

# Installing Foot Braces



Photo #1



Photo #2

Foot braces can range from inexpensive to very expensive, depending on type, construction materials and features that you wish to have. The simplest to install and the ones we use are Sea Dog or Sea Dog with Toe Control for rudders. Purchase ones that come with a mounting stud which can be epoxied to the inside of the kayak. Disassemble the foot pedals so that you have only the rail and the studs. Insert the studs into the rail, determine placement, add a little thickened epoxy to the back of the mounting studs and with the kayak on its side, attach the rail with studs in holes of rail to the kayak. Remove the rail and let the epoxy set up. Once hard, add a few layers of increasing larger circles of fiberglass over the studs and epoxy in place. Sand smooth once hard.

Most foot pedals are made of hard plastic, and simply adjust in length only. Most come with two stainless steel screws that are used to attach the pedals to a hull, but they are designed to be inserted through a fiberglass hull from the outside, as on commercial boats. You probably don't want to do this. So to install them without drilling through your hull, you can purchase the mounting studs or you will need a block of wood glued into your kayak. **(Photo #1)**

Cut a piece of hardwood at least one inch by one inch and 16 inches long. We don't recommend a soft wood such as cedar, since screws don't hold well under stress and pressure while paddling. You can cut this piece longer so that will be able to move the whole foot pedal to another position

To determine where you will be gluing them into your kayak, sit on the floor with your back against a wall. Bend your knees up slightly and measure the distance from the wall to the ends of your toes. This will be the mid range of the adjustable foot braces. Use this number to measure from the backrest of your kayak seat up inside your cockpit and mark with a felt pen.

Photo #3



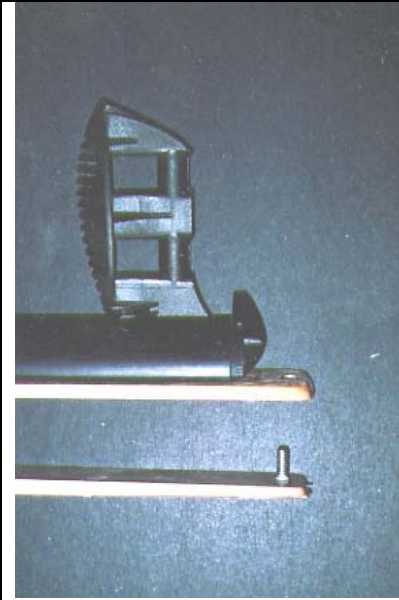
Photo #4

Plane down the underside of the piece of wood so that it sits flush with the inside walls in your hull where you have previously marked, with the middle of the foot pedal at the position you marked. It will be more convenient now to mark the end of the wood piece closest to you on both sides of the hull.

Place the foot brace on the piece of wood and mark where you will need to drill holes at each end to attach the brace. The foot brace can be attached to the block of wood with simple stainless steel wood screws. To do this, pre-drill the holes and pre-set the screws in. Pre-drilling and setting the screws now is a lot easier than trying to do this after the block is permanently installed. Before attaching the wood block into your boat, you should coat the wood with several layers of epoxy to keep water out. The wood screws in this method may tear out over time and hard use.

The preferred method of attaching the foot brace is to use stainless steel T-nuts. Mark where the holes need to be drilled as above and drill a hole large enough to accommodate stainless steel bolts sliding right through. Now cut a slot (**Photo #2 – note in this picture there are two options to attach the foot pedal**) on the backside of the wood in that area so that the T-nut sits recessed into the wood. Seal all the wood with epoxy. The T-nut will end up behind the block of wood in your kayak. Hammer the T-nut into place. (**Photo #3**) Test to see that you have drilled correctly and the foot braces can be attached with stainless steel bolts. Once you glue the block into your kayak, there is no room for adjustment.

To attach the blocks of wood into your boat, rough up the area inside the hull with sandpaper for a good bond. Sand the backside of the block also. Mix up some fast set epoxy and thicken with silica powder. Spread the mixture onto the backside of one of the blocks, being careful not to seal the T-nut. Tip your boat on the side and place the block against the inside wall where you have marked. Press firmly into place and wipe off any thickened resin that squeezes out the sides. Allow the resin to completely set before tipping the boat to the other side and repeating the procedure for the other block.



Yet another option is to split the wood rail in half and have T-bolts come through from the back so that you can simply attach your foot pedals or rudder rails with stainless nuts.  
**(Photo #4)**