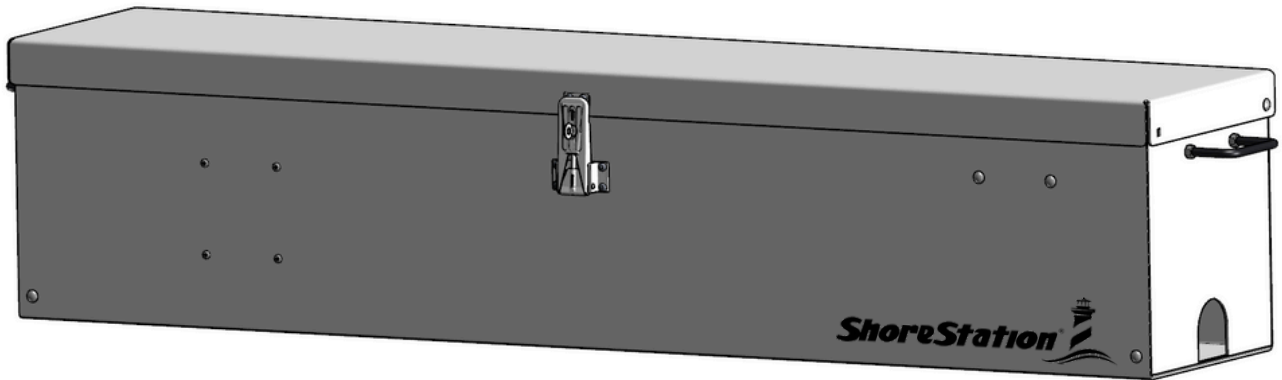




**HPU302**  
**HYDRAULIC PUMP BOX**  
**6K - 15K**



MIDWEST IND.

# Table of Contents

Safety Definitions .....2

Safety Instructions .....2 - 3

Preparation .....4

Assembly Instructions .....5 - 9



## WARNING

DO NOT INSTALL OR OPERATE A LIFT WITHOUT STUDYING THIS MANUAL AND INFORMATION ON LABELS INCLUDED WITH THE LIFT. FAILURE TO DO SO CAN LEAD TO IMPROPER INSTALLATION RESULTING IN SERIOUS PERSONAL INJURY AND/OR PRODUCT DAMAGE. IF YOU HAVE FURTHER QUESTIONS AFTER REVIEWING THIS INFORMATION, CONTACT A SHORESTATION REPRESENTATIVE.

## Safety Definitions

Safety messages are presented throughout this document and labels affixed to the product. The messages alert you to potential hazards to you and/or property. The signal words DANGER, WARNING, and CAUTION are preceded by an alert symbol and communicate the severity of potential hazard. The severity of each type of message is defined as follows:

- DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.
- WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.
- CAUTION, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

## Safety Instructions

Working with electrical equipment and installations over the water present many potential hazards to the installer. Every installation presents unique conditions that the installer should evaluate before installing or servicing the equipment. The following instructions must be followed, but may not encompass all potential hazards:



MIDWEST IND.

# **WARNING**

Never use this equipment to lift people. People must exit the boat prior to lifting it out of the water

Never use this equipment to lift overhead. Install the platform so it remains at or below dock level.

This equipment is designed to lift boats. Never use it to lift other items.

Do not allow children to operate or play on the equipment.

Do not install if there are any signs of damage.

Never install or work on the equipment without first verifying that the A/C power supply (if present) is protected by a functioning Ground Fault Circuit Interrupt (GFCI) in accordance with National Electric Code section 210.8 and any additional local code requirements.

Review all operating instructions with the user(s) before installation.

Disconnect all A/C power from the dock before installing or working on the equipment.

Do not exceed the recommended capacity of the equipment.

Do not modify the equipment unless you have received direct written approval from the manufacturer (ShoreStation).

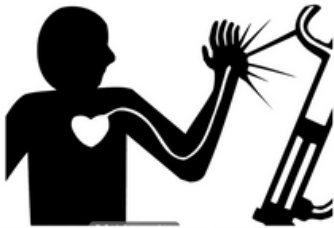
Remove any metallic objects from your person before working with DC or AC electrical components.

Always wear proper personal protective equipment such as safety glasses, gloves, hardhats, and clothing.

Installation may require entering the water. Never enter the water without a proper personal floatation device. Disconnect any power to the lift and dock before entering the water.

Never work alone and observe safe lifting practices such as team lifting and proper lifting posture.

## **DANGER**



### **DO NOT GO NEAR LEAKS!**

- High pressure oil easily punctures skin causing serious injury, gangrene or death.
- If injured, seek emergency medical help. Immediate surgery is required to remove oil.
- Do not use finger or skin to check for leaks.
- Lower load or relieve hydraulic pressure before loosening fittings.

## **WARNING**

**NEVER WORK ALONE.**

**ALWAYS WEAR PERSONAL FLOATATION DEVICES WHEN WORKING IN AND OVER WATER.**

**ALWAYS WEAR PERSONAL PROTECTIVE DEVICES WHEN ASSEMBLING AND INSTALLING EQUIPMENT.**

**OBSERVE ALL SAFETY REQUIREMENTS FOR ALL EQUIPMENT USED FOR INSTALLATION.**

## **DANGER**

**AVOID ELECTROCUTION. DO NOT WORK ON OR NEAR THE DOCK WITHOUT FIRST VERIFYING THAT A FUNCTIONING GFCI IS PRESENT ON ANY A/C SUPPLY TO THE DOCK & BOAT HOUSE. NEVER ASSUME – VERIFY THE FUNCTION OF GFCI USING A GFCI OUTLET TESTER.**



MIDWEST IND.

ShoreLand® | ShoreStation® | ByronSELECT™

[www.shorestation.com](http://www.shorestation.com)

# SPECIFICATIONS

|                          |   |
|--------------------------|---|
| MODEL                    | HPU 302   |
| SYSTEM VOLTAGE           | 24V DC  |
| RECOMMENDED LIFT BATTERY | Marine Deep Cycle, Group 24 or 27, AGM or Wet Cell, MCA or CA rating of 625 or greater, reserve capacity 180 @ 25A  |
| CONSTRUCTION             | Aluminum enclosure, stainless & brass fasteners, Stainless Steel hose fittings, Brass quick connects.   |
| CONTROL                  | Wireless Control with 1 transmitter, one wired digital keypad.  |
| SUPPLY POWER OPTIONS     | DUAL 20W 12V SOLAR PANEL  |
| HYDRAULIC FLUID          | Jax Marine-Guard Blue Series<br>AW46, ISO 22, 32, 46, 68, 100<br>Meets U.S. Coast Guard Static Sheen Test requirements (as defined in 40 CFR Part 435, Subpart A, Appendix 1) & U.S. EPA testing of Pimephales promelas (fathead minnow), Oncorhynchus mykiss (rainbow trout) and Mysidopsis bahia (shrimp) see EPA EPA-821-R-02-012. Never use vegetable based oil in this system. |
| SYSTEM PRESSURE          | 2500 psi (172 bar)  |
| HYDRAULIC FITTINGS       | SAE 06, ISO B 3/8 Interchange Coupling  |



MIDWEST IND.

ShoreLand® | ShoreStation® | ByronSELECT®

[www.shorestation.com](http://www.shorestation.com)

## Preparation

### Tools Required

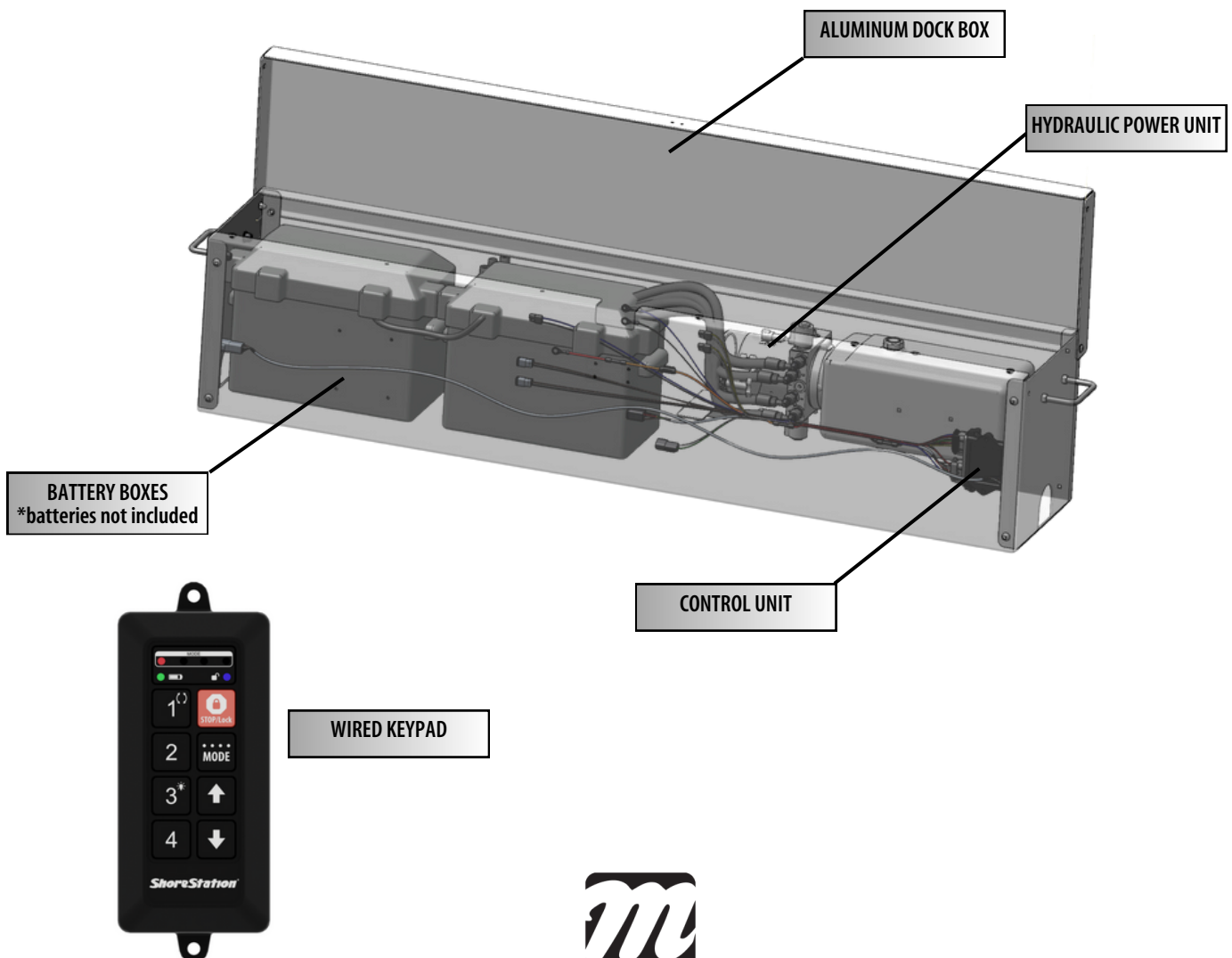
Due to the variation in waterfront conditions, it is impossible to address all requirements. Be sure to survey the installation site and note any additional requirements.

Common tools required for installation include:

- 3/8 through 7/8 SAE wrenches
- 1/4 through 7/8 SAE ratcheting sockets and drives
- Cordless drill
- Banding cutters
- Personal protective equipment (safety glasses, hard hats, gloves, etc.)
- Tape Measure
- Level

Additional equipment may be required based on your installation site requirements.

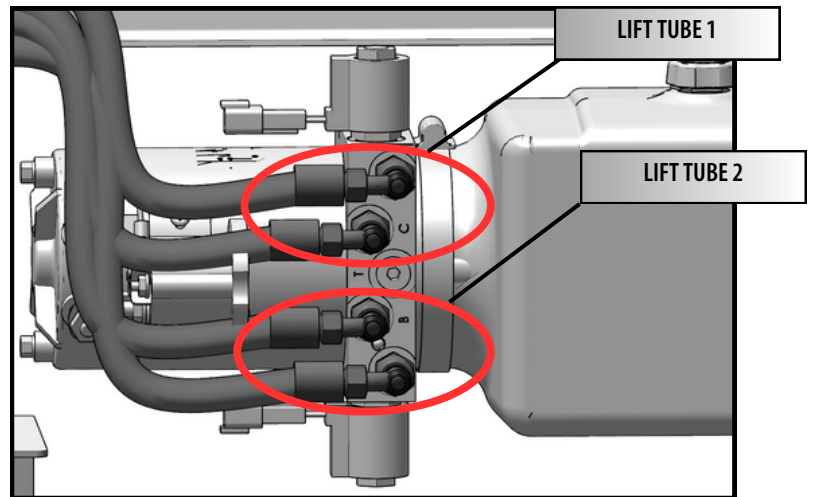
## Assembly Instructions



## 1. Connect Lift Tube Hoses

The lift tube hoses are connected to the top and bottom pair of hydraulic fittings on the power unit. The pair from each tube must be matched to the top or bottom pair of fittings on the power unit. It does not matter which pair, but the pair must be hooked to the same 'side' of the power unit.

**ShoreStation hose kits come pre-bled. Any hoses not provided by ShoreStation must be bled prior to operation of the lift.**



## 2. Install and Connect the Dock Side Keypad

The system includes a dock side keypad. This keypad includes a 35' (10.7m) wire harness to give you flexibility on the placement of the box. The box should be placed where the operator has clear visibility of the entire lift. The keypad has a single 6-pin female connector on the back that integrates to the matching 6-pin male connector on the 35' extension harness.



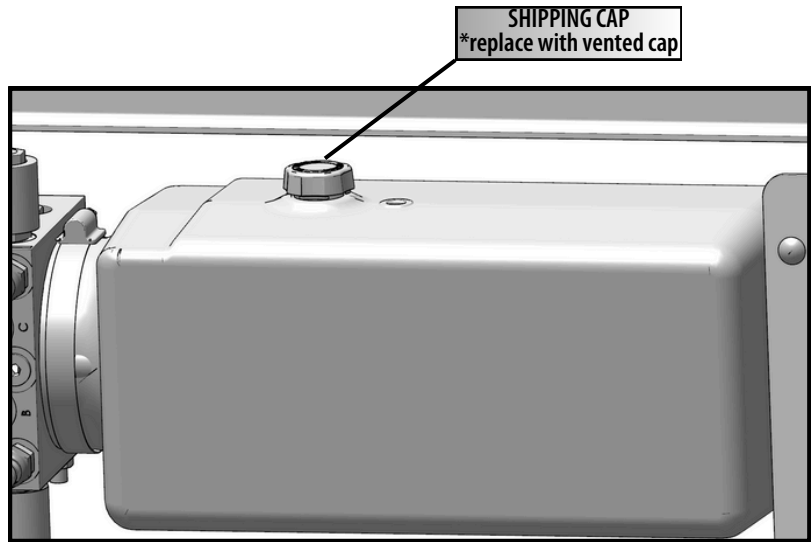
MIDWEST IND.

### 3. Replace Pump Reservoir Cap

Replace the pump reservoir shipping cap with the vented cap provided. The shipping cap should be saved for later use.

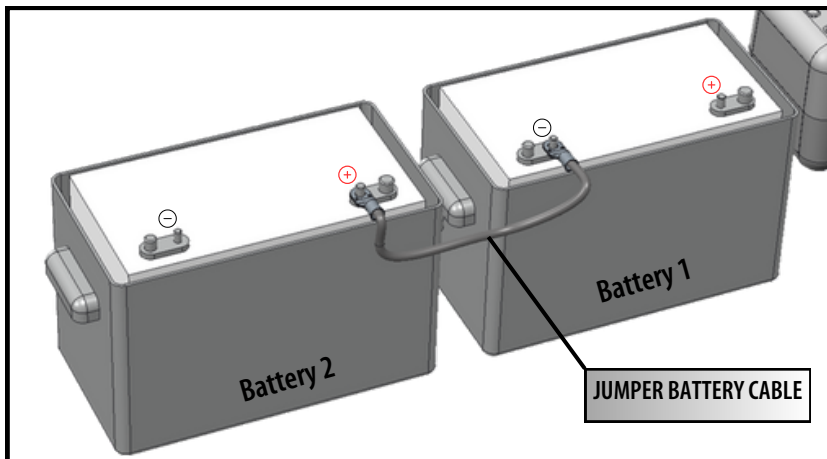
**Do not run the power unit with the shipping cap installed.**

Doing so can cause fluid leaks in the reservoir seals.



### 4. Connect the Battery Jumper Cable

The battery boxes and batteries can now be placed on to the tray. The batteries are connected in series to create the 24VDC required for the system. To connect in series, place the batteries in the boxes on the tray. Connect the provided jumper battery cable to the positive (+) terminal of battery 2 and to the negative (-) terminal of battery 1 as shown below.



## WARNING

REMOVE ANY METAL FROM YOUR PERSON BEFORE WORKING WITH BATTERIES.

ALWAYS WEAR PERSONAL PROTECTIVE EQUIPMENT WHEN WORKING WITH BATTERIES.



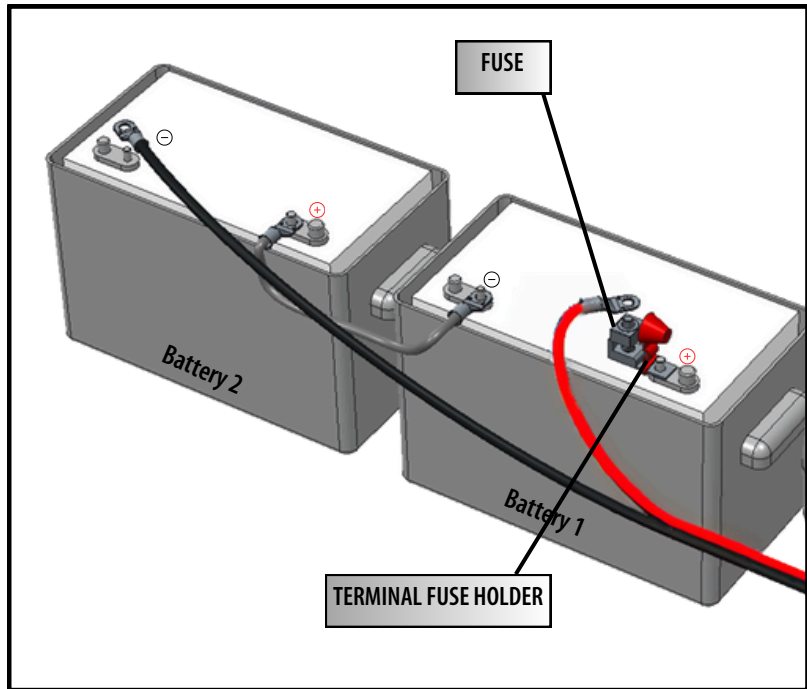
MIDWEST IND.

ShoreLand® | ShoreStation® | ByronSELECT®

[www.shorestation.com](http://www.shorestation.com)

### 5. Connect Terminal Fuse and Battery Cable

Connect the positive (Red) battery cable to the fused terminal on battery 1. Connect the black cable to the negative terminal on battery 2.

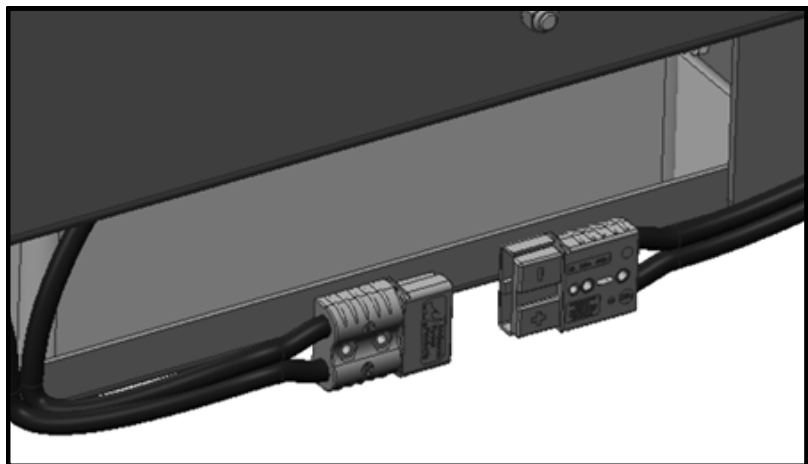


### 6. Connect Battery Box Strap

Each battery enclosure includes a strap that retains the top of the enclosure. The instructions for attaching this strap are molded into the bottom of the enclosure top. When attaching the strap, wrap it under the battery tray to retain the box to the battery tray.

### 7. Connect the Battery Bank to the Motor

Connect the battery cable from the battery bank to the motor battery cable.



MIDWEST IND.



## 8. Check System Functions

Now that the system is operational, check the system functions before installing the power unit enclosure. Refer to the Operating Instructions for operating the dock side control and wireless remote.

The following system checks should be made:

- The system will run up and down with the dock side keypad.
- The lift can be tilted in either direction for leveling purposes using either the keypad or the remote.
- The system will run up and down with wireless remote.

## Location

The HPU302 allows for installation in variety of locations. The following is a list of recommendations for installation:

- The HPU302 is designed to be placed within 20ft of the lift.
- The box can be placed directly on the dock or it can be fastened to the lift tube (10K and larger).
- The box should be placed in a location that avoids exposure to water due to tidal, storm, or wave action.
- If the box sits directly on a wood dock with treated lumber, a plastic barrier should be placed between the aluminum box and the wood to avoid corrosion.
- The hoses used in the system should be routed and contained using conduit or hangers to avoid abrasion caused by wave action, current, and dock movement.
- The dock side keypad must be placed in a location where the operator has clear visibility of the entire lift.
- Never install hydraulic couplers under water in order to avoid corrosion and other hazards.

## Control Pad and Wireless Remote Operations

Refer to your Controller Owner's Guide for specific keypad and remote functionality. (doc # 0004705)

The ShoreStation PartSmart system provides quick access to all current service part and information for ShoreStation boat lifts and accessories. To access the system, go to: <http://shorestation.com/parts/PartSmart.htm>



MIDWEST IND.