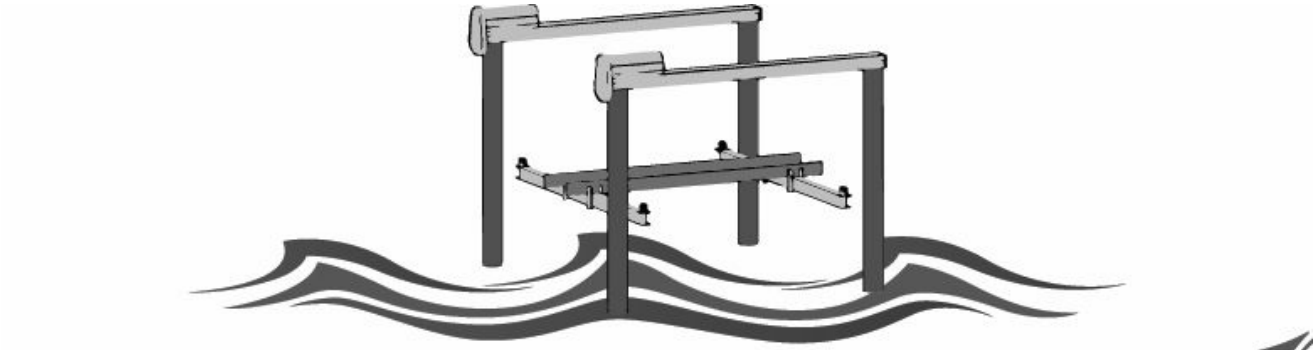


IMM QUALITY

BOAT LIFTS

Installation Manual

For

Ascension Stair Lift

Safety Precautions

1. Your boat lift is a heavy duty piece of equipment. It is important that all persons that may operate this unit have read and understood the owner's manual. Given the inherent dangers of heavy machinery, your boat lift deserves respect, and good judgment is required in its operation. Before allowing others to operate the unit be certain that they understand the proper operating procedures. Do not allow children to operate the lift.

2. This product is for lifting unoccupied boats. Do not ride in your boat or on the lift during operation. Always attend the controls when operating the lift, and watch carefully to have others stand clear. Keep hands, feet, and clothing away from all moving parts.

3. Your lift is operated by electricity, therefore, additional care must be taken. It must be wired by a licensed electrician, and it must be installed with an approved ground fault interruption device. If you observe severed or damaged wiring, it must be repaired immediately by an electrician. When properly installed and maintained, electrical devices such as this lift are completely safe. However, any electrical device used in and around a water environment must be treated with great respect to prevent accidental electrocution. All electrical maintenance and service to this lift must be done by a licensed electrician.

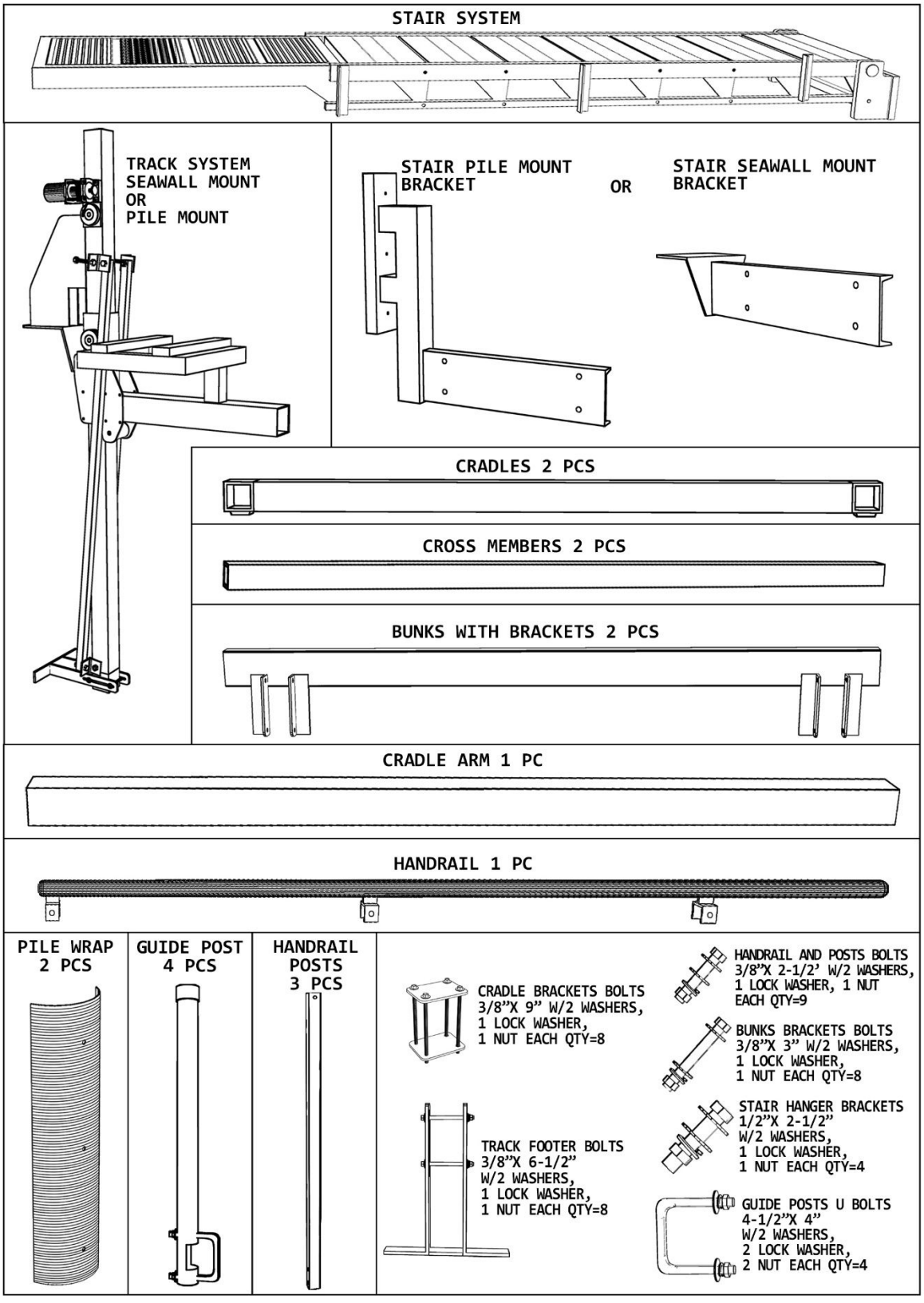
4. While operating your lift, routinely look at all cables for fraying, damaged ends, or loose strands. A damaged cable must be replaced immediately. Make sure that all pulleys are turning properly. Routinely look over cables to make sure that they are winding properly. Look for signs of extreme wear and unusual corrosion, as well as, exposed or damaged electrical wires. If you find any of the above, have the problem repaired immediately.

5. Do not work on your boat or lift while the boat is hoisted. When working on your lift, keep your hands, feet, and clothing away from all moving parts. Exercise great care if chains or gearing are exposed. Never work underneath a raised lift, and do not walk or stand on a raised lift. Always disconnect electrical power when working on any part of the lift.

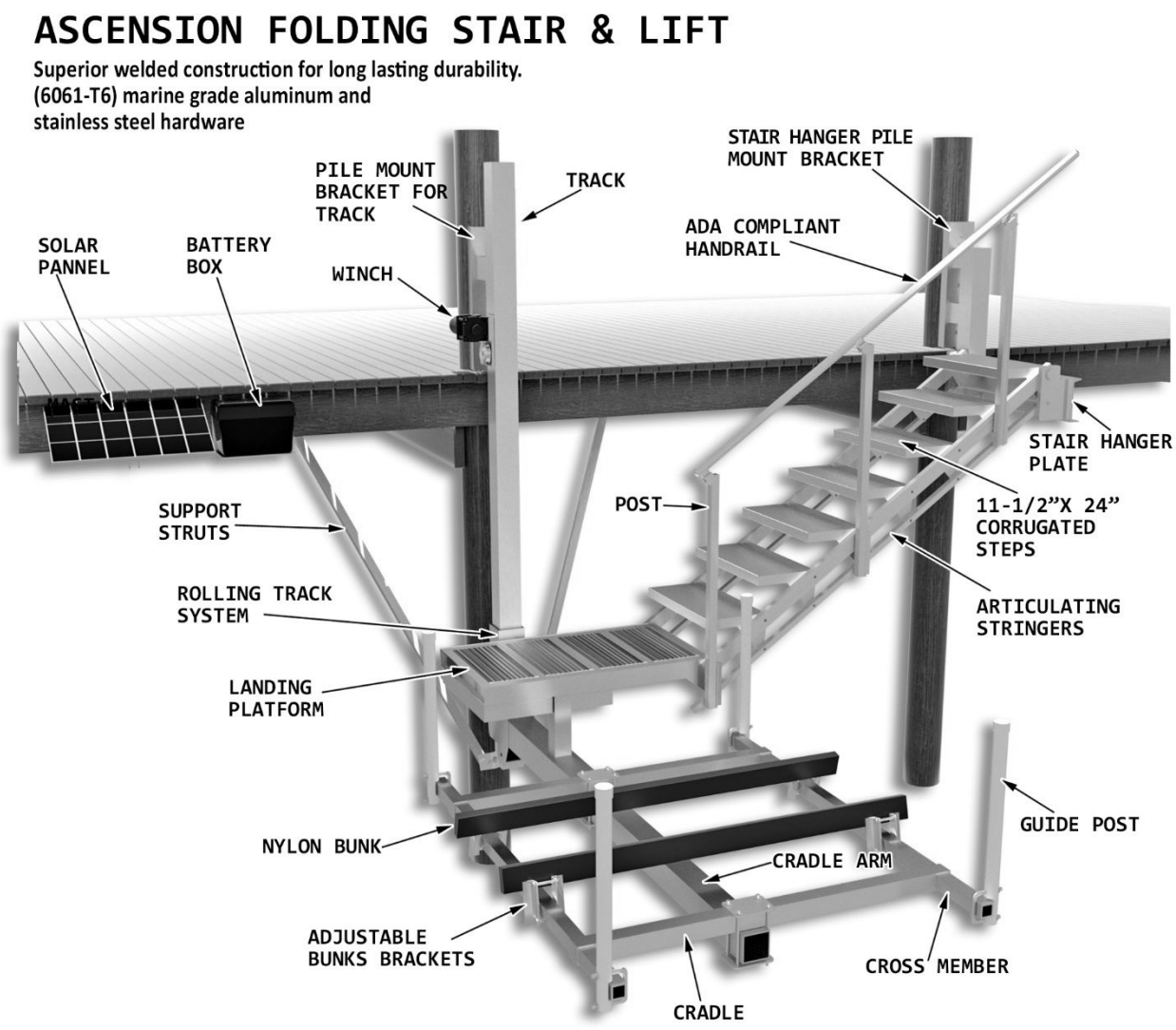
6. Be careful not to exceed the rated capacity of the lift. To determine the total weight of your equipment to be lifted, study the boat manufacturer's literature to determine its weight. Be sure to add enough extra weight to compensate for your added accessories, including water and fuel. Gasoline weighs about 6 lbs. per gallon and water weighs about 8 lbs. per gallon.

7. If you plan to leave your lifted boat unattended for several weeks, it is important that you remove the drain plug in the boat to prevent it from filling with rain water. Accumulated rain, snow or other water in your boat can rapidly become heavy enough to exceed the capacity of a lift, causing personal injury or damage to the boat and lift.

Packing List



Components:


ASCENSION FOLDING STAIR & LIFT
Superior welded construction for long lasting durability.
(6061-T6) marine grade aluminum and
stainless steel hardware
PILE MOUNT BRACKET FOR TRACK
TRACK
STAIR HANGER PILE MOUNT BRACKET
ADA COMPLIANT HANDRAIL
SOLAR PANNEL
BATTERY BOX
WINCH
STAIR HANGER PLATE
POST
11-1/2"X 24" CORRUGATED STEPS
SUPPORT STRUTS
ROLLING TRACK SYSTEM
ARTICULATING STRINGERS
LANDING PLATFORM
GUIDE POST
NYLON BUNK
CRADLE ARM
ADJUSTABLE BUNKS BRACKETS
CROSS MEMBER
CRADLE

Welcome, and congratulations on your purchase of an **IMM Quality Ascension Stair Lift**! At IMM Quality Boat Lifts, we take pride in making the most advanced, most durable, easy to use and low maintenance boat lifts on the market today. The installation of this lift is simplified by its' lightweight aluminum construction and by extensive factory assembly. Only IMM Quality takes the extra time to pre-wind the cable on the winders, attach the drives, motors and covers, and pre-assemble the mounting brackets, bunk brackets and guide post assembly. We do all this as an added service to make life easier for our valuable customers. In the following pages, we will take you step-by-step through the entire installation process. We urge you to read this manual before attempting installation. If you have any questions, please contact us at 1-800-545-5603 and ask for technical support.

Required Tools for Installation

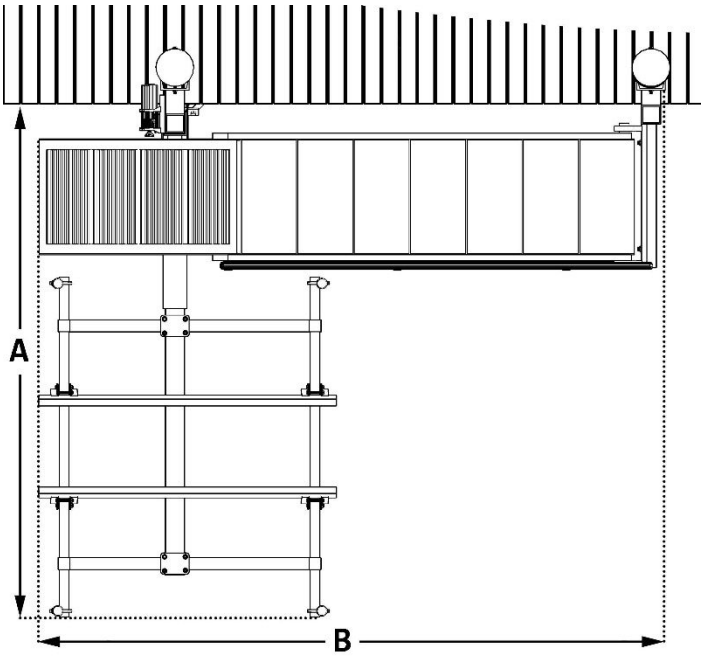
- Chain Saw (may be necessary to cut piles)
- 10 " Level
- 4' Level
- ½" and 5/8" Open End Box Wrenches
- Phillips screwdriver
- Flat head screwdriver
- ½" Drive Ratchet
- ½" and 5/8" Sockets
- Electricians Pliers
- Claw Hammer
- Cable Cutter
- 3/8" Battery Operated Drill
- 5/8" Auger Drill Bit
- ½" and 5/8" Masonry Bits

Before you begin…

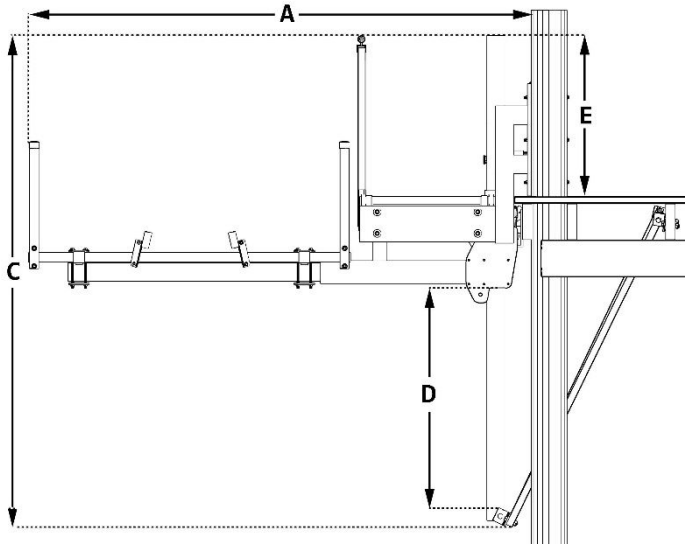
The pilings are the foundation of the boat lift and must be able to carry the combined load of the lift and the fully loaded watercraft. Local and National building code and common practice varies from area to area. Consult with our technical service department or your local marine contractor for appropriate guidelines.

Please refer to the figures below when laying out the slip.

Top View



Side View

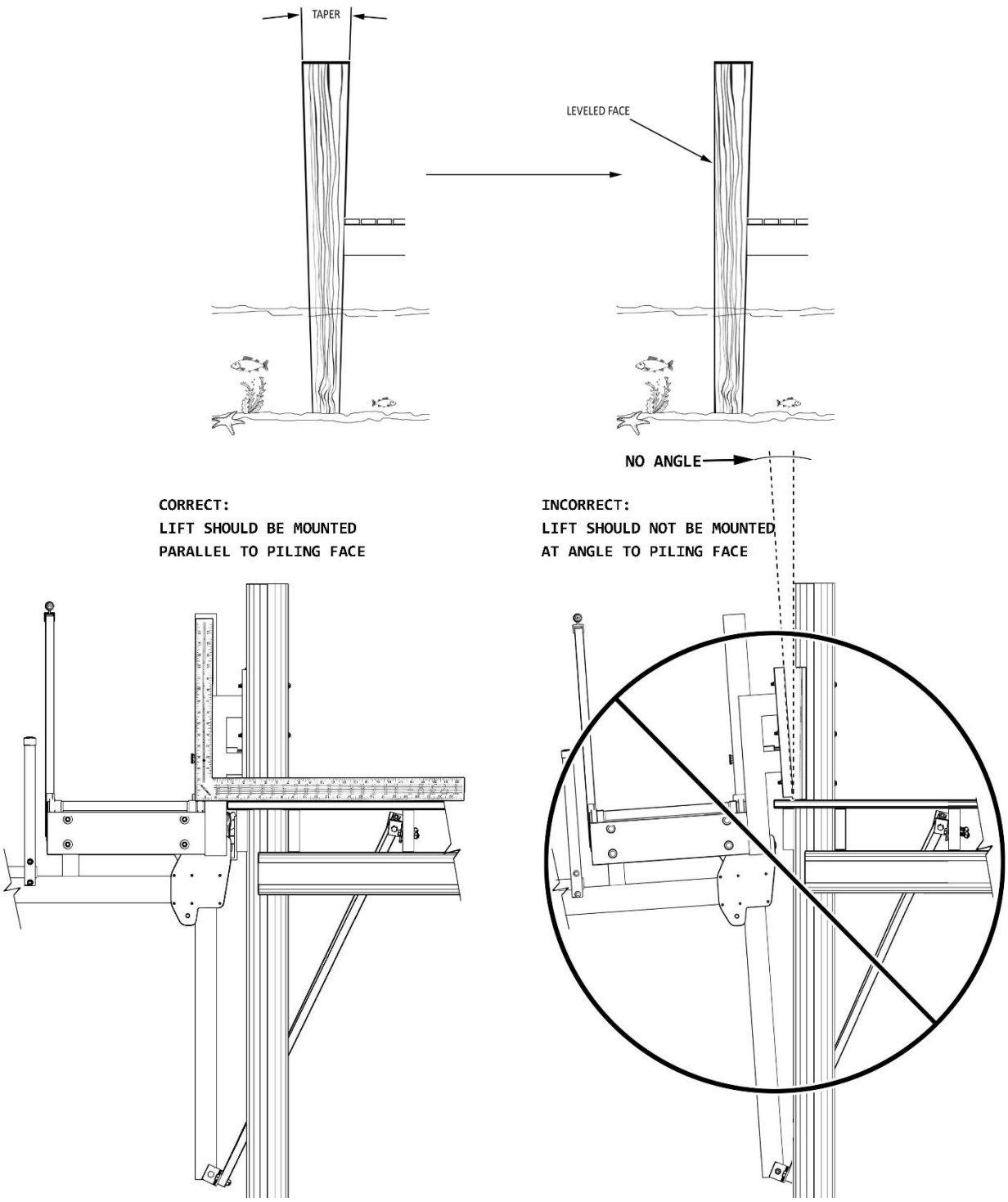


Standard

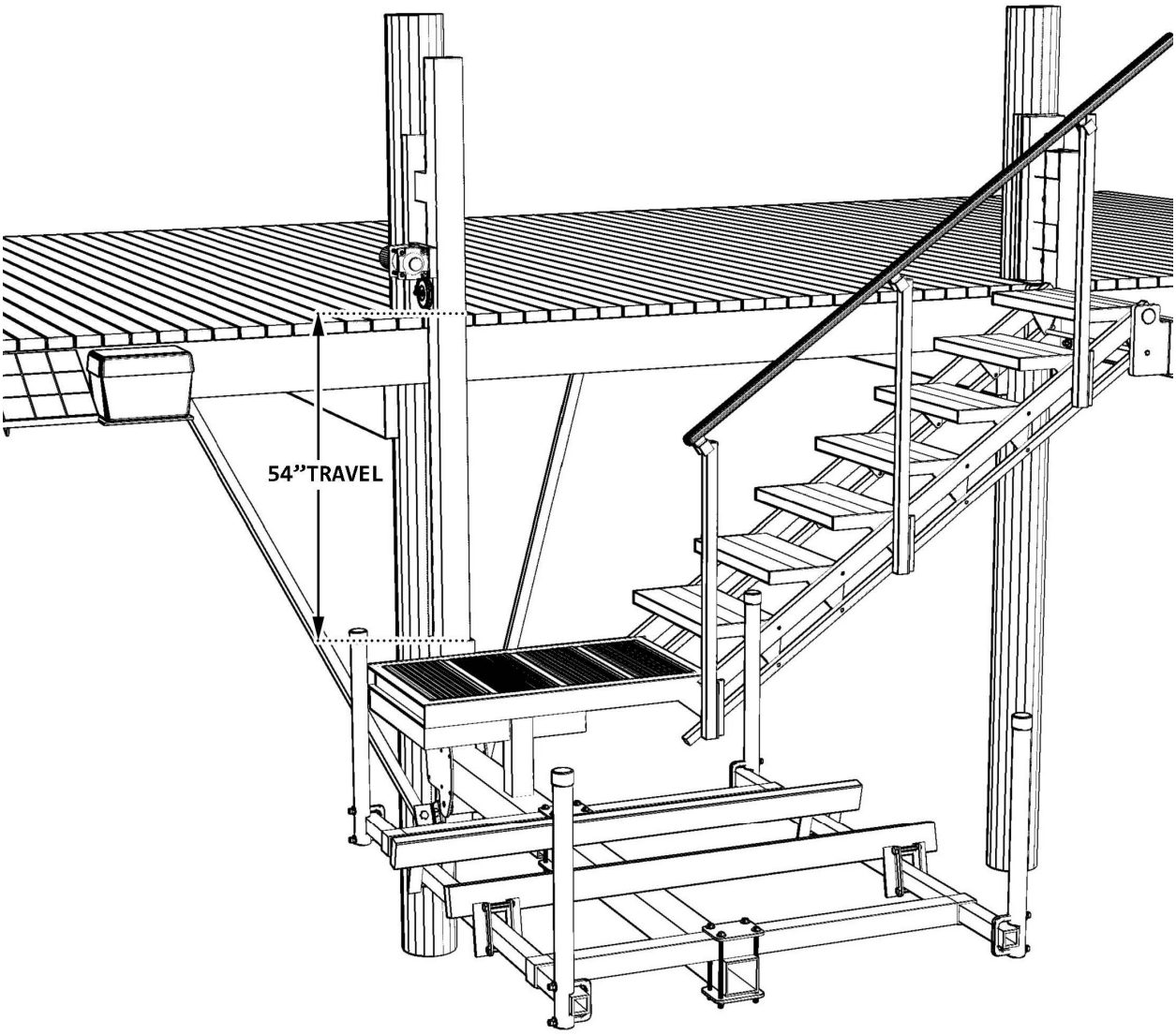
A Distance Into Slip	107” (8’ 11”)
B Length of Lift	132” (11’)
C Height of Lift	107” (8’ 11”)
D Lift Travel	54” (4’ 6”)
E Height Above Deck	36” (3’)

Preparing the Pile for Installation

The Ascension Lift should be mounted on as straight and vertical a pile as possible. Piles with excessive taper should be leveled as shown below. The Ascension Lift, mounted properly, should be parallel with the piling and should not be mounted at an angle. See figures below.



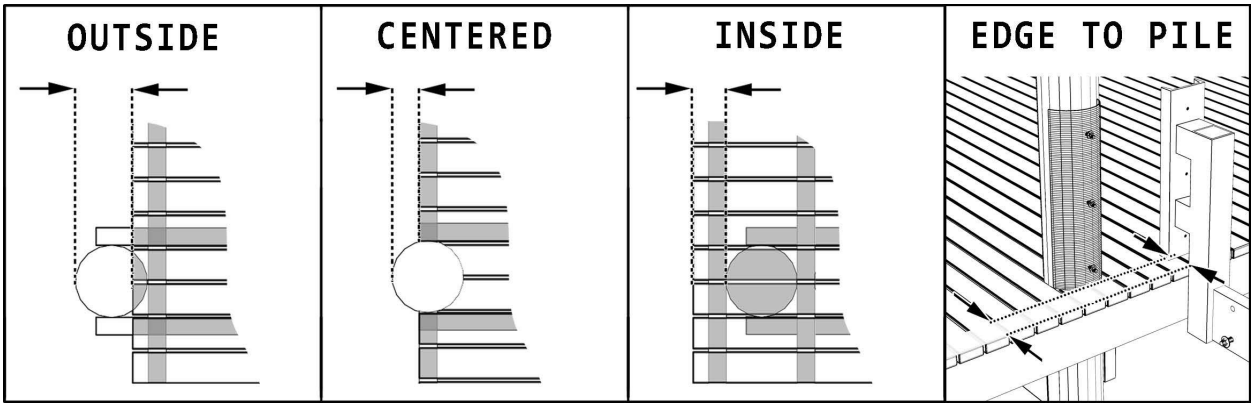
Ascension Stair Lift Travel



The standard Ascension Stair Lift has four feet six inches (54”) of travel. Please make sure that you will have enough water depth to float your water craft. The Ascension Stair Lift can be custom made with more or less travel for an additional cost.

Installation Considerations

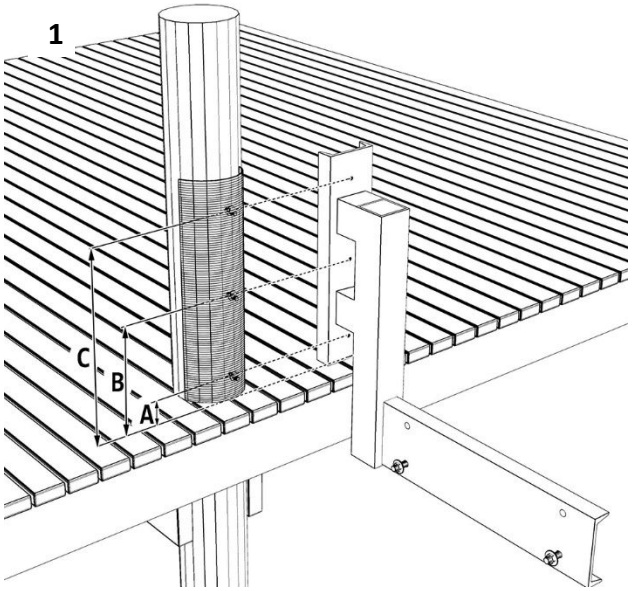
The Ascension Stair Lift may be installed along a seawall or dock. There are many different ways that the pilings may be built into a dock (see below). Before we build your Ascension Stair Lift, it is important that we know the location of your pilings and the distance between the edge of the decking and the slip side face of the pile. We do not want to have a large gap between the decking and the Ascension Stair Lift that you would have to step across. We will adjust the size of the pile mount brackets to accommodate your dock.



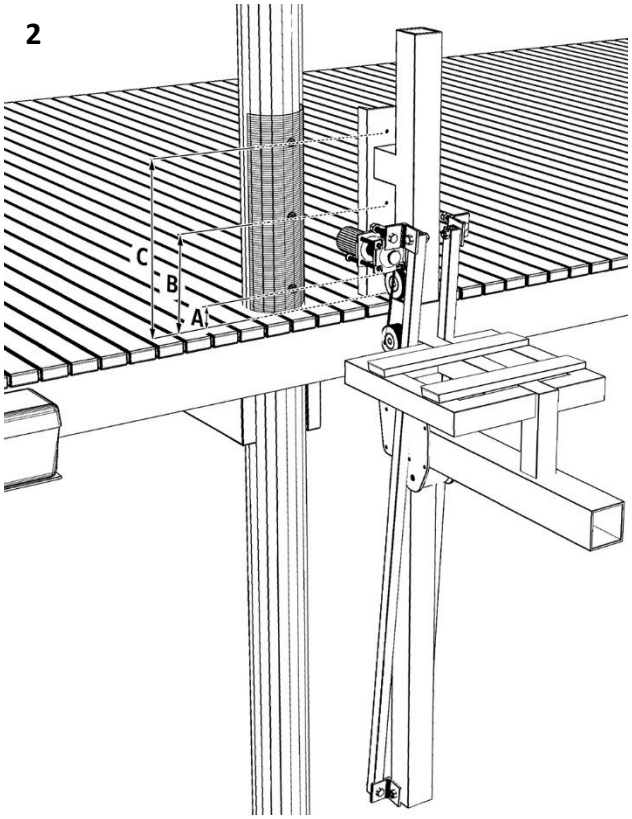
These measurements, the pile spacing and other important measurements specific to your dock are contained on the Ascension measurement form. Our sales team will provide this form to you prior to placing the order. The information on the measurement form is required prior to the construction of the Ascension stair lift.

Pile Mount Bracket Installation

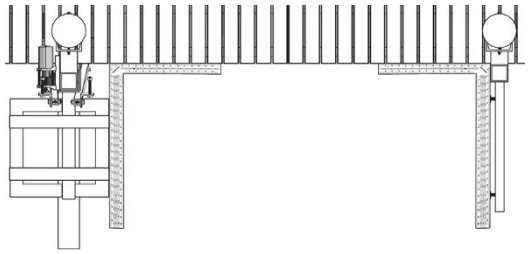
1



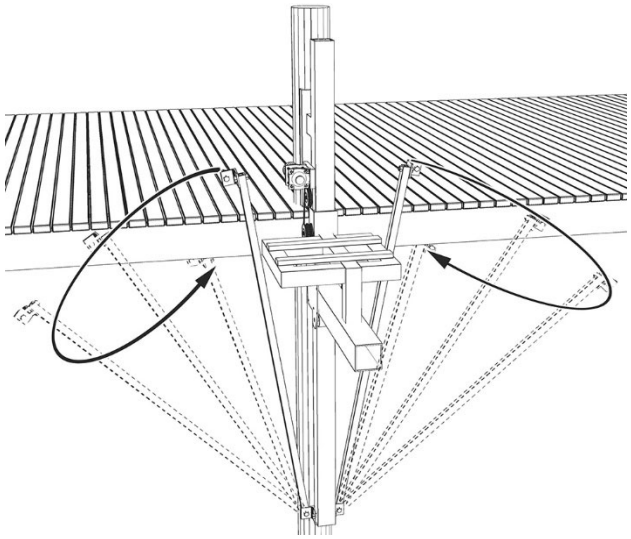
2

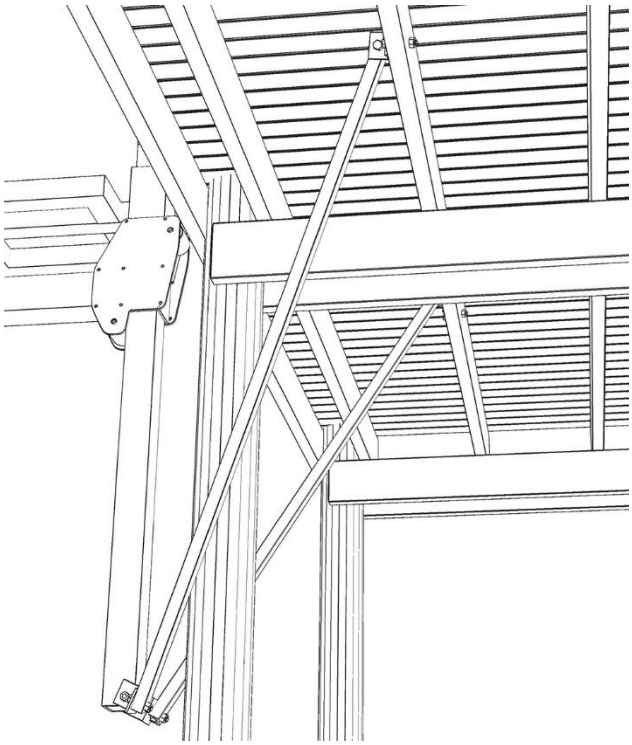


- Your lift comes with pile wrap pre-drilled with holes. Confirm that the hole patterns on the wrap and mount brackets match.
- Attach the pile wrap to the piles. Chemicals in piling degrade metals, including aluminum. The wrap will isolate and protect the aluminum mount brackets from these chemicals.
- The piles should be 10-12” in diameter and at least 36” above the deck.
- Drill 5/8” holes through the piles, three for each bracket, using the wrap as a guide.
- Thru-bolt the stair hanger pile mount bracket (Fig. 1) and the track pile mount bracket (Fig. 2) to the piles using stainless steel carriage bolts. The carriage bolts should be 5/8” in diameter and are not supplied with the lift (the minimum length should be the diameter of the pile plus 3”). **Do NOT use lag bolts**.
- We recommend inserting the carriage bolts into the holes with the bolt head towards the dock side.
- Shims may be necessary to provide a tight fit between the legs of the pile mount bracket channel and the pile.
- Secure the carriage bolts with washers and lock nuts. Once bolted, the pile mount brackets should be secure and not able to move or shift. Make sure the brackets are square when installed (as seen to right).



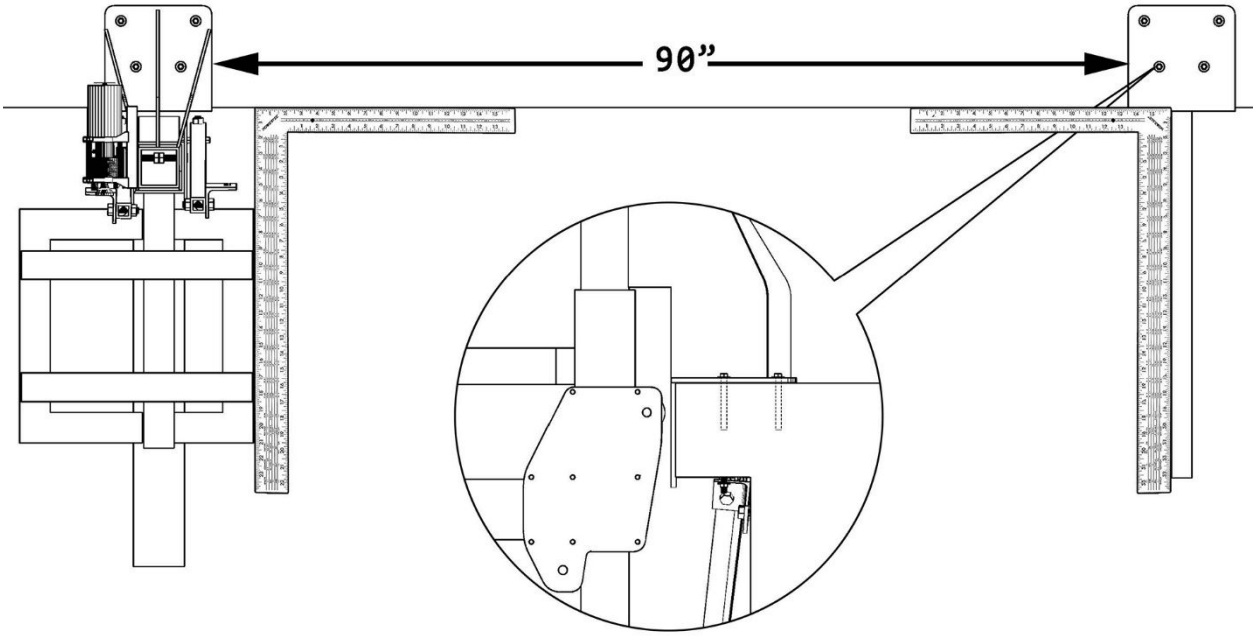
Support Strut Installation for Docks





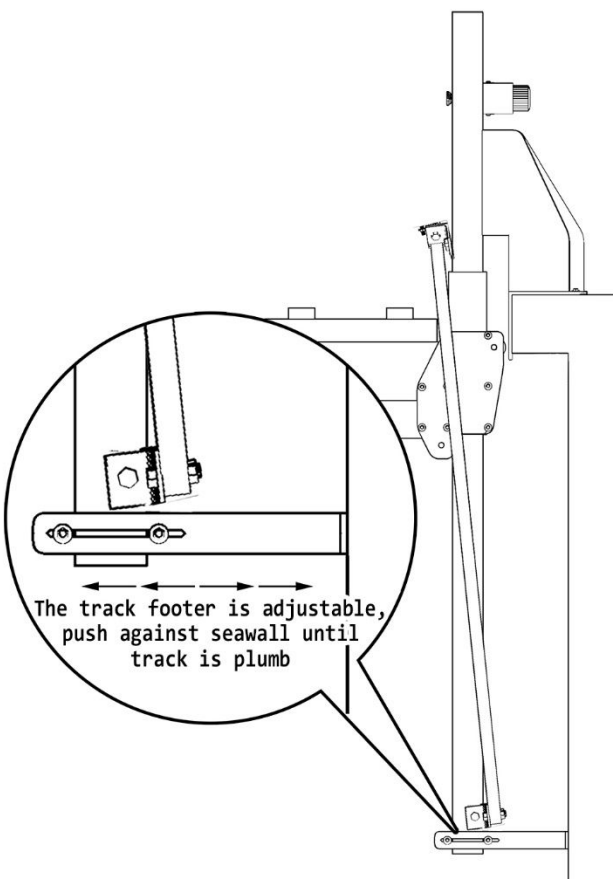
- The support struts come attached to the track. The bottom is bolted in place and the top is zip-tied to the track.
- Remove the zip ties and swing the support struts out and then under the dock.
- Locate a structural beam on the dock that will be capable of supporting the load.
- The goal is to prevent the bottom of the track from tipping towards the pile when the lift is under load. Installing the struts as deep as possible under the dock will decrease this movement. The wider apart the support struts are installed will decrease side-to-side motion of the track bottom from the load.
- It may be necessary to build structural support into the dock if none are suitably strong.
- The struts will impart torque to the dock structure; therefore, it may be necessary to build blocking into the dock to prevent twisting of the structure.
- At the top of the support struts there are bolts and hardware that is loosely attached. This hardware is appropriate to attach the support struts to 2X lumber.
- Attach the top of the support struts to the dock structure using the provided hardware (if appropriate) or with other hardware to accommodate the size of the dock structure.

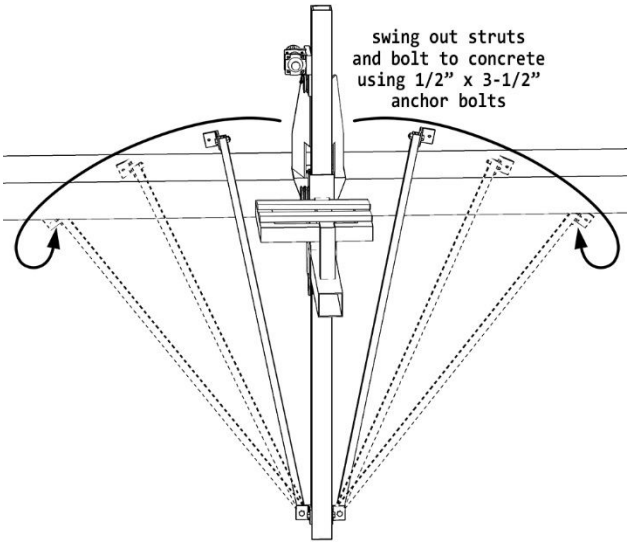
Seawall Mount Installation



- Make sure that the two mount brackets are 90” (7’ 6”) apart. Mark the location of the four holes for both the stair hanger and track seawall mounts.
- Drill the holes a minimum of 3.5” deep with a 5/8” masonry bit.
- Clean out dust and debris from the holes with a vacuum or other means.
- Fill the holes with a high strength adhesive anchoring epoxy. Insert 5/8” stainless steel wedge anchors into two of the holes for each mount bracket.
- Hang the stair hanger mount bracket and the track mount bracket over the anchor bolts. Loosely secure with washers and nuts.
- Confirm that the mount brackets have been installed square with each other (as shown above).
- Tap additional wedge anchors into the remaining holes and secure with washers and nuts.
- Tighten all nuts to firmly anchor the mount brackets to the seawall. When properly installed, the seawall mount brackets will not move or shift.

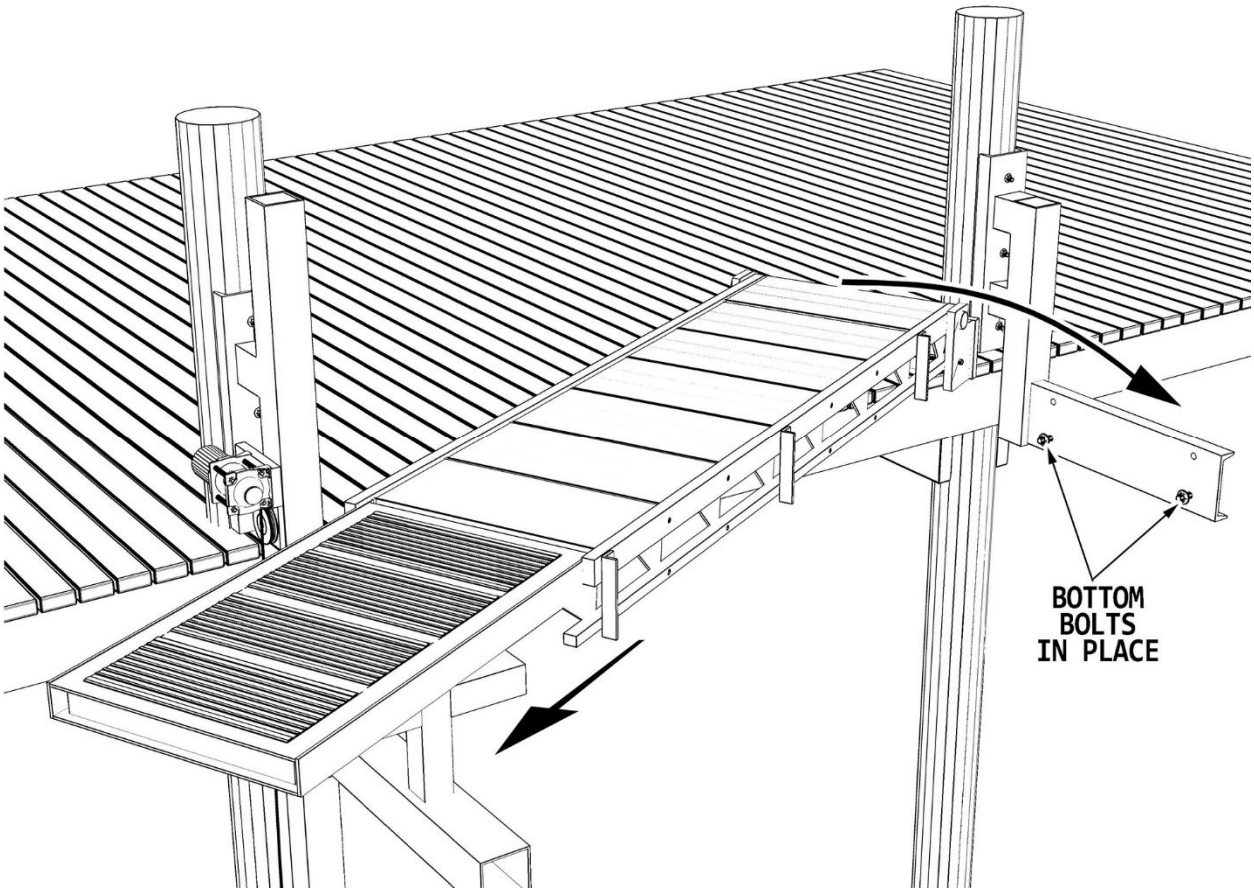
Support Strut Installation for Seawalls





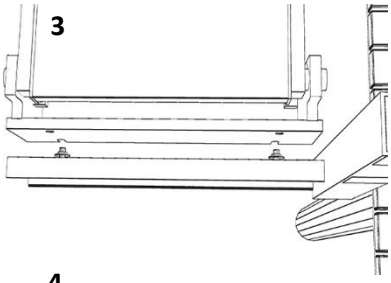
- The bottom of the track comes with an adjustable footer. Make sure the track is plumb, then slide the footer until it is in contact with the seawall. Tighten bolts to secure in place.
- The support struts come attached to the track. The bottom is bolted in place and the top is zip-tied to the track.
- Remove the zip ties and swing the support struts out and then under the seawall cap (if there is one). You want the top of the support struts to be at least 8" below the top of the seawall.
- Mark the location of the hole from the strut bracket.
- Drill the hole a minimum of 3.5" deep with a ½" masonry bit.
- Clean out dust and debris from the holes with a vacuum or other means.
- Fill the holes with a high strength adhesive anchoring epoxy. Insert ½" by 3.5" stainless steel wedge anchors into the holes for each strut bracket.
- Tighten all nuts to firmly anchor the strut brackets to the seawall.

Stair Installation

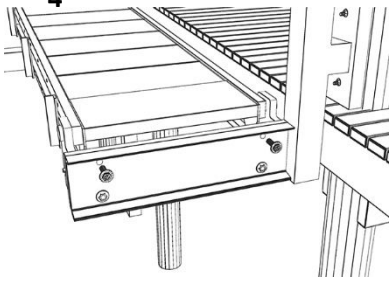


- Slide the landing on top of the track support arm while keeping the stairs supported by the dock.
- The stair support bracket comes with the lower bolts in place. The end plate of the stairs is notched to allow it to slide onto the lower bolts (see 3 below).
- There are slide guides on top of the track support arm and below the landing. Swing the stairs out over the slip and make sure the slide guides are aligned properly.
- Slide the end plate of the stairs onto the lower bolts, with the notches resting on the bolt shaft while making sure that the stair endplate is sandwiched between the nut and washer on one side and the bracket support arm on the other.
- Insert ½" by 2 ½" bolts into the two upper holes of the support arm and into the corresponding holes in the stair end plate (4). Secure with washers and lock nuts.
- Tighten all four nuts securing the stairs to the stair hanger bracket.

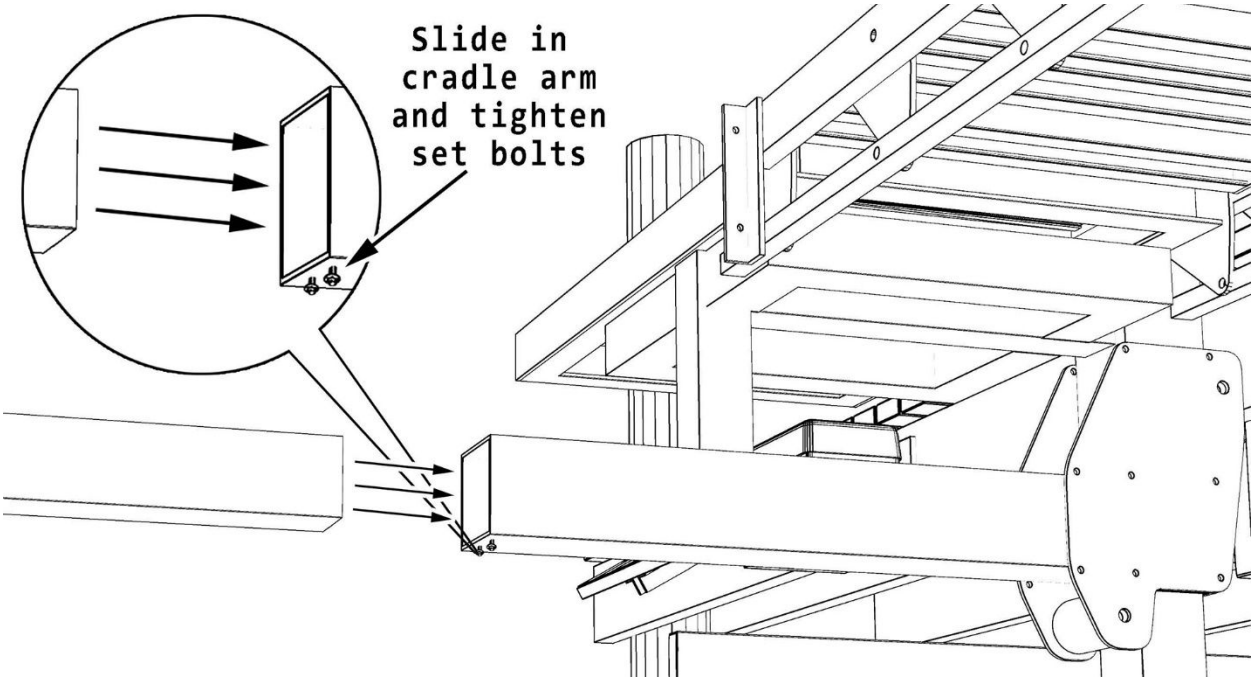
3



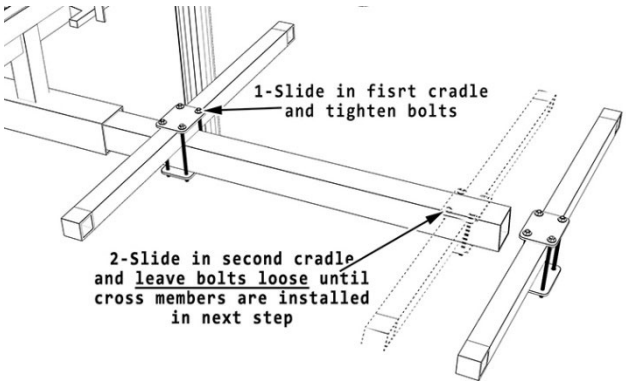
4

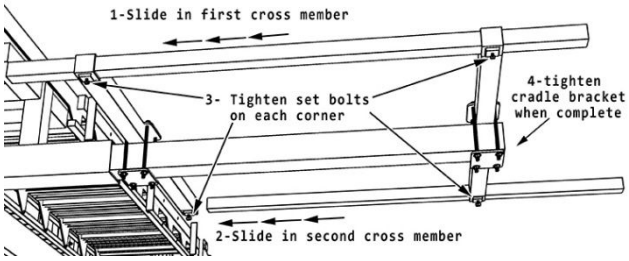


Cradle Installation

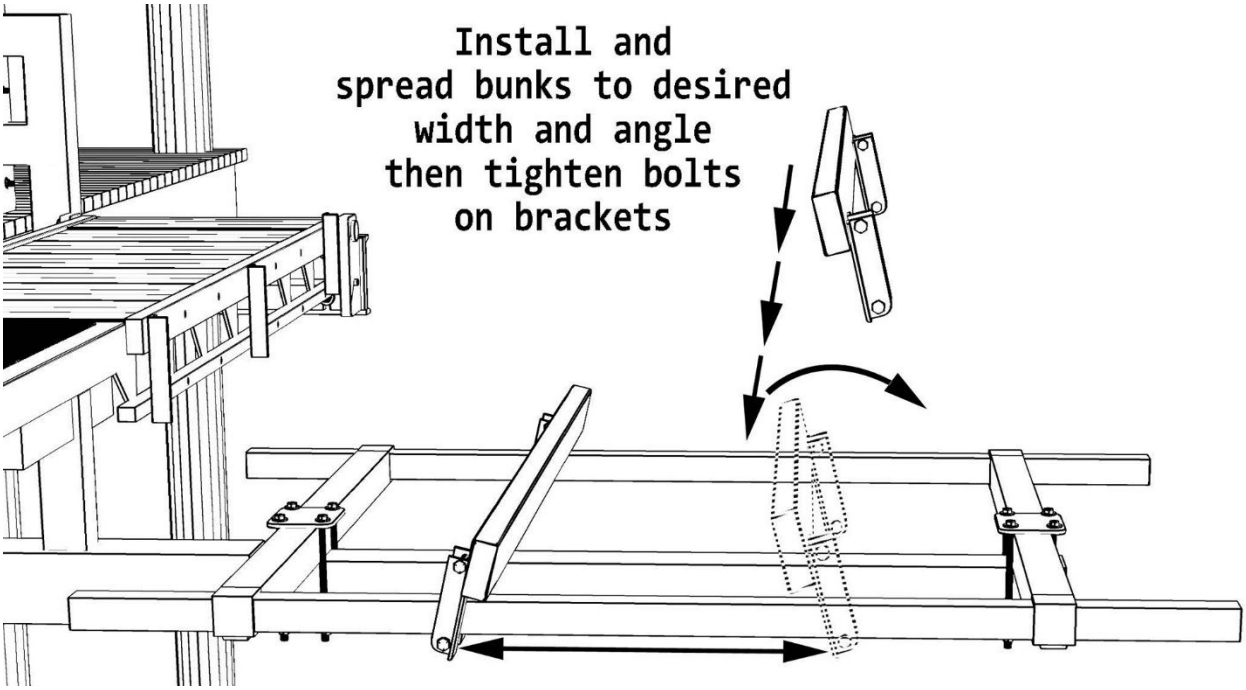


- Slide the cradle arm into the box beam of the support arm a minimum of 18 " or until it bottoms out.
- Tighten the set screws to hold in place.
- Slide first cradle onto cradle arm and tighten bolts to lock in position. Slide second cradle onto cradle arm and leave bolts loose until the cross members have been installed.
- Slide in first cross member followed by the second. Square up the cradles and cross members, then tighten the set bolts for the cross members followed by the cradle bracket bolts to lock in position.



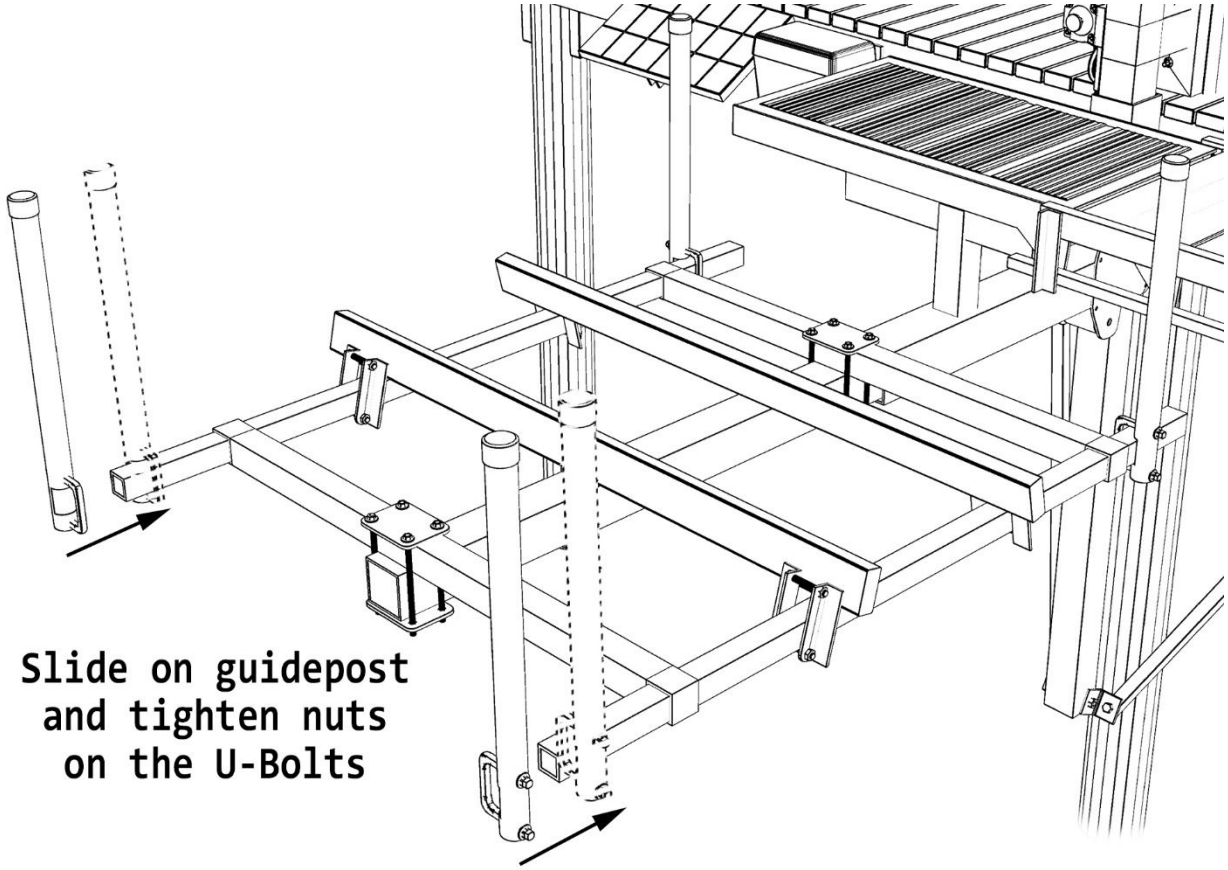


Bunk Installation



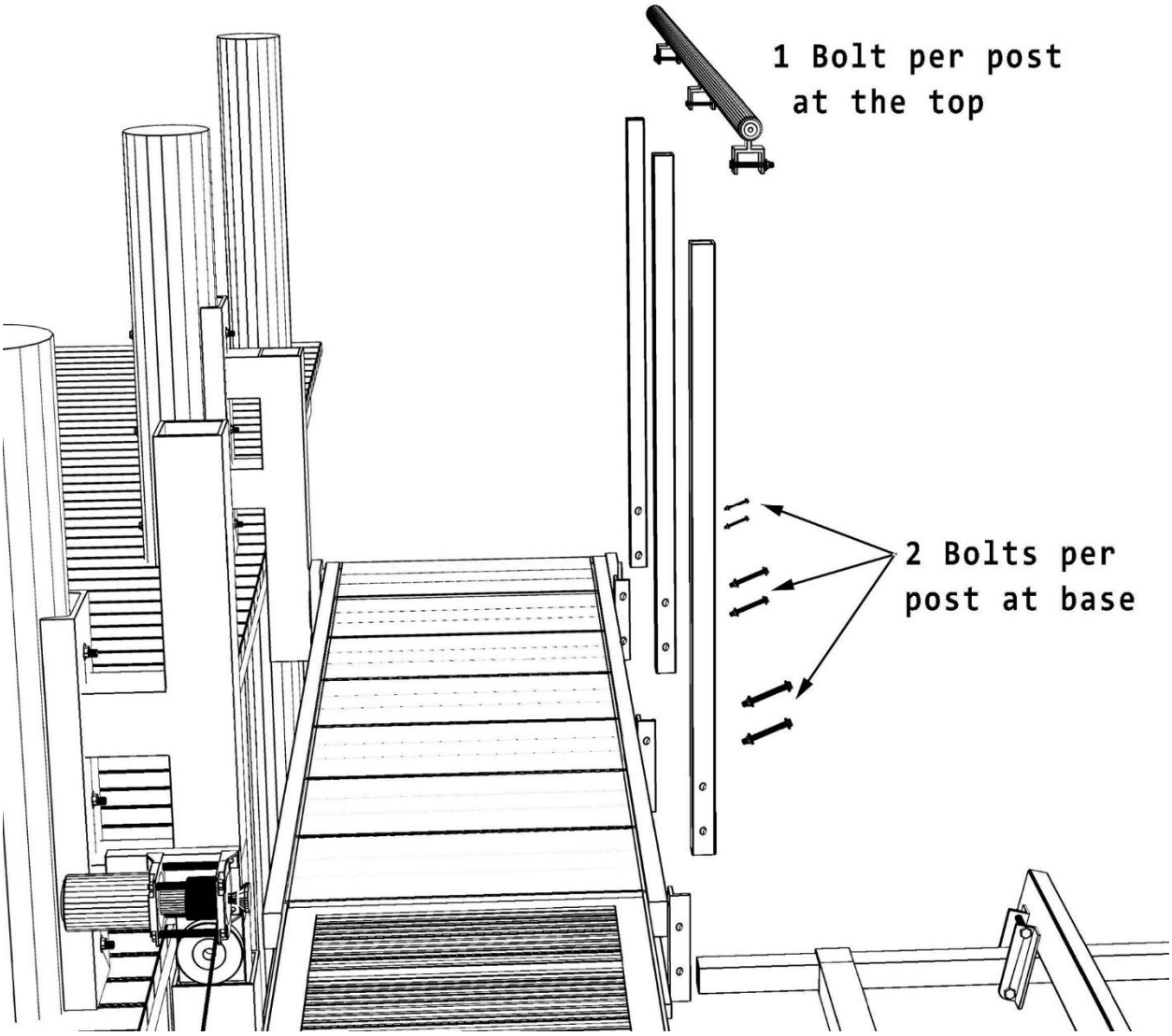
- The bunk bracket plates sandwich the sides of the cross members with one bolt above and one bolt below (bolts are 3/8” X 3”) the cross member beams.
- Simply remove the lower bolts and slide the bunk bracket plates over the cross member beams.
- Re-install the lower bolts and loosely secure with the nuts
- The position of the bunks may be adjusted by sliding the brackets along the cross member beams. The angle of the bunks may also be adjusted.
- The angle and spacing between the bunks should be set to provide a stable platform for the watercraft.
- Securely tighten the nuts on all the bunk bracket bolts when in place.

Guide Post Installation



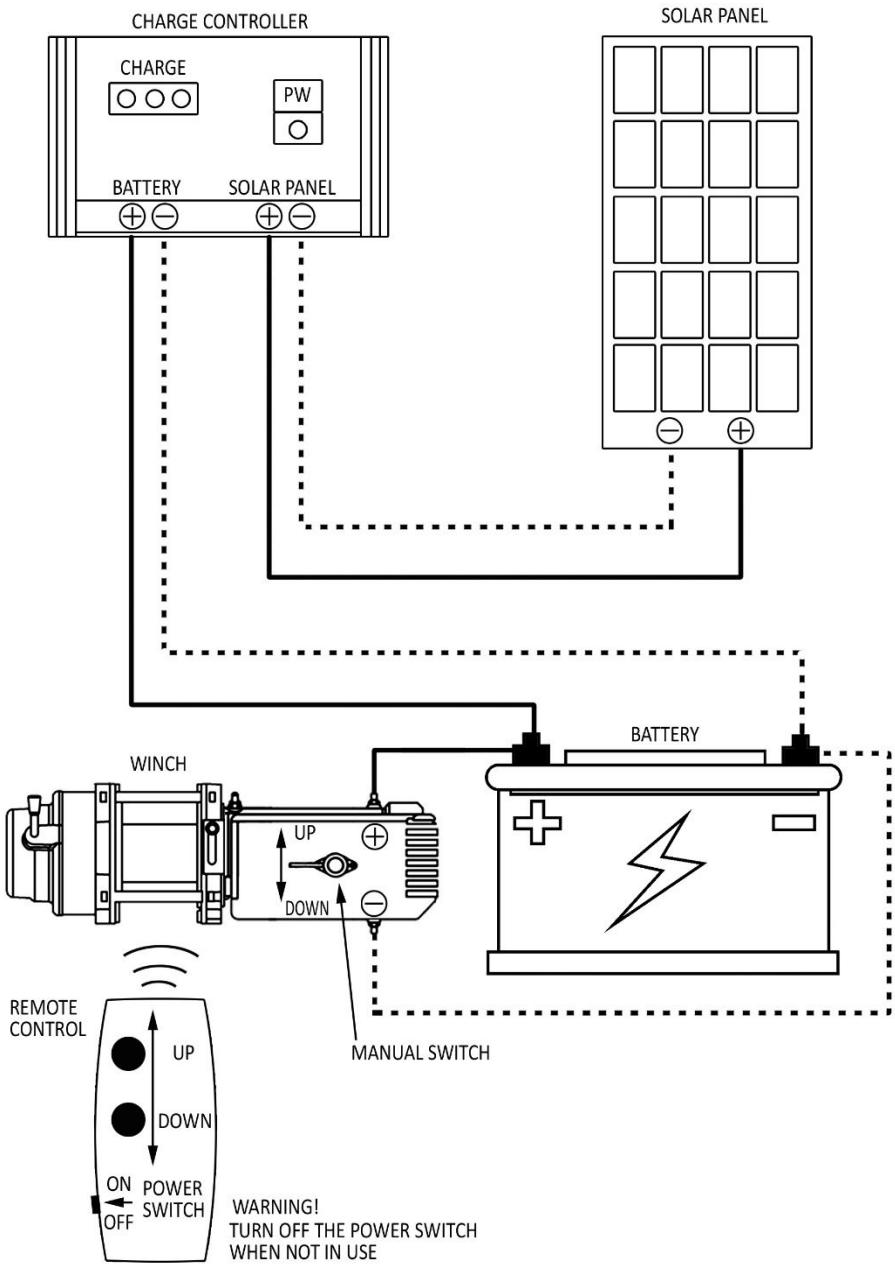
- The guide posts have U-bolts installed at their base.
- With the nuts loosely installed, slide the U-bolts over the end of the cross member beam.
- Install one guidepost on the cross member beams at each corner.
- Tighten the U-bolt nuts when the guide posts are positioned properly.

Hand Rail Installation



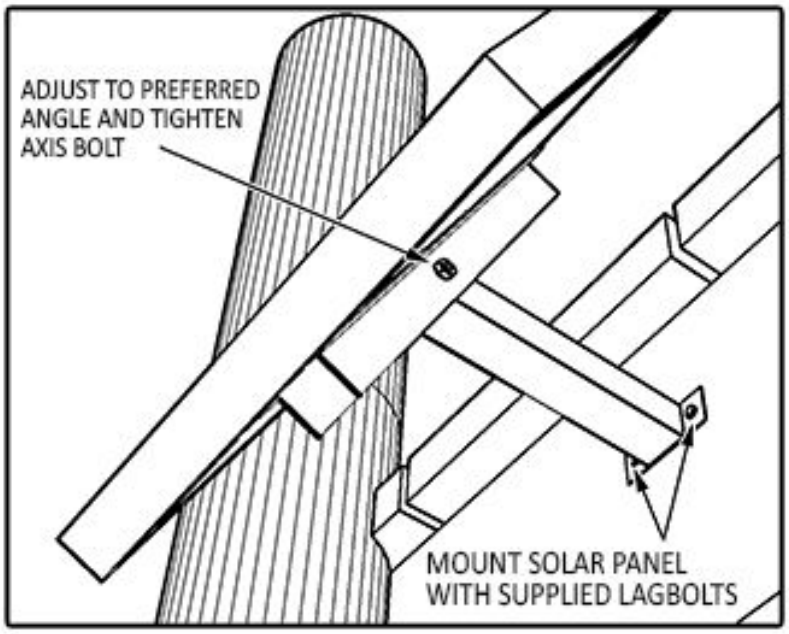
- The lower hand rail post brackets are pre-installed to the stairs. They automatically adjust to remain vertical as the Ascension stairs change their angle while moving up and down.
- Bolt the three posts to the hand rail post brackets using two 3/8” by 2 ½” bolts per post.
- The handrail comes with three brackets attached. Align the brackets with their respective post (the brackets will fit over the outside of the post square tube).
- Secure the handrail with one 3/8” by 2 ½” bolt for each bracket and post.

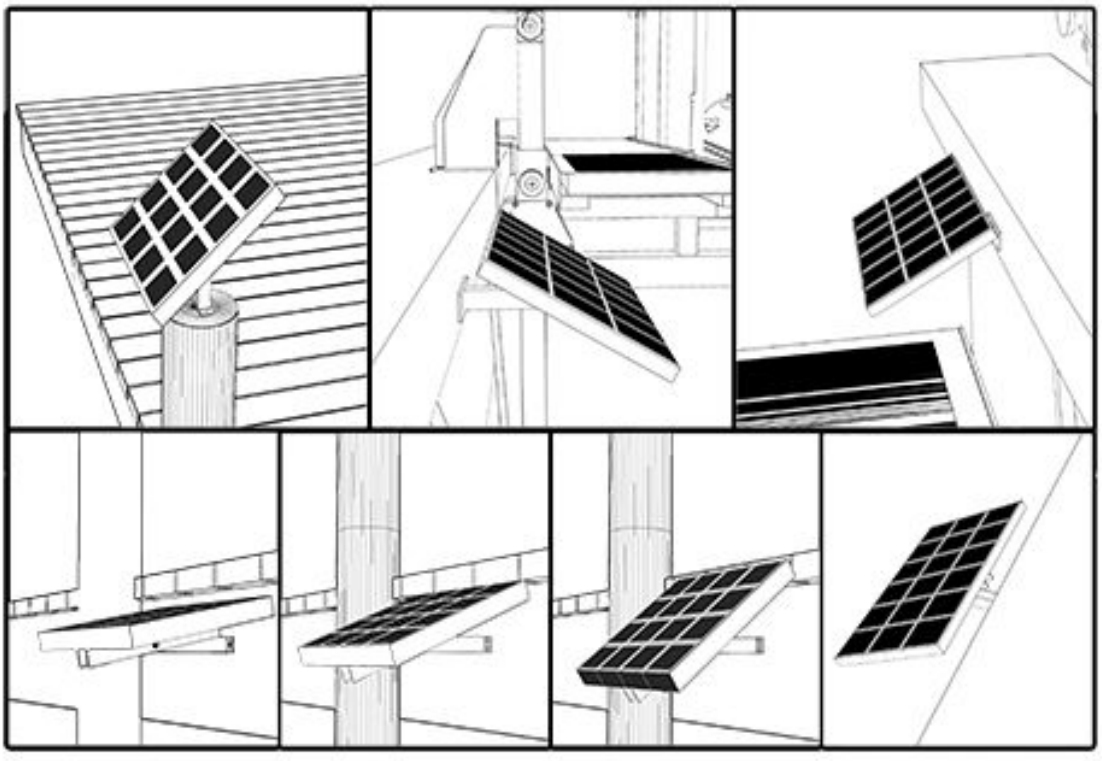
Wiring Diagram for the Electric Winch



Note: Imm Quality Boat Lifts recommends that the electrical hookup be performed by a licensed electrician and conforms to all national and local electrical code. The appropriate wiring diagram and further instructions are enclosed by the OEM in the battery box. Please read all instructions and wiring diagrams before connecting or changing any wires.

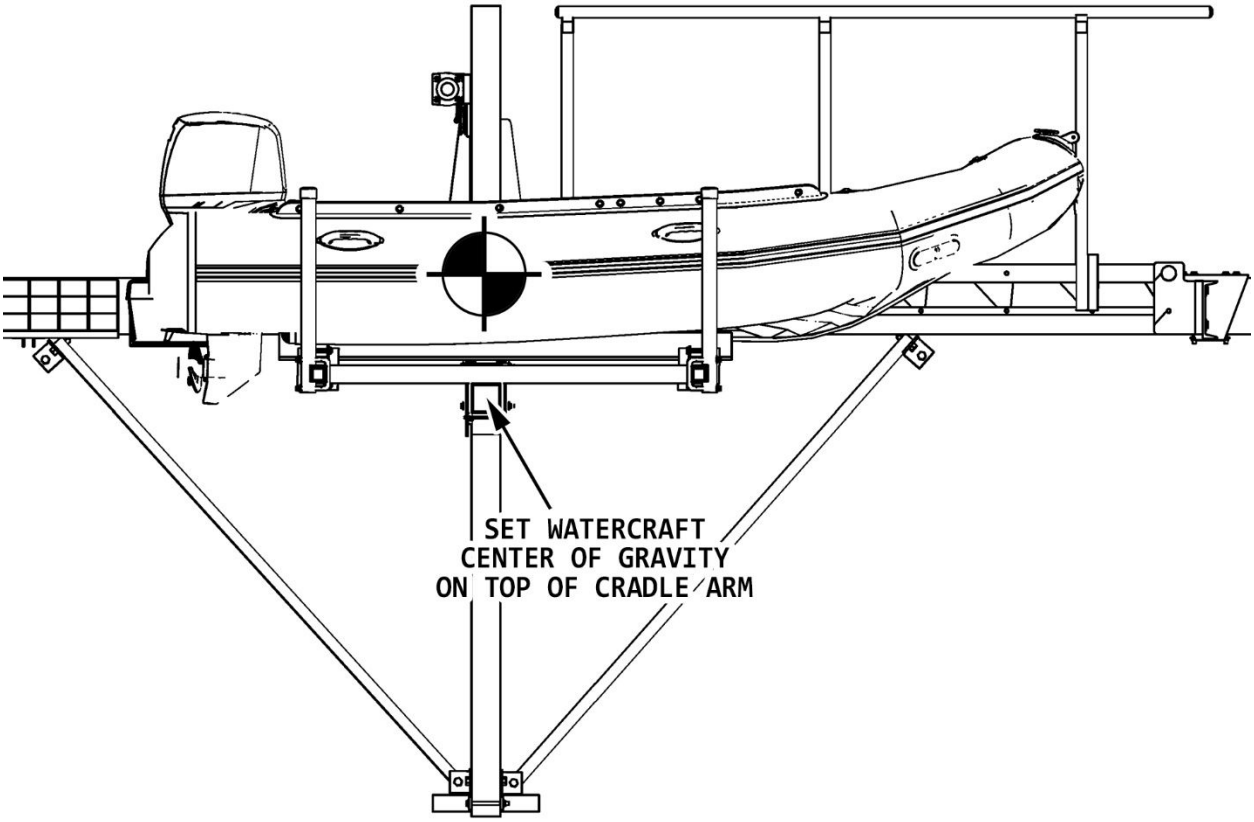
Please install the charge controller and battery inside the provided battery box. The solar panel can be mounted with the provided bracket. It is best to mount the solar panel facing south, at an angle that approximates the latitude of the install location (typically 30 to 40 degrees). In the top figure, the solar panel is mounted to the dock ledger board with lag bolts. Alternatively, the solar panel may be mounted to a nearby piling. The goal is to capture as much sun light as possible in an unobtrusive location.





Watercraft Positioning

The water craft must be properly balanced on the lift before attempting to operate the Ascension Stair Lift. Generally, water craft are heavier towards the rear section. The water craft must be positioned so that the center of gravity of the water craft is centered over the cradle arm. The figure below shows the watercraft positioned correctly with a typical dinghy. Please consult with the manufacturer to determine the location of the center of gravity for your particular watercraft.



Notes: