Keyhole Knee Brace Installation
For Pygmy Kayaks

Introduction/Overview
Adding knee braces to your kayak can aid in learning to lean, brace, and roll your boat. The keyhole installation will allow you to bring your knees closer together for a more comfortable posture. The oversized knee braces will give you a secure surface for inward pressure from your knees and when combined with hip blocking will lock you into your kayak and enable you to transfer your paddle and body motion to your kayak to Eskimo roll and execute paddle braces for extreme paddling and surf kayaking.

Laminate Cloth to Backing Plates
Using the cloth provided, laminate fiberglass to both sides of each of the wood plates. Trim off the excess cloth flush with the backing plate edges.

Glue Foam Knee Brace to the Backing Plate
Align the small angle of the foam wedge to the inside edge of the backing plate (the edge with the rounder corner) and glue the foam to the backing plate with Marine Goop, 3M 5200 Marine Adhesive, Pliobond, or other appropriate adhesive. Then round the corner of foam wedge to the curve on the backing plate.

Glue Kneecap Foam
Glue the thin foam over the side of the triangle and the underside of the backing plate to cushion the top of your knee cap.

Determine Brace Placement
Sit in your boat, push on your foot braces and lock your knees underneath the deck. Slide the backing plate between your knee and the deck and slide it over until the foam wedge touches the inside of your knee. Move assembly back and forth and from side to side until you find the place where you feel comfortable. If the backing plate is too wide trim it down to fit. With a pencil mark the top of the backing plate along the edge of the cockpit and make a mark on the side of the cockpit where the plate projects under the deck.

Attach Backing Plates
Mix some epoxy and thicken it with wood flour to the consistency of molasses. Using the pencil marks on the backing plate, paint epoxy on the backing plate and on the under side of the deck. Clamp the plates in place. Clean up any epoxy that is evacuated by clamping pressure. Let it cure overnight.
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Parts List

Two Wood Backing Plates

Two Pre-cut foam knee braces
Two foam sheet kneecap pads

Six Ounce fiberglass cloth to reinforce backing plates