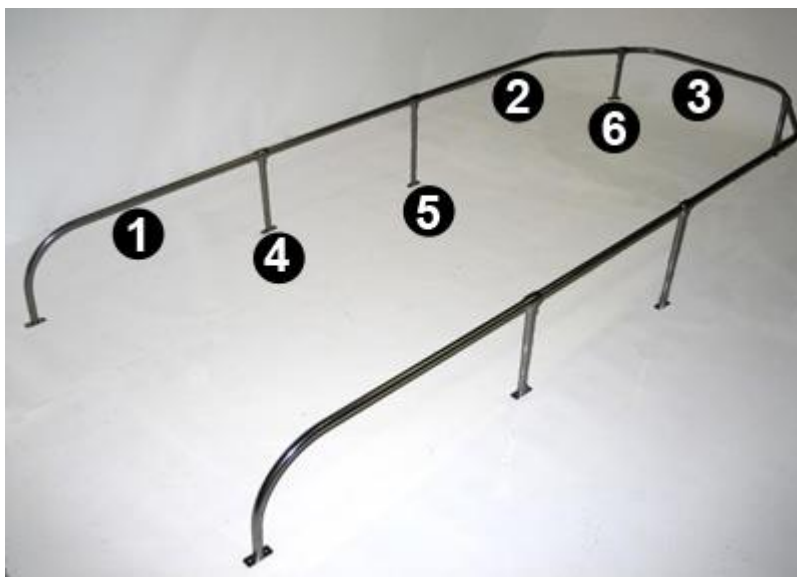


Boston Whaler 13' Wrap Around Rail Installation Instructions

Hardware included: (16) PAN, (8) OVAL, (8) B-1 rail bases, (6) M-1 T-fittings, (4) S-1 stanchions

1. Remove contents from box, verify that all parts are present. There is a total of 11 sections of railing, 6 of which are shorter, straight pieces which have a hole at one end. These are the uprights, and the holes are for attaching the rail bases. Next, there is a bag that contains all of the railing hardware and components such as the rail bases and stanchions. Verify that there is a total of 8 rail bases, 6 "T" fittings, and 4 stanchions (stand-offs) as well as oval and pan 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). Numbers 1-3 are the horizontal sections of the rail, and numbers 4-6 are the uprights. For the uprights, the sizes are as follows: #6 shortest, #4 mid length and #5 tallest. 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. Locate the 4 stanchions (stand-offs), these are the parts that hold the rail uprights to the inside wall of the boat. Slide 1 stanchion onto uprights # 4 & 5 on each side (4 total). Next, locate the 8 rail bases and fasten them using the holes in # 1, 4, 5 & 6. You should now have a completely assembled rail with no parts remaining except screws.



3. 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 uprights (#6) should be seated onto the 2 triangular non-skid steps in the bow (Note: For pre 1976 hulls that do not have these steps, refer to special step #8 at the end of these instructions). Adjust (turn) these front uprights so that the rail bases are at 45 degree angles to match the angle of the non-skid steps. The bases should be 1/2" to 1" away from the inside edge of the non-skid pattern. Use this as your reference point in determining the location of the rail (how far forward or backward). 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.

4. 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.

5. 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. These also come into play with the railing. Be sure that the rail bases are sitting on the correct molded steps. The rear rail bases and 2nd to rear rail bases both sit on the upper step, while the 3rd from rear (2nd from front) sits on the bottom 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.

6. 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 4 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. There are two methods you can use to correct this problem. The railing is malleable, so using moderate force and holding it in position while simultaneously fastening with a screw is effective. Also, there are some areas such as the bow where the mounting surface isn't perfectly flat, resulting in gaps underneath the rail bases. To fix this, you can adjust each side of the rail base by bending slightly with a pair of pliers and using a rag or cardboard in between to prevent scratching. Any remaining gaps can be caulked.

5. 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 middle uprights, 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 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.

6. The final step is to fasten everything tight and use sealants around the screws and thread lock for the set screws (See next step for details about fastening into foam filled hulls). 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, and an amazing one at that. 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.

7. Foam filled hull anchoring: There is wood reinforcement behind the fiberglass in the majority of screw locations. In cases where there is no wood reinforcement, there are a few techniques you can employ. The first line is to simply use an adhesive sealant product such as 3M 5200 marine adhesive sealant. This is both a sealing product to seal out water as well as an adhesive product which will significantly improve the bond where there is no wood backing. Beyond this there are 2 other techniques that you should consider if you feel a bond is not sufficient or a bond fails. One of them is the use of backing plates, which allows you to through-bolt through the side wall of the hull. The SKU# on SpecialtyMarine.com website is P-1. Lastly, there is a method commonly referred to as a "hockey puck" in which epoxy is injected into the hull. For a step by step of this technique, please email us for literature.

8. Special info for pre 1976 hulls. Hulls produced prior to 1976 have some differences. One of them is they do not have the 2 triangular stepping platforms that the later hulls have. The front 2 uprights of the wrap around railing fastens to these steps. Not to worry however, as the solution to this is fairly basic. Instead of fastening the front uprights to these steps, you move the rail forward about 6 inches and fasten to the top of the front lip. At this step, adjust (turn) these uprights so that the rail bases are parallel and centered on this front lip. Return to normal installation steps.