StingRay Classic Junior Hydrofoil Installation Instructions:

WARNING: WITH ALL ENGINE INSTALLATIONS, ENSURE BOAT ENGINE IS OFF, KILL SWITCH IS DISENGAGED, AND GEAR SHIFT IS IN NEUTRAL POSITION.

TOOLS NEEDED:

- Electric Drill and 1/4" Drill Bit
- Phillips Head Screwdriver
- Saw (Optional)

INSTALLATION HARDWARE:

- (4) Nylon Lock Hex Nuts
- (2) ¼-20 x 1.0" SS Bolts
- (4) Rubber Washers
- (2) ¼-20 x 0.75" SS Bolts

INSTALLATION STEPS:

The StingRay Classic Junior Hydrofoil comes pre-assembled as one unit. If you need to narrow the gap in the hydrofoil to fit a smaller engine size follow STEPS A-C below. If you don't need to narrow the gap in the hydrofoil to fit your engine, please skip STEPS A-C, and proceed to STEP 1.

A. Remove the two screws located on the underneath side of the hydrofoil in the center so that the hydrofoil separates into two pieces.

B. The overlapping pieces of the hydrofoil are made to be removed in ¼" increments. Using a saw, remove equal amounts from the overlapping areas of each hydrofoil piece until the hydrofoil fits your engine.

PRO TIP: *The four main bolt holes that are used to bolt the hydrofoil to the engine should be located at least 3/8" from the outer edges of the cavitation plate.*

C. Re-fit the two hydrofoil pieces together utilizing the screws you removed in STEP A to tighten the hydrofoil together into one piece. It's now possible to proceed to STEP 1 below:

1. Place the StingRay Classic Junior Hydrofoil on top of the cavitation plate as far forward as possible while keeping the underside of the hydrofoil flush with the cavitation plate.

PRO TIP: *Make sure the four main bolt holes of the hydrofoil are at least 3/8" away from the outer edge of the cavitation plate before proceeding to STEP 2. If they aren't at least 3/8" away from the outer edge of the cavitation plate, you will need to go back to STEP A.*

2. Using an Electric Drill and 1/4" Drill Bit, drill through the cavitation plate using the four holes on the top side of the hydrofoil as a guide. Make sure to keep the drill perpendicular to the cavitation plate while drilling. Be sure to drill through each of the four holes in the hydrofoil.

3. After drilling, remove the hydrofoil. Place the (4) Rubber Washers around the holes on the bottom side of the hydrofoil. These fit snugly around the raised rings surrounding each hole.

4. With all (4) Rubber Washers attached, place the hydrofoil back onto the top of the cavitation plate so that it lines up with the four drilled holes from STEP 2.

5. Place the (4) Nylon Hex Nuts into the hex pockets that surround the holes on the top side of the hydrofoil. Make sure the smaller openings on each of the Nylon Hex Nuts are facing upwards and the larger openings on the Nylon Hex Nuts are facing downwards.

4. Insert the (2) ¼-20 x 1.0" SS Bolts (back holes) and the (2) ¼-20 x 0.75" SS Bolts (front holes) from the bottom of the hydrofoil, through the holes that were drilled in STEP 2, up through the holes in the top side of the hydrofoil, and into the Nylon Hex Nuts.

PRO TIP: *Place a finger on top of the Nylon Hex Nuts to keep them in place while inserting the SS Bolts from the bottom side.*

5. Tighten the Stainless Steel Bolts with a Phillips Head Screwdriver until the hydrofoil is secure.

6. Check for propeller clearance by slowly turning the propeller by hand making sure that there is no interference between the StingRay Classic Junior Hydrofoil and the propeller before operating!

NOTICE:

This product should make an immediate performance improvement in your boat/motor…if for ANY REASON it does not, then remove this product and utilize the Customer Contact Form on our website (www.StingRayHydrofoils.com) for assistance.

Any surface "flow marks" around holes that appear to be cracks are not cracks, but they are a normal part of the molding process and **do not affect the part strength or performance.**