

Kroeger Marine
LakeEze™ Ladder
Assembly Instructions



HAND-CRAFTED IN THE USA

Thank You For Your Purchase!

Our focus at Kroeger Marine has been simple—to build the highest quality, handcrafted lake products on the market. Our innovative solutions deliver both form and function, a fine balance between design and first-class aesthetics. Every Kroeger product is designed with you in mind.

We hope you enjoy your LakeEze™ Ladder for years to come. - Kroeger Marine

For questions contact us at 864-882-7671 or email dockandrock@kroegermarine.com



Scan the QR code to view our installation tutorial video.

Stay tuned for updated installation tutorial video coming February 2023!

Important Safety Instructions:

- It is recommended that this ladder be assembled by ages 18+.
- Use personal protective equipment (not included) when operating power tools.
- Do not expose power tools to water. Use a GFCI protected power supply when operating near water.
- This ladder contains a spring-assisted lift. Use caution when springs are under tension to avoid injury.
- Ladder must be assembled in the instructed order to prevent injury.

Tools

Tools Needed for Installation:

- 7/16" Flat Wrench
- 9/16" Socket
- Drill/Impact Socket Adapter
- 5/32" and 7/32" Allen Wrench
- 5/16" Drill
- Drill with 3/8" Chuck
- Socket/ Ratchet Wrench
- Impact Driver
- 11/64" Drill Bit
- 3/8"-1/2" Drill Bit
- Razor Knife
- Pencil
- Measuring Tape

Packing List

Box:

- Long Ladder Side Rail (x2)
- Short Ladder Side Rail (x2)
- Plastic Step (x5)*
- Corner Angle Plate (x2)
- Ladder Handrail (x1)
- Dock Handrail (x2)
- Angle Backer Plate (x1)
- Spring Housing (x2)

*6 will be provided if you have the 6-step version

Bag A:

- 1/4-20 x 1 3/4" Pan Head Bolt (x18)*
- 1/4" Flat Washer (x18)*
- 1/4" Brass Lock Nut (x18)*

*22 will be provided if you have the 6-step version

Bag B:

- 3/8-16 x 1 1/4" Pan Head Bolt (x8)
- 3/8-16 x 1" Pan Head Bolt (x16)

Note: If upper rail assembly is pre-assembled, Bag B will only contain 3/8-16 x 1" Pan Head Bolts (x8)

Bag C:

- 1/4-20 x 2 1/2" Pan Head Bolt (x2)
- 1/4-20 x 3 1/2" Pan Head Bolt (x2)
- 1/4" Flat Washer (x8)
- 1/4" Brass Lock Nut (x4)

Bag D:

- 3/8 x 5" Lag Bolt (x8)
- 3/8 x 1 1/2" Lag Bolt (x4)
- 3/8" Flat Washer (x12)

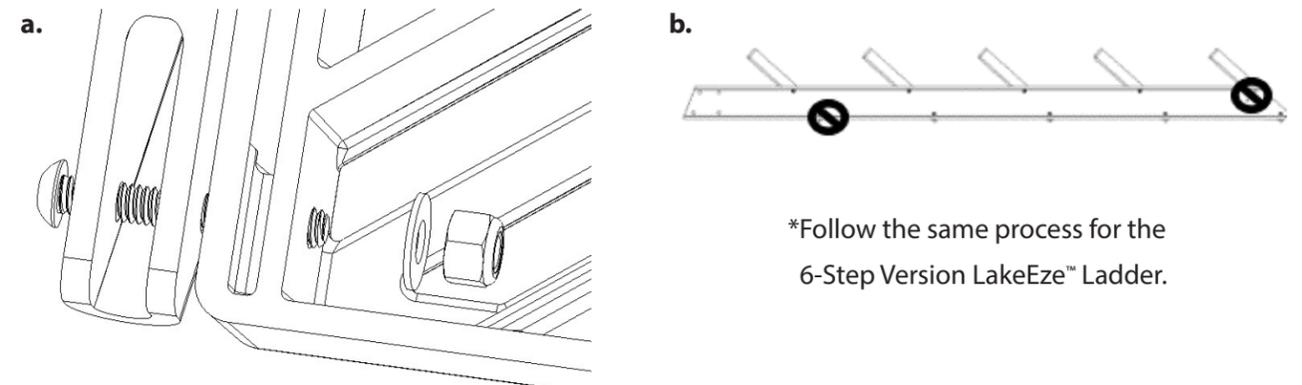
Bag E:

- Latch Plate (x1)
- Latch Pin & Tether (x1)
- 1/4 x 3" WAR Self-Tapping Screw (x2)
- #10 x 1" Wood Screw (x1)
- Bumper Washer (x1)

Assembly

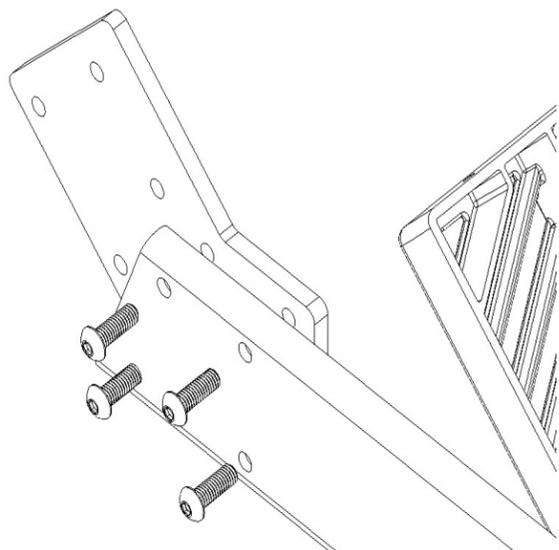
1) Arrange rails so that the steps will be installed upside-down (angled cuts are pointing up).

2) Bolt the steps onto the ladder rails using hardware from bag A. (**Note: figure b indicates where handrail bolts (bag C) will go. Leave these holes empty on the side you choose the handrail to go on.**)



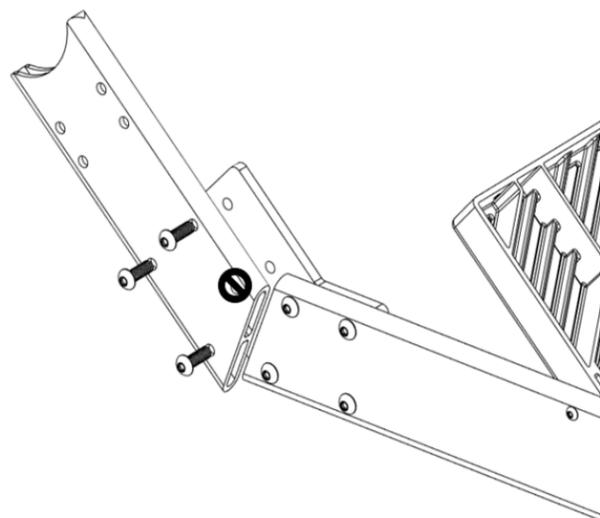
*Follow the same process for the 6-Step Version LakeEze™ Ladder.

3) Bolt angled plates to the inside of the long ladder side rails using the 1" bolts from bag B. **(Note: Short side of angled plate bolts to the long ladder side rail.)**



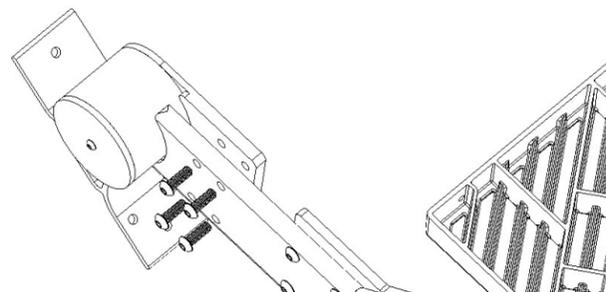
4) Bolt the short ladder side rails to the other end of the angled plates using the 1" bolts from bag B. **(Note: Leave the marked hole empty for using the latch system.)**

Additional Note: This step may already be completed if ladder is a curbside pick-up or dealer ladder.



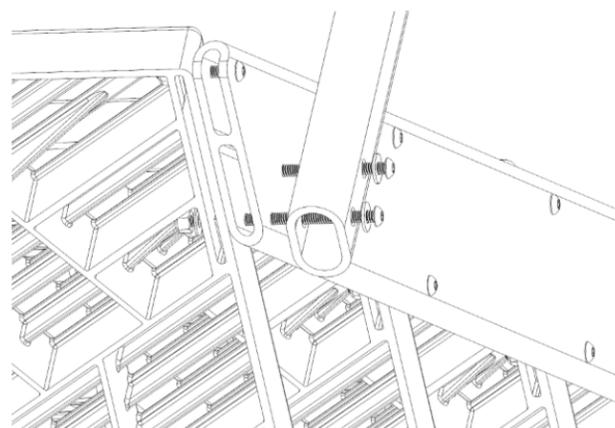
5) Bolt spring housings to ladder using the 1 1/4" bolts from bag B.

Additional Note: This step may already be completed if ladder is a curbside pick-up or dealer ladder.



6) Flip ladder over and set aside.

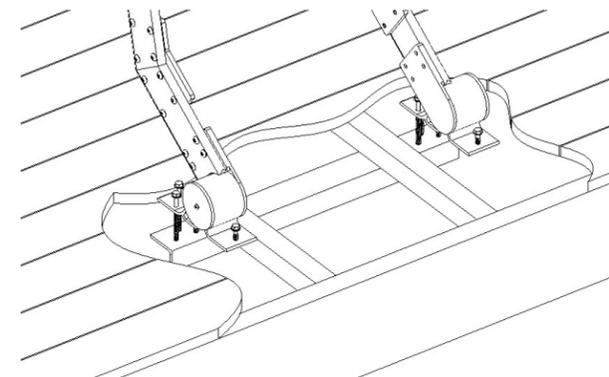
7) Bolt ladder handrail to desired side of ladder using hardware from bag C. Use the longer bolts for the holes that line up with the step. **(Note to make sure to put a washer under the bolt head and the lock nut of each bolt.)**



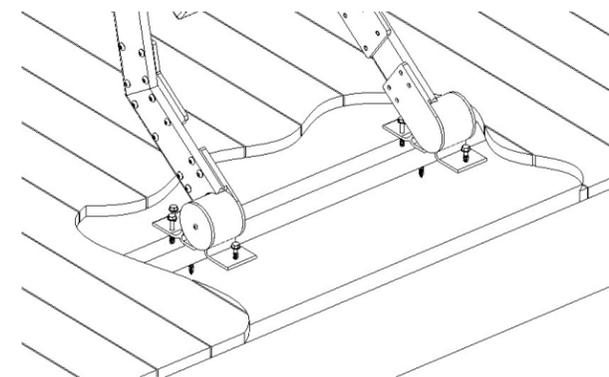
Installation

The images below represent the most frequent installation situations. Cutting your deck boards is not necessary, the cut-out views are for visualization purposes only.

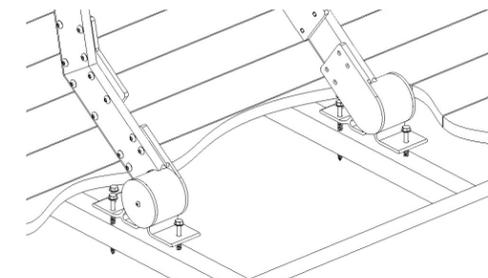
9a) If dock is on 16" centers and the desired ladder location is perpendicular to the deck boards, mount as shown below with the provided backing plate.



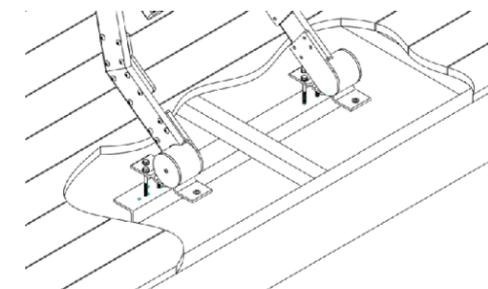
9b) If dock is on 16" centers and the desired ladder location is parallel to the deck boards, mount as shown below directly into the frame.



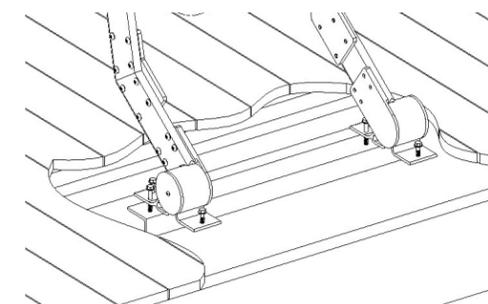
9c) If dock is on 24" centers and the desired ladder location is perpendicular to the deck boards, mount as shown below directly into the frame. Line up such that the maximum number of lags hit the frame.



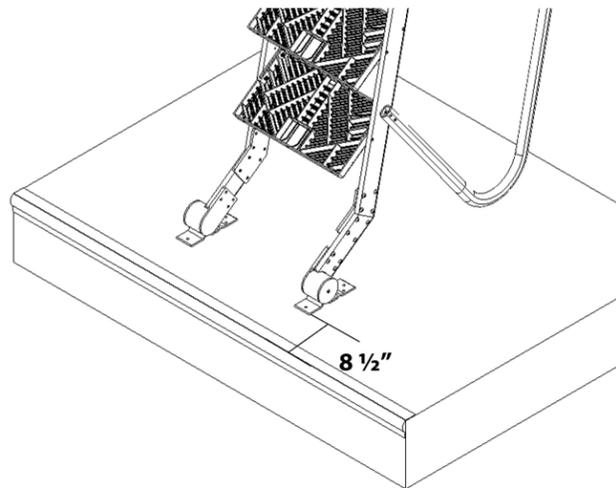
9d) If dock is on 24" centers and the desired ladder location is perpendicular to the deck boards and cannot go into two frame members, mount as shown below straddling the single frame member with the provided backer plate. Tighten the backer plate equal amounts on each side till firmly secured.



9e) If dock is on 24" centers and the desired ladder location is parallel to the deck boards, mount as shown below with the provided backing plate.

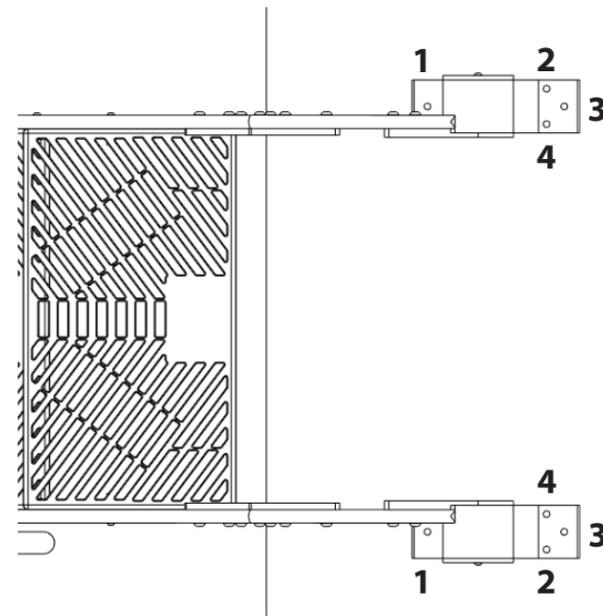


10) Place the assembled ladder at the desired location with the front of the spring housing 8 1/2" from the edge of the dock. Mark all holes and remove ladder from positioning.

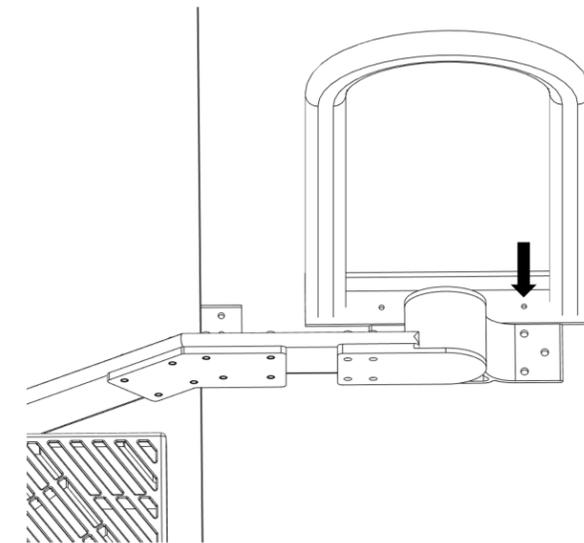


11a) If using backing plates as indicated in 9a or 9d, drill the FRONT holes using a 5/16" drill bit, and drill the REAR holes through decking using a 3/8"-1/2" drill bit (a larger hole allows for easier connection and the ladder to self-align). Remove any boards necessary to access underside of your dock. Insert 1 1/2" lags into front holes first and tighten to snug. Front holes get lagged into decking if using backer plate (overtightening will strip out the decking). Insert 5" lags into outer rear holes and lag into provided backer plate using the pre-punched holes. Tighten outer rear lag most of the way but DO NOT fully tighten yet. Lower ladder into down position (**Note it is very important NOT to put ANY weight on the ladder and to make sure the outer rear lag has a good bite into the backer plate.**) In the down position, insert the center rear lag, THEN the inner rear lag into each housing and fully tighten all lags while still in the down position.

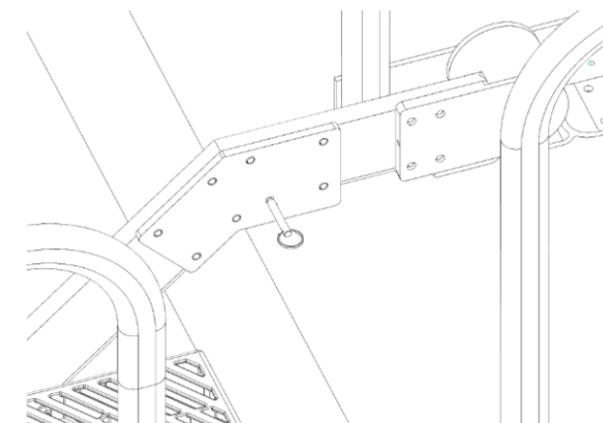
11b) If you are connecting directly into your dock frame as indicated in Step 9B or 9C, drill ALL holes using a 5/16" drill bit. Insert the 1 1/2" lags into the front holes first. Insert 5" lag into the outer rear hole SECOND directly into the dock frame (Note if the outer rear hole does not go into the dock frame, use the center rear hole instead.) Tighten the rear lag in the frame most of the way but DO NOT fully tighten yet. Lower the ladder into the down position (**Note it is very important NOT to put ANY weight on to the ladder and to make sure the rear lag has a good bite into the frame.**) Insert remaining lags into rear holes and tighten all until ladder housings are firmly pressed against the dock.



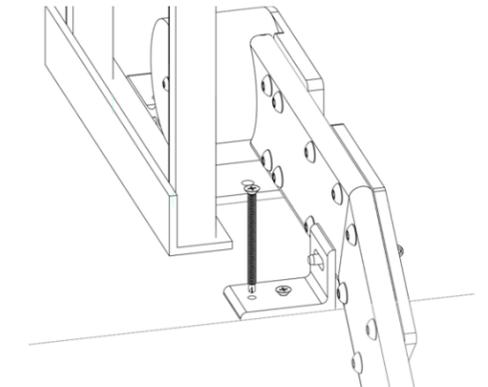
12) Position handrails with the rear hole in-line with the two holes on the back of the spring housing. Mark holes and drill with 5/16" drill bit. Make sure to drill all the way through the backer plate on the rear hole of the handrails. Lag dock handrails into backer plate using 5" lags in the rear holes and 1 1/2" lags into the decking in the front holes.



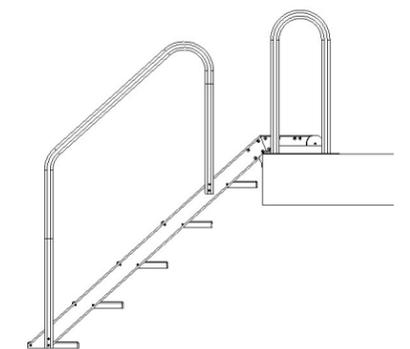
13) Using the empty hole in the angle plate on your preferred side, push the pin in Bag E all the way through towards the outside of the ladder to aid in aligning the latch plate.



14) On the outside of the ladder, align the latch plate so that the hitch pin is through the slot and the mounting holes are over the edge framing of your dock. Mark and drill the holes using the 11/64" drill bit. Attach using the self-tapping metal screws, making sure they go through the frame of your dock. Fasten the pin tether where it is convenient and safe so that the pin enters from the outside of the ladder.



15) Cycle the ladder to make sure it functions properly. Insert the pin latch and remove it several times to ensure that it is operating properly. Trim bumper if necessary. (**Note you may need to relieve some pressure from the lockdown latch to be able to disengage it.**)



Installation of LakeEze™ Ladder is Complete.



Usage And Maintenance

- When lowering the LakeEze™ Ladder into the water ensure area is clear of swimmers and boat traffic.
- Do not swim in inclement weather.
- Do not exceed capacity of 350 lbs on ladder.
- Do not jump on or from ladder.
- Never run up or down ladder.
- Always use handrail when using ladder to prevent slipping.
- Ladder is not designed for unsupervised children under 5 years old.
- Always keep ladder in the upright position resting on handrail when not in use.
- Be aware of pinch points when raising and lowering ladder.
- Check that all fasteners are tight before using.
- Check for electrical current before using ladder.
- Be aware of toe-catches around ladder mounting points.

Workmanship Warranty

Kroeger Marine Construction, Inc. warrants any new product manufactured against manufacturing defects in material and workmanship when properly assembled, installed, and maintained under normal use and service for a period of one year. Such warranty extends only to the original customer.

To learn more about our innovative products, visit us at kroegermarine.com

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