jack stands.
- 2.) If you have our 3 piece splitter, we recommend partially bolting it together so you can get all of the holes lined up. The center splitter sits on top. The outer pieces are below the center.

Slip 5/16" allen head bolts through the front two holes in both pieces - thread them upward with your 3/16" allen wrench; it will be tight fit. Use a M6-1.0 x 20mm bolt and M6-1.0 whiz nut to hold the rear slots together. The whiz nuts thread on a off quickly by hand.

Hole locations are circled in red!!



3.) Begin under the car by removing the two outer plastic clips/screws under the front bumper. (I'm pointing to the one on the right side of the car!)





4.) Then remove the under tray. You will no longer be using it, or its 4 bolts. Bolts are circled.

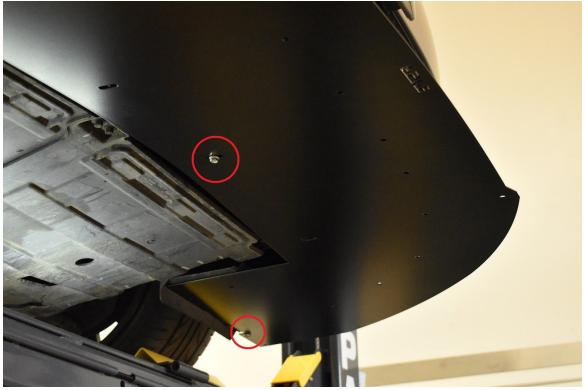






5.) Temporarily install your splitter onto the car into the outer two holes exposed from step 3. Use M6-1.0 x 20mm bolts and M6-1.0 whiznuts. Feel free to also loosely thread a M6-1.0 x 45mm bolt into one of the center slots into the car - this will help hold up the splitter.







6.) Now you can identify where the holes will be drilled along the perimeter of the bumper. There are two ways of doing it. You can either place blue tape along the underside of the bumper where the splitter holes land... OR you can drill up directly through the splitter into the bumper with a ½" drill bit. Both methods work.

We used a sharpie to mark directly onto the car, removed the splitter, then drilled out the holes.



7.) Once the holes have been marked remove the splitter. If you need to... drill out the holes. Then, locate where you want to place the splitter rods. Splitter rods come with their own instructions/recommendations. We are just here to show you where we located ours. Rods should be installed onto the bumper/car <u>before the splitter is installed</u>. The picture below shows that the rods were installed onto the car about 3 5%" from the front grill.





8.) Install your splitter. If it's a 3 piece then go ahead and install the center splitter first along the bumper perimeter. Then install the outer splitters. Use M6-1.0 x 20mm bolts pointing upward with 1" OD fender washers under the heads, and $\frac{1}{4}$ " small washers + M6-1.0 nyloc nuts on top. Tighten securely. Feel free to also remove the rear 2nd tray to gain better access above.



On the inside of the bumper:





9.) Next install bolts into the 4 slots found toward the rear of the splitter. For the outer two holes use M6-1.0 x 40mm long bolts with a lock washer and 1" OD fender washer on under the heads. Use 15mm spacers between the splitter and car.

For the inner two use M6-1.0 x 45mm long bolts with the same washer combination. Use 20mm spacers between the splitter and car.

The bolts should thread right into the car. Tighten so the lock washers close up.



10.) Use your 1/4" bit to drill through the remaining 2 holes in the splitter into the car. Install in the same manner as the bolts found around the perimeter on the bumper.





- 11.) Reinstall your rear 2nd tray if removed.
- 12.) Install your fins/flares onto the left and right sides of the splitter. The fold goes underneath the splitter. Use your M6-1.0 x 16mm countersunk bolts and washers pointing downward with an M6-1.0 nyloc nut on the bottom. (picture on next page)



13.) Install your rods into the 2 front holes. If you have a 3 piece, the rods mate the splitter together. Use the supplied splitter rods installation instructions to assure it is installed correctly.





14.) Enjoy your new FS Performance Engineering aero! Tag us & use #FSPerformanceEngineering in the online world!!



For questions email <u>costas@fspeinc.com</u> or <u>jim@fspeinc.com</u> Or call/text us at (661) 809-0954