HBS

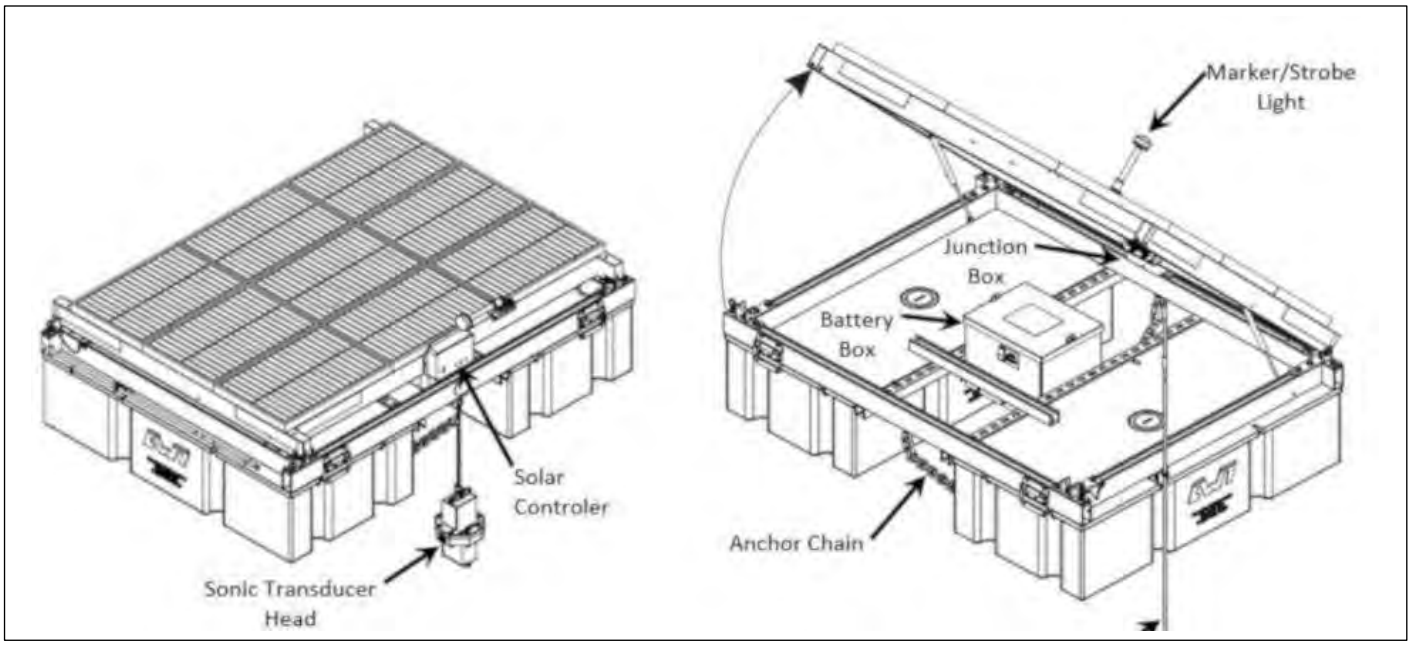
HYDRO BIOSCIENCE

AVOID NON-WARRANTY DAMAGE. READ ENCLOSED INSTRUCTIONS BEFORE UNPACKING AND STARTUP

REFERENCE THE FLORESCENT PAINTED AREAS OF THE SHIPPING CONTAINER THAT HIGHLIGHT THE SCREWS TO BE REMOVED

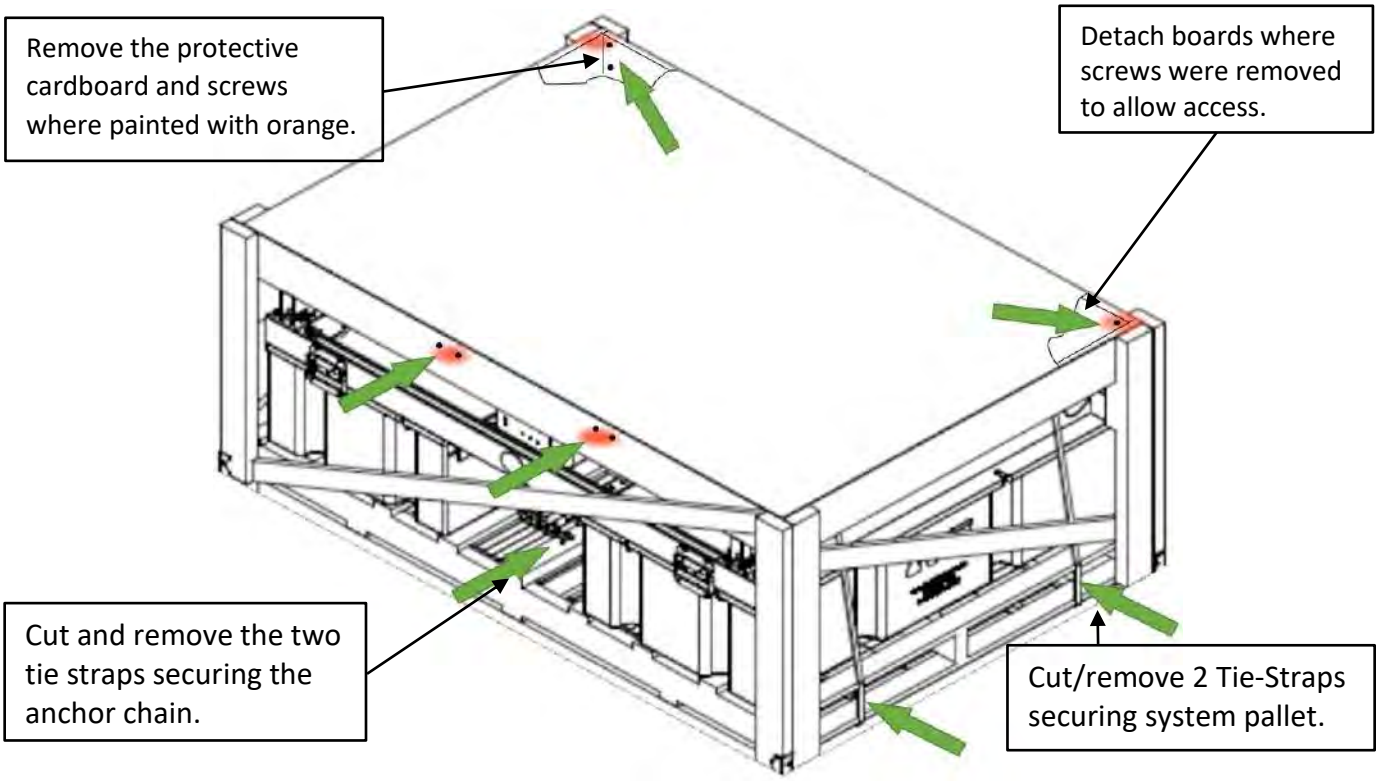
SolaRaft-QDB™ Quick-Start Manual

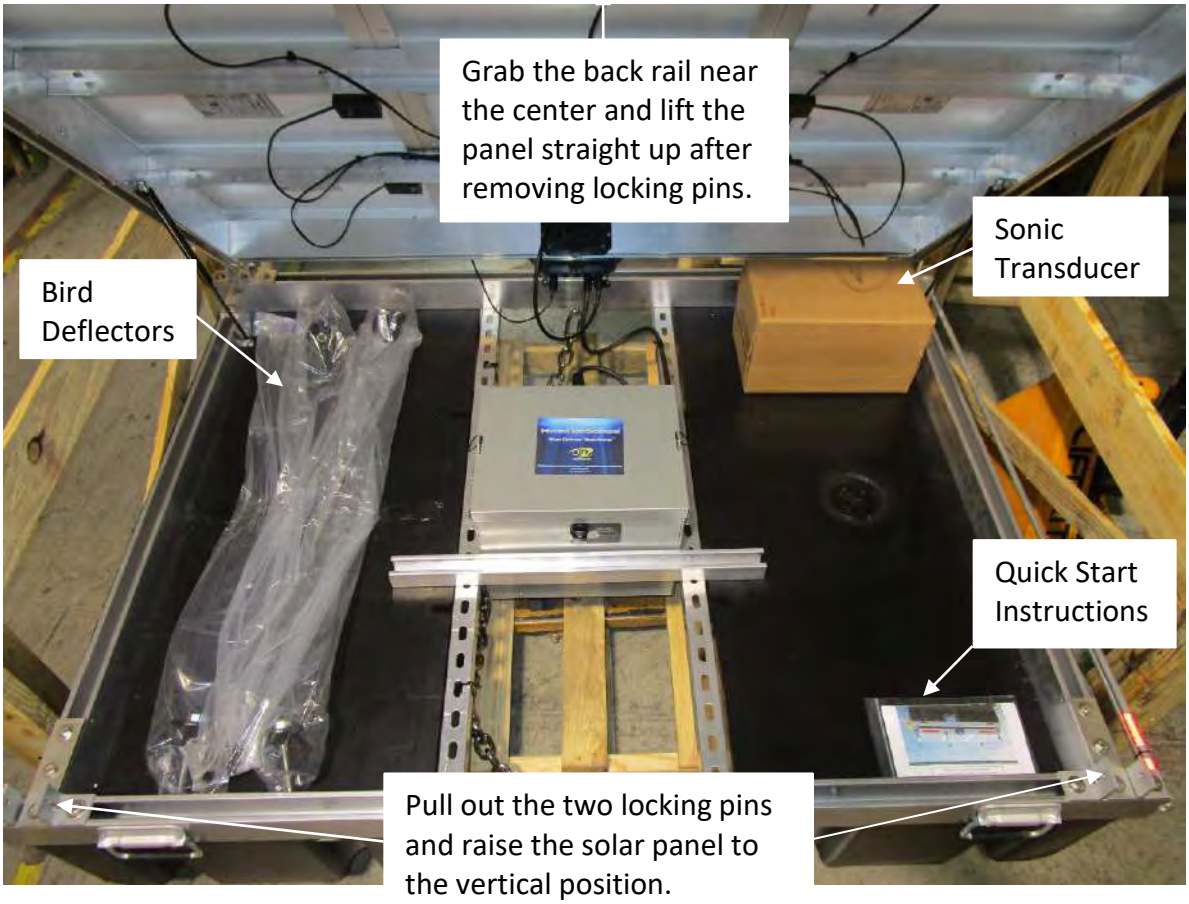
Hydro BioScience® Algae Management System
Unboxing, Set Up, & Prep for Storage



Caution - Heavy! Lifting or moving product requires four people, minimum. Always use the attached handles to pick up the HBS Solar Pontoon System.

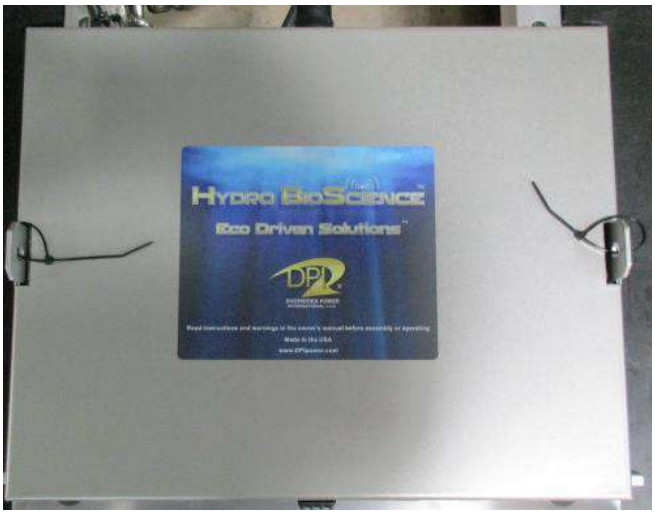
UNPACKING / GETTING STARTED



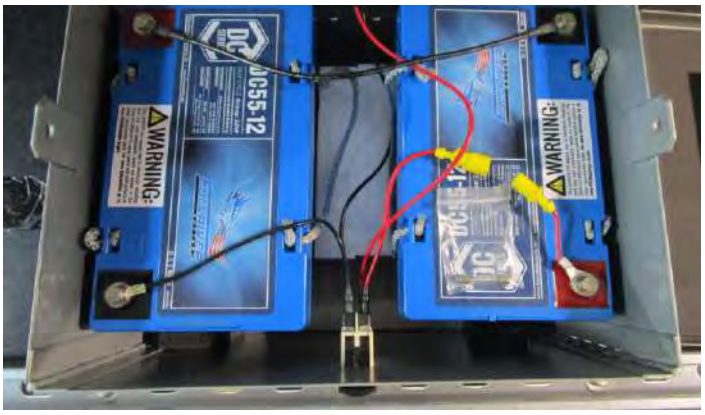


The HBS solar system batteries are fully charged when they leave the factory but over time the batteries will begin to discharge. Before proceeding, use a standard 12v car-battery-type charger to bring EACH 12v battery up to a full charge. Charge EACH battery separately before proceeding to the next step.

Cut and remove the two tie wraps securing the Battery Box lid in place. Remove the lid and set it aside.



Remove the Fuse from the bag and insert it into the yellow Fuse Holder. Snap the two halves of the Fuse Holder together. Replace lid on the Battery Box and secure it with 2 customer-supplied padlocks or tie wraps.



Locate the Transducer shipping box, open and remove the Transducer, Hardware Kit, and Transducer Cable.

Sonic Transducer and hardware kit:
4x Tie wraps, 1 Transducer driver cable, 1 Transducer, 1 Dielectric Grease packet, 14in chain, 2x D-Shackles.

Make a gentle bend in the transducer cable and zip tie to the top of the transducer body body as shown. Connect the chain to the bottom D-shackle thread the pin through the top center hole and tighten securly.

Connect the top D-shackle from the transducer chain to the eye bolt located under the Solar Controller. Place a pea sized dab of contact grease into the transducer cable end. Twist/lock the connector to Power Supply Port #1 on the solar controller until it snaps into place. Attach 2 zip-ties along chain to secure cable as shown.

Position the Strobe Light:

Marker/Strobe light folded down for shipping. Loosen the knob securing the Marker/Strobe light and rotate the light so that it is standing upright. Retighten the knob to lock the light in the upright position.

Move marker light to the upright position before deploying solar pontoon system.

Install Lightning Rod:

Remove the Tie Wraps securing the Lightning Rod and its Extension on the right side of the pontoon. Screw the extension into the Lightning Rod until hand tight. Leave the lightening rod in the horizontal position until you are ready to deploy the pontoon system into the water.

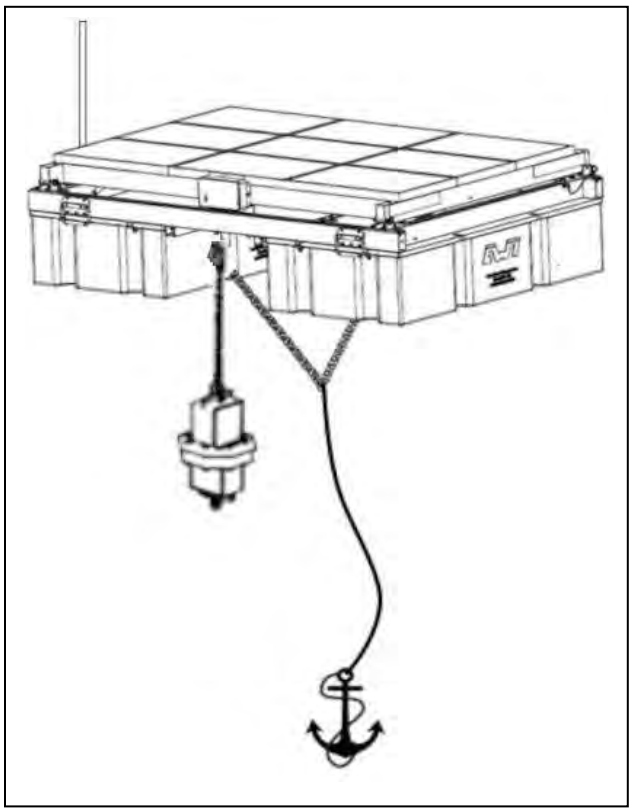
Remove the shipping tape from the Battery Box Disconnect Switch and flip the switch up to turn it on. The Marker/Strobe light will begin blinking.

Locate Junction Box under Solar Panel. Depress Power Switch to ON – Green LED illuminates when Solar Panels generate electricity.

Lower the Solar Panel back into its down (horizontal) position and secure it with the two locking pins.

SOLAR CONTROLLER POWER SUPPLY MODULE

- Power LED
  - Green when power button is in ON position
- Status LED
  - Flashes in sequence to show power mode
  - * See error/fault matrix to interpret pulse code
- Charging LED
  - Blinks once when starting
  - Stays lit until batteries have reached full charge
  - May turn off if when charging is limited (poor sun light)
- Fault LED
  - Flashes **Red** when system has a fault.
  - * See error/fault matrix to interpret pulse code
- Sonic Head LED (1&2)
  - **Blue** when signal is being sent to the sonic transducer heads
  - * If not flashing – refer to the Troubleshooting Section to diagnose
- Peripheral output LED
  - Flashes white approximately once per second and sends signal to navigation beacon when connected.



Attach the customer-supplied anchor to the center link of the large chain. Warning, do not deploy the HBS system unless it is firmly anchored. After all of the previous steps have been completed, the pontoon is ready to be placed in the water. Once the system is floating in the water, loosen the bolt holding the Lightning Rod in place and rotate it so the end with the high visibility paint is standing up and the other end of the rod extends down into the water. Retighten the bolt securing the Lightning Rod. Verify that your anchorage is functioning properly and none of the cables or chains are tangled.

Seasonal Decommissioning and Winterizing for Storage.

Caution: SolaRaft-QDB floats can take on approximately 5-10 gallons of water while in service on the water. Use caution when removing the unit from its water environment as it may be heavy.

1. Loosen the bolt holding the lightening rod, rotate it to the horizontal position and retighten the bolt to keep the rod horizontal.
2. Detach the unit from the anchorage and with at least 4 people move it out of the water and onto dry land.
3. Remove the 2 Solar Panel Locking Pins on the Solar Panel Frame and raise the frame to the upright position. Allow the pneumatic cylinders to hold it open.
4. Power the system down in the following order.
    a. Turn the system off using the switch located on the Solar Panel Junction Box.
    b. Move the switch on the Battery Box to the down position to disconnect the batteries.
    c. Open the Battery Box, pull the two halves of the fuse holder apart, and remove the fuse. Save the fuse for use the next time the unit is powered back up.
5. Loosen the Thumb screw on the Marker/Strobe light and rotate the light down into the horizontal position to protect it during storage.
6. Disconnect the Transducer cable from the Solar Controller box.
7. Unclip the small Carabiner on the Transducer chain from the large Carabiner on the pontoon frame and set the Transducer aside
8. Use clean water to wash away any dirt or debris that has accumulated on the solar panel. Do not use soap or any other chemicals to clean the panels as damage may occur.
9. Use clean water and mild detergent or boat hull cleaner to remove dirt, gunk and residue from the floats and the Transducer assembly. Dry thoroughly and place into storage until next season. If the unit will be in storage for several months, periodically recharge the batteries with a 12V car-type battery charger to prolong battery life.