

Arrow Shark 2020

RC Boats Assembly & Performance Tips

Instructional Manual



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Safety Precautions

It is vitally important that you read this manual thoroughly to obtain the correct set-up and the safest, most rewarding operation of your Arrow Shark RC Boat. Please study the manual carefully before attempting to work on or operate your boat.

- * This is a high performance radio controlled boat - it is not a toy. Adult supervision is required for children who should be warned about the dangers of playing with gas engines, fast spinning propellers and of being in close proximity to water.
- * This boat is controlled by radio signals which are susceptible to possible interference from other transmitters, paging systems and other sources of electrical noise. Before turning on your radio transmitter and receiver, make sure that no one else in the area is operating a radio on the same frequency (channel).
- * After turning on your radio, watch it carefully to ensure that it is operating correctly and not being affected by interference. Carry out a range check as advised by the radio manufacturer to ensure you will be able to maintain control of your boat at your planned maximum operating distance.
- * Always fit a "Fail Safe" device so that your engine is stopped should the radio encounter interference, go out of range or have its battery go flat. Some radios have inbuilt Fail Safe systems, but others do not. They can be purchased separately at any good hobby shop.
- * When the engine is running, the propeller can spin at high speed. Never touch the propeller anytime the engine is running. Be very careful that any item such as loose clothing, shirtsleeves, ties, scarves, long hair or anything else does not get anywhere close to the propeller, even when it is stationary. If the clutch engages, the propeller can start to spin without warning and loose clothing etc can become entangled and cause injury.
- * 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.
- * Model engines generate considerable heat. Do not touch any part of your engine until it has cooled. Touching the cylinder head or any part of the exhaust system may result in a serious burn.
- * Gasoline is poisonous. Do not allow it to come into contact with the eyes or mouth. Always store fuel in a clearly marked container and out of the reach of children.
- * Gasoline is extremely volatile. Never allow naked flame or any possible source of ignition near your boat. Be very careful when re-fuelling your boat.
- * This boat is set up to racing standards. If you are starting from scratch at driving a fast boat, get a more experienced driver to take your boat out for the first few times. When you are initially going faster, do so on clear waters away from other boats and with your more experienced driver close by to give advice and support. If you don't know an experienced driver, find an RC Boat Club in your area and join up. Most clubs welcome new members and nearly always have experienced drivers who will help you. It's more fun running your boats with others too.

Boat Stand Assembly Guide

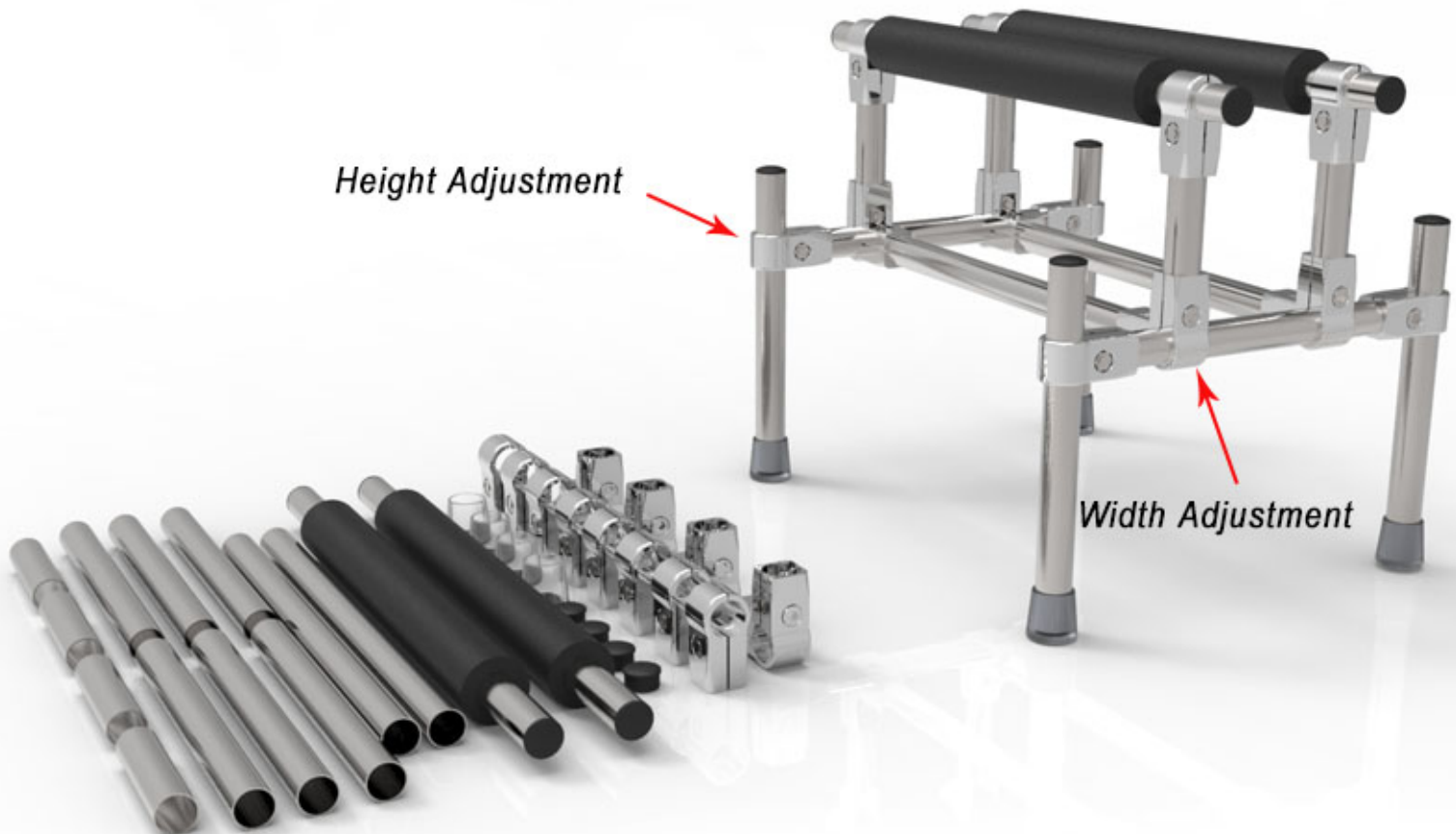
All Arrow Shark 2020 RC Boat Packages Come With A Heavy Duty Display Boat Stand In Unassembled Form, You Will Need To Assembly It When Your Receive Your Boat, This Assembly Is Quite Easy, Therefore, We Do Not Provide The Detail Instruction Here For The Procedure of Boat Stand Assembly, Just Reference To The Finish Boat Stand Pictures Below, You Can Have It Easily Done!

Mono Stand



All-Rounder Stand

Suits for Cat, Hydro, and Tunnel Hull



Transom Drill & Drive Installation

The Arrow Shark 2020 RC Boat packages available in two formats, the un-assembled kit version and assembled RTR version, for the un-assembled kit version, we will provide you a laser cut drilling template according to the boat package you purchase to simplify the holes drilling for the easy transom hardware installation. or you can drill the holes according to your own boat set up plan.

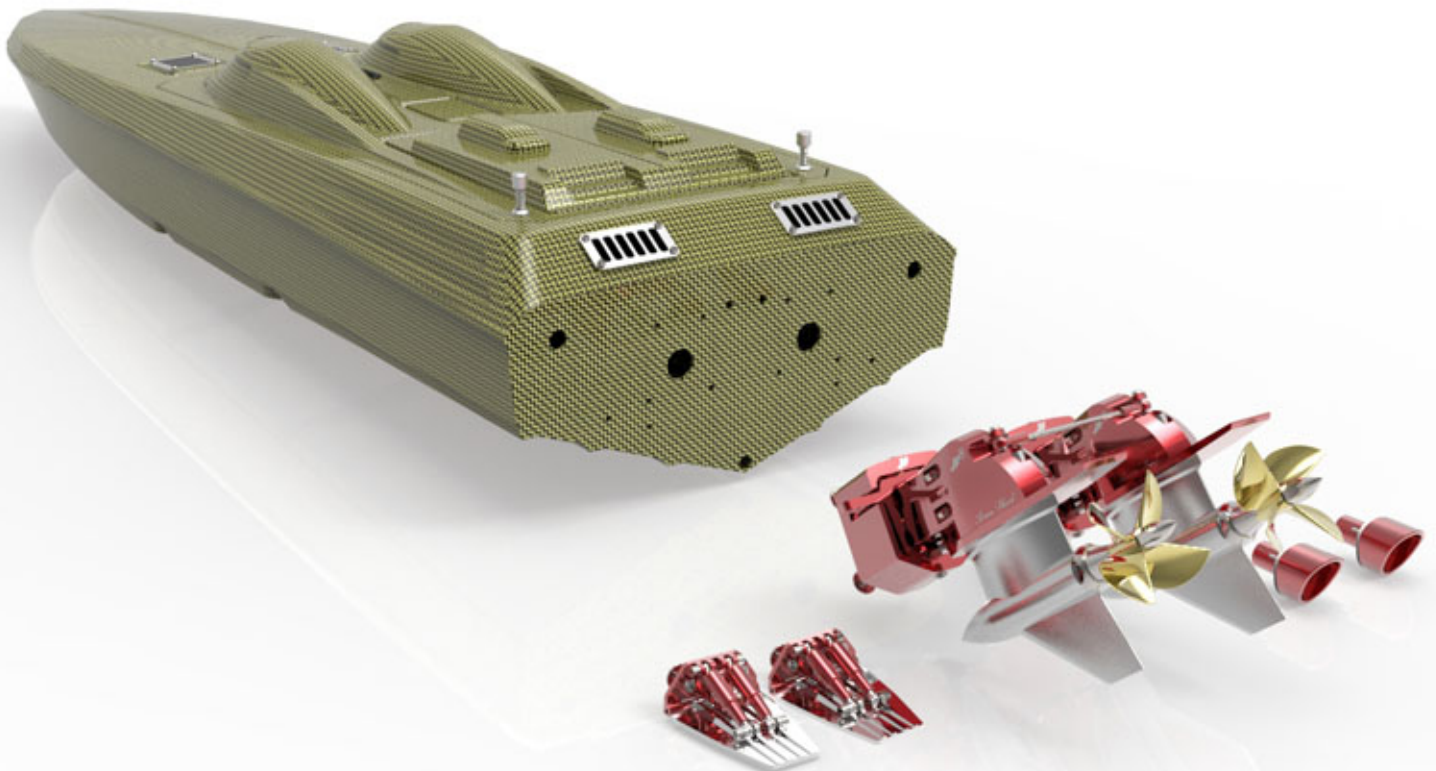
A transom reinforcement plate also included within package to install inside of the transom by using epoxy adhesive before drill the holes.

Drilling Template

Transom Reinforcement Plate



For the assembled RTR version, we will drill all installation holes in the transom for you, but, you will need to install all the transom hardware when you receive the boat, because if with all hardware installed on the transom, the shipping cost would get much higher because the size of the packing is larger, plus, with the hardware in the transom, the chance of the boat getting damage during transportation will be much higher as well, however, it won't be difficult to install the hardware back to transom with its original holes.



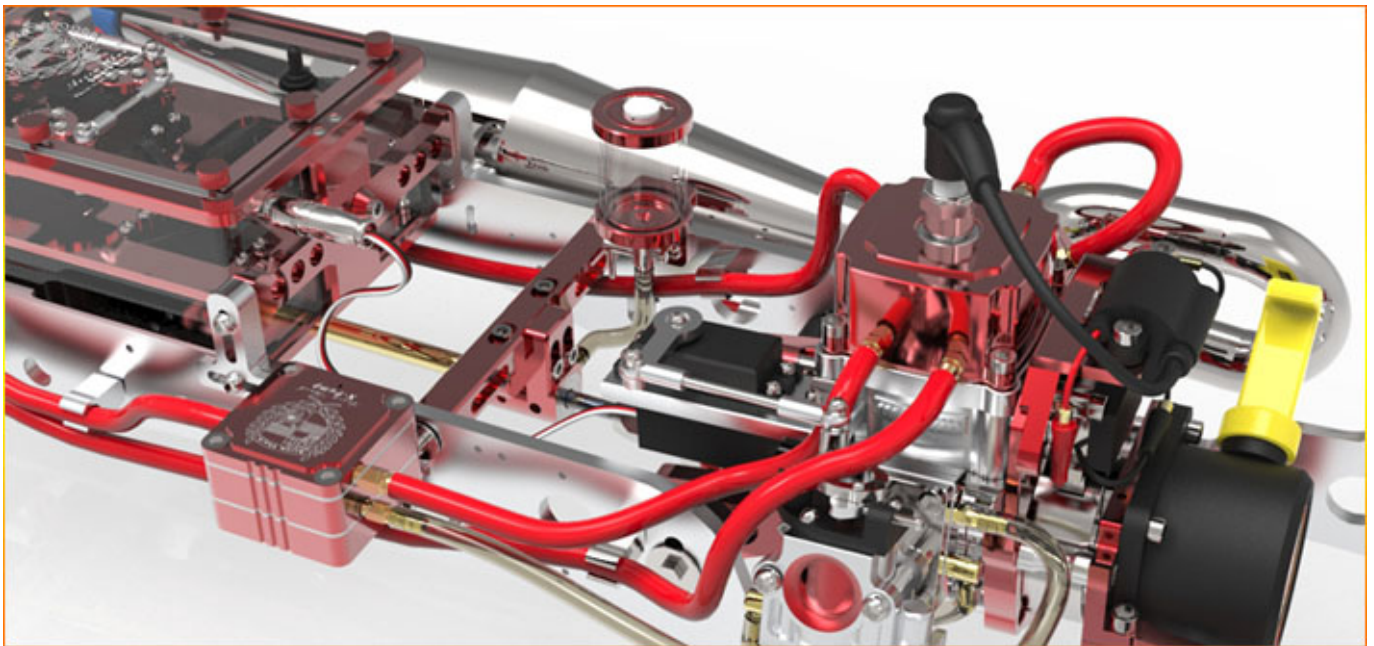
Transmitter Set Up



Please note that we do not include radio systems in our RC boat packages as most modelers already have their own preferred RC system. This approach also saves the extra cost that the radio would incur. However, we do include both throttle servo and steering control servos in Hi-Torque Metal Gear version with all of packages, This servos are in standard size, yet they have all the power you need for precise control of the steering and throttle system at high speeds.

All you need is to provide your own preferred transmitter and receiver, we do recommend customer to equip a well quality of three or four channel of 2.4GHz RC system with built-in function of fail safe to avoid the boat out of control during lost signal.

Trimming Your Throttle Function



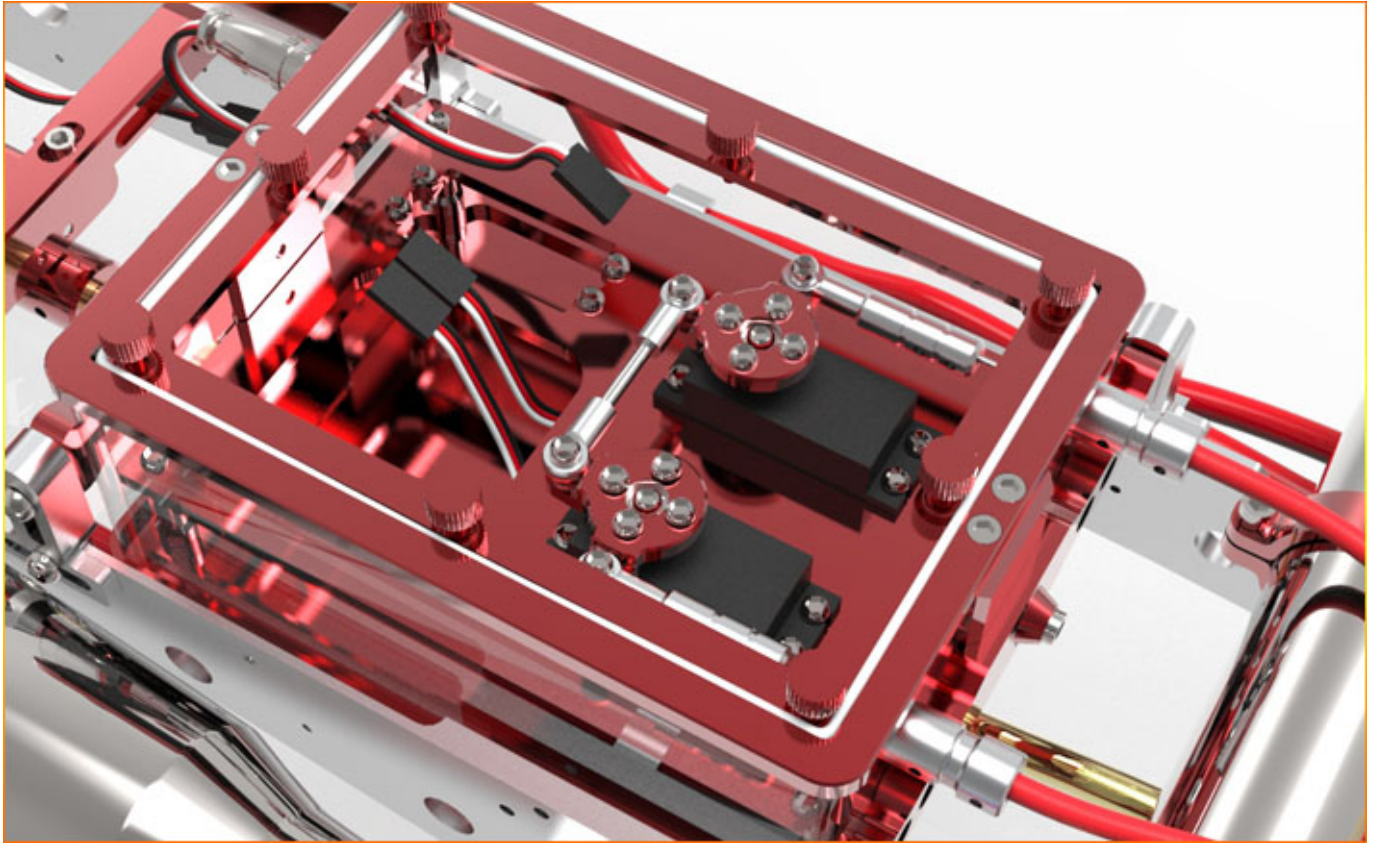
The Arrow Shark X-30 or X-60 Marine engine come with integrative metal gear servo installed for the throttle control, just simply connect the servo extension wire to your receiver in throttle slot. Adjust the push-rod so that the carburetor is fully open at full throttle and at a reliable idle when the throttle is at neutral. You can adjust your throttle linkage with the push-rod ball joint connector. You may need to adjust this linkage when you first start your engine.

Note: It may take some trial and error with both the pushrod and your radio trim and "EPA" (End Point Adjustment) functions, but you need to end up with the throttle linkage set so that:

1. The engine idles reliably, but not too fast, when the transmitter trigger is at its neutral position.
2. When you pull the trigger fully open for high speed, the servo movement should fully open the carburetor barrel hole.
3. When you push the trigger fully closed, the engine must stop.

Note: For your first runs we recommend that you set the throttle barrel to open no more than about 3/4 of the way rather than fully open even when your transmitter trigger is at its full speed position. This will help you correctly run in your high performance X-30 or X-60 Marine engine. After having set up the throttle linkage as described above, use the "EPA" function in your transmitter to restrict the throttle from opening more than 3/4 of its full movement. After the engine has been fully run in, you can reset the "EPA" for the throttle butterfly to fully open for top speed.

Trimming Your Steering Function



Y Type Extension Servo Wire

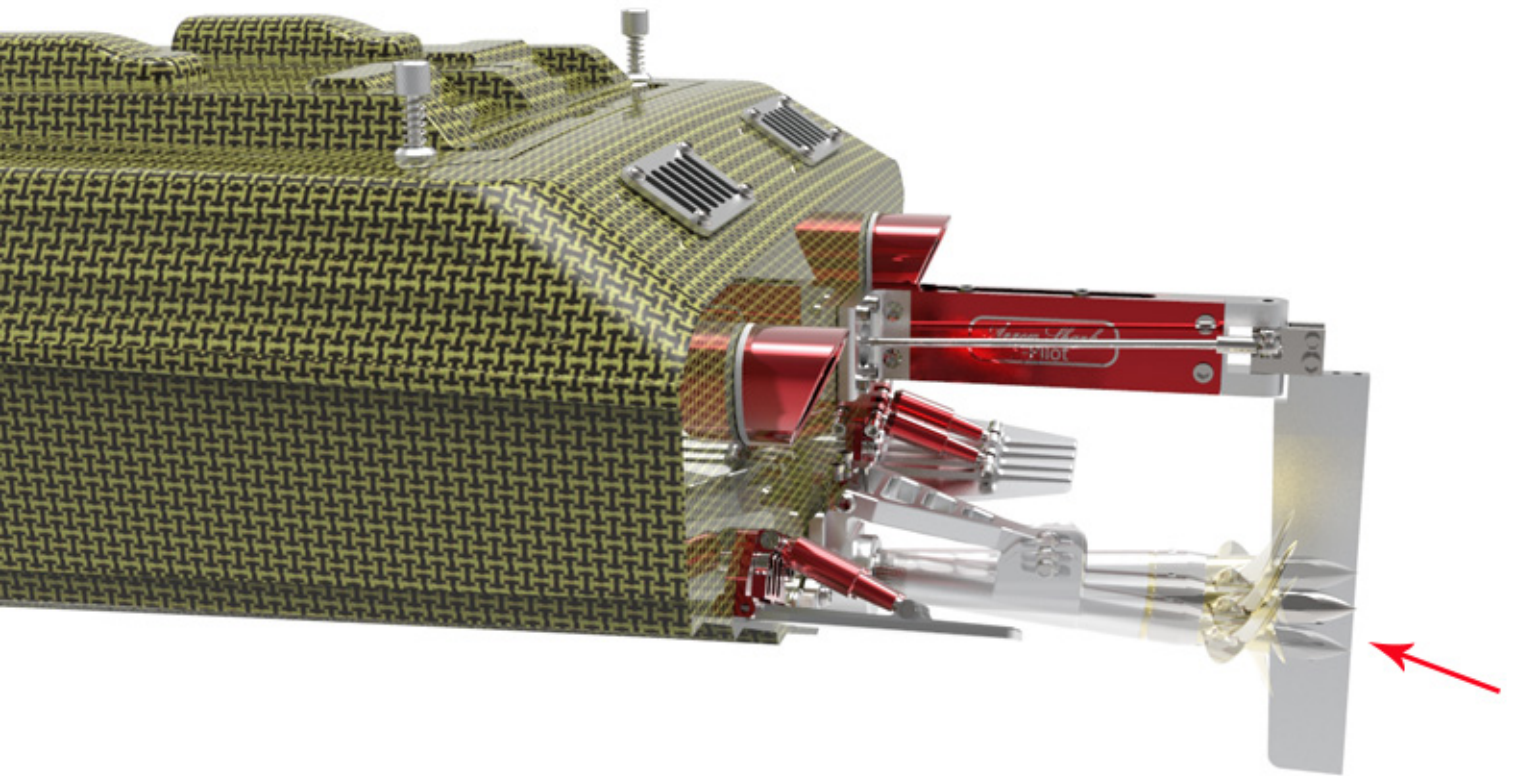
The most of steering control linkages in Arrow Shark 2020 RC Boat packages are installed with two hi-torque metal gear servos link together with a tie-bar, therefore, you will need an Y type extension servo wire to connect the two servos together and plug it to your receiver in steering slot.

You will need to re-connect the steering linkage to the drive once you receive the boat as the drive was taken off from the boat during shipping, you will need to adjust your steering linkage via the push-rod connector to obtain the correct steering operation. First make sure your steering servo is in its neutral position, then adjust the length of the push-rod so that the drive is centered.

Note: We recommend using the "EPA" function on your radio to set the rudder so that it turns about 20-25 degrees either way for both left and right turning. This will give reliable and stable turns at high speed.

Prop Thrust Angle Adjustment Tip

This adjusting tip works for most of Arrow Shark scale drives such as M8 outdrive, Blade-X Arneson S-Drive, SRD-V2 Stingray Drive, X-Partner Mystic Surface Drive and Formula-X Outboard Drive.



Adjusting the angles of your surface drive and is part of the fun of driving your boat, and you can fine tune it for best performance in varying conditions. The objective is to have your boat running with the least amount of hull touching the water but still retaining stability.

The less of your hull that touches the water, the less drag and the higher speed. But with too little hull in the water, the boat will become less stable and could overturn. If there is too much hull in the water so the bow (ie the front) is running low, the boat is said to be running "wet". If the boat is too light on the water with only a small length at the back in the water, it is said to be running "loose".

Before adjusting the thrust angle of your drive, you need to check that your boat is correctly balanced. For monohulls, that is usually between about 27% and 30% of the length of the boat from the transom.

So if you have a 47inch boat, it should balance between 11.75 and 14.1 inches from the back. Too bow-heavy and your boat will run "wet" and could be twitchy and difficult to steer. Too stern-heavy and the boat could be unstable or run with the bow rising and falling which is called "porpoising".

Your boat has been correctly balanced by the factory for the assembled RTR version, but if you change the layout of any of the components that could affect the balance. Re-position components or add weight to regain the correct balance point.

If your boat is correctly balanced and still runs "wet" or with most of its hull length in the water, or if it sits too low at the back, you can tune the hull to run correctly by adjusting your prop angle (ie the surface drive unit) or Trim Tabs.

These two techniques are inter-related and you need to try one thing at a time to see the effect it has.

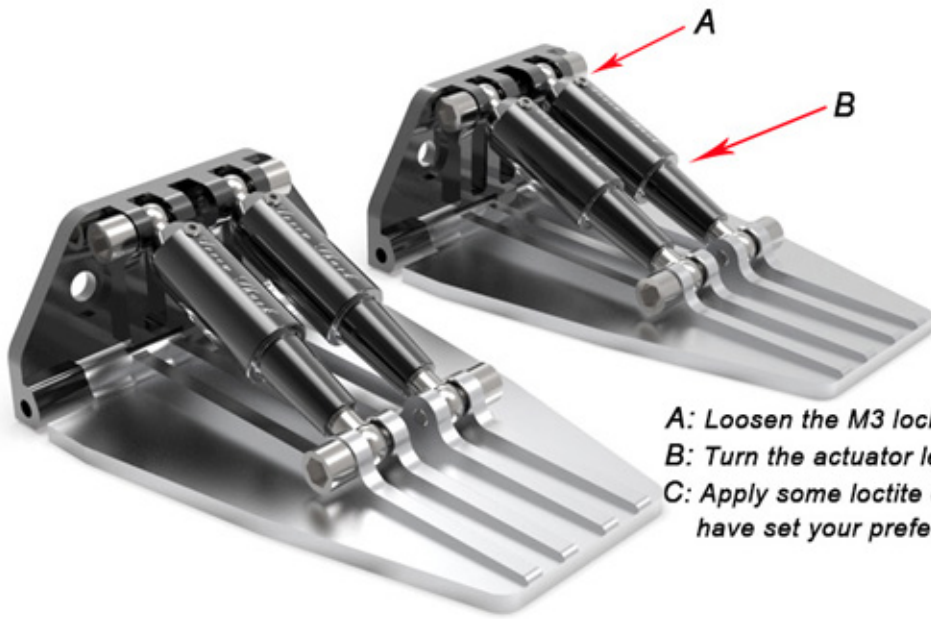
Make small changes only - just a degree or two - then try again to find the result.

Angling the prop up will lift the front of your boat - generally resulting in less hull in the water and faster speed. Angling the prop too high though will cause instability and the prop may "ventilate" or spin without gripping because it's too close to the surface.

Angling the prop down will lift the back of the boat and keep more hull in the water-generally giving more stable running but with less speed.

Trying different prop angles will find the one that works best for your boat in different water conditions. To start with, run a straight edge along the bottom of the boat projecting out the back, and set the surface drive unit so the prop shaft is parallel with the straight edge.

Trim Tabs Adjustment Tips



A: Loosen the M3 locking allen set screw first.

B: Turn the actuator left to adjust the tab down, turn it right to adjust it up.

C: Apply some loctite on the M3 allen set screw and tighten it after you have set your preferred position.

Most of Arrow Shark 2020 RC Boat packages come with a set of scale trim tabs which is fully adjustable for the different performance angles. Changing the angle of the trim tabs has a similar effect as prop angle. The best approach though is to set your prop angle first, then adjust your tabs mainly to suit varying water conditions.

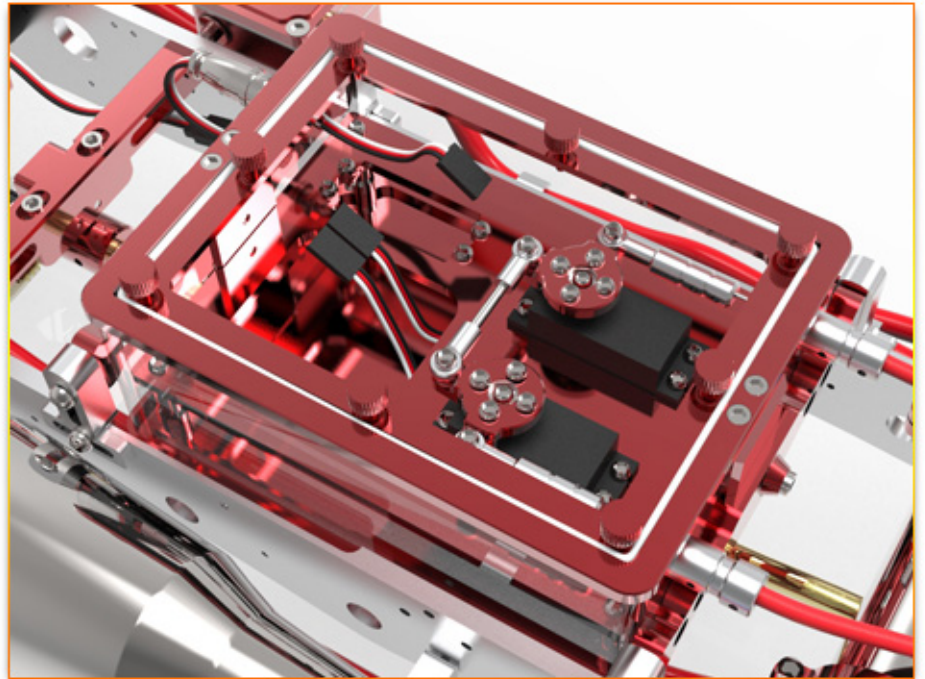
If the water is calm, you can angle the tabs up a little so they are clear of the water and not causing any drag so giving the fastest speed. In choppy water though, you are likely to want your boat to run with a bit more hull in the water. This gives more stability and often a faster overall speed as the boat is running more steadily and not "bouncing" across the chop. By angling the tabs down, you force the front of the boat to ride lower and so keep more of the hull in the water for greater stability - but some loss of speed.

Arrow Shark scale trim tabs have a split plate, and its best to adjust one plate on one tab, then a plate on the other tab so you can see that you're changing both tabs by the same amount. Then adjust the other two plates to re-align with the first ones you moved. You can adjust just one of the plates on a tab for minor changes to the ride attitude.

The power and high revs of your engine may cause the boat to run with a slight list (ie leaning) to one side. Slightly lowering one tab (or just one tab plate) on that side will help the boat run level.

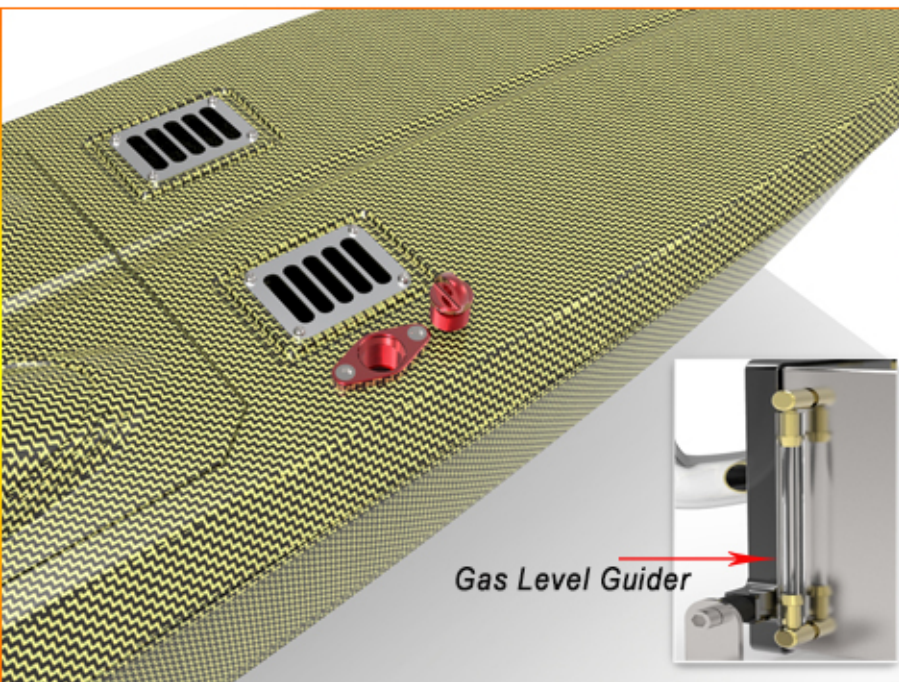
Before Operating Your Boat

Radio System Check



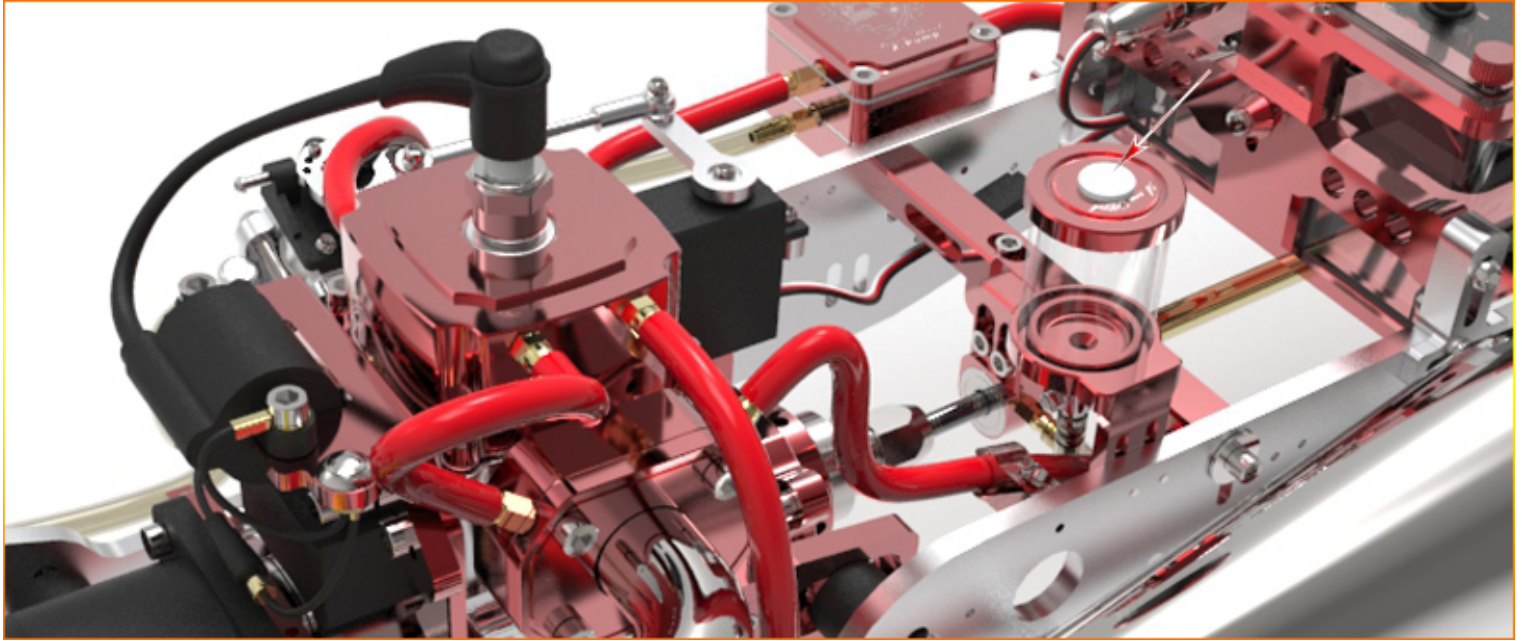
Before starting your engine, double check the connections between receiver to all servos and battery, turn the power switch on, and test the function of the throttle and steering control see if it functions properly as it should. make sure the receiver battery is up to 6.6V and fully charged.

Fill The Gas Tank



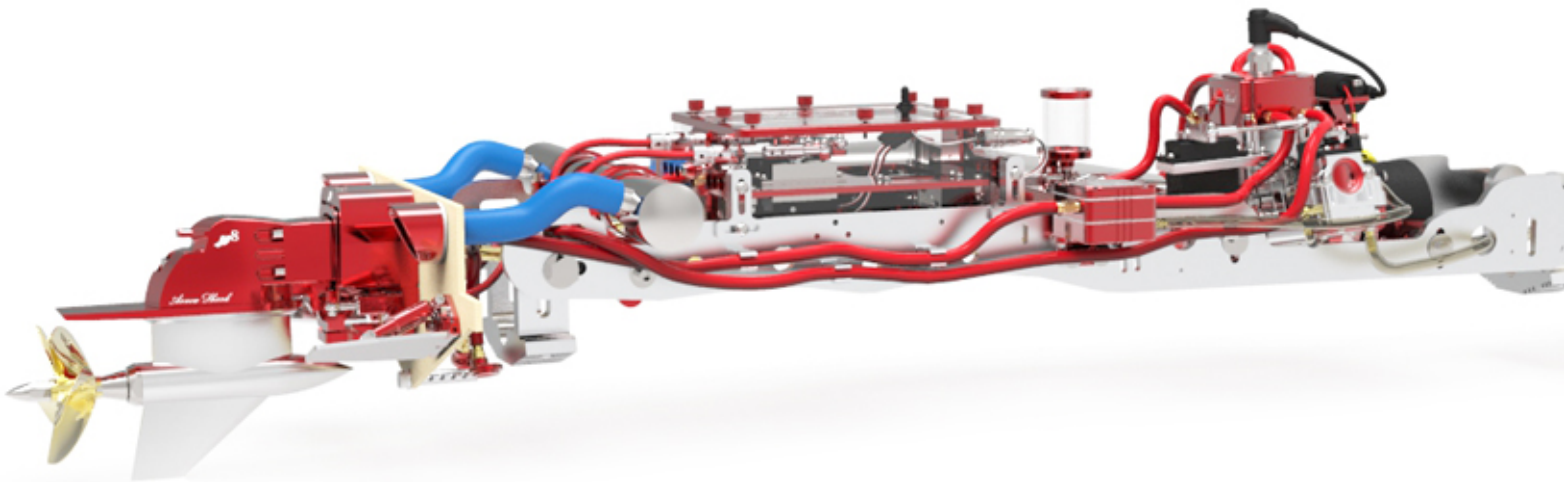
The 2020 Version of Arrow Shark Smart Tank has three capacity versions-950cc, 1000cc and 1300cc, it has an exclusive design of CNC refilling port for the gas refilling, just simply un-screw the billet cap, and use a small size oil funnel slowly pour the gas into the tank, pay attention to the gas level guider during the refilling to prevent the gas spill out if filling too full. Wipe away any excess gas that may have spilled into the boat. We recommend using 87 or 90 octane regular pump gas. Mix that with 100% synthetic high quality two stroke oil at a ratio of 16:1 (6% of oil). A good quality outboard engine oil is advisable as it contains anti corrosion additives.

Fill The Shaft Lubrication Oil Cup



Your boat package will be fitted with a lubricator-X oil cup securing on the engine rail that supports the top end of the flex shaft. It provides full time lubrication for the shaft which is especially beneficial during long high speed runs. just simply take out the silicone plug on the top, and fill the cup with a good quality lubricating oil - any 2 of stroke or 4 stroke oil will work, or you can use the same oil that you use to mix the gas. the lubricator-X oil cup comes with built-in switch to control the flowing rate of the oil, make sure the switch is at "open" position during boat operation.

Connection Check

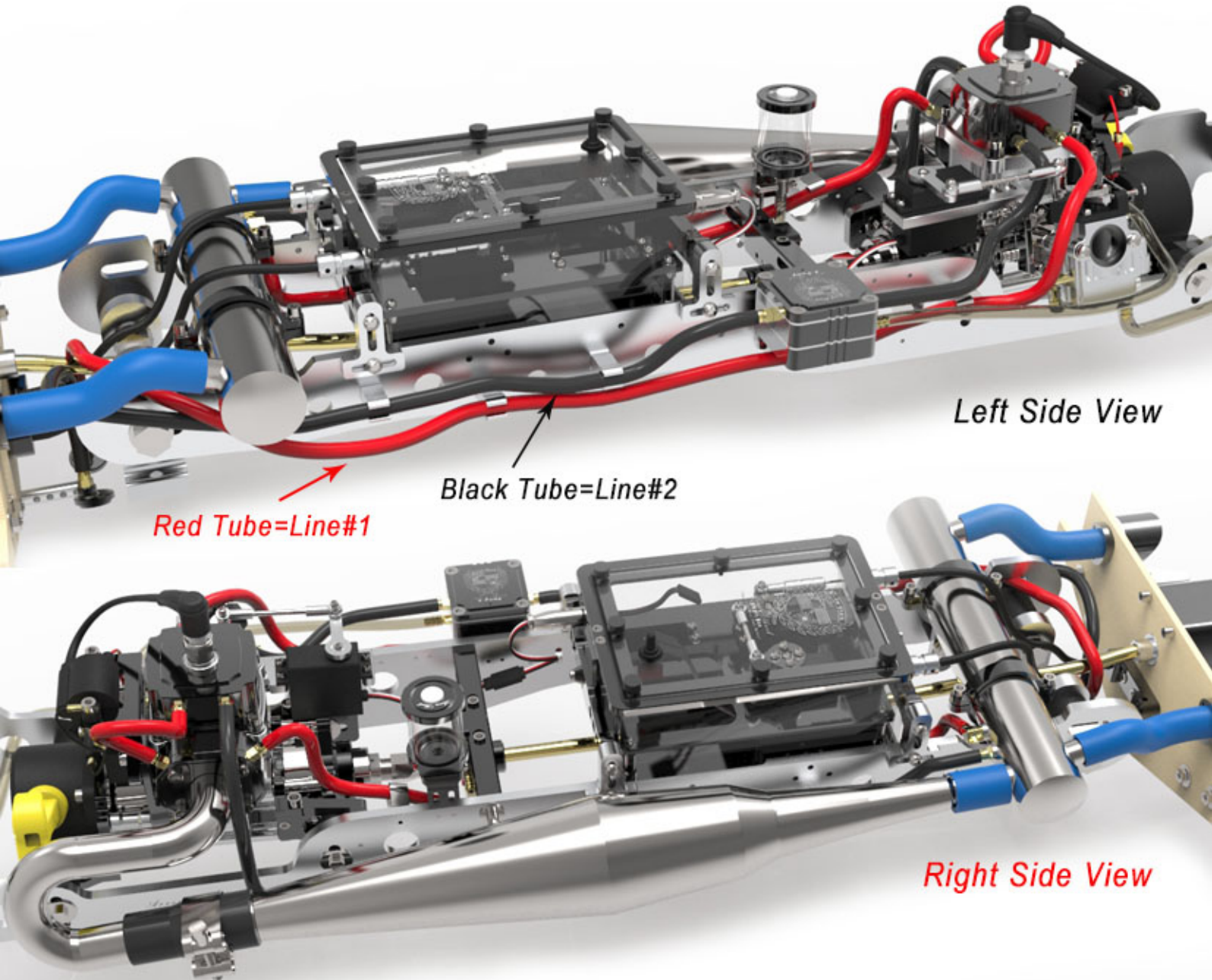


Before you start the engine, please check all connections and ensure they are fully tightened and secured. If any of them are loose, it might cause the boat to operate incorrectly. In particular, check the engine mount bolts, the drive mounting bolts, throttle and steering push-rod connectors, the prop nut, exhaust bolts and the clutch system bolts. Before running and between runs, frequently check that the flex shaft collet is tight otherwise the shaft could fly out of the collet at high engine rpm and cause damage.

Water Cooling Line Check

Lack of cooling water can quickly cause the engine to overheat and be damaged. Always watch for leaks in the cooling system. Become familiar with the cooling system as shown in the following diagram and confirm that all the water lines are correctly connected before starting your engine.

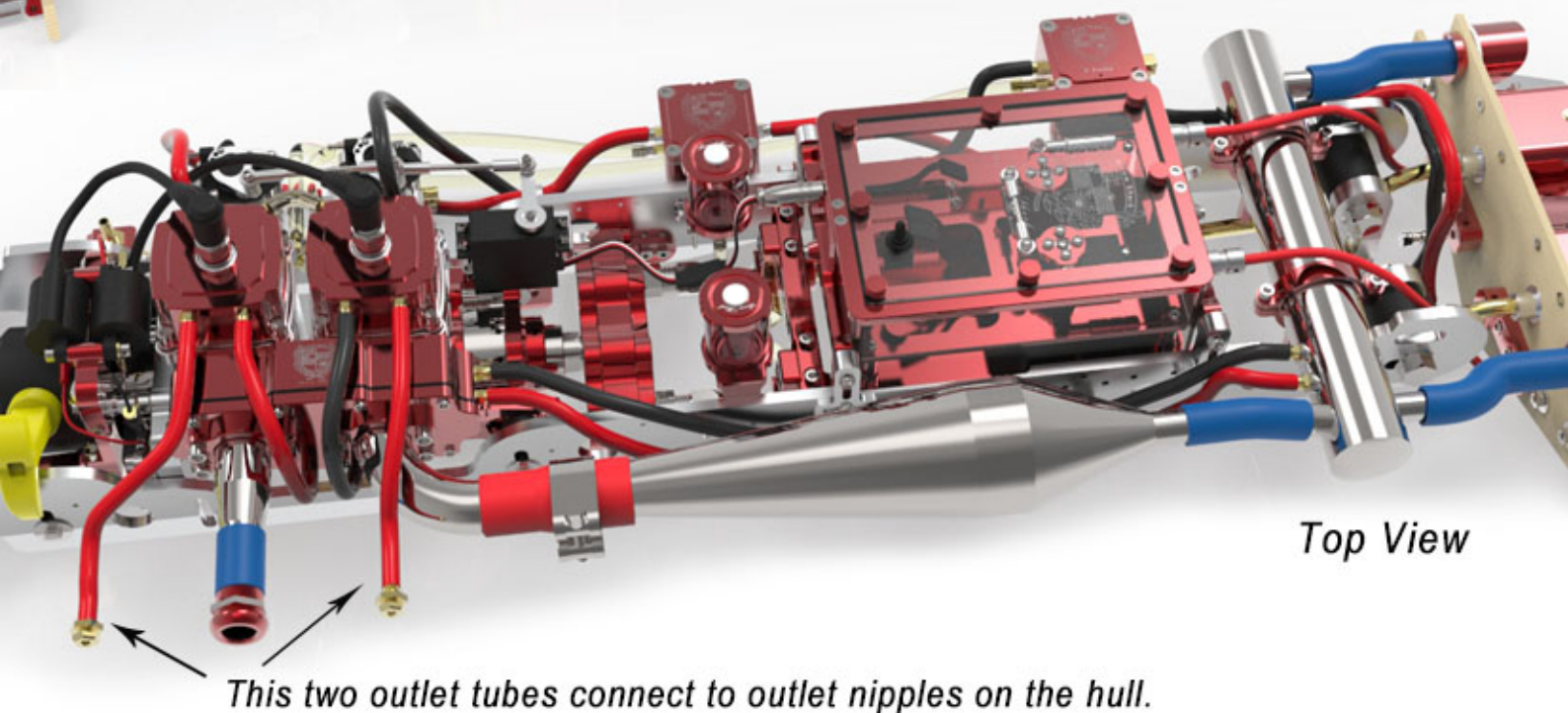
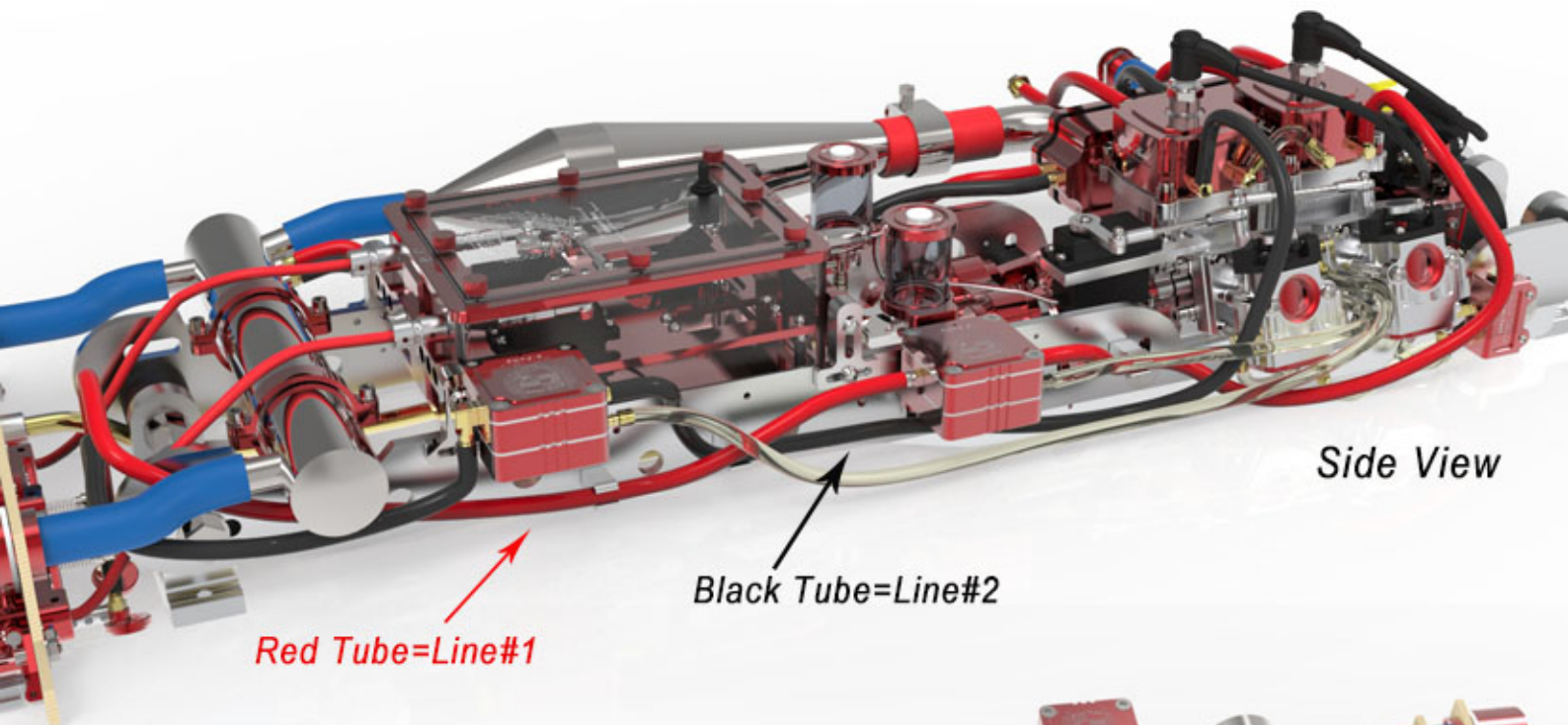
X-30 Cooling Tubes Connection Guide



Line#1: Start from bilge water pick up direct into engine water jacket inlet, then outlet to X-Cooler flange, from flange outlet to one of dual exhaust muffler inlet, then, the water will be push out from the billet exhaust tips.

Line#2: Start from second bilge water pick up into X-Pump inlet, then outlet from X-Pump to engine water water jacket, from water jacket outlet to second inlet on the dual exhaust muffler, then, the water will be pushed out from the billet exhaust tips.

X-60 Cooling tubes Connection Guide



Line#1: Start from one of bilge water pick up to one of X-Pump inlet, then outlet to one of cylinder water jacket, from water jacket outlet to one of inlet fitting on the turbo box, outlet from the turbo box to one of fitting on dual exhaust muffler, the water will be pushed out from exhaust tips.

Line#2: Start from second bilge water pick up to second X-Pump inlet, then outlet from second X-Pump to second cylinder water jacket inlet, from water jacket outlet to the other inlet fitting on the turbo box, outlet from the turbo box to the other fitting on dual exhaust muffler.

The Engine Operation Guide

Starting The Engine

Before starting your engine, make sure that it is securely mounted in your boat with appropriate fuel and exhaust systems. Read through all the following instructions before starting. If your radio is installed and your throttle servo linked to the engine, ensure that the carburetor controls operate as explained in the “Carb Settings” section. If the engine is connected to your flex shaft drive and propeller, check that they are properly aligned and that due care is taken to keep everything well clear of the prop. Remember that the prop is very sharp, and also that the engine and exhaust will get quite hot when running. Do not run the engine for more than a minute without a supply of cooling water, and never run the engine at more than low revs with the boat out of the water.

The 2020 RC boat's package comes with an M-39X Pro-Mod barrel type racing carburetor which does not have a primer bulb, choke or return gas line like the more common WT644 or WT711 carbies that are usually fitted to stock Zenoah or CY engines. The M-39 carb gives ultimate performance but does require a different starting procedure. Having prepared your engine and boat in the usual way (with full regard to all safety aspects), and having filled your fuel tank, follow these steps for easy starting:

Manually choke the engine by blocking the carb intake venturi with your thumb or finger and slowly pull the starter rope a few times. The M-39X venturi is much larger than other carbies, so you may need to wear a glove for your thumb or finger to fully seal the venturi for effective choking of the engine.

Check that fuel is being sucked along the gas line up to the carb; continue slowly pulling the starter rope until the gas line is clear or bubbles and you can feel fuel wetting your thumb or finger.

Remove your thumb or finger from the carb and open the throttle a bit less than half way.

Slowly pull the starter rope one more time to check the engine is not flooded (see below).

Smartly pull the starter rope in the usual way until the engine starts.

Bring the throttle back to a steady idle - DO NOT allow the engine to over-rev as this can cause damage.

If too much fuel is sucked into the engine as you choke it, the engine will be flooded and will not start. It may be harder to pull over on the starter as the excess fuel increases compression. If this happens:

- 1.Remove the spark plug and carefully wipe dry the electrodes with a clean rag before setting the plug safely aside.
- 2.Hold the clean rag just above the plug hole and pull the starter rope smartly a few times to clear the excess fuel.
- 3.Re-install the spark plug and open the throttle a bit less than half way.
- 4.Slowly pull the starter rope to check that compression is back to normal.
- 5.Smartly pull the starter rope in the usual way until the engine starts.
- 6.Bring the throttle back to a steady idle.

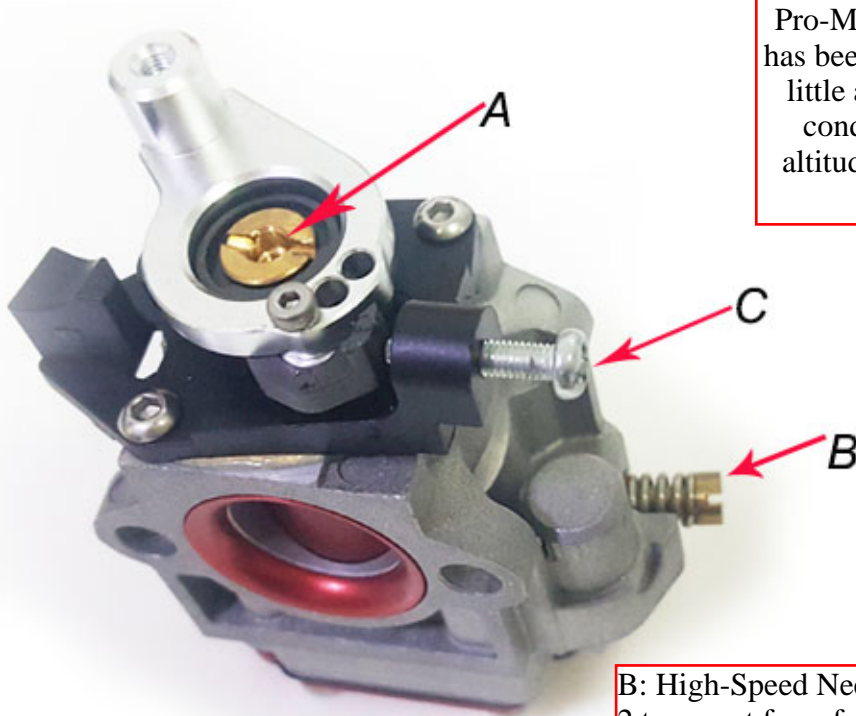
For “hot re-starts” you may not need to choke the engine. Check that the fuel line is full of gas without any bubbles and smartly pull the starter rope. If the engine doesn't start after a few pulls, then manually choke the engine as above and slowly pull the starter rope until you can feel fuel wetting your thumb or finger before removing it from the carb venturi. Slowly pull the starter one more time to check the engine is clear, and then pull smartly until the engine starts.

To start the X-60 Marine engine, we recommend to start one cylinder first, leave the other cylinder without spark plug installed in order to reduce the compression for easier starting with pull starter. when the first cylinder starts, keep it running for 20 seconds at idle speed, then, stop it, and install the spark plug into the other cylinder, and now, you can easily to start both cylinders at same time.

Break-In Engine

To ensure long life and good performance from your engine, you **MUST** break it in properly. To obtain the optimum fuel for your engine, mix 87 or 90 Octane regular pump gas with 100% Synthetic Quality oil at a ratio of 16:1 (6% oil). Another choice for oil is quality marine outboard engine oil. Operate your engine at about 1/2 to 3/4 maximum throttle opening during the break-in process. **DO NOT** run at full throttle while breaking in your engine. Patience is very important here; the boat will run more slowly during the break-in process and the engine's output power will increase gradually over the first 3-4 tanks of fuel. Once the engine is broken in, the power will increase substantially.

M-39X Carburetor Setting



The X-30 and X-60 comes with a Arrow Shark M-39X Pro-Mod carburetor as mentioned above, and the carb has been pre-set at the factory. However, it may require little adjustment to compensate for different ambient conditions such as varying temperature, humidity, altitude, etc. The carb has three adjustments - the low and high speed needles and the idle screw

A: The Low-Speed Needle: The low speed needle of the M-39x carburetor is hidden in the center of the carburetor barrel. You need to use a small precision flat blade screwdriver to adjust it. When adjusting the Low-Speed Needle, apply Loctite#222 on the needle thread in order to hold the needle in position during operation.

The Low-Speed Needle is set at 7 turns out from fully closed (or fully screwed in).

B: High-Speed Needle: The High-Speed Needle is set approximately 2 turns out from fully closed.

C: Idle Screw: Set this at the lowest RPM where the engine idles reliable without stopping. Screwing the idle screw in will make your engine rev faster.

Carburetor Adjustment Tips

When adjusting the needles from their standard settings, move them only 1/8 of a turn a time. Check the results then adjust further as needed. Never attempt to tune the high-speed needle by running the engine at full throttle out of the water! This is very dangerous and damages the engine. The following tips may assist in setting your M-39X Carburetor for optimum engine performance.

A: Low-Speed Needle

If the engine is easy to start, and idles a little rough (rich), and responds well when you open the throttle with a brief show of smoke through the exhaust, then the low speed needle is close to being correct. If the engine tends to hesitate or bog down when you open the throttle quickly (especially when the engine is cold), or if the idle speed is too high even with the throttle barrel nearly closed, the low speed needle is probably to lean and you need to screw it out (1/8 of a turn at a time). If the engine floods easily and is hard to start, the low speed needle is probably set to rich and you need to screw it in slightly.

B: High-Speed Needle

When this needle is correctly set, the engine will run cleanly, accelerate well from half throttle without hesitation, and will not lose RPMs during turns. It is tempting to lean the high speed needle to optimize the mixture for peak power and on - water RPM, but going too lean can be risky as the engine will suffer from overheating and reduced lubrication. This can lead to damage or shorter life for your engine. If the engine stops or loses RPMs when your boat is running on the water, the high speed needle is probably set too lean and you need to screw it out slightly. If the engine is not running cleanly and seems to hesitate or not reach peak RPMs, then the high speed needle is probably set too rich and you need to screw it in slightly. Running with a slightly rich mixture may cause a small drop in top speed, but it will allow your engine to run cooler and with good lubrication for reliability and long life.

Launching And Running Your Boat

***Before the first run each day:**

- a) Carefully check over the boat as explained in previous steps to ensure nothing is loose and that all the cooling lines are correctly attached.
- b) If there are other radio control models in the vicinity, check with the operators that your radio is not on the same frequency. If it is, make arrangements to run your models at different times. This step does not apply if your radio is on the 2.4GHz band as this automatically selects an available frequency.
- c) Turn on your radio and check that it is operating correctly; carry out a range check as explained in your radio instruction manual.
- d) Check that your Fail Safe is working correctly.
- e) Look around and ensure that the area where you will be operating the boat is clear and there are no people, other boats (models or full size) or debris in the water.
- f) Study the area where you plan to put the boat in the water and check that there are no obstructions or weed, and that the water is deep enough.
- g) If other RC boats are running, especially if it is an RC Boat Club area, find out any rules about in which direction the boats run. In most cases, boats run in a clockwise circuit (ie turning to the right). Do not run your boat in a different direction to the others, and keep to any defined circuit.
- h) If other people are close by where you are starting your engine, make sure they keep clear of the boat - especially keep them well away from the prop.
- i) Review all the safety procedures mentioned at the start of this Manual.
- j) Make sure you have some method of retrieving your boat should it stop on the water for any reason. Never swim out to retrieve a boat. Some people have a small inflatable dinghy they use as a "rescue boat". If your lake or pond is not too big, you can use a tennis ball on a long length of light line. Throw the ball over the stalled boat and gently pull on the line to bring back the boat. If in doubt about rescue methods, check with your local RC Boat Club.

*Fill the gas tank and start the engine as explained earlier. Wait a few seconds to ensure the engine is running correctly. Momentarily advance the throttle and check that the clutch engages to spin the prop.

*Fit the engine hatch to the boat, ensuring the latches are secure.

*Whilst you can launch the boat yourself, it is best to have a friend take the boat to the water while you hold the transmitter. If you do launch yourself, practice first without the engine running so you can safely put the boat in the water. It may be best to first put the transmitter in a safe spot near the water's edge before putting the boat in the water, rather than risk dropping it while carrying both it and the boat.

*When carrying the boat, always watch that nothing is close to the prop and that you keep clear of other people.

*Gently place the boat in the water with the front pointing out into a clear area.

*If other RC boats are running, make sure they are well clear before slowly pulling the transmitter trigger and accelerating your boat away from the shore.

*Allow the boat to rise on plane but keep to around half throttle and check the steering by operating the rudder.

*As soon as you can, whilst allowing for any other boats or circuit-keeping requirements, bring your boat back past where you are standing and check that water is flowing through both outlets. Get into the habit of checking for water flow every time the boat goes past. Weed or debris in the water can block pick-ups at any time and quickly cause overheating and damage to your engine.

*Enjoy running your boat, gradually increasing speeds (but remembering to properly break-in the engine) and becoming familiar with how your boat turns and handles in different water conditions.

*When you are ready, prepare to bring your boat back to the shore. Do this before your engine runs out of fuel. The gas tank should give you about 20 minutes running time.

- *Check that other boats are clear before you leave the running circuit, then steer into toward the bank and bring the engine back toward an idle. If the clutch disengages, just open the throttle a bit again until the boat moves toward you - but keep at a low speed so that you can ease the boat safely near the bank before allowing it to drift to a stop before it hits the shore.
- *Stop the engine by pushing the trigger.
- *Have your friend pick up the boat and bring it back to the stand. If you do this yourself, first put your transmitter down in a safe place. Remember that the engine and exhaust will be hot, so be careful not to touch them as the boat is picked up.
- *Place the boat back on its stand, remove the engine hatch and turn off the radio.
- *Allow the engine and exhaust to cool before getting close to them.
- *Check the interior of your boat to see if any water has come onboard; if so, carefully clear it away. If there is a lot of water onboard, find out where it is coming from and correct the problem. Some water will usually get on board, especially when running in choppy conditions.
- *Generally check over the boat to see that nothing has come loose.

Procedure Should Your Boat Flip Over

- *Sooner or later, all high speed RC boats will flip over. You should drive to suit the conditions to minimise the chances of this happening, but it's almost inevitable that circumstances one day will result in the boat turning over despite your best efforts to avoid it.
- *Retrieve the boat with your rescue method (inflatable dinghy, tennis ball on a line or other method). Note: Be aware that a flipped boat could be full of water and consequently be very heavy. Be careful when lifting it out of the water, and allow all the water to drain out as soon as possible.
- *Hold the boat vertically with the bow up so that any water drains out of the exhaust pipe. Then put the boat back on its stand.
- *Remove the engine hatch and gently try to pull the starter cord. It's quite likely that water will have entered the engine and it will not pull over. Do not force it. Doing so could cause damage. If the engine does pull over easily, see if it will re-start. If it does, allow it to run for 30 seconds or so, then resume running your boat normally.
- *If the engine is hard to pull over or will not start, remove the spark plug and dry the electrode.
- *With the spark plug still out, hold your boat upside down and pull the starter cord 10 or so times. This will expel most of the water from inside the engine. (Note: You may need a friend to help with this - although you can do it by yourself with practice.)
- *Put the boat back on its stand, re-install the spark plug, and gently pull the starter rope.
- *If the engine is still hard to pull over, or will not start, repeat the above 3 steps.
- *Once the engine starts, allow it to idle for 30 seconds or so to check it is okay, then stop it.
- *Check your servo box to ensure that water did not get inside, If it did, stop running the boat for the day. Clean up the boat as usual (see the next Step) and take it home. Remove all the electronics from the servo box and check them for correct operation. If there is any problem, have it fixed by an expert.
- *If the servo box is dry, re-start the engine and re-launch the boat. Run it for 3 to 5 minutes at half throttle to clear any remaining water out of the bearings, then resume normal running.

After Running Your Boat

- *At the end of the day's running, wash all over the boat with fresh water. Wash the hardware on the back of the boat. Dry everything, and then spray all the hardware generously with WD40 or a similar water displacing and lubricating product.
- *If you have been running in salt water, you must flush the cooling system with fresh water. you can adapt a garden hose to provide a supply of fresh water while you idle the engine for 3 to 5 minutes.
- *Hold the boat vertically with the bow up and allow any water or excess oil to drain out of the exhaust system.
- *Spray all over and around the engine and the exhaust system with WD40 or a similar product, then carefully wipe everything down - inside and outside the boat - with a clean rag or towel.
- *Remove the cover from the servo box and check that the inside is dry. Leave the cover off until you next run the boat to avoid condensation forming and possibly damaging the electronics.
- *Every couple of months, it is worth removing the engine and clutch from the boat and thoroughly cleaning the interior of your hull as well as underneath the engine.

Enjoy Your Arrow Shark RC Boat!

There is no Best, only Better!



Arrow Shark
RC Marine

