

Hydraulic HY Boat Lift Assembly Instructions

SSV1564HY

SSV20100HY(DW)

SSV40108HY(DW)

SSV40120HY(DW)



The assembly process explained in this document should be performed by a qualified ShoreStation technician who understands the proper techniques and applications of the equipment used during the assembly process.



WARNING

DO NOT ATTEMPT TO ASSEMBLE THIS SYSTEM WITHOUT FIRST STUDYING THIS MANUAL AND INFORMATION ON LABELS INCLUDED WITH THE SYSTEM. FAILURE TO DO SO CAN LEAD TO IMPROPER OPERATION RESULTING IN SERIOUS PERSONAL INJURY AND/OR PRODUCT DAMAGE. IF YOU HAVE FURTHER QUESTIONS AFTER REVIEWING THIS INFORMATION, CONTACT A SHORESTATION REPRESENTATIVE AT (800) 859-3028.

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

WARNING

- 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.
- Disconnect all A/C power from the dock before installing or working on the equipment.
- Assembly and installation of this system may require working over water. Always wear a personal flotation device (PFD) when working over the water.
- 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.
- Never work alone and observe safe lifting practices such as team lifting and proper lifting posture.
- Never pair the remotes to operate more than one boat lift. Doing so could cause unintended operation and result in injury and product damage.
- The system should only be run if the operator has clear vision of the lift equipment and its surrounding location.
- Do not modify the equipment unless you have received direct written approval from the manufacturer (ShoreStation).

Tools Required

Cordless Drill
SAE sockets & wrenches

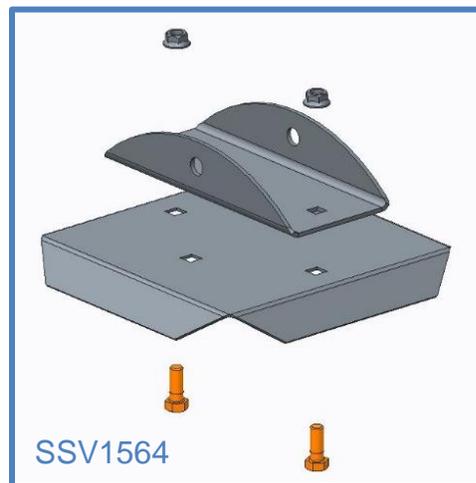
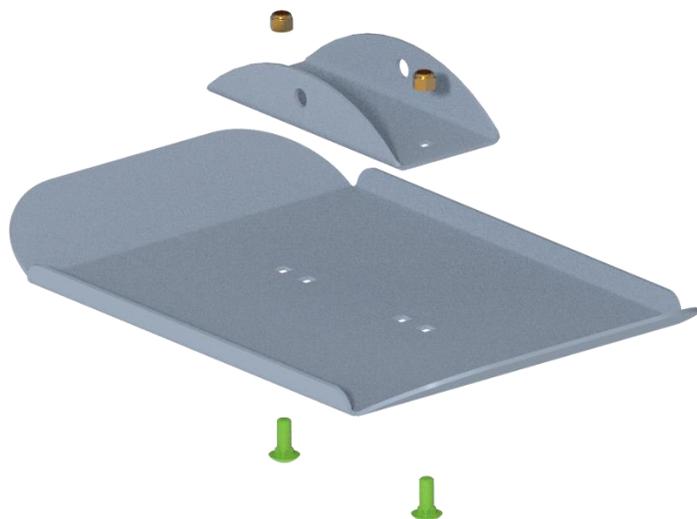
Assembly Instructions

1 – Organize Parts

Open the hardware box and bag and sort the hardware and other contents by size. Locate the fastener finder sheet in the hardware box to help identify the fasteners used in the assembly of these lifts.

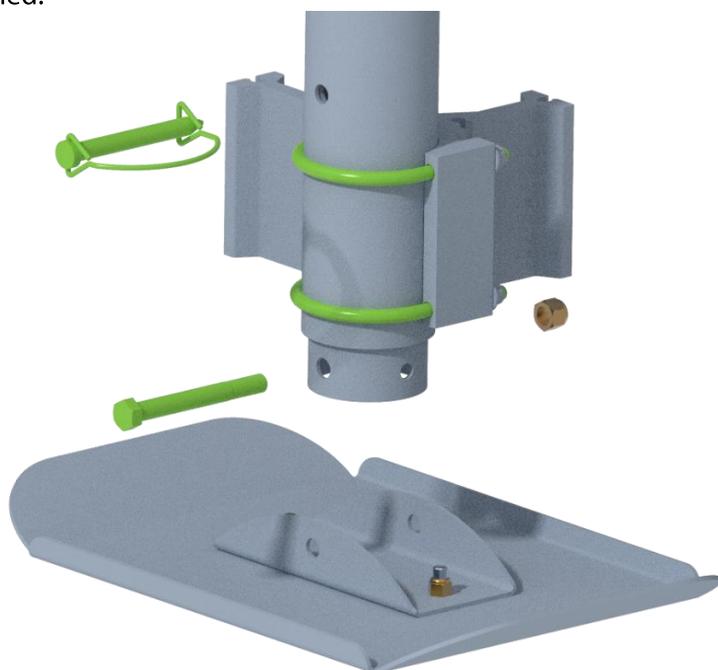
2 – Assemble Base Pads

Collect enough of the fasteners and items shown below to assemble four base pads. Align the channel clamp with the holes in the base pad as shown, insert bolts from the bottom up and secure with lock nuts. Tighten and repeat for all four base pads.



3 – Base Pads to Legs

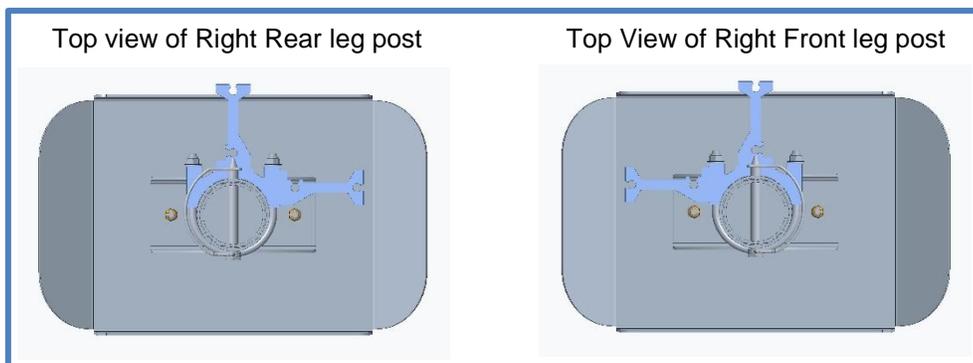
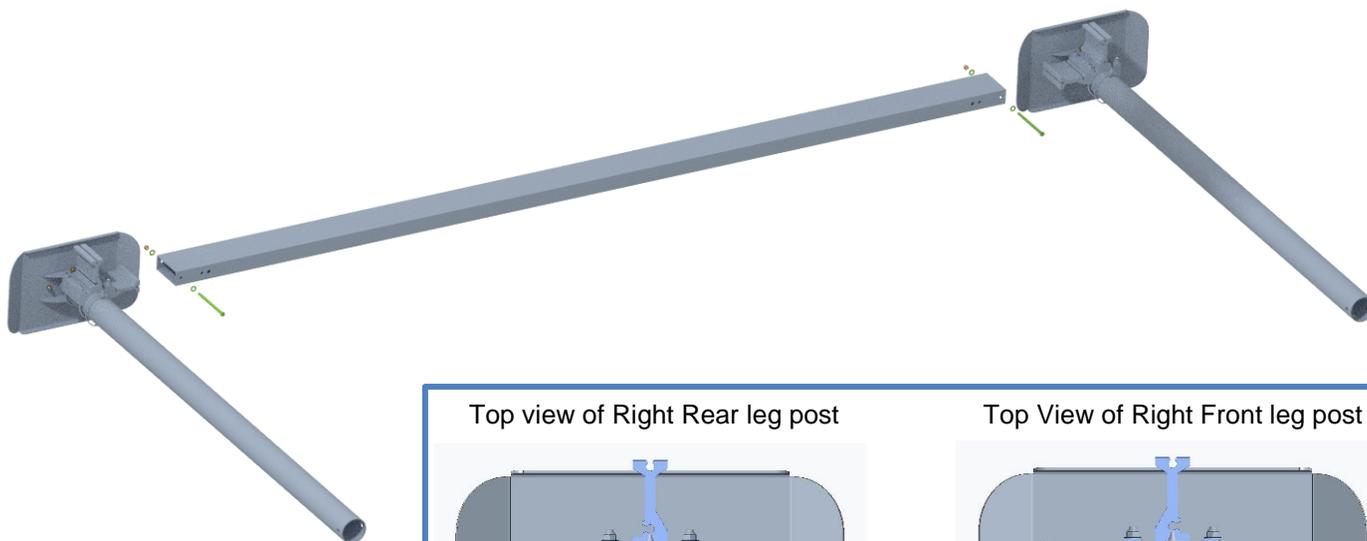
Locate the leg bundle(s), bolts, and nuts for the base pads/legs connection. Slide the bolt thru the channel clamp and the adjustable leg tube as shown and secure with a brass locknut. The pin will be in the leg when the corner block is installed.



Note: the bolts should be inserted in the same direction as the U-bolt. Repeat this process on the remaining legs. Secured so that two threads show out the end of the locknut. Repeat on the remaining legs.

4 – Lower Frame Side Tube

Using the chart at the bottom of the page find the model that you are assembling, locate the necessary components that are included in the lower frame bundle. Your assembly will start by laying two legs down with the corner blocks as shown and using the chart slide a side frame tube over the corner block and insert the *short bolt* (see chart) with a flat washer into the hole closest to the post assembly. Secure with flat washer and brass locknut. **DO NOT TIGHTEN.**



Boat Lift	Lower Frame Components		Bolts to Assemble	
	Front & Rear Crossmembers	Side Frames	Short Bolts	Long Bolts
SSV1564HY	3" X 2" 63-3/4"	3" X 2" 81-1/4"	3/8-16 X 3-1/2"	3/8-16 X 4"
SSV20100HY & HYDW	4" X 2" X 99"	4" X 2" X 119"	3/8-16 X 5"	3/8-16 X 5-1/2"
SSV40108HY & HYDW	5" X 2" X 107"	5" X 2" X 119"	3/8-16 X 6"	3/8-16 X 6-1/2"
SSV401HY & HYDW	5" X 2" X 107"	5" X 2" X 119"	3/8-16 X 6"	3/8-16 X 6-1/2"

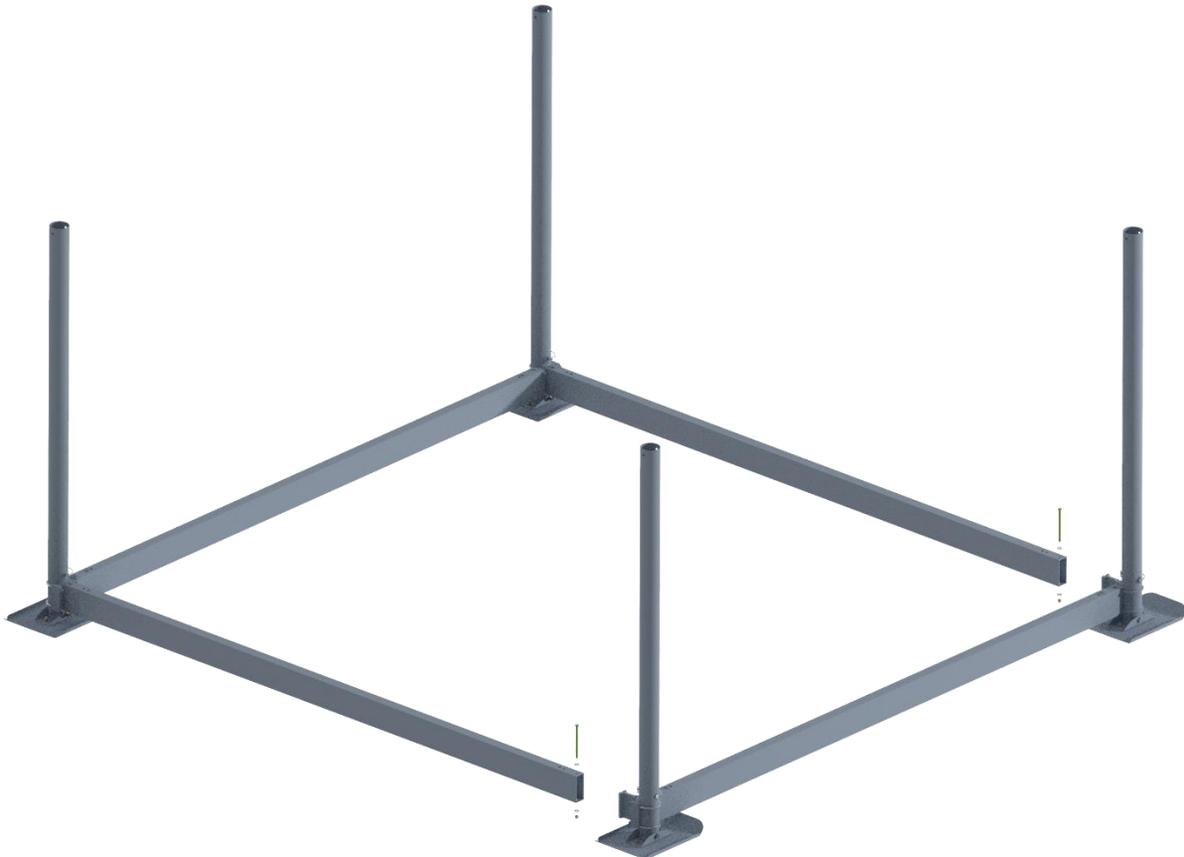
5 – Crossmember Tubes

Locate the crossmember tubes (see chart for length) and with the rear legs still laying on their side, slide the side frame tubes over the corner blocks. Insert the short bolt with a washer into the hole closest to the post. Secure it on the bottom with a washer and locknut. **DO NOT TIGHTEN.**



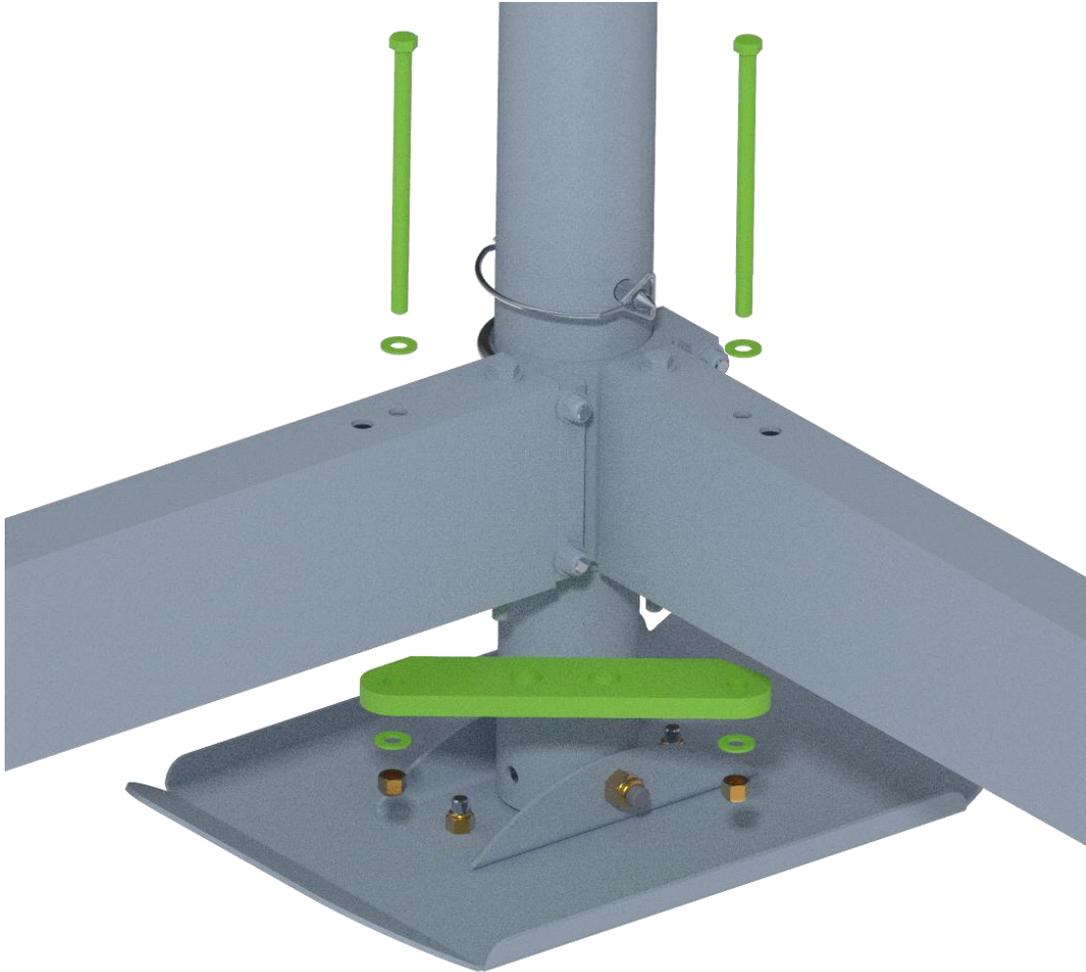
6 – Attach Left Side of Lower Frame

Push the pin through the roll tube and splice, and secure it using the hair pin.



7 – End Roll Tubes

Use the long bolts and the bottom corner cable plate. Only on the winch tube side, insert the long bolt with a flat washer thru the second hole from the post, thru the frame tubes, and then thru the corner cable bracket on the bottom as shown. Use short bolts on the other side of the frame in the holes second from the post. Secure with washers and locknuts. Square the frame by measuring diagonally corner to corner and tighten all hardware installed.

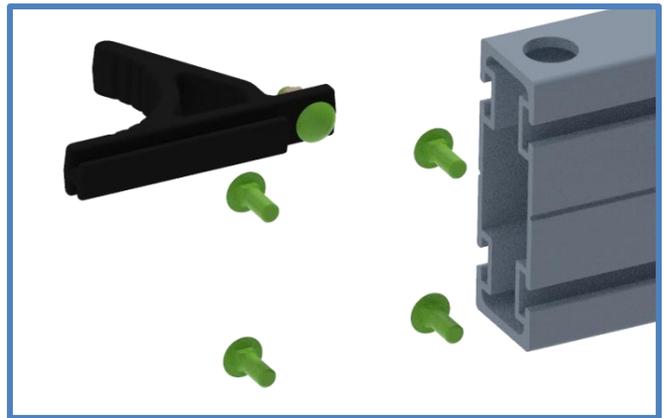
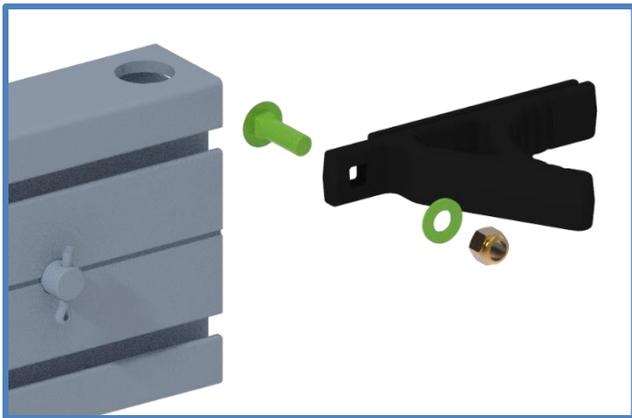


8 – Start the Platform

Lay the V-Shaped cradle tubes across the lower frame as shown. Place the end with the lift cable threaded out the bottom on the same side as the corner cable brackets.

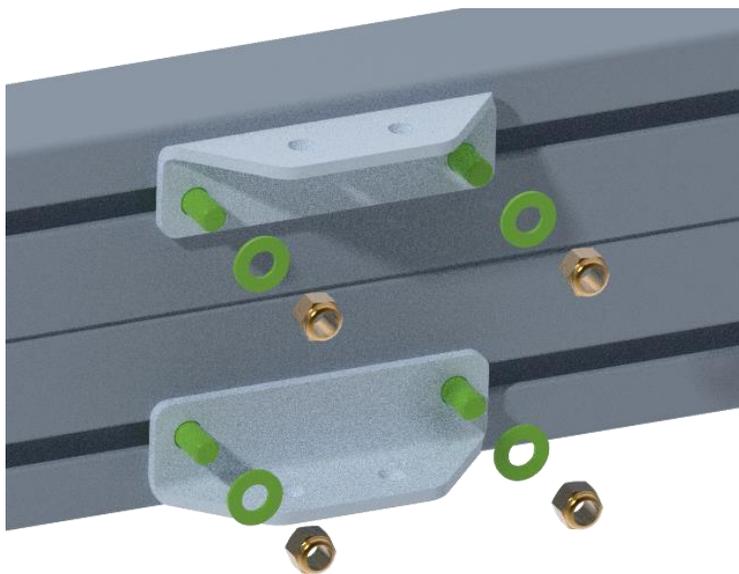


Attach 3/8 carriage bolt to a plastic corner guide with a flat washer and locknut as shown below on the left. Slide two carriage bolts into the top T-slot and two into the bottom T-slot on the inside of the cradle tube as shown below on the right (only one carriage bolt in the bottom T-slot for SSV154). Slide the corner guide with hardware into the top slot on the outside of the cradle tube.



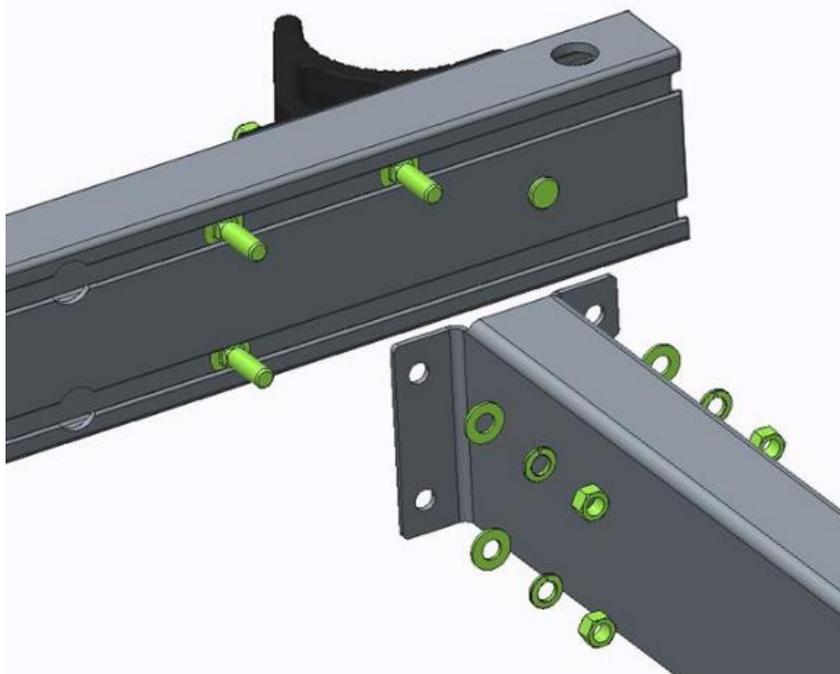
9A – Attach Side Rail Brackets

See 9B for SSV1564. Place the side rail brackets on the carriage bolts (as shown below) and position the outer edge of the bracket at least 3 inches from the end of the cradle tube. It is important to keep this distance equal on all four corners to keep it square. Add a washer and locknut to all the carriage bolts, but DO NOT tighten.



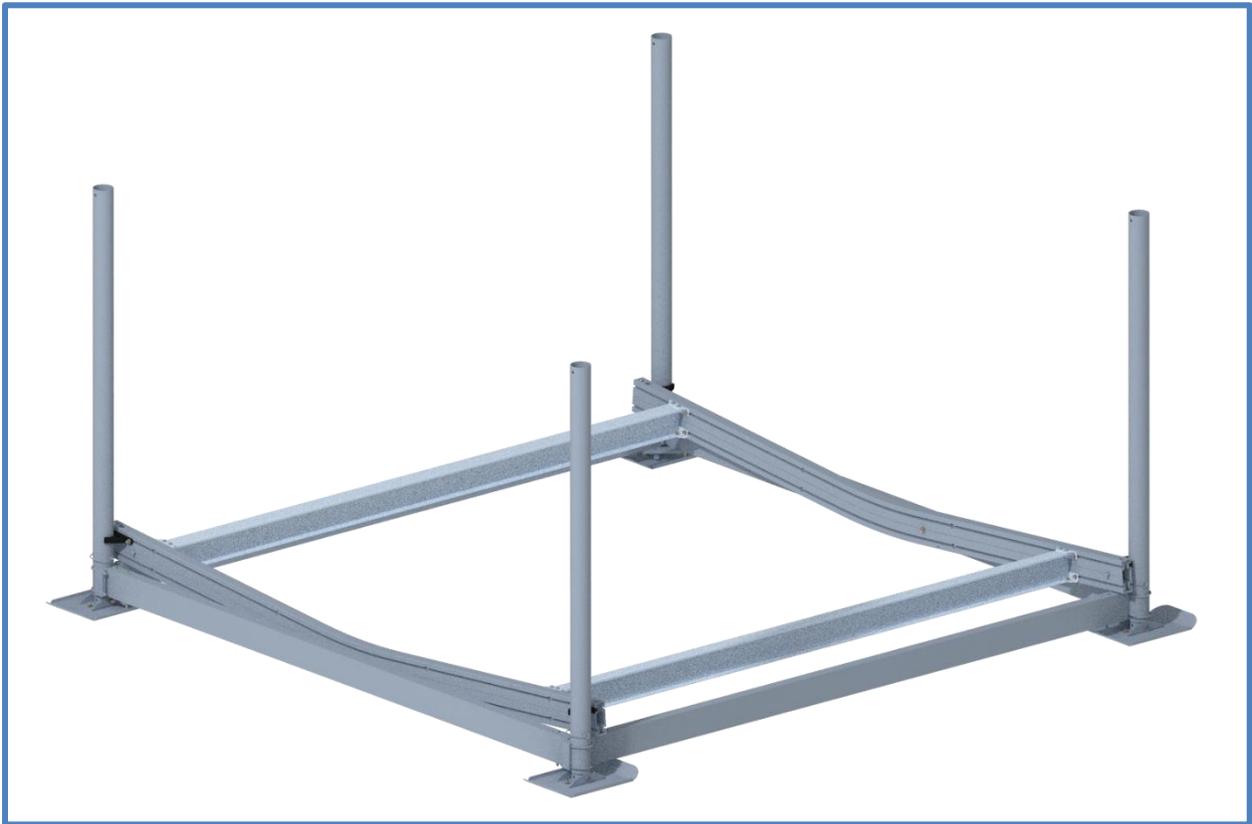
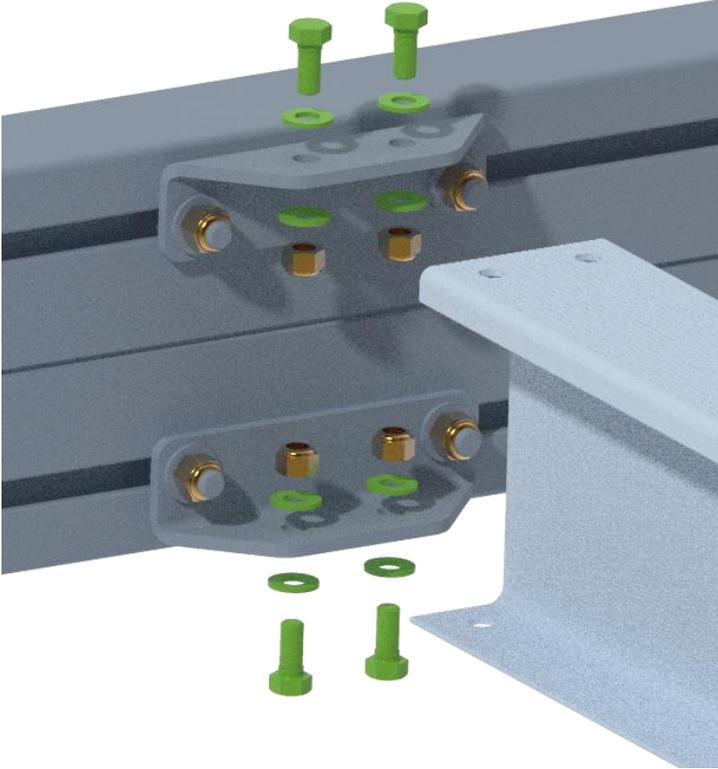
9B – Attach Side Rails

Using the carriage bolts, mount a side rail on each end of the cradle tube as shown below. Position the outer edge of the rails at least 3 inches from the end of the cradle tube. It is important to keep this distance equal on all four corners to keep it square. Do the same on the other three corners, but DO NOT tighten.



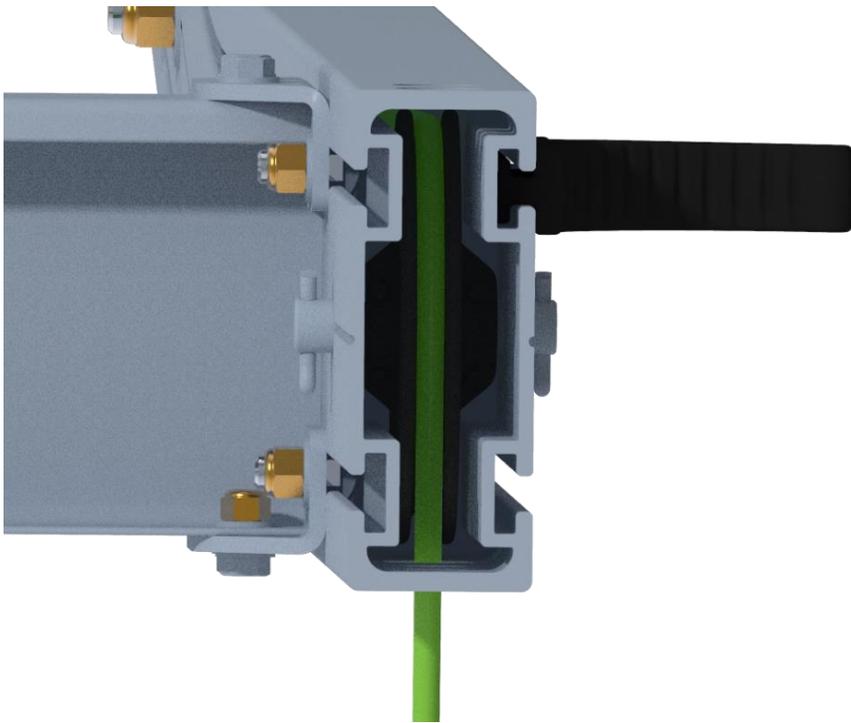
10 – Attach Side Rails

Insert the platform rails into the space between the mounting brackets and secure with bolts, washers and nuts as shown below.



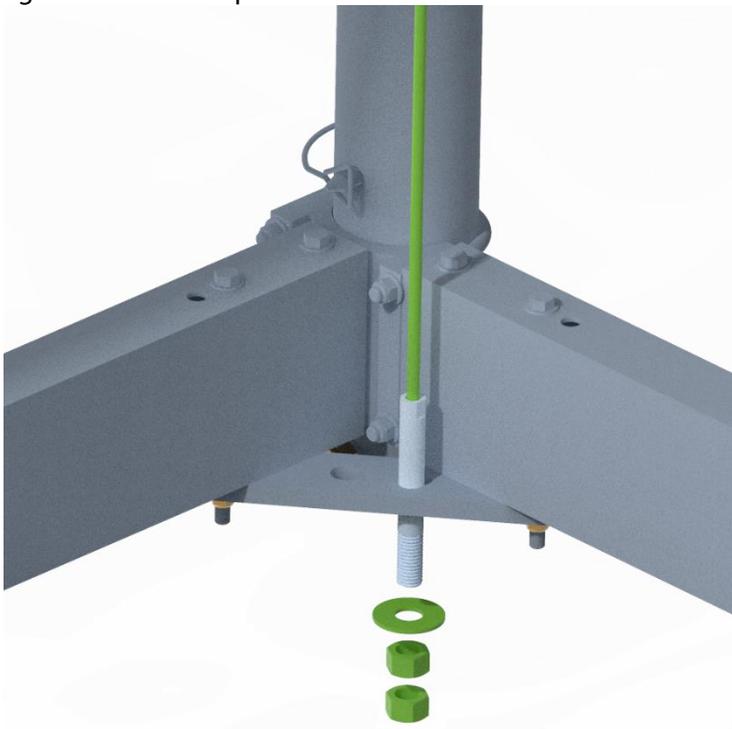
11 – Level Cable

The following picture shows the position of the level cable as it comes over the pulley in the cradle tube and out the bottom to go to the corner cable bracket attached to the corner of the lower frame. Note the other hole on the end of the cradle tube will be used later to attach the cables coming from the bottom of the lift tube.



12 – Attach Level Cable

Attach the level cable by inserting the cable into the hole closest to the side frame and securing with a flat washer and 2 brass hex nuts. The first nut will be run to the bottom of the threads and the second run down and secured tightly against the first. Repeat on other level cable.

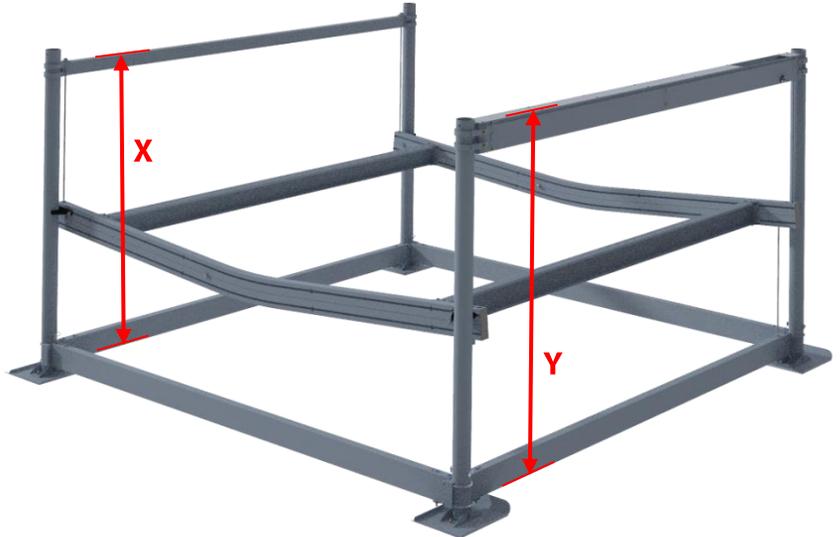


Measuring Guidelines

The lift measurements can vary up to 1 ½" due to cable length variation. Adjust the placement to ensure the platform is level and the lift cables can reach the cradle attachment.

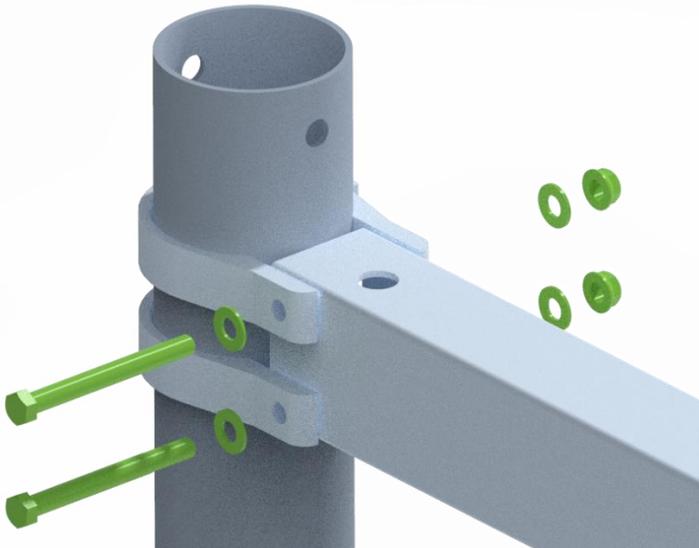
Chart below shows starting point measurements for each lift model. Find the lift model in the table and place the components as shown in the images. Tighten all components according to the assembly instructions after properly adjusting the lift tubes.

Boat Lift	Brace Tube Height (X)	Lift Tube Height (Y)
SSV1564HY	68"	69"
SSV20100HY & HYDW	66-3/4"	66-3/4"
SSV40108HY & HYDW	68"	67-3/4"
SSV40120HY & HYDW	68"	67-3/4"



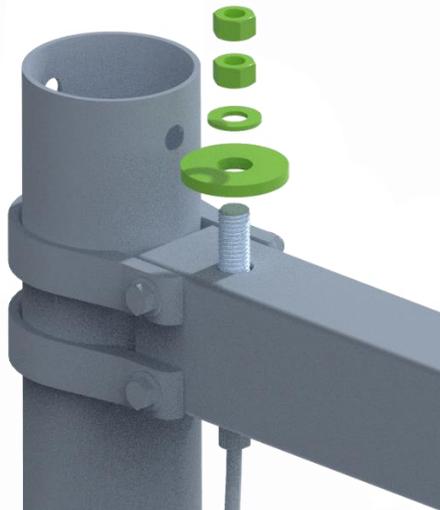
13 – Brace Tube (or Drop Side)

The side brace tube is located opposite the lift tube so install it on the posts opposite of the corner cable plates. Use the appropriate brackets, bolts, and washers to mount the side brace tube to the post as shown below. Make sure the lock nuts are on the outside and tighten all fasteners securely.



14 – Brace Tube Level Cable

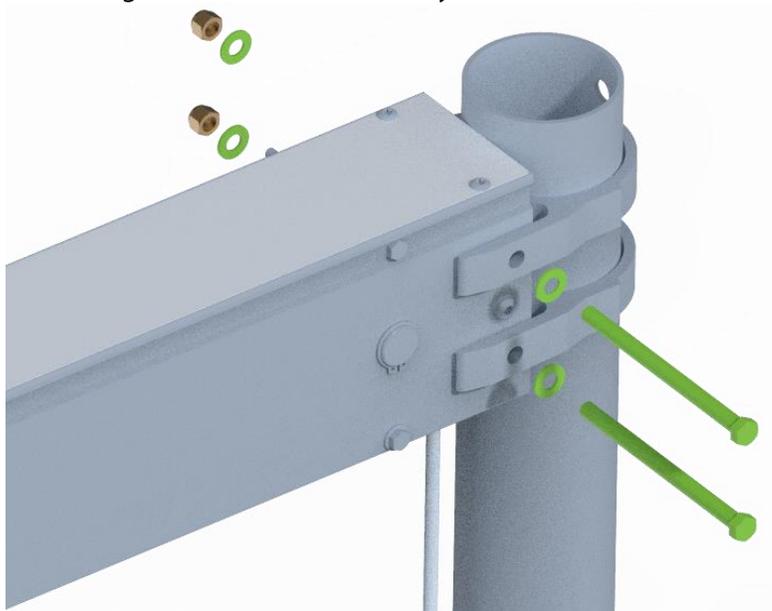
Insert the ends of the level cables (from the cradle tubes) directly up thru the side brace tube and secure with an aluminum washer, flat washer, and two brass nuts. Block the platform off the lower frame about 6 inches to create enough slack for the cable to pass thru the brace tube easily.



Boat Lift	Level Cable		Lift Cables	
	Hex Nut	Washers	Hex Nuts	Washers
SSV1564HY	1/2-13	1/2	1/2-13	1/2
SSV20100HY & HYDW	1/2-13	1/2	1/2-13	1/2
SSV40108HY & HYDW	1/2-13	1/2	1/2-13	1/2
SSV40120HY & HYDW	1/2-13	1/2	1/2-13	1/2

15 – Lift Tube

The lift tube contains the hydraulic cylinder which is heavy. Several people or a powered assist is needed to lift and hold in position until it is secured. Orient the lift tube on the side of the lift with the corner cable brackets, the cables exiting the bottom and hydraulic ports to the outside. Locate the brackets and hardware for your model as specified below. Locate the brackets at the height indicated on the chart below and attach the hydraulic lift tube as shown below. Tighten all fasteners securely.

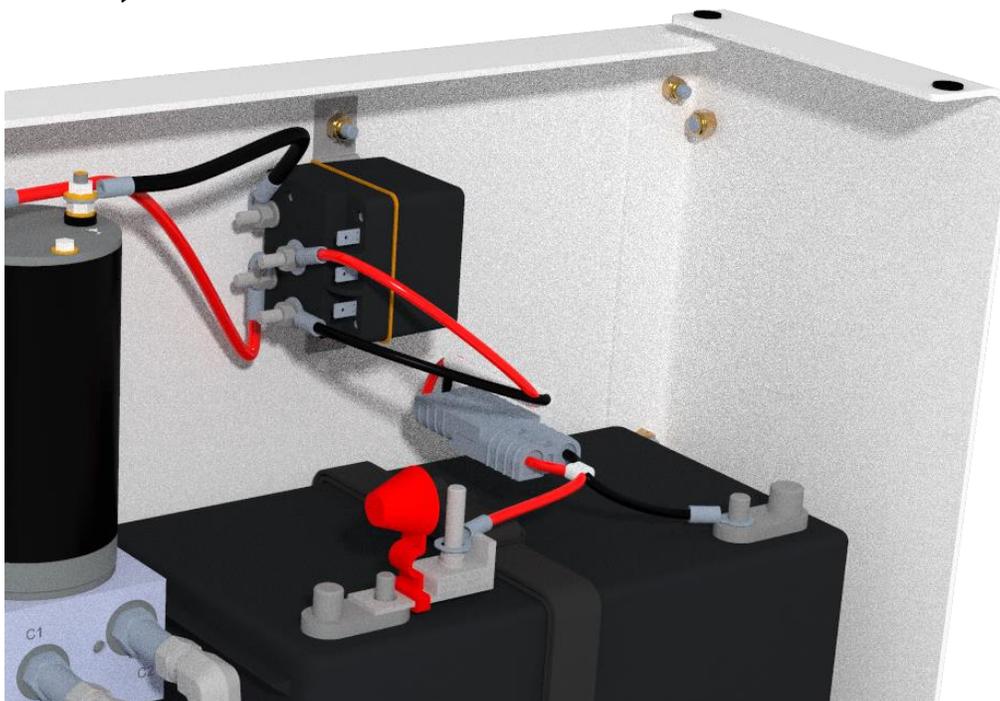


16 – Mount the Pump Box

Refer to instructions included in the pump box. Place battery in box and place inside pump box. **Do not allow the cables to make contact with each other or any part of the lift.**

17 – Connect Battery & Power Cables

Connect the red (positive) cable to the to the fuse block and the black cable (negative) to the negative post on the battery as shown below. Also connect the two power cables, one coming from the relay box and other coming from the battery.



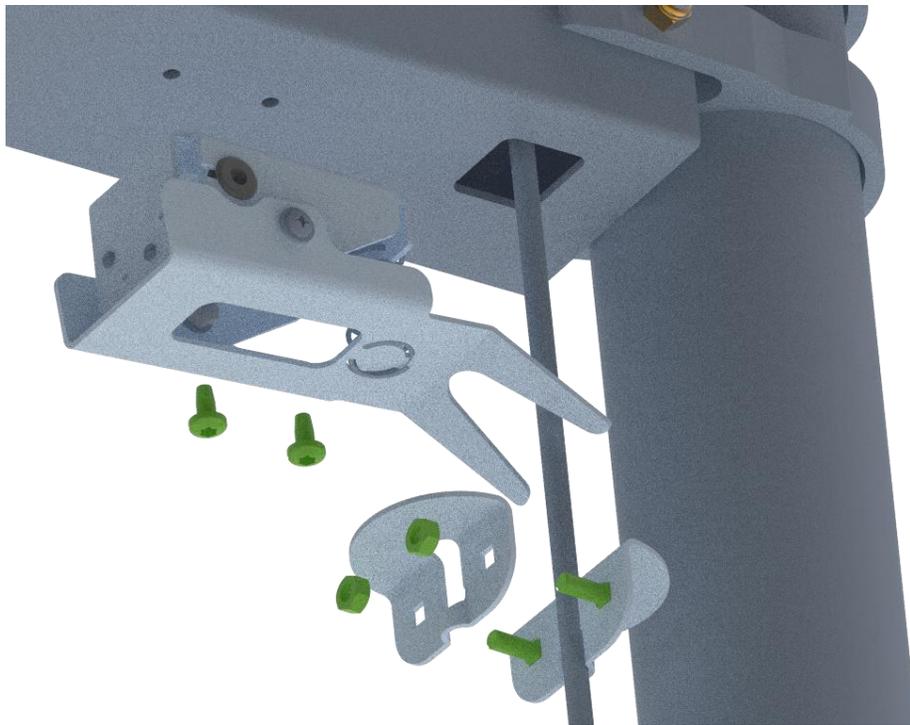
18 – Connect Lift Tube Cables

Push the Down Button to run the cables down so they can be attached to the lift platform. The cable coming from the outside pulley of the Lift Tube goes thru the outside holes in the Cradle Tube. The cable coming from the inside pulley, on the other end of the Lift Tube, goes thru the inside hole on the Cradle Tube. Secure the cables to the Cradle Tubes with 2 brass nuts and a flat washer as shown below.



19 – Upper Limit Switch

Attach the upper limit switch to the bottom of the winch tube assembly as shown below. The holes will allow the switch to be adjusted so the cable will travel thru the center of the slot in the pivot arm. The two halves of the bump stop will be mounted to the cable with carriage bolts and kep nuts. The final placement will not be made until the lift is in the water and the boat (or PWC) can be loaded into the lift.



20 – Plastic Caps

If you haven't already, put the end caps on the platform. If you are adding a canopy you can omit the corner post caps in the assembly process. The last step would be to go around and put the black plastic caps in the top of the leg post. Before calling your assembly complete take one last walk around your hoist and make sure all nuts and bolts have been tightened, all cables are secured, and electrical connections are together.

