Operation Manual

CAPACITIES: LIGHT | MEDIUM | HEAVY  4,400-25,000 LBS.

HarborHoist™
BY HYDROHOIST® BOAT LIFTS

800.825.3379 | Boatlift.com
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Damage to your lift or vessel can result from improper initial setup of the system. Consult a HydroHoist Certified Installer for initial setup and support

- Installation and service should be performed by a qualified service professional.
- To avoid the risk of electric shock make sure the control is disconnected from any power supply during installation.
- The GFCI supplied with your control is designed for outdoor applications but is NOT to be submerged or directly sprayed with water. Keep the GFCI from being directly sprayed by the exhaust port of the control.
- Verify that your power receptacle is clean and is supplying between 110VAC –120VAC with at least 15 amps of service.
- Keep children away.
- Do not allow yourself to be distracted or walk away from the lift during operation.
- Do not overload the lift. Make sure your boat bilge pump is set for automatic. Significant water accumulation in the bilge may overload the lift.
- Make sure any ballast tanks are empty before lifting the boat.
- Lift is not designed for lifting people.
- No persons should be under the boat while it is in the suspended position.
- Weight must be distributed equally side to side and bow to stern before lifting, otherwise the boat will not center properly and appear to be misaligned on the lift.

Symbols:

⚠️ WARNING

ℹ️ Informational purposes
Control Configurations

The HarborHoist is a versatile boat lift system. The control and functionality of this type of lift will vary with capacity. See the table below for the type of control for your lift.

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<th>Lift Capacity</th>
<th>Control Configuration</th>
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<tbody>
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<td>4400, 6600, 8800</td>
<td>4 Valve</td>
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<tr>
<td>8800 Short, 12000, 15000, 18000, 20000</td>
<td>5 Valve</td>
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<td>25000</td>
<td>6 valve</td>
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Control Configurations and Functionality

4 Valve Control

Button Control:
A: LEVEL - Levels lift
B: UP - Raises lift
C: STOP - Stops all operation of lift
D: DOWN - Lowers lift

LEDs:
A: *Front Port (FP) - valve LED
B: Port (P)
C: Level (L)
D: *Rear Port (RP) - valve LED
E: *Front Starboard (FS) - valve LED
F: Starboard (S)
G: *Rear Starboard (RS) - valve LED
H: Power (PWR)
* Is illuminated when valve is open
5 & 6 Valve Control

**Button Control:**
A: AUX - Puts air in auxiliary tanks only
B: UP - Raises lift
C: STOP - Stops all operation of lift
D: Down - Lowers lift

**LEDs:**
A: *Front Port (FP) - valve LED
B: Port (P)
C: Auxiliary (AUX)
D: *Rear Port (RP) - valve LED
E: *Front Starboard (FS) - valve LED
F: Starboard (S)
G: *Rear Starboard (RS) - valve LED
H: Power (PWR)
I: *Auxiliary Tank (AUXT) - valve LED

* Is illuminated when valve is open
Four Valve Control General Operation

Familiarize yourself with the Control Box. We have created a simple to use 4 BUTTON user interface consisting of UP, STOP, DOWN, and LEVEL buttons. These are the basic functions for operating the HarborHoist lift. The state-of-the-art valve controls and circuitry will insure that your lift comes up level each and every time you lift your boat from the water.

**Lowering the lift:**
- Make sure the Power LED is illuminated and flashing
- Press the **DOWN** button, this will open the valves
- Allow the lift to submerge (walkways will remain above water)
- Untie lift safety lines from boat
- Board the boat only after it clears the lift

**Raising the lift:**
- Make sure the Power LED is illuminated and flashing
- Float boat into established balanced lifting position on the lift
- Tie off safety lines to the boat
- Everyone must exit the boat before lifting
- Press **UP** button
- Once the lift is fully raised, air bubbles will be visible exiting from **ALL** main tanks
- Press **STOP** on control

**Re–level the lift:**
If for some reason the lift should become out of level while in the up position perform the following:
- Press the **LEVEL** button. This will open up the valves necessary and lower the high points of the lift to make it level. The control will shut off once the lift is level. You can then proceed with either lifting or lowering the lift as desired
- **Note:** you may want to check for leaks in the air system, this could be the cause of the lift becoming un-level over time.
Four Valve Control General Operation

Express Lowering:

This feature lowers the lift as fast as possible only when a boat is NOT present on the lift or in the rare stance it goes into safety shut down mode.

• Press **DOWN + LEVEL** at the same time and hold for 5 seconds

How the leveling sensor controls the lift

During the lifting or lowering mode the controller will try to keep the lift within ±2 degrees of level, when in this state all valves are open, feeding air to all tanks to give maximum performance.

If the sensor determines it is out by more than ±2 degrees the appropriate logic is applied to valve configuration to bring it back into level.

Safety shut down mode

In the rare instance that the lift is unable to correct the lifting and it becomes out of level by more than ±10 degrees the lift will go into Safety Shut Down Mode. The PORT and STARBOARD LEDs on the controller will flash back and forth. The control is in a locked-out state.

To UNLOCK 4 Valve CONTROLLER from shut down mode

Push the **STOP** button to clear the safety shut down mode. Then press and hold for 5 seconds the **DOWN + LEVEL** button and all valve LEDs will turn on indicating all air valves are open allowing the lift to submerge. When the lift is completely submerged you can then re-lift the vessel by pressing the **UP** button.

The cause of the lift not being able to maintain a level lift could be the location of vessel.

The vessel may need to be relocated on the lift or equipment onboard relocated. See trouble shooting for more details.
Five and Six Valve Control General Operation

Familiarize yourself with the Control Box. We have created a simple to use 4 BUTTON user interface consisting of UP, STOP, DOWN, and AUX buttons. These are the basic functions for operating the HarborHoist lift. The state-of-the-art valve controls and circuitry will insure that your lift comes up level each and every time you lift your boat from the water.

Lowering the lift:
- Make sure the Power LED is illuminated and flashing
- Press the DOWN button, this will open the valves
- Allow the lift to submerge (walkways will remain above water)
- Untie lift safety lines from boat
- Board the boat after the boat clears the lift

Raising the lift:
- Make sure the Power LED is illuminated and flashing
- Float boat into established balanced lifting position on the lift
- Tie off safety lines to the boat
- Everyone must exit the boat before lifting
- Press UP button
- Once the lift is fully raised, air bubbles will be visible exiting from ALL main tanks
- Press STOP on control

AUX lift:
The Aux feature will allow you to utilize the full lifting capacity of a lift system with auxiliary tanks. By pushing the AUX button it will close the main tank air valves and direct all air to the auxiliary tanks allowing them to be emptied completely of water, giving you the maximum lifting capacity of the system.

⚠️ The AUX button should only be utilized when the lift has reached full lifting capacity on the main tanks.
- Verify all the main tanks have bubbled out
- Press the AUX button on the controller
- When the auxiliary tanks have bubbled out press the STOP button
Five and Six Valve Control General Operation

Express Lowering:
This feature lowers the lift as fast as possible only when a boat is NOT present on the lift or in the rare instance it goes into safety shut down mode.

> Press DOWN + AUX at the same time and hold for 5 seconds

How the leveling sensor controls the lift
During the lifting or lowering mode the controller will try to keep the lift within ±2 degrees of level, when in this state all valves are open feeding air to all tanks to give maximum performance.

If the sensor determines it is out by more than ±2 degrees the appropriate logic is applied to the valve configuration to bring it back into level.

> Systems with auxiliary tanks will only fill when the lift is within ±2 degrees of level.

Safety shut down mode
In the rare instance that the lift is unable to correct the lifting and it becomes out of level by more than ±10 degrees the lift will go into safety shut down mode. The PORT and STARBOARD LEDs on the controller will flash back and forth. The control is in a locked-out state.

To UNLOCK 5 & 6 Valve CONTROLLER :
Push the STOP button to clear the safety shut down mode. Then press and hold for 5 seconds the DOWN + AUX button and all valve LEDs will turn on indicating all air valves are open allowing the lift to submerge. When the lift is completely submerged you can then re-lift the vessel by pressing the UP button.

> The cause of the lift not being able to maintain a level lift could be the location of vessel. The vessel may need to be relocated on the lift or equipment onboard relocated. See troubleshooting section for more details.
Tie Off Mooring Information

(Mooring ropes not included)

Tie the lift off using a tie off method similar to mooring a boat in a slip. The goal is to restrain the lift as much as possible but still leaving enough slack in the lines that the lift can still raise and lower properly.

Use a good mooring rope that has enough strength for the size of boat and lift you are installing. **Minimum Rope Dia. of 3/8” for boats up to 25’, 1/2” for boats up to 35’, and 5/8” for boats up to 45’**.

There are several variables involved in rope selection and tie of locations so be sure that you check the mooring regularly for any changes in rope condition, tie off points, etc.

Be sure that all tie off points are in good condition and are structurally sound enough to handle the load the mooring will apply.

Recommended: Double Braid Nylon Dock lines.
Vessel Loading

- Proper loading of your vessel onto the lift is extremely important.
- Failure to load properly could cause improper lifting of your vessel. Verify that the equipment weight is distributed evenly on the vessel to keep the **Center of Buoyancy (CB)** within manufacturer’s limits.
- When loading, the **CB of the vessel should be within 1 foot forward or aft of the CB of the lift**. This should make for a level lift. Contact the vessel manufacturer for CB of your vessel.
- To promote water drainage to the rear of the vessel it is recommended that the vessel CB be aft of the lift CB.
- Some service vessels which are heavy and short in length and utilize a lift with auxiliary tanks may need to adjust auxiliary tank locations. Contact customer support or an authorized dealer if you feel you may have a vessel of this type.

Many of today’s vessels have built in ballast tanks to create additional wake or fishing boats for bait and fish. These should be completely emptied before lifting the vessel. If not damage could occur to the boat, lift or dock.
Safety Tips

Test GFCI on a monthly basis

To test:

- Plug in cord to power source
- Observe light is on
- Push “test” observe light is off
- Press “reset” and verify light is on

Preventative Maintenance

Because of the harsh environments in which the HarborHoist G1.5 can be installed, it is very important to inspect your HarborHoist occasionally to ensure it is at peak performance. (Operating Properly) On a monthly basis inspect and ensure the following:

- GFCI trips and resets properly when the TEST and RESET buttons are pressed (see GFCI Test Procedure)
- All air hoses are firmly attached, clamps are tight, and there are no apparent leaks
- All the aluminum components are structurally sound and no heavy corrosion is visible
- The hull pads (if equipped) are structurally sound with no severe cracking or damage
- All mounting / attachment brackets are secure
- If rope mooring is used, inspect the ropes for any issues that may compromise the integrity
- Most importantly, run your blower fan at least once a month even during the off season. Press UP button on the control and let it run about 1 minute to help keep the motor contacts and brushes clean
- If your lift is equipped with an external level sensor, verify it is secured to the lift and no damage to the sensor or cable is present
## Troubleshooting

### Control will not power on
- Verify GFCI has not tripped
- Verify GFCI on dock recepticle has not tripped. Verify dock power is on
- Verify cable or power connection is not damaged (unplug before inspection)

### Over time the lift lowers on its own
- Leaky air hose, tank or fitting
- While operating DO NOT unplug the control, doing so will allow the valves to remain open. When operating press **STOP then** wait 5 seconds before unplugging control. This will allow all valves time to close properly before power is removed

### Lift is not lifting the vessel level
- Re-position the vessel on the lift
- Verify weight is distributed evenly in the vessel
- Verify ballast tanks, bait or live wells do not have water remaining in them
- Verify the lift raises level when vessel is not on the lift
  - If lift is not level, verify sensor is connected to the frame properly and no damage has occurred to it or its cable
  - The level sensor may need to be calibrated back to zero level (See **Calibrating the level sensor to zero level** on instructions)

### PORT and STARBOARD LEDs will flash together rapidly on the control
- The level sensor has lost communication with the control. Contact your local dealer or HarborHoist customer service support for assistance
Calibrating the level sensor to zero level

⚠️ Do this step when the vessel is NOT on the lift

A. Press the UP button, this will raise the lift to its highest point

B. Each main tank must be bubbling from the relief hole in its bottom before pressing STOP

⚠️ The lift MUST be in a fully up position before performing this operation

• Push and hold the UP and DOWN buttons at the same time until the PORT and STARBOARD LED’s flash together 5 times

C. Your level sensor is now recalibrated and your lift is now set and ready to use.

If your level sensor ever loses communication with the controller the middle PORT and STARBOARD LEDs will flash continuously together rapidly. Contact your local dealer or HarborHoist customer service support for assistance
Boat Fitment

Take care to clear shafts, thru hull fittings, chines, etc. Keel of boat must NOT rest on cross beam and should clear the beam by at least 1 inch. Center of gravity (CG) of the boat, must be in the the center of the lift (unless Auxiliary tanks are used) bow to stern and port to starboard. This will evenly distribute the load over the lift allowing for maximum lift height and maintain the appearance of the lift floating level.

For boats with Auxiliary Tanks - the goal is to have the same lifting forces behind the CG of the boat as in front, in order to achieve good balance. The simple method for this is to have the same amount of tank forward of the CG of the boat as behind the CG. For Auxiliary tank lifts adjust the 8’ long center tanks to help accomplish this. Additional adjustment can be made by shifting the boat fore and aft. The main tanks have a total tank length of 43’4” of tank for an 8 main tank unit. A 12K lift has an additional 8’ of tank available, the 15K and 18K have 16’ additional each (18K are wider, deeper tanks). The CG of the boat, when located with the transom at the end of the lift, should never be forward of the Center of the lift. This condition suggests another set of Main tanks may be needed due to length (if it is over by less than 18” the boat can be shifted back). If the Auxiliary tank(s) is completely behind the CG of the boat, moving the tank further back amplifies the lifting effect of the rear (much like moving the smaller child further away from the pivot on a teeter totter.) If you need to move the Auxiliary tank back further than the end of the lift, be sure you have enough space available between the outdrives and the tanks to avoid damage to one or the other.

It is the responsibility of the End User to insure that:

- The lift is installed by a certified HydroHoist Installer
- The lift is operated in a safe manner
- Regular inspection is made of the lift components
- All safety and warning labels are understood

No alterations or modifications may be made to the HydroHoist equipment without the express written consent of HydroHoist Marine Group. Re-installation, adjusting the bunks, and or adjusting the tank beam spacing of the equipment must be performed to the standards set forth by HydroHoist Marine Group. It is the obligation of the end user to inform all equipment operators of the above conditions. Owners Manuals and Safety Warning Decals are available on request from HydroHoist Marine Group.
Warranty and Registration

What Is Not Covered By This Warranty.

- HydroHoist® does not warrant any product, component or part
  (a) That is not manufactured by HydroHoist®
  (b) That is not installed or serviced by employees or contractors of HydroHoist® or an Authorized HydroHoist® Dealer
  (c) Damage caused by failure to provide a suitable installation environment for the lift
  (d) Damage caused by the use of the lift for purposes other than those for which it was designed
  (e) Damage caused by disaster such as fire, flood, wind and lightning
  (f) Damage caused by unauthorized attachments or modification
  (g) Damage caused by operation, maintenance or repair of the product contrary to written instructions from HydroHoist®
  (h) Damage during shipment
  (i) Damage caused by any other abuse or misuse by the Consumer
  (j) Which has an altered or defaced service number

Parts and Customer Service Contact

- Customer service, parts and shipping: Customerservice@boatlift.com

Product Registration

Verify that your authorized HydroHoist dealer did register your HarborHoist product. If the lift is not registered warranty support may be limited. Go to www.boatlift.com to register your lift