

StingRay StarFire Hydrofoil NO-Drill 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:

- Hex Key Wrench (included)

INSTALLATION HARDWARE:

- (2) Stainless Steel Set Screws

INSTALLATION STEPS:

Proceed with these installation steps if you wish to use the NO-Drill Installation method:

1. If your engine has a torque tab installed, remove the torque tab at this time.

***PRO TIP:** If your engine uses a flat, sacrificial anode you don't need to remove it for installation!*

2. Slide the StarFire Hydrofoil onto the cavitation plate as far forward as possible. Make sure there is no gap between the end of the cavitation plate and the hydrofoil.

3. If your engine has a torque tab, re-install the torque tab at this time.

***PRO TIP:** Some engine models may require you to slip one edge of the torque tab underneath the StarFire's built-in performance bracket before snapping the rest of the torque tab back into place. Using a flat-head screwdriver to maneuver the StarFire's built-in performance bracket plastic slightly may be helpful if the fitment is tight.*

4. **Using ONLY the Hex Key Wrench and HAND STRENGTH**, insert the Stainless Steel Set Screws into the brass threads on each side of the hydrofoil, and tighten the set screws making sure the set screws engage the edge of the cavitation plate.

***PRO TIP:** The set screws are installed correctly when your hand becomes uncomfortable when tightening the set screws. However, there is **NO NEED TO OVERTIGHTEN** the hydrofoil!*

NOTE: Before and after each boat outing, be sure to check that the StingRay StarFire still has a snug fit on the cavitation plate. It may be necessary to re-tighten the set screws if the hydrofoil does not have a snug fit.

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.**

StingRay StarFire Hydrofoil OPTIONAL-Drill 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

INSTALLATION HARDWARE:

- (2) Nylon Lock Hex Nuts
- (2) Stainless Steel Washers
- (2) 1/4-20 x 1.5" Stainless Steel Bolts

INSTALLATION STEPS:

Proceed with these installation steps if you wish to use the OPTIONAL-DRILL Installation method:

1. If your engine has a torque tab installed, remove the torque tab at this time.

***PRO TIP:** If your engine uses a flat, sacrificial anode you don't need to remove it for installation!*

2. Slide the StarFire Hydrofoil onto the cavitation plate as far forward as possible. Make sure there is no gap between the end of the cavitation plate and the hydrofoil.

3. Using the two pilot holes on the underside of the StarFire and an Electric Drill with a 1/4" Drill Bit, drill through up through the cavitation plate and through the top side of the hydrofoil, making sure to drill perpendicularly through the cavitation plate and hydrofoil to ensure the best mounting installation.

***PRO TIP:** On some engine models it may be easier to use a right-angled or stubby drill to drill through the cavitation plate.*

4. If your engine has a torque tab, re-install the torque tab at this time.

***PRO TIP:** Some engine models may require you to slip one edge of the torque tab underneath the StarFire's built-in performance bracket before snapping the rest of the torque tab back into place. Using a flat-head screwdriver to maneuver the StarFire's built-in performance bracket plastic slightly may be helpful if the fitment is tight.*

5. Place the (2) 1/4-20 x 1.5" Stainless Steel Bolts in the holes on the top side of the StarFire Hydrofoil so that they are flush with the top side of the StarFire Hydrofoil, pass through the cavitation plate, and pass through the pre-drilled holes on the underside of the StarFire Hydrofoil.

8. Slide the (2) Stainless Steel Washers onto the bolts and then place the (2) Nylon Lock Hex Nuts onto the threads of each bolt.

9. Tighten the bolts using a Phillips Head Screwdriver.

***PRO TIP:** While tightening, keep the Nylon Lock Hex Nuts from spinning by holding on to them with your hand or a wrench.*

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