



Revolt 30™

AQUACRAFT®
Models

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 engine 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 AND DESCRIPTION CHANGES:

Thank you for purchasing the AquaCraft Revolt. We at AquaCraft want the time you spend with your boat to be safe, fun and successful. If for any reason you feel this R/C model is not for you return it to your place of purchase immediately. Your hobby dealer cannot accept returns on any model after final assembly or after your boat has been operated.

AquaCraft products are to be used by ages 14 and over.

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.

INCLUDED WITH YOUR BOAT:

Revolt FE Mono

Tactic™ TTX240 2.4GHz Transmitter (Performance 2.4GHz Version Only)

ABS Molded Boat Stand

PARTS AND TOOLS NEEDED TO COMPLETE AND WORK ON YOUR MODEL:

- ➔ Radio system of your choice (Receiver Ready) Rx-R™ Version
- ➔ 4 – AA Batteries (FUGP7300 Fuji AA batteries)
- ➔ LiPo Battery pack/s (See **Option Parts** below)
- ➔ LiPo battery Charger (See **Option Parts** below)

Tools and supplies available from your local Hobby Dealer:

- ➔ 1.5mm Hex Driver (DTXR0288 Duratrax® 1.5mm Hex Driver)
- ➔ 2.5mm Hex Driver (DTXR0290 Duratrax 2.5mm Hex Driver)
- ➔ 3mm Hex Driver (DTXR0291 Duratrax 3mm Hex Driver)
- ➔ 5.5mm Nut Driver (DTXR0212 Duratrax 5.5mm Nut Driver)
- ➔ 7mm nut driver (DTXR0216 Duratrax 7mm Nut Driver)
- ➔ 4mm Phillips Screwdriver (DTXR0282 Duratrax 4mm Phillips Screw Driver)
- ➔ Bearing oil (MMRC3506 Muchmore™ Bearing Lube)
- ➔ GrimRacer™ Speed Grease (AQUB9500 GrimRacer Speed Grease)
- ➔ Hook and Loop (GPMQ4480 Great Planes® Hook and Loop)

Tools and supplies available from your local hardware or home store.

- ➔ 10mm open end wrench
- ➔ 12mm open end wrench
- ➔ Water displacer (WD-40®, CRC 6-56® or Corrosion X®)
- ➔ Paper Towel

OPTION PARTS:

AQUB9768 L45x68 2-Bladed Prop (This prop has great acceleration as well as top speed.)

AQUB9514 GrimRacer Pro Radio Box Tape

AQUB6322 GrimRacer Decal Set (Let 'em know you're ready to race!)

GPMP0751 SafeCharge LiPo bag

Batteries and Chargers:

For your convenience we have listed below a few different battery and charger options. It is also important to note that chargers come in both DC and AC/DC versions. DC chargers require a 12V power supply like a 12V car battery or bench top power supply to power up the charger. AC/DC chargers allow you to plug the charger into a 120V house outlet or DC power supply, therefore making them more convenient for most charging situations.

Option 1: This is the easiest option.

Two (2) AQUB9825 GrimRacer LiPo 2S 7.4V 4200mAh 30C

OR

Two (2) AQUB9834 GrimRacer LiPo 2S 7.4V 5000mAh 40C

and

One (1) DTXP4245 Onyx™ 245 AC/DC Dual Charger W/Balancer

Option 2: More advanced but allows slightly better boat handling

One (1) AQUB9830 GrimRacer LiPo 2S 14.8V 4200mAh 30C

OR

One (1) AQUB9840 GrimRacer LiPo 2S 14.8V 5000mAh 40C

and

One (1) GPMM3155 Great Planes ElectriFly® Triton™ EQ AC/DC Battery Charger

NOTE: When using a single 4S pack, you must reconfigure the current connector system. We will show you how in the ASSEMBLY section of this manual.

WARRANTY SERVICE:

AquaCraft will warrant your Revolt 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, IL 61822

Attn: Service Department

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

E-mail: hobbyservices@hobbico.com

SAFETY PRECUTIONS:

- ➔ Never, ever attempt to swim after a stalled RC boat. DO NOT get in the water for any reason to retrieve your boat. Your Revolt has flotation added to the interior of the hull and the cowl. They 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 PFD any time you enter your retrieval craft.
- ➔ 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.
- ➔ This boat is controlled by radio signals, which are susceptible to possible interference from RF sources. It is a good idea to pre-check the system to make sure it's operating properly before you launch your boat.
- ➔ If your boat should happen to stall, water currents will slowly carry it to shore. The bad news is the boat could be carried to the opposite shore. When surveying areas to run your model, 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.

FEATURES AND SPECIFICATIONS:

REVOLT FEATURES:

Hand laid fiberglass hull and canopy
Roomy interior
Tactic 2.4GHz radio system (Performance 2.4GHz Version Only)
AquaCraft 1800 KV 6 pole motor
AquaCraft 60amp Motor Controller
Aluminum water jackets on both the motor and controller
New high-performance 25-35 GrimRacer boat hardware
Battery tray accepts many battery mounting configurations
Hook and loop battery mounting

Other outstanding features include:

High gloss painted finish
Pre-applied graphics
Brass stuffing tube
Low friction cable guide
.150" flex drive cable
Industry standard 3/16" (.187") prop shaft
GrimRacer 42x55 Metal Propeller

BASIC HULL SPECIFICATIONS:

Hull Length: 30" (762mm)
Overall Length: 33.5" (850.9mm)
Width: 9.125" (235mm)
Height less hardware: 5" (127mm)
Empty Weight: 3 lbs. 7oz

MOTOR SPECIFICATIONS:

Diameter: 36mm	Input Voltage: 7-18.5v
Length: 56mm	Max. Constant Current: 50A
Shaft Length: 15mm	Max. Surge Current: 80A/5 sec.
Overall Length: 71mm	No Load Current: 5.0A
Shaft Size: 5mm	kV Rating: 1800 rpm/V
Connectors: 4mm Bullet	Watts: 925Max
Weight: 212g	

MOTOR CONTROLLER SPECIFICATIONS:

Length: 100mm
Width: 38mm
Height: 17mm
Weight: 3.8oz (109grams)
Wire Gauge: 14g
Battery Connectors: Male Deans® Ultra Plugs® (2)
Motor Connectors: 4mm gold plated bullet connectors (3)
Input Voltage: 12-14 NiMH
4 cells LiPo
8-20V input w/o BEC)
Output Current: 60A continuous maximum
72A surge maximum
Max Output Power: 720 watts
On-resistance: 0.003 ohms
Operating frequency: 8kHz
BEC: 5.2V/2A
Stutter Bump Voltage: 12V
Low Voltage Cutoff: 11.6V
Thermal Cutoff: 110C
Timing Angle: 10°

PLEASE READ:

Notes about using LiPo batteries in your boat: The Revolt uses the AquaCraft 60amp motor controller. This controller has a built in stutter bump system that cycles the power to the motor when the battery voltage reaches 12V. This is designed to warn you of impending low battery voltage and subsequent shut down. It also has a 10.8V battery cut off safety system that shuts the power down to the motor to avoid damaging the batteries.

Having said this, as a rule of thumb we have found it best in very high current draw application like an RC boat, to not to use more than 70% of the rated capacity of the battery pack, per run. We have also found that when in doubt and using the recommended propellers you can expect to use about 1000mAh (give or take) per minute of operation. Using this you can better judge your runs knowing you're taking the very best care of your battery pack investment.

GrimRacer says: It's best to test this by making a timed 2 min run. Then charge the batteries back up and note the amount of mAh the pack allowed back in. Do this each and every time you make a prop change or any other significant change to your setup. Then adjust your driving time so you don't go over the 70% usage mark.

Also keep in mind that RC car packs (hard case) could be used. But if you get them wet, they can store water, causing the internal metal parts of the pack to corrode, and in turn causing short pack life. We highly recommend using dedicated marine LiPo packs like those in the GrimRacer Line.

RX-R™ RECEIVER-READY



RECEIVER READY (Rx-R) ASSEMBLY:

Here are a few great radios to choose from for your receiver ready (Rx-R) Revolt.

Tactic TX240 (TACJ0245): The TX240 radio system is reliable and easy to operate. It's basic but has all the necessary features to operate your Revolt.

Futaba 3PMS (FUTK2021): This radio system is very reliable and offers more operator options. We really like the timer option this radio system offers as well as the multi-model memory.

Futaba 4PL (FUTK1400): Along with great reliability, this radio system offers the most user options. It's also a great system if you want to add to your AquaCraft boat collection. This system offers 40 model memory and 10 character naming; great features to grow your boat lineup.

NOTE: This step will require working on the boat with the radio turned on and power to the motor. To prevent any possible injury, temporarily remove the propeller from the boat.



1. Mount your receiver in your boat by installing hook and loop to the bottom of your receiver. Install the receiver in the position shown in the picture.



2. Plug the steering servo into channel 1 and the motor controller into channel 2.

TURN ON YOUR TRANSMITTER.

Set the Throttle Trim to negative (clockwise if you have a dial) 25%.

If your radio has end point adjustments, check to see that your (EPA) is set to 100% both forward and reverse throttle trigger.

Then plug the batteries into the motor controller. At this time you will hear one beep letting you know battery power is working to the controller. To arm the system, squeeze the throttle trigger fully and hold until you hear one more beep. Release the throttle trigger and you will hear three more beeps. Your boat is now ready to operate.

Note: You will have to go through this simple arming procedure each time to run your boat.

If your boat does not beep after plugging in the batteries, adjust your throttle trim lower "a lesser percentage" until you hear the boat beep. Then continue the arming process.

R E V I E W	Plug in the packs ▶ «Beep»
	Squeeze the throttle trigger and hold ▶ «Beep»
	Release the trigger ▶ «Beep-Beep-Beep»
	<i>Your boat is now ready to operate!</i>

NOTE: Before or after the above, IF your boat's power system emits consecutive beeps, your throttle trim will likely need to be reversed.

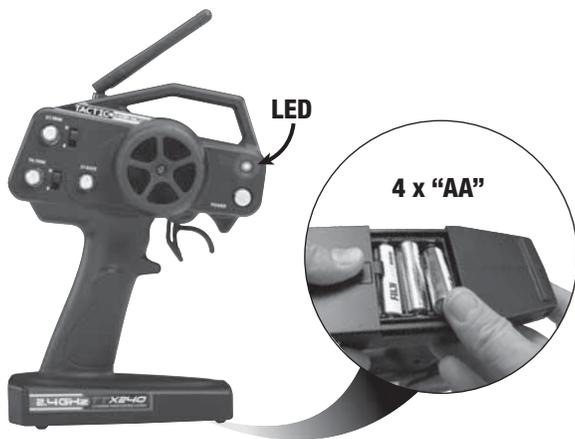
Revolt 30

START UP AND OPERATION:

IMPORTANT:

Your Revolt is a true racing boat. In our quest to provide you with the very best performance, we feel it is important to remind you that the water pickup that cools the electronics is located on the left side of the rudder blade. The reason it is mounted on the left is, in RC boat racing we take advantage of prop torque and turn left on the racing circuit (“typically this is an oval course”).

CAUTION: Constantly turning right can cause a loss of cooling to the electronics and should be avoided.



1. If you have the Performance 2.4GHz version, install 4 “AA” batteries into the transmitter using the installation pattern molded into the bottom of the battery tray. Turn on the transmitter, making sure it’s working by viewing the LED on the front. The LED should glow bright red.



2. Remove the canopy and install the batteries, making sure they are well strapped in and seated.

3. Plug the batteries into the motor controller and you’re ready to arm the system.

At this time you will hear one beep. To arm the system, squeeze the throttle trigger and hold until you hear one more beep. Release the throttle trigger and you will hear three more beeps. Your boat is now ready to operate. **Note:** You will have to go through this simple arming procedure each time to run your boat.

If your boat does not beep after plugging in the batteries, slowly turn the throttle trim knob lower “a lesser percentage” until you hear the boat beep. Then continue the arming process.

REVIEW

Plug in the packs ▶ «Beep»

Squeeze the throttle trigger and hold ▶ «Beep»

Release the trigger ▶ «Beep-Beep-Beep»

Your boat is now ready to operate!

Now is a good time to check the rotation of the prop. Power the system back up, arm it and quickly squeeze the throttle trigger and check the direction of the motor. It should spin the propeller counterclockwise when viewing the boat from the back. If the motor spins the wrong way, simply switch any two of the three wires between the motor and the controller. **WARNING:** Do not hold the throttle down for more than one or two seconds to check the motor direction or you might risk damaging the motor. Also check the steering direction. When you turn the wheel to the right the back of the rudder blade should also move to the right.

Install the cowl and tape in place. You are now ready to run the boat.

After you have completed your run, bring the boat in, un-tape and unplug the batteries. **Be careful as electronic parts can become very hot during operation. Allow the electronics to cool before running the boat again.**

TIPS AND NOTES:

The handling and performance of your Revolt can be disrupted by the smallest obstructions in the water. If you happen to pick up a small duck feather or leaf, the power system could draw more current than the motor controller is capable of handling; the performance of the boat will be compromised and you could damage the motor, ESC or batteries. Please make sure the water you are running in is clear of obstructions.

It’s also important to note that if you operate the boat for extended periods of time at less than full throttle, you could overheat the motor controller. Be mindful of this as you operate the boat.

TROUBLESHOOTING:

No signal between the transmitter and the boat (Performance 2.4GHz version):

Check to make sure the transmitter is bound to the receiver. To bind: With the transmitter turned on and the batteries plugged into the boat, press and hold the bind button on the top of the receiver (use a tooth pick or other small pointed object) for approximately 4 seconds or until the system binds. You will know it is bound when the small LED hidden behind the face of the receiver stops flashing and stays lit.

Boat runs backwards:

Switch any two of the three motor wires.

Motor Controller will not arm:

Move the throttle trim knob slowly clockwise (or a lesser percentage) to adjust the center point of the throttle system.

Boat is slow to take off:

First make sure the cable coupler is tight. If it's OK, try being more aggressive with the throttle during the launch or toss the boat forward with more force, applying power as the boat touches the water.

Boat slows down or shuts off in the middle of a run:

Check for weeds on the prop or any obstruction blocking the water cooling pick up.

After a run the motor, batteries and or motor controller are very hot:

Check to make sure the water pickup is not plugged. Check to see that the prop is not bent or that you have changed to a propeller that is too large for the power system.

HOW TO UPDATE YOUR BOAT TO USE A SINGLE 4S BATTERY PACK:

This is a little more advanced so if you are not comfortable making the changes below, DO NOT ATTEMPT this until you have more experience. The advantages, however, are worth the extra work. We are going to show you a few ways to do this.

We are going to show you three options for how to update your boat to use a single 4S pack. The advantages to a single 4S pack are a lower roll center in the boat. **NOTE:** Extreme care must be used when changing and using different connectors in your boat.

Start by unplugging the motor from the controller. Also remove the radio lead from the receiver. Remove the Motor Controller from the boat. **NOTE:** You do not need to remove the controller if following Option 1.

OPTION 1 (Easiest and still allows the use of two 2S packs):

Tools and supplies needed are:



- 1 female Deans® connector
- 1 short length of 12 or 14 gauge wire
- 1 length of large shrink tubing
- Soldering Iron (TrakPower™ TK950, TKPR0950)
- Solder, (TrakPower Lead Free Solder, TKPR0975)
- Hobby knife
- Wire cutters
- Lighter or heat gun



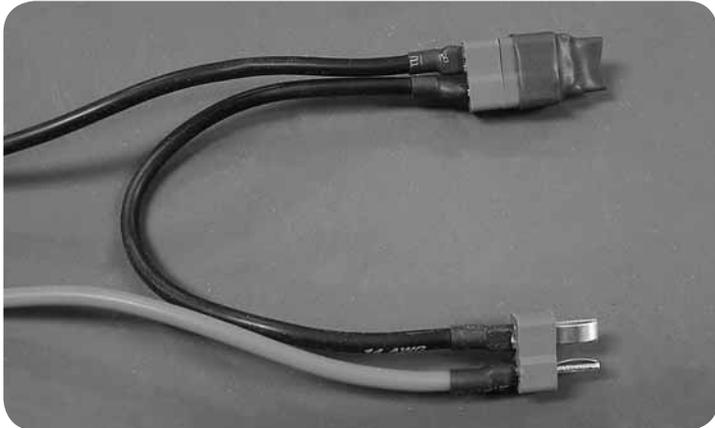
1. Begin by tinning (pre-applying) solder to both the positive and negative solder tabs on the Deans connector; also remove about 3/4" of insulation off one end of the length of wire and tin the exposed wire as well.



2. Solder the wire across the two solder tabs, creating a bridge between the two tabs. Use your side cutters to remove the excess wire.



3. Cut the shrink tube to around 1" long and place over the connector and exposed solder work. Shrink the tubing and with the tube still warm pinch the end closed.

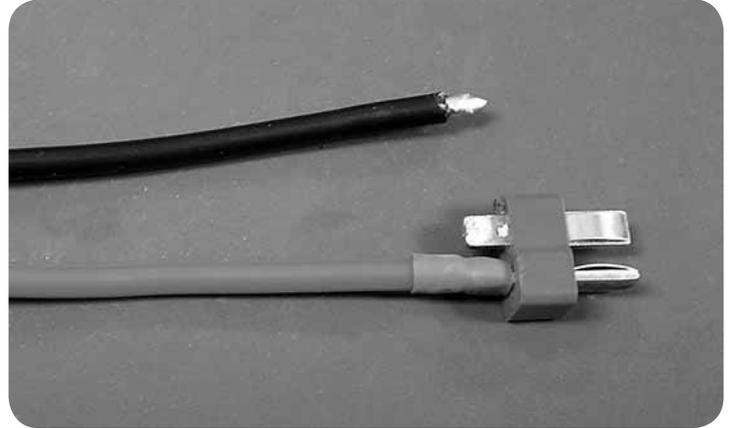


4. To use this system simply plug the adaptor into one of the two battery leads coming from the controller. When you plug the battery pack into the open connector the system will power up.

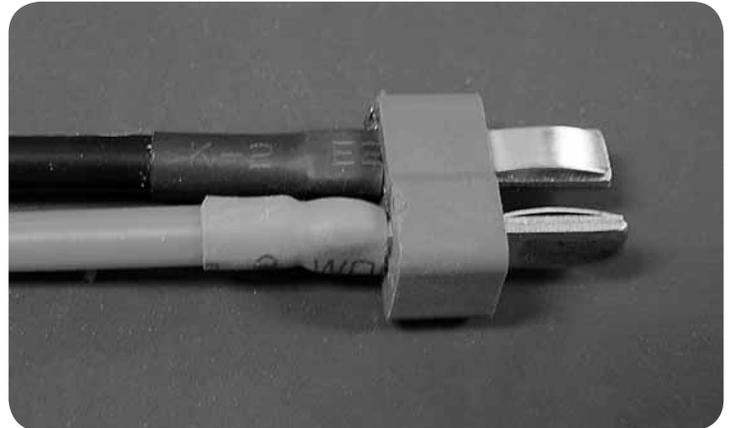
OPTION 2 (Simple to do but would require you to make an adaptor to again use two 2S packs):

Tools and supplies needed are:

- 1 length of medium shrink tubing
- Soldering Iron, (TrakPower TK950 (TKPR0950))
- Solder, (TrakPower Lead Free Solder (TKPR0975))
- Hobby knife
- Lighter or heat gun



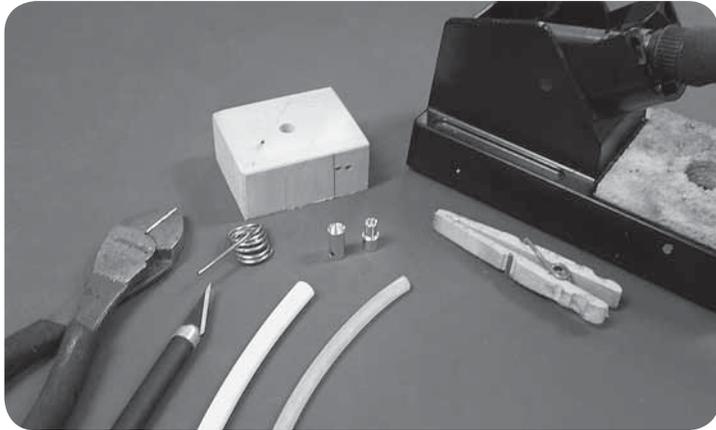
1. Start by removing the shrink tube from end of the black wire leading from the controller as well as the shrink tube leading from the black harness wire.



2. Next, un-solder the two wires leads you just exposed. Slide a length of shrink tubing over the black wire leading from the controller and solder the lead to the open tab of the still remaining connector. Slide the shrink tube in place and heat to shrink. Your system is now ready to use.

OPTION 3 (The most advanced but allows the best contact between the controller and battery pack):

Tools and supplies needed are:



- 5.5mm Bullet connectors (Castle Creations, CSEH0002)
- Soldering Iron, (TrakPower TK950, TKPR0950)
- Solder, (TrakPower Lead Free Solder, TKPR0975)
- Hobby knife
- Wire cutters
- Shrink tubing (yellow)
- 6" length of large fuel tubing
- Lighter or heat gun

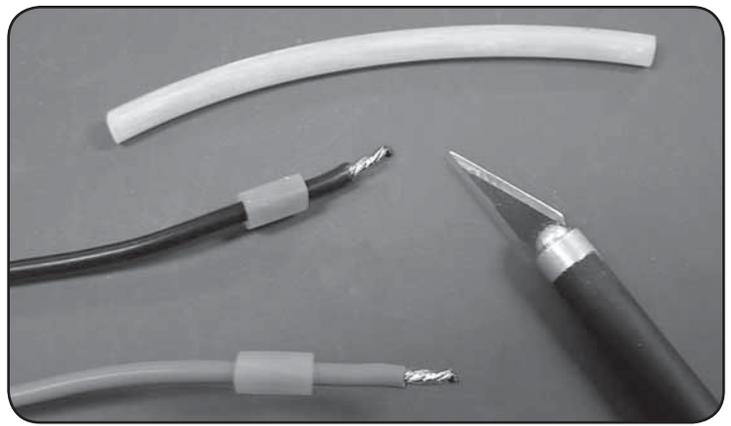
NOTE: We will be changing the red connectors for 5.5mm gold bullet connectors. If you are not willing to follow proper procedure you could damage your battery or boat. Please do not go forward with this update if you are not comfortable soldering or are not willing to follow the below procedure. Also, you are also going to need to make a charging lead to charge this battery connector configuration like the one shown.



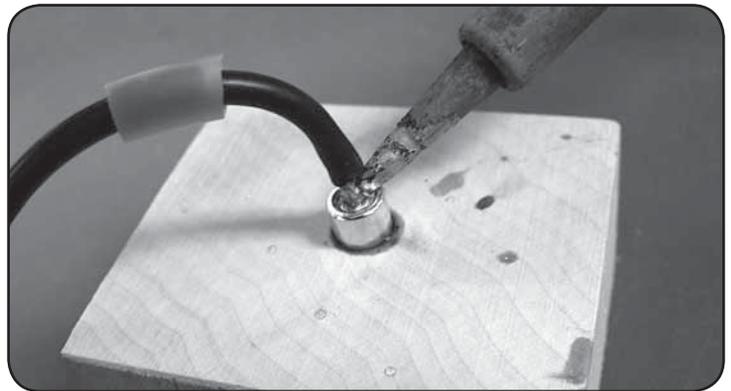
Let's get started:



1. One inch from the connector cut both the black and red wires leading from the controller. Do not cut the black jumper wire between the connectors. Set this part aside as it can be used to make an adaptor if you solder corresponding bullets to the cut wires.

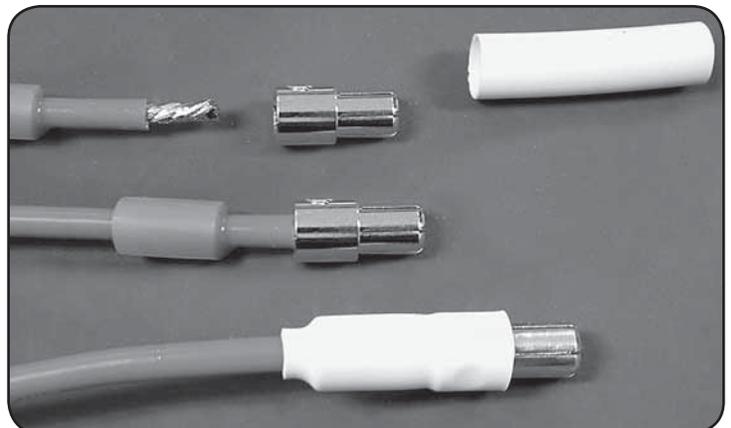


2. Cut two lengths of fuel tubing 1/2" (12mm) long and slip one over the end of each wire leading from the controller. Strip away 3/8" (10mm) of insulation from the end of each wire.



3. Tin the inside of one each male and female bullet connector as well as the end of each wire. The male connector will be soldered to the red wire (positive +) and the female connector will be soldered to the black wire (negative -). Keep in mind as we do this that order will be reversed on the battery pack.

Carefully reheat the solder in the connector and place the wire end into the heated solder. Keep a little heat on the two to make sure the pre-tinned wire has also liquefied. Remove the heat; do not disturb as the parts cool. **CAUTION:** The wire can get very hot, making it hard to hold onto. I like to use a clothespin to hold the wire as I work. I also use a block of wood with a 9/32" hole drilled in it to hold the connector as I solder, simple and effective.



4. Slide the fuel tubing up to the connector. Cut the shrink tubing so it's just a little longer than the fuel tubing plus large diameter of the connector. Heat the shrink tubing to complete the update to the controller.

We are going to update the battery pack the same way BUT... we are going to cut and change one connector at a time starting with the red (positive wire).

5. Clip the red wire close to the connector. Strip back around 3/8" (10mm) wire insulation.

6. Tin a female bullet connector as well as the exposed wire.

7. Carefully re-heat the solder in the connector and place the wire end into the solder. Keep heat on the two to make sure the pre-tinned wire has also liquefied. Remove the heat and do not disturb. Allow the parts to cool.

8. Cut the shrink tubing so it's just a little longer than the connector. Heat the shrink tubing to complete the update to the positive battery wire.

9. Repeat this step using a male connector on the black (negative wire) of the battery.

IMPORTANT!: RECHECK ALL YOUR WORK TO MAKE SURE YOU HAVE PROPERLY MATCHED THE CONNECTORS FROM THE CONTROLLER TO THE BATTERY PACK.



10. Cut a 3/4" long length of fuel tubing and slide it over the end of the connector of the back battery connector. **NOW, WHEN THE BATTERY IS NOT IN USE, ALWAYS STORE AND KEEP THIS TUBING OVER THE CONNECTOR. DO NOT REMOVE THE TUBING FOR ANY REASON EXCEPT CHARGING AND OPERATING.**

WARNING: NEVER, EVER PLUG THE BATTERY POSITIVE CONNECTOR INTO THE BATTERY NEGATIVE CONNECTOR!

Here are the battery configurations the Revolt allows. It's a good idea to use plenty of hook and loop to help hold the batteries in place.



SHAFT AND MOTOR MAINTENANCE:

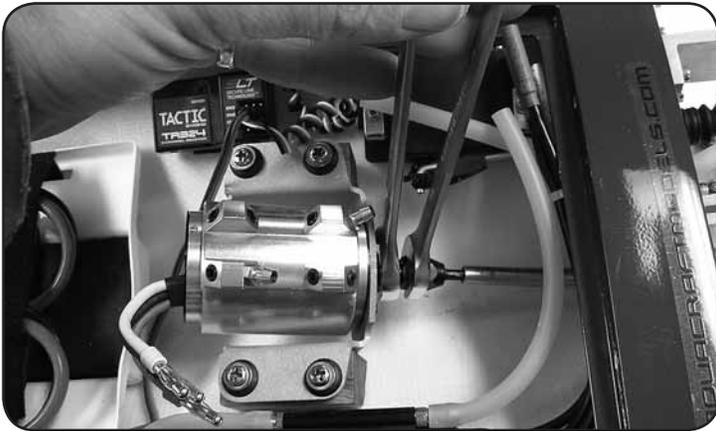
After each day of operation we feel it's best to remove the motor and flush it out with a moisture displacer and re-oil the bearings. You are going to need the following tools and supplies.

GrimRacer Cable Grease
12mm open end wrench
10mm open end wrench
#2 Phillips Screwdriver

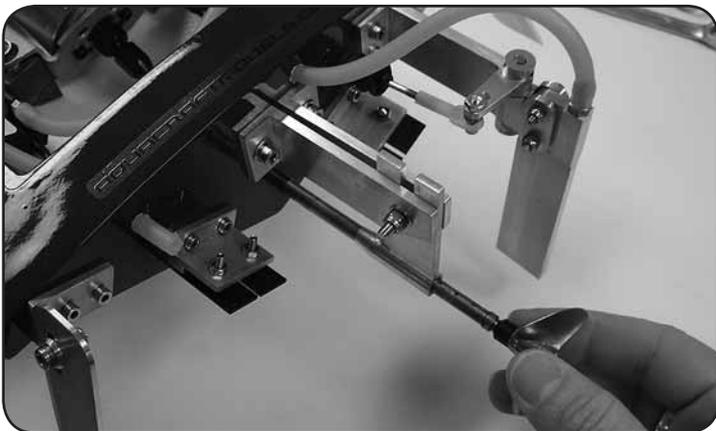
Water displacer
Bearing oil
Paper Towel



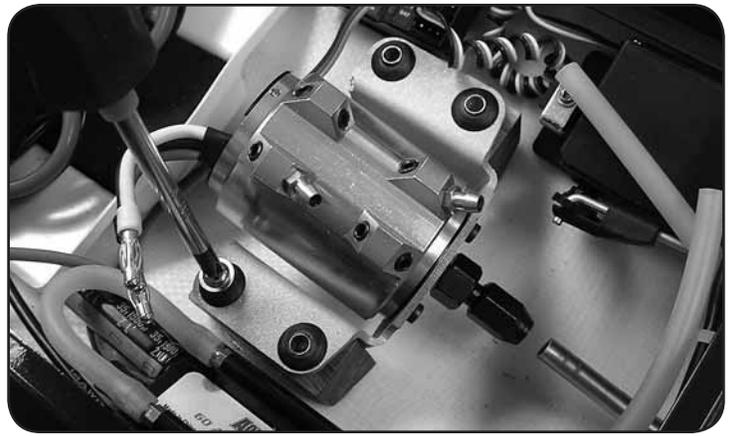
1. Start by removing the water lines to the motor jacket. Also unplug the three connector leads to the motor.



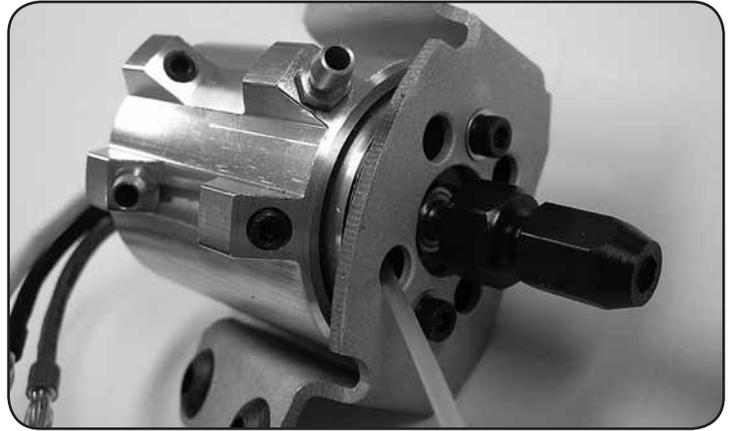
2. Use the 12mm and 10mm wrenches to loosen the cable coupler from the cable. To do so hold the 12mm wrench still and rotate the 10mm wrench counterclockwise.



3. Fully loosen the coupler and firmly pull the prop and shaft away from the coupler.



4. Use a #2 Phillips Screwdriver to remove the 4 motor pad screws.

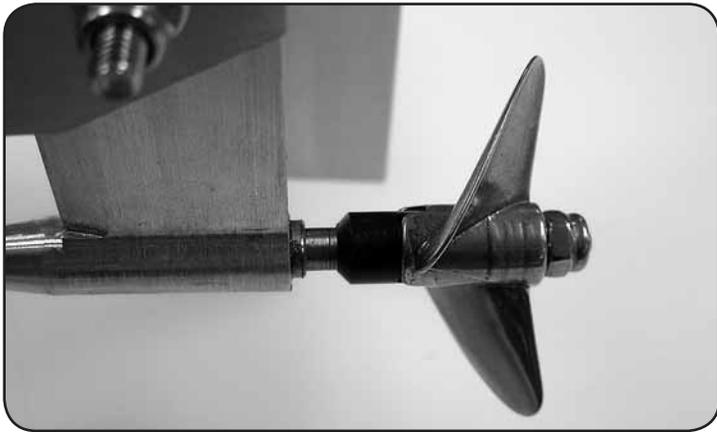


5. Place the motor in a rag or paper towel and spray a water displacer into the fittings on the water jacket as well as in the motor itself. After the motor is "pickled," wipe it down and reinstall it in the boat using the above instructions in reverse order.

After each five or so runs and or after a day of running it's a good idea to relubricate the drive cable. Here are the tools and supplies you need to complete the task.

10mm open end wrench
12mm open end wrench
AquaCraft GrimRacer Speed Grease
Paper towel

- 6.** Loosen the cable coupler using the 10 and 12mm wrenches.
- 7.** Firmly pull the prop and drive shaft out of the back of the boat. Now is a good time to inspect the bushing for excess wear.
- 8.** Wipe away any old grease and water. Apply new speed grease to the shaft and slide it back into the strut, moving it in and out as you do so to help spread the grease along the length of the cable.



- 9.** Before tightening the cable coupler make sure to leave a 4 or 5mm distance between the back of the strut and the front of the drive dog. This will keep the drive system from binding or breaking as the cable operates. Tighten the cable coupler, reversing the direction of the open end wrenches. **DO NOT OVERTIGHTEN.**

NOTE: The drive cable is supported by the brass stuffing tube which has a low friction liner. The prop shaft (or "stub shaft") is hard-soldered to the flexible drive cable and spins in a brass bushing located in the back of the stuffing tube. The bushing and liner should be replaced when they start to show wear.



AQUB7884 Prop Shaft Bushing
AQUB7869 .150" Cable Liner 10" (cut to length as needed)

At the end of the day make sure to leave the cowl off and the drain plug out overnight. This will allow any moisture that collected in the boat to safely evaporate.

TUNING TIPS AND PROP INFO:

"The Business End of the Boat"

Strut: Tilting the strut down or lowering it tightens the ride of the boat. A "tighter ride" will help stabilize the boat but at the risk of more power consumption as well as a loss of speed. It's also important to note that this "tight ride" could cause the ESC and or motor to overheat. Tilting the strut up or raising it loosens the boat ride. This looser ride allows the boat to go faster but at the risk of a blow off (the boat lifting off the water). It's best to make small strut adjustments and only make one small change at a time.

Rudder: The rudder can be tuned in a variety of ways. The most important aspect is how sharp it is or you make it. Using a flat file, sharpen the leading edge of the rudder finishing with 400 grit, then 600 grit wet/dry sandpaper. You can also gain some performance if you remove the lift the rudder makes off the bottom of the blade. You can either round or sharpen the bottom of the blade as either method works. Another important aspect is the angle front to back of the rudder blade. Tilting the rudder back and forth also changes the way the boat operates. Tilting the rudder under the boat tightens the ride while tilting it back loosens it.

CG: Adjusting the CG or center of gravity of the boat has a lot to do with how tight the boat rides as well as the how the boat "flies" as it enters and exits the water. Moving the battery packs forward or rearward is the best way to adjust the CG.

Scuffing: Scuffing is a tuning trick boat racers use to increase the speed of their boat. Scuffing involves dulling the area/s of the boat that touch the water as the boat is running. We like to use a red scratch pad like the ones you find in the paint section of your local home supply store. Scuff the bottom of the boat to the point the shine is removed from the paint. While this tuning trick is mostly geared towards the hard core boat racer, sport runners can benefit from this as well. **WARNING:** GrimRacer says if you scuff the boat and don't like the way it looks, don't come running back to me for a new hull. I'm just trying to help you win some races so don't shoot the messenger! Now let's go racing!

Props: About the best we can do is help guide you to a better performing prop. Ultimately how you drive and tune your boat will determine the best prop for your racing program. Having said that, we have found the GrimRacer 42x55 (AQUB9725) is about the best overall prop for your Revolt. It is also advisable that you balance your propeller when it is new and check it for balance periodically. If you want to learn more about tuning props check out some of the **How to Balance Your Propeller** link at aquacraftmodels.com.

RACING:

Your Revolt was designed to fit into boat IMPBA and NAMBA P class racing. What you will find is power systems designed for this boat and others like it making their own class called P-Spec. This boat fits into the P-Spec Mono racing class. Check the websites listed below for information and places to race your Revolt.

NATIONAL ORGANIZATIONS AND ONLINE HELP:

www.impba.net

www.namba.com

www.ampba.asn.au

www.aquacraftmodels.com

www.inlthwaters.com

www.rcgroups.com

www.rcuniverse.com

ORDERING REPLACEMENT PARTS:

AQUB6236 FRP Cowl Blue

AQUB6237 FRP Cowl Red

AQUB6238 FRP Cowl Silver

AQUB6239 FRP Cowl White

AQUB7759 4mm Stainless Steel Prop Nut

AQUB7910 Motor Mount

AQUB8002 .150" Flex Drive Cable

AQUB8003 .187" Prop Shaft Bushing

AQUB8753 Rudder Blade

AQUB8754 Rudder Bracket

AQUB8755 Rudder Blade Mount

AQUB8756 Rudder Control Arm

AQUB8757 Rudder Back Plate Mount

AQUB8758 Rudder Linkage

AQUB8782 Servo Mount 40mm

AQUB8808 Strut 25"-35" Hulls

AQUB8810 Strut Mounting Brackets

AQUB8811 Strut Back Plate Mount

AQUB9004 Low-Friction Cable Liner

AQUB9541 GrimRacer CF Trim Plates

AQUB9542 GrimRacer Rudder Assembly

AQUB9543 GrimRacer Mono Strut

AQUB9544 GrimRacer Mono Turn Fin

AQUB9545 GrimRacer Motor Coupler 5mm-.150"

AQUB9547 .187" Drive Dog

