

## Boston Whaler 17' Bow Rail Installation Instructions

\*Please note that some 1977+ hulls may have a 1 1/4" x 3" x 3/8 aluminum block where the front upright attaches to the hull. Should this be the case you will need to drill a slightly larger pilot hole so that the screw threads can catch the aluminum. Use 3M 5200 adhesive sealant when you fasten the screws. If you run into any issues with a larger pilot hole, you can drill and tap so you can use a machine screw instead.

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

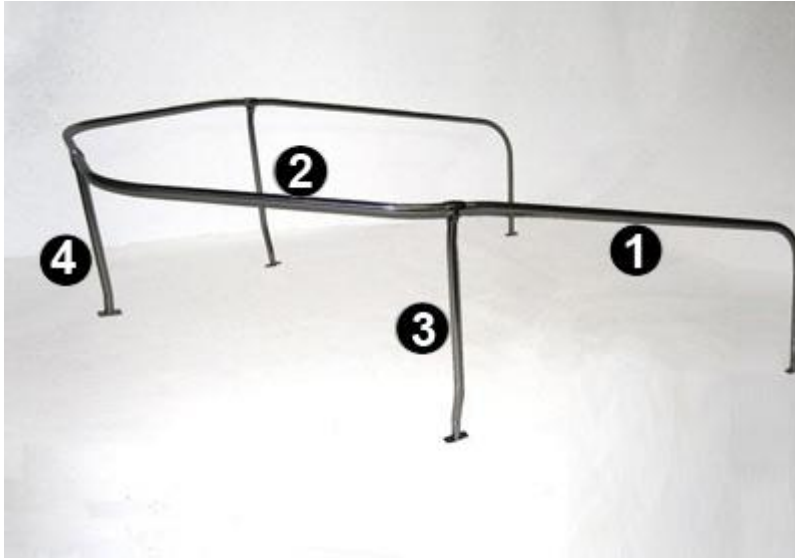
**Rail Pieces:** There is a total of 7 sections of railing, 3 of which are uprights.

**Rail Fittings:** 5 rail bases, 3 "T" fittings, and 4 SA-2 stanchions (stand-offs) 2 1/8".

**Hardware:** 10 pan head screws, 8 oval head screws.

Note: when installing the front center upright's T-fitting does not have to sit directly over the seam/sleeve.

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). Numbers 1 & 2 are the main sections of the rail, and numbers 3 & 4 are the uprights. NOTE: Numbers 2 & 3 have two each: 1-left and 1-right. For #2 which are the front horizontal sections, it doesn't matter which section is on the left or right. For #3 however, you will want to verify each upright is on the correct side. There is an "S" shape bend at the bottom, be sure this bend is bent in towards the center of the boat, and the bend at the top is bent towards the stern of the boat. 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 stanchion onto #1 on each side (2 total), and 1 stanchion onto #3 on each side (2 total). For #3 you will want to slide the stanchion onto the top which has a slight bend, not on the bottom which has the "S" shape bend. Next, locate the 5 rail bases and fasten them using the holes in # 1, 3 & 4. 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 its rough location. The front upright (#4) should be seated onto the center of the fiberglass "cleat" in the bow, just behind the bow light (if equipped), and forward of the norman pin, which is embedded through the cleat. **(Special note:** There is a variance in length of the #4 upright in certain older hulls pre-1976, which should measure 19 5/8". If you require, but do not have this, please contact us). 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 #3 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.