

MINI MONO



WARNING:

- Never attempt to swim after a stalled RC boat.
- Never operate your RC boat while standing in the water.
- Never operate your RC boat in the presence of swimmers.
- Always use a Personal Flotation Device (PFD) when boarding and operating your retrieval craft, i.e. Jon boat or duck boat.
NOTE: Because of the sharp running hardware included with this RC boat, we do not recommend a rubber blow up raft.
- RC boat running hardware is very sharp. Be very careful when working on and around the metal parts.
- While the motor is running pay close attention to the propeller. Do not come in contact with the propeller at any time the engine is running or serious injury will result.
- AquaCraft products are to be used by ages 14 and over.

INTRODUCTION & DESCRIPTION CHANGES

Thank you for purchasing the AquaCraft® Minimono! We want the time you spend with your new RC boat to be fun and successful so please fully read the manual. If for any reason you think this model is not for you, return it to your local dealer immediately. **NOTE: Your hobby dealer cannot accept a return on any model after final assembly or after your boat has been subject to operation.**

All pictures, descriptions, and specifications found in this instruction manual are subject to change without notice. AquaCraft maintains no responsibility for inadvertent errors in this manual.

ITEMS INCLUDED



- ▶ Minimono Brushless Boat
- ▶ Tactic™ 2.4GHz Transmitter
- ▶ Boat Stand
- ▶ Hatch Tape
- ▶ Extra Prop
- ▶ Extra Rudder O-Ring

PARTS NEEDED TO COMPLETE YOUR MODEL

- GPMP0500 XPD8 3S LiPo Battery Pack (1000mAh 25C)
- GPMM3318 3S LiPo Balancing Smart Charger
- AA Dry Cell Batteries (4)
- HIGHLEY RECOMMENDED: LiPo Sack (GPMP0751)

Other Battery and Charger choices:

- FPWP4115 LiPo EON-X Lite™ (1300mAh 25C) OR FPWP4146 LiPo EON-X Lite (1600mAh 25C)
- DTXP4235 DuraTrax® ONYX™ 235 Advanced Charger w/Balancing LC OR GPMM3155 Triton™ EQ AC/DC Charger

OPTIONAL PARTS

- AQUB9500 Speed Grease
- DTXR0288 1.5mm Hex Wrench
- AQUB9514 GrimRacer™ Pro Radio Box Tape
- GPMM3210 Great Planes CellMatch™

IMPORTANT LIPO PERFORMANCE AND CARE INFORMATION

To get the most performance and safety from your LiPo battery, please read and understand the following information.

CHARGING: For best performance and longest battery life, never charge your LiPos at a charge rate higher than 1C. (1000mAh = 1amp). Never charge your battery pack in the model and always place your battery in a safe charge container like a LiPo Sack (GPMP0751) or other safe charge container when charging.

DISCHARGING OR OPERATION: We have found it best to use only 80% of the rated mAh of the battery pack per discharge (boat run). You will experience rapid depletion of battery pack performance if you continue to discharge your packs below the 80% usage target. In the stock configuration and on smooth water you will find your Minimono will use around 200 to 225mAh per minute of operation during wide open operation. On rough water your Minimono will use around 180 to 200mAh per minute. Keep this in mind as you adjust your run times. **NOTE:** Your AquaCraft Minimono's Motor Controller has a stutter bump warning system that warns you of low battery voltage. This system starts its warning at or around 9.6V total, giving you time to bring the boat back to shore before the motor controller cuts off at 9V total. This is a built in safety system for you, your boat and your batteries. Although this system is in place we still recommend adjusting your run times to not exceed 80% battery usage.

STORAGE: Store your battery pack/s in a LiPo Sack (GPMP0751) or other LiPo safety container. It is also best to store them in a cool dry place and on a fire resistant surface. It is best to charge your batteries to either a full charge (if you feel you will be using the packs frequently) or at or around 50% rated capacity for longer storage.

WARRANTY SERVICE

AquaCraft will warrant your model for 90 days after the purchase from defects in materials or workmanship of original manufacture. AquaCraft, at their option, will repair or replace at no charge, the incorrectly made part. This warranty does not cover damage caused by crash, abuse, misuse, alteration or accident. To return your boat for service you need to provide proof of purchase. Your store receipt or product invoice will suffice. **IN NO EVENT SHALL THE PURCHASER BE ENTITLED TO ANY INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER RESULTING FROM THE USE, MISUSE OR INABILITY TO USE THE PRODUCT OR FROM DEFECTS IN THE PRODUCT.**

This warranty gives you specific legal rights and you may also have other rights, which vary from state to state.

Outside USA and Canada, contact local importer for warranty information.

Hobby Services
3002 N. Apollo Drive, Suite 1
Champaign, Illinois 61822
Attn: Service Department

Phone: (217) 398-0007 9:00 am - 5:00 pm Central Time M-F

SAFETY PRECAUTIONS

- ◆ **Never, ever, attempt to swim after a stalled RC boat. DO NOT get in the water for any reason to retrieve your boat. Your Minimono has flotation added to the interior of the hull. It will not sink. To aid you in retrieving a stalled RC boat you can use a fishing reel with a tennis ball tied to the end of the line. Or better yet, get yourself a small Jon boat so you can row out and pick up your boat. Remember to use a personal flotation device any time you enter your retrieval craft.**
- ◆ AquaCraft products are to be used by ages 14 and over.
- ◆ Do not touch the propeller anytime the motor is running. Pay equally close attention to items such as loose clothing, shirtsleeves, ties, scarves, long hair or anything that may become entangled in the spinning prop. If your fingers, hands, etc. come in contact with the spinning propeller, you may be severely injured.
- ◆ The speed and mass of this boat can inflict property damage and severe personal injury if a collision occurs. Never run this boat in the presence of swimmers or where the possibility of collision with people or property exists.
- ◆ Electric motors produce heat. Do not touch any part of your motor until it has cooled.
- ◆ This boat is controlled by radio signals, which are susceptible to possible interference from other R/C transmitters, paging systems, or other electrical noise.
- ◆ In the event that weeds become entangled in the propeller, stop the motor before attempting to remove them.
- ◆ If your boat should happen to stall, water currents will slowly carry it to shore. Keep in mind that the boat could be carried to the opposite shore. When surveying areas to run your Minimono, keep variables in mind such as wind direction, size of the lake, etc. It is not advisable to run R/C boats on any free-flowing bodies of water such as creeks or rivers.
- ◆ Always remove the battery pack from the boat before charging.

FEATURES & SPECIFICATIONS

MINIMONO BOAT SPECIFICATIONS:

- Hull Length:** 16" [407mm]
- Overall Length:** 18" [458mm]
- Width:** 5.5" [140mm]
- Height:** 3.25" [83mm]
- Weight:** 10oz (28.5g) less battery
- Run times:** 4 to 6 minutes
- Speeds:** Up to 25mph

BOAT FEATURES:

- ◆ Tactic TTX240 2.4GHz transmitter with TR325 receiver
- ◆ 2200kV brushless outrunner motor
- ◆ LiPo ready (3S) 20 Amp brushless motor controller with low battery warning system and battery cut off circuit
- ◆ Tough, lightweight ABS construction with square hatch opening for easy taping
- ◆ Great looking, pre-applied graphics

Other standard features include:

- ◆ Surface drive propeller system
- ◆ Water cooled motor mount
- ◆ Music-wire drive shaft
- ◆ Break-away wedge rudder
- ◆ One piece aluminum fin-plates
- ◆ Transom mounted water pickup
- ◆ 1/8" [3.2mm] prop shaft
- ◆ Two blade 30mm FRP propeller
- ◆ Transom drain plug

MOTOR SPECIFICATIONS:

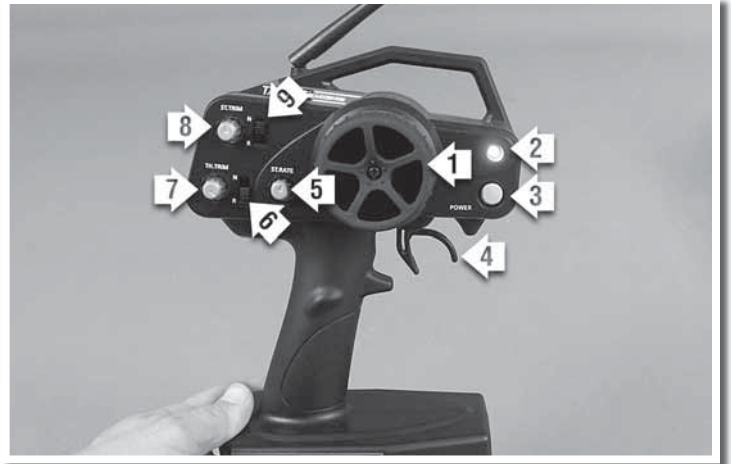
- KV Rating:** 2200kV
- Operate Current:** 1.4A, 8V/DC (without loading)
- Input:** 3-S LiPo Battery
- Max Current:** 28A/15S
- Shaft Diameter:** 3.175mm
- Motor Resistance:** 50 mΩ
- Dimension:** 27.5 x 30mm
- Weight:** 47g

MOTOR CONTROLLER:

- Rated current:** 20amp
- Battery Connectors:** Male Deans® Ultra Plug®
- Motor Connectors:** 3.5mm gold plated bullet connectors
- Wire Gauge:** 14G
- Stutter Bump Warning System:** 9.6V
- Low Voltage Cutoff:** 9V
- BEC Max Current:** 2A
- PWM:** 8K
- Dimensionx:** 45mm x 24mm x 9mm

UNDERSTANDING YOUR TRANSMITTER

1. Steering Wheel
2. LED Power Indicator
3. Power ON/OFF Button
4. Throttle Trigger
5. Steering Rate Adjustment (Increases or decreases the turning radius of the boat.)
6. Throttle Reversing Switch (Position at "R" for your Minimono.)
7. Throttle Trim Dial (Position at 2 o'clock for your Minimono.)
8. Steering Trim (Adjusts the tracking of the boat.)
9. Steering Reversing Switch (Position at "N" for your Minimono.)

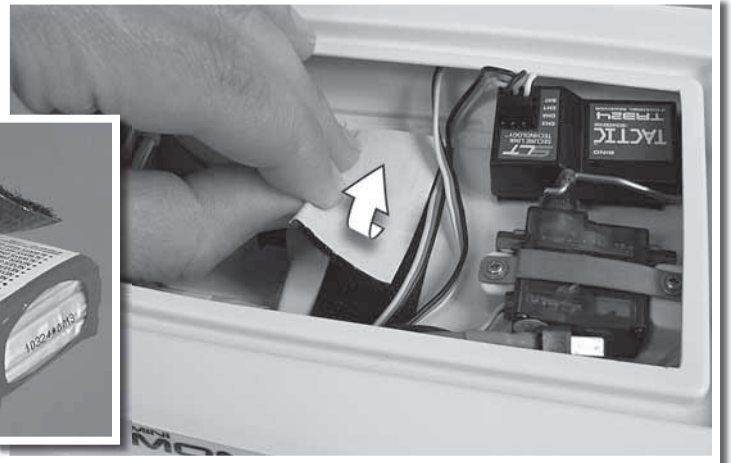
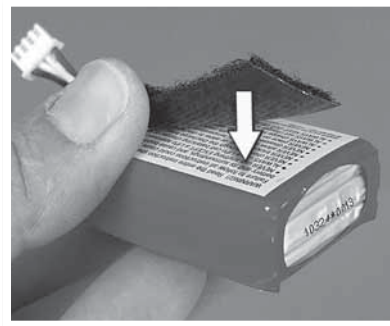


INITIAL SET UP

Install four "AA" batteries into the transmitter. Turn the transmitter on, making sure the LED is glowing bright red. If the light is flashing the batteries are low and need to be replaced.



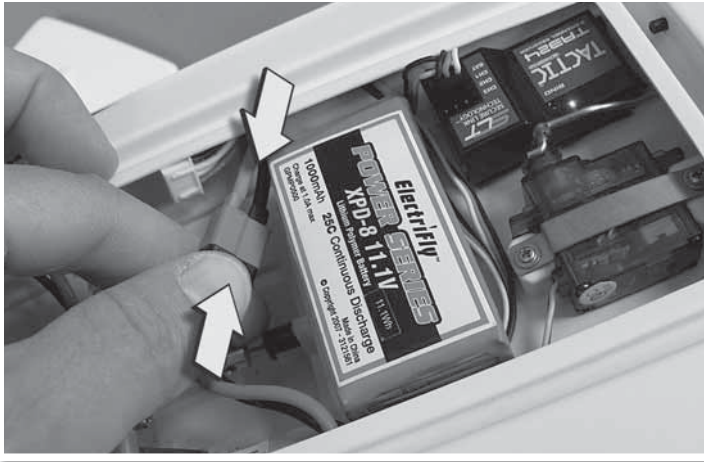
Remove the canopy and install the provided hook and loop to your battery packs.



Install the battery in the floor of the boat.



ARMING THE SYSTEM



Plug the battery into the motor controller. You will hear the motor chime letting you know the boat is powered up.
Note: The boat becomes LIVE when the battery is plugged in.

Squeeze the throttle trigger fully and you will hear 2 beeps. Relax the throttle trigger and you will hear three more. The boat is now armed ready to run. **Note:** The arming process has to be done each time you plug the pack into the boat.



Place the canopy on the boat and turn the front lock to hold it in place. Your boat is now ready for operation.

NOTE: It is best to tape the canopy closed to keep water out of your boat. For easier application of the supplied tape, you can remove the front lock. You can also upgrade to our premium tape, making tape application and removal much easier (AQUB9514 GrimRacer Pro Radio Box Tape).

REVIEW

Turn the transmitter on, remove cowl

Plug LiPo battery into motor controller ▶ «*Bee-daa-beep-beep*»

Squeeze the trigger fully ▶ «*Beep-beep*»

Release the throttle trigger ▶ «*Beep-beep-beep*»

Re-install the cowl

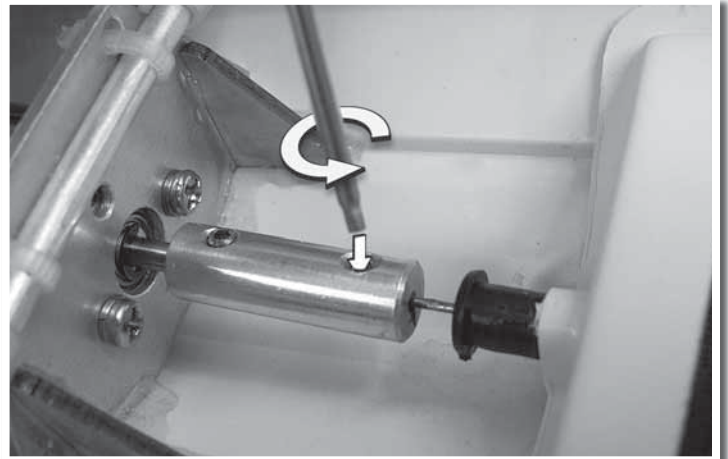
Your boat is now ready to operate!

MAINTENANCE

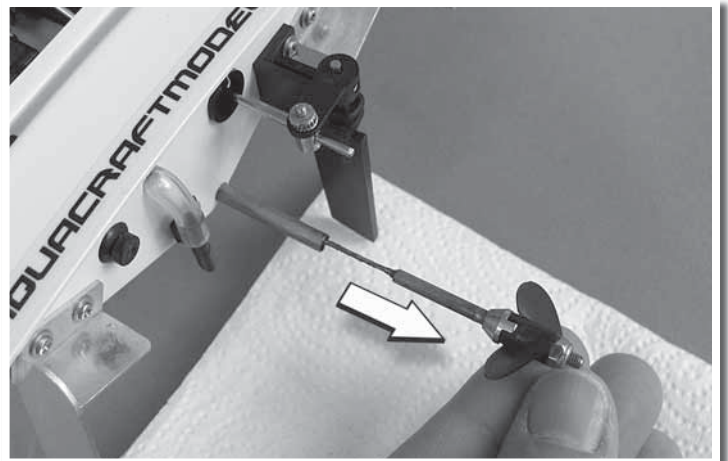
It is important to remove and relubricate the drive shaft after a day of running. Make sure the battery pack is unplugged. To lubricate the cable you will need a 1.5mm hex wrench, GrimRacer Speed Grease and some paper towels.



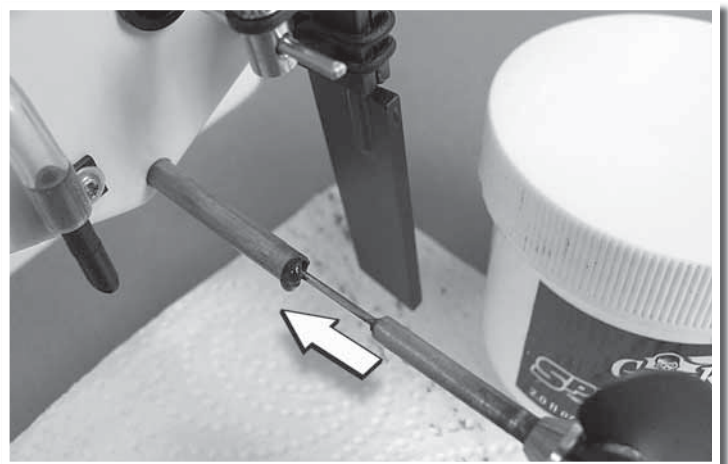
Using a 1.5mm hex wrench, loosen the set screws holding the drive cable to the motor coupler. It is important to note that there are two set screws holding the cable in position.

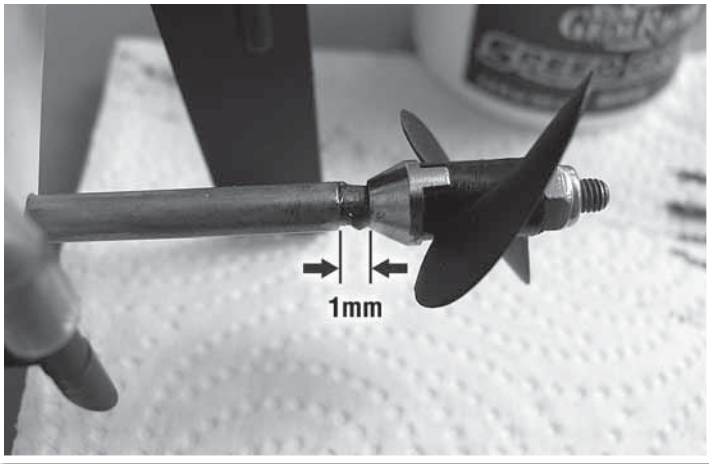


Slip the drive shaft out the back of the boat. Wipe off any grease and water that might be on the shaft.

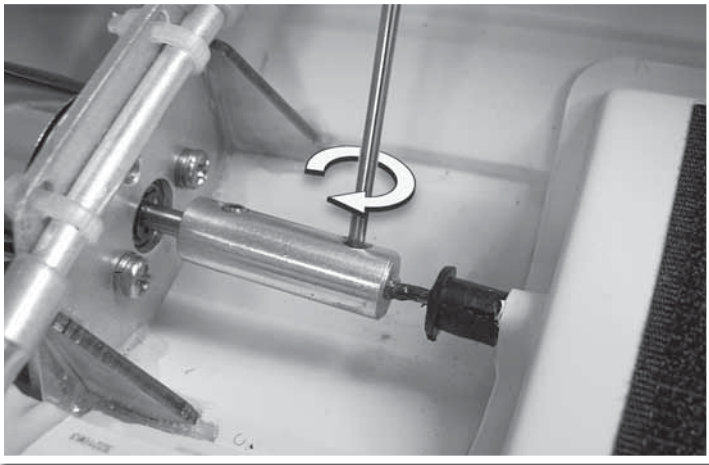


Using GrimRacer Speed Grease, apply a small amount to the shaft and slide the cable back into the boat. Be careful to align the drive shaft to the hole in the end of the motor coupler.





Leave about 1/16" [2mm] gap between the front of the drive dog and the back of the brass tube.



Tighten the set screws to hold the drive shaft in place. Do not over tighten the set screws. It is also a good idea to tighten one screw lightly and then the other. Go back and forth between screws to so as to keep even tension on the drive shaft.

PERFORMANCE TUNING

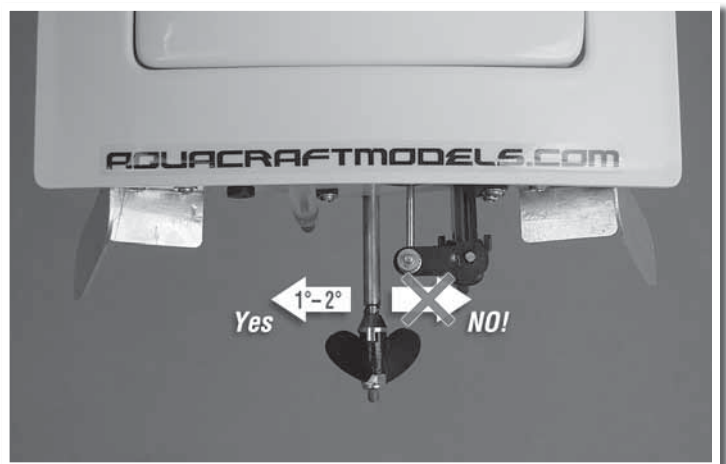
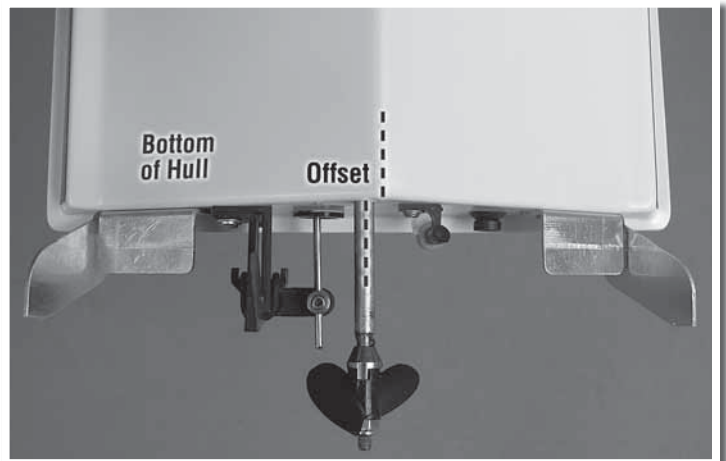
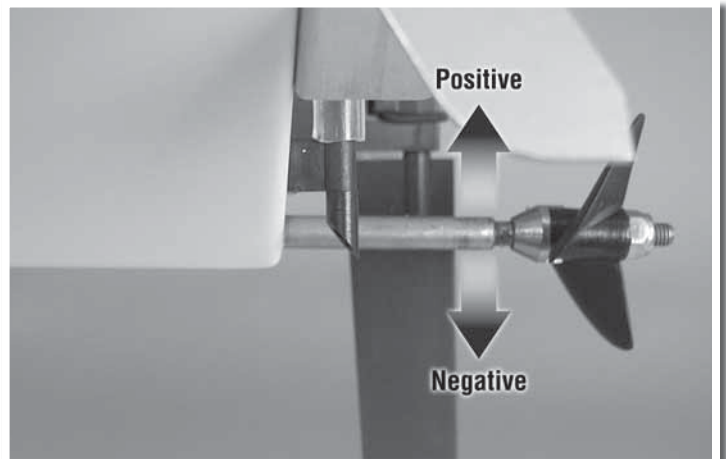
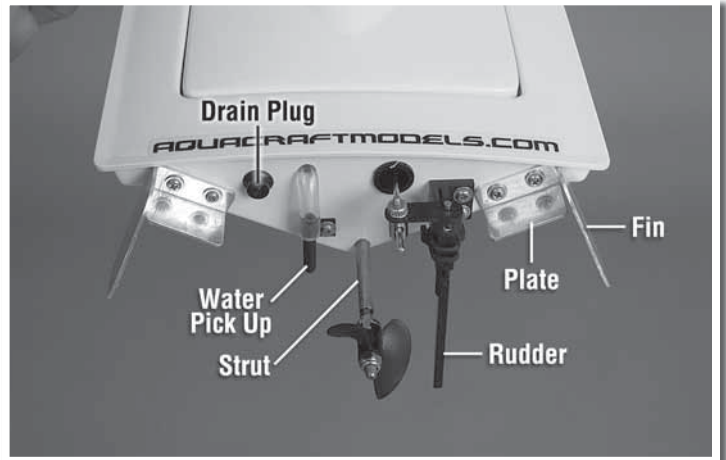
Keep in mind, as you tune your Minimono for top speed and handling, that this boat IS SMALL! Because of its size it only needs very small adjustments to change the way the boat performs.

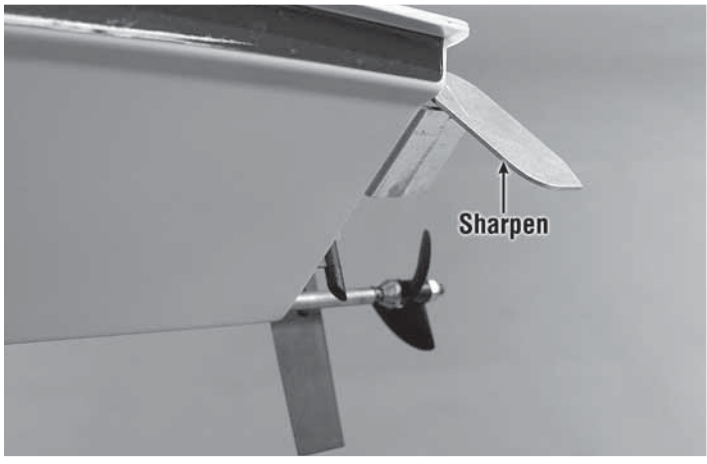
STEERING DEFLECTION: Your Minimono has VERY aggressive steering. It's important to keep this in mind as you tune it. The rudder only needs a small amount of deflection to make the boat turn sharp. Setting the rate knob too high (clockwise) can upset the handling of the boat.

STRUT: The strut can be "tweaked" to change the ride of the boat but this is somewhat advanced. If you are going to tweak the strut, remove the prop shaft and prop and slip a length of larger but tightly fitting tubing over the strut and very carefully bend it. Bending it up will remove the load from the prop and lowering it will add load.

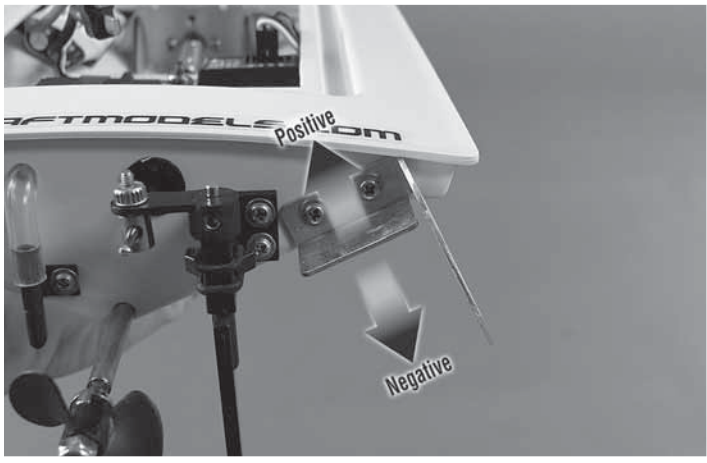
Pay particular attention to the placement of the stuffing tube (strut). You will see it's offset on the transom of the boat to the right.

Try not to inadvertently bend the tube to the right. Tweak the strut by moving it only a tiny amount. Anything past 1° or 2° could be too much!





SHARPENING: It's best to sharpen the turn fins to a razor sharp edge. This will eliminate drag and reduce lift. Remember as a rule of thumb, if it touches the water it needs to be sharp or have sharp edges



TRIM PLATES: Bending the trim plates up or down controls the ride of the boat. The trim plates help control porpoising. Porpoising is when the boat bounces up and down as it runs over the water. Keep in mind bending the trim plates down too far can have negative results, causing the boat to draw too much power and possibly damage the electronics.

ORDERING REPLACEMENT PARTS

To order replacement parts for the AquaCraft Minimono use the order numbers in the replacement parts list that follows. Replacement parts can be purchased from your local hobby shop or by mail order. If you need assistance locating a dealer to purchase parts, visit hobbico.com and click on "Where to buy". If you are missing parts, contact Hobbico Product Support at:

Phone: 217.398.8970

Fax: 217.398.7721

E-mail: productsupport@hobbico.com

AQUB6234	Cowl
AQUB6267	Wire Drive with Prop Shaft
AQUB8752	Rudder Linkage Set
AQUB7907	Motor Coupler
AQUB9281	Turn Fin Plates
AQUG7003	Brushless Motor
AQUM3530	20-Amp LiPo Controller
AQUB8742	Rudder Support Brackets
AQUB8735	Rudder Assembly Complete
AQUB8736	Rudder



RULES FOR RACING YOUR MINIMONO

To help you get involved in racing your Minimono, we put together a simple set of rules and race course guidelines.

RULE #1: SAFETY!

1. **Never, ever** swim for a stalled boat. The Minimono has foam flotation and will drift to shore.
2. Never boat alone. Besides, it is more fun to have another person running with you!
3. If you must step in the water to retrieve your boat, make sure no other boats are operating on the pond.
4. Please be careful around slippery shore lines and sharp model boat parts.
5. It's best to wear sneakers, wading or work boots when RC boating. Avoid water shoes and sandals.

HULL AND POWER SYSTEM GUIDELINES:

GENERAL:

- Only stock replacement parts are allowed and “at least” all parts that come with the boat need to be on and working.
- If any part falls off the boat from the time it's launched, it draws an instant disqualification (DQ) from that heat. If a part falls off during a race incident or crash, you will be allowed to finish the heat.
- The boat you qualify for the first heat is the boat that must be raced for all remaining heats.

WHAT YOU CAN DO TO MAKE YOUR BOAT FASTER:

1. Sharpening, scuffing and scraping your sponson ride pads is allowed.
2. Painting and detailing your boat is allowed and encouraged.
3. Sharpening, sanding, tweaking and tuning your propeller is allowed.
4. Shaping, shortening and sharpening the rudder blade is allowed.
5. If it is not mentioned here it is NOT legal for these rules.

RACING GUIDELINES:

GENERAL:

1. Call to water.
2. 15 second launch window (for safety reasons you might have to make this time longer).
3. 30 second mill time (or countdown to the “running” start).
4. 6 lap heats.
5. 5 rounds per event for a possible total of 2,000 pts (totaled from heat points). See scoring structure below.

SCORING STRUCTURE PER HEAT:

- 1st place 400pts
- 2nd place 300pts
- 3rd place 225pts
- 4th place 169 pts
- 5th place 125 pts
- DNF (did not finish) 25 pts
- DNS (did not start) 0 pts

To start the heat there will be a “call to water”. With the drivers ready and boats in hand, a 15 second launch window is called out. In these 15 seconds the boats are set in the water and ready to go. After the launch window time, the 30 second mill time begins. You may go as many laps as you like before the end of the 30 second mill time, but you must at least make one full lap around the course. **Hint!** Keep this in mind as to where you set your boat in the water. Course cutting is not allowed. Your boat must remain “on plane” for the full 30 seconds. Stopping on the course before the start will draw a DQ from the heat. The start of the race begins at the end of the 30 second mill time (countdown). Crossing the start line before the end of the 30 seconds is called “jumping the start” and any boats that did not cross early are now the front runners. Boats running must complete all 6 laps to qualify for position points. Fishtailing is not permitted at the start.

DRIVING AND COURSE INFRACTIONS:

- Cutting or striking a buoy at any time on the race course is a 50 point penalty per buoy. Cutting more than 3 buoys on the course is a one lap penalty. Course cutting at the end of the heat is not permitted. After the race is over you may ask permission from the race CD (contest director) to cut the course. If the CD finds it safe to pass a dead boat, he might allow you to cut.
- Striking a dead boat on the race course draws an instant DQ from the heat.
- Passing can be done on the outside or inside but you must allow at least one rooster tail length to overtake another boat. Intentionally taking out (crashing) a competitor's boat will draw a DQ for that heat.

***We hope you have fun racing your Minimono!
Remember, the fastest boat does not always bring home the trophy.***

Unlike full-size race boats, RC boats turn much better clockwise, due to the motor's rotation and torque. The following course has been designed with this in mind as well as the speed and size of the Minimono for maximum racing excitement.

