

Materials Needed	Procedure Overview
<ul style="list-style-type: none"> <li>• 3/4" wrench</li> </ul>	<ul style="list-style-type: none"> <li>• Identify parts</li> <li>• Bolt together and level</li> <li>• Measure pitch</li> </ul>

## Procedure

### ASSEMBLY

1. Unpack the box and identify all parts.
2. Assemble the feet and the rail. The bolts on the top of the rail joint should be tightened before the side bolts.



photo A

### SET UP AND LEVELING

1. Setup the pitch check on a level surface such as a work bench or a set of sturdy saw horses (as pictured).
  - a. The rail of the pitch check should be level. To make the rail level, determine the height of the head by adjusting the bolts on each of the feet until the rail is level. See photo A.
  - b. The pitch check must be adjusted so that the level of the pitching head is zero measured perpendicular to the rail. Place the level on the pitching head as shown in photo B.
  - c. Adjust the bolts on each of the feet so that the level reads zero. See photo C.
  - d. Reverse the level end-for-end and check again. The level must read zero in both positions. If it reads zero one way but not the other, reset the zero if you are using a digital level and if you are using a bubble level, use another level. In either case, readjust the pitch check for level. See photo D.



photo B



photo C

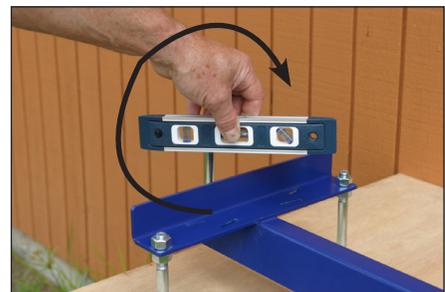


photo D

Hint: If you will always use the pitch check in the same place, it may save set up time to bolt it to the workbench.

### CHECKING THE PITCH CHECK FOR LEVEL

Before using the pitch check, it should be checked for level. If it is not bolted to a heavy bench and it is bumped or moved, you must check it for level before continuing to use it. In fact, careful riggers will check the level of the pitching head frequently. Follow the directions above in "Set Up and Leveling."

## Procedure continued

### MEASURING PITCH - SMOOTHIE 2, 87 AND MACON BLADES (See below for SMOOTHIE 1)

- a. Place the oar on the pitch check with the blade face down on the pitching head. The tip of the blade must contact the stop, and the shaft must be parallel to the rail. An easy way to check this is to sight down the shaft from the handle end and note that the stop for the tip of the blade is aligned with the shaft. See photo E.
- b. Place the level across the wear surfaces of the sleeve. Photo F



photo E

If using a digital level you can read the pitch of the oar directly from the level. If you have a bubble level and the bubble is centered, the pitch of the oar is zero. If the bubble is not centered, you can measure the pitch more accurately by placing angled wedges under the level until the level reads as close to the center as possible. The pitch is then the angle of that wedge. Angled wedges are available separately from Concept2.

**Note:** We have not yet found a digital level that we can recommend with confidence. If you do use a digital level, check it frequently as they can give erroneous readings, settle slowly, and may not be accurate at other than 0-degrees.



photo F

### MEASURING PITCH - SMOOTHIE 1

To pitch a SMOOTHIE blade first place the SMOOTHIE pitch plate on the head of the pitch check as shown. The port or starboard indicator on the plate should face the handle of the oar. Proceed as above for SMOOTHIE 2, 87 and MACON blade.



Port

### ADJUSTING PITCH

If the pitch is off by less than a degree from the desired value, you can correct the pitch by shaving or sanding material from the high side of the wear surface on the sleeve. See photo G. A cabinet scraper works well for this. If the pitch is off by more than a degree from the desired value, you will probably need to replace the sleeve and the glue that bonds the sleeve to the shaft. See the separate instructions for replacing sleeves.



Starboard



photo G

CONCEPT2 PITCH CHECK

PARTS LIST	
1	#781 Frame-Blade End
1	#782 Frame-Handle End
1	#783 Smoothie Pitch Plate
1	#784 Frame Splice
2	#785 Foot/Shaft Support
3	#786 4.5" Bolt
8	#787 3/4" Bolt
14	#788 Nuts
1	#789 9" Torpedo Level

