



ASSEMBLY GUIDE

HOW-TO ASSEMBLE A BOAT LIFT HELPER KIT

Everything you need to get the job done right.

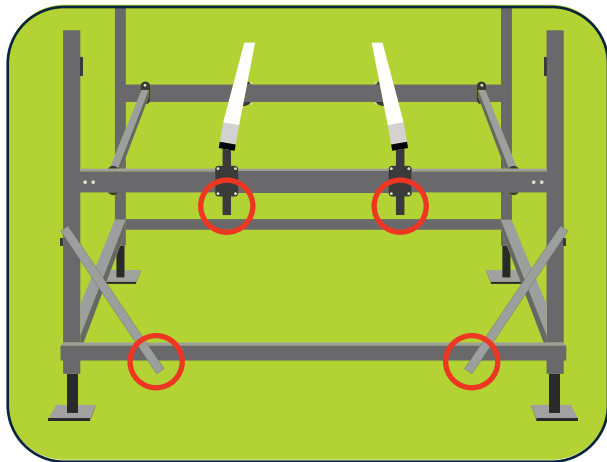


PRE-ASSEMBLY MODIFICATIONS

Make certain that no brackets, nuts, bolts, braces or any other object will make contact with the airbags during the season. This could puncture the system. Lower the cradle all the way down and visually look and feel for anything that might make contact with the bags.

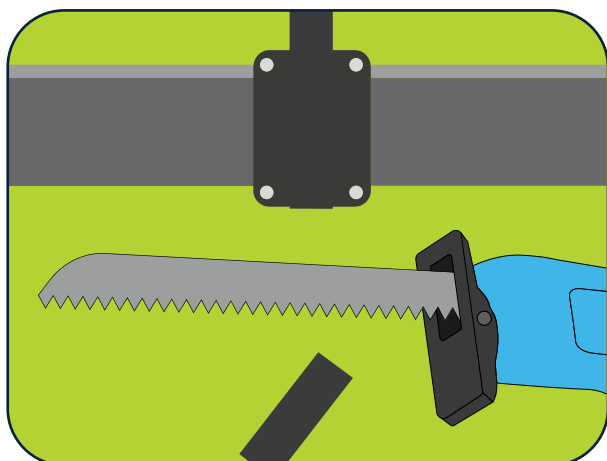
IF YOU HAVE EXTRA BRACING STICKING DOWN...

If there are any objects that protrude toward the bags, cut it off (make sure it is not structural) and round the edges off so they do not puncture the system.



TRIM THE EXCESS OFF

If it cannot be cutoff, wrap the sharp objects with a material to create a buffer between the object and the bags.



OTHERWISE PROTECT WITH THESE PRODUCTS

We sell a few things that can help aid in reducing bag puncture.

[VIEW ON THE ACCESSORIES LIST](#)

1 STOPPING BLOCKS

Prevent cradle from traveling too low.



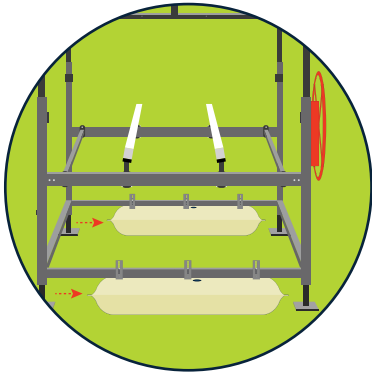
2 BRACKET SHIELDS

Strap around any potential sharp brackets.



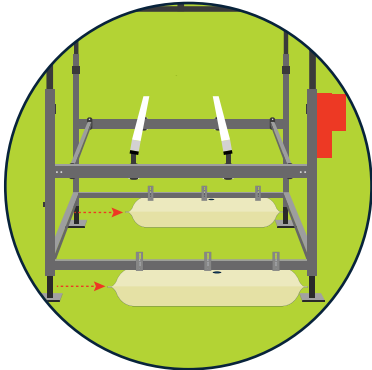
PRE-ASSEMBLY STABILITY

Offsetting the bags toward the heavy side may be necessary. The installation of the bags should be at the front and rear of the lift. **Remove any removable weight such as batteries and other accessories.** Determine the center balance of the lift to compensate for components such as the winch/wheel/motor. The below diagrams show a general rule of thumb on where to position the bags on your lift depending on the extra weight. **Test the balance on flat land prior to installing into the water.** Orientate the bags so the hose inlets are nearest the dock side of the lift.



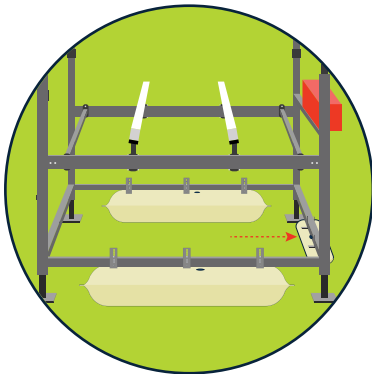
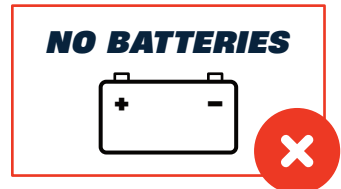
V1 **MANUAL HAND WHEEL**

Offset both bags halfway over toward the hand wheel crank.



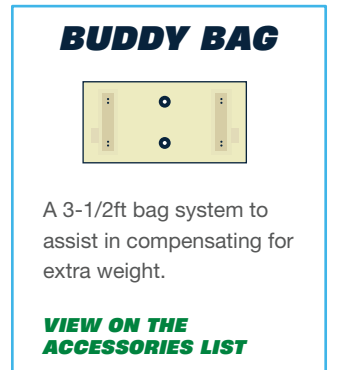
V2 **ELECTRIC MOTOR**

Offset both bags all the way over toward the electric motor.



V3 **HYDRAULIC BOX /VSD DRIVE**

Center both bags and add a Buddy Bag on the side. This extra weight will require an additional bag 3rd bag mounted under the heavy side.



This may take some adjustment to get the desired balance of the lift. Counterweight may be needed on the light side, or the Buddy Bag.

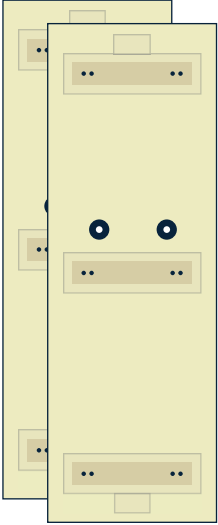
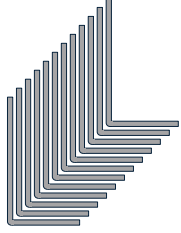
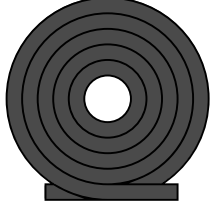













SUPPLIES CONTENTS & TOOLS

This step by step assembly guide will show you how to install the Boat Lift Helper system to your boat lift. Refer to the Owner's Manual on how to operate the system.



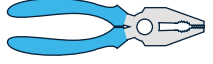
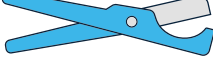



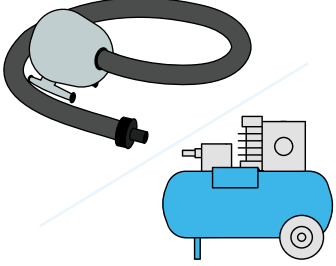
Read and understand the **OWNER'S MANUAL** before operating the system.

KIT CONTENTS

<p>Airbags (x2)</p>  <p>Bag color varies</p>	<p>6" L-Brackets (x12)</p> 	<p>40' Air Hose - 5/8"</p> 
<p>Coupler Kit</p> <ul style="list-style-type: none">  Hose Clamps (x8)  Female Coupler (x4)  Male Coupler (x4) 	<p>Parts Bag A</p> <ul style="list-style-type: none">  Hose Clamps (x12)  Big Plugs (x2)  Small Plugs (x2)  Washers (x24)  5/16" Lock Nuts (x24)  Barbed Y or Tee Fittings (x2) 	<p>Parts Bag B</p> <ul style="list-style-type: none">  5" Carriage Bolts (x6)  3" Carriage Bolts (x6)  End Caps (x6)  1/4" Lock Nuts (x6)

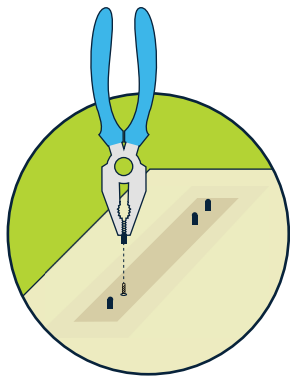
Not actual sizes

TOOLS REQUIRED

<p>Pliers</p>

<p>Tube Cutter / Knife</p>

<p>Screwdriver</p>

<p>1/2" Wrench</p>

<p>7/16" Wrench</p>

<p>Inflator (must be able to reach 3PSI)</p>


STEP 1 INSTALL THE L-BRACKETS

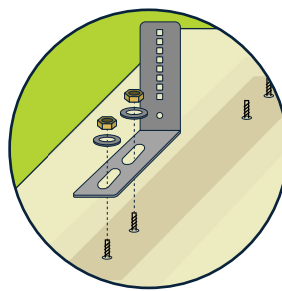
First of five steps is to attach the adjustable aluminum L-brackets.



1A

REMOVE BLACK STUD CAPS

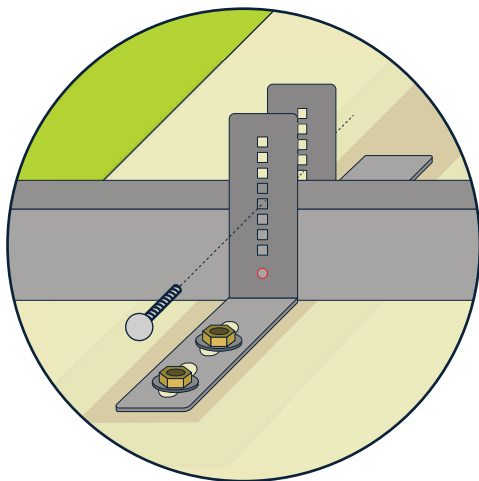
To install the L-brackets, first remove the black stud caps (pull off with pliers or twist off), you may discard caps.



1B

PLACE L-BRACKETS & ADD LOCK NUTS, WASHERS

Parts Bag A, place a 5/16" flat washer followed by a 5/16" lock nut on the threaded stud, lightly tighten the lock nut half way with a 1/2" wrench. Keep the L-brackets loose so they move under the beam. These will be tightened later.



1C

SLIDE TO BEAM & SECURE CARRIAGE BOLT

Slide both L-brackets tight against the beam. Parts Bag B, insert a carriage bolt between the two L-brackets directly above the top of the beam. The beam should be tightly sandwiched between the top of the bag and the carriage bolt.

Use the 3" carriage bolt for beams 2" wide or less
Use the 5" carriage bolt for beams wider than 2"
There will be 6 extra bolts unused.

Parts Bag B, loosely install a 1/4" lock nut on the carriage bolt with a 7/16" wrench (Note there is no washer for the carriage bolt). Prior to the next step, make sure the airbags have been offset before tightening the L-brackets (see Pre-Assembly Stability). Repeat on all L-brackets for that airbag.

Note: The bottom round hole is not for a carriage bolt, this is if you want to use a self tapping screw for added reinforcement.

With the L-brackets tight against the beam, first tighten the 5/16" lock nuts on the top of the air lift-bag from Step 1B, then squeeze the top of the L-brackets and tighten the 1/4" lock nut on the carriage bolt. For safety, slide the black carriage bolt caps (Parts Bag B) on the exposed end of the carriage bolts. Repeat on the rest of the L-brackets. Then repeat process on second airbag.



Make certain the L-brackets are fastened tight against the beam or the carriage bolt can cause damage to the beam. Make certain the carriage bolt threads that stick past the L-brackets do not interfere with the cradle.

STEP 2 ATTACH HOSE - ELBOW TO Y

Depending on how your boat lift cradle lowers down to the bottom frame, choose which of these two options will work best for you. As noted earlier, orientate the airbag so the side with the black barbed elbows are directed towards where you will run the air hose.

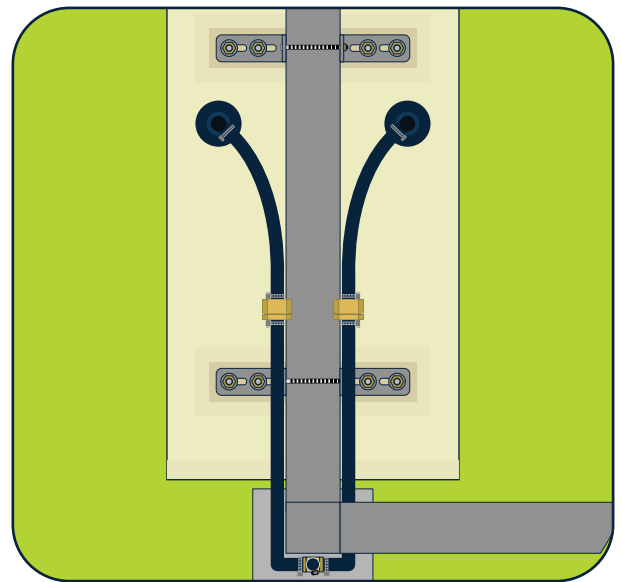
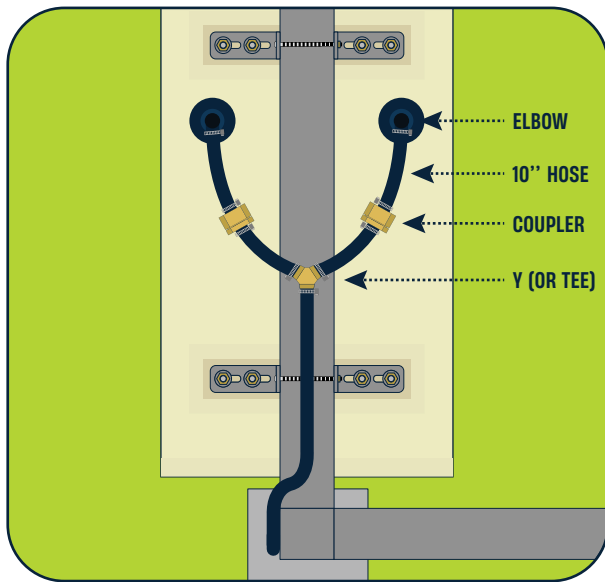


TIP Tighten hose clamps with tails upward, not touching bag. If hose is stiff, soften with heat source or submerge into hot water.

V1 SINGLE LINE RUN ON TOP (MORE COMMON)

OR

V2 DOUBLE LINE RUN ALONG THE SIDE



Cut four sections of hose to 10" lengths.

Connect a 10" hose from the elbow in the bag to the female end of a barbed coupler. Then connect another 10" hose from the male end of the coupler to the barbed Y (or Tee). Don't forget the hose clamps. Do this twice for each bag.

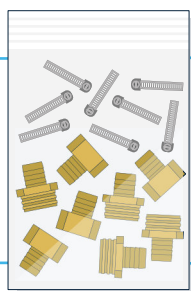
To connect the hose to the fittings, push the hose on the barbed fittings and tighten a hose clamp with a screwdriver.

Repeat on second airbag.

(May use more hose than provided unless valve assemblies are mounted on separate posts)

Run the two hose sections along the side of the bottom beam to the outside of the vertical post. Slide a hose clamp over each hose end. Tighten hose clamps around each connection with a screwdriver. Then firmly push the other end of the hoses on the barbed Y fitting. Between the elbow and the Y, cut the air hose and splice in the the barbed couplers. Repeat on second airbag.

COUPLER KIT



The Coupler Kit is designed to easily allow you to remove the bags at the end of the season and easily reattach the following spring. Tighten hose clamps and tighten couplers to ensure no water will enter the bag. We recommend replacing the internal washers every 3 years.



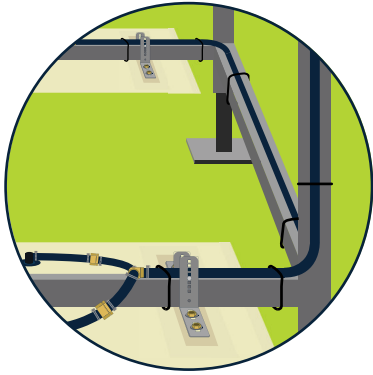
FEMALE END



MALE END

STEP 3 ATTACH HOSE - Y TO VALVE

Run the hose from barbed Y (or tee) to valve assembly. Make sure it is accessible when floating the lift.

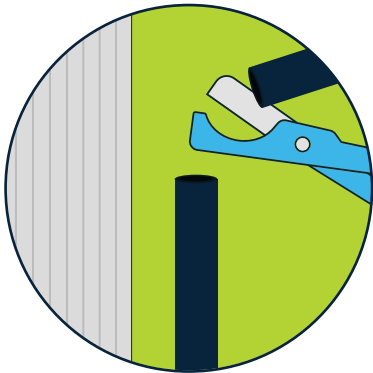


3A RUN THE HOSE

Firmly push the hose on the barbed Y (or tee) fitting and carefully run the hose along the frame beams and up a post to the designated area towards the desired 3-way valve assembly location. Hose clamp over the fitting.

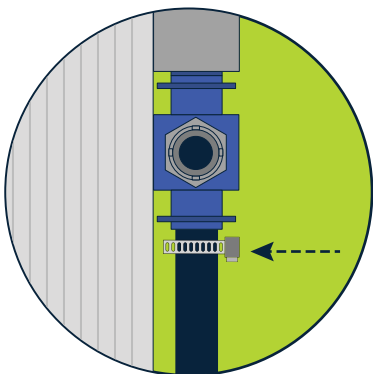


Do not secure hose to any moving parts that may interfere with the boat lift. Verify that the hose is not secured to any area which may cause pinching or cutting of the hose.



3B CUT THE HOSE

Cut the hose at the desired 3-way valve assembly location. Make sure you can reach it when the bags are inflated floating on the water, and when the bags are deflated and the lift is in the water. When repeating on second airbag, the designated area for the 3-way valve assembly may be on the same post or two different posts, personal preference. More detail about the 3-way valve assembly in the next step.

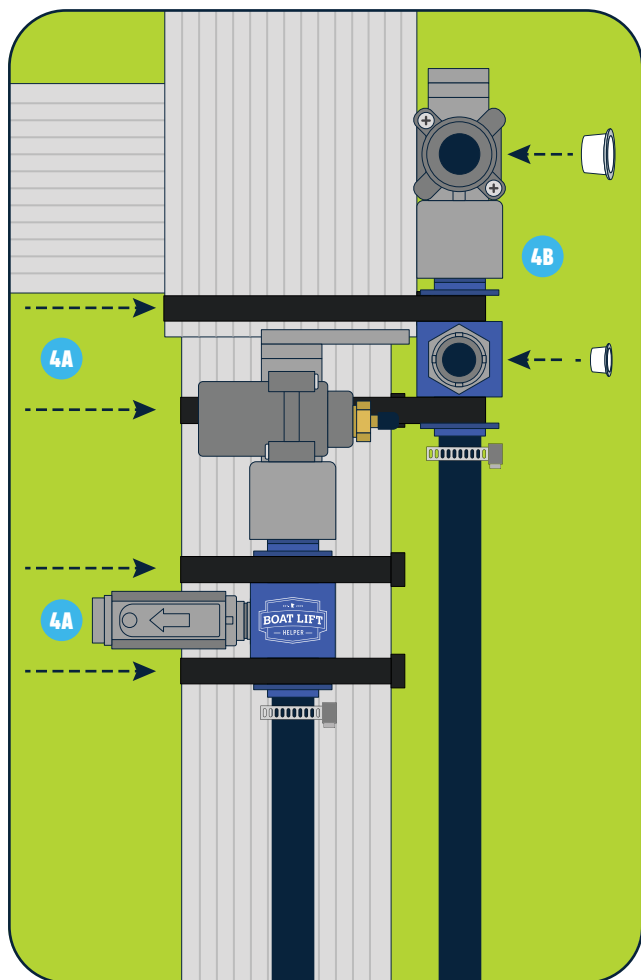


3C CLAMP THE HOSE

Slide a hose clamp over each end of the hose, and firmly push the hose on the bottom of the 3-way valve assembly. Tighten the hose clamps with a screwdriver. Use the cable ties provided to secure the hose around the beams and posts of the lift. Do not over tighten and restrict air flow. Repeat on second airbag.

STEP 4 MOUNT THE VALVE ASSEMBLY

Final step, secure valve assembly to boat lift. As noted in step 3, make certain you can reach this when the system is inflated above water, and when deflated under water.



4A ATTACH WITH CABLE TIES

With the hose connected to the 3-way valve assembly, use the cable ties provided to mount the 3-way valve assembly on an upright post in a position which makes inflating the system convenient (valve assembly location may vary pending the lift, do not position the 3-way valve assembly in a location that will cause it to be submerged in water, it must be above water level at all times. Cinch the cable ties at the desired location. Repeat on second 3-way valve assembly.

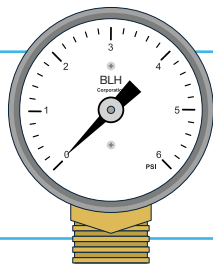


Verify that the valve assemblies and hoses do not interfere with cables, the boat cradle, winch wheel, or any other moving components of the lift.

4B INSERT CLEAR PLUGS

Firmly press the two clear silicone plugs (Parts Bag A) into the two open ports (pressure relief valve port and 3-way valve port) to prevent clogging by insects and debris. Repeat on second 3-way valve assembly. These plugs will remain in place when the 3-way valve assemblies are not in use. The plugs **MUST** be removed prior to inflating and deflating the system. Save plugs and reinsert when not in use.

AIR GAUGE KIT



There is an option Air Gauge Kit upgrade that can help monitor exactly how much air pressure is in each bag.

[VIEW ON THE ACCESSORIES LIST](#)

YOUR INSTALLATION IS COMPLETE



Refer to the **OWNER'S MANUAL** on how to operate the system.