Thank you for purchasing your Landshark Edition Active Aero kit for s550 Mustangs.

This installation manual is designed to provide step-by-step instructions on how to install the kit on your vehicle. Please read these instructions carefully before beginning the installation process.

**Note:** there is a full set of stainless steel bolts. A partial set of black bolts for the mount may also be included. The black bolts may rust due to humidity or water exposure so keep this in mind if you choose to use the black bolts.

### **Tools Required:**

10mm socket & wrench for m6 nuts
13mm socket & wrench for m8 nuts
3mm allen key for m5 screws (included)
4mm allen key for m6 screws (included)
5mm allen key for m8 screws (included)
7/16 socket & wrench for 1/4" nuts
3/16" allen key for 1/4" screws (included)
6mm drill bit for optional trunk support (included)
Body panel plug puller (included)
Needlenose pliers or similar tool
Wire terminal crimp tool

### Remove the OEM spoiler

This rubber eraser wheel tool works great for removing the OEM adhesive beneath the OEM spoiler. Make sure to use caution near the vinyl stripes. We had good luck running the wheel parallel to the stripe edge, but the safest option is to manually clean the vinyl stripes.



# **Prepare the trunk**

### Remove liner

Remove latch cover

Push the trunk open button to make sure the latch didn't get bumped Remove rubber bumpers

Release the trunk escape handle

Use the clip removal tool to pry out the 9 push clips

Tuck the trunk escape handle behind the wires so it doesn't get closed into the trunk latch.







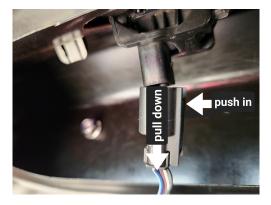




### **Support Brace**

Remove the rear camera connection. Unwrap the nylon cord from the brace. Make sure the non-taped end stays loose and accessible from the trunk. Also make sure the cord goes around the short side of the support block so that the wire pulled through will have an easy route to the center of the trunk.

Slide in the brace - keep it to the top and it will slide easier. Notice the rear panel push clip in the install path and avoid it. You can apply some WD-40 to the top and bottom of the brace to help it slide. Remove the rubber plug from the spoiler access hole. You can use the spoiler access hole to guide the brace, but keep in mind that a finger could take damage if the mount slides quickly. Align the 3 holes then insert the 70mm M8 screw to keep it in place for the next step. Lightly place an M8 nut on the screw to make sure it doesn't fall out.













### Optional airbrake support screw

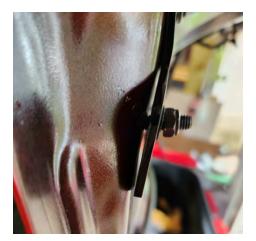
The airbrake exerts enough force to disfigure the trunklid. If you plan to use the airbrake at angles greater than 25 degrees or above 120mph, you will need to install the airbrake support screw. This only requires one 6mm hole to be drilled in the bottom of the trunk. The steps are as follows: Install the supplied weatherstrip onto the bottom of the upper mount. Locate the 60mm M6 screw and install it through the upper mount and into the internal support plate. Begin tightening the screw and as it reaches the bottom surface of the trunk, as you apply more pressure it will dimple the sheetmetal as shown. Once you've determined the dimple location, mark it so that it's obvious. Back out the 60mm M6 Screw halfway to give room for the drill bit. Install the bottom support plate using the already inserted 70mm M8 bolt and add the M8 flat washer and M8 nylon locking nut then tighten snug so the plate doesn't rotate / move. Make sure to align the dimple with the support plate hole. Using the supplied 6mm drill bit, drill the hole keeping the drill bit in line with the M6 screw on the other side. Tighten the 60mm M6 bolt so it goes through the bottom support plate and is tight to the top mount then add the M6 flat washer and M6 nylon locking nut. Tighten the locking nut so that it bends the support plate somewhat into the contour of the trunk body, but don't tighten over 60 ft lbs. Make sure to recheck and retighten this after the active aero kit has been driven at speed. You can now remove the support plate and mount from the vehicle to be reinstalled at a later step.









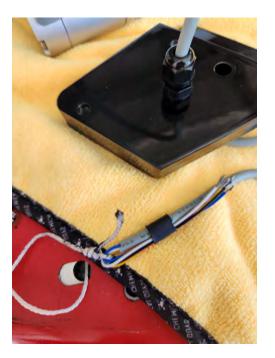


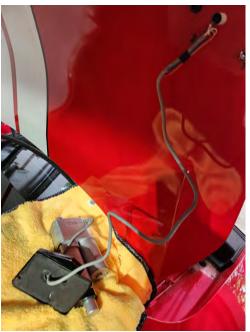


### **Actuator wiring install**

Close the trunk and lay down a cloth to protect the paint. Insert the actuator cable through the center hole of the base mount. Pull it through until about 6" remains from the actuator. Install the weatherproofing gland into the mount and tighten it to the mount but leave the cap loose so the wire can be adjusted. Pull the nylon cord through the hole in the trunk using needlenose pliers. Tie the nylon cord to the actuator wiring as shown. Move the cloth with actuator and mount to the window so the trunk can be opened. Once the trunk is opened, start guiding the cable through the hole while pulling on the nylon cord near the center of the trunk. Once the wire reaches the center of the trunk, you can remove the M8 70mm bolt used to keep the mount in place then close the lid and set the cloth, actuator, and plate near the mount holes.











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### **Upright install**

Locate 2 30mm screws, 2 lock washers, and 2 flat washers. Tighten the upright to the mount plate until the lockwashers fully collapse, making sure not to overtighten them. Install the actuator using the 1/4" nylon locking nut and flat washers and tightening very tight. Ziptie the actuator to the mount. Install the supplied rubber weatherproofing to the bottom of the upper mount plate. Make sure there is material around all of the bolt holes for proper weatherproofing. Install the assembly to the trunklid using a 70mm M8 screw, flat washer, and nylon locking nut. Make sure the flatwasher goes on the inside of the trunk against the support plate as pictured. If you performed the optional airbrake support screw install, tighten it into the upper mount very tight, then install the lower flat washer and M6 nylon locking nut. If not, install the 30mm M6 screw. Tighten all screws and nuts tight.















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### Install the wing to actuator brackets

Slide the upper actuator connection onto the rearmost hole of the bracket making sure the 1/4" flat washer is installed first. Slide another 1/4" flat washer onto the 1/4" screw and securely tighten the down the 1/4" nylon locking nut. Slide the bracket rod end over the upright M8 flange bolt and tighten securely using the M8 nylon locking nut.





# Repeat the install process for the other side so that both sides match before proceeding.

### Mount the controller

**WARNING**: be very careful when drilling holes in the trunk support to mount the controller. The drill bit can easily dimple the top sheetmetal of the trunk. Place a collar / stop on the drillbit so it can only go through the metal as far as is necessary.

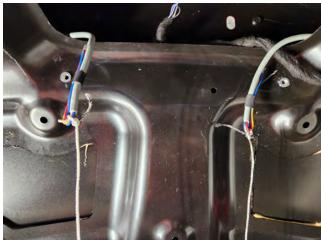
The controller needs a 12v (up to 15v) power and ground line. The switched 12v power is often run from a fusetap installed on the passenger kickpanel fusebox fuse 23 (2015-2019 s550) or fuse 25 (2020+ s550). When installing, make sure the fuse tap isn't installed backward in the slot. If it doesn't receive power, it likely needs rotated. Use a multimeter to be sure. The power line needs to be a 14ga wire to handle up to 10a over a 10' range. The ground wire can be run from inside the trunk on the chassis, just make sure to clear off any paint and primer where the ground is connected so it touches bare metal. The trunk lid itself is NOT a good ground and will not work reliably. Use the supplied fusetap and spade terminal connectors to make the connections.

If you don't mind cutting or removing your trunk liner, many users install control boxes in that location using M5 rivet nuts. Here are photo examples of the mount points. Another good location is between the package tray speakers. Make sure the box doesn't move / vibrate once installed. The magnetic GPS antenna can be placed directly beneath the top of the trunk surface using the same access hole used to install the left and right internal support braces.

The actuator wiring is connected to the controller as shown. If longer cables are needed, make sure to properly solder the new connections to reduce signal noise.

You can now tighten the weatherproof wire connector installed in the wing mount.









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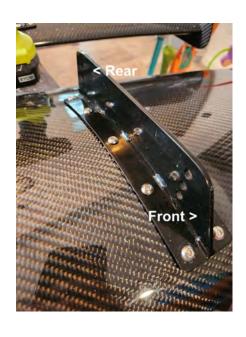
### **Controller configuration**

Launch the application and switch to the Config Aero page. The values will be 0 since there is no connection to the controller. Apply power to the controller. Once the App detects the controller, it will automatically switch to the Circuit Race page. This should take 30 seconds or less. If it does not connect, check the 12v wiring to the controller and make sure it's getting between 12v and 15v power (10a). Often the ground connection is the cause of trouble. At this point, switch back to the Config Aero and the settings should be populated. Scroll the settings to the bottom and enter the letter corresponding to the controller box that is facing the front of the car. Next set the letter corresponding to the side of the controller that faces the driver side of the car. The letters should appear in white once set properly. Make sure the trunklid is completely closed. If the car is not on a level surface, you will need to press the calibrate button again once it is level. Monitor the actuators - they should both extend 2 inches and stop. The controller will reboot once the calibration is complete and the app will return to the Circuit Race screen. At this point calibration is complete and you are ready to connect the wing. If only one actuator moves, reconnect the actuators to the controller and try calibrating again.



# Wing brackets (step not always required)

There are 20 M5 screws to install. 10 per side. Work from the front to the back. Tighten the screws 50% in the first pass. Then 75% in the second pass and 100% in the final pass. You may see small stress fractures in the gelcoat near the rivnuts. This is normal and doesn't effect performance.





# Wing install

Note: the wing isn't installed on the brackets in this photo to better show the install positions. In your case it would be installed to the brackets.

On the front - use the topmost hole and in the rear, use the middle hole.