

# SEA EAGLE<sup>®</sup>.com



## RazorLite Kayaks

393RL & 473RL

Instruction & Owner's Manual

For video instructions visit [SeaEagle.com/Instructions](http://SeaEagle.com/Instructions) or scan the QR code below!

Sea Eagle Boats Inc.  
19 N. Columbia Street, Suite 1  
Port Jefferson, NY 11777  
1-800-748-8066



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## **Congratulations on purchasing a Sea Eagle!**

With over 45 years of experience in designing, selling and using these quality inflatables, we're confident that you are going to love your Sea Eagle and we're ready to proudly stand behind them.

### **Sea Eagle Warranty**

All Sea Eagle products come standard with a 3 year warranty against any manufacturing defect that begins the date that your product is delivered. Sea Eagle will refuse delivery on all packages without a valid return authorization number and will not be responsible for the shipping or handling charges.

To obtain a return authorization number, please contact Sea Eagle directly unless you purchased from an authorized dealer/reseller in which case you should contact them for more information.

Sea Eagle must inspect equipment in order to determine if there is a defect. In the event that an item must be shipped back to us for inspection, Sea Eagle will only reimburse the standard return shipping charge through FedEx, UPS or the U.S. Post Office at published shipping rates. Retail shipping outlets like The UPS Store will not be reimbursed and you will be responsible for handling and packing charges.

The Sea Eagle warranty does not apply to products that are manufactured by Minn Kota or Torqeedo. These products are covered by their own, respective warranties. Please refer to the manufacturer's warranty of each product for details.

If you received an item damaged, please call the shipping carrier to report damaged merchandise. Do not return damaged merchandise until it has been inspected by the carrier. Sea Eagle will be notified by the carrier when they have completed their inspection and if necessary, Sea Eagle will arrange for the repair or replacement of damaged merchandise.

### **Decals, Stickers & Registration**

Always contact your state boating authorities for information on boating registration and regulations.

Most states require you to register your boat if you are using a motor. ***\* The Sea Eagle RazorLite is not rated for use with a motor.***

Upon registration it may be required to provide the Manufacturer's Statement of Origin. Purchases made through an authorized dealer or reseller may require for you to contact them directly in order to obtain this. You may be charged your own state sales tax if you were not charged sales tax at the time of purchase.

Registered boats generally require for the registration number to be applied to the boat. We do not recommend the use of decals or stickers as they tend to crack and peel over time with the repeated inflation and deflation of your Sea Eagle. Instead we suggest applying these numbers to a small piece of hard plastic or marine plywood and hanging it from your boat like a license plate if permitted by your state. Another method is to apply the numbers to the hull using either PVC based paint or permanent marker.

### **Contact Us**

Unlike many other companies today we pride ourselves on answering the phone and helping you with any concerns, questions or special ordering needs that you may have! Feel free to give us a call at **1-800-748-8066** and we will be happy to talk with you! Our business hours are Monday to Friday from 9AM to 5PM, EST.

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## Safety

In a manual of this type it is impossible to give adequate space to the topic of water safety. For further information on boating safety, visit [USCGBoating.org](http://USCGBoating.org) or enroll in one of the excellent water safety courses provided.

It is your responsibility to be aware of and comply with all relevant safety regulations. For all water recreation or sport you should have a reasonable swimming ability. Just as swimmers have a cardinal rule about not swimming alone, it is strongly advised that you should never go boating alone. As a safety reminder, each Sea Eagle hull has a list of suggestions printed on it for you to follow that we call Boating Safety Basics. Inspect your Sea Eagle before and after each use. Make any repairs promptly.

### Boating Safety Tips

- Always wear a USCG approved PFD (life vest) at all times while on the water.
- Be aware of your local boating rules and regulations and abide by them accordingly.
- Check inflation levels each time before you go out and inflate your boat for a full 24 hours before undertaking long trips.
- DO NOT allow children to use Sea Eagle unsupervised.
- DO NOT consume alcohol while boating or operating a boat while under the influence of alcohol or drugs.
- DO NOT drag your Sea Eagle over rocks or gravel if it can be avoided.
- DO NOT exceed the certified maximum capacities of this boat under any circumstance.
- DO NOT go boating alone.
- DO NOT use compressors, CO<sub>2</sub> or compressed air for inflation, only use Sea Eagle recommended pumps.
- DO NOT use your Sea Eagle Boat as a personal flotation device as they are not rated for that use.
- DO NOT sleep inside of your Sea Eagle while on the water.
- Bring a cell phone or other emergency contact device in a waterproof bag.

### Safety Equipment & Important Safety Items

The type of water conditions you are on should determine the type of safety equipment that you should have on board. For all types of boating we strongly recommend that every passenger wear a USCG approved PFD (personal flotation device) like a life vest. In most places this is a requirement by law, but from our point of view it is also an exercise of good judgment to have a PFD for all passengers

**Drinking Water & Snacks:** Kayaking is a physical activity that can work up both a thirst and a sweat. On a hot or warm day it is a good idea to have drinking water readily available to you to prevent dehydration. Bring a good amount of water for all passengers.

**Extra Clothes/Layers:** You never know when the weather can change and it's a good idea to come prepared with extra clothing. If you have a dry (waterproof) bag then we recommend storing them inside so they're not damp in case of emergency.

**First Aid-Kit:** The contents of the kit may vary depending upon your preferences, but make sure to carry a kit that reflects the possible dangers for the conditions you are in.

**Manual Pump/Repair Kit:** Although our boats are both durable and rugged, it may be possible that you need to make a repair while on the water in which case you'll need the repair kit and a manual pump to re-inflate the boat. If this is your first repair, you may also want to bring this instruction manual with you.

**Sun/Rain Protection:** A hat can protect both your face and head from the rain or sun. You may also want to carry sunscreen with you as both the sun and the sun's reflection from the water can do serious damage to your skin. If you are out for prolonged periods of time you may need to reapply sunscreen as needed.

**Whistle:** Having a whistle readily available to you in case of emergency is a great way to attract the attention of others if assistance is needed.

#### Float Plan:

Similar to a pilot's Flight Plan, consider having a Float Plan ([www.floatplancentral.org](http://www.floatplancentral.org)). Always tell someone where you are going to be boating and what time you plan to return. Keep a cell phone in a waterproof container that will float if it falls in the water.

A great source of background information is Cecil Kuhne's *Inflatable Kayaking* (ISBN 0-8117-2810-2). We recommend reading this and other related materials to better educate yourself with kayaking.

# OPERATING YOUR SEA EAGLE

## The World's 1st Kayak Made Entirely Of Drop Stitch Material!

The patent pending Sea Eagle RazorLite™ high performance ultra-light kayak is the world's first inflatable kayak made entirely with Drop Stitch Technology throughout. The RL is constructed of 3" Drop Stitch material for the floor and 4" Drop Stitch material for the side walls. Drop Stitch material has thousands of high tensile strength threads connecting the top and bottom fabric layers, creating thousands of I-beam supports. This enables the RazorLite™ to keep the board-like shape of the floor and sides so that when it is inflated to 10 psi it is very rigid. The unique Drop Stitch construction makes the RazorLite™ as fast as any 12' rigid kayak and provides the added benefit of being able to pack in its own backpack.



Due to its straight line design, the entire length of the boat is in the water. This is important because the maximum speed of a boat is related to its length at the waterline. The longer a boat is at the waterline the greater the theoretical hull speed.

## Operating Your Sea Eagle

There are a few basic things to consider before venturing out in your Sea Eagle RazorLite. Do not drag your Sea Eagle.

**BALANCE:** The Sea Eagle 393RL and 473RL RazorLite high performance kayaks are narrower and faster than other inflatable kayaks and have the handling and performance characteristics of hard shell kayaks their size. Take a minute while close to shore to find your balance in the kayak. Hold the paddle out in front of you for balance and keep your eyes on the horizon. Feel the balance of the boat as you begin to gently paddle. Have each paddler try the 473RL solo then add the second paddler. Paddle in unison, the rear paddler should match strokes with the paddler in the front. If the boat begins to roll back and forth, move your eyes to the horizon while holding the paddle out in front you. This can take practice, and is especially difficult in the heat of the moment. Looking down and side to side will increase the rolling action. Make sure all the items you bring like bags, coolers, water bottles are secured so they won't float away. To avoid capsizing, paddle directly into oncoming boat wake.

**YAW:** Yaw is the side to side motion produced by paddling which causes the boat to zig-zag. To minimize yaw, install the skeg into its base on the bottom of the boat. The skeg will improve tracking and is ideal for use in flat water areas like bays, lakes and rivers. In narrow areas like streams, you may need to remove the skeg so you can make the tight turns required. **RAZORLITE KAYAKS ARE NOT INTENDED FOR WHITEWATER USE.**

**FLOOR DRAINS:** The floor drains are a convenient way to drain accumulated rainwater or water that has splashed into the boat. Open the drains while on shore. **The drains are not intended for use while on the water.**

Leaving the drains open while paddling will allow water to partially fill the boat which will make it heavy and sluggish to maneuver.

**PADDLING:** For the most effective paddling, sit up straight and hold the paddle out in front of you with hands out wide enough that the forearms are perpendicular to the shaft (like a push-up position). Most of the power should come from your torso.

Your arms contribute, but too much reliance on your arms will cause you to tire quickly. For good balance, especially in heavy seas, keep your head up and eyes focused on the horizon.

Start paddling gently and smoothly. As the kayak picks up speed it will maintain a truer heading. If you dig in hard at first you will create more yaw. Course corrections can be made by easing up or bearing down on one side or the other.

Gentle turns can be made by sweeping water behind the boat. Sharp turns can be made by using the paddle as a brake on one side. Braking will allow you to maneuver sharp bends in a stream, for example, but kills forward speed.





**Recessed Air Valves**  
The RazorLite features 3 Recessed One-Way air valves for inflating your Sea Eagle.



Insert the gauge in the opening and carefully turn it to lock in place. Take care not to break the gauge.



Remove the caps, press and turn the valve stems counter-clockwise so that the stem is in the UP position. When the stems are in the up position the valve will retain air. The RazorLite has a working pressure of 10 psi.



While holding the gauge, insert the hose and turn to lock. Check the hose end that goes in the boat's valve, it should have hooks to lock it in the valve opening.



**Hand Pump**  
This T-handle pump can easily reach the working pressure for the RazorLite. The pump comes with a mesh bag, manometer (pressure gauge) and a hose.



When ready to inflate, insert the adapter into the valve, turn it to the right until it is fully seated. Then begin pumping.



Look for the word INFLATE with an arrow on top of the handle. This is where the pressure gauge will attach.



Working pressure is 10 psi. If the boat is sufficiently firm before reaching 10 psi, you do not have to inflate any further. To avoid damage, it is best to remove gauge from the pump for storage.

**BTP Turbo & BP12 Electric Pumps (OPTIONAL)**

These electric pumps come with a nylon shoulder carry bag, 12V DC power cord, hose and adapters.



Take adapter number 1 and firmly push it into the grey tube in the end of the hose. Make sure that the adapter is fully seated on the tube by pushing it until the end of the tube pushes past the raised ring in the adapter.



**WARNINGS:** Keep out of the reach of children. Don't leave running unattended. Do not use inflator for more than 20 minutes continuously as this can cause overheating and damage.



Connect the other end of the hose to the red inflation port at the top of the pump, located near the ON and OFF buttons.



The carry bag has compartments for the pump, battery hose. Protect the inflator from sand by keeping it in the bag provided, if sand gets in the inflator it could get **jammed**.



Adjust the pressure dial to read 10 PSI which is the operating pressure of your Sea Eagle. PSI is marked in red on the dial.



Included are a cluster of adapters, with raised numbers on each arm of the cluster. The adapter marked #1 is the only adapter needed to inflate your Sea Eagle.



**ATTENTION:** Never turn the dial when the device is under pressure as this will immediately cause the instrument to break.





Connect the quick connector at the end of the power cord into the quick connector attached to the pump.



To charge the portable battery, plug it into the charger and then plug the charger into a household electrical outlet.



To connect the pump to a 12V battery, use the cord with alligator clips at the end of the extension cord. Connect the red clip to the positive pole and the black clip to the negative pole.



The light on the battery charger will display red until it is fully charged. When it is fully charged the light will be a solid green.



**WARNING:** Always connect red clip to the positive pole and the black clip to the negative pole. Cross connecting wires could damage both the pump and boat.



Press the ON button to begin inflation. The pump operates in two stages which can be identified by the noise of the turbine at the start, followed by the piston. **The pump automatically stops once the pressure is reached. Do not turn off pump.**



The portable battery is optional, if you ordered it, connect the battery to the quick connector on the pump.



Air compressors that are designed for other uses like tire inflation (usually around 50 PSI) can easily harm your Sea Eagle which has a much lower working pressure. It's for this reason we recommend only using Sea Eagle electric pumps.



Locate a relatively clean space to unpack the boat and lay it out flat.



**Kayak Paddle**

The asymmetrical spoon blade design of this kayak paddle will allow for a smooth entry and an even pull, maximizing the power of each stroke. It also requires less gripping force.



Inflate the sides and floor (in no particular order). The working pressure for all chambers is 10 PSI.



Each paddle comes with two drip guards, a right and left blade and two shaft pieces that connect using snap lock buttons.



**NOTE:** Assembly for the two-part paddle is similar.

**Skeg**

The removable skeg helps control yaw and improves paddling speed.



Begin by connecting the two halves of the shaft together by inserting the push pin on the end of one shaft into the end of the other shaft that has the feathering holes.



Turn the boat over and slide the skeg into the base. It only slides in facing one way. Slide the locking tab into its groove until it clicks into place. If the skeg does not slide in, do not force it. Refer to an easy fix on page 10.



Next, slide the drip guard up the shaft to about an inch above the button hole. Insert the blade into the shaft and adjust until the button locks the blade in place. Repeat for the other side.







**PRO TIP:** One shaft section has holes for feathering. By feathering the paddle, the blades are offset from each other so that when one blade is in the water, the other is at an angle to slice through the wind with little resistance.



**TIP:** When getting in the kayak, place your weight on the seat pad and try not to knock back the upright backrest pad. Arch your lower back forward and avoid leaning high on the back of the seat. You will feel the seat support your lumbar region.



**Floor Drains**  
Make sure that the floor drains are closed with the caps tightened.

**The drains should not be open while on the water.**



**Footrest**  
Slide clips onto the strap. Insert free end up through the center of the buckle and down through the front slot making a foot long loop. Slide the tube onto the strap. Clip to the D-rings. Adjust for comfort. Trim excess with a scissor. Melt edge to keep it from

fraying.



**Tall Back Seat**  
The TBS is made of thermal molded foam. Featuring a storage pouch on the back with built in zipper, the TBS provides great lumbar support with an 18" high back rest.

**Seating Positions**

Shown below are the seating arrangements for the 393RL and 473RL. The 473RL can be paddled solo or tandem (boats not shown to scale).



**RazorLite 393RL**



**RazorLite 473RL**



**RazorLite 473RL w/solo paddler**



Using the seat straps, clip each strap to the D-rings. The upper straps attach to the forward D-rings.

## DEFLATION



**CAUTION! Air comes out with force.**

To deflate, push the valve stem down and turn it a quarter turn to the right. The stem will stay in the down position allowing air to escape.



**Backpack Carry Bag**  
Slide the seat in with the boat. The paddles and pump will fit alongside the boat in the Backpack bag.



Fold one wall over the other. Push the floor over until the skeg base is up. Make a fold between the drains and the skeg base. This will keep the skeg base flat.



Keep folding until the bow is almost reached, then lift the edge and fold the bow under.



Slide the narrow end of the boat into the backpack bag. Folding the 473RL requires more folds than shown here and there will be less room in the bag for accessories.

## CLEANING & PROTECTING

Dry after each use to avoid mold. **While washing or rinsing: close the valves and twist the caps on so water cannot not enter the chambers.** Sea Eagles can be cleaned very effectively with general purpose cleaning products and a scrub brush.

Water collects under the sides of the floor of the Razor-Lites. To drain, elevate the front so water runs down and collects in stern. Turn boat over and lift the back so water spills out. Towel dry the lowest areas.

### Protection from the Sun and Heat

Avoid leaving it in direct sunlight when ashore. Temperatures on a beach, dock, davit, etc., can get very high which could affect the vinyl or glue. Excessive exposure to sun and heat can cause your Sea Eagle to become sticky or cause the glue to fail.



**Cleaner & Protectant**  
UV protectant such as 303 Aerospace Protectant, should be applied to the vinyl every 3-5 weeks. Protectant preserves the vinyl and makes it easier to keep the Sea Eagle clean. 3M Marine Cleaner and Protector combines cleaning and sun protection.

### STORAGE

If you're planning to leave your Sea Eagle outside, keep it raised off the ground and covered so it is not exposed to sunlight, rain, leaves, berries, bird droppings, etc.

Sea Eagles that are left on the water or turned upright will need to be emptied from time to time. Open the floor drains rather than trying to lift a boat full of water.

**Storage Tips:** *"The best way to store a Sea Eagle is folded up in it's bag".* - Cecil Hoge Jr, Sea Eagle President

- Check for water in the chambers. Water will leak out of open valves when it is rolled up.
- Water left inside can cause a lot of mold. Dry thoroughly to prevent mold.
- Rodent-proof the storage area. Mice, squirrels and other small rodents can do a lot of damage.
- Avoid excess heat. Do not store in direct sunlight, in an attic or a metal shed.
- In temperatures below freezing, do not drop, strike or unroll until it is brought to room temperature.
- It can be stored inflated. If hung, support it along its length.
- After storage, inspect for loose items, damage and leaks.

### TROUBLESHOOTING

If your Sea Eagle is losing pressure, it does not necessarily mean it is leaking. If it is inflated during the heat of the day and the temperature drops during the night it will be softer in the morning. If launching in very cold water, the air inside may contract and cause a loss of pressure. Add more air to restore to full pressure. If temperature is not a factor and your boat is losing air pressure, it's time to look for a leak.

#### Step #1. LOOK

Visually inspect the boat close up and if necessary, flip it over and closely check the outside. Any large leaks when your boat loses a considerable amount of air should be clearly visible.

#### Step #2. TIGHTEN

Be sure to check the tightness of the one-way recessed valves as well and if necessary, tighten them with the valve wrench included in the repair kit canister.

#### Step #3. LISTEN

If you have a rough idea of where your leak is but can't see it, you may want to try listening for it as you may be able to hear the air escaping and pinpoint the leak.

#### Step #4. Soap & Water

Inflate the boat to full pressure. Mix a couple of tablespoons of dish washing liquid in a bucket of water. Spread the soapy water on the leaking chamber with a large sponge or hand towel. The leak may produce bubbles or make whistling or sputtering noises. Often, spray bottles don't work.

### REPAIRS

Even though our Sea Eagles are very rugged and tough, you may still experience the occasional puncture through use of your boat. Fortunately most repairs are fairly easy and only take a few minutes. For extensive repairs, please contact us directly to provide you with further assistance. The best way to do this is to e-mail us a digital photo of the area in question along with your hull identification number to [staff@seaeagle.com](mailto:staff@seaeagle.com).

You can also call us directly at **1-800-748-8066 ex. 314** and ask to speak with Technical Support for further assistance or a quote for having your boat mailed to our facilities for our professional repair services.

Sea Eagle Repair fees start at \$75.00 and does not include return shipping charges. Please note that Sea Eagle does not service any other brand other than our own. All items sent to our repair facilities must have prior authorization in the form of a Return Authorization Number.





**Repair Kit**

All Sea Eagles come standard with a repair kit which includes PVC patches and PVC glue. Repair kits also include a recessed valve adapter and a valve wrench.



**Patching**

The most common repairs are a puncture or small cut. A penny size patch is sufficient for repairs of this type.



**PVC Based Glue**

To patch your Sea Eagle, use an adhesive for PVC boats. Plumber's cement, epoxy and Gorilla Glue will not work. If you are out of glue, try a Swimming Pool supply store.



Trace the outline of a penny on the patch material and cut using scissors. Trace the outline of the penny on the boat. Coat the patch and boat with the repair kit glue.



**Pinholes**

Deflate your boat and thoroughly clean and dry the area that is to be repaired. For small punctures less than 1/8" apply a small drop of glue and allow 24 hours to cure.



Wait about 5 minutes or until the surface of the glue hazes over then apply the patch. Do not apply wet glue to wet glue.



For immediate use allow 30 minutes to dry and then inflate the compartment with the repair only 3/4 full and if necessary make a more permanent repair later.



If you have access to electricity, heat the glue with a hair dryer then apply the patch. This method produces the best results. Mate the patch to the boat and smooth down until the patch adheres. Do not inflate, allow at least 24 hours to cure before inflating.

### Patching Tips:

- The the chamber must be deflated or the air will force a path through the glue.
- Keep the patch size to a minimum, the bigger the patch, the harder it is to seal. The most common repair failures occur because the patch is too big.
- For repairs larger than a puncture, overlap the damage area by about ½" on each side.
- Do not apply the patch while the glue is wet.
- Covering a leaking patch with another patch rarely fixes the problem. To remove a patch, heat it with a hair dryer and peel it off.
- Never use a heat gun on your boat.
- Clamps and weights are not needed.

For a demonstration of good patching technique, please view the How to Repair video on the instruction page of our web site. There is a link at the bottom of every page at SeaEagle.com or type "instructions" into the search box.

### Warped Skeg or Skeg Base

If the skeg is bent from storage or use, heat it up with a hair dryer and bend it back into shape. It will hold it's shape after it cools. The same can be done with the skeg base. If not folded properly, the base can get warped in storage. Never hammer the skeg into a warped base as it will break the skeg.

### Leaking Floor Drains

If you suspect the drains are leaking they can be tested by pouring some water in the boat and checking under the boat for water dripping from the drains. Flush any sand or debris from the threads. Check where the caps screw into the floor that the O-rings are smooth and without dents. If you see a dent in an O-ring, heat it up with a hair dryer, and the dent will ease out and return to its original shape. This also works if the base is bent or misshapen.

## OPTIONAL ACCESSORIES



### Paddling Life Vest (OPTIONAL)

U.S.C.G approved! Designed specifically for paddling and rowing comfort with more room under the arms. Features include vest pocket, zipper closure and adjustable straps. Various sizes available. Type III PFD.



### Life Jacket Whistle (OPTIONAL)

Bright orange whistle can clip onto your life jacket or used with the included lanyard to hang around your neck or wrist. Whistle has no parts or balls that can jam or corrode.



### See-me Safety Light (OPTIONAL)

Ideal for paddlers, boaters and stand-up paddle boarders, this Coast Guard approved LED personal safety light emits a 360° light visible up to 3.4 miles. It also attaches to a PFD!



### 3' Black Loop Rope (OPTIONAL)

Adjustable shock cord rope that can be used to secure your paddle to your kayak so you can fish or just drift and enjoy the view. You can also use them to tie down gear or use it as a docking line.

## Contact Us

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