



# INSTALLATION GUIDE

**! Read and understand the Safety Warning Guide before operating the system**

## TOOLS REQUIRED:

- Knife Tube Cutter
  - Screwdriver
  - 1/2" Wrench
  - 7/16" Wrench
  - Air compressor/pump
- ^ MUST be able to reach 3PSI

## STANDARD KIT CONTENT:

- 2 - Air-lift-bags with inserted elbows
- 12 - 6" L-brackets
- 1 - 35' Air hose roll - 5/8"
- 2 - Complete 3-way air valve assemblies
- 2 - Parts Bags - A and B
- 12 - Heavy duty 120lb 24" cable ties
- Installation Guide, Warranty & Safety Warning Guide, 7 Point Checklist

BAG A
24 - 5/16" Stainless Steel Flat Washers
24 - 5/16" Brass Nylon Lock Nuts
12 - Stainless Steel Hose Clamps
2 - Brass Barbed Tee Fittings
4 - Silicone Clear Plugs

BAG B
6 - 3" x 1/4" Carriage Bolts
*Use for beams less than 2" wide
6 - 5" x 1/4" Carriage Bolts
*Use for beams wider than 2" wide
6 - 1/4" Brass Nylon Lock Nuts
6 - 1/4" Black End Caps

\*Quantities differ for none standard systems

## MODIFICATIONS - Some modifications on the lift may be required

Make certain that no brackets, nuts, bolts, braces or any other object will make contact with the air-lift-bags 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 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. If they cannot be cut off, wrap the sharp objects with a material to create a buffer between the object and the bags. We do sell 2" tall rubber stopping blocks that can help stop the cradle from lowering too far on top of the bags (may not work for all manufacturers).

## STABILITY - Offsetting the bags toward the heavier side may be necessary

The installation of the air-lift-bags should be at the front (bow) and rear (stern) of the lift to provide optimum stability. Remove any removable weight such as batteries and accessories. Determine the center balance of the lift to compensate for components such as the winch and wheel. The front **air-lift-bag should be offset** to the side towards the winch wheel (Figure A.1). This may take some adjustment to get the desired balance of the lift. The rear air-lift-bag may take similar adjustment to get the desired balance of the lift. **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.



Figure A.1

## STEP 1

- To install the L-brackets, first remove the black stud caps (pull off with pliers or twist off), you may discard caps (Figure 1.1). Next place the L-brackets on the threaded studs. From Parts Bag A, on the top of the L-bracket place a 5/16" flat washer followed by a 5/16" lock nut, tighten the lock nut half way with a 1/2" wrench (Figure 1.2). Keep the L-brackets loose so they can easily slide apart to fit under the beam. These will be fully tightened in a later step.
- From Parts Bag B, insert a carriage bolt between the two L-brackets through the lowest square hole that is nearest the top of the beam (Use the 3" carriage bolt for beams less than 2" wide - use the 5" carriage bolt for beams wider than 2" wide). Also from Parts Bag B, loosely install a lock nut on the carriage bolt with a 7/16" wrench. Prior to the next step, make sure the air-lift-bags have been offset before tightening the L-brackets (see first paragraph in the **STABILITY** section above). **Repeat on all L-brackets for that air-lift-bag.**
- Slide the L-brackets tight against the beam and first tighten the lock nuts on the top of the air-lift-bag then squeeze the top of the L-brackets (Figure 1.3) and tighten the 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 air-lift-bag.**



**Make certain the L-brackets are fastened tight against the beam or the carriage bolt can cause damage to the beam.**



Figure 1.1



Figure 1.2



Figure 1.3

## STEP 2 (the length of hose cut varies on the size of the lift)

Depending on how the bunk lowers down around the beams that the bags are attached, choose which of these two options will work best for you. As noted earlier, orientate the air-lift-bag so the side with the black barbed elbows are nearest where the hose will be ran.

**Option 1.)** Approximately cut two sections of hose to 12" lengths. Firmly push the 12" sections of hose on the black barbed elbows in the air-lift-bag (Figure 2.1). Slide two hose clamps (Parts Bag A) over each 12" hose section.



Figure 2.1

**Option 2.)** (May use more hose than provided unless valve assemblies are mounted on separate posts) Run the two hose sections along the frame to the outside of the vertical post. Slide a hose clamp over each hose end. Tighten hose clamps around each connection with a screwdriver. Repeat on second air-lift-bag.



Figure 2.2

### OPTIONAL UPGRADE - BRASS COUPLERS

Quickly attach/detach the hose for easier spring install/winter removal.

Find an appropriate location between the black elbow and brass tee to cut the hose and insert the brass couplers. (Figure 2.1 and Figure 2.2 are fitted with the brass coupler upgrade) Slide one hose clamp over both cut sections, then insert the brass couplers. Tighten hose clamps and tighten couplers to ensure no water will enter the bag. \*These can be purchased at any time.



## STEP 3

• Firmly push the hose on the barbed tee fitting (Parts Bag A) (Figure 3.1) then run the hose along the frame beams and up the post to the designated area towards the desired 3-way valve assembly location (Figure 3.2 through Figure 3.4).

**⚠ 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.**

• Cut the hose at the desired 3-way valve assembly location (Figure 3.4). When repeating on second air-lift-bag, the designated area for the 3-way valve assembly may be on the same post or two different posts, personal preference.

• Slide a hose clamp over each end of the hose, and firmly push the hose on the bottom of the 3-way valve assembly (Figure 3.4). 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 secure cable ties too tight and cut off air flow.** Repeat on second air-lift-bag.



Figure 3.1



Figure 3.2



Figure 3.3



Figure 3.4

## STEP 4

• 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, Figure 4.1 has both valves on 1 post, alternatively each valve would be on a separate post). 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.

**⚠ As mentioned in Step 3, 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.**

## STEP 5

• 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.



Figure 4.1

**INSTALLATION  
IS NOW  
COMPLETE**



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**FUNCTIONS OF THE 3-WAY VALVE ASSEMBLY**

Inflating the Boat Lift Helper system requires a maximum of 3 PSI. Use a minimum of a 3 PSI air pump, or an air compressor to inflate the air-lift-bags. The 3-way valve assembly has a relief valve which will relieve any air pressure greater than 3 PSI. Some air seepage from the air-lift-bags is normal.

BEFORE USE	2 WAYS TO INFLATE		HOLD AIR WHILE FLOATING	TO DEFLATE	AFTER USE
 <p>Remove clear plugs (red in this photo) prior to operating the system</p>	<p><b>INFLATOR</b> *Must be able to reach 3PSI</p>  <p>Insert nozzle into large empty/open outlet, turn lever to <b>LEFT</b></p>		 <p>Turn the lever to the <b>CENTER</b> to stop any air flow</p>	 <p>Turn the lever to the <b>LEFT</b> towards the empty/open outlet</p>	 <p>Turn the lever to the <b>CENTER</b> and reinsert clear plugs and chrome cap</p>
	<p><b>AIR COMPRESSOR</b></p>  <p>Unscrew cap, press air compressor chuck over brass stem, turn lever to <b>RIGHT</b></p>				

# OPERATING THE SYSTEM

## IMPORTANT REMINDERS

**⚠ Read the Safety Warning Guide before operating the system**

- **VERTICAL** lifts, make certain to **lower** the bunk all the way down - **CANTILEVER** lifts, make certain to **raise** the bunk all the way up
- Go slow, there is a learning curve on how to operate the system.
- **Always have an additional 2 adults handling the lift while operating**
- Offsetting the bags toward the heavier corner may be necessary
- Inflate/deflate the bags one at a time. Do NOT switch between bags when inflating. Do NOT deflate both bags at once.
- Inflate each air-lift-bag until it looks **FIRM** (minimum 2.5 PSI)
- Do NOT operate the system on a windy day, operate on a calm day.
- Do not drag air-lift-bags across the ground, damage may occur.
- Move the boat lift into the water next to a dock. It is crucial that a dock is present, this leverage will immensely help with stabilizing the lift.
- **Always have an additional 2 adults to assist with floating the lift.**
- Some left and right adjustment of the air-lift-bag or counterweight may be needed to optimize stability. Please refer to the **STABILITY** section on page 1 for more details.
- Refer to page 3 for the two ways to inflate and how to operate the valve assembly.

**\*The lift can tip over by not properly following the Installation Guide and by disregarding the Safety Warning Guide.**

## INFLATION

- Start by inflating one air-lift-bag. Water in the boat lift beams and/or mud on the pads may create instability as the lift rises out of the water. **Make certain that each adult has 2 hands on the lift.** The lift may rise with force and may rise unlevel, if the lift is unlevel, actions may be needed such as lifting up or pushing down on one side of the lift to help maintain stability and obtain a controllable level position. **When it rises to the surface continue inflating that air-lift-bag until it appears FIRM** (min. 2.5 P.S.I.). This will help to maintain stability of the lift.
- **After the first air-lift-bag is fully inflated repeat on the second air-lift-bag.**

## DEFLATION

- When the lift is positioned in the chosen location, **FULLY DEFLATE** the **ONE** air-lift-bag that is lake side. Deflate until the lift legs on that end are resting on the lake bottom. This will help to maintain stability of the lift.
- Once the **FIRST BAG** is fully deflated, then deflate the second air-lift-bag (shore side bag).

## REMOVING FOR WINTER STORAGE

We recommend that the air-lift-bags be stored indoors for the winter season to prolong the life of the system. Once the lift is on land and stored for the winter, follow these steps for the easiest removal process:

**STEP 1** - If you opted for the brass couplers, unscrew those fittings to detach the hose. If you do not have the brass couplers, detach the hose at the barbed tee fittings, **DO NOT** detach the hose from the black barbed elbow in the air-lift-bag (when cold these may become brittle and break).

**STEP 2** - Unfasten the three lock nuts on the carriage bolts with 7/16" wrench, then remove the bolts. The air-lift-bag, with brackets still attached, will then drop down and become free from the lift. Slide the carriage bolts back through the L-brackets and refasten the lock nuts so they don't get lost. **Repeat on second air-lift-bag.**

• When storing the air-lift-bags, lay them flat, do not fold them. Carefully inspect for any damage. Please refer any damage back to the manufacturer for further action. Replacement parts or patch kits can be purchased from the manufacturer.



Visual of fully inflated bags



**Thank you!**

We are available by phone or email 7 days a week for questions, help and support - Donnie, Tim & Cindy.

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