

# PROBOAT



## VORTEX 46

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### INTRODUCTION

Airboats are a class of watercraft that has been increasing in popularity recently. They offer a much more user friendly approach to boating than the more traditional boats do. This is due to the fact you can tune and run the boat's motor on dry land, because the need to run water through the head as a coolant is not necessary. Instead, the propeller forces plenty of air across the head to keep the motor cool.

Proboat, as you might expect, has jumped into the airboat scene with a very sharp looking product called the Vortex 46. Not only does the Vortex offer a large motor, but it offers features designed to help it run

## DEALER INFO

### Proboat

Distributed Exclusively By  
Horizon Hobby, Inc.  
4105 Fieldstone Road  
Champaign, IL 61822 USA

Phone: (877) 504-0233

Fax: (217) 352-6799

Website:

[www.horizonhobby.com](http://www.horizonhobby.com)



See the Vortex .46 in action!  
Resolution: [Low](#) [Medium](#) [High](#)

## RATINGS

Quality ★★★★★  
Performance ★★★★★  
Assembly Ease ★★★★★  
Handling ★★★★★  
Durability ★★★★★  
Speed ★★★★★  
Engine ★★★★★  
Price ★★★★★

quietly and safely. Other airboats have exposed props, but the Vortex takes a much different approach in that it shrouds the blades of the propeller.

The Vortex is one sleek looking watercraft, which is a fact that can't be denied in the least. Just viewing it after pulling it from the box, gave me some visions of power and speed. Does it live up to its good looks? That's what I'm about to find out!

## SPECIFICATIONS



**Model Name:** Proboat Vortex .46 Airboat RTR

**Part Number:** PRB2700

**Price:** \$270.00 (Approx. Street Price)

**Type:** Airboat

**Length:** 31.0" (787mm)

**Beam:** 15.0" (381mm)

**Hull Material:** Fiberglass Composite

**Prop Size:** Evolution 3-blade

**Engine:** .46 Evolution (7.7cc)

**Radio:** 2-channel 27MHz AM Stick Radio



Propeller Shroud and Handle  
 No Break-in Needed  
 Safety Stops For Tuning Needles  
 Easy to Access Electronics Box



Needs A Real Fuel Line Plug

## REQUIRED ITEMS

### Additionally Required Items

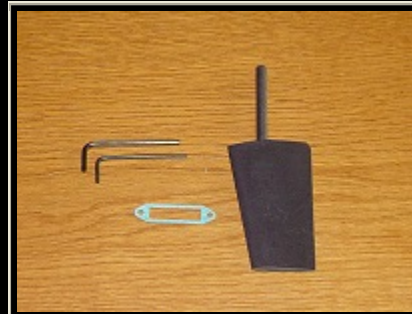
8 AA Batteries or Transmitter Pack  
 4 AA Batteries or Receiver Pack  
 Nitro  
 Fuel Bottle or Manual Pump  
 Starter Stick or Electric Starter  
 Glow Plug Wrench  
 Glow Igniter  
 After-Run Oil  
 Flathead Screwdriver  
 Tape (To Seal Radio Box)



Out of the Box



Documentation



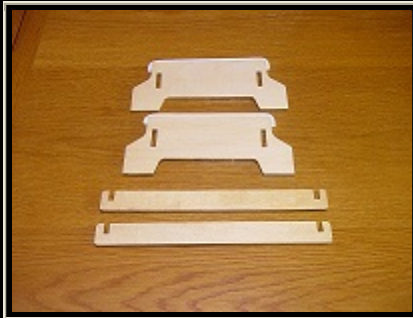
Accessories

The Proboat Vortex comes completely assembled from the factory, so due to the airboat's size the box is rather large. However, this benefits the eventual owner, as you'll get on the water quickly. The boat is a very sleek and powerful looking craft, and it's decked out well with the stickers that are already applied. I really like how the motor's propeller has a protective shroud that also functions as a carrying handle. This is something that many airboats seem to lack. Protection for the fingers, and an easy way to get the boat to the water, is a very welcome sight!

Never used an airboat before? Don't worry. Proboat has you covered with a well-written manual that covers the basics. While running the boat is very simple, and break-in not a necessary task, the manual still can prove to be useful in understanding the aspects of the boat and propulsion system in general. The dual-stick radio comes with its own manual as well, in case you need to refer to documentation regarding its various features and adjustments.

With the boat arriving completely assembled, there's not an immediate need for a lot of accessories. However, Proboat does supply you with a few items, including the rudder, a spare header gasket, and a couple of hex wrenches. The only one of these items you'll really need to use immediately is the rudder. You'll need to install it

before you run, using a Phillips head screwdriver.



Wooden Stand



Boat on Stand



Stick Radio

Once the rudder has been installed, you definitely aren't going to want to sit the boat on a flat surface. Proboat knows this, and therefore have included a wooden stand for you to use. You will have to assemble the stand, but it's a very simple task. Once assembled it provides you with a perfect way to hold the boat while you're working on it, or just simply storing the boat while waiting for the next outing. The stand holds the airboat up above a flat surface, preventing damage to the steering rudder.

The included radio is a dual-stick style radio. The radio is an AM unit, and operates in the 27MHz range. The left stick controls the throttle, while the right one controls the rudder. Various trim adjustments can be used to lock the carburetor open for easier starting, and well as allowing you to center the steering. Should you want to use rechargeable batteries in the unit, you are provided with a charging jack on the bottom of the unit.



Cockpit



Cockpit Cover



Cockpit Nut

The cockpit adds to the sleek looking hull of the airboat substantially. The tinted window gives it a hint of realism, as does the hatch sticker as well. A large hole in the cockpit hatch makes it very easy to pass the antenna tube through when reinstalling the cover.

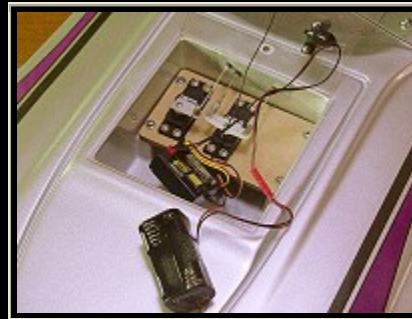
Despite the good looks of the hatch, its primary function is to cover the electronics area of the boat. However in doing this, part of its mission is to also be easy to remove as well. In this aspect, Proboat succeeds well. The front of the cockpit cover is held in place by a retaining plate fastened to the hull of the boat. At the rear, a single nut holds the cover in place. This nut is sized large enough that it can be easily removed with only your fingers. Because of the well thought out approach, access to the electronics box is extremely easy.



Electronics Box



Inside The Box



Receiver

Once the cockpit cover is removed, and the electronics box exposed, you can see how roomy the area for the on-board electronics actually is. You should have no difficulty when it comes to installing the factory battery holder or a receiver pack. Both the receiver and the battery holder are placed at the front of the box and wrapped in foam to further protect them from vibration and any moisture that may find its way into the electronics box.

The servos are secured to a wooden mount, which can be removed if access to the area below them is necessary. The cables controlling the throttle and steering linkage pass through the back of the electronics box, and head to their respective areas.

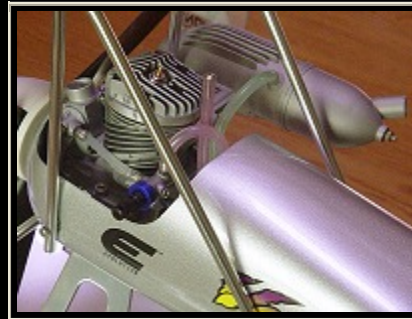
To facilitate easily turning the onboard electronics on and off, the clear cover for the box is equipped with a switch. This switch controls the power to the receiver coming from the battery holder, or receiver pack if you opt to go that route instead.



Rudder Linkage



Motor Pod Brace



Motor

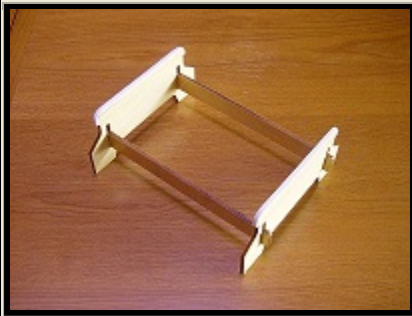
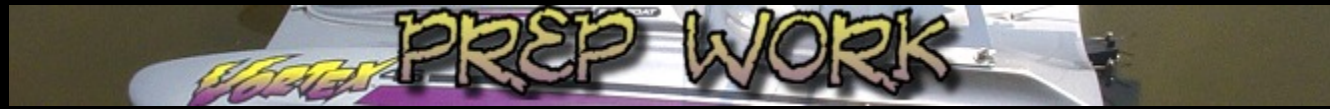
You caught a glimpse of the steering cables as they exited the electronics box. They end up at the stern of the boat, where the rudder will reside. I say will reside, because when the Vortex is removed from the box, the rudder is one of the few parts that will need some preparation and attention. The steering linkage uses the cable to pull the appropriate end of a horn that in turn angles the rudder as needed.

The motor pod sits above the entire boat, and is the heart of Vortex 46. To securely fasten the motor pod to the rest of the hull, Proboat has used a set of aluminum mounts. These thick aluminum mounts are more than capable of holding the engine pod in place as the motors RPM's increase and it starts creating havoc around the waterfront. Also, take note of the fact that the caution sticker on the propeller shield helps to remind you of the danger to your fingers that can be found from the propeller, should you get careless.

The motor itself specs out at a rather impressive .46 cubic inches, and spins a triple-bladed propeller. It utilizes a flat-finned head similar to what you'll find on many planes. This makes perfect sense, as the boat's propulsion system has more in common with a plane than it does a water-based craft.

Everything about the Vortex's motor is designed to make the airboat easy to run and use. Both adjustment needles have built-in safety stops on them, to prevent the needles from being over-adjusted by someone starting out in the hobby. This definitely will be a big help to anyone who is just getting started with nitro motor tuning.

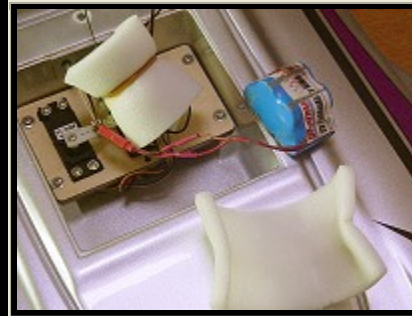
If you have a sharp eye, you may recognize that a fuel pump will be necessary to fill the motor's tank. The extra section of fuel tubing, blocked off by the screw, gives this away to those familiar with this sort of scenario. This is typical for many planes, which is what the airboat derives its propulsion system from.



Assemble Stand



Install Rudder

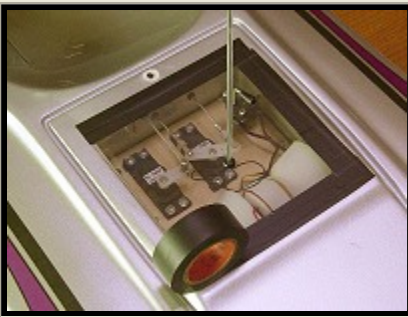


Receiver Pack

The first task you'll want to do is to assemble the wooden stand that Proboat puts in the box along with the Vortex. The stand will assist you in storing the boat, as well as preparing the rudder and installing a receiver pack. Assembly is pretty self explanatory. Simply insert the smaller side pieces through the slots in the main halves of the stand. The stand has a tendency to fall apart if moved, so you'll want to glue the parts in place once you have it assembled. You can use wood glue, or even Shoe-Goo, to accomplish this task.

Once the stand is complete, you can set the Vortex on it and work on readying the boat itself. Grab the rudder from the bag of accessories. Then remove the screw on the rudder linkage, and push the rudder in from the bottom. Align the hole on the linkage, with the hole on the rudder and then replace the screw. The steering rudder is now ready for action.

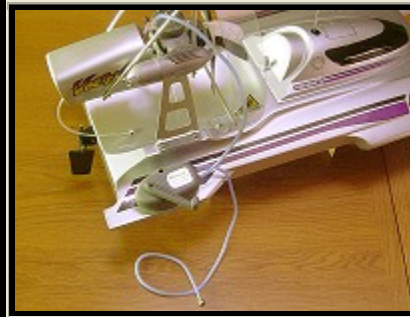
To operate the servos, you'll need to supply the airboat with a source of power. I chose to utilize a receiver pack, but you could also use the AA battery holder if you wish. However a receiver pack provides more consistent power during use than alkalines do and costs less in the long run. So eventually you'll probably want to move away from AA batteries, even if you use them initially.



Seal Electronics Box



Radio Batteries



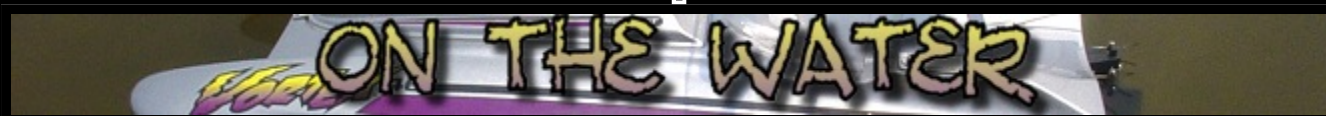
Fuel Boat

After the receiver pack was installed, I needed to seal up the radio compartment. I used some electrical tape to accomplish this task. Electrical tape repels water well, due to its rubbery nature, and is easy to remove when you need to regain access to receiver pack for recharging. However, once at the lake, thanks to the switch on the box's cover, you shouldn't need to remove the tape.

The dual-stick radio needs 8 AA batteries to power it. So remove the cover from the back of the radio, and insert the batteries. I highly recommend the use of good quality batteries to give you maximum life and radio range. Once out on the lake, it's often tempting to push the boat to go out farther as time passes. So skimping out and buying cheap batteries can easily come back to haunt you.

Once you arrive at the lake, you'll want to fuel the Vortex. As I mentioned before, this requires a fuel pump. So, make sure you pick one up. Some fuel pumps will work in either direction, others won't. So consult your pump's manual for specific operation instructions. The fuel pump I used also came with a fitting to mate it to the fill line on the Vortex. You'll need to make sure your pump has this provision as well. Otherwise, your day at the lake will be cut short. In addition, my pump included a fuel filter as well. While this isn't necessary, the extra precaution of a filter is certainly beneficial.

Most pumps are priced very reasonably as well, setting you back somewhere around \$10. While there are battery operated pumps that you can buy, a basic hand crank pump does everything that's required perfectly fine.



The interesting thing about the Proboat Vortex, is that the manual states that no break-in is necessary. So with that in mind, I knew things should go quickly and smoothly. However, I first fired the boat up at the house to ensure that I would run into no problems. Once the motor was fueled and primed, and the igniter attached to the glow plug, I used my homemade starter stick to spin the propeller counter-clockwise and the engine roared to life. Since the airflow from the propeller cools the motor, running the boat's motor out of the water would do no damage. This is exactly the opposite of a boat that utilizes a water-cooled head.



I watched the motor, and varied the throttle input some to see how it would respond overall. My goal was to ensure that the motor itself wasn't running too rich which might cause it to stall once I had it at the lake. A little preparation goes a long way!

Speaking of preparation, once it was time to head to the lake, I also loaded up my trusty kayak as well. While I hoped that retrieving the Vortex from the lake would not become necessary, it's best to prepare for these tasks beforehand. Besides, the kayak would come in handy for some up close and personal pictures and video of the airboat once it was out on the lake.

When I arrived at the lake, it was a warm day, and slightly overcast. This helped the comfort level substantially, as too much sun can often make it miserable at the lake. It simply all depends upon how much natural shade you're offered at the area you plan on running at.

I quickly set about fueling the motor, and primed it according to the instructions. Then I used my igniter and starter stick to fire the motor up, and carried it towards the lake. The propeller shield and handle really came in very handy for this task. Instead of fumbling around trying to hold on to the boat's hull while the propeller was spinning, I felt as if I was safely in control of the transportation and launching of the boat. Airboats with an exposed propeller and no handle will garner my recommendation of having two people on hand to launch. However, the Vortex can easily be handled by a single individual.

Once in the water, I gave the boat some throttle and started to pull away from shore. It was apparent as it got underway though, that the motor needed to be leaned out some. While it was moving along at a fair pace, I expected more out of the .46 motor sitting above the boat. However, I chose to go ahead and run the boat for the moment and planned on making an adjustment when I brought it in for refueling.

Once the fuel level in the tank was nearing empty, I brought the boat back to shore where I had launched it. Checking the fuel level was easily accomplished, thanks to the open back of the motor pod. I could cruise the Vortex by me slowly on the pier, and visually check the tank from time to time. Later on, after I had run several tanks through the boat, I had a better understanding of the total time I could spend on the water. I found I could expect about 10-12 minutes out of the tank of fuel, which is what I'd consider a respectable amount of time given the large motor. So I was very pleased in this regard.

After refueling the tank, I leaned the high speed needle some and prepared to restart the motor. However, after several attempts, I still had not succeeded in starting the motor. In fact, it wasn't even attempting to fire. I heard no sputtering, but rather just the compression of the motor as the propeller was spun. This indicated one of two things, no fire at the plug, or



no fuel. The glow plug tested out fine, so I then focused my attention towards the fuel.

I primed the motor once again, and quickly noticed that the fuel level receded after I primed it. So in essence, there was simply no pressure pushing the fuel to the carburetor. This meant I needed to be looking for an air leak. It was then I had a thought, regarding the screw used as a plug for the filling line. It was a rather small self-starting screw, and therefore had fairly widely spaced threads. So I pinched the fill line closed and primed the motor again. This time the fuel held at the carburetor's inlet fitting, until I released my pinch on the fill line.

It seemed that the screw had damaged the fuel line, preventing a good seal from occurring. I snipped the line shorter, removing the damaged end of the line. I also replaced the line with a longer screw that used machine threads that I had on hand. From that point on I had no further problems starting the Vortex, although for the long term a fuel plug would be the best thing to use.

I fired the Vortex up, and once again launched it from the shore. With the high speed needle leaned out this time around, the overall power of the airboat was much more noticeable. The craft quickly gained a head of steam and was underway, without the slight hesitation due to cavitation that a submerged prop often offers.

The one thing I noticed this time, as I piloted the boat around the lake, was that the propeller's shroud also affected the overall noise of the airboat. Depending upon the angle of the craft it may be very silent, or somewhat louder. I don't necessarily mean that it was louder than any other nitro-powered boat, in fact it was much quieter overall. However, at times it was extremely quiet due to the propeller's shroud blocking the noise. It was a unique experience to watch the Vortex go by and then become nearly whisper quiet as it passed directly in front of me!

Once back on the water, I really started running the Vortex harder. I kept it moving at a much higher rate of speed most of the time and it felt very comfortable overall for the most part. However, when turning sharply, it did have a tendency to bobble through a corner more than simply gliding through it. This behavior would go away if I slowed the boat down slightly before executing any sharp turns. I attribute this to the fact that the craft is fairly wide, and doesn't have a turn fin like most hydroplanes do.

Despite this characteristic at speed, at no point did it feel like it was really top-heavy at all. Again, I attribute this to the size of the hull, as it was well matched for the engine pod of the Vortex itself. The aluminum pod braces also help to keep some additional weight towards the hull and lower half of the boat, instead of making the boat feel like the majority of its weight is up higher.



The Vortex responded to turning in much the same fashion a well handling touring car might. It wanted to enter the corner with minimum throttle as it was turned, and then responded well to a healthy dose of throttle upon exiting the turn. Using this technique, you could execute a fairly sharp turn at times even surprising me as I used a marker on the lake to base my turns on. After a period of time, I became very comfortable with the turning ability of the Vortex, and would make full throttle runs back towards myself at the pier, and turning at the last moment to watch the boat throw a nice wake behind it. The Vortex was simply a pleasure to run and watch, as it made its way around the lake garnering quite a bit of attention during that afternoon. Before I left, I had begun to feel more like a car salesman, as I pointed out the various features of the boat while onlookers watched on in curiosity. Despite the question and answer session, it's always good to see others show some interest in the hobby. After all, continued growth of the hobby leads to manufacturers trying to churn out even more products!

My day ended a little earlier than I had anticipated with a broken rudder however. I became caught on a rock while it was pulling away from shore. I lost all my steering control, and shut the motor off by closing the carburetor completely with the radio's throttle stick. Once adrift, I retrieved it with the kayak and brought it back. Rest assured though, that a new rudder is on the way and more time in the water looms ahead for the Proboat Vortex 46!



See the Vortex .46 in action!  
Resolution: [Low](#) [Medium](#) [High](#)



Running the Proboat Vortex 46 around one of my local lakes has been an absolute blast! It's much easier to work with than many standard boats with water-cooled motors, and has a lot of power on hand. The propeller shroud always allowed me to see exactly where the propeller's danger area was, even if it was spinning so fast it was hard to see. It served as a good visual reminder to watch my hands and fingers. The carrying handle made launching a very simple task, which could be easily accomplished without the aid of another person.

My only real gripe regarding the Vortex was the screw that was used to block off the fuel tank's fill line. It simply caused a little too much wear to the fuel line after being used a few times. I would recommend using something like a Dubro fuel line plug instead. Not only will it seal better, but it lacks the threads that are found on the screw. This will prove to cause less wear on the tubing after it's removed and reinserted a few times.

The Vortex 46 RTR airboat is certainly a contender for one of the best looking boats currently available. It also can back the looks up with the capability of providing good solid fun and excitement, while being very easy to work with. If you want to jump into the boating scene, or simply wanting to add to your collection, then the Vortex is a craft that will certainly become one of your favorites!

## MANUFACTURER AND DISTRIBUTOR INFO

### **Proboat**

Distributed Exclusively By  
Horizon Hobby, Inc.  
4105 Fieldstone Road  
Champaign, IL 61822 USA  
Phone: (877) 504-0233  
Fax: (217) 352-6799  
Website: [www.horizonhobby.com](http://www.horizonhobby.com)

### **Dubro, Inc.**

480 Bonner Road  
Wauconda, IL 60084 USA  
Phone: (732) 635-1600  
Website: [www.dubro.com](http://www.dubro.com)  
Products used: E/Z Glo Glow Igniter, Fuel Line

### **Duratrax**

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Great Planes Model Distributors  
P.O. Box 9021  
Champaign, IL 61826-9021 USA  
Phone: (800) 637-7660  
Website: [www.duratrax.com](http://www.duratrax.com)  
Products used: Receiver Pack

### **Hobbico**

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Great Planes Model Distributors  
P.O. Box 9021  
Champaign, IL 61826-9021 USA  
Phone: (800) 637-7660  
Website: [www.hobbico.com](http://www.hobbico.com)  
Products used: Hand Crank Fuel Pump

### **Powermaster Hobby Products, Inc.**

274 Highway 95 South  
P.O. Box 650  
Elgin, Texas 78621 USA  
Phone: (512) 285-9595  
Fax: (512) 285-9400  
Website: [www.powermasterfuels.com](http://www.powermasterfuels.com)  
Products used: 15% Nitro Fuel

### **Trinity Products, Inc.**

36 Meridian Road  
Edison, NJ 08820 USA  
Phone: (800) 848-9411  
Fax: (732) 635-1640  
Website: [www.teamtrinity.com](http://www.teamtrinity.com)  
Products used: After Run Oil