

# SEA EAGLE<sup>®</sup>.com



## RazorLite™ Kayaks

393rl & 473rl

Instruction & Owner's Manual

For video instructions visit [SeaEagle.com/Instructions](https://SeaEagle.com/Instructions)

**Sea Eagle Boats Inc.**

19 N. Columbia Street, Suite 1

Port Jefferson, NY 11777

1-800-748-8066

**November 2021**

## Congratulations on purchasing a Sea Eagle!

With 50 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 manufacturing defects. The warranty begins the date that your product is delivered and is transferable.

See complete warranty details at [SeaEagle.com/Warranty](http://SeaEagle.com/Warranty).

### 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 motors.***

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 a water safety course given by a local provider.

As a safety reminder, each Sea Eagle has a safety summary we call Boating Safety Basics printed on it. Please follow these suggestions and use good boating safety practices. In addition to the basics, we suggest you have a reasonable swimming ability and know that it is safer to go boating with a buddy. If you go alone, tell someone your float plan as described below. When possible, plan your trip so you go upwind on the way out and downwind on the way back.

Remember, boating is inherently dangerous, appropriate training and experience is required especially in white water. Follow safe boating practices, Be physically fit enough to meet the challenges, prepared for any weather conditions that might be anticipated, and follow the safety basics. Protect all personal items in a waterproof bag. Secure all accessories to the boat.

## 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 your Sea Eagle unsupervised.
- DO NOT consume alcohol while boating or operating a boat while under the influence of alcohol or drugs.
- DO NOT exceed the certified maximum capacities of this boat under any circumstance.
- DO NOT go paddling 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 fully charged cell phone or other emergency contact device in a waterproof bag.
- Always tell someone of your boating plans.

## Safety Equipment & Important Safety Items

Water conditions will determine the type of safety equipment needed. At a minimum have a PFD (personal flotation device) and a whistle for each passenger. PFDs are required by law in most places. White water requires special equipment such as helmets, etc.

**Drinking Water & Snacks:** Paddle boating is a physical activity that can deplete your reserves. Have enough water and snacks to prevent dehydration and loss of stamina. Bring enough water for all passengers. Know the warning signs of dehydration and heat sickness such as dizziness and shaking.

**Extra Clothes/Layers:** Avoid deadly hypothermia. Water conducts heat faster than air, so go prepared with weather proof clothing especially if the water is cold. Use a "dry bag" to store extra clothing inside so they're not damp when needed. Wear a wetsuit or drysuit when warranted.

**First Aid-Kit:** Contents of the kit may vary depending on your preferences but be sure to include items that match the hazards you are likely to encounter. A waterproof container is recommended.

**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. Sunscreen will help prevent serious damage to your skin from the sun and the sun's reflection from the water. Reapply sunscreen as needed.

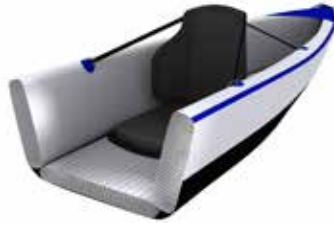
**Whistle:** Having a whistle readily available to you in case of emergency is a great way to attract the attention of others if assistance is needed.

**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.

## OPERATING YOUR SEA EAGLE

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

The patented 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.**

**SIDE DRAINS:** The side 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 kayak 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.



**Using the Recessed Valve**  
The RazorLites have one valve for each side chamber & one valve for the floor. Remove the cap to access the valve stem.



Check the hose end that goes in the board's valve. It should have hooks to lock it in the valve opening.



Press and turn the stem counterclockwise so it can pop UP. When the stem is up, the valve is closed and will hold air. To let air escape for deflation, press and turn the stem clockwise until locked open.



**WARNING:**  
Air compressors that are designed for other uses like tire inflation (usually over 30 psi) can easily over-inflate and cause harm to your Sea Eagle that uses a much lower pressure. For this reason, we recommend using only Sea Eagle manual or electric pumps.

RazorLite Kayaks | **ASSEMBLY & INFLATION**



**Using the Double Action Hand Pump:**  
In the double action mode the pump inflates on the up and down strokes. In the single action mode, the handle comes up more easily, allowing the user to push hard on the down stroke.

If your pump looks different than this one, please call us or check the Instructions page of our website.



Locate an area large enough to unfold the RazorLite avoiding hazards that could damage the kayak or injure you.



Screw the hose onto the pump.  
Begin In the double action mode for fast fill.  
Switch to single action when handle becomes too hard to lift.

*FlexBrace Pedals*



Before inflating boat, locate the right (R) and left (L) pedals and aluminum bars (9 7/8").





Install FlexBrace pedals. Slide aluminum rod into front hole (closest to the Sea Eagle logo).



Select correct pedal, slide it all the way forward to end of the rod.



Bend the pad with one hand and pull rod into its hole with the other hand. If rod does not fully engage hole, release pad and use both hands to squeeze end of rod to pad until it slides in hole. Use care not to bend the rod.



After inflation, adjust pedal for comfort and best bracing, raise pedal and slide it along the bar. Note setting number and match it on the other side.



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



**Skeg**  
The removable skeg helps control yaw and improves paddling speed.



Turn the kayak 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.



**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.



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



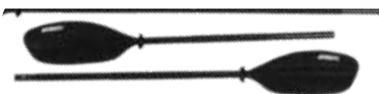
**TIP:** When getting in the kayak, place your weight on the seat pad and try not to knock back the upright backrest pad. Arch your lower back forward and avoid leaning high on the back of the seat. You will feel the seat support your lumbar region.



**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.



The AB40 paddle, top, includes a right blade, a left blade, 2 drip guards and 2 shaft pieces.



The AB50 Pro Carbon Paddle, bottom, includes 2 drip guards and a right and left blade/shaft. This paddle breaks down into 2 pieces.



Assembly for both paddles is the similar. The 4-part AB40 is shown.

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 three feathering holes.



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.



**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.



Side drains are intended to drain accumulated water while ashore. Leaving the drains opened while on the water will cause water to enter the kayak. Keep drains closed while kayak is in use. If drains leak, refer to Troubleshooting.



## RazorLite Kayaks | ASSEMBLY & INFLATION

### Seating Positions

Shown below are the seating arrangements for the 393RL and 473RL. The 473RL can be paddled solo from the front position or tandem. Boats not shown to scale.

#### 393RL



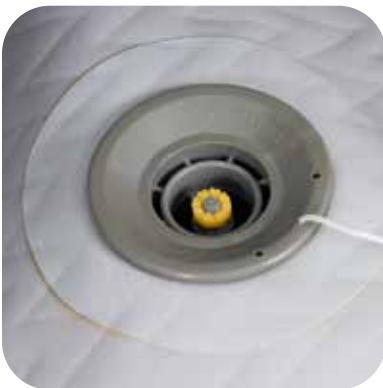
#### 473RL



## RazorLite Kayaks | DEFLATION



Remove seat(s) and skieg.



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

**Warning:** Air escapes with force, do not place face directly over valve.



To remove FlexBrace pedals: deflate chamber, bend pad with one hand, pull pedal with the other. Bar will slide out of the hole.

**Caution!** Do not pull on aluminum bar without bending pad when removing it from base. Doing so can bend the bar.

## RazorLite Kayaks | DEFLATION



Use clips on reverse side of pedals as keepers for the bars when not in use.



Fold one wall over the other. Push the floor in between the walls for a tight, compact fold.

**Tip:** Keep the backpack near by for size reference.



Push the skieg base down flat to prevent it from bending and becoming misshaped.



## RazorLite Kayaks | DEFLATION



Make the 1st fold at the capacity plate.



Fold the bow in, then fold the kayak on top of itself. Both nosecones should be folded inside and protected by the kayak walls.



Slide the kayak into the backpack. Paddle, seat, foot rest and pump will fit in the bag, also.

The 473RL will fit more snugly in the backpack due to its larger size.

## RazorLite Kayaks | CLEANING & PROTECTING

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

## RazorLite Kayaks | CLEANING & PROTECTING

### Protection from the Sun and Heat

Avoid leaving the boat 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.

Treat the boat with a UV protectant such as 303 Aerospace Protectant. Generally, protectants are a thin film of oil, which will help keep your Sea Eagle clean. Avoid applying protectant on the EVA pad or places where foot traction is needed. Treated boat will repel sand, water scum and tar stains.

### RazorLite Kayaks | 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.

**Storage Tips:** *"The best way to store a Sea Eagle is folded up in its 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 leak out and 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.

### RazorLite Kayaks | TROUBLE SHOOTING

If your Sea Eagle has lost 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. 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.

## RazorLite Kayaks | TROUBLE SHOOTING

### Step #3. TIGHTEN

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 #4. SOAPY WATER TEST

You'll need a bucket and liquid dish washing soap. Fill the bucket with clear water, and add a good squirt of soap (couple of tablespoons) to the water. Inflate the leaking chamber to full pressure. Spread lots of soapy water on the leaking chamber with a hand towel or large sponge. Don't assume the leak is coming from the valve or seams. The leak may produce bubbles, make hissing or sputtering noises, or spray water. Spray bottles are not effective at locating many leaks.



## RazorLite Kayaks | REPAIRS

Even though Sea Eagles are very rugged and tough, you may still experience the occasional puncture. 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 valve tool.



## RazorLite Kayaks | REPAIRS

### PVC Based Glue

To patch your Sea Eagle, use an adhesive for PVC boats. Plumber's cement, epoxy, Flex Seal, waterproofing sprays and Gorilla Glue do not work.



### Pinholes

Deflate the 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.



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



### Patching

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



Trace the outline of a penny on the patch material and on the boat. If a larger patch is needed, use a larger item as a template.



Cut patch along the outline with scissors.



Pro Tip: Trace the outline of the penny on masking tape and cut with a utility knife. Apply tape to the boat instead of tracing on the boat.



Apply glue to the patch and boat. Allow to dry 15 minutes. Glue must be dry to the touch. If glue layer is thin, apply second coat, allow to dry 15 minutes.



Apply patch to the boat. Smooth with finger or a smoothing tool such as a spoon, handle of a utility knife, or screwdriver. For best results, heat patch with a hair dryer 10-20 seconds and smooth with tool.

#### Patching Tips:

- 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 1/2" 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.
- For field repairs, allow at least an hour to cure. Other repairs, allow to cure overnight.
- Patches can be removed by heating with a hairdryer.
- **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 base 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. If not folded properly, the base can get warped in storage. Never hammer the skeg into a warped base as it will break the base.

#### Floor Drains

If you suspect the drains are leaking, prop the boat up and fill it with enough water to cover the drains. If water is leaking:

- Clear any sand in the threads
- Heat drain bases with a hair dryer. Bases can become misshapen when boat is tightly folded for long periods. Heating will return base to its original shape.



Sea Eagle offers a large array of accessories for your RazorLite Kayaks.



**Personal Flotation Devices (OPTIONAL)**

U.S.C.G. approved. Life jackets, paddling vest, PFD Belts available in various sizes.



**See-me Safety Light (OPTIONAL)**

Coast Guard approved LED personal safety light emits a 360° light visible up to 3.4 miles. It also attaches to a PFD!



**Squid Anchor Kit (OPTIONAL)**

Extends the life of your Sea Eagle. Simply spray on every 30-45 days to improve resistance to UV, chemical & other types of harmful exposure.



**BP12 Single Stage Electric Pump (OPTIONAL)**

Lightweight, high pressure piston pump can be set to the desired PSI and stops automatically when the selected PSI is reached. Includes alligator clips and connector for optional, rechargeable battery sold separately.



**EZ Cart Small (OPTIONAL)**

Transport your kayak from your car to the water and back with ease. Quickly assembles & disassembles.



**303 Protectant (OPTIONAL)**

Extends the life of your Sea Eagle. Simply spray on every 30-45 days to improve resistance to UV, chemical & other types of harmful exposure.

**Contact Us**

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