

## Boston Whaler 15' Bow Rail Installation Instructions

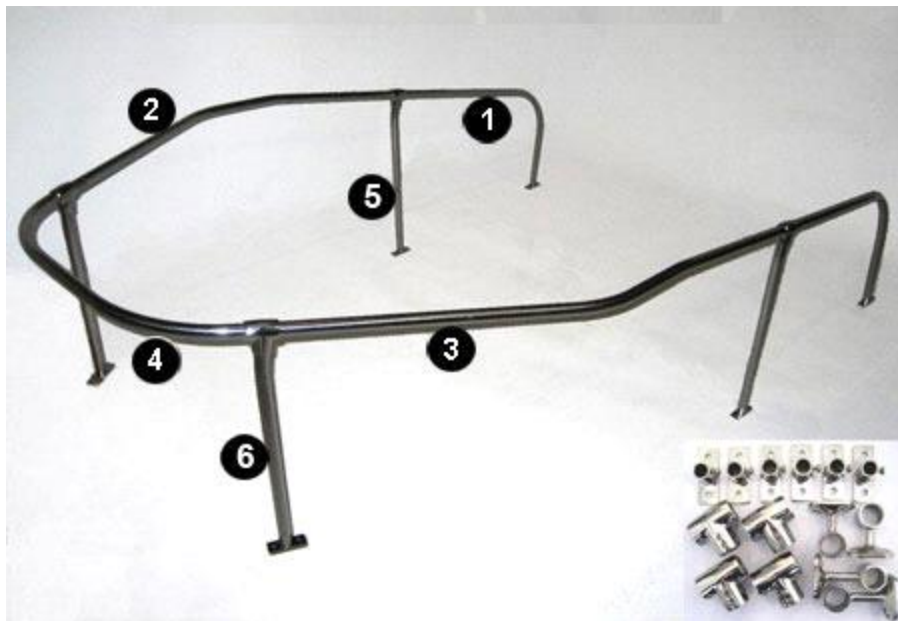
1. Remove contents from box, verify that all parts are present:

**Rail Pieces:** There is a total of 9 sections of railing, 4 of which are uprights.

**Rail Fittings:** 6 rail bases, 4 "T" fittings, and 4 stanchions (stand-offs) 2 long, 2 short.

**Hardware:** 12 pan head screws, 8 oval head screws.

2. The next step is to roughly assemble the rail sections together so that it's adjustable. To do this, start with loosening the set screws on all of the "T" fittings so they can slide freely onto the rail sections. Be sure that each "T" fitting is slid onto the rail prior to fitting the sections together because they will not slide past any bends in the railing. Use the illustration below for assistance in assembling the rail together (Note: There may be numbers on the plastic wrap your railing came in, disregard these numbers and use the identifying numbers in the illustration below). NOTE: Numbers 2 and 3 are a left and right. You can identify each section because the end with the male sleeve (which connects to number 4) is the **front**. To identify the uprights, number 5 is longer than number 6. Once you have all the sections and uprights fitted together, tighten the set screws just enough so that the railing is still adjustable, you will not tighten these completely until a later step.



3. Locate the 4 stanchions (stand-offs), these are the parts that hold the rear and middle uprights of the rail to the inside wall of the boat. Slide 1 **short** stanchion onto #1 on each side (2

total), and 1 **long** stanchion onto #5 on each side (2 total). Next, locate the 6 rail bases and fasten them using the holes in # 1, 5 & 6. You should now have a completely assembled rail with no parts remaining except screws.

4. The next several steps are fitting and fastening the railing into the boat. It is recommended to have a second person to help with these steps. Place the railing inside the boat and move it forward or backward to get it into it's rough location. You can use the photos below which are actual photos of this rail installed as a guide to the placement of the rail. At this point, you may notice that the rear portion of the rail appears to be too narrow, or not near the expected mounting location. The next step describes what to do in this scenario.





5. Once you have the railing into its location, it's time to make adjustments if needed. When the railing is in the boat, if the stern-most (rear) portion of the rail is either over, or under 5" away from where it should be, adjustment will be needed. This type of adjustment is performed by the following: Stand in the center of the boat with the railing on each side of you and pick up the left & right side of the rail in each hand. Next, if the rail is too narrow, you will be pushing out away from your body towards the left and right simultaneously. Do this in "pulses" until the rail is within a few inches of its final position. If the rail is too wide, you will do the opposite and pull towards you. Note that this step is not necessary if the railing is within a few inches of mounting position. You will find the railing in general is quite malleable, meaning you can push and pull in any area to get it to conform into position.

6. At this point, the railing should be in or near its final position. There are 2 molded "steps" that run the length of the inside wall on each side of the hull that serve multiple purposes, such as a ledge where the seats sit on, etc. These also come into play with the railing. Be sure that

the 2 rear-most rail bases are sitting on the upper molded step. Note that it is not uncommon for some of the bases to not sit exactly in position or flat, however this will be corrected as described next. Before proceeding, make sure the railing is sitting "square" in relation to the hull. You can verify this by measuring the distance from the rear of the rail to the transom or any other marker that is the same on both sides. If the distance is not the same, be sure to adjust accordingly.

7. It's time to begin marking and fastening the rail into position. You will be working from the back to the front of the rail. Mark the holes of the rear rail base on each side with a pen or pencil. You will be fastening only one screw on each side in the rear at this point, as this will be a "mock up" prior to final fastening. Using a 9/64" drill bit, drill pilot holes in each of the 2 locations you marked. Next, using pan head screws fasten only one screw on each side, and do not tighten down completely at this time. Repeat this process moving back to front. You may encounter some rail bases that do not sit "flat" which is common. Since the railing is malleable, you can commonly use moderate force to position the base where it needs to be while simultaneously fastening with a screw.

8. Once you have the railing mocked up with at least 1 screw in each base, it's time to install the stanchions. On the 2 rear-most sections (#1), there should be stanchions that were slid on at the beginning of the installation. These are to provide stability to the rail. Slide each stanchion down/up until it is firmly in position and the rail is as vertical as possible. Once in position, mark the hole locations and drill pilot holes. It is not necessary to fasten these at this time. Repeat this on the #5 uprights.

9. The final step is to fasten everything tight and use sealants around the screws and thread lock for the set screws (See last page about anchoring to areas with no wood backing). You will need a couple different products for this step. One is a sealer such as silicone or the product we recommend 3M 5200 Marine Adhesive Sealant which is both a sealant and an adhesive. Second is thread locker, which is used on all the set screws to prevent them from vibrating out. These products can be found at most large home improvement stores. Working your way from one end to the other, remove and install screws, making sure to coat them generously with sealant. Also, you will want to coat the surface of the bottom of the bases as well as the pad on the stanchions. This will provide a better seal and bond. Once the entire rail is securely fastened to the hull, remove and tightly fasten all of the set screws, while first coating the threads with thread locker. This will prevent them from falling out later due to vibration.

### **Instructions For Creating A Solid Anchor Point In A Foam Filled Hull**

1. The following is a step by step guide to creating a solid anchoring point in areas which do not have the wood reinforced backing in foam filled hulls. This is sometimes referred to as creating a "hockey puck".
2. You will need to hollow out the foam behind the area you will be fastening to. First, drill a hole in the location about 1/4" or at least twice the diameter of the screw you will be using.
3. Locate an allen wrench that is small enough to fit inside the hole you have drilled. Then, attach the long end of the allen wrench into a drill. Insert the short end into the hole you have drilled, and position the drill back to 90 degrees of the surface of the fiberglass. Once you have the allen wrench inserted into the hole, trigger the drill so that the short end spins inside the foam behind the fiberglass. This effectively creates a "void" in the foam behind the fiberglass.
4. Once you have created a void in the foam, the next step is to inject epoxy or resin into the void. Once the epoxy/resin has cured, you are left with a very solid anchoring point that you can drill and fasten your screw into. The best way to inject the epoxy is to use one of those non-needle syringes that you can get at any pharmacy, these also come with baby tylenol and similar medicines for kids. You can use any 2 part epoxy, or any fiberglass resin material. Mix the epoxy or resin, draw it into the syringe, and inject it into the void until it is full. Once cured, this area is now ready to fasten to.

**Special Note:** There is another option for anchoring rail stanchions "stand-offs" in specific, to the inside wall of the boat. The product is a "backing plate" which allows the screws to be through-bolted through the side wall of the boat. You can see this product on our website, SpecialtyMarine.com, simply type P-1 into the search field and it will be shown. The title is [BOSTON WHALER STAND-OFF / STANCHION BACKING PLATE](#). This product was used with some railing as original equipment.